

2006-2008 Evaluation Report for the Southern California Industrial and Agricultural Contract Group

Appendices Only

CALMAC Study ID: CPU0018.02

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Appendix A

Pipe Insulation

A-1. Pipe Insulation Participant Telephone Survey Response Frequencies

A-2. Guidelines for Estimating Net-To-Gross Ratios Using the Self-Report Approaches and the Algorithm for the Residential and Small Commercial Consistent Free Ridership Method

A-3. Methodological Framework for Using the Self-Report Approach to Estimating Net-to-Gross Ratios for Nonresidential Customers

A-4. On-Site Data collection forms and Decision Maker Survey

A-5. Pipe Insulation Field Data Collection

A-6. Small Commercial NTG Stability Analysis

Appendix A-1

Pipe Insulation Participant Telephone Survey Response Frequencies

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------------|------------------------------------------------------------------------------|--------------------------------------------------------------|--------|--------|---------|
| CC1 | How many square feet of heated or cooled floor area is your facility? | | | | |
| | Less than 1500 sq ft | 42.42 | 45.33 | 28.57 | 50.00 |
| | Between 1500 and 5000 sq ft | 32.64 | 32.44 | 34.29 | 0.00 |
| | Between 5000 and 10,000 sq ft | 1.23 | 0.89 | 2.86 | 0.00 |
| | Between 10,000 and 25,000 sq ft | 2.96 | 1.78 | 8.57 | 0.00 |
| | Between 25,000 and 50,000 sq ft | 0.87 | 0.44 | 2.86 | 0.00 |
| | Between 50,000 and 75,000 sq ft | 0.73 | 0.89 | 0.00 | 0.00 |
| | Between 75,000 and 100,000 sq ft | 0.56 | 0.44 | 0.00 | 50.00 |
| | Over 100,000 sq ft (Ag area) | 3.56 | 3.11 | 5.71 | 0.00 |
| | Not Applicable | 0.37 | 0.44 | 0.00 | 0.00 |
| | Don't Know | 14.68 | 14.22 | 17.14 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| CC3 | Would you say that the heated or cooled floor area is ...? | | | | |
| | Less than 1500 sq ft | 28.27 | 31.25 | 16.67 | 0.00 |
| | Between 1500 and 5000 sq ft | 38.49 | 31.25 | 66.67 | 0.00 |
| | Between 5000 and 10,000 sq ft | 7.46 | 9.38 | 0.00 | 0.00 |
| | Between 10,000 and 25,000 sq ft | 3.41 | 0.00 | 16.67 | 0.00 |
| | Over 100,000 sq ft (Ag area) | 4.97 | 6.25 | 0.00 | 0.00 |
| | Don't Know | 17.40 | 21.88 | 0.00 | 0.00 |
| | <i>n</i> | 38 | 32 | 6 | 0 |
| CC3A | Is your space heated using electricity or gas? | | | | |
| | Electricity | 2.19 | 2.67 | 0.00 | 0.00 |
| | Gas | 38.08 | 38.22 | 37.14 | 50.00 |
| | Both Gas and Electricity | 19.01 | 16.44 | 31.43 | 0.00 |
| | Neither | 38.77 | 40.89 | 28.57 | 50.00 |
| | Boiler | 1.10 | 1.33 | 0.00 | 0.00 |
| | Not applicable/no heating | 0.37 | 0.44 | 0.00 | 0.00 |
| | Other | 0.50 | 0.00 | 2.86 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | CC4 | Does your business own, lease or manage the facility? | | | |
| Own | | 27.05 | 25.78 | 31.43 | 100.00 |
| Lease/Rent | | 71.85 | 72.89 | 68.57 | 0.00 |
| Manage | | 0.37 | 0.44 | 0.00 | 0.00 |
| Don't Know | | 0.73 | 0.89 | 0.00 | 0.00 |
| <i>n</i> | | 262 | 225 | 35 | 2 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| CC5 | Does your organization pay the electric and/or gas utility bill? | | | | |
| | Yes | 33.33 | 33.33 | 0.00 | 0.00 |
| | No | 66.67 | 66.67 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| CC5A | Which of the following best describes how your business pays the electric and/or gas utility bill for your space at this facility? Would you say... | | | | |
| | You pay Utility Company directly | 96.07 | 96.95 | 91.67 | 0.00 |
| | You pay a fee to your landlord that varies according to the size of the total utility bill | 0.51 | 0.61 | 0.00 | 0.00 |
| | You pay a fixed fee to your landlord | 0.51 | 0.61 | 0.00 | 0.00 |
| | Pay part of bill to landlord, part to utilities directly | 0.51 | 0.61 | 0.00 | 0.00 |
| | Some other arrangement | 0.70 | 0.00 | 4.17 | 0.00 |
| | Don't Know | 1.71 | 1.22 | 4.17 | 0.00 |
| | <i>n</i> | 188 | 164 | 24 | 0 |
| CC8 | In what year was your facility built? | | | | |
| | After 2000 | 7.11 | 6.22 | 11.43 | 0.00 |
| | In the 1990's | 7.84 | 7.11 | 11.43 | 0.00 |
| | 1980's | 10.85 | 12.00 | 5.71 | 0.00 |
| | 1970's | 7.17 | 6.67 | 8.57 | 50.00 |
| | 1960's | 4.01 | 4.89 | 0.00 | 0.00 |
| | 1950's | 2.83 | 2.22 | 5.71 | 0.00 |
| | Before 1950 | 3.75 | 3.11 | 5.71 | 50.00 |
| | Don't Know | 56.45 | 57.78 | 51.43 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| CC10 | Would you say your facility was built...? | | | | |
| | After 2000 | 1.29 | 1.54 | 0.00 | 0.00 |
| | In the 1990's | 5.82 | 6.92 | 0.00 | 0.00 |
| | 1980's | 23.01 | 20.00 | 38.89 | 0.00 |
| | 1970's | 16.88 | 16.92 | 16.67 | 0.00 |
| | 1960's | 9.94 | 10.77 | 5.56 | 0.00 |
| | 1950's | 6.54 | 4.62 | 16.67 | 0.00 |
| | Before 1950 | 11.47 | 11.54 | 11.11 | 0.00 |
| | Don't Know | 25.05 | 27.69 | 11.11 | 0.00 |
| | <i>n</i> | 148 | 130 | 18 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|-------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| CC11 | In what year was this facility last remodeled? | | | | |
| | Between 2003 and present | 21.04 | 20.89 | 20.00 | 100.00 |
| | Between 2000 and 2002 | 8.94 | 8.44 | 11.43 | 0.00 |
| | During the 1990's | 6.11 | 6.22 | 5.71 | 0.00 |
| | Not Applicable | 37.39 | 38.22 | 34.29 | 0.00 |
| | Don't Know | 26.53 | 26.22 | 28.57 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| CC11A | Would you say the last remodeling was done | | | | |
| | Between 2003 and present | 10.65 | 8.47 | 20.00 | 0.00 |
| | Between 2000 and 2002 | 8.25 | 10.17 | 0.00 | 0.00 |
| | During the 1990's | 11.00 | 13.56 | 0.00 | 0.00 |
| | Before the 1990's | 15.64 | 16.95 | 10.00 | 0.00 |
| | Don't Know | 54.46 | 50.85 | 70.00 | 0.00 |
| | <i>n</i> | 69 | 59 | 10 | 0 |
| CC12 | In which month of &YR was the remodel complete? If you can not get month, try to get the season. | | | | |
| | January | 3.11 | 3.92 | 0.00 | 0.00 |
| | February | 3.11 | 3.92 | 0.00 | 0.00 |
| | March | 3.68 | 1.96 | 11.11 | 0.00 |
| | April | 6.05 | 3.92 | 11.11 | 50.00 |
| | May | 0.81 | 0.00 | 0.00 | 50.00 |
| | June | 5.24 | 3.92 | 11.11 | 0.00 |
| | July | 4.66 | 5.88 | 0.00 | 0.00 |
| | August | 6.79 | 5.88 | 11.11 | 0.00 |
| | September | 3.11 | 3.92 | 0.00 | 0.00 |
| | October | 7.36 | 3.92 | 22.22 | 0.00 |
| | November | 4.66 | 5.88 | 0.00 | 0.00 |
| | December | 4.66 | 5.88 | 0.00 | 0.00 |
| | Fall | 3.11 | 3.92 | 0.00 | 0.00 |
| | Winter | 7.77 | 9.80 | 0.00 | 0.00 |
| | Spring | 3.11 | 3.92 | 0.00 | 0.00 |
| | Summer | 14.55 | 15.69 | 11.11 | 0.00 |
| | Don't Know | 18.24 | 17.65 | 22.22 | 0.00 |
| | <i>n</i> | 62 | 51 | 9 | 2 |
| CC12A | What year was this business established at this location? | | | | |
| | After 2000 | 23.61 | 22.67 | 28.57 | 0.00 |
| | In the 1990s | 20.98 | 23.11 | 11.43 | 0.00 |
| | In the 1980s | 18.79 | 20.44 | 11.43 | 0.00 |
| | In the 1970s | 6.63 | 5.78 | 8.57 | 100.00 |
| | In the 1960s | 3.42 | 3.56 | 2.86 | 0.00 |
| | In the 1950s | 2.69 | 2.67 | 2.86 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|-------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Before 1950 | 10.30 | 8.89 | 17.14 | 0.00 |
| | Don't Know | 13.58 | 12.89 | 17.14 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | | | | | |
| CC12B | Would you say business was established at this location...? | | | | |
| | After 2000 | 10.75 | 13.79 | 0.00 | 0.00 |
| | In the 1990s | 13.43 | 17.24 | 0.00 | 0.00 |
| | In the 1980s | 34.53 | 20.69 | 83.33 | 0.00 |
| | In the 1970s | 8.06 | 10.34 | 0.00 | 0.00 |
| | In the 1960s | 8.06 | 10.34 | 0.00 | 0.00 |
| | In the 1950s | 2.69 | 3.45 | 0.00 | 0.00 |
| | Before 1950 | 5.37 | 6.90 | 0.00 | 0.00 |
| | Don't Know | 17.11 | 17.24 | 16.67 | 0.00 |
| | <i>n</i> | 35 | 29 | 6 | 0 |
| | | | | | |
| BC090 | Has the square footage of the facility increased, decreased or remained the same since January 2006? | | | | |
| | Increase in square footage | 1.60 | 1.33 | 2.86 | 0.00 |
| | Decrease in square footage | 0.37 | 0.44 | 0.00 | 0.00 |
| | Stayed the same | 97.68 | 97.78 | 97.14 | 100.00 |
| | Don't Know | 0.37 | 0.44 | 0.00 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | | | | | |
| BC100 | How many square feet were added? | | | | |
| | Less than 50 ft. | 29.66 | 50.00 | 0.00 | 0.00 |
| | 50-100 ft. | 70.34 | 50.00 | 100.00 | 0.00 |
| | <i>n</i> | 3 | 2 | 1 | 0 |
| | | | | | |
| BC110 | By how many square feet was the facility reduced? | | | | |
| | 550 ft. | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| | | | | | |
| BC120 | What year did this change in square feet occur? | | | | |
| | 2006 | 37.24 | 50.00 | 0.00 | 0.00 |
| | 2007 | 44.14 | 25.00 | 100.00 | 0.00 |
| | Don't Know | 18.62 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 5 | 4 | 1 | 0 |

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* n is the number of respondents.

A-1. PIPE INSULATION COMMECIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|-----------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| BC120A | And can you recall which month this change is square feet occurred? If you can not get month, try to get the season. | | | | |
| | March | 22.88 | 33.33 | 0.00 | 0.00 |
| | September | 22.88 | 33.33 | 0.00 | 0.00 |
| | October | 31.37 | 0.00 | 100.00 | 0.00 |
| | Winter | 22.88 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 3 | 1 | 0 |
| | | | | | |
| FM050 | What is the main business ACTIVITY at your locations that participated in the &UTILITY &PROGRAM? | | | | |
| | Office | 1.46 | 1.78 | 0.00 | 0.00 |
| | School | 1.10 | 1.33 | 0.00 | 0.00 |
| | Grocery Store | 0.37 | 0.44 | 0.00 | 0.00 |
| | Restaurant | 0.37 | 0.44 | 0.00 | 0.00 |
| | Health care | 0.73 | 0.89 | 0.00 | 0.00 |
| | Hotel/Motel | 0.19 | 0.00 | 0.00 | 50.00 |
| | Warehouse | 1.00 | 0.00 | 5.71 | 0.00 |
| | Community | 0.87 | 0.44 | 2.86 | 0.00 |
| | Indust Proc/mfg | 5.06 | 3.11 | 14.29 | 0.00 |
| | Condo Assoc/Apt | 0.19 | 0.00 | 0.00 | 50.00 |
| | Greenhouse | 1.96 | 1.78 | 2.86 | 0.00 |
| | Laundry/Cleaners | 85.72 | 89.78 | 68.57 | 0.00 |
| | Other | 1.00 | 0.00 | 5.71 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | | | | | |
| Fm070 | How many people are currently working at the facility, including both full and part time? | | | | |
| | 1-9 | 77.15 | 79.11 | 68.57 | 50.00 |
| | 10-29 | 12.26 | 10.67 | 20.00 | 0.00 |
| | 30-69 | 2.60 | 1.33 | 8.57 | 0.00 |
| | 70-99 | 1.42 | 0.89 | 2.86 | 50.00 |
| | 100-199 | 2.92 | 3.56 | 0.00 | 0.00 |
| | More than 200 | 1.83 | 2.22 | 0.00 | 0.00 |
| | Refused | 1.10 | 1.33 | 0.00 | 0.00 |
| | Don't Know | 0.73 | 0.89 | 0.00 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| FM080 | Since January 2006 has the number of people working at this facility changed by more than 10%? | | | | |
| | Yes | 21.42 | 20.00 | 28.57 | 0.00 |
| | No | 76.39 | 77.33 | 71.43 | 100.00 |
| | Don't Know | 2.19 | 2.67 | 0.00 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| FM081 | Would these changes have increased or decreased number of employees? | | | | |
| | Increased number of employees | 18.30 | 17.78 | 20.00 | 0.00 |
| | Decreased number of employees | 80.00 | 80.00 | 80.00 | 0.00 |
| | Don't Know | 1.70 | 2.22 | 0.00 | 0.00 |
| | <i>n</i> | 55 | 45 | 10 | 0 |
| FM100 | In 2005 approximately how many people were working at this facility, including both full- or part-time employees? | | | | |
| | 1-5 | 37.23 | 33.33 | 50.00 | 0.00 |
| | More than 51 | 8.52 | 11.11 | 0.00 | 0.00 |
| | Don't Know | 54.26 | 55.56 | 50.00 | 0.00 |
| | <i>n</i> | 11 | 9 | 2 | 0 |
| PC010 | Thinking back to 2005, were any changes made to the facility during 2005 that would change the energy consumption by more than 10%? | | | | |
| | Yes | 19.46 | 18.22 | 25.71 | 0.00 |
| | No | 62.71 | 63.11 | 60.00 | 100.00 |
| | Refused | 0.37 | 0.44 | 0.00 | 0.00 |
| | Don't Know | 17.46 | 18.22 | 14.29 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| PC020 | Would these changes have increased or decreased consumption? | | | | |
| | Increased | 27.64 | 29.27 | 22.22 | 0.00 |
| | Decreased | 70.49 | 68.29 | 77.78 | 0.00 |
| | Don't Know | 1.87 | 2.44 | 0.00 | 0.00 |
| | <i>n</i> | 50 | 41 | 9 | 0 |

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A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| PC030 | During what season did these changes take place? | | | | |
| | Fall | 11.94 | 12.20 | 11.11 | 0.00 |
| | Winter | 29.51 | 31.71 | 22.22 | 0.00 |
| | Spring | 8.89 | 4.88 | 22.22 | 0.00 |
| | Summer | 29.51 | 31.71 | 22.22 | 0.00 |
| | Don't Know | 20.14 | 19.51 | 22.22 | 0.00 |
| | <i>n</i> | 50 | 41 | 9 | 0 |
| | | | | | |
| CA1 | How important is being environmentally conscious to your business? Would you say it is | | | | |
| | Essential to your business | 21.61 | 22.67 | 17.14 | 0.00 |
| | Very important | 61.25 | 61.33 | 60.00 | 100.00 |
| | Somewhat important | 13.22 | 12.44 | 17.14 | 0.00 |
| | Not at all important | 2.33 | 2.22 | 2.86 | 0.00 |
| | Don't Know | 1.60 | 1.33 | 2.86 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | | | | | |
| CA2 | In marketing materials or in communications with customers, does your company highlight ways in which your business is environmentally conscious? | | | | |
| | Yes | 71.20 | 73.27 | 60.61 | 100.00 |
| | No | 21.54 | 19.82 | 30.30 | 0.00 |
| | Somewhat | 1.04 | 0.00 | 6.06 | 0.00 |
| | Don't Know | 6.22 | 6.91 | 3.03 | 0.00 |
| | <i>n</i> | 252 | 217 | 33 | 2 |
| | | | | | |
| CA4 | Prior to 2006, had your organization ever installed equipment that involved the receipt of rebates or incentives from an energy efficiency program? | | | | |
| | Yes | 19.84 | 20.89 | 14.29 | 50.00 |
| | No | 68.40 | 68.44 | 68.57 | 50.00 |
| | Don't Know | 11.76 | 10.67 | 17.14 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | | | | | |

* Values are shown as percent of survey participants.

* *n* is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

CA6

| | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------------------------------------------------------------------------------|--------|--------|--------|---------|
| What type of equipment did you install through this (these) program(s)? | | | | |
| Indoor Lighting | 26.42 | 27.66 | 20.00 | 0.00 |
| Cooling Equipment | 5.66 | 4.26 | 20.00 | 0.00 |
| Natural Gas equipment (water heater/furnace or appliances) | 22.64 | 21.28 | 20.00 | 100.00 |
| Insulation or windows | 5.66 | 4.26 | 20.00 | 0.00 |
| Refrigeration | 3.77 | 2.13 | 0.00 | 100.00 |
| Industrial Process Equipment | 1.89 | 2.13 | 0.00 | 0.00 |
| Greenhouse Heat Curtains | 9.43 | 8.51 | 20.00 | 0.00 |
| Food Service Equipment | 0.00 | 0.00 | 0.00 | 0.00 |
| Pipe insulation | 10.81 | 6.06 | 33.33 | 100.00 |
| Steam Traps | 16.22 | 12.12 | 66.67 | 0.00 |
| Motors | 10.81 | 12.12 | 0.00 | 0.00 |
| Dry Cleaning Equipment | 13.51 | 15.15 | 0.00 | 0.00 |
| Cogeneration System | 5.41 | 6.06 | 0.00 | 0.00 |
| Heat equipment | 2.70 | 3.03 | 0.00 | 0.00 |
| Other | 1.89 | 0.00 | 20.00 | 0.00 |
| Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| Don't Know | 1.89 | 2.13 | 0.00 | 0.00 |
| <i>n</i> | 53 | 47 | 5 | 1 |

CA15

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|
| Over the past 3 years, how would you characterize your organization's business outlook? Would you say it was ... | | | | |
| Excellent | 16.60 | 15.11 | 22.86 | 50.00 |
| Good | 34.93 | 36.44 | 28.57 | 0.00 |
| Fair | 24.21 | 24.00 | 25.71 | 0.00 |
| Adequate | 11.95 | 10.67 | 17.14 | 50.00 |
| Poor | 11.58 | 12.89 | 5.71 | 0.00 |
| Don't Know | 0.73 | 0.89 | 0.00 | 0.00 |
| <i>n</i> | 262 | 225 | 35 | 2 |

CA15A

| | | | | |
|--------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|
| Projecting over the NEXT 3 years, how would you characterize your business outlook? Would you say.... | | | | |
| Excellent | 17.47 | 15.56 | 25.71 | 50.00 |
| Good | 36.43 | 36.44 | 37.14 | 0.00 |
| Fair | 18.10 | 17.78 | 20.00 | 0.00 |
| Adequate | 9.22 | 9.78 | 5.71 | 50.00 |
| Poor | 8.80 | 8.89 | 8.57 | 0.00 |
| Going out of business | 0.37 | 0.44 | 0.00 | 0.00 |
| Don't Know | 9.62 | 11.11 | 2.86 | 0.00 |
| <i>n</i> | 262 | 225 | 35 | 2 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| ST3 | Our records indicate that &NUM_STEAMTRAP steam traps were installed at your facility. Is this about right? | | | | |
| | Yes | 96.63 | 96.84 | 95.24 | 0.00 |
| | No | 2.00 | 1.58 | 4.76 | 0.00 |
| | Don't Know | 1.37 | 1.58 | 0.00 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| ST3X | Approximately how many steam traps were installed at your facility through the program? | | | | |
| | 0 traps | 27.13 | 33.33 | 0.00 | 0.00 |
| | 24 traps | 13.57 | 16.67 | 0.00 | 0.00 |
| | Don't Know | 59.30 | 50.00 | 100.00 | 0.00 |
| | <i>n</i> | 7 | 6 | 1 | 0 |
| ST3Y | Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Were any of these &ST1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Did not install any steam traps at this facility | 50.00 | 50.00 | 0.00 | 0.00 |
| | Participated in Pipe Insulation rebate, not Steam Trap rebate | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| ST3Z | Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Have no idea of why numbers differ | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------|--------|---------|
| ST1 | Approximately when were these steam traps installed? | | | | |
| | 2004 | 0.457 | 0.526 | 0 | 0 |
| | 2005 | 0.914 | 1.053 | 0 | 0 |
| | 2006 | 19.653 | 22.632 | 0 | 0 |
| | 2007 | 26.952 | 25.263 | 38.095 | 0 |
| | 2008 | 29.864 | 27.895 | 42.857 | 0 |
| | 2009 | 1.828 | 2.105 | 0 | 0 |
| | 2006-2007 | 3.199 | 3.684 | 0 | 0 |
| | 2007-2008 | 4.283 | 4.211 | 4.7619 | 0 |
| | 2008-2009 | 0.627 | 0 | 4.7619 | 0 |
| | 2006-2008 | 0.457 | 0.526 | 0 | 0 |
| | Don't know | 11.766 | 12.105 | 9.5238 | 0 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | PI3 | Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your facility. Is this about right? | | | |
| Yes | | 88.15 | 88.00 | 88.57 | 100.00 |
| No | | 2.96 | 1.78 | 8.57 | 0.00 |
| Don't Know | | 8.89 | 10.22 | 2.86 | 0.00 |
| <i>n</i> | | 262 | 225 | 35 | 2 |
| PI3X | Approximately how many feet of pipe insulation was installed at your facility through the program? | | | | |
| | 0 ft. | 8.44 | 0.00 | 50.00 | 0.00 |
| | 38 ft. | 4.22 | 0.00 | 25.00 | 0.00 |
| | 100 ft. | 3.08 | 3.70 | 0.00 | 0.00 |
| | 166 ft. | 3.08 | 3.70 | 0.00 | 0.00 |
| | 180 ft. | 3.08 | 3.70 | 0.00 | 0.00 |
| | Don't Know | 78.10 | 88.89 | 25.00 | 0.00 |
| | <i>n</i> | 31 | 27 | 4 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| PI3Y | Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Was any of this &PI1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Have no idea of why numbers differ | 26.72 | 100.00 | 0.00 | 0.00 |
| | Did not receive all of the insulation | 36.64 | 0.00 | 50.00 | 0.00 |
| | Other | 36.64 | 0.00 | 50.00 | 0.00 |
| | <i>n</i> | 3 | 1 | 2 | 0 |
| PI3Z | Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Other | 100.00 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 1 | 0 | 1 | 0 |
| PI1 | Approximately when was this pipe insulation installed? | | | | |
| | 2004 | 0.372 | 0.455 | 0 | 0 |
| | 2005 | 0.743 | 0.909 | 0 | 0 |
| | 2006 | 6.885 | 8.182 | 0 | 50 |
| | 2007 | 20.432 | 20 | 22.857 | 0 |
| | 2008 | 47.128 | 44.545 | 60 | 0 |
| | 2009 | 2.368 | 2.273 | 2.8571 | 0 |
| | 2006-2007 | 0.567 | 0.455 | 0 | 50 |
| | 2007-2008 | 3.483 | 3.636 | 2.8571 | 0 |
| | Before 2004 | 1.487 | 1.818 | 0 | 0 |
| | Don't know | 16.535 | 17.727 | 11.429 | 0 |
| | <i>n</i> | 257 | 220 | 35 | 2 |
| V1 | Now I would like to find out, did you use a contractor to install the measures rebated through the 2006-08 &PROGRAM Program? | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|-------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Contractor | 82.86 | 84.00 | 77.14 | 100.00 |
| | IN-house staff | 12.13 | 11.11 | 17.14 | 0.00 |
| | Don't Know | 5.02 | 4.89 | 5.71 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| | | | | | |
| V41 | Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously? | | | | |
| | Yes | 41.49 | 42.01 | 37.50 | 0.00 |
| | No | 50.26 | 50.30 | 50.00 | 0.00 |
| | Refused | 0.72 | 0.00 | 6.25 | 0.00 |
| | Don't Know | 7.53 | 7.69 | 6.25 | 0.00 |
| | <i>n</i> | 185 | 169 | 16 | 0 |
| | | | | | |
| AP9 | How did you FIRST learn about the &UTILITYs &PROGRAM? | | | | |
| | UTILITY advertising (radio,TV,newspaper,Billboard) | 1.33 | 1.62 | 0.00 | 0.00 |
| | UTILITY mailing (bill insert,newsletter) | 12.01 | 12.43 | 10.34 | 0.00 |
| | UTILITY website | 1.94 | 1.62 | 3.45 | 0.00 |
| | UTILITY email or UTILITY REP | 15.55 | 16.76 | 10.34 | 0.00 |
| | UTILITY OTHER (PROBE) | 3.10 | 3.78 | 0.00 | 0.00 |
| | LOCAL GOVT meeting,events,workshops,training | 0.44 | 0.54 | 0.00 | 0.00 |
| | LOCAL GOVT advertising (radio,TV,newspaper,billboard,trade journal) | 0.44 | 0.54 | 0.00 | 0.00 |
| | OTHER MEETINGS (outside of Local Government | 0.61 | 0.00 | 3.45 | 0.00 |
| | WORD OF MOUTH (Friends,Relatives,Neighbors,Coworkers) | 23.53 | 23.24 | 24.14 | 50.00 |
| | CONTRACTOR | 27.84 | 27.03 | 31.03 | 50.00 |
| | Dry Cleaners Association | 1.33 | 1.62 | 0.00 | 0.00 |
| | Supplier | 2.21 | 2.70 | 0.00 | 0.00 |
| | Phone Call | 2.38 | 2.16 | 3.45 | 0.00 |
| | Previous Experience | 1.33 | 1.62 | 0.00 | 0.00 |
| | Other | 3.15 | 1.62 | 10.34 | 0.00 |
| | Don't Know | 2.82 | 2.70 | 3.45 | 0.00 |
| | <i>n</i> | 216 | 185 | 29 | 2 |
| | | | | | |
| AP9_5 | What was that other utility source? | | | | |
| | Seminar | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| | | | | | |
| AP9_6A | What was that other local government event? | | | | |
| | SOCALGAS seminar | 100.00 | 100.00 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) | |
|---------|-----------------------------------------------------------------------------------------------------------------------------------|----------|--------|--------|---------|---|
| | | <i>n</i> | 1 | 1 | 0 | 0 |
| | | | | | | |
| AP9_12A | What was the name of the other meetings you mentioned? | | | | | |
| | Korean dry cleaners assoc | 100.00 | 0.00 | 100.00 | 0.00 | |
| | <i>n</i> | 1 | 0 | 1 | 0 | |
| | | | | | | |
| GS1 | Which of the following natural gas equipment is present at your facility?... | | | | | |
| | Gas Water heater | 49.24 | 45.33 | 71.43 | 100.00 | |
| | Gas Furnace | 16.79 | 15.11 | 25.71 | 50.00 | |
| | Gas Boiler | 93.89 | 95.11 | 88.57 | 50.00 | |
| | Gas Stove(s) | 6.87 | 5.33 | 14.29 | 50.00 | |
| | Gas Clothes Dryer | 57.25 | 59.56 | 40.00 | 100.00 | |
| | Don't Know | 0.38 | 0.44 | 0.00 | 0.00 | |
| | <i>n</i> | 262 | 225 | 35 | 2 | |
| | | | | | | |
| GS9_1 | According to our records, your organization installed &GS1_QTY through the &UTILITY &PROGRAM. Is this correct? | | | | | |
| | Correct as Stated | 75.87 | 67.74 | 90.91 | 100.00 | |
| | Gas Equipment Installed, but not as Described | 10.61 | 16.13 | 0.00 | 0.00 | |
| | No Gas Equipment Installed Through the Program | 6.37 | 9.68 | 0.00 | 0.00 | |
| | Don't Know | 7.15 | 6.45 | 9.09 | 0.00 | |
| | <i>n</i> | 44 | 31 | 11 | 2 | |
| | | | | | | |
| GS9X_1 | Approximately how many &GS1_UNIT were installed under the &PROGRAM? | | | | | |
| | 3 | 20.00 | 20.00 | 0.00 | 0.00 | |
| | 200 | 20.00 | 20.00 | 0.00 | 0.00 | |
| | 300 | 20.00 | 20.00 | 0.00 | 0.00 | |
| | 2700 | 20.00 | 20.00 | 0.00 | 0.00 | |
| | Don't Know | 20.00 | 20.00 | 0.00 | 0.00 | |
| | <i>n</i> | 5 | 5 | 0 | 0 | |
| | | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| GS9Y_1 | <p>Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Were any of these &GS1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.</p> | | | | |
| | Have no idea of why numbers differ | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| GS9Z1_1 | <p>Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.</p> | | | | |
| | Have no idea of why numbers differ | 66.67 | 66.67 | 0.00 | 0.00 |
| | Your data must be wrong | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| GS9A_1 | <p>What type of equipment was removed and replaced when you installed the new &GS1_MEAS?</p> | | | | |
| | Boilers | 23.27 | 15.38 | 40.00 | 0.00 |
| | Water Heaters | 11.10 | 15.38 | 0.00 | 50.00 |
| | Cleaning Equipment | 3.36 | 0.00 | 10.00 | 0.00 |
| | Insulation | 9.81 | 15.38 | 0.00 | 0.00 |
| | New Equipment Only | 41.35 | 38.46 | 50.00 | 0.00 |
| | Other-specify | 8.65 | 11.54 | 0.00 | 50.00 |
| | Don't Know | 2.45 | 3.85 | 0.00 | 0.00 |
| | <i>n</i> | 38 | 26 | 10 | 2 |
| GS9D1_1 | <p>Our records indicate that your company installed the natural gas equipment in &GS_INSTDT1 through the &PROGRAM, is this correct?</p> | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Yes | 85.71 | 85.71 | 0.00 | 0.00 |
| | No | 14.29 | 14.29 | 0.00 | 0.00 |
| | <i>n</i> | 14 | 14 | 0 | 0 |
| GS9F1_1 | In what year did you install &GS1_MEAS? | | | | |
| | 2006 | 21.14 | 0.00 | 25.00 | 0.00 |
| | 2007 | 57.71 | 100.00 | 50.00 | 0.00 |
| | OR 2008 | 10.57 | 0.00 | 12.50 | 0.00 |
| | Don't Know | 10.57 | 0.00 | 12.50 | 0.00 |
| | <i>n</i> | 10 | 2 | 8 | 0 |
| GS9F2_1 | And what month? | | | | |
| | March | 11.82 | 0.00 | 14.29 | 0.00 |
| | September | 11.82 | 0.00 | 14.29 | 0.00 |
| | October | 23.64 | 0.00 | 28.57 | 0.00 |
| | November | 8.62 | 50.00 | 0.00 | 0.00 |
| | Fall | 11.82 | 0.00 | 14.29 | 0.00 |
| | Summer | 32.27 | 50.00 | 28.57 | 0.00 |
| | <i>n</i> | 9 | 2 | 7 | 0 |
| GS_MSP1 | Since January 2005 have you purchased and installed any natural gas equipment on your own without any assistance from the &Utility &Program or another utility program either at this facility or at other locations? | | | | |
| | Yes, only at this home facility | 18.38 | 19.73 | 11.43 | 50.00 |
| | Yes, only at other locations | 0.37 | 0.45 | 0.00 | 0.00 |
| | Yes, at this facility and other location | 0.87 | 0.45 | 2.86 | 0.00 |
| | No | 80.01 | 78.92 | 85.71 | 50.00 |
| | Don't Know | 0.37 | 0.45 | 0.00 | 0.00 |
| | <i>n</i> | 260 | 223 | 35 | 2 |
| GS8_1 | What types of gas equipment was installed? | | | | |
| | Boilers | 48.92 | 47.83 | 60.00 | 0.00 |
| | Water Heaters | 12.63 | 8.70 | 40.00 | 0.00 |
| | Furnaces | 1.87 | 2.17 | 0.00 | 0.00 |
| | Gas Booser for dishwasher | 1.87 | 2.17 | 0.00 | 0.00 |
| | Gas range (Stove) | 1.87 | 2.17 | 0.00 | 0.00 |
| | Clothes dryer | 25.34 | 28.26 | 0.00 | 100.00 |
| | Dry Cleaning Machine | 3.75 | 4.35 | 0.00 | 0.00 |

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* *n* is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Other | 1.87 | 2.17 | 0.00 | 0.00 |
| | Don't Know | 1.87 | 2.17 | 0.00 | 0.00 |
| | <i>n</i> | 52 | 46 | 5 | 1 |
| | | | | | |
| GS8A_1 | Is the &GAS_TECH1B a high efficiency or energy saving measure? | | | | |
| | Yes | 77.58 | 80.00 | 60.00 | 100.00 |
| | No | 1.91 | 2.22 | 0.00 | 0.00 |
| | Don't Know | 20.51 | 17.78 | 40.00 | 0.00 |
| | <i>n</i> | 51 | 45 | 5 | 1 |
| | | | | | |
| GS_MSP2 | How many high efficiency gas measures did you buy on your own at this facility? | | | | |
| | 1 Measure | 75.97 | 74.29 | 100.00 | 0.00 |
| | 2 Measures | 15.14 | 17.14 | 0.00 | 0.00 |
| | 3 Measures | 2.52 | 2.86 | 0.00 | 0.00 |
| | 5 Measures | 2.52 | 2.86 | 0.00 | 0.00 |
| | 10 Measures | 2.52 | 2.86 | 0.00 | 0.00 |
| | 60 Measures | 1.32 | 0.00 | 0.00 | 100.00 |
| | <i>n</i> | 39 | 35 | 3 | 1 |
| | | | | | |
| GS_MSP2 | How many high efficiency gas measures did you buy on your own at another locations? | | | | |
| | 0 | 57.82 | 0.00 | 100.00 | 0.00 |
| | Don't Know | 42.18 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 1 | 1 | 0 |
| | | | | | |
| GS_MSP4 | My experience with the 2006-2008 &Utility &Program influenced my decision to install GS_TECH1B on my own, outside the program. | | | | |
| | zero STRONGLY DISAGREE | 36.28 | 33.33 | 66.67 | 0.00 |
| | 1 | 8.30 | 5.56 | 33.33 | 0.00 |
| | 2 | 2.46 | 2.78 | 0.00 | 0.00 |
| | 3 | 2.46 | 2.78 | 0.00 | 0.00 |
| | 5 | 7.38 | 8.33 | 0.00 | 0.00 |
| | 7 | 6.21 | 5.56 | 0.00 | 100.00 |
| | 8 | 22.15 | 25.00 | 0.00 | 0.00 |
| | 9 | 2.46 | 2.78 | 0.00 | 0.00 |
| | 10 STRONGLY AGREE | 7.38 | 8.33 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* *n* is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------|--------|--------|---------|
| | Refused | 2.46 | 2.78 | 0.00 | 0.00 |
| | Don't Know | 2.46 | 2.78 | 0.00 | 0.00 |
| | <i>n</i> | 40 | 36 | 3 | 1 |
| Why did you purchase this equipment without the financial assistance available through &Utility program? | | | | | |
| GS_MSP5 | Too much paperwork | 0.00 | 0.00 | 0.00 | 0.00 |
| | Takes too long to get approval | 2.50 | 0.00 | 33.33 | 0.00 |
| | No time to participate, needed equipment immediately | 27.50 | 30.56 | 0.00 | 0.00 |
| | Program had ended | 0.00 | 0.00 | 0.00 | 0.00 |
| | Equipment would not qualify | 10.00 | 8.33 | 33.33 | 0.00 |
| | Amount of rebate wasn't important enough | 2.50 | 2.78 | 0.00 | 0.00 |
| | Didn't know program was available | 40.00 | 41.67 | 0.00 | 100.00 |
| | No program available | 15.00 | 16.67 | 0.00 | 0.00 |
| | Other | 7.50 | 5.56 | 33.33 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 12.50 | 13.89 | 0.00 | 0.00 |
| | <i>n</i> | 40 | 36 | 3 | 1 |
| In what year did you install GAS_TECH1B? | | | | | |
| GS10_1 | 2005 | 19.80 | 20.00 | 20.00 | 0.00 |
| | 2006 | 22.00 | 24.44 | 0.00 | 100.00 |
| | 2007 | 22.42 | 20.00 | 40.00 | 0.00 |
| | 2008 | 30.05 | 28.89 | 40.00 | 0.00 |
| | Don't Know | 5.73 | 6.67 | 0.00 | 0.00 |
| | <i>n</i> | 51 | 45 | 5 | 1 |
| And can you recall which month? If you cannot get month, try to get season. | | | | | |
| GS11_1 | February | 2.03 | 2.38 | 0.00 | 0.00 |
| | March | 4.80 | 2.38 | 20.00 | 0.00 |
| | April | 2.03 | 2.38 | 0.00 | 0.00 |
| | June | 12.15 | 14.29 | 0.00 | 0.00 |
| | July | 6.08 | 7.14 | 0.00 | 0.00 |
| | August | 8.10 | 9.52 | 0.00 | 0.00 |
| | September | 2.03 | 2.38 | 0.00 | 0.00 |
| | October | 2.03 | 2.38 | 0.00 | 0.00 |
| | November | 4.80 | 2.38 | 20.00 | 0.00 |
| | December | 6.08 | 7.14 | 0.00 | 0.00 |
| | Fall | 3.09 | 2.38 | 0.00 | 100.00 |
| | Winter | 15.68 | 11.90 | 40.00 | 0.00 |
| | Summer | 8.10 | 9.52 | 0.00 | 0.00 |
| | Don't Know | 23.03 | 23.81 | 20.00 | 0.00 |
| | <i>n</i> | 48 | 42 | 5 | 1 |

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* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| GS21_1 | What type of equipment was removed and replaced when you installed the new GAS_Tech1B? | | | | |
| | Boilers | 43.78 | 45.00 | 40.00 | 0.00 |
| | Water heaters | 10.01 | 5.00 | 40.00 | 0.00 |
| | Gas booster for dishwasher | 2.11 | 2.50 | 0.00 | 0.00 |
| | Range (stove) | 2.11 | 2.50 | 0.00 | 0.00 |
| | Clothes dryer | 21.11 | 25.00 | 0.00 | 0.00 |
| | Dry Cleaning Equipment | 4.22 | 5.00 | 0.00 | 0.00 |
| | Insulation | 2.11 | 2.50 | 0.00 | 0.00 |
| | New Equipment -nothing removed | 12.44 | 10.00 | 20.00 | 100.00 |
| | Other | 2.11 | 2.50 | 0.00 | 0.00 |
| | <i>n</i> | 46 | 40 | 5 | 1 |
| | | | | | |
| GS21A_1 | What type of fuel did this equipment use? | | | | |
| | Natural Gas | 92.77 | 91.67 | 100.00 | 0.00 |
| | Propane | 4.82 | 5.56 | 0.00 | 0.00 |
| | Other | 2.41 | 2.78 | 0.00 | 0.00 |
| | <i>n</i> | 40 | 36 | 4 | 0 |
| | | | | | |
| GS9_2 | According to our records, your organization installed &GS2_QTY through the &UTILITY &PROGRAM. Is this correct? | | | | |
| | Correct as Stated | 73.20 | 75.00 | 75.00 | 50.00 |
| | Gas Equipment Installed, but not as Described | 6.88 | 12.50 | 0.00 | 0.00 |
| | No Gas Equipment Installed Through the Program | 16.31 | 12.50 | 25.00 | 0.00 |
| | Don't Know | 3.61 | 0.00 | 0.00 | 50.00 |
| | <i>n</i> | 14 | 8 | 4 | 2 |
| | | | | | |
| GS9X_2 | Approximately how many &GS2_UNIT were installed under the &PROGRAM? | | | | |
| | 100 | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| GS9Z1_2 | <p>Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.</p> | | | | |
| | Have no idea of why numbers differ | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| GS9A_2 | <p>What type of equipment was removed and replaced when you installed the new &GS2_MEAS?</p> | | | | |
| | Boilers | 17.19 | 28.57 | 0.00 | 0.00 |
| | Water Heaters | 20.37 | 14.29 | 33.33 | 0.00 |
| | New Equipment Only | 28.97 | 28.57 | 33.33 | 0.00 |
| | Other | 33.47 | 28.57 | 33.33 | 100.00 |
| | <i>n</i> | 11 | 7 | 3 | 1 |
| GS9D1_2 | <p>Our records indicate that your company installed the natural gas equipment in &GS_INSTDT1 through the &PROGRAM, is this correct?</p> | | | | |
| | Yes | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| GS9F1_2 | <p>In what year did you install &GS2_MEAS?</p> | | | | |
| | 2006 | 33.33 | 0.00 | 33.33 | 0.00 |
| | 2007 | 33.33 | 0.00 | 33.33 | 0.00 |
| | 2008 | 33.33 | 0.00 | 33.33 | 0.00 |
| | <i>n</i> | 3 | 0 | 3 | 0 |
| GS9F2_2 | <p>And what month?</p> | | | | |
| | October | 66.67 | 0.00 | 66.67 | 0.00 |
| | Don't Know | 33.33 | 0.00 | 33.33 | 0.00 |
| | <i>n</i> | 3 | 0 | 3 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| GS8_2 | What types of gas equipment was installed? | | | | |
| | Boilers | 1.91 | 2.22 | 0.00 | 0.00 |
| | Water Heaters | 4.53 | 2.22 | 20.00 | 0.00 |
| | Gas range (Stove) | 1.91 | 2.22 | 0.00 | 0.00 |
| | Clothes dryer | 7.64 | 8.89 | 0.00 | 0.00 |
| | Other | 1.91 | 2.22 | 0.00 | 0.00 |
| | Nothing Else | 82.11 | 82.22 | 80.00 | 100.00 |
| | <i>n</i> | 51 | 45 | 5 | 1 |
| GS8A_2 | Is the &GAS_Tech2B a high efficiency or energy saving measure? | | | | |
| | Yes | 89.33 | 87.50 | 100.00 | 0.00 |
| | Don't Know | 10.67 | 12.50 | 0.00 | 0.00 |
| | <i>n</i> | 9 | 8 | 1 | 0 |
| GS_MSP2 | How many high efficiency gas measures did you buy on your own at this facility? | | | | |
| | 1 | 100.00 | 100.00 | 100.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |
| GS_MSP2 | How many high efficiency gas measures did you buy on your own at another locations? | | | | |
| | 1 | 100.00 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 1 | 0 | 1 | 0 |
| GS_MSP4 | My experience with the 2006-2008 &Utility &Program influenced my decision to install GS_Tech2B on my own, outside the program. | | | | |
| | zero STRONGLY DISAGREE | 40.27 | 28.57 | 100.00 | 0.00 |
| | 1 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 6 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 8 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 10 STRONGLY AGREE | 23.89 | 28.57 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|---------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| GS_MSP5 | Why did you purchase this equipment without the financial assistance available through &Utility program? | | | | |
| | Too much paperwork | 0.00 | 0.00 | 0.00 | 0.00 |
| | Takes too long to get approval | 12.50 | 0.00 | 100.00 | 0.00 |
| | No time to participate,needed equipment immediately | 50.00 | 42.86 | 100.00 | 0.00 |
| | Program had ended | 0.00 | 0.00 | 0.00 | 0.00 |
| | Equipment would not qualify | 0.00 | 0.00 | 0.00 | 0.00 |
| | Amount of rebate wasn't important enough | 0.00 | 0.00 | 0.00 | 0.00 |
| | Didn't know program was available | 50.00 | 57.14 | 0.00 | 0.00 |
| | No program available | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 0.00 | 0.00 | 0.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 0.00 | 0.00 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |
| | | | | | |
| GS10_2 | In what year did you install GAS_TECH2B? | | | | |
| | 2005 | 10.67 | 12.50 | 0.00 | 0.00 |
| | 2006 | 21.34 | 25.00 | 0.00 | 0.00 |
| | 2007 | 46.64 | 37.50 | 100.00 | 0.00 |
| | 2008 | 10.67 | 12.50 | 0.00 | 0.00 |
| | Don't Know | 10.67 | 12.50 | 0.00 | 0.00 |
| | <i>n</i> | 9 | 8 | 1 | 0 |
| | | | | | |
| GS11_2 | And can you recall which month? If you cannot get month, try to get season. | | | | |
| | April | 11.95 | 14.29 | 0.00 | 0.00 |
| | December | 11.95 | 14.29 | 0.00 | 0.00 |
| | Winter | 23.89 | 28.57 | 0.00 | 0.00 |
| | Summer | 16.38 | 0.00 | 100.00 | 0.00 |
| | Don't Know | 35.84 | 42.86 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |
| | | | | | |
| GS21_2 | What type of equipment was removed and replaced when you installed the new GAS_TECH2B? | | | | |
| | Boilers | 11.95 | 14.29 | 0.00 | 0.00 |
| | Water heaters | 16.38 | 0.00 | 100.00 | 0.00 |
| | Clothes dryer | 47.78 | 57.14 | 0.00 | 0.00 |
| | Steam pressure reducing station | 11.95 | 14.29 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Other | 11.95 | 14.29 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |
| GS21A_2 | What type of fuel did this equipment use? | | | | |
| | Natural Gas | 76.11 | 71.43 | 100.00 | 0.00 |
| | Electricity | 23.89 | 28.57 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |
| GS9_3 | According to our records, your organization installed &GS3_QTY through the &UTILITY &PROGRAM. Is this correct? | | | | |
| | Correct as Stated | 71.63 | 66.67 | 0.00 | 100.00 |
| | Don't Know | 28.37 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 3 | 0 | 1 |
| GS9A_3 | What type of equipment was removed and replaced when you installed the new &GS3_MEAS? | | | | |
| | Water Heaters | 60.39 | 50.00 | 0.00 | 100.00 |
| | New Equipment Only | 39.61 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 2 | 0 | 1 |
| GS_MSP2 | How many high efficiency gas measures did you buy on your own at this facility? | | | | |
| | 0 Measures | 57.82 | 0.00 | 100.00 | 0.00 |
| | 1 Measure | 42.18 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 1 | 1 | 0 |
| GS8_3 | What types of gas equipment was installed? | | | | |
| | Clothes dryer | 14.63 | 0.00 | 100.00 | 0.00 |
| | Other | 10.67 | 12.50 | 0.00 | 0.00 |
| | Nothing Else | 64.03 | 75.00 | 0.00 | 0.00 |
| | Don't Know | 10.67 | 12.50 | 0.00 | 0.00 |
| | <i>n</i> | 9 | 8 | 1 | 0 |

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* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| GS8A_3 | Is the &GAS_TECH3B a high efficiency or energy saving measure? | | | | |
| | Yes | 100.00 | 100.00 | 100.00 | 0.00 |
| | n | 2 | 1 | 1 | 0 |
| | | | | | |
| GS_MSP2 | How many high efficiency gas measures did you buy on your own at another locations? | | | | |
| | 1 Measure | 100.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 1 | 0 |
| | | | | | |
| GS_MSP4 | My experience with the 2006-2008 &Utility &Program influenced my decision to install GS_TECH3B on my own, outside the program. | | | | |
| | zero STRONGLY DISAGREE | 57.82 | 0.00 | 100.00 | 0.00 |
| | 8 | 42.18 | 100.00 | 0.00 | 0.00 |
| | n | 2 | 1 | 1 | 0 |
| | | | | | |
| GS_MSP5 | Why did you purchase this equipment without the financial assistance available through &Utility program? | | | | |
| | Too much paperwork | 0.00 | 0.00 | 0.00 | 0.00 |
| | Takes too long to get approval | 0.00 | 0.00 | 0.00 | 0.00 |
| | No time to participate, needed equipment immediately | 0.00 | 0.00 | 0.00 | 0.00 |
| | Program had ended | 0.00 | 0.00 | 0.00 | 0.00 |
| | Equipment would not qualify | 0.00 | 0.00 | 0.00 | 0.00 |
| | Amount of rebate wasn't important enough | 0.00 | 0.00 | 0.00 | 0.00 |
| | Didn't know program was available | 0.00 | 0.00 | 0.00 | 0.00 |
| | No program available | 0.00 | 0.00 | 0.00 | 0.00 |
| | Did receive rebate | 50.00 | 100.00 | 0.00 | 0.00 |
| | Other | 50.00 | 0.00 | 100.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 0.00 | 0.00 | 0.00 | 0.00 |
| | n | 2 | 1 | 1 | 0 |
| | | | | | |
| GS10_3 | In what year did you install GAS_TECH3B? | | | | |
| | 2006 | 42.18 | 100.00 | 0.00 | 0.00 |

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A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | 2007 | 57.82 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 2 | 1 | 1 | 0 |
| GS11_3 | And can you recall which month? | | | | |
| | Summer | 100.00 | 100.00 | 100.00 | 0.00 |
| | <i>n</i> | 2 | 1 | 1 | 0 |
| GS21_3 | What type of equipment was removed and replaced when you installed the new GAS_TECH3B? | | | | |
| | Same equipment as before | 42.18 | 100.00 | 0.00 | 0.00 |
| | New Equipment -nothing removed | 57.82 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 2 | 1 | 1 | 0 |
| GS21A_3 | What type of fuel did this equipment use? | | | | |
| | Natural Gas | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| GS22 | Since January 2005 have you purchased and installed any natural gas equipment on your own without any assistance from the &Utility &Program or another utility program either at this facility or at other locations? | | | | |
| | Yes, electric to gas | 1.27 | 1.54 | 0.00 | 0.00 |
| | Yes, gas to electric | 0.42 | 0.51 | 0.00 | 0.00 |
| | Yes, INCREASED Production | 1.69 | 2.05 | 0.00 | 0.00 |
| | Yes, DECREASED Production | 7.90 | 8.21 | 6.67 | 0.00 |
| | No changes | 74.34 | 72.31 | 83.33 | 100.00 |
| | Bought/Added new equipment | 3.11 | 3.08 | 3.33 | 0.00 |
| | replaced old equipment | 3.95 | 4.10 | 3.33 | 0.00 |
| | Eliminated equipment | 0.42 | 0.51 | 0.00 | 0.00 |
| | Added a co-generator | 0.42 | 0.51 | 0.00 | 0.00 |
| | Converted System | 0.42 | 0.51 | 0.00 | 0.00 |
| | Switched from gas to steam | 0.42 | 0.51 | 0.00 | 0.00 |
| | Insulate all machines | 0.42 | 0.51 | 0.00 | 0.00 |
| | Other | 0.84 | 1.03 | 0.00 | 0.00 |
| | Don't Know | 4.37 | 4.62 | 3.33 | 0.00 |
| | <i>n</i> | 227 | 195 | 30 | 2 |

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A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|-----------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| ST3A | How many steam traps are located at your facility? | | | | |
| | 0-9 traps | 9.35 | 10.05 | 4.76 | 0.00 |
| | 10-19 traps | 46.41 | 45.50 | 52.38 | 0.00 |
| | 20-39 traps | 32.59 | 31.75 | 38.10 | 0.00 |
| | 40-99 traps | 4.30 | 4.23 | 4.76 | 0.00 |
| | More than 100 traps | 0.46 | 0.53 | 0.00 | 0.00 |
| | Don't Know | 6.89 | 7.94 | 0.00 | 0.00 |
| | <i>n</i> | 210 | 189 | 21 | 0 |
| ST3B | What percentage of the steam traps at your facility were replaced through the program? | | | | |
| | 0-29% | 5.76 | 4.37 | 15.00 | 0.00 |
| | 30-59% | 2.55 | 2.19 | 5.00 | 0.00 |
| | 60-79% | 3.98 | 3.83 | 5.00 | 0.00 |
| | 80-89% | 3.33 | 3.83 | 0.00 | 0.00 |
| | 90-99% | 5.88 | 6.01 | 5.00 | 0.00 |
| | 100% | 78.51 | 79.78 | 70.00 | 0.00 |
| | <i>n</i> | 203 | 183 | 20 | 0 |
| ST4 | What led you to replace the steam traps? | | | | |
| | Needed to replace some old steam traps | 29.86 | 28.95 | 38.10 | 0.00 |
| | Installed new steam traps to improve system efficiency | 42.65 | 42.11 | 47.62 | 0.00 |
| | Wanted to save on our energy bill | 67.30 | 66.32 | 76.19 | 0.00 |
| | Traps had failed | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps had failed open | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps were leaking | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps had failed shut | 0.00 | 0.00 | 0.00 | 0.00 |
| | Regular maintenance | 0.00 | 0.00 | 0.00 | 0.00 |
| | Better for the Environment | 0.00 | 0.00 | 0.00 | 0.00 |
| | Rebate Influence | 5.81 | 5.81 | 5.88 | 0.00 |
| | Inspections | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps were old | 0.00 | 0.00 | 0.00 | 0.00 |
| | Wrong traps previously | 0.00 | 0.00 | 0.00 | 0.00 |
| | Contractor/Utility Influence | 1.16 | 1.29 | 0.00 | 0.00 |
| | Safety | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 3.79 | 4.21 | 0.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 2.84 | 2.63 | 4.76 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| ST5 | Whose idea was it to replace the steam traps? | | | | |
| | Contractor | 37.01 | 36.84 | 38.10 | 0.00 |

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A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Don't know | 3.20 | 3.68 | 0.00 | 0.00 |
| | Other | 44.83 | 43.68 | 52.38 | 0.00 |
| | Utility company contact | 14.96 | 15.79 | 9.52 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | |
| ST5A | Prior to the installation of the new steam traps, did you have a steam trap maintenance program? | | | | |
| | Yes | 27.81 | 28.42 | 23.81 | 0.00 |
| | No | 66.99 | 66.32 | 71.43 | 0.00 |
| | Don't Know | 5.20 | 5.26 | 4.76 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| ST5B | What percentage of your steam traps were NOT in good condition prior to replacement? | | | | |
| | 0-19% | 49.77 | 49.17 | 53.85 | 0.00 |
| | 20-59% | 27.84 | 30.83 | 7.69 | 0.00 |
| | 60-99% | 12.87 | 12.50 | 15.38 | 0.00 |
| | 100% | 9.51 | 7.50 | 23.08 | 0.00 |
| | <i>n</i> | 133 | 120 | 13 | 0 |
| | | | | | |
| ST6A | Prior to their replacement, how long had the steam traps been in fair or poor condition? If more than 1 answer, record the longest period of time. | | | | |
| | 1 to 2 months | 16.76 | 15.05 | 27.27 | 0.00 |
| | 3 to 4 months | 13.30 | 13.98 | 9.09 | 0.00 |
| | 5 to 6 months | 12.03 | 13.98 | 0.00 | 0.00 |
| | 7 to 8 months | 1.27 | 0.00 | 9.09 | 0.00 |
| | 11 to 12 months | 10.86 | 9.68 | 18.18 | 0.00 |
| | 13 months to 18 months | 3.70 | 4.30 | 0.00 | 0.00 |
| | 19 months to 24 months | 3.70 | 4.30 | 0.00 | 0.00 |
| | More than 24 months | 19.88 | 17.20 | 36.36 | 0.00 |
| | Don't Know | 18.51 | 21.51 | 0.00 | 0.00 |
| | <i>n</i> | 104 | 93 | 11 | 0 |
| | | | | | |
| ST6B | Were any of the replaced traps in good condition? | | | | |
| | Yes | 67.75 | 69.89 | 54.55 | 0.00 |
| | No | 24.85 | 21.51 | 45.45 | 0.00 |
| | Don't Know | 7.40 | 8.60 | 0.00 | 0.00 |
| | <i>n</i> | 104 | 93 | 11 | 0 |
| | | | | | |

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A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) | |
|-------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------|--------|---------|------|
| ST6BPCT | What share of the replaced traps were in good condition prior to replacement? | | | | | |
| | 1-10% | 9.56 | 10.77 | 0.00 | 0.00 | |
| | 11-20% | 16.04 | 13.85 | 33.33 | 0.00 | |
| | 21-30% | 5.46 | 6.15 | 0.00 | 0.00 | |
| | 31-40% | 4.60 | 3.08 | 16.67 | 0.00 | |
| | 41-50% | 13.66 | 15.38 | 0.00 | 0.00 | |
| | 51-60% | 4.10 | 4.62 | 0.00 | 0.00 | |
| | 61-70% | 6.83 | 7.69 | 0.00 | 0.00 | |
| | 71-80% | 18.26 | 18.46 | 16.67 | 0.00 | |
| | 81-80% | 5.46 | 6.15 | 0.00 | 0.00 | |
| | 91-99% | 2.73 | 3.08 | 0.00 | 0.00 | |
| | 100% | 6.83 | 7.69 | 0.00 | 0.00 | |
| | Don't Know | 6.48 | 3.08 | 33.33 | 0.00 | |
| | <i>n</i> | 71 | 65 | 6 | 0 | |
| ST6D | Why were traps replaced that were in good condition? | | | | | |
| | Broken/Old Trap | 11.12 | 10.64 | 16.67 | 0.00 | |
| | Contractor/Utility Rep Influence | 21.88 | 22.34 | 16.67 | 0.00 | |
| | Convenient to replace all traps at once | 2.94 | 3.19 | 0.00 | 0.00 | |
| | Could not tell condition | 16.02 | 15.96 | 16.67 | 0.00 | |
| | Didn't have a choice | 0.98 | 1.06 | 0.00 | 0.00 | |
| | New traps more efficient | 1.96 | 2.13 | 0.00 | 0.00 | |
| | Program/Rebate Influence | 17.97 | 18.09 | 16.67 | 0.00 | |
| | Save Energy | 22.25 | 21.28 | 33.33 | 0.00 | |
| | Save Money | 4.89 | 5.32 | 0.00 | 0.00 | |
| | <i>n</i> | 100 | 94 | 6 | 0 | |
| | ST7 | What percentage of the steam trap cost would you estimate the &PROGRAM rebate covered? | | | | |
| | | Rebate covered all of the cost | 72.47 | 72.63 | 71.43 | 0.00 |
| | | Rebate covered most of the cost | 16.05 | 16.32 | 14.29 | 0.00 |
| Rebate covered less than half of the cost | | 3.83 | 3.68 | 4.76 | 0.00 | |
| Rebate covered half of the cost | | 0.46 | 0.53 | 0.00 | 0.00 | |
| Other | | 0.46 | 0.53 | 0.00 | 0.00 | |
| Refused | | 0.46 | 0.53 | 0.00 | 0.00 | |
| Don't Know | | 6.28 | 5.79 | 9.52 | 0.00 | |
| <i>n</i> | | 211 | 190 | 21 | 0 | |
| ST8 | | How effective were the new steam traps in reducing your natural gas bill? | | | | |
| | | Considerable gas savings | 25.36 | 26.32 | 19.05 | 0.00 |

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A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|----------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Some gas savings | 49.91 | 47.37 | 66.67 | 0.00 |
| | No noticeable savings | 13.14 | 13.68 | 9.52 | 0.00 |
| | Price increases make it difficult to tell | 0.46 | 0.53 | 0.00 | 0.00 |
| | 0-30% Reduction | 0.46 | 0.53 | 0.00 | 0.00 |
| | Other | 1.37 | 1.58 | 0.00 | 0.00 |
| | Refused | 0.46 | 0.53 | 0.00 | 0.00 |
| | Don't Know | 8.85 | 9.47 | 4.76 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | |
| ST8A | Have you noticed any problems with the steam traps since their installation? | | | | |
| | Yes | 12.19 | 12.26 | 11.76 | 0.00 |
| | No | 84.23 | 84.52 | 82.35 | 0.00 |
| | Refused | 0.56 | 0.65 | 0.00 | 0.00 |
| | Don't Know | 3.01 | 2.58 | 5.88 | 0.00 |
| | <i>n</i> | 172 | 155 | 17 | 0 |
| | | | | | |
| ST9 | In your opinion, with the &Program rebate, was installing these steam traps cost-effective? | | | | |
| | Yes | 79.33 | 80.53 | 71.43 | 0.00 |
| | No | 11.02 | 10.53 | 14.29 | 0.00 |
| | Somewhat | 2.46 | 2.11 | 4.76 | 0.00 |
| | Refused | 0.46 | 0.53 | 0.00 | 0.00 |
| | Don't Know | 6.74 | 6.32 | 9.52 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | |
| ST10 | Without the &PROGRAM rebate, do you think you would have found installing the steam traps to be cost-effective? | | | | |
| | Yes | 46.35 | 48.24 | 33.33 | 0.00 |
| | No | 36.13 | 34.12 | 50.00 | 0.00 |
| | Somewhat | 5.84 | 5.88 | 5.56 | 0.00 |
| | Don't Know | 11.68 | 11.77 | 11.11 | 0.00 |
| | <i>n</i> | 188 | 170 | 18 | 0 |
| | | | | | |
| ST11 | What are the main uses of steam at your facility? | | | | |
| | Laundry presses | 96.34 | 95.79 | 100.00 | 0.00 |
| | Boilers | 0.46 | 0.53 | 0.00 | 0.00 |
| | Heat | 0.46 | 0.53 | 0.00 | 0.00 |
| | Other | 1.37 | 1.58 | 0.00 | 0.00 |

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* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Don't Know | 1.37 | 1.58 | 0.00 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | |
| st12 | How many laundry presses do you have at your facility? | | | | |
| | 0 presses | 4.28 | 4.21 | 4.76 | 0.00 |
| | 1 press | 6.40 | 7.37 | 0.00 | 0.00 |
| | 2 presses | 23.53 | 24.21 | 19.05 | 0.00 |
| | 3 presses | 20.91 | 22.63 | 9.52 | 0.00 |
| | 4 presses | 14.10 | 12.63 | 23.81 | 0.00 |
| | 5 presses | 10.56 | 10.00 | 14.29 | 0.00 |
| | 6-11 presses | 15.93 | 14.74 | 23.81 | 0.00 |
| | 11-20 presses | 2.00 | 1.58 | 4.76 | 0.00 |
| | More than 21 presses | 0.46 | 0.53 | 0.00 | 0.00 |
| | Don't Know | 1.83 | 2.11 | 0.00 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | |
| ST13 | Were there other changes at your site at the time or since the new steam traps were installed? | | | | |
| | Add equipment | 7.58 | 6.84 | 14.29 | 0.00 |
| | Decrease equipment | 3.79 | 3.68 | 4.76 | 0.00 |
| | Increase hours of operation | 2.37 | 2.63 | 0.00 | 0.00 |
| | Decrease hours of operation | 11.37 | 11.05 | 14.29 | 0.00 |
| | Increase number of employees | 0.00 | 0.00 | 0.00 | 0.00 |
| | Decrease number of employees | 5.69 | 5.26 | 9.52 | 0.00 |
| | Added controls | 0.00 | 0.00 | 0.00 | 0.00 |
| | Decreased controls | 0.38 | 0.44 | 0.00 | 0.00 |
| | Added pipe or tank insulation | 2.67 | 2.67 | 2.86 | 0.00 |
| | Decreased pipe or tank insulation | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 0.95 | 1.05 | 0.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 1.90 | 2.11 | 0.00 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | |
| ST14 | Since January 2006, has there been a period where there was a significant increase in production at this site? In other words, was there any period where your production was higher than usual? | | | | |
| | Yes | 13.87 | 14.44 | 10.00 | 0.00 |
| | No | 81.47 | 80.21 | 90.00 | 0.00 |
| | Don't Know | 4.66 | 5.35 | 0.00 | 0.00 |
| | <i>n</i> | 207 | 187 | 20 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMECIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| st14a | Can you recall when this increase in production occurred? | | | | |
| | 2006 | 11.334 | 7.4074 | 50 | 0 |
| | 2007 | 26.898 | 29.63 | 0 | 0 |
| | 2008 | 14.697 | 11.111 | 50 | 0 |
| | Seasonal - Winter | 23.536 | 25.926 | 0 | 0 |
| | 2006-2007 | 10.087 | 11.111 | 0 | 0 |
| | Cycles with economy | 3.3622 | 3.7037 | 0 | 0 |
| | Don't know | 10.087 | 11.111 | 0 | 0 |
| | <i>n</i> | 29 | 27 | 2 | 0 |
| ST15 | Since January 2006, has there been a period where there was a significant decrease in production at this site? In other words, was there any period where your production was lower than usual? | | | | |
| | Yes | 53.62 | 55.62 | 40.00 | 0.00 |
| | No | 42.01 | 40.11 | 55.00 | 0.00 |
| | Don't Know | 4.37 | 4.28 | 5.00 | 0.00 |
| | <i>n</i> | 207 | 187 | 20 | 0 |
| ST15A | Can you recall when this decrease in production occurred? | | | | |
| | 2005 | 0.87 | 0.962 | 0 | 0 |
| | 2006 | 5.542 | 4.808 | 12.5 | 0 |
| | 2007 | 16.625 | 14.423 | 37.5 | 0 |
| | 2008 | 33.698 | 34.615 | 25 | 0 |
| | 2009 | 18.911 | 18.269 | 25 | 0 |
| | Seasonal - Winter | 0.87 | 0.962 | 0 | 0 |
| | Seasonal - Summer | 5.219 | 5.769 | 0 | 0 |
| | 2008-2009 | 7.828 | 8.654 | 0 | 0 |
| | 2007-2009 | 2.609 | 2.885 | 0 | 0 |
| | Constantly | 0.87 | 0.962 | 0 | 0 |
| | Cycles with economy | 1.74 | 1.923 | 0 | 0 |
| | Don't know | 5.219 | 5.769 | 0 | 0 |
| | <i>n</i> | 112 | 104 | 8 | 0 |
| PI3A | How much linear feet of pipe insulation is present at your facility? | | | | |
| | 0-99 ft. | 3.68 | 2.72 | 6.90 | 50.00 |
| | 100-199 ft. | 9.84 | 9.78 | 10.34 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|---------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | 200-399 ft. | 17.23 | 19.57 | 6.90 | 0.00 |
| | More than 400 ft. | 19.07 | 16.30 | 31.03 | 50.00 |
| | Refused | 0.61 | 0.00 | 3.45 | 0.00 |
| | Don't Know | 49.58 | 51.63 | 41.38 | 0.00 |
| | <i>n</i> | 215 | 184 | 29 | 2 |
| | | | | | |
| PI3B | Can you estimate what percent of the pipes present at your facility were insulated through the &PROGRAM? | | | | |
| | 0-24% | 6.54 | 4.62 | 16.67 | 0.00 |
| | 25-49% | 7.02 | 3.08 | 27.78 | 0.00 |
| | 50-74% | 10.42 | 9.23 | 16.67 | 0.00 |
| | 75-99% | 19.23 | 20.77 | 11.11 | 0.00 |
| | 100% | 35.87 | 38.46 | 22.22 | 0.00 |
| | Don't Know | 20.93 | 23.85 | 5.56 | 0.00 |
| | <i>n</i> | 148 | 130 | 18 | 0 |
| | | | | | |
| PI7 | Was the pipe insulation installed on new pipes or was it a retrofit of older pipes? | | | | |
| | ONLY New | 16.37 | 14.16 | 25.71 | 50.00 |
| | ONLY Older | 67.65 | 69.41 | 60.00 | 50.00 |
| | Both New and Older | 11.61 | 12.33 | 8.57 | 0.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 3.36 | 4.11 | 0.00 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| PI7A | What percentage of the pipe insulation was installed on new pipes? | | | | |
| | 0% | 1.47 | 1.85 | 0.00 | 0.00 |
| | 10% | 6.41 | 5.56 | 10.00 | 0.00 |
| | 15% | 1.47 | 1.85 | 0.00 | 0.00 |
| | 20% | 4.94 | 3.70 | 10.00 | 0.00 |
| | 40% | 7.87 | 7.41 | 10.00 | 0.00 |
| | 50% | 8.79 | 11.11 | 0.00 | 0.00 |
| | 90% | 2.93 | 3.70 | 0.00 | 0.00 |
| | 100% | 58.80 | 55.56 | 70.00 | 100.00 |
| | Don't Know | 7.33 | 9.26 | 0.00 | 0.00 |
| | <i>n</i> | 65 | 54 | 10 | 1 |
| | | | | | |
| PI7B | How old were the pipes receiving the pipe insulation? | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|--------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | 1-9 years old | 28.35 | 29.05 | 25.00 | 0.00 |
| | 10-19 years old | 31.53 | 31.29 | 33.33 | 0.00 |
| | 20-29 years old | 15.59 | 16.20 | 12.50 | 0.00 |
| | More than 30 years old | 24.54 | 23.46 | 29.17 | 100.00 |
| | <i>n</i> | 204 | 179 | 24 | 1 |
| | | | | | |
| PI18 | Was insulation already present on the pipes before the insulation was installed through the &PROGRAM program? | | | | |
| | Yes | 69.29 | 67.02 | 80.77 | 100.00 |
| | No | 26.54 | 28.72 | 15.38 | 0.00 |
| | Refused | 0.61 | 0.00 | 3.85 | 0.00 |
| | Don't Know | 3.57 | 4.26 | 0.00 | 0.00 |
| | <i>n</i> | 215 | 188 | 26 | 1 |
| | | | | | |
| PI21 | Was the existing insulation removed and replaced, or was additional insulation added to existing insulation? | | | | |
| | Old insulation removed and replaced | 85.36 | 84.13 | 90.48 | 100.00 |
| | Additional insulation added over existing insulation | 10.95 | 13.49 | 0.00 | 0.00 |
| | Refused | 0.88 | 0.00 | 4.76 | 0.00 |
| | Don't Know | 2.81 | 2.38 | 4.76 | 0.00 |
| | <i>n</i> | 148 | 126 | 21 | 1 |
| | | | | | |
| PI23 | What condition was your pipe insulation in at the time of the replacement? | | | | |
| | Good | 16.89 | 14.29 | 28.57 | 0.00 |
| | Fair | 30.81 | 32.54 | 23.81 | 0.00 |
| | Poor condition | 49.08 | 49.21 | 47.62 | 100.00 |
| | Don't Know | 3.22 | 3.97 | 0.00 | 0.00 |
| | <i>n</i> | 148 | 126 | 21 | 1 |
| | | | | | |
| PI25 | Are boilers present at your facility? | | | | |
| | Yes | 97.01 | 99.09 | 88.57 | 50.00 |
| | No | 2.99 | 0.91 | 11.43 | 50.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| PI27 | Since the pipe insulation was installed, have the boilers been repaired or replaced? | | | | |
| | Yes | 25.18 | 27.65 | 12.90 | 0.00 |
| | No | 71.45 | 69.59 | 80.65 | 100.00 |
| | Refused | 0.53 | 0.00 | 3.23 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|--------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Don't Know | 2.84 | 2.77 | 3.23 | 0.00 |
| | <i>n</i> | 249 | 217 | 31 | 1 |
| pi29 | When was the most recent boiler repair or replacement? | | | | |
| | 1-6 months ago | 45.42 | 45.00 | 50.00 | 0.00 |
| | 7-12 months ago | 31.11 | 31.67 | 25.00 | 0.00 |
| | 13-18 months ago | 7.64 | 8.33 | 0.00 | 0.00 |
| | More than 19 months ago | 12.78 | 11.67 | 25.00 | 0.00 |
| | Don't Know | 3.05 | 3.33 | 0.00 | 0.00 |
| | <i>n</i> | 64 | 60 | 4 | 0 |
| PI31 | What led you to install the new pipe insulation? Was it... | | | | |
| | Needed to replace some old deteriorated | 26.95 | 26.03 | 28.57 | 100.00 |
| | Installed new insulation because there was no prior insulation | 26.17 | 26.03 | 28.57 | 0.00 |
| | Wanted to save on your energy bill? | 67.97 | 68.49 | 65.71 | 50.00 |
| | Program/Rebate Influence | 2.79 | 3.26 | 0.00 | 0.00 |
| | Other | 5.08 | 4.57 | 8.57 | 0.00 |
| | Refused | 0.39 | 0.00 | 2.86 | 0.00 |
| | Don't Know | 4.30 | 5.02 | 0.00 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| PI33 | Whose idea was it to install new pipe insulation? | | | | |
| | Contractor | 34.39 | 35.56 | 28.57 | 50.00 |
| | Utility company contact | 11.22 | 12.44 | 5.71 | 0.00 |
| | Other | 50.75 | 47.56 | 65.71 | 50.00 |
| | Don't know | 3.65 | 4.44 | 0.00 | 0.00 |
| | <i>n</i> | 262 | 225 | 35 | 2 |
| PI35 | What percentage of the pipe insulation cost would you estimate the &Program rebate covered? | | | | |
| | Rebate covered all of the cost | 60.28 | 64.38 | 42.86 | 0.00 |
| | Rebate covered most of the cost | 13.81 | 14.16 | 11.43 | 50.00 |
| | Rebate covered less than half of the cost | 13.32 | 10.05 | 28.57 | 0.00 |
| | Other | 0.51 | 0.00 | 2.86 | 0.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 11.06 | 11.42 | 8.57 | 50.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------|--------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| PI37 | How effective was the new pipe insulation in reducing your natural gas bill? Would you say you are seeing... | | | | |
| | Considerable gas savings | 24.34 | 26.03 | 17.14 | 0.00 |
| | Some gas savings | 49.20 | 51.60 | 37.14 | 100.00 |
| | Little savings | 1.63 | 1.37 | 2.86 | 0.00 |
| | No noticeable savings | 11.79 | 10.05 | 20.00 | 0.00 |
| | Difficult to Determine | 2.99 | 3.65 | 0.00 | 0.00 |
| | Other | 1.77 | 0.91 | 5.71 | 0.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 7.27 | 6.39 | 11.43 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| PI39 | Have you noticed any problems with the pipe insulation since the installation? | | | | |
| | Yes | 3.26 | 2.74 | 5.71 | 0.00 |
| | No | 94.46 | 96.35 | 85.71 | 100.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 1.26 | 0.91 | 2.86 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| PI40 | In your opinion, with the &Program rebate, was installing pipe insulation cost-effective? | | | | |
| | Yes | 80.34 | 82.19 | 71.43 | 100.00 |
| | No | 6.11 | 6.85 | 2.86 | 0.00 |
| | Somewhat | 6.43 | 4.11 | 17.14 | 0.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 6.11 | 6.85 | 2.86 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| PI42 | Without the &PROGRAM rebate, do you think you would have found installing the pipe insulation to be cost-effective? | | | | |
| | Yes | 52.70 | 54.41 | 44.12 | 100.00 |
| | No | 28.49 | 28.43 | 29.41 | 0.00 |
| | Somewhat | 9.23 | 7.35 | 17.65 | 0.00 |
| | Refused | 1.09 | 0.00 | 5.88 | 0.00 |
| | Don't Know | 8.49 | 9.80 | 2.94 | 0.00 |
| | <i>n</i> | 240 | 204 | 34 | 2 |

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* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| FRA_S | Did the vendor/contractor who sold you the Steam Trap tell you about the program? | | | | |
| | Yes | 73.58 | 72.26 | 82.35 | 0.00 |
| | No | 20.25 | 20.65 | 17.65 | 0.00 |
| | Refused | 0.56 | 0.65 | 0.00 | 0.00 |
| | Don't Know | 5.61 | 6.45 | 0.00 | 0.00 |
| | <i>n</i> | 172 | 155 | 17 | 0 |
| | | | | | |
| FRB_S | Did your vendor/contractor recommend purchasing the Steam Trap? | | | | |
| | Yes | 52.97 | 50.32 | 70.59 | 0.00 |
| | No | 38.41 | 40.65 | 23.53 | 0.00 |
| | Refused | 1.12 | 1.29 | 0.00 | 0.00 |
| | Don't Know | 7.50 | 7.74 | 5.88 | 0.00 |
| | <i>n</i> | 172 | 155 | 17 | 0 |
| | | | | | |
| FRC_S | Using a 0 to 10 scale where 0 is not influential at all and 10 is extremely influential how influential was your vendor/contractor in your decision to purchase Steam Trap? | | | | |
| | ZERO NOT AT ALL INFLUENTIAL | 11.22 | 12.90 | 0.00 | 0.00 |
| | 1 | 2.24 | 2.58 | 0.00 | 0.00 |
| | 2 | 2.45 | 1.94 | 5.88 | 0.00 |
| | 3 | 3.01 | 2.58 | 5.88 | 0.00 |
| | 4 | 1.68 | 1.94 | 0.00 | 0.00 |
| | 5 | 12.40 | 11.61 | 17.65 | 0.00 |
| | 6 | 6.73 | 7.74 | 0.00 | 0.00 |
| | 7 | 7.50 | 7.74 | 5.88 | 0.00 |
| | 8 | 16.18 | 14.19 | 29.41 | 0.00 |
| | 9 | 6.59 | 5.81 | 11.76 | 0.00 |
| | 10 EXTREMELY INFLUENTIAL | 20.81 | 21.29 | 17.65 | 0.00 |
| | Refused | 0.56 | 0.65 | 0.00 | 0.00 |
| | Don't Know | 8.62 | 9.03 | 5.88 | 0.00 |
| | <i>n</i> | 172 | 155 | 17 | 0 |
| | | | | | |
| FRD_S | Did you purchase the Steam Trap your vendor/contractor recommended? | | | | |
| | Yes | 70.07 | 66.45 | 94.12 | 0.00 |

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* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | No | 11.99 | 12.90 | 5.88 | 0.00 |
| | They didn't make recommendation | 12.90 | 14.84 | 0.00 | 0.00 |
| | Don't Know | 5.05 | 5.81 | 0.00 | 0.00 |
| | <i>n</i> | 172 | 155 | 17 | 0 |
| | | | | | |
| FR1_S | At the time that you first heard about the assistance from &Utility for this Steam Trap, had you... ? | | | | |
| | Already been thinking about purchasing steam traps | 21.08 | 22.11 | 14.29 | 0.00 |
| | Already begun collecting information about steam traps | 9.60 | 11.05 | 0.00 | 0.00 |
| | Already selected the steam traps you were going to get | 2.74 | 3.16 | 0.00 | 0.00 |
| | Already installed the steam traps | 5.99 | 4.74 | 14.29 | 0.00 |
| | Replace as they break/regularly | 3.37 | 3.16 | 4.76 | 0.00 |
| | Was not thinking about purchasing steam traps | 5.65 | 5.79 | 4.76 | 0.00 |
| | Only heard about it from someone | 0.46 | 0.53 | 0.00 | 0.00 |
| | None of these | 42.20 | 42.11 | 42.86 | 0.00 |
| | Other | 0.46 | 0.53 | 0.00 | 0.00 |
| | Refused | 0.46 | 0.53 | 0.00 | 0.00 |
| | Don't Know | 7.99 | 6.32 | 19.05 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | |
| FR1A_S | So, the Steam Trap was installed before you learned about the assistance from &Utility? | | | | |
| | Yes | 88.68 | 100.00 | 66.67 | 0.00 |
| | No | 11.32 | 0.00 | 33.33 | 0.00 |
| | <i>n</i> | 11 | 8 | 3 | 0 |
| | | | | | |
| FR2A_S | Just to be sure I understand, did you have specific plans to install the Steam Trap before learning about the assistance available through the &Program? | | | | |
| | Yes | 27.81 | 28.02 | 26.32 | 0.00 |
| | No | 67.69 | 67.58 | 68.42 | 0.00 |
| | Don't Know | 4.50 | 4.40 | 5.26 | 0.00 |
| | <i>n</i> | 201 | 182 | 19 | 0 |
| | | | | | |
| FR3_S | Did you have to make any changes to your existing plans in installing the Steam Trap in order to receive this assistance through the &Program? | | | | |
| | Yes | 13.83 | 15.69 | 0.00 | 0.00 |
| | No | 82.72 | 80.39 | 100.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------------------------------------------------------------------------------------|--------------------------|--------|--------|--------|---------|
| | Don't Know | 3.46 | 3.92 | 0.00 | 0.00 |
| | <i>n</i> | 56 | 51 | 5 | 0 |
| FR3A_S What changes did you make to the installation the Steam Trap? | | | | | |
| | As needed | 37.50 | 37.50 | 0.00 | 0.00 |
| | Other | 62.50 | 62.50 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 8 | 0 | 0 |
| FR4A_S Without the program, would you have purchased the Steam Trap? | | | | | |
| | Yes | 41.45 | 42.86 | 31.58 | 0.00 |
| | No | 53.09 | 51.65 | 63.16 | 0.00 |
| | Don't Know | 5.47 | 5.50 | 5.26 | 0.00 |
| | <i>n</i> | 201 | 182 | 19 | 0 |
| FR4B_S Would you have purchased the Steam Trap at the same time as you did? | | | | | |
| | Yes | 37.65 | 38.64 | 28.57 | 0.00 |
| | No | 52.75 | 52.27 | 57.14 | 0.00 |
| | Don't Know | 9.60 | 9.09 | 14.29 | 0.00 |
| | <i>n</i> | 95 | 88 | 7 | 0 |
| FR4B1_S Would you have bought the Steam Trap earlier than you did, or later? | | | | | |
| | Same time | 8.22 | 9.26 | 0.00 | 0.00 |
| | Later | 76.99 | 74.07 | 100.00 | 0.00 |
| | Don't Know | 14.79 | 16.67 | 0.00 | 0.00 |
| | <i>n</i> | 59 | 54 | 5 | 0 |
| FRb2_S How much [earlier/later] would you have bought the Steam Trap? | | | | | |
| | Within 6 months | 7.06 | 8.11 | 0.00 | 0.00 |
| | 6 months to a year later | 36.18 | 37.84 | 25.00 | 0.00 |
| | 1 to 2 years later | 10.29 | 8.11 | 25.00 | 0.00 |
| | 2 to 3 years later | 7.06 | 8.11 | 0.00 | 0.00 |
| | 3 to 4 years later | 6.45 | 0.00 | 50.00 | 0.00 |
| | Buy as needed | 21.18 | 24.32 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* *n* is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Don't know | 11.77 | 13.51 | 0.00 | 0.00 |
| | <i>n</i> | 41 | 37 | 4 | 0 |
| | | | | | |
| FR4C_S | Without the program, would the quantity of Steam Trap you purchased have been the same, less, or more? | | | | |
| | More | 2.84 | 2.41 | 5.88 | 0.00 |
| | Same | 38.02 | 36.75 | 47.06 | 0.00 |
| | Less | 49.44 | 50.60 | 41.18 | 0.00 |
| | Refused | 1.06 | 1.21 | 0.00 | 0.00 |
| | Don't Know | 8.65 | 9.04 | 5.88 | 0.00 |
| | <i>n</i> | 183 | 166 | 17 | 0 |
| | | | | | |
| FR4C1_S | How many [more/less] Steam Traps would you have bought? | | | | |
| | 0%-19% | 18.94 | 18.18 | 25.00 | 0.00 |
| | 20%-39% | 19.20 | 21.59 | 0.00 | 0.00 |
| | 40%-69% | 20.58 | 21.59 | 12.50 | 0.00 |
| | 70%-99% | 15.27 | 12.50 | 37.50 | 0.00 |
| | 100 % | 8.46 | 7.95 | 12.50 | 0.00 |
| | Don't Know | 4.04 | 4.55 | 0.00 | 0.00 |
| | As Needed | 12.13 | 13.64 | 0.00 | 0.00 |
| | Other | 1.39 | 0.00 | 12.50 | 0.00 |
| | <i>n</i> | 96 | 88 | 8 | 0 |
| | | | | | |
| FR4E_S | If the assistance had not been available, would you have done anything else differently regarding your Steam Traps? | | | | |
| | Nothing different | 78.95 | 80.12 | 70.59 | 0.00 |
| | Replace as needed | 8.32 | 7.83 | 11.76 | 0.00 |
| | Fixed/Repaired | 1.06 | 1.21 | 0.00 | 0.00 |
| | Bought Himself | 0.53 | 0.60 | 0.00 | 0.00 |
| | Installed Later | 2.64 | 3.01 | 0.00 | 0.00 |
| | Other | 2.70 | 0.60 | 17.65 | 0.00 |
| | Don't Know | 5.81 | 6.63 | 0.00 | 0.00 |
| | <i>n</i> | 183 | 166 | 17 | 0 |
| | | | | | |
| FR5_S | On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely is it that you would have bought Steam Trap if you had not received any assistance from the program? | | | | |
| | ZERO NOT AT ALL LIKELY | 28.29 | 28.57 | 26.32 | 0.00 |
| | 1 | 5.64 | 4.95 | 10.53 | 0.00 |
| | 2 | 4.20 | 3.30 | 10.53 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) | |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------|--------|---------|------|
| | 3 | 6.61 | 6.04 | 10.53 | 0.00 | |
| | 4 | 4.33 | 4.95 | 0.00 | 0.00 | |
| | 5 | 12.85 | 13.19 | 10.53 | 0.00 | |
| | 6 | 4.50 | 4.40 | 5.26 | 0.00 | |
| | 7 | 6.25 | 7.14 | 0.00 | 0.00 | |
| | 8 | 6.30 | 4.95 | 15.79 | 0.00 | |
| | 9 | 3.85 | 4.40 | 0.00 | 0.00 | |
| | 10 EXTREMELY LIKELY | 10.45 | 10.44 | 10.53 | 0.00 | |
| | Refused | 0.48 | 0.55 | 0.00 | 0.00 | |
| | Don't Know | 6.25 | 7.14 | 0.00 | 0.00 | |
| | <i>n</i> | 201 | 182 | 19 | 0 | |
| | | | | | | |
| FR7_S | Our records indicate you received about &ST_REBATE from the &Utility &Program either directly or at the time of purchase to offset the cost of the Steam Trap that you installed. Does this sound about right? | | | | | |
| | | Yes | 64.36 | 64.74 | 61.90 | 0.00 |
| | | No | 9.77 | 10.53 | 4.76 | 0.00 |
| | | Don't Know | 25.87 | 24.74 | 33.33 | 0.00 |
| | | <i>n</i> | 211 | 190 | 21 | 0 |
| | | | | | | |
| FR8_S | What would you estimate to be the actual amount received for your Steam Trap rebate? | | | | | |
| | | No money received | 67.11 | 72.22 | 0.00 | 0.00 |
| | | Contractor received rebate | 5.16 | 5.56 | 0.00 | 0.00 |
| | | Less than \$1000 | 17.40 | 11.11 | 100.00 | 0.00 |
| | | Don't Know | 10.32 | 11.11 | 0.00 | 0.00 |
| | <i>n</i> | 19 | 18 | 1 | 0 | |
| | | | | | | |
| FR9_S | If I had not had any assistance from the program, I would have paid the full price to buy the Steam Trap on my own outside the program. | | | | | |
| | | ZERO DO NOT AT ALL AGREE | 31.83 | 31.87 | 31.58 | 0.00 |
| | | 1 | 3.72 | 2.75 | 10.53 | 0.00 |
| | | 2 | 1.62 | 1.10 | 5.26 | 0.00 |
| | | 3 | 6.13 | 5.50 | 10.53 | 0.00 |
| | | 4 | 0.96 | 1.10 | 0.00 | 0.00 |
| | | 5 | 16.70 | 17.58 | 10.53 | 0.00 |
| | | 6 | 0.48 | 0.55 | 0.00 | 0.00 |
| | | 7 | 8.53 | 8.24 | 10.53 | 0.00 |
| | | 8 | 4.68 | 3.85 | 10.53 | 0.00 |
| | 9 | 1.14 | 0.55 | 5.26 | 0.00 | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------------------|--------|--------|--------|---------|
| 10 AGREE COMPLETELY | 20.37 | 22.53 | 5.26 | 0.00 |
| Refused | 0.48 | 0.55 | 0.00 | 0.00 |
| Don't Know | 3.37 | 3.85 | 0.00 | 0.00 |
| <i>n</i> | 201 | 182 | 19 | 0 |

FR10_S

| There may have been several reasons for my purchase decision, but the assistance from the &Utility &Program was a critical factor in my decision to purchase these Steam Trap. | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|------|
| ZERO DO NOT AT ALL AGREE | 3.54 | 3.30 | 5.26 | 0.00 |
| 2 | 0.66 | 0.00 | 5.26 | 0.00 |
| 3 | 3.72 | 2.75 | 10.53 | 0.00 |
| 4 | 1.44 | 1.65 | 0.00 | 0.00 |
| 5 | 9.19 | 8.24 | 15.79 | 0.00 |
| 6 | 3.85 | 4.40 | 0.00 | 0.00 |
| 7 | 6.61 | 6.04 | 10.53 | 0.00 |
| 8 | 11.59 | 10.99 | 15.79 | 0.00 |
| 9 | 4.81 | 5.50 | 0.00 | 0.00 |
| 10 AGREE COMPLETELY | 44.99 | 46.15 | 36.84 | 0.00 |
| Refused | 0.48 | 0.55 | 0.00 | 0.00 |
| Don't Know | 9.13 | 10.44 | 0.00 | 0.00 |
| <i>n</i> | 201 | 182 | 19 | 0 |

FR11_S

| I would have bought the Steam Trap within 2 years of when I did even without the assistance from &Utility's Program. | | | | |
|---------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|------|
| ZERO DO NOT AT ALL AGREE | 18.80 | 19.23 | 15.79 | 0.00 |
| 1 | 3.06 | 2.75 | 5.26 | 0.00 |
| 2 | 4.50 | 4.40 | 5.26 | 0.00 |
| 3 | 5.52 | 3.30 | 21.05 | 0.00 |
| 4 | 3.37 | 3.85 | 0.00 | 0.00 |
| 5 | 17.54 | 17.03 | 21.05 | 0.00 |
| 6 | 7.21 | 8.24 | 0.00 | 0.00 |
| 7 | 6.91 | 7.14 | 5.26 | 0.00 |
| 8 | 9.01 | 8.79 | 10.53 | 0.00 |
| 9 | 1.62 | 1.10 | 5.26 | 0.00 |
| 10 AGREE COMPLETELY | 15.74 | 16.48 | 10.53 | 0.00 |
| Refused | 0.48 | 0.55 | 0.00 | 0.00 |
| Don't Know | 6.25 | 7.14 | 0.00 | 0.00 |
| <i>n</i> | 201 | 182 | 19 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------|--------|---------|
| C1A_S | Let me make sure I understand you. In your own words, could you please describe how the program influenced your decision to purchase and install your new Steam Trap at the time you did? | | | | |
| | It was free | 24.14 | 23.26 | 33.33 | 0.00 |
| | Saves Energy | 2.12 | 2.33 | 0.00 | 0.00 |
| | The program speed up the process | 10.61 | 11.63 | 0.00 | 0.00 |
| | No influenced | 2.12 | 2.33 | 0.00 | 0.00 |
| | Wouldn't have done it without the program | 8.49 | 9.30 | 0.00 | 0.00 |
| | Saves money | 10.61 | 11.63 | 0.00 | 0.00 |
| | High influence | 6.37 | 6.98 | 0.00 | 0.00 |
| | Because of the Rebate | 2.12 | 2.33 | 0.00 | 0.00 |
| | Other | 29.17 | 25.58 | 66.67 | 0.00 |
| | Don't Know | 4.25 | 4.65 | 0.00 | 0.00 |
| | <i>n</i> | 46 | 43 | 3 | 0 |
| | FRA_P | Did the vendor/contractor who sold you the Pipe Insulation tell you about the program? | | | |
| Yes | | 62.23 | 63.01 | 60.00 | 0.00 |
| No | | 31.76 | 31.51 | 31.43 | 100.00 |
| Refused | | 1.02 | 0.00 | 5.71 | 0.00 |
| Don't Know | | 4.99 | 5.48 | 2.86 | 0.00 |
| <i>n</i> | | 256 | 219 | 35 | 2 |
| FRB_P | Did your vendor/contractor recommend purchasing the Pipe Insulation? | | | | |
| | Yes | 52.64 | 52.06 | 54.29 | 100.00 |
| | No | 39.34 | 40.64 | 34.29 | 0.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 6.99 | 7.31 | 5.71 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| FRC_P | Using a 0 to 10 scale where 0 is not influential at all and 10 is extremely influential how influential was your vendor/contractor in your decision to purchase Pipe Insulation? | | | | |
| | ZERO NOT AT ALL INFLUENTIAL | 15.24 | 15.53 | 14.29 | 0.00 |
| | 1 | 3.12 | 3.20 | 2.86 | 0.00 |
| | 2 | 2.00 | 1.83 | 2.86 | 0.00 |
| | 3 | 1.63 | 1.37 | 2.86 | 0.00 |
| | 4 | 2.24 | 2.74 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | 5 | 13.14 | 12.33 | 17.14 | 0.00 |
| | 6 | 4.38 | 4.11 | 5.71 | 0.00 |
| | 7 | 7.23 | 8.22 | 2.86 | 0.00 |
| | 8 | 12.65 | 14.61 | 2.86 | 50.00 |
| | 9 | 9.37 | 9.59 | 8.57 | 0.00 |
| | 10 EXTREMELY INFLUENTIAL | 19.86 | 17.81 | 28.57 | 50.00 |
| | Refused | 2.52 | 1.83 | 5.71 | 0.00 |
| | Don't Know | 6.62 | 6.85 | 5.71 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| FRD_P | Did you purchase the Pipe Insulation that your vendor/contractor recommended? | | | | |
| | Yes | 66.67 | 64.84 | 74.29 | 100.00 |
| | No | 8.72 | 10.05 | 2.86 | 0.00 |
| | They didn't make recommendation | 15.24 | 15.53 | 14.29 | 0.00 |
| | Refused | 2.52 | 1.83 | 5.71 | 0.00 |
| | Don't Know | 6.85 | 7.76 | 2.86 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| FR1_P | At the time that you first heard about the assistance from &Utility for this Pipe Insulation, had you...? | | | | |
| | Already been thinking about purchasing pipe insulation | 34.55 | 35.16 | 31.43 | 50.00 |
| | Already begun collecting information about pipe insulation | 10.39 | 9.59 | 14.29 | 0.00 |
| | Already selected the pipe insulation you were going to get | 1.97 | 0.91 | 5.71 | 50.00 |
| | Already installed the pipe insulation | 6.72 | 8.22 | 0.00 | 0.00 |
| | While installing | 0.89 | 0.46 | 2.86 | 0.00 |
| | None of these | 40.09 | 41.55 | 34.29 | 0.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 4.38 | 4.11 | 5.71 | 0.00 |
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| FR1A_P | So, the Pipe Insulation was installed before you learned about the assistance from &Utility? | | | | |
| | Yes | 94.44 | 94.44 | 0.00 | 0.00 |
| | No | 5.56 | 5.56 | 0.00 | 0.00 |
| | <i>n</i> | 18 | 18 | 0 | 0 |
| | | | | | |
| FR2A_P | Just to be sure I understand, did you have specific plans to install the Pipe Insulation before learning about the assistance available through the &Program? | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------|--------|--------|---------|
| | Yes | 29.72 | 29.21 | 31.43 | 50.00 |
| | No | 63.97 | 66.34 | 54.29 | 50.00 |
| | Refused | 1.09 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 5.22 | 4.46 | 8.57 | 0.00 |
| | <i>n</i> | 239 | 202 | 35 | 2 |
| FR3_P | | | | | |
| Did you have to make any changes to your existing plans in installing the Pipe Insulation in order to receive this assistance through the &Program? | | | | | |
| | Yes | 8.04 | 10.17 | 0.00 | 0.00 |
| | No | 87.94 | 84.75 | 100.00 | 100.00 |
| | Don't Know | 4.02 | 5.08 | 0.00 | 0.00 |
| | <i>n</i> | 71 | 59 | 11 | 1 |
| FR3A_P | | | | | |
| What changes did you make to the installation the Pipe Insulation? | | | | | |
| | As needed | 33.33 | 33.33 | 0.00 | 0.00 |
| | Covered more pipes | 16.67 | 16.67 | 0.00 | 0.00 |
| | Other | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 6 | 6 | 0 | 0 |
| FR4A_P | | | | | |
| Without the program would you still have purchased the Pipe Insulation? | | | | | |
| | Yes | 47.99 | 45.55 | 57.14 | 100.00 |
| | No | 44.00 | 46.54 | 34.29 | 0.00 |
| | Refused | 1.09 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 6.92 | 7.92 | 2.86 | 0.00 |
| | <i>n</i> | 239 | 202 | 35 | 2 |
| FR4B_P | | | | | |
| Would you have purchased the Pipe Insulation at the same time as you did? | | | | | |
| | Yes | 38.06 | 33.33 | 52.17 | 100.00 |
| | No | 51.90 | 57.41 | 34.78 | 0.00 |
| | Refused | 1.95 | 0.00 | 8.70 | 0.00 |
| | Don't Know | 8.09 | 9.26 | 4.35 | 0.00 |
| | <i>n</i> | 133 | 108 | 23 | 2 |

* Values are shown as percent of survey participants.

* *n* is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|--------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| FR4B1_P | Would you have bought the Pipe Insulation earlier than you did, or later? | | | | |
| | Earlier | 1.15 | 1.39 | 0.00 | 0.00 |
| | Same time | 2.72 | 1.39 | 9.09 | 0.00 |
| | Later | 81.07 | 84.72 | 63.64 | 0.00 |
| | Refused | 3.15 | 0.00 | 18.18 | 0.00 |
| | Don't Know | 11.91 | 12.50 | 9.09 | 0.00 |
| | <i>n</i> | 83 | 72 | 11 | 0 |
| | | | | | |
| FRB2_P | How much [earlier/later] would you have bought the Pipe Insulation? | | | | |
| | Within 6 months | 23.38 | 22.58 | 28.57 | 0.00 |
| | 6 months to a year later | 19.71 | 16.13 | 42.86 | 0.00 |
| | 1 to 2 years later | 32.64 | 35.48 | 14.29 | 0.00 |
| | 2 to 3 years later | 11.69 | 11.29 | 14.29 | 0.00 |
| | 4 or more years later | 2.79 | 3.23 | 0.00 | 0.00 |
| | Buy as needed | 1.40 | 1.61 | 0.00 | 0.00 |
| | Don't know | 8.38 | 9.68 | 0.00 | 0.00 |
| | <i>n</i> | 69 | 62 | 7 | 0 |
| | | | | | |
| FR4C_P | Without the program, would the quantity of Pipe Insulation you purchased have been the same, less, or more? | | | | |
| | More | 4.53 | 4.63 | 4.35 | 0.00 |
| | Same | 67.04 | 68.52 | 60.87 | 100.00 |
| | Less | 18.39 | 17.59 | 21.74 | 0.00 |
| | Refused | 1.95 | 0.00 | 8.70 | 0.00 |
| | Don't Know | 8.09 | 9.26 | 4.35 | 0.00 |
| | <i>n</i> | 133 | 108 | 23 | 2 |
| | | | | | |
| FR4C1_P | How many [more/less] Pipe Insulation would you have bought? | | | | |
| | Less than 25% | 22.87 | 25.00 | 16.67 | 0.00 |
| | 25-50% | 22.87 | 25.00 | 16.67 | 0.00 |
| | 50% less | 14.72 | 8.33 | 33.33 | 0.00 |
| | 50-75% | 6.21 | 8.33 | 0.00 | 0.00 |
| | 75-100% | 12.41 | 16.67 | 0.00 | 0.00 |
| | Don't Know | 20.92 | 16.67 | 33.33 | 0.00 |
| | <i>n</i> | 30 | 24 | 6 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| FR4E_P | If the assistance had not been available, would you have done anything else differently regarding your Pipe Insulation? | | | | |
| | Nothing different | 81.87 | 81.48 | 82.61 | 100.00 |
| | Replace as needed | 0.71 | 0.93 | 0.00 | 0.00 |
| | Fixed/Repaired | 0.71 | 0.93 | 0.00 | 0.00 |
| | Bought Himself | 1.42 | 1.85 | 0.00 | 0.00 |
| | Installed Later | 1.42 | 1.85 | 0.00 | 0.00 |
| | Other | 1.69 | 0.93 | 4.35 | 0.00 |
| | Refused | 1.95 | 0.00 | 8.70 | 0.00 |
| | Don't Know | 10.22 | 12.04 | 4.35 | 0.00 |
| | <i>n</i> | 133 | 108 | 23 | 2 |
| | | | | | |
| FR5_P | On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely is it that you would have bought Pipe Insulation if you had not received any assistance from the program? | | | | |
| | ZERO NOT AT ALL LIKELY | 20.01 | 20.79 | 17.14 | 0.00 |
| | 1 | 4.38 | 5.45 | 0.00 | 0.00 |
| | 2 | 6.92 | 7.92 | 2.86 | 0.00 |
| | 3 | 4.13 | 4.46 | 2.86 | 0.00 |
| | 4 | 3.34 | 3.47 | 2.86 | 0.00 |
| | 5 | 12.64 | 14.36 | 5.71 | 0.00 |
| | 6 | 5.22 | 4.46 | 8.57 | 0.00 |
| | 7 | 5.08 | 4.95 | 5.71 | 0.00 |
| | 8 | 11.87 | 12.87 | 5.71 | 100.00 |
| | 9 | 5.92 | 3.96 | 14.29 | 0.00 |
| | 10 EXTREMELY LIKELY | 14.08 | 11.39 | 25.71 | 0.00 |
| | Refused | 1.09 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 5.33 | 5.94 | 2.86 | 0.00 |
| | <i>n</i> | 239 | 202 | 35 | 2 |
| | | | | | |
| FR7_P | Our records indicate you received about &ST_REBATE from the &Utility &Program either directly or at the time of purchase to offset the cost of the Pipe Insulation that you installed. Does this sound about right? | | | | |
| | Yes | 64.06 | 61.64 | 74.29 | 100.00 |
| | No | 7.60 | 8.68 | 2.86 | 0.00 |
| | Refused | 1.02 | 0.00 | 5.71 | 0.00 |
| | Don't Know | 27.32 | 29.68 | 17.14 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | <i>n</i> | 256 | 219 | 35 | 2 |
| | | | | | |
| FR8_p | What would you estimate to be the actual amount received for your Pipe Insulation rebate? | | | | |
| | No money received | 75.46 | 73.68 | 100.00 | 0.00 |
| | Contractor received rebate | 4.91 | 5.26 | 0.00 | 0.00 |
| | Less than \$1000 | 9.82 | 10.53 | 0.00 | 0.00 |
| | More than \$1000 | 4.91 | 5.26 | 0.00 | 0.00 |
| | Don't Know | 4.91 | 5.26 | 0.00 | 0.00 |
| | <i>n</i> | 20 | 19 | 1 | 0 |
| | | | | | |
| FR9_P | If I had not had any assistance from the program, I would have paid the full price to buy the Pipe Insulation on my own outside the program. | | | | |
| | ZERO DO NOT AT ALL AGREE | 26.03 | 26.24 | 25.71 | 0.00 |
| | 1 | 3.88 | 3.47 | 5.71 | 0.00 |
| | 2 | 5.18 | 6.44 | 0.00 | 0.00 |
| | 3 | 4.53 | 4.95 | 2.86 | 0.00 |
| | 4 | 0.80 | 0.99 | 0.00 | 0.00 |
| | 5 | 12.69 | 12.38 | 14.29 | 0.00 |
| | 6 | 4.13 | 4.46 | 2.86 | 0.00 |
| | 7 | 5.58 | 6.93 | 0.00 | 0.00 |
| | 8 | 8.53 | 9.41 | 2.86 | 100.00 |
| | 9 | 2.83 | 1.49 | 8.57 | 0.00 |
| | 10 AGREE COMPLETELY | 19.80 | 17.82 | 28.57 | 0.00 |
| | Refused | 1.49 | 0.50 | 5.71 | 0.00 |
| | Don't Know | 4.53 | 4.95 | 2.86 | 0.00 |
| | <i>n</i> | 239 | 202 | 35 | 2 |
| | | | | | |
| FR10_P | There may have been several reasons for my purchase decision, but the assistance from the &Utility &Program was a critical factor in my decision to purchase these Pipe Insulation. | | | | |
| | ZERO DO NOT AT ALL AGREE | 4.97 | 3.47 | 11.43 | 0.00 |
| | 1 | 0.40 | 0.50 | 0.00 | 0.00 |
| | 2 | 0.40 | 0.50 | 0.00 | 0.00 |
| | 3 | 2.98 | 0.99 | 11.43 | 0.00 |
| | 4 | 0.95 | 0.50 | 2.86 | 0.00 |
| | 5 | 8.43 | 7.92 | 8.57 | 100.00 |
| | 6 | 3.48 | 2.97 | 5.71 | 0.00 |
| | 7 | 8.91 | 10.40 | 2.86 | 0.00 |
| | 8 | 14.53 | 15.35 | 11.43 | 0.00 |
| | 9 | 6.27 | 6.44 | 5.71 | 0.00 |
| | 10 AGREE COMPLETELY | 41.46 | 44.06 | 31.43 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------|--------|--------|---------|
| Refused | | 1.49 | 0.50 | 5.71 | 0.00 |
| Don't Know | | 5.73 | 6.44 | 2.86 | 0.00 |
| <i>n</i> | | 239 | 202 | 35 | 2 |
| I would have bought the Pipe Insulation within 2 years of when I did even without the assistance from &Utility's Program. | | | | | |
| ZERO DO NOT AT ALL AGREE | | 16.67 | 17.33 | 14.29 | 0.00 |
| 1 | | 3.19 | 3.96 | 0.00 | 0.00 |
| 2 | | 3.59 | 4.46 | 0.00 | 0.00 |
| 3 | | 4.53 | 4.95 | 2.86 | 0.00 |
| 4 | | 2.14 | 1.98 | 2.86 | 0.00 |
| 5 | | 12.69 | 12.38 | 14.29 | 0.00 |
| 6 | | 5.47 | 5.45 | 5.71 | 0.00 |
| 7 | | 8.66 | 9.41 | 5.71 | 0.00 |
| 8 | | 9.67 | 10.40 | 5.71 | 50.00 |
| 9 | | 3.69 | 2.97 | 5.71 | 50.00 |
| 10 AGREE COMPLETELY | | 21.15 | 18.81 | 31.43 | 0.00 |
| Refused | | 2.04 | 0.50 | 8.57 | 0.00 |
| Don't Know | | 6.52 | 7.43 | 2.86 | 0.00 |
| <i>n</i> | | 239 | 202 | 35 | 2 |
| Let me make sure I understand you. In your own words, could you please describe how the program influenced your decision to purchase and install your new Pipe Insulation at the time you did? | | | | | |
| It was free | | 32.01 | 37.50 | 0.00 | 0.00 |
| The program speed up the process. | | 7.32 | 0.00 | 50.00 | 0.00 |
| No influence | | 10.67 | 12.50 | 0.00 | 0.00 |
| Saves money | | 28.66 | 25.00 | 50.00 | 0.00 |
| High influence | | 10.67 | 12.50 | 0.00 | 0.00 |
| Other | | 5.34 | 6.25 | 0.00 | 0.00 |
| Don't Know | | 5.34 | 6.25 | 0.00 | 0.00 |
| <i>n</i> | | 18 | 16 | 2 | 0 |

FR11_P

C1A_P

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| FM050A | What is your position/title for &BUS_NAME? | | | | |
| | Regional Manager | 8.45 | 10.00 | 0.00 | 0.00 |
| | Regional Facilities Manager | 9.50 | 6.67 | 25.00 | 0.00 |
| | Energy Manager | 2.82 | 3.33 | 0.00 | 0.00 |
| | CEO/President/Owner | 26.41 | 26.67 | 25.00 | 0.00 |
| | Maintenance | 17.95 | 16.67 | 25.00 | 0.00 |
| | Head Engineer | 26.41 | 26.67 | 25.00 | 0.00 |
| | General Manager | 5.64 | 6.67 | 0.00 | 0.00 |
| | Scheduler | 2.82 | 3.33 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| FM050B | What region do your energy decisions affect? | | | | |
| | Southern California | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 8 | 0 | 0 |
| FM050C | Are you aware of the energy decisions being made and/or energy policies for your company outside of California? | | | | |
| | Yes, aware of energy decisions in other states but not the decision maker | 12.50 | 12.50 | 0.00 | 0.00 |
| | No, not aware of energy decisions in other states | 37.50 | 37.50 | 0.00 | 0.00 |
| | No locations outside of CALIFORNIA | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 8 | 0 | 0 |
| FM050 | What is the main business ACTIVITY at your locations that participated in the &UTILITY &PROGRAM? | | | | |
| | Retail (non food) | 2.82 | 3.33 | 0.00 | 0.00 |
| | College/University | 2.82 | 3.33 | 0.00 | 0.00 |
| | School | 2.82 | 3.33 | 0.00 | 0.00 |
| | Hospital | 2.82 | 3.33 | 0.00 | 0.00 |
| | Indust Proc/mfg | 61.27 | 63.33 | 50.00 | 0.00 |
| | Greenhouse | 3.86 | 0.00 | 25.00 | 0.00 |
| | Laundry/Cleaners | 23.59 | 23.33 | 25.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| CA4 | Prior to 2006, had your organization ever installed equipment that involved the receipt of rebates or incentives from an energy efficiency program? | | | | |
| | Yes | 29.23 | 30.00 | 25.00 | 0.00 |
| | No | 43.32 | 46.67 | 25.00 | 0.00 |
| | Don't Know | 27.45 | 23.33 | 50.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |

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* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|-------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| CA6 | What type of equipment did you install through this (these) program(s)? | | | | |
| | Indoor Lighting | 36.36 | 40.00 | 0.00 | 0.00 |
| | Cooling Equipment | 18.18 | 20.00 | 0.00 | 0.00 |
| | Natural Gas equipment (water heater/furnace or appliances) | 9.09 | 10.00 | 0.00 | 0.00 |
| | Insulation or windows | 27.27 | 20.00 | 100.00 | 0.00 |
| | Refrigeration | 9.09 | 10.00 | 0.00 | 0.00 |
| | Industrial Process Equipment | 18.18 | 20.00 | 0.00 | 0.00 |
| | Greenhouse Heat Curtains | 9.09 | 0.00 | 100.00 | 0.00 |
| | Food Service Equipment | 9.09 | 10.00 | 0.00 | 0.00 |
| | Pipe insulation | 25.00 | 25.00 | 0.00 | 0.00 |
| | Steam Traps | 25.00 | 25.00 | 0.00 | 0.00 |
| | Motors | 0.00 | 0.00 | 0.00 | 0.00 |
| | Dry Cleaning Equipment | 0.00 | 0.00 | 0.00 | 0.00 |
| | Cogeneration System | 0.00 | 0.00 | 0.00 | 0.00 |
| | Heat equipment | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 0.00 | 0.00 | 0.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 10.00 | 11.11 | 0.00 | 0.00 |
| | <i>n</i> | 11 | 10 | 1 | 0 |
| CA6A | What year did you participate in this (these) program(s)? | | | | |
| | Prior to 2004 | 28.57 | 28.57 | 0.00 | 0.00 |
| | 2005 | 14.29 | 14.29 | 0.00 | 0.00 |
| | Don't Know | 57.14 | 57.14 | 0.00 | 0.00 |
| | <i>n</i> | 7 | 7 | 0 | 0 |
| CA15 | Over the past 3 years, how would you characterize your organization's business outlook? Would you say it was ... | | | | |
| | Excellent | 36.90 | 26.92 | 100.00 | 0.00 |
| | Good | 39.85 | 46.15 | 0.00 | 0.00 |
| | Fair | 9.96 | 11.54 | 0.00 | 0.00 |
| | Adequate | 3.32 | 3.85 | 0.00 | 0.00 |
| | Poor | 9.96 | 11.54 | 0.00 | 0.00 |
| | <i>n</i> | 29 | 26 | 3 | 0 |
| CA15A | Projecting over the NEXT 3 years, how would you characterize your business outlook? Would you say.... | | | | |
| | Excellent | 25.68 | 16.67 | 75.00 | 0.00 |
| | Good | 47.91 | 56.67 | 0.00 | 0.00 |
| | Fair | 20.77 | 20.00 | 25.00 | 0.00 |
| | Adequate | 2.82 | 3.33 | 0.00 | 0.00 |
| | Poor | 2.82 | 3.33 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| ST3 | Our records indicate that &NUM_STEAMTRAP steam traps were installed at your facility. Is this about right? | | | | |
| | Yes | 97.01 | 96.43 | 100.00 | 0.00 |

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A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | No | 2.99 | 3.57 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| ST3X | Approximately how many steam traps were installed at your facility through the program? | | | | |
| | 3 traps | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| ST_1G | Our records indicate that your organization received &ST_Rebate for Steam Traps during 2006-2008. Is this correct? | | | | |
| | Yes | 76.50 | 78.26 | 66.67 | 0.00 |
| | No | 5.06 | 0.00 | 33.33 | 0.00 |
| | Don't Know | 18.44 | 21.74 | 0.00 | 0.00 |
| | <i>n</i> | 26 | 23 | 3 | 0 |
| ST_1GG | May I have the correct amount of the rebate for steam traps? | | | | |
| | We did not receive the rebate | 100.00 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 1 | 0 | 1 | 0 |
| ST1 | Approximately when were these steam traps installed? | | | | |
| | 2006 | 12.31 | 14.81 | 0.00 | 0.00 |
| | 2007 | 34.21 | 25.93 | 75.00 | 0.00 |
| | 2008 | 24.63 | 29.63 | 0.00 | 0.00 |
| | 2009 | 6.16 | 7.41 | 0.00 | 0.00 |
| | 2006-2007 | 3.08 | 3.70 | 0.00 | 0.00 |
| | 2007-2008 | 3.08 | 3.70 | 0.00 | 0.00 |
| | 2006-2008 | 3.08 | 3.70 | 0.00 | 0.00 |
| | Don't know | 13.46 | 11.11 | 25.00 | 0.00 |
| | <i>n</i> | 31 | 27 | 4 | 0 |
| VEND_MA | Prior to installing steam traps under the program, did you have an existing maintenance contract with a vendor that involved servicing your steam traps? | | | | |
| | Yes | 3.08 | 3.70 | 0.00 | 0.00 |
| | No | 96.92 | 96.30 | 100.00 | 0.00 |
| | <i>n</i> | 31 | 27 | 4 | 0 |

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A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| PI3 | Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your facility. Is this about right? | | | | |
| | Yes | 100.00 | 100.00 | 100.00 | 0.00 |
| | <i>n</i> | 33 | 29 | 4 | 0 |
| | | | | | |
| PI_1G | Our records indicate that your organization received &PI_Rebate for Pipe Insulation during 2006-2008. Is this correct? | | | | |
| | Yes | 83.96 | 85.71 | 75.00 | 0.00 |
| | No | 4.09 | 0.00 | 25.00 | 0.00 |
| | Don't Know | 11.95 | 14.29 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| | | | | | |
| PI_1GG | May I have the correct amount of the rebate for pipe insulation? | | | | |
| | We never received the rebate | 100.00 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 1 | 0 | 1 | 0 |
| | | | | | |
| JOINT | Your organization installed BOTH steam traps and pipe insulation. Can you tell me if this was a JOINT DECISION? In other words, was the decision to install the steam traps and the pipe insulation made by the same individuals and at the same time? | | | | |
| | Yes | 93.84 | 92.59 | 100.00 | 0.00 |
| | No | 3.08 | 3.70 | 0.00 | 0.00 |
| | Don't Know | 3.08 | 3.70 | 0.00 | 0.00 |
| | <i>n</i> | 31 | 27 | 4 | 0 |
| | | | | | |
| V1 | Now I would like to find out, did you use a contractor to install the measures rebated through the 2006-08 &PROGRAM Program? | | | | |
| | Contractor | 39.45 | 46.67 | 0.00 | 0.00 |
| | In-house staff | 32.05 | 33.33 | 25.00 | 0.00 |
| | Both | 12.32 | 10.00 | 25.00 | 0.00 |
| | Steam in house, pipe contractor | 13.36 | 6.67 | 50.00 | 0.00 |
| | Don't Know | 2.82 | 3.33 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| V41 | Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously? | | | | |
| | Yes | 61.08 | 66.67 | 0.00 | 0.00 |

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* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|---------|---------|----------|
| | No | 32.81 | 26.67 | 100.00 | 0.00 |
| | Don't Know | 6.11 | 6.67 | 0.00 | 0.00 |
| | <i>n</i> | 16 | 15 | 1 | 0 |
| ST14 | | | | | |
| Since January 2006, has there been a period where there was a significant increase in production at this site? In other words, was there any period where your production was higher than usual? | | | | | |
| | Yes | 50.64 | 48.00 | 66.67 | 0.00 |
| | No | 44.65 | 52.00 | 0.00 | 0.00 |
| | Don't Know | 4.71 | 0.00 | 33.33 | 0.00 |
| | <i>n</i> | 28 | 25 | 3 | 0 |
| st14a | | | | | |
| When was this increase in demand? | | | | | |
| | 2006 | 16.08 | 8.33 | 50.00 | 0.00 |
| | 2007 | 13.57 | 16.67 | 0.00 | 0.00 |
| | 2008 | 6.78 | 8.33 | 0.00 | 0.00 |
| | 2009 | 13.57 | 16.67 | 0.00 | 0.00 |
| | 2006-2008 | 6.78 | 8.33 | 0.00 | 0.00 |
| | Constantly | 6.78 | 8.33 | 0.00 | 0.00 |
| | Cycles with economy | 16.08 | 8.33 | 50.00 | 0.00 |
| | Don't know | 20.35 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 14 | 12 | 2 | 0 |
| ST15 | | | | | |
| Since January 2006, has there been a period where there was a significant decrease in production at this site? In other words, was there any period where your production was lower than usual? | | | | | |
| | Yes | 52.80 | 56.00 | 33.33 | 0.00 |
| | No | 42.49 | 44.00 | 33.33 | 0.00 |
| | Don't Know | 4.71 | 0.00 | 33.33 | 0.00 |
| | <i>n</i> | 28 | 25 | 3 | 0 |
| ST15A | | | | | |
| When did this decrease occur? | | | | | |
| | 2005 | 6.51 | 7.14 | 0.00 | 0.00 |
| | 2006 | 6.51 | 7.14 | 0.00 | 0.00 |
| | 2007 | 6.51 | 7.14 | 0.00 | 0.00 |
| | 2008 | 19.52 | 21.43 | 0.00 | 0.00 |
| | 2009 | 32.53 | 35.71 | 0.00 | 0.00 |
| | Seasonal - Winter | 13.01 | 14.29 | 0.00 | 0.00 |
| | 2007-2008 | 6.51 | 7.14 | 0.00 | 0.00 |
| | Cycles with economy | 8.92 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 15 | 14 | 1 | 0 |

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* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| ST15B | Do you believe that the decrease in production is associated with the ongoing recession? | | | | |
| | Yes | 80.48 | 78.57 | 100.00 | 0.00 |
| | No | 19.52 | 21.43 | 0.00 | 0.00 |
| | <i>n</i> | 15 | 14 | 1 | 0 |
| ST15C | When do you believe that your company will experience an increase in production? | | | | |
| | 6 months | 8.08 | 9.09 | 0.00 | 0.00 |
| | In the next year | 24.25 | 27.27 | 0.00 | 0.00 |
| | 1 year or more | 16.17 | 18.18 | 0.00 | 0.00 |
| | When economy recovers | 19.17 | 9.09 | 100.00 | 0.00 |
| | Don't Know | 32.33 | 36.36 | 0.00 | 0.00 |
| | <i>n</i> | 12 | 11 | 1 | 0 |
| ST1_1 | Did the steam traps installed under the &Program represent the installation of new traps where there previously were no traps or were the steam traps used for the replacement of existing traps? | | | | |
| | Replacement of existing steam traps | 44.80 | 53.57 | 0.00 | 0.00 |
| | New traps | 32.08 | 28.57 | 50.00 | 0.00 |
| | Both new and replacement? | 23.12 | 17.86 | 50.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| ST2 | How many of the traps installed under the &Program were replacement traps? | | | | |
| | 0-10 traps | 40.69 | 37.50 | 50.00 | 0.00 |
| | 11-19 traps | 18.62 | 25.00 | 0.00 | 0.00 |
| | 20-49 traps | 9.31 | 12.50 | 0.00 | 0.00 |
| | 50-99 traps | 18.62 | 25.00 | 0.00 | 0.00 |
| | 100 or more traps | 12.76 | 0.00 | 50.00 | 0.00 |
| | <i>n</i> | 10 | 8 | 2 | 0 |
| ST3A | How many steam traps are located at your facility? | | | | |
| | 0-9 traps | 16.73 | 14.29 | 33.33 | 0.00 |
| | 10-19 traps | 9.34 | 10.71 | 0.00 | 0.00 |
| | 20-39 traps | 24.11 | 17.86 | 66.67 | 0.00 |
| | 40-99 traps | 24.91 | 28.57 | 0.00 | 0.00 |
| | 100 or more traps | 18.68 | 21.43 | 0.00 | 0.00 |
| | Don't Know | 6.23 | 7.14 | 0.00 | 0.00 |
| | <i>n</i> | 31 | 28 | 3 | 0 |

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* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|----------|------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| ST3AA | Do you have high pressure traps at your facility? | | | | |
| | Yes | 73.12 | 67.86 | 100.00 | 0.00 |
| | No | 14.93 | 17.86 | 0.00 | 0.00 |
| | Don't Know | 11.95 | 14.29 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| ST3AAA | How many of the traps at your facility are high pressure traps? | | | | |
| | 0-19 traps | 27.54 | 21.05 | 50.00 | 0.00 |
| | 20-59 traps | 35.71 | 31.58 | 50.00 | 0.00 |
| | 60-149 traps | 20.42 | 26.32 | 0.00 | 0.00 |
| | 150-299 traps | 4.08 | 5.26 | 0.00 | 0.00 |
| | 300-999 traps | 4.08 | 5.26 | 0.00 | 0.00 |
| | More than 1000 traps | 8.17 | 10.53 | 0.00 | 0.00 |
| | <i>n</i> | 23 | 19 | 4 | 0 |
| ST30 | Can you provide a range of the possible number of high pressure traps at your facility? Would you say.... | | | | |
| | Don't Know | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| ST3B_Nun | What percent of the high pressure steam traps at your facility were replaced at this time? | | | | |
| | 0-29% | 35.18 | 37.50 | 25.00 | 0.00 |
| | 30-59% | 43.22 | 41.67 | 50.00 | 0.00 |
| | 60-79% | 3.39 | 4.17 | 0.00 | 0.00 |
| | 90-99% | 4.65 | 0.00 | 25.00 | 0.00 |
| | 100% | 13.57 | 16.67 | 0.00 | 0.00 |
| | <i>n</i> | 28 | 24 | 4 | 0 |
| ST3b_HP | Can you provide a range of the possible number of high pressure traps replaced at this time? | | | | |
| | 0-9% | 17.85 | 15.79 | 25.00 | 0.00 |
| | 10-29% | 31.62 | 26.32 | 50.00 | 0.00 |
| | 30-49% | 12.25 | 15.79 | 0.00 | 0.00 |
| | 50-99% | 4.08 | 5.26 | 0.00 | 0.00 |
| | 100% | 34.19 | 36.84 | 25.00 | 0.00 |
| | <i>n</i> | 23 | 19 | 4 | 0 |

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A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|-----------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| ST3BB | What are the average weekly hours of operation for your high pressure steam traps? | | | | |
| | 0-49 hrs | 21.94 | 21.05 | 25.00 | 0.00 |
| | 50-99 hrs | 20.42 | 26.32 | 0.00 | 0.00 |
| | 100-149 hrs | 27.54 | 21.05 | 50.00 | 0.00 |
| | 150 hrs or more | 26.02 | 26.32 | 25.00 | 0.00 |
| | Don't Know | 4.08 | 5.26 | 0.00 | 0.00 |
| | <i>n</i> | 23 | 19 | 4 | 0 |
| ST3000 | Do you have low pressure traps at your facility? | | | | |
| | Yes | 25.82 | 30.43 | 0.00 | 0.00 |
| | No | 59.43 | 52.17 | 100.00 | 0.00 |
| | Don't Know | 14.75 | 17.39 | 0.00 | 0.00 |
| | <i>n</i> | 26 | 23 | 3 | 0 |
| ST300 | How many of the traps at your facility are low pressure traps? | | | | |
| | 0-9 traps | 28.93 | 33.33 | 0.00 | 0.00 |
| | 10-29 traps | 19.28 | 22.22 | 0.00 | 0.00 |
| | 30-99 traps | 22.86 | 11.11 | 100.00 | 0.00 |
| | More than 300 traps | 19.28 | 22.22 | 0.00 | 0.00 |
| | Don't Know | 9.64 | 11.11 | 0.00 | 0.00 |
| | <i>n</i> | 10 | 9 | 1 | 0 |
| ST301 | Can you provide a range of the possible number of low pressure traps at your facility? Would you say.... | | | | |
| | 41 to 50 traps | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| ST3D | What percentage of the low pressure steam traps at your facility were replaced through the program? | | | | |
| | 0-9% | 21.34 | 25.00 | 0.00 | 0.00 |
| | 10-29% | 32.01 | 37.50 | 0.00 | 0.00 |
| | 30-49% | 14.63 | 0.00 | 100.00 | 0.00 |
| | 100% | 10.67 | 12.50 | 0.00 | 0.00 |
| | Don't Know | 21.34 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 9 | 8 | 1 | 0 |
| ST3DD | How many hours a week on average do you operate your low pressure steam traps? | | | | |
| | 50-99 hrs | 57.32 | 50.00 | 100.00 | 0.00 |
| | 100-149 hrs | 10.67 | 12.50 | 0.00 | 0.00 |
| | 150 hrs or more | 32.01 | 37.50 | 0.00 | 0.00 |
| | <i>n</i> | 9 | 8 | 1 | 0 |
| ST4 | What led you to replace the steam traps? | | | | |

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A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-------|------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | Needed to replace some old steam traps | 9.09 | 10.00 | 0.00 | 0.00 |
| | Installed new steam traps to improve system efficiency | 13.64 | 15.00 | 0.00 | 0.00 |
| | Wanted to save on our energy bill | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps had failed | 18.18 | 15.00 | 50.00 | 0.00 |
| | Traps had failed open | 31.82 | 25.00 | 100.00 | 0.00 |
| | Traps were leaking | 40.91 | 40.00 | 50.00 | 0.00 |
| | Traps had failed shut | 13.64 | 15.00 | 0.00 | 0.00 |
| | Regular mantanance | 13.64 | 15.00 | 0.00 | 0.00 |
| | Better for the Environment | 0.00 | 0.00 | 0.00 | 0.00 |
| | Rebate Influence | 22.73 | 25.00 | 0.00 | 0.00 |
| | Inspections | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps were old | 9.09 | 10.00 | 0.00 | 0.00 |
| | Wrong traps previously | 9.09 | 10.00 | 0.00 | 0.00 |
| | Contractor/Utility Influence | 4.55 | 5.00 | 0.00 | 0.00 |
| | Safety | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 4.76 | 0.00 | 50.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 0.00 | 0.00 | 0.00 | 0.00 |
| | <i>n</i> | 22 | 20 | 2 | 0 |
| ST5 | Whose idea was it to replace the steam traps? | | | | |
| | Contractor | 11.27 | 13.33 | 0.00 | 0.00 |
| | Other | 88.73 | 86.67 | 100.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| ST6 | Do you regularly consult with a contractor concerning the steam traps for your location(s) in California? | | | | |
| | Yes | 30.97 | 32.14 | 25.00 | 0.00 |
| | No | 69.03 | 67.86 | 75.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| ST7_N | Do you have a regular maintenance program for your steam traps at your locations in California? | | | | |
| | Yes | 73.12 | 67.86 | 100.00 | 0.00 |
| | No | 26.88 | 32.14 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| ST70A | What percentage of your traps do you survey during your regular maintenance program in California? | | | | |
| | 0-10% | 4.08 | 5.26 | 0.00 | 0.00 |
| | 26-50% | 12.25 | 15.79 | 0.00 | 0.00 |
| | 51-75% | 8.17 | 10.53 | 0.00 | 0.00 |
| | 75-99% | 4.08 | 5.26 | 0.00 | 0.00 |
| | 100 % | 67.33 | 57.89 | 100.00 | 0.00 |
| | Don't Know | 4.08 | 5.26 | 0.00 | 0.00 |

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A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) | |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------|---------|---------|----------|---|
| | | <i>n</i> | 23 | 19 | 4 | 0 |
| Does your maintenance survey include diagnostic testing to determine if the steam traps needed replacement in California?? | | | | | | |
| ST_DIAG | Yes | 72.87 | 72.22 | 75.00 | 0.00 | |
| | No | 22.87 | 22.22 | 25.00 | 0.00 | |
| | Don't Know | 4.26 | 5.56 | 0.00 | 0.00 | |
| | | <i>n</i> | 22 | 18 | 4 | 0 |
| Who conducted this diagnostic testing for steam traps at this facility? | | | | | | |
| ST_DIAG2 | Utility | 5.84 | 7.69 | 0.00 | 0.00 | |
| | A Vendor | 11.69 | 15.38 | 0.00 | 0.00 | |
| | In-House | 82.47 | 76.92 | 100.00 | 0.00 | |
| | | <i>n</i> | 16 | 13 | 3 | 0 |
| How often do you perform these maintenance surveys in California?? | | | | | | |
| ST70E | At Least Every Week | 13.77 | 10.53 | 25.00 | 0.00 | |
| | Monthly | 9.68 | 5.26 | 25.00 | 0.00 | |
| | Quarterly | 21.94 | 21.05 | 25.00 | 0.00 | |
| | Twice a Year | 16.34 | 21.05 | 0.00 | 0.00 | |
| | Yearly | 16.34 | 21.05 | 0.00 | 0.00 | |
| | Once Every Two Years or Longer | 4.08 | 5.26 | 0.00 | 0.00 | |
| | Don't Perform | 4.08 | 5.26 | 0.00 | 0.00 | |
| | Other | 13.77 | 10.53 | 25.00 | 0.00 | |
| | | <i>n</i> | 23 | 19 | 4 | 0 |
| When was the survey of steam traps last completed at your locations in California? | | | | | | |
| ST70EE | 2009 | 75.49 | 68.42 | 100.00 | 0.00 | |
| | 2008 | 8.17 | 10.53 | 0.00 | 0.00 | |
| | 2007 | 8.17 | 10.53 | 0.00 | 0.00 | |
| | Before 2000 | 4.08 | 5.26 | 0.00 | 0.00 | |
| | Don't Know | 4.08 | 5.26 | 0.00 | 0.00 | |
| | | <i>n</i> | 23 | 19 | 4 | 0 |
| During your regular maintenance cycles, what is the average percentage of traps that typically need to be replaced in California?? | | | | | | |
| ST70C | 0-9% | 67.33 | 57.89 | 100.00 | 0.00 | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|------------|---------|---------|---------|----------|
| 10-19% | 16.34 | 21.05 | 0.00 | 0.00 |
| 20-29% | 4.08 | 5.26 | 0.00 | 0.00 |
| 40-99% | 4.08 | 5.26 | 0.00 | 0.00 |
| Don't Know | 8.17 | 10.53 | 0.00 | 0.00 |
| <i>n</i> | 23 | 19 | 4 | 0 |

ST70D

| What percentage of the steam traps that were replaced under the &Program were identified as needing replacement during your maintenance in California?? | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|------|
| 0-9% | 39.79 | 36.84 | 50.00 | 0.00 |
| 10-29% | 8.17 | 10.53 | 0.00 | 0.00 |
| 50-99% | 17.85 | 15.79 | 25.00 | 0.00 |
| 100% | 30.11 | 31.58 | 25.00 | 0.00 |
| Don't Know | 4.08 | 5.26 | 0.00 | 0.00 |
| <i>n</i> | 23 | 19 | 4 | 0 |

ST6A_N

| Do you regularly consult with a contractor concerning the steam traps for your location(s) outside California? | | | | |
|----------------------------------------------------------------------------------------------------------------|--------|--------|------|------|
| No | 100.00 | 100.00 | 0.00 | 0.00 |
| <i>n</i> | 1 | 1 | 0 | 0 |

ST5B

| What percentage of your steam traps were NOT in good condition prior to replacement? | | | | |
|--------------------------------------------------------------------------------------|-------|-------|--------|------|
| 0-19% | 13.80 | 15.79 | 0.00 | 0.00 |
| 20-59% | 17.21 | 5.26 | 100.00 | 0.00 |
| 60-99% | 23.00 | 26.32 | 0.00 | 0.00 |
| 100% | 41.39 | 47.37 | 0.00 | 0.00 |
| Don't Know | 4.60 | 5.26 | 0.00 | 0.00 |
| <i>n</i> | 21 | 19 | 2 | 0 |

ST6A

| Prior to their replacement, how long had the steam traps been in fair or poor condition? If more than 1 answer, record the longest period of time. {Push for best estimate} | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|------|
| 1 to 2 months | 16.25 | 11.11 | 50.00 | 0.00 |
| 5 to 6 months | 14.46 | 16.67 | 0.00 | 0.00 |
| 11 to 12 months | 14.46 | 16.67 | 0.00 | 0.00 |
| 13 months to 18 months | 14.46 | 16.67 | 0.00 | 0.00 |
| 19 months to 24 months | 4.82 | 5.56 | 0.00 | 0.00 |
| More than 24 months | 30.72 | 27.78 | 50.00 | 0.00 |
| Don't Know | 4.82 | 5.56 | 0.00 | 0.00 |
| <i>n</i> | 20 | 18 | 2 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| ST90AA | Given that you have a regular maintenance program for your steam traps, when would the traps that were in fair or poor condition have been replaced as part of your regular maintenance program if there were no &Program? Would you say they would have been replaced... | | | | |
| | Replaced earlier than they were | 25.41 | 30.77 | 0.00 | 0.00 |
| | Replace at the same time | 27.77 | 23.08 | 50.00 | 0.00 |
| | Replaced later than they were | 46.82 | 46.15 | 50.00 | 0.00 |
| | <i>n</i> | 15 | 13 | 2 | 0 |
| ST11_N | How much later would they have been replaced under your regular maintenance program? | | | | |
| | In 6 Months | 27.13 | 33.33 | 0.00 | 0.00 |
| | More than 1 Year | 32.17 | 16.67 | 100.00 | 0.00 |
| | Not Replaced | 13.57 | 16.67 | 0.00 | 0.00 |
| | Don't Know | 27.13 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 7 | 6 | 1 | 0 |
| ST12_N | How much earlier would they have been replaced under your regular maintenance program? | | | | |
| | 2 Months | 25.00 | 25.00 | 0.00 | 0.00 |
| | 6 Months | 75.00 | 75.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| | | | | | |
| ST6B | Were any of the replaced traps in good condition? | | | | |
| | Yes | 13.19 | 15.00 | 0.00 | 0.00 |
| | No | 71.99 | 75.00 | 50.00 | 0.00 |
| | Don't Know | 14.82 | 10.00 | 50.00 | 0.00 |
| | <i>n</i> | 22 | 20 | 2 | 0 |
| ST6BPCT | What share of the replaced traps were in good condition prior to replacement? | | | | |
| | 0 | 40.70 | 50.00 | 0.00 | 0.00 |
| | 21-30% | 13.57 | 16.67 | 0.00 | 0.00 |
| | 91-99% | 18.60 | 0.00 | 100.00 | 0.00 |
| | 100% | 13.57 | 16.67 | 0.00 | 0.00 |
| | Don't Know | 13.57 | 16.67 | 0.00 | 0.00 |
| | <i>n</i> | 7 | 6 | 1 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| ST20 | Did you receive an incentive for a previous installation of steam traps? If so, please describe the approximate timing and the name of the program that provided it. | | | | |
| | Yes | 5.97 | 7.14 | 0.00 | 0.00 |
| | No | 82.85 | 89.29 | 50.00 | 0.00 |
| | Don't Know | 11.18 | 3.57 | 50.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| ST20A | What was the name of the program that provided this incentive? | | | | |
| | Don't Know | 50.00 | 50.00 | 0.00 | 0.00 |
| | SoCal Gas/Express Efficiency | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| ST20B | About when was this previous steam trap installation done? | | | | |
| | 2008 | 50.00 | 50.00 | 0.00 | 0.00 |
| | Don't Know | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| PI3A | How much linear feet of pipe insulation is present at your facility? | | | | |
| | 0-99 ft. | 11.99 | 8.33 | 33.33 | 0.00 |
| | 200-399 ft. | 11.99 | 8.33 | 33.33 | 0.00 |
| | 400 ft or more | 44.00 | 45.83 | 33.33 | 0.00 |
| | Don't Know | 32.01 | 37.50 | 0.00 | 0.00 |
| | <i>n</i> | 27 | 24 | 3 | 0 |
| PI3B | Can you estimate what percent of the pipes present at your facility were insulated through the &PROGRAM? | | | | |
| | 0-24% | 40.17 | 33.33 | 100.00 | 0.00 |
| | 25-49% | 7.48 | 8.33 | 0.00 | 0.00 |
| | 50-74% | 14.96 | 16.67 | 0.00 | 0.00 |
| | 75-99% | 14.96 | 16.67 | 0.00 | 0.00 |
| | 100% | 14.96 | 16.67 | 0.00 | 0.00 |
| | Don't Know | 7.48 | 8.33 | 0.00 | 0.00 |
| | <i>n</i> | 13 | 12 | 1 | 0 |
| PI7 | Was the pipe insulation installed on new pipes or was it a retrofit of older pipes? | | | | |
| | ONLY New | 40.93 | 34.48 | 75.00 | 0.00 |
| | ONLY Older | 38.77 | 41.38 | 25.00 | 0.00 |
| | Both New and Older | 20.30 | 24.14 | 0.00 | 0.00 |
| | <i>n</i> | 33 | 29 | 4 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|------|--------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| PI7A | What percentage of the pipe insulation was installed on new pipes? | | | | |
| | 25% | 4.74 | 5.88 | 0.00 | 0.00 |
| | 50% | 18.95 | 23.53 | 0.00 | 0.00 |
| | 90% | 4.74 | 5.88 | 0.00 | 0.00 |
| | 100% | 66.85 | 58.82 | 100.00 | 0.00 |
| | Don't Know | 4.74 | 5.88 | 0.00 | 0.00 |
| | <i>n</i> | 20 | 17 | 3 | 0 |
| | | | | | |
| PI7B | How old were the pipes receiving the pipe insulation? | | | | |
| | 1-9 years old | 20.10 | 15.79 | 50.00 | 0.00 |
| | 10-19 years old | 41.39 | 47.37 | 0.00 | 0.00 |
| | 20-29 years old | 9.20 | 10.53 | 0.00 | 0.00 |
| | More than 30 years old | 29.30 | 26.32 | 50.00 | 0.00 |
| | <i>n</i> | 21 | 19 | 2 | 0 |
| | | | | | |
| PI8 | Was insulation already present on the pipes before the insulation was installed through the &PROGRAM program? | | | | |
| | Yes | 43.10 | 42.11 | 50.00 | 0.00 |
| | No | 52.30 | 52.63 | 50.00 | 0.00 |
| | 75% new; 25% replacement | 4.60 | 5.26 | 0.00 | 0.00 |
| | <i>n</i> | 21 | 19 | 2 | 0 |
| | | | | | |
| PI21 | Was the existing insulation removed and replaced, or was additional insulation added to existing insulation? | | | | |
| | Old insulation removed and replaced | 100.00 | 100.00 | 100.00 | 0.00 |
| | <i>n</i> | 10 | 9 | 1 | 0 |
| | | | | | |
| PI23 | What condition was your pipe insulation in at the time of the replacement? | | | | |
| | Fair | 38.57 | 44.44 | 0.00 | 0.00 |
| | Poor condition | 61.43 | 55.56 | 100.00 | 0.00 |
| | <i>n</i> | 10 | 9 | 1 | 0 |
| | | | | | |
| PI25 | Are boilers present at your facility? | | | | |
| | Yes | 97.10 | 96.55 | 100.00 | 0.00 |
| | No | 2.90 | 3.45 | 0.00 | 0.00 |
| | <i>n</i> | 33 | 29 | 4 | 0 |

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* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|------|---------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| PI27 | Since the pipe insulation was installed, have the boilers been repaired or replaced? | | | | |
| | Yes | 32.08 | 28.57 | 50.00 | 0.00 |
| | No | 67.92 | 71.43 | 50.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| | | | | | |
| PI29 | When was the most recent boiler repair or replacement? | | | | |
| | 1 month ago | 9.31 | 12.50 | 0.00 | 0.00 |
| | 2 months ago | 22.07 | 12.50 | 50.00 | 0.00 |
| | 3 months ago | 12.76 | 0.00 | 50.00 | 0.00 |
| | 6 months ago | 18.62 | 25.00 | 0.00 | 0.00 |
| | 9 months ago | 9.31 | 12.50 | 0.00 | 0.00 |
| | 12 months ago | 18.62 | 25.00 | 0.00 | 0.00 |
| | 18 months ago | 9.31 | 12.50 | 0.00 | 0.00 |
| | <i>n</i> | 10 | 8 | 2 | 0 |
| | | | | | |
| PI33 | Whose idea was it to install new pipe insulation? | | | | |
| | Contractor | 11.27 | 13.33 | 0.00 | 0.00 |
| | Other | 88.73 | 86.67 | 100.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| | | | | | |
| PI35 | What percentage of the pipe insulation cost would you estimate the &Program rebate covered? | | | | |
| | Rebate covered all of the cost | 14.50 | 17.24 | 0.00 | 0.00 |
| | Rebate covered most of the cost | 32.97 | 34.48 | 25.00 | 0.00 |
| | Rebate covered less than half of the cost | 42.75 | 41.38 | 50.00 | 0.00 |
| | Half of the cost | 6.88 | 3.45 | 25.00 | 0.00 |
| | Don't Know | 2.90 | 3.45 | 0.00 | 0.00 |
| | <i>n</i> | 33 | 29 | 4 | 0 |
| | | | | | |
| PI37 | How effective was the new pipe insulation in reducing your natural gas bill? Would you say you are seeing... | | | | |
| | Considerable gas savings | 23.20 | 27.59 | 0.00 | 0.00 |
| | Some gas savings | 46.73 | 41.38 | 75.00 | 0.00 |
| | No noticeable savings | 24.28 | 24.14 | 25.00 | 0.00 |
| | Don't Know | 5.80 | 6.90 | 0.00 | 0.00 |
| | <i>n</i> | 33 | 29 | 4 | 0 |
| | | | | | |
| PI39 | Have you noticed any problems with the pipe insulation since the installation? | | | | |
| | Yes | 5.80 | 6.90 | 0.00 | 0.00 |
| | No | 94.20 | 93.10 | 100.00 | 0.00 |

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* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | <i>n</i> | 33 | 29 | 4 | 0 |
| A1B | Did your organization receive an AUDIT from <%UTILITY>? | | | | |
| | Yes | 22.31 | 23.33 | 0.00 | 0.00 |
| | No | 55.37 | 53.33 | 100.00 | 0.00 |
| | Don't Know | 22.31 | 23.33 | 0.00 | 0.00 |
| | <i>n</i> | 31 | 30 | 1 | 0 |
| A1C | Did your organization receive any TECHNICAL ASSESSMENT to help identify the need to replace or retrofit existing measures from <%UTILITY>? | | | | |
| | Yes | 41.55 | 40.00 | 50.00 | 0.00 |
| | No | 47.18 | 46.67 | 50.00 | 0.00 |
| | Don't Know | 11.27 | 13.33 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| A1D | Did your organization receive a FEASIBILITY STUDY to analyze the energy and cost savings of &measure from <%UTILITY>? | | | | |
| | Yes | 31.00 | 36.67 | 0.00 | 0.00 |
| | No | 53.86 | 50.00 | 75.00 | 0.00 |
| | Don't Know | 15.14 | 13.33 | 25.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| A1E | Did your organization receive RETROCOMMISSIONING services from <%UTILITY>? | | | | |
| | Yes | 2.82 | 3.33 | 0.00 | 0.00 |
| | No | 73.59 | 73.33 | 75.00 | 0.00 |
| | Don't Know | 23.59 | 23.33 | 25.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| A1F | Did your organization receive information from a <%UTILITY> seminar or training course? | | | | |
| | Yes | 45.14 | 50.00 | 33.33 | 0.00 |
| | No | 54.86 | 50.00 | 66.67 | 0.00 |
| | <i>n</i> | 13 | 10 | 3 | 0 |
| A1I | Did you also use a CONSULTING Engineer? | | | | |
| | Yes | 14.09 | 16.67 | 0.00 | 0.00 |
| | No | 85.91 | 83.33 | 100.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |

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* *n* is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| AP9 | How did you FIRST learn about the &UTILITYs &PROGRAM? [DO NOT READ] | | | | |
| | UTILITY advertising (radio,TV,newspaper,Billboard) | 2.82 | 3.33 | 0.00 | 0.00 |
| | UTILITY mailing (bill insert,newsletter) | 2.82 | 3.33 | 0.00 | 0.00 |
| | UTILITY website | 3.86 | 0.00 | 25.00 | 0.00 |
| | UTILITY email or UTILITY REP | 47.18 | 46.67 | 50.00 | 0.00 |
| | WORD OF MOUTH (Friends,Relatives,Neighbors,Coworkers) | 12.32 | 10.00 | 25.00 | 0.00 |
| | CONTRACTOR | 11.27 | 13.33 | 0.00 | 0.00 |
| | Dry Cleaners Association | 5.64 | 6.67 | 0.00 | 0.00 |
| | Phone Call | 2.82 | 3.33 | 0.00 | 0.00 |
| | Account Rep | 8.45 | 10.00 | 0.00 | 0.00 |
| | Don't Know | 2.82 | 3.33 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| | | | | | |
| A2A | How did you first become aware that &MEASURE was rebated through &Program? | | | | |
| | Program literature | 9.50 | 6.67 | 25.00 | 0.00 |
| | Utility Acct Rep | 51.77 | 56.67 | 25.00 | 0.00 |
| | Program representative | 2.82 | 3.33 | 0.00 | 0.00 |
| | Website (utility or program) | 3.86 | 0.00 | 25.00 | 0.00 |
| | Word of mouth | 5.64 | 6.67 | 0.00 | 0.00 |
| | Experience at other locations | 6.68 | 3.33 | 25.00 | 0.00 |
| | Contractor | 14.09 | 16.67 | 0.00 | 0.00 |
| | Supplier/Vendor | 5.64 | 6.67 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| | | | | | |
| A2 | In your own words, can you tell me why you decided to implement this &MEASURE? | | | | |
| | Improve efficiency | 39.85 | 37.93 | 50.00 | 0.00 |
| | Save money | 37.70 | 44.83 | 0.00 | 0.00 |
| | Replace Broken/Old traps | 8.70 | 10.34 | 0.00 | 0.00 |
| | Maintenance | 2.90 | 3.45 | 0.00 | 0.00 |
| | Steam traps a major component of business | 2.90 | 3.45 | 0.00 | 0.00 |
| | Rebate influence | 7.95 | 0.00 | 50.00 | 0.00 |
| | <i>n</i> | 33 | 29 | 4 | 0 |
| | | | | | |
| N1_ST | When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about implementing Steam Trap? | | | | |
| | Before | 63.05 | 60.71 | 75.00 | 0.00 |
| | After | 30.97 | 32.14 | 25.00 | 0.00 |
| | During | 2.99 | 3.57 | 0.00 | 0.00 |
| | Don't Know | 2.99 | 3.57 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| N2_ST | Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the Steam Trap that was installed? | | | | |
| | Before | 24.53 | 18.18 | 50.00 | 0.00 |
| | After | 60.92 | 63.64 | 50.00 | 0.00 |
| | During | 7.28 | 9.09 | 0.00 | 0.00 |
| | Don't Know | 7.28 | 9.09 | 0.00 | 0.00 |
| | <i>n</i> | 13 | 11 | 2 | 0 |
| N3A_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the age or condition of the old equipment in your decision to replace your steam traps through the rebate program. | | | | |
| | ZERO NOT AT ALL IMPORTANT | 8.96 | 10.71 | 0.00 | 0.00 |
| | 3 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 4 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 5 | 7.08 | 3.57 | 25.00 | 0.00 |
| | 6 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 7 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 8 | 30.20 | 21.43 | 75.00 | 0.00 |
| | 9 | 8.96 | 10.71 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 29.86 | 35.71 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| N3B_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the availability of the PROGRAM rebate in your decision to replace your steam traps through the rebate program. | | | | |
| | 2 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 4 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 5 | 20.14 | 14.29 | 50.00 | 0.00 |
| | 7 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 8 | 17.15 | 10.71 | 50.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 44.80 | 53.57 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| N3BWHY | Why would you give the availability Program rebate this rating for steam traps? | | | | |
| | Saves money | 57.85 | 66.67 | 0.00 | 0.00 |
| | Helped influence our decision | 21.07 | 16.67 | 50.00 | 0.00 |
| | Makes it easier to apply for more rebate | 6.61 | 0.00 | 50.00 | 0.00 |
| | Good deal | 9.64 | 11.11 | 0.00 | 0.00 |
| | Improved our efficiency | 4.82 | 5.56 | 0.00 | 0.00 |
| | <i>n</i> | 20 | 18 | 2 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| N3C_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the information provided through the Feasibility study or The Facility or System AUDIT in your decision to replace your steam traps through the rebate program.</p> | | | | |
| | 5 | 7.14 | 7.14 | 0.00 | 0.00 |
| | 6 | 7.14 | 7.14 | 0.00 | 0.00 |
| | 7 | 7.14 | 7.14 | 0.00 | 0.00 |
| | 8 | 21.43 | 21.43 | 0.00 | 0.00 |
| | 9 | 7.14 | 7.14 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 42.86 | 42.86 | 0.00 | 0.00 |
| | Not Applicable | 7.14 | 7.14 | 0.00 | 0.00 |
| | <i>n</i> | 14 | 14 | 0 | 0 |
| N3CWHY | <p>Why would you give the Feasibility study or the Facility or System Audit this rating for steam traps?</p> | | | | |
| | Provided Information | 40.00 | 40.00 | 0.00 | 0.00 |
| | Provided credibility | 10.00 | 10.00 | 0.00 | 0.00 |
| | Energy efficiency is important | 20.00 | 20.00 | 0.00 | 0.00 |
| | Brought energy efficiency to our attention | 20.00 | 20.00 | 0.00 | 0.00 |
| | Don't Know | 10.00 | 10.00 | 0.00 | 0.00 |
| | <i>n</i> | 10 | 10 | 0 | 0 |
| N3D_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the recommendation from an equipment vendor that sold you Steam Trap and/or installed them in your decision to replace your steam traps through the rebate program.</p> | | | | |
| | ZERO NOT AT ALL IMPORTANT | 8.96 | 10.71 | 0.00 | 0.00 |
| | 1 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 2 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 3 | 4.09 | 0.00 | 25.00 | 0.00 |
| | 5 | 14.16 | 7.14 | 50.00 | 0.00 |
| | 7 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 8 | 17.92 | 21.43 | 0.00 | 0.00 |
| | 9 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 23.89 | 28.57 | 0.00 | 0.00 |
| | Not Applicable | 11.95 | 14.29 | 0.00 | 0.00 |
| | Don't Know | 4.09 | 0.00 | 25.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| N3E_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of your previous experience with these Steam Traps in your decision to replace your steam traps through the rebate program. | | | | |
| | ZERO NOT AT ALL IMPORTANT | 5.97 | 7.14 | 0.00 | 0.00 |
| | 2 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 5 | 23.12 | 17.86 | 50.00 | 0.00 |
| | 6 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 7 | 8.96 | 10.71 | 0.00 | 0.00 |
| | 8 | 17.92 | 21.43 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 22.01 | 21.43 | 25.00 | 0.00 |
| | Not Applicable | 13.05 | 10.71 | 25.00 | 0.00 |
| | Don't Know | 2.99 | 3.57 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| N3F_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of your previous experience with the utility &PROGRAM or a similar utility program in your decision to replace your steam traps through the rebate program. | | | | |
| | ZERO NOT AT ALL IMPORTANT | 16.04 | 14.29 | 25.00 | 0.00 |
| | 2 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 3 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 5 | 17.15 | 10.71 | 50.00 | 0.00 |
| | 7 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 8 | 17.92 | 21.43 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 11.95 | 14.29 | 0.00 | 0.00 |
| | Not Applicable | 19.03 | 17.86 | 25.00 | 0.00 |
| | Don't Know | 5.97 | 7.14 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| N3G_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the information from &PROGRAM or &UTILITY training course or marketing material in your decision to replace your steam traps through the rebate program. | | | | |
| | ZERO NOT AT ALL IMPORTANT | 10.67 | 12.50 | 0.00 | 0.00 |
| | 3 | 14.63 | 0.00 | 100.00 | 0.00 |
| | 5 | 10.67 | 12.50 | 0.00 | 0.00 |
| | 6 | 10.67 | 12.50 | 0.00 | 0.00 |
| | 8 | 21.34 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 10.67 | 12.50 | 0.00 | 0.00 |
| | Don't Know | 21.34 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 9 | 8 | 1 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| N3GWHY | Why do you give the training course or marketing material this rating for steam traps? | | | | |
| | Provides information | 66.67 | 66.67 | 0.00 | 0.00 |
| | Good timing | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| N3I_ST | A recommendation from a consulting engineer [VENDOR_2] | | | | |
| | ZERO NOT AT ALL IMPORTANT | 33.33 | 33.33 | 0.00 | 0.00 |
| | 8 | 33.33 | 33.33 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| N3J_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the standard practice in your business/industry in your decision to replace your steam traps through the rebate program. | | | | |
| | ZERO NOT AT ALL IMPORTANT | 14.93 | 17.86 | 0.00 | 0.00 |
| | 2 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 4 | 4.09 | 0.00 | 25.00 | 0.00 |
| | 5 | 14.16 | 7.14 | 50.00 | 0.00 |
| | 7 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 8 | 20.91 | 25.00 | 0.00 | 0.00 |
| | 9 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 17.92 | 21.43 | 0.00 | 0.00 |
| | Don't Know | 4.09 | 0.00 | 25.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| N3L_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of an endorsement or recommendation by an ACCT REP in your decision to replace your steam traps through the rebate program. | | | | |
| | 2 | 4.15 | 5.00 | 0.00 | 0.00 |
| | 4 | 4.15 | 5.00 | 0.00 | 0.00 |
| | 5 | 32.11 | 25.00 | 66.67 | 0.00 |
| | 7 | 8.29 | 10.00 | 0.00 | 0.00 |
| | 8 | 16.59 | 20.00 | 0.00 | 0.00 |
| | 9 | 4.15 | 5.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 26.42 | 25.00 | 33.33 | 0.00 |
| | Don't Know | 4.15 | 5.00 | 0.00 | 0.00 |
| | <i>n</i> | 23 | 20 | 3 | 0 |
| N3LWHY | Why do you give the endorsement or recommendation of the account rep this rating for steam traps? | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | Account rep was very helpful | 52.77 | 60.00 | 0.00 | 0.00 |
| | Expert Opinion | 20.85 | 10.00 | 100.00 | 0.00 |
| | Provided helpful information | 8.79 | 10.00 | 0.00 | 0.00 |
| | Money is available | 8.79 | 10.00 | 0.00 | 0.00 |
| | Work with other local businesses | 8.79 | 10.00 | 0.00 | 0.00 |
| | <i>n</i> | 11 | 10 | 1 | 0 |
| | | | | | |
| | | | | | |
| N3M_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of corporate policy or guidelines in your decision to replace your steam traps through the rebate program. | | | | |
| | ZERO NOT AT ALL IMPORTANT | 25.00 | 25.00 | 25.00 | 0.00 |
| | 2 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 3 | 4.09 | 0.00 | 25.00 | 0.00 |
| | 5 | 14.16 | 7.14 | 50.00 | 0.00 |
| | 7 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 8 | 23.89 | 28.57 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 14.93 | 17.86 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| | | | | | |
| N3N_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the payback on the investment in your decision to replace your steam traps through the rebate program. | | | | |
| | 2 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 3 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 5 | 20.14 | 14.29 | 50.00 | 0.00 |
| | 7 | 7.08 | 3.57 | 25.00 | 0.00 |
| | 8 | 16.04 | 14.29 | 25.00 | 0.00 |
| | 9 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 47.78 | 57.14 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| | | | | | |
| N3O_ST | Were there any other factors we haven't discussed that were influential in your decision to install the Steam Trap? | | | | |
| | Nothing else influential | 92.70 | 96.30 | 75.00 | 0.00 |
| | Safety | 7.30 | 3.70 | 25.00 | 0.00 |
| | <i>n</i> | 31 | 27 | 4 | 0 |
| | | | | | |
| N3O_TEN | Using the same zero to 10 scale, how would you rate the influence of this other factor for steam traps? | | | | |
| | 9 | 42.18 | 100.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 57.82 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 2 | 1 | 1 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| | | | | | |
| N41_ST | I would like you to rate the importance of the PROGRAM in your decision to install these steam traps as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many of the ten points would you give to the importance of the PROGRAM in your decision? | | | | |
| | 0 | 7.08 | 3.57 | 25.00 | 0.00 |
| | 2 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 3 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 4 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 5 | 25.00 | 25.00 | 25.00 | 0.00 |
| | 6 | 13.05 | 10.71 | 25.00 | 0.00 |
| | 7 | 14.93 | 17.86 | 0.00 | 0.00 |
| | 8 | 10.07 | 7.14 | 25.00 | 0.00 |
| | 10 | 5.97 | 7.14 | 0.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| | | | | | |
| N42_ST | I would like you to rate the importance of the PROGRAM in your decision to install these steam traps as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many points would you give to these other factors? | | | | |
| | 0 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 2 | 10.07 | 7.14 | 25.00 | 0.00 |
| | 3 | 14.93 | 17.86 | 0.00 | 0.00 |
| | 4 | 13.05 | 10.71 | 25.00 | 0.00 |
| | 5 | 25.00 | 25.00 | 25.00 | 0.00 |
| | 6 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 7 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 8 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 10 | 7.08 | 3.57 | 25.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| | | | | | |
| N3BB_REI | When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was quite important to you in your installation of steam traps. Can you tell me why the rebate was that important? | | | | |
| | Large part of decision | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| N3LL_REID | <p>When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was quite important to you in your installation of steam traps. Can you tell me why this endorsement was that important?</p> | | | | |
| | Account rep introduced the program | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| N5_ST | <p>Using a likelihood scale from 0 to 10, where 0 is “Not at all likely” and 10 is “Extremely likely”, if the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same steam traps?</p> | | | | |
| | ZERO NOT AT ALL LIKELY | 5.97 | 7.14 | 0.00 | 0.00 |
| | 1 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 2 | 10.07 | 7.14 | 25.00 | 0.00 |
| | 3 | 17.92 | 21.43 | 0.00 | 0.00 |
| | 5 | 11.95 | 14.29 | 0.00 | 0.00 |
| | 6 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 7 | 10.07 | 7.14 | 25.00 | 0.00 |
| | 8 | 5.97 | 7.14 | 0.00 | 0.00 |
| | 9 | 2.99 | 3.57 | 0.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 26.11 | 21.43 | 50.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| N5A_ST | <p>When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same steam traps without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient steam traps?</p> | | | | |
| | Would have installed anyway | 75.00 | 75.00 | 0.00 | 0.00 |
| | Would have installed anyway, but the rebate was an incentive | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N5AGAIN | <p>Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same steam traps without the rebate which you gave a rating of <%N5> and/or we can change both if you wish?</p> | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | No change | 75.00 | 75.00 | 0.00 | 0.00 |
| | 6 for rebate influence/10 for other influences | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| | | | | | |
| N5B_ST | <p>In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install these Steam Traps. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy?</p> | | | | |
| | Much more important | 27.78 | 27.78 | 0.00 | 0.00 |
| | Somewhat more important | 5.56 | 5.56 | 0.00 | 0.00 |
| | Equally important | 44.44 | 44.44 | 0.00 | 0.00 |
| | Somewhat less important | 11.11 | 11.11 | 0.00 | 0.00 |
| | Much less important | 11.11 | 11.11 | 0.00 | 0.00 |
| | <i>n</i> | 18 | 18 | 0 | 0 |
| | | | | | |
| N9_ST | <p>You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same steam traps if THE PROGRAM had not been available. When do you think you would have installed these steam traps? Please express your answer in months.</p> | | | | |
| | At the same time | 35.30 | 26.92 | 75.00 | 0.00 |
| | Within 6 months | 12.70 | 15.38 | 0.00 | 0.00 |
| | 6 months to 1 year | 25.41 | 30.77 | 0.00 | 0.00 |
| | 1 to 2 years | 13.88 | 11.54 | 25.00 | 0.00 |
| | 2 to 3 years | 6.35 | 7.69 | 0.00 | 0.00 |
| | 3 to 4 years | 3.18 | 3.85 | 0.00 | 0.00 |
| | 5 years or more | 3.18 | 3.85 | 0.00 | 0.00 |
| | <i>n</i> | 30 | 26 | 4 | 0 |
| | | | | | |
| N9B_ST | <p>Why do you think it would have taken 4 or more years to install the same steam traps as were installed under the program?</p> | | | | |
| | It was a thought that I had at this time | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| TD1_ST | So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same steam traps within 60 months, or 5 years, later if the program had not been available? | | | | |
| | ZERO NOT AT ALL LIKELY | 4.65 | 0.00 | 25.00 | 0.00 |
| | 1 | 3.39 | 4.17 | 0.00 | 0.00 |
| | 2 | 3.39 | 4.17 | 0.00 | 0.00 |
| | 3 | 3.39 | 4.17 | 0.00 | 0.00 |
| | 5 | 20.35 | 25.00 | 0.00 | 0.00 |
| | 6 | 3.39 | 4.17 | 0.00 | 0.00 |
| | 7 | 3.39 | 4.17 | 0.00 | 0.00 |
| | 8 | 6.78 | 8.33 | 0.00 | 0.00 |
| | 9 | 6.78 | 8.33 | 0.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 44.48 | 37.50 | 75.00 | 0.00 |
| | <i>n</i> | 28 | 24 | 4 | 0 |
| | | | | | |
| TD2_ST | Again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what would you say is the likelihood that you would have installed the same steam traps within 120 months, or 10 years, later if the program had not been available? | | | | |
| | ZERO NOT AT ALL LIKELY | 8.37 | 0.00 | 100.00 | 0.00 |
| | 2 | 6.11 | 6.67 | 0.00 | 0.00 |
| | 5 | 24.43 | 26.67 | 0.00 | 0.00 |
| | 7 | 6.11 | 6.67 | 0.00 | 0.00 |
| | 8 | 6.11 | 6.67 | 0.00 | 0.00 |
| | 9 | 12.22 | 13.33 | 0.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 36.65 | 40.00 | 0.00 | 0.00 |
| | <i>n</i> | 16 | 15 | 1 | 0 |
| | | | | | |
| TD1A_ST | Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same steam traps within 120 months, or 10 years, later if the program had not been available? | | | | |
| | 5 | 50.00 | 50.00 | 0.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| N9BB_ST | <p>Earlier when asked about the influence of the age/condition of the old steam traps on your decision to install these new steam traps, you gave me a rating of <%N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the existing steam traps played in your decision to install these new energy-efficient steam traps.</p> | | | | |
| | Steam traps wearing out and new traps are expensive | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| N6_ST | <p>Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying steam traps which of the following alternatives would you have been MOST likely to do?</p> | | | | |
| | Installed fewer steam traps | 11.95 | 14.29 | 0.00 | 0.00 |
| | Repaired/or overhauled the existing equipment | 35.07 | 32.14 | 50.00 | 0.00 |
| | Done nothing (kept the existing equipment as is) | 14.93 | 17.86 | 0.00 | 0.00 |
| | Installed Later | 2.99 | 3.57 | 0.00 | 0.00 |
| | No Change | 11.95 | 14.29 | 0.00 | 0.00 |
| | Bought used traps | 2.99 | 3.57 | 0.00 | 0.00 |
| | Replaced and repaired | 5.97 | 7.14 | 0.00 | 0.00 |
| | Get different insulation | 10.07 | 7.14 | 25.00 | 0.00 |
| | Always modernizing | 4.09 | 0.00 | 25.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| N6a_ST | <p>How many fewer steam traps would you have installed if the program had not been available?</p> | | | | |
| | Less than 50% | 50.00 | 50.00 | 0.00 | 0.00 |
| | Depends on budget/equipment | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N6C_ST | <p>How long do you think the repaired/rewound/refurbished steam traps would have lasted before requiring replacement?</p> | | | | |
| | Within a year | 16.67 | 16.67 | 0.00 | 0.00 |
| | 1-2 Years | 33.33 | 33.33 | 0.00 | 0.00 |
| | 3-4 Years | 16.67 | 16.67 | 0.00 | 0.00 |
| | More than 4 Years | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 6 | 6 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| N6_JT | <p>In regards to the pipe insulation, if the program had not been available. Supposing that you had not installed the program qualifying insulation, which of the following alternatives would you have been MOST likely to do? Would you have...</p> | | | | |
| | Installed fewer linear feet of pipe insulation | 3.98 | 4.76 | 0.00 | 0.00 |
| | Installed insulation with a lower R Value (thinner) | 7.96 | 9.52 | 0.00 | 0.00 |
| | Install equipment more efficient than code but less efficient than what you installed through the program | 9.44 | 4.76 | 33.33 | 0.00 |
| | Repaired/or overhauled the existing equipment | 27.87 | 33.33 | 0.00 | 0.00 |
| | Installed Later | 17.41 | 14.29 | 33.33 | 0.00 |
| | No Change | 23.89 | 28.57 | 0.00 | 0.00 |
| | Get different insulation | 5.46 | 0.00 | 33.33 | 0.00 |
| | Don't Know | 3.98 | 4.76 | 0.00 | 0.00 |
| | <i>n</i> | 24 | 21 | 3 | 0 |
| N6A_JT | <p>How many fewer linear feet of insulation would you have installed?</p> | | | | |
| | 2000 ft. | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| N6B_JT | <p>Can you tell me what R value or insulation thickness you would have installed without assistance from the program?</p> | | | | |
| | Probably 3/4 inch | 50.00 | 50.00 | 0.00 | 0.00 |
| | Probably the lowest R value | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| N6C_JT | <p>How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?</p> | | | | |
| | 2 to 5 years. | 42.18 | 100.00 | 0.00 | 0.00 |
| | 2 years | 57.82 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 2 | 1 | 1 | 0 |
| N1_PI | <p>When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about installing Pipe Insulation?</p> | | | | |
| | Before | 75.00 | 75.00 | 0.00 | 0.00 |
| | Don't Know | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| N2_PI | Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the Pipe Insulation that was installed? | | | | |
| | Before | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| N3A_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the age or condition of the old equipment in your decision to replace the pipe insulation through the rebate program. | | | | |
| | 1 NOT AT ALL IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | 4 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 5 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N3B_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the availability of the PROGRAM rebate in your decision to replace the pipe insulation through the rebate program. | | | | |
| | 6 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 8 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N3BWHY | Why would you give the availability of the program rebate this rating for pipe insulation? | | | | |
| | Saves money | 33.33 | 33.33 | 0.00 | 0.00 |
| | Would have done it anyway | 33.33 | 33.33 | 0.00 | 0.00 |
| | Made the store cooler | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| N3D_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the Recommendation from an equipment vendor that sold you Pipe Insulation and/or installed it in your decision to replace the pipe insulation through the rebate program. | | | | |
| | 3 | 50.00 | 50.00 | 0.00 | 0.00 |
| | 8 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| N3E_PI | <p>On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of your previous experience with this Pipe Insulation in your decision to replace the pipe insulation through the rebate program.</p> | | | | |
| | ZERO NOT AT ALL IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | 8 | 25.00 | 25.00 | 0.00 | 0.00 |
| | Not Applicable | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| | | | | | |
| N3F_PI | <p>On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of your previous experience with the utility & PROGRAM or a similar utility program in your decision to replace the pipe insulation through the rebate program.</p> | | | | |
| | ZERO NOT AT ALL IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | 7 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | Don't Know | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| | | | | | |
| N3I_PI | <p>On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of a recommendation from a consulting engineer in your decision to replace the pipe insulation through the rebate program.</p> | | | | |
| | 10 EXTREMELY IMPORTANT | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| | | | | | |
| N3J_PI | <p>On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of standard practice in your business/industry in your decision to replace the pipe insulation through the rebate program.</p> | | | | |
| | 2 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 6 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| N3L_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the endorsement or recommendation by an ACCT REP in your decision to replace the pipe insulation through the rebate program. | | | | |
| | 5 | 33.33 | 33.33 | 0.00 | 0.00 |
| | 7 | 33.33 | 33.33 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| N3LWHY | Why do you give the endorsement or recommendation by an account rep this rating for pipe insulation? | | | | |
| | Expert Opinion | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| N3M_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of corporate policy or guidelines in your decision to replace the pipe insulation through the rebate program. | | | | |
| | ZERO NOT AT ALL IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | 6 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 7 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N3N_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the payback on the investment in your decision to replace the pipe insulation through the rebate program. | | | | |
| | 8 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 75.00 | 75.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N3O_PI | Were there any other factors we haven't discussed that were influential in your decision to install this Pipe Insulation? | | | | |
| | Nothing else influential | 50.00 | 50.00 | 0.00 | 0.00 |
| | Energy efficiency is important | 25.00 | 25.00 | 0.00 | 0.00 |
| | Savings | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| N30_TEN | Using the same zero to 10 scale, how would you rate the influence of this other factor in your decision to install pipe insulation? | | | | |
| | 10 EXTREMELY IMPORTANT | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| N41_PI | I would like you to rate the importance of the PROGRAM in your decision to install this pipe insulation as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many of the ten points would you give to the importance of the PROGRAM in your decision? | | | | |
| | 5 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 6 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 8 | 25.00 | 25.00 | 0.00 | 0.00 |
| | Don't Know | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N42_PI | I would like you to rate the importance of the PROGRAM in your decision to install this pipe insulation as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many points would you give to these other factors? | | | | |
| | 2 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 4 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 5 | 25.00 | 25.00 | 0.00 | 0.00 |
| | Don't Know | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N5_PI | Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same pipe insulation? | | | | |
| | 1 NOT AT ALL LIKELY | 25.00 | 25.00 | 0.00 | 0.00 |
| | 5 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 9 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | SCG(%) | PGE(%) | SDGE(%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|---------|
| N5A_PI | <p>When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same pipe insulation without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient pipe insulation</p> | | | | |
| | Would have installed anyway, but the rebate was an incentive | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| N5AGAIN | <p>Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same pipe insulation without the rebate which you gave a rating of <%N5> and/or we can change both if you wish?</p> | | | | |
| | No change | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| N5B_PI | <p>In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install the Pipe Insulation. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy?</p> | | | | |
| | Much more important | 50.00 | 50.00 | 0.00 | 0.00 |
| | Somewhat more important | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 2 | 2 | 0 | 0 |
| N9_PI | <p>You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same pipe insulation if THE PROGRAM had not been available. When do you think you would have installed this pipe insulation Please express your answer in months.</p> | | | | |
| | At the same time | 25.00 | 25.00 | 0.00 | 0.00 |
| | 6 months to 1 year | 25.00 | 25.00 | 0.00 | 0.00 |
| | 2 to 3 years | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| TD1_PI | <p>So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same pipe insulation within 60 months, or 5 years, later if the program had not been available?</p> | | | | |
| | ZERO NOT AT ALL LIKELY | 25.00 | 25.00 | 0.00 | 0.00 |
| | 3 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 8 | 25.00 | 25.00 | 0.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 25.00 | 25.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| TD2_PI | <p>And what would you say is the likelihood that you would have installed the same pipe insulation within 120 months, or 10 years, later if the program had not been available?</p> | | | | |
| | 2 | 33.33 | 33.33 | 0.00 | 0.00 |
| | 5 | 33.33 | 33.33 | 0.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| N6_PI | <p>Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?</p> | | | | |
| | Repaired existing insulation | 25.00 | 25.00 | 0.00 | 0.00 |
| | Done nothing | 25.00 | 25.00 | 0.00 | 0.00 |
| | No Change | 50.00 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 4 | 4 | 0 | 0 |
| N6C_PI | <p>How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?</p> | | | | |
| | One year to one and one half year | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 1 | 1 | 0 | 0 |
| SPILL1 | <p>Did you implement any additional energy efficiency measures at this facility since your participation in the 2006-2008 Program and before the end of 2008 that did not receive incentives through any utility or government program?</p> | | | | |
| | Yes | 23.59 | 23.33 | 25.00 | 0.00 |
| | No | 70.77 | 70.00 | 75.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | Don't Know | 5.64 | 6.67 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| SPILL2_1 | What was the first Measure that you implemented? | | | | |
| | New traps | 11.95 | 14.29 | 0.00 | 0.00 |
| | Lighting | 11.95 | 14.29 | 0.00 | 0.00 |
| | Insulation | 11.95 | 14.29 | 0.00 | 0.00 |
| | New boiler/boiler controls | 11.95 | 14.29 | 0.00 | 0.00 |
| | Sky lights | 11.95 | 14.29 | 0.00 | 0.00 |
| | Computers | 11.95 | 14.29 | 0.00 | 0.00 |
| | Steam traps | 16.38 | 0.00 | 100.00 | 0.00 |
| | Cooling Equipment | 11.95 | 14.29 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |
| SPILL2_2 | What was the second measure? | | | | |
| | No Other | 52.91 | 40.00 | 100.00 | 0.00 |
| | General gas reductions | 15.70 | 20.00 | 0.00 | 0.00 |
| | Insulation | 31.39 | 40.00 | 0.00 | 0.00 |
| | <i>n</i> | 6 | 5 | 1 | 0 |
| SPILL2_3 | What was the third measure? | | | | |
| | No Other | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| MEAS1_2 | I have a few questions about the FIRST Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | | | | |
| | Didn't qualify | 11.95 | 14.29 | 0.00 | 0.00 |
| | Didn't apply | 28.32 | 14.29 | 100.00 | 0.00 |
| | Didn't know about the rebate | 23.89 | 28.57 | 0.00 | 0.00 |
| | Installed through new construction/after | 23.89 | 28.57 | 0.00 | 0.00 |
| | Timing didn't work out | 11.95 | 14.29 | 0.00 | 0.00 |
| | <i>n</i> | 8 | 7 | 1 | 0 |
| MEAS1_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | | | | |
| | Skylights | 11.95 | 14.29 | 0.00 | 0.00 |
| | Installed Steam traps | 28.32 | 14.29 | 100.00 | 0.00 |
| | Insulation repair/replacement | 11.95 | 14.29 | 0.00 | 0.00 |
| | Computers | 11.95 | 14.29 | 0.00 | 0.00 |
| | Don't Know | 35.84 | 42.86 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|---------|----------|---|
| | | <i>n</i> | 8 | 7 | 1 | 0 |
| Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | | | | | | |
| MEAS1_4 | Yes | 11.95 | 14.29 | 0.00 | 0.00 | |
| | No | 88.05 | 85.71 | 100.00 | 0.00 | |
| | | <i>n</i> | 8 | 7 | 1 | 0 |
| How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | | | | | | |
| MEAS1_5 | ZERO -NOT AT ALL SIGNIFICANT | 35.84 | 42.86 | 0.00 | 0.00 | |
| | 1 | 16.38 | 0.00 | 100.00 | 0.00 | |
| | 6 | 11.95 | 14.29 | 0.00 | 0.00 | |
| | 8 | 11.95 | 14.29 | 0.00 | 0.00 | |
| | 9 | 11.95 | 14.29 | 0.00 | 0.00 | |
| | 10 EXTREMELY SIGNIFICANT | 11.95 | 14.29 | 0.00 | 0.00 | |
| | | <i>n</i> | 8 | 7 | 1 | 0 |
| MEAS1_6 | Why do you give it this rating? | | | | | |
| | No influence on decision | 23.89 | 28.57 | 0.00 | 0.00 | |
| | We would do it anyway | 23.89 | 28.57 | 0.00 | 0.00 | |
| | Rebate influence | 35.84 | 42.86 | 0.00 | 0.00 | |
| | Didn't know abot the program | 16.38 | 0.00 | 100.00 | 0.00 | |
| | | <i>n</i> | 8 | 7 | 1 | 0 |
| MEAS1_7 | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | | | | | |
| | 3 | 11.95 | 14.29 | 0.00 | 0.00 | |
| | 10 WOULD DEFINITELY IMPLEMENTED | 88.05 | 85.71 | 100.00 | 0.00 | |
| | | <i>n</i> | 8 | 7 | 1 | 0 |
| MEAS2_2 | I have a few questions about the SECOND Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | | | | | |
| | Didn't apply | 33.33 | 33.33 | 0.00 | 0.00 | |
| | Getting a rebate | 33.33 | 33.33 | 0.00 | 0.00 | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | Don't Know | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| | | | | | |
| MEAS2_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | | | | |
| | Insulation repair/replacement | 33.33 | 33.33 | 0.00 | 0.00 |
| | Don't Know | 66.67 | 66.67 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| | | | | | |
| MEAS2_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | | | | |
| | NO | 100.00 | 100.00 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| | | | | | |
| MEAS2_5 | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | | | | |
| | 1 NOT AT ALL SIGNIFICANT | 33.33 | 33.33 | 0.00 | 0.00 |
| | 3 | 33.33 | 33.33 | 0.00 | 0.00 |
| | 10 EXTREMELY SIGNIFICANT | 33.33 | 33.33 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| | | | | | |
| MEAS2_6 | Why do you give it this rating? | | | | |
| | No influence on decision | 33.33 | 33.33 | 0.00 | 0.00 |
| | Rebate influence | 66.67 | 66.67 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |
| | | | | | |
| MEAS2_7 | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | | | | |
| | 7 | 33.33 | 33.33 | 0.00 | 0.00 |
| | 10 WOULD DEFINITELY IMPLEMENTED | 66.67 | 66.67 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 3 | 0 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| CAFAC1 | <p>Now, thinking about other facilities operated by your organization in the regions of California that are served by PG&E, SCE, SDG&E or Southern California Gas Company, are you aware of any additional energy efficiency measures implemented at these other facilities since your participation in the 2006-2008 program and before the end of 2008 that did not receive an incentive through a utility or government program?</p> | | | | |
| | No | 92.62 | 96.43 | 66.67 | 0.00 |
| | Don't Know | 7.38 | 3.57 | 33.33 | 0.00 |
| | <i>n</i> | 31 | 28 | 3 | 0 |
| | | | | | |
| C1 | <p>Our records indicate that the primary business code for the facility that installed &MEASURE is &NAICS. Is that correct?</p> | | | | |
| | Yes | 16.98 | 3.85 | 100.00 | 0.00 |
| | No | 26.57 | 30.77 | 0.00 | 0.00 |
| | Don't Know | 56.45 | 65.38 | 0.00 | 0.00 |
| | <i>n</i> | 29 | 26 | 3 | 0 |
| | | | | | |
| C2 | <p>Please describe the type of work performed at this facility and/or the primary product made or main service provided.</p> | | | | |
| | Manufacturing (not food) | 42.80 | 44.83 | 0.00 | 0.00 |
| | Manufacturing (food) | 16.46 | 17.24 | 0.00 | 0.00 |
| | Dry Cleaning | 26.34 | 27.59 | 0.00 | 0.00 |
| | University | 3.29 | 3.45 | 0.00 | 0.00 |
| | Hospital | 3.29 | 3.45 | 0.00 | 0.00 |
| | Service | 3.29 | 3.45 | 0.00 | 0.00 |
| | Nursery | 4.51 | 0.00 | 100.00 | 0.00 |
| | <i>n</i> | 30 | 29 | 1 | 0 |
| | | | | | |
| C3 | <p>Please describe any changes made to this site since January 2006 that significantly impacted energy usage.</p> | | | | |
| | No changes | 44.36 | 43.33 | 50.00 | 0.00 |
| | Added energy efficient equipment | 11.27 | 13.33 | 0.00 | 0.00 |
| | Reduced due to economy | 5.64 | 6.67 | 0.00 | 0.00 |
| | Higher Production/Increased Production | 5.64 | 6.67 | 0.00 | 0.00 |
| | Decreased Production | 5.64 | 6.67 | 0.00 | 0.00 |
| | Added non-energy efficient equipment | 2.82 | 3.33 | 0.00 | 0.00 |
| | Plant modifications/renovations | 19.00 | 13.33 | 50.00 | 0.00 |
| | Processing Food | 2.82 | 3.33 | 0.00 | 0.00 |
| | Changed to energy efficient lighting | 2.82 | 3.33 | 0.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|--------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | | | | | |
| C4 | What kind of premise is this?: | | | | |
| | Part of a bldg | 5.64 | 6.67 | 0.00 | 0.00 |
| | 1 bldg-single footprint | 34.86 | 36.67 | 25.00 | 0.00 |
| | 1 bldg-mult footprints | 16.18 | 10.00 | 50.00 | 0.00 |
| | Small multi-bldg | 8.45 | 10.00 | 0.00 | 0.00 |
| | Campus | 34.86 | 36.67 | 25.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| | | | | | |
| C5 | What is the total occupied floor area of this premise (excluding enclosed parking garage area)? | | | | |
| | Less than 10,000 square feet | 5.97 | 7.14 | 0.00 | 0.00 |
| | 10,000-25,000 square feet | 29.09 | 25.00 | 50.00 | 0.00 |
| | 50,000-100,000 square feet | 14.93 | 17.86 | 0.00 | 0.00 |
| | 100,000-250,000 square feet | 22.01 | 21.43 | 25.00 | 0.00 |
| | 250,000-500,000 square feet | 2.99 | 3.57 | 0.00 | 0.00 |
| | 500,000-750,000 square feet | 2.99 | 3.57 | 0.00 | 0.00 |
| | 750,000-1,000,000 square feet | 5.97 | 7.14 | 0.00 | 0.00 |
| | 1 million - 2 million square feet | 8.96 | 10.71 | 0.00 | 0.00 |
| | 2 million - 3 million square feet | 2.99 | 3.57 | 0.00 | 0.00 |
| | Don't Know | 4.09 | 0.00 | 25.00 | 0.00 |
| | <i>n</i> | 32 | 28 | 4 | 0 |
| | | | | | |
| C6 | How many buildings are part of this premise? | | | | |
| | 1 building | 37.23 | 41.18 | 25.00 | 0.00 |
| | 2 buildings | 10.55 | 5.88 | 25.00 | 0.00 |
| | 3 buildings | 23.89 | 23.53 | 25.00 | 0.00 |
| | 6 buildings | 4.45 | 5.88 | 0.00 | 0.00 |
| | 7 buildings | 4.45 | 5.88 | 0.00 | 0.00 |
| | 8 buildings | 4.45 | 5.88 | 0.00 | 0.00 |
| | 10 buildings | 4.45 | 5.88 | 0.00 | 0.00 |
| | 15 buildings | 4.45 | 5.88 | 0.00 | 0.00 |
| | Don't Know | 6.10 | 0.00 | 25.00 | 0.00 |
| | <i>n</i> | 21 | 17 | 4 | 0 |
| | | | | | |
| C7 | Is this premise owner-occupied (O) or leased (L)? | | | | |
| | Owner occupied | 67.95 | 66.67 | 75.00 | 0.00 |
| | Leased | 25.36 | 30.00 | 0.00 | 0.00 |
| | Both | 2.82 | 3.33 | 0.00 | 0.00 |
| | Don't Know | 3.86 | 0.00 | 25.00 | 0.00 |
| | <i>n</i> | 34 | 30 | 4 | 0 |
| | | | | | |
| CC12A | What year was this business established at this location? | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

A-1. PIPE INSULATION INDUSTRIAL PARTICIPANTS SURVEYED

| | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|----------------------------------------------------------------------|---------|---------|---------|----------|
| After 2000 | 20.77 | 20.00 | 25.00 | 0.00 |
| In the 1990s | 16.91 | 20.00 | 0.00 | 0.00 |
| In the 1980s | 5.64 | 6.67 | 0.00 | 0.00 |
| In the 1970s | 9.50 | 6.67 | 25.00 | 0.00 |
| In the 1960s | 16.91 | 20.00 | 0.00 | 0.00 |
| In the 1950s | 5.64 | 6.67 | 0.00 | 0.00 |
| Before 1950 | 24.64 | 20.00 | 50.00 | 0.00 |
| <i>n</i> | 34 | 30 | 4 | 0 |
| How many full-time equivalent employees work at this premise? | | | | |
| Less than 50 | 29.23 | 30.00 | 25.00 | 0.00 |
| 50-100 | 14.09 | 16.67 | 0.00 | 0.00 |
| 100-250 | 31.32 | 23.33 | 75.00 | 0.00 |
| 250-500 | 16.91 | 20.00 | 0.00 | 0.00 |
| 750-1000 | 2.82 | 3.33 | 0.00 | 0.00 |
| 1250-1500 | 5.64 | 6.67 | 0.00 | 0.00 |
| <i>n</i> | 34 | 30 | 4 | 0 |

c9

* Values are shown as percent of survey participants.
 * n is the number of respondents.

Appendix A-2

**Guidelines for Estimating Net-To-Gross Ratios
Using the Self-Report Approaches and the
Algorithm for the Residential and Small Commercial
Consistent Free Ridership Method**

Guidelines for Estimating Net-To-Gross Ratios Using the Self-Report Approaches

October 15, 2007

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1. Introduction

The California Public Utilities Commission (CPUC) recently adopted the *California Energy Efficiency Evaluation Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals* (TecMarket Works, 2006) (referred to by the CPUC as the *Evaluator's Protocols*) for the measurement and evaluation (M&E) of energy efficiency (EE) programs. These guidelines focus on the critical elements of M&E such as impact evaluation, measurement and verification, process evaluation and sampling and uncertainty. These standards are understood to be minimal and are, in many cases, quite general.

A central objective of the California energy efficiency program evaluations is to identify that portion of the gross load impacts associated with a program-supported measure installation or behavior change that would not have been accomplished in the absence of the program. That portion is the net load impacts. In certain situations, the *Evaluator Protocols* allow for the use of the self-report approach (SRA) to estimate the net-to-gross ratio (NTGR) for the basic and standard levels of impact evaluation rigor (see Table 3 of the *Evaluator's Protocols*). The SRA can also be used in the enhanced level of impact evaluation rigor if used in conjunction with a second approach such as participant and non-participant analysis of utility consumption data that addresses the issue of self-selection or econometric or discrete choice with participant and non-participant comparison that addresses the issue of self-selection. The SRA is a mixed methods approach that uses, to varying degrees, both quantitative and qualitative data and analysis to assess causality¹.

However, while the Protocols allow for the use of the SRA, they are silent regarding basic methodological guidelines that are considered best practice.² The primary use of these SRA guidelines, which apply to assessing the influence of the program on both the direct impacts as well as any participant spillover impacts, are to make sure that evaluators working under contract to the CPUC's Energy Division are adhering to these best practices.

Of course, while one could simply ask analysts to guarantee that they adhered to the methodological guidelines contained in standard textbooks, this may not be sufficiently reassuring either to the CPUC or other stakeholders. Thus, rather than simply trust

¹ There is wide agreement on the value of *both* qualitative and quantitative data in the evaluation of many kinds of programs. Moreover, it is inappropriate to cast either approach in an inferior position. The complexity of any decision regarding the purchase of efficient equipment can be daunting, especially in large organizations for which the savings are often among the largest. In such situations, the reliance on only quantitative data can miss some important elements of the decision. The collection and interpretation of qualitative data can be especially useful in broadening our understanding of a program's role in this decision.

² These Protocols are also silent regarding methodological guidelines for conducting surveys in general. This is considered appropriate since there is general agreement (contained in numerous textbooks) regarding best methodological practices for designing and implementing surveys but relatively little agreement on what constitutes best methodological practices regarding the estimation of the NTGR using the SRA.

analysts to follow the guidance contained in the standard methodological textbooks, the CPUC has chosen to develop the *Guidelines for Self-Report Methods for Estimating Net DSM Program Impacts* (GSR) (a summary of which has also been prepared) that requires analysts to address certain key issues rather than to require analysts to address these issues in a specific way. This is the sort of guidance that occupies a position somewhere between the minimal standards represented by the Protocols and the highly detailed guidelines contained in basic methodological texts.

It follows that the GSR must focus on those methodological issues on which there is general agreement regarding their importance within the social science and engineering communities. The GSR will also refer analysts to texts in which more detailed guidance can be found regarding all the issues addressed. Adherence to such guidelines still allows the results to be shaped by the interaction of the situation, the data and the analyst. It is this very interaction and the resulting plethora of legitimate methodological choices that prohibited the creation of a more detailed and prescriptive set of guidelines.

Earlier, the *Protocols and Procedures for the Verification of Costs, Benefits, and Shareholder Earnings from Demand-Side Management Programs* (1998) (1998 Protocols) provided quality control guidelines in Appendix J (*Quality Assurance Guidelines For Statistical, Engineering, and Self-Report Methods for Estimating DSM Program Impacts*) that addressed, among other methodological issues, the self-report method for estimating NTGRs. More recently, the *California Evaluation Framework* (TecMarket Works et al., 2004) also addressed many of the same issues associated with the self-report approach. This GSR attempts to draw upon both of these documents.

There are two features of these GSR that merit discussion. First, the issues addressed are issues that a variety of basic social science and engineering methodological texts also address. That is, there appears to be a consensus that these issues are important. Second, because some respondents may not be familiar with some of the issues addressed or the terms used, references have been provided that should provide reasonably clear explanations.

2. Issues Surrounding the Validity and Reliability of Self-Report Techniques

The SRA deviates from the standard approach to assessing causality, i.e., internal validity. The standard approach to assessing causality is to conduct an experiment or quasi-experiment³ in which data are collected from both participants and nonparticipants with the data being subjected to a variety of statistical analyses (Shadish, Cook, and Campbell, 2002). In the early 1970s, many began to realize that such evaluation designs were not always desirable or possible (Weiss, 1972; Weiss and Rein, 1972). As a result, many evaluators began to explore alternatives that would allow them to generate causal conclusions (Guba, 1981, 1990; Cronbach, 1986). Such approaches as the modus operandi method (Scriven, 1976), intensive case studies (Yin 1994), theory-based evaluations (Chen, 1990; Rogers, et al., 2000), and mixed methods (Tashakkori and

³ In the literature, evaluations of energy efficiency and conservation programs that involve the use of a true experimental design are very rare.

Teddle, 1998) have been explored as alternative ways to generate causal conclusions. The SRA fits well with this tradition.

The SRA is useful in a variety of situations. For example, in some cases, the expected magnitude of the savings for a given program might not warrant the investment in an expensive evaluation design that could involve a billing analysis or a discrete choice analysis of both participants and nonparticipants. Or, key stakeholders might not want to wait for a billing analysis to be completed. Also, if the relationship of the savings to the normal monthly variation in energy use is too small, then a billing analysis should not even be attempted owing to a lack of statistical power. Finally, in some cases, it might not be possible to identify a group of customers to serve as a comparison group since they have been exposed through prior participation or are in some other ways contaminated. So, for budgetary, timing, statistical, and research design issues, the more traditional designs and analyses must sometimes be replaced with the SRA.

More specifically, the SRA is a mixed method approach that involves asking one or more key participant decision-makers a series of structured and open-ended questions about whether they would have installed the same EE equipment in the absence of the program as well as questions that attempt to rule out rival explanations for the installation (Weiss, 1972; Scriven, 1976; Shadish, 1991; Wholey et al., 1994; Yin, 1994; Mohr, 1995). In the simplest case (e.g., residential customers), the SRA is based primarily on quantitative data while in more complex cases the SRA is strengthened by the inclusion of additional quantitative and qualitative data which can include, among others, in-depth, open-ended interviews, direct observation, and review of customer and program records⁴. Many evaluators believe that additional *qualitative* data regarding the economics of the customer's decision and the decision process itself can be very useful in supporting or modifying *quantitatively*-based results (Britan, 1978; Weiss and Rein, 1972; Patton, 1987; Tashakkori and Teddlie, 1998).

Having presented a very brief history of these alternatives approaches, we move on to discuss a number of special challenges associated with the SRA that merit mentioning.

One of the problems inherent in asking program participants if they would have installed the same equipment or adopted the same energy-saving practices without the program is that we are asking them to recall what has happened in the past. Worse than that is the fact that what we are really asking them to do is report on a hypothetical situation, what they would have done in the absence of the program. In many cases, the respondent may simply not know and/or cannot know what would have happened in the absence of the program. Even if the customer has some idea of what would have happened, there is, of necessity, uncertainty about it.

⁴ Of course, even in the simplest cases, an evaluator is free to supplement the analysis with additional quantitative and qualitative data such as interviews with architects and engineers involved in residential new construction or HVAC installers and a review of available market share data.

The situation just described is a circumstance ripe for invalid answers (low construct validity) and answers with low reliability, where reliability is defined as the likelihood that a respondent will give the same answer to the same question whenever or wherever it is asked. It is well known in the interview literature that the more factual and concrete the information the survey requests, the more accurate responses are likely to be. Where we are asking for motivations and processes in hypothetical situations that occurred one or two years ago, there is room for bias. Bias in responses is commonly thought to stem from three origins. First is the fact that some respondents may believe that claiming no impact for the program is likely to cause the program to cease, thus removing future financial opportunities from the respondent. Closely related to this is the possibility that the respondents may want to give an answer that they think will be pleasing to the interviewer. The direction of the first bias would be to increase the NTG ratio, and the second would have an unclear effect – up or down, depending on what the respondent thinks the interviewer wants to hear.

The second commonly recognized motivation for biased answers is that some people will like to portray themselves in a positive light; *e.g.*, they might like to think that they would have installed energy-efficient equipment without any incentive (the socially desirable response). This type of motivation could result in an artificially low net-to-gross ratio.

The third hypothesized source of bias involves an interaction between the positive perception of taking energy efficiency actions, the often observed difference between stated intentions and actual behaviors, and the fact that the counter-factual outcome can not be viewed, by the participant or outsiders. Using a series of survey questions to ask a participant about the actions they would have taken if there had been no program to derive a free-ridership estimate is referred to as the self-report approach (SRA). More specifically, this is asking the respondent to state their intentions with respect to purchasing the relevant equipment absent the program. Bias creeps in because people may intend many things that they do not eventually accomplish.

Beyond the fact that the situations of interest have occurred in the past and judgments about them involve hypothetical circumstances, they are often complex. No one set of questions can apply to all decision processes that result in a program-induced course of action. Some installations are simple, one-unit measures, while others involve many units, many different measures, and installations taking place over time. The decision to install may be made by one person or several people in a household, an individual serving as owner/operator of a small business, or, in the case of large commercial, industrial, or agricultural installations by multiple actors at multiple sites. Some measures may have been recommended by the utility for years before the actual installation took place, and others may have been recommended by consultants and/or vendors, making degree of utility influence difficult to establish. Finally, some efficiency projects may involve reconfiguration of systems rather than simple installations of energy-efficient equipment.

Another factor that can complicate the SRA is that, in certain situations, the estimated NTGR combines (more often implicitly than explicitly) the probability of a

decision/action occurring and whether the *quantity* of the equipment installed would have been the same. This can complicate the interpretation of the responses and the way in which to combine these types of questions in order to estimate the NTGR.

This type of complexity and variation across sites requires thoughtful design of survey instruments. Following is a listing and discussion of the essential issues that should be considered by evaluators using SRA, together with some recommendations on reporting the strategies used to address each issue.

These should be regarded as recommendations for minimum acceptable standards for the use of the SRA to estimate net-to-gross ratios. Much of this chapter focuses on self-report methodologies for developing NTGRs for energy efficiency improvements in all sectors regardless of the size of the expected savings and the complexity of the decision making processes. However, in a given year, energy efficiency programs targeted for industrial facilities are likely to achieve a relatively small number of installations with the potential for extremely large energy savings at each site. Residential programs often have a large number of participants in a given year, but the energy savings at each home, and often for the entire residential sector, are small in comparison to savings at non-residential sites. Moreover, large industrial customers have more complex decision making processes than residential customers. As a result, evaluators are significantly less likely to conduct interviews with multiple actors at a single residence or to construct detailed case studies for each customer – methods that are discussed in detail in the following sections. *It may not be practical or necessary to employ the more complex techniques (e.g., multiple interviews at the same site, case-specific NTGR development) in all evaluations. Specifically, Sections 2.16 and 2.17 are probably more appropriate for customers with large savings and more complex decision making processes.* Of course, evaluators are free to apply the guidelines in these sections even to customers with smaller savings and relatively simple decision making processes.

2.1 Timing of the Interview

In order to minimize the problem of recall, SRA interviews should be conducted with the decision maker(s) as soon after the installation of equipment as possible (Stone et al., 2000).

2.2 Identifying the Correct Respondent

Recruitment procedures for participation in an interview involving self-reported net-to-gross ratios must address the issue of how the correct respondent(s) will be identified. Complexities to be addressed include situations commonly encountered in large commercial and industrial facilities, such as:

1. Different actors have different and complementary pieces of information about the decision to install, e.g., the CEO, CFO, facilities manager, etc.;
2. Decisions are made in locations such as regional or national headquarters that are away from the installation site;
3. Significant capital decision-making power is lodged in commissions, committees, boards, or councils; and

4. There is a need for both a technical decision-maker and a financial decision-maker to be interviewed (and in these cases, how the responses are combined will be important).

An evaluation using self-report methods should employ and document rules and procedures to handle all of these situations in a way that assures that the person(s) with the authority and the knowledge to make the installation decision are interviewed.

2.3 Set-Up Questions

The decisions that the net-to-gross questions are addressing may have occurred from 1 month to as long as 24 months prior to the interview. Regardless of the magnitude of the savings or the complexity of the decision-making process, questions may be asked about the motivations for making the decisions that were made, as well as the sequence of events surrounding the decision. Sequence and timing are important elements in assessing motivation and program influence on it. Unfortunately, sequence and timing will be difficult for many respondents to recall. This makes it essential that the interviewer guide the respondent through a process of establishing benchmarks against which to remember the events of interest (Stone et al., 2000). Failure to do so could well result in, among other things, the respondent “telescoping” some events of interest to him into the period of interest to the evaluator. Set-up questions that set the mind of the respondent into the train of events that led to the installation, and that establish benchmarks, can minimize these problems. However, one should be careful to avoid wording the set-up questions in such a way so as to bias the response in the desired direction.

Set-up questions should be used at the beginning of the interview, but they can be useful in later stages as well. Respondents to self-report surveys frequently are individuals who participated in program decisions and, therefore, may tend to provide answers ex post that validate their position in those decisions. Such biased responses are more likely to occur when the information sought in questions is abstract, hypothetical, or based on future projections, and are less likely to occur when the information sought is concrete. To the extent that questions prone to bias can incorporate concrete elements, either by set-up questions or by follow-up probes, the results of the interview will be more persuasive.

An evaluation using self-report methods should employ and document a set of questions that adequately establish the set of mind of the respondent to the context and sequence of events that led to decision(s) to adopt a DSM measure or practice, including clearly identified benchmarks in the customer’s decision-making process.

2.4 Use of Multiple Questions

Regardless of the magnitude of the savings or the complexity of the decision-making process, one should assume that using multiple questionnaire items (both quantitative and qualitative) to measure a construct such as free-ridership is preferable to using only one item since reliability is increased by the use of multiple items (Blalock, 1970; Crocker & Algina; 1986; Duncan, 1984).

2.5 Validity and Reliability

The validity and reliability of *each question* used in estimating the NTGR must be assessed (Lyberg, et al., 1997). In addition, the internal consistency (reliability) of multiple-item NTGR *scales* should not be assumed and should be tested. Testing the reliability of scales includes such techniques as split-half correlations, Kuder-Richardson, and Cronbach's alpha (Netemeyer, Bearden, and Sharma, 2003; Nunnally, 1978; Crocker & Algina, 1986; Cronbach, 1951; DeVellis, 1991). An evaluation using self-report methods should employ and document some or all of these tests or other suitable tests to evaluate reliability, including a description of why particular tests were used and others were considered inappropriate.

For those sites with relatively large savings and more complex decision-making processes, both quantitative and qualitative data may be collected from a variety of sources (*e.g.*, telephone interviews with the decision maker, telephone interviews with others at the site familiar with the decision to install the efficient equipment, paper and electronic program files, and on-site surveys). These data must eventually be integrated in order to produce a final NTGR.⁵ Of course, it is essential that all such sites be evaluated consistently using the same instrument. However, in a situation involving both quantitative and qualitative data, interpretations of the data may vary from one evaluator to another, which means that, in effect, the measurement result may vary. Thus, the central issue here is one of reliability, which can be defined as obtaining consistent results over repeated measurements of the same items.

To guard against such a threat at those sites with relatively large savings and more complex decision-making processes, the data for each site should be evaluated by more than one member of the evaluation team. Next, the resulting NTGRs for the projects should be compared, with the extent of agreement being a preliminary measure of the so-called inter-rater reliability. Any disagreements should be examined and resolved and all procedures for identifying and resolving inconsistencies should be thoroughly described and documented (Sax, 1974; Patton, 1987).

2.6 Consistency Checks

When multiple questionnaire items are used to calculate a free-ridership probability there is always the possibility of apparently contradictory answers. Contradictory answers indicate problems of validity and/or reliability (internal consistency). Occasional inconsistencies indicate either that the respondent has misunderstood one or more questions, or is answering according to an unanticipated logic.

⁵ For a discussion of the use of qualitative data see Section 2.14.

Another potential problem with self-report methods is the possibility of answering the questions in a way that conforms to the perceived wishes of the interviewer, or that shows the respondent in a good light (consciously or unconsciously done). One of the ways of mitigating these tendencies is to ask one or more questions specifically to check the consistency and plausibility of the answers given to the core questions. Inconsistencies can highlight efforts to “shade” answers in socially desirable directions. While consistency checking won’t overcome a deliberate and well-thought-out effort to deceive, it will often help where the process is more subtle or where there is just some misunderstanding of a question.

An evaluation using self-report methods should employ a process for setting up checks for inconsistencies when developing the questionnaire items, and describe and document the methods chosen as well as the rationales for using or not using the techniques for mitigating inconsistencies. Before interviewing begins, one should establish rules to handle inconsistent responses. Such rules should be consistently applied to all respondents.

Based on past experience one should anticipate which questions are more likely to result in inconsistent responses (e.g., questions of what participants would have done in the absence of the program and reported importance of the program to their taking action could). For such questions, specific checks for inconsistencies along with interviewer instructions could be built into the questionnaire. Any, apparent inconsistencies can then be identified and, whenever possible, resolved before the interview is over. If the evaluator waits until the interview is over to consider these problems, there may be no chance to correct misunderstandings on the part of the respondent or to detect situations where the evaluator brought incomplete understanding to the crafting of questions. In some cases, the savings at stake may be sufficiently large to warrant a follow-up telephone call to resolve the inconsistency.

However, despite the best efforts of the interviewers, some inconsistencies may remain. When this occurs, evaluator could decide which of the two answers, in their judgment has less error, and discard the other. Or, one could weight the two inconsistent responses in a way that reflects the evaluator’s estimate of the error associated with each, i.e., a larger weight could be assigned to the response that, in their judgment, contains less error.

However any inconsistencies are handled, rules for resolving inconsistencies should be established, to the extent feasible, *before* interviewing begins.⁶ An evaluation plan using self-report methods should describe the approach to identifying and resolving apparent inconsistencies. The plan should include: 1) the key questions that will be used to check for consistency, 2) whether and how it will be determined that the identified inconsistencies are significant enough to indicate problems of validity and/or reliability (internal consistency), and 3) how the indicated problems will be mitigated. The final

⁶ One might not always be able to anticipate all possible inconsistencies before interviewing begins. In such cases, rules for resolving such unanticipated inconsistencies should be established before the analysis begins.

report should include: 1) a description of contradictory answers that were identified, 2) whether and how it was determined that the identified inconsistencies were significant enough to indicate problems of validity and/or reliability (internal consistency), and 3) how the indicated problems were mitigated.

However, the rules themselves have sometimes been found to produce biased results, eliminating these respondents (treating them as missing data) has at times been the selected course of action. Thus, whenever any of these methods are used, one must report the proportion of responses affected. One must also report the mean NTGR with and without these responses in order to assess the potential for bias.

2.7 Making the Questions Measure-Specific

It is important for evaluators to tailor the wording of central free-ridership questions to the specific technology or measure that is the subject of the question. It is not necessarily essential to incorporate the specific measure into the question, but some distinctions must be made if they would impact the understanding of the question and its potential answers. For instance, when the customer has installed equipment that is efficiency rated so that increments of efficiency are available to the purchaser, asking that respondent to indicate whether he would have installed the same equipment without the program could yield confusing and imprecise answers. The respondent will not necessarily know whether the evaluator means the exact same efficiency, or some other equipment at similar efficiency, or just some other equipment of the same general type. Some other possibilities are:

1. Installations that involve removal more than addition or replacement (e.g., delamping or removal of a second refrigerator or freezer in a residence);
2. Installations that involve increases in productivity rather than direct energy load impacts;
3. Situations where the energy-efficiency aspect of the installation could be confused with a larger installation; and
4. Installation of equipment that will result in energy load impacts, but where the equipment itself is not inherently energy-efficient.

An evaluation using self-report methods should include and document an attempt to identify and mitigate problems associated with survey questions that are not measure-specific, and an explanation of whether and how those distinctions are important to the accuracy of the resulting estimate of free-ridership.

In large facilities or with decision-makers across multiple buildings or locations care must be taken to ensure that the specific pieces of equipment, or group of equipment/facility decisions, are properly identified. The interviewer and respondent need to be referring to the same things.

As part of survey development, an assessment needs to be made of whether there are important subsets within the participant pool that need to be handled differently. For example, any program that contains corporate decision-makers managing building/renovation of dozens of buildings per year requires some type of special

treatment. In this case, a standard survey might ask about three randomly selected projects/buildings. Or, a case study type of interview could focus on the factors affecting their decisions in general, for what percentage of their buildings do they take certain actions, and what actions do they take in cases where no incentives are available (if a regional or national decision-making), etc. Such an approach might offer better information to apply to all the buildings they have in the program. The point is that without special attention and a customized survey instrument, such customers might find the interview too confusing and onerous.

2.8 Partial Free-ridership

Partial free-ridership can occur when, in the absence of the program, the participant would have installed something more efficient than the program-assumed baseline efficiency but not as efficient as the item actually installed as a result of the program. When there is a likelihood that this is occurring, an evaluation using self-report methods should include and document attempts to identify and quantify the effects of such situations on net savings. Partial free-ridership should be explored for those customers with large savings and complex decision making processes.

In such a situation, it is essential to develop appropriate and credible information to establish precisely the participant's alternative choice. The likelihood that the participant would really have chosen a higher efficiency option is directly related to their ability to clearly describe that option.

An evaluation using self-report methods should include and document attempts to identify and mitigate problems associated with partial free-ridership, when applicable.

2.9 Deferred Free-ridership

Deferred free riders are those customers who would, in the absence of the program, have installed exactly the same equipment that they installed through the utility DSM program, but the utility induced them to install the equipment earlier than they would have otherwise. That is, the utility *accelerated* the timing installation of the equipment. Because determining the extent of utility influence on the timing of the installation is a complex process, an evaluator should avoid relying on a single question asked of the key decision-maker. Rather, an evaluator should examine all available data and determine whether the preponderance of evidence supports the conclusion of deferred free-ridership.

The point at which the length of the deferral is interpreted as meaning no free-ridership needs to be explicitly developed in the evaluation plan and should be justified given the length of the measure life (the effective useful life or EUL) and the decision-making process of that type of customer.

Data from such sources as additional closed- and open-ended questions asked of the key decision-maker, information obtained from other people at the site familiar with the decision to install the efficient equipment, and information gathered from the program paper files should also be collected and analyzed. Rules for integrating the responses to closed- and open-ended questions should be established, to the extent feasible, before the

analysis begins. Details regarding the establishment and use of such rules are provided in Section 2.14.

Unfortunately, evaluation budgets may only permit such data to be collected and analyzed for those customers with larger savings. For those customers with the smaller savings, the NTGR may be based only on the responses from close-ended questions obtained from the key decision-maker. In such cases, closed-ended questions regarding utility influence on both *what* was installed and *when* it was installed could be asked. These answers could be analyzed mechanically using an algorithm. However, to the extent that closed-ended questions are unable to capture fully the complexity of the decision-making process, any resulting conclusions regarding deferred free-ridership may be biased, with the direction of the bias unknown.

2.10 Scoring Algorithms

A consequence of using multiple questionnaire items to assess the probability of free-ridership (or its complement, the NTGR) is that decisions must be made about how to combine them. Do all items have equal weight or are some more important indicators than others? How are probabilities of free-ridership assigned to each response category? Answers to these questions can have a profound effect on the final NTGR estimate. These decisions are incorporated into the algorithm used to combine all pieces of information to form a final estimate of the NTGR. All such decisions must be described and justified by evaluators.

In some cases, each of the responses in the series of questions is assigned an ad hoc probability for the expected net savings. These estimates are then combined (additively or multiplicatively) into a participant estimate. The participant estimates are subsequently averaged (or weighted averaged given expected savings) to calculate the overall free-ridership estimate. The assignments of the probabilities are critical in the final outcome. At the same time, there is little evidence of what these should be and they are often assigned and justified given a logical argument. With this, however, a multiple number of different probability assignments have been shown to be justified and accepted by various evaluations and regulators. However, we recognize that this can make the comparability and reliability of survey-based estimates problematic.

Finally, evaluators must also conduct sensitivity analyses (e.g., changing weights, changing the questions used in estimating the NTGR, changing the probabilities assigned to different response categories, etc.) to assess the stability and possible bias of the estimated NTGR. A preponderance of evidence approach is always better than relying solely on a weighted algorithm and sophisticated weighting that is not transparent and logically conclusive should be avoided.

2.11 Handling Non-Responses and “Don’t Knows”

In some cases, some customers selected for the evaluation sample refuse to be interviewed (unit nonresponse). In other cases, some customers do not complete an attempted interview, complete the interview but refuse to answer all of the questions, or provide a “don’t know” response to some questions (item nonresponse). Insoluble

contradictions fall into the latter category. Evaluators must explain in advance how they will address each type of problem.

Consider those who choose not to respond to the questionnaire or interview (unit nonresponse). Making no attempt to understand and correct for nonresponse in effect assumes that the non-respondents would have answered the questions at the mean. Thus, their net-to-gross ratios would assume the mean NTGR value. Because this might not always be a reasonable assumption, one should always assess the possibility of non-response bias. To assess the possibility of non-response bias, one should, at a minimum, using information available on the population, describe any differences between those who responded and those who didn't and attempt to explain whether any of these differences are likely to affect one's answers to the NTGR battery of questions. If non-response bias is suspected, one should, whenever possible, explore the possibility of correcting for non-response bias. When not possible, one should explain why not (e.g., timing or budget constraints) and provide one's best estimate of the magnitude of the bias.

When some respondents terminate the interview, complete the interview but refuse to answer all the questions, or who provide a "don't know" response to some questions (item nonresponse), decisions must be made as to whether one should treat such cases as missing data or whether one should employ some type of missing data imputation. For example, early methods to handle responses of "Don't Know," missing data, and inconsistent answers involved assuming a 35% or 50% free-ridership rate for these participants (as they might be less likely to have taken actions if they hadn't thought about it or made opposing reactions). These methods, however, were found to create a centrality tendency (the tendency to avoid extremely low scores or extremely high scores) in the overall free-ridership estimate, i.e., driving it towards 35% or 50%.

In all cases, one should always make a special effort to avoid "don't know" responses when conducting interviews. However, some survey methods and procedures have been used that do not allow a "don't know" response where that might be the best response a respondent can provide. Forcing a response can distort the respondent's answer and introduce bias. Such a possibility needs to be recognized and avoided to extent possible.

2.12 Weighting the NTGR

The Protocols require estimates of the NTGR at the program or program component levels (as determined by the CPUC). Of course, such an NTGR must take into account the size of the impacts at the customer or project level. Consider two large industrial sites with the following characteristics. The first involves a customer whose self-reported NTGR is .9 and whose estimated annual savings are 200,000 kWh. The second involves a customer whose self-reported NTGR is .15 and whose estimated savings are 1,000,000 kWh. One could calculate an unweighted NTGR across both customers of .53. Or, one could calculate a weighted NTGR of .28. Clearly, the latter calculation is the appropriate one.

2.13 Ruling Out Rival Hypotheses

An evaluator should attempt to rule out rival hypotheses regarding the reasons for installing the efficient equipment (Scriven, 1976). For example, to reduce the possibility of socially desirable responses, one could ask an *open-ended question* (i.e., a list of possible reasons is **not** read to the respondent) regarding other possible reasons for installing the efficient equipment. A listing by the interviewer of such reasons such as global warming, Flex Your Power, the price of electricity, concern for future generations, and the need for the US to reduce oil dependency might elicit socially desirable responses which would have the effect of artificially reducing the NTGR. The answers to such questions about other possible influences can be factored into the estimation of the NTGR.

In addition to obtaining the respondent's assess of other possible causes, the evaluator can independently assesses the evidence supporting any alternative hypotheses. For example, if there is a corporate policy regarding the purchase of efficient equipment, the evaluator should examine this document to verify its contents and the date on which this policy was established and also attempt to assess compliance with this policy. In addition, they could decide to interview industry experts to determine whether certain equipment has become standard practice in an industry. Or, they could review available market share data to determine whether a particular market for a specific technology has been transformed or is on its way to being transformed.

2.14 Precision of the Estimated NTGR

Most of the discussion thus far has been focused on the accuracy of the NTGR estimate and not the precision of the estimate. The calculation of the achieved relative precision of the NTGRs (for program-related measures and practices and non-program measures and practices) is usually straightforward, relying on the standard error and the level of confidence. For example, when estimating NTGRs in the residential sector, one typically interviews one decision maker in each household with the NTGR estimate based on multiple questions. In such a situation, one could report the mean, standard deviation, the standard error, and the relative precision of the NTGR based on the sample at the 90 percent levels of confidence.

However, in the nonresidential sector, things can get much more complicated since the NTGR at a given site can be based on such information as: 1) multiple interviews (end users as well as those upstream from the end user that might have been involved in the decision), 2) other more qualitative information such as standard purchasing policies that require a specific corporate rate of return or simple payback (*e.g.*, the rate of return for the investment in the energy efficiency measure can be calculated with and without the rebate to obtain another point estimate of the influence of the program), or 3) a vendor, involved in the installation of the efficient equipment, who might have been influenced by a utility training programs. In such a situation, a NTGR will be estimated that uses all of this information. However, one must recognize that the propagation of errors across multiple respondents and other sources of quantitative and qualitative data cannot adequately be reflected in the resulting standard error of NTGR estimate.

2.15 Pre-Testing Questionnaire

Of course, as with any survey, a pre-test should be conducted to reveal any problems such as ambiguous wording, faulty skip patterns, leading questions, faulty consistency checks, and incorrect sequencing of questions. Modifications should be made prior to the official launch of the survey.

2.16 The Incorporation of Additional Quantitative and Qualitative Data in Estimating the NTGR

When one chooses to complement a mixed methods (quantitative and qualitative) analysis of free-ridership with additional data, there are a few very basic concerns that one must keep in mind.

2.16.1 Data Collection

2.16.1.1 Use of Multiple Respondents

In situations with relatively large savings and more complex decision-making processes, one should use, to the extent possible, information from more than one person familiar with the decision to install the efficient equipment or adopt energy-conserving practices or procedures (Patten, 1987; Yin, 1994).

It is important to inquire about the decision-making process and the roles of those involved for those cases with relatively large savings and with multiple steps or decision-makers. If the customer has a multi-step process where there are go/no-go decisions made at each step, then this process should be considered when using the responses to estimate the firm's NTGR. There have been program evaluations whose estimates have been called into question when these factors were not considered, tested and found to be important. For example, a municipal program serving cities with financial issues where a department's facility engineer could say without bias that he definitely intended to install the same measure in the absence of the program and that he had requested that the city manager request the necessary funds from the City Council. However, one might discover that in the past the city manager, due to competing needs, only very rarely include the engineer's requests in his budget submitted to the City Council. Similarly, there are cases where a facility engineer continues to recommend efficiency improvements but never manages to get management approval until the efficiency program provides the information in a way that meets the financial decision-makers needs in terms of information or independent verification or leverage by obtaining "free" funds.

These interviews might include interviews with third parties who were involved in the decision to install the energy efficient equipment. Currently, there is no standard method for capturing the influence of third parties on a customer's decision to purchase energy efficient equipment. Third parties who may have influence in this context include market actors such as store clerks, manufacturers (through promotional literature, demonstrations, and in-person marketing by sales staff), equipment distributors, installers, developers, engineers, energy consultants, and architects. Yet, these influences can be important and possibly more so in the continually changing environment with greater attention on global warming and more overlapping interventions. When one

chooses to measure the effect of third parties, one should keep the following principles in mind: 1) the method chosen should be balanced. That is, the method should allow for the possibility that the third-party influence can increase or decrease the NTGR that is based on the customer's self report, 2) the rules for deciding which customers will be examined for potential third party influence should be balanced. That is, the pool of customers selected for such examination should not be biased towards ones for whom the evaluator believes the third-party influence will have the effect of influencing the NTGR in only one direction, 3) the plan for capturing third-party influence should be based on a well-conceived causal framework. The onus is on the evaluator to build a compelling case using a variety of quantitative and/or qualitative data for estimating a customer's NTGR

2.16.1.2 Other Site- and Market-Level Data

Information relevant to the purchase and installation decision can include:

1. Program paper files (correspondence between DSM program staff and the customer, evidence of economic feasibility studies conducted by the utility or the customer, correspondence among the customer staff, other competing capital investments planned by the customer)
2. Program electronic files (*e.g.*, program tracking system data, past program participation)
3. Interviews with other people at the site who are familiar with the program and the choice (*e.g.*, operations staff)
4. Open-ended questions on structured interviews with the key decision-maker and other staff who may have been involved with the decision.
5. Incremental costs of the equipment
6. Estimates of the equipment's market share
7. The diffusion (saturation) of the equipment in the market place

Where appropriate, for example, in the case of large-scale commercial and industrial sites, these data should be organized and analyzed in the form of a case study.

2.16.2 Establishing Rules for Data Integration

In cases where multiple interviews are conducted eliciting both quantitative and qualitative data and a variety of program documentation has been collected, one will need to integrate all of this information into an internally consistent and coherent story that supports a specific NTGR.

Before the analysis begins, one should establish, to the extent feasible, rules for the integration of the quantitative and qualitative data. These rules should be as specific as possible and be strictly adhered to throughout the analysis. Such rules might include instructions regarding when the NTGR based on the quantitative data should be overridden based on qualitative data, how much qualitative data is needed to override the NTGR based on quantitative data, how to handle contradictory information provided by more than one person at a given site, how to handle situations when there is no decision-maker interview, when there is no appropriate decision-maker interview, or when there is critical missing data on the questionnaire, and how to incorporate qualitative information

on deferred free-ridership.

One must recognize that it is difficult to anticipate all the situations that one may encounter during the analysis. As a result, one may refine existing rules or even develop new ones during the initial phase of the analysis. One must also recognize that it is difficult to develop algorithms that effectively integrate the quantitative and qualitative data. It is therefore necessary to use judgment in deciding how much weight to give to the quantitative versus qualitative data and how to integrate the two. The methodology and estimates, however, must contain methods to support the validity of the integration methods through preponderance of evidence or other rules/procedures as discussed above.

2.16.3 Analysis

A case study is one method of assessing both quantitative and qualitative data in estimating a NTGR. A case study is an organized presentation of all these data available about a particular customer site with respect to all relevant aspects of the decision to install the efficient equipment. When a case study approach is used, the first step is to pull together the data relevant to each case and write a discrete, holistic report on it (the case study). In preparing the case study, redundancies are sorted out, and information is organized topically. *This information should be contained in the final report.*

The next step is to conduct a content analysis of the qualitative data. This involves identifying coherent and important examples, themes, and patterns in the data. The analyst looks for quotations or observations that go together and that are relevant to the *customer's decision to install the efficient equipment*. Guba (1978) calls this process of figuring out what goes together "convergence," *i.e.*, the extent to which the data hold together or dovetail in a meaningful way. Of course, the focus here is on evidence related to the degree of program influence in installing the efficient equipment. Identifying and ruling out rival explanations for the installation of the efficient equipment is a critical part of the analysis (Scriven, 1976).

Sometimes, *all* the quantitative and qualitative data will clearly point in the same direction while, in others, the *preponderance* of the data will point in the same direction. Other cases will be more ambiguous. In all cases, in order to maximize reliability, it is essential that more than one person be involved in analyzing the data. Each person must analyze the data separately and then compare and discuss the results. Important insights can emerge from the different ways in which two analysts look at the same set of data. Ultimately, differences must be resolved and a case made for a particular NTGR.

Finally, it must be recognized that there is no single right way to conduct qualitative data analysis:

The analysis of qualitative data is a creative process. There are no formulas, as in statistics. It is a process demanding intellectual rigor and a great deal of hard, thoughtful work. Because different people manage their creativity, intellectual endeavors, and hard work in different ways,

there is no one right way to go about organizing, analyzing, and interpreting qualitative data. (p. 146)

Ultimately, if the data are systematically collected and presented in a well-organized manner, and if the arguments are clearly presented, any independent reviewer can understand and judge the data and the logic underlying any NTGR. Equally important, any independent reviewers will have all the essential data to enable them to replicate the results, and if necessary, to derive their own estimates.

2.17 Qualified Interviewers

For the basic SRA in the residential and small commercial sectors, the technologies discussed during the interview are relatively straightforward (e.g., refrigerators, CFLS, T-8 lamps, air conditioners). In such situations, using the trained interviewers working for companies that conduct telephone surveys is adequate. However, in more complicated situations such as industrial process and large commercial HVAC systems, the level of technical complexity is typically beyond the abilities of such interviewers. In such situations, engineers familiar with these more complicated technologies should be trained to collect the data by telephone or in person.

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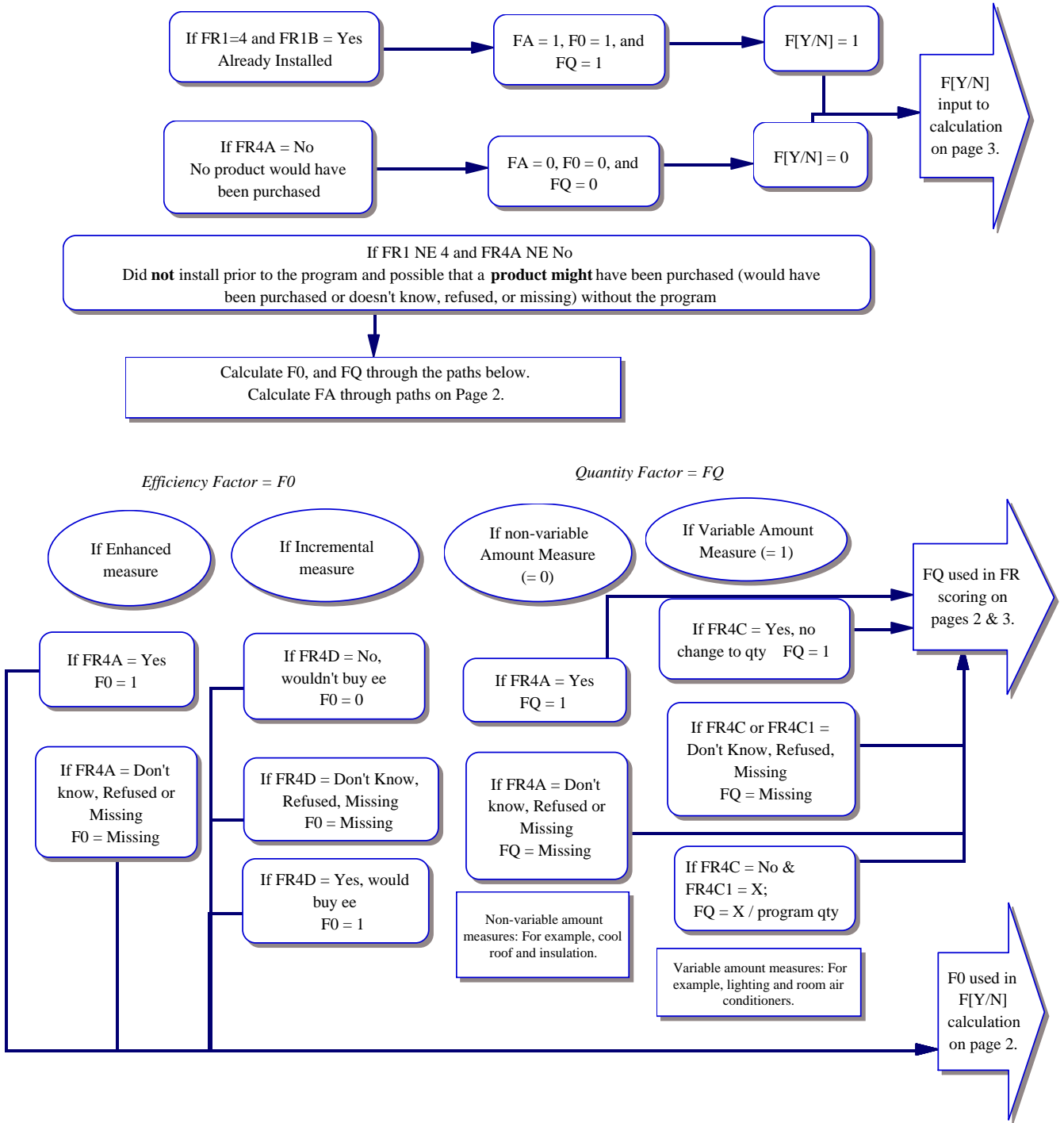
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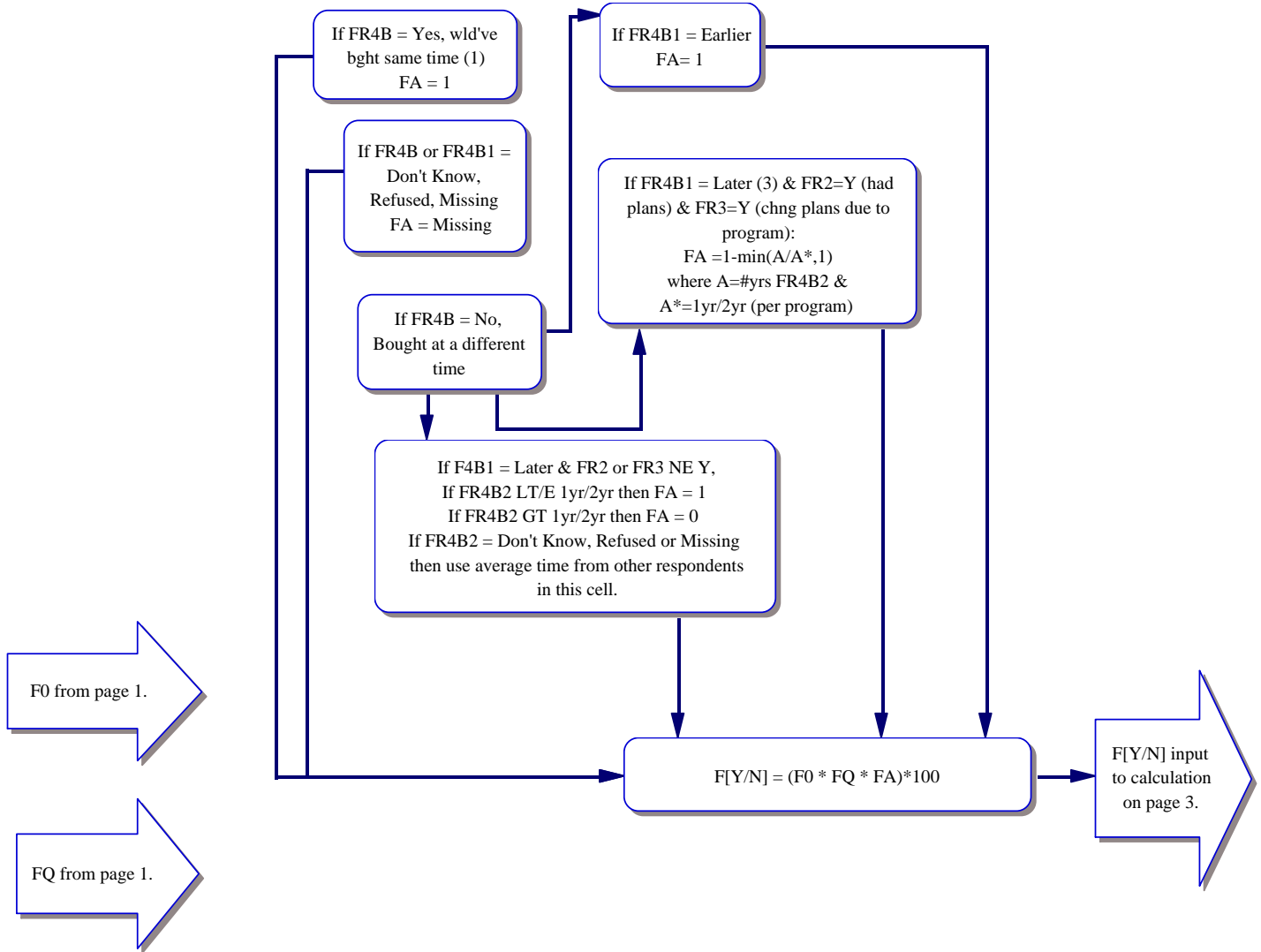
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Simple Res./Small Commercial Free-Ridership Algorithm, November 2009
Page 1 of 3 -- Yes/No Series



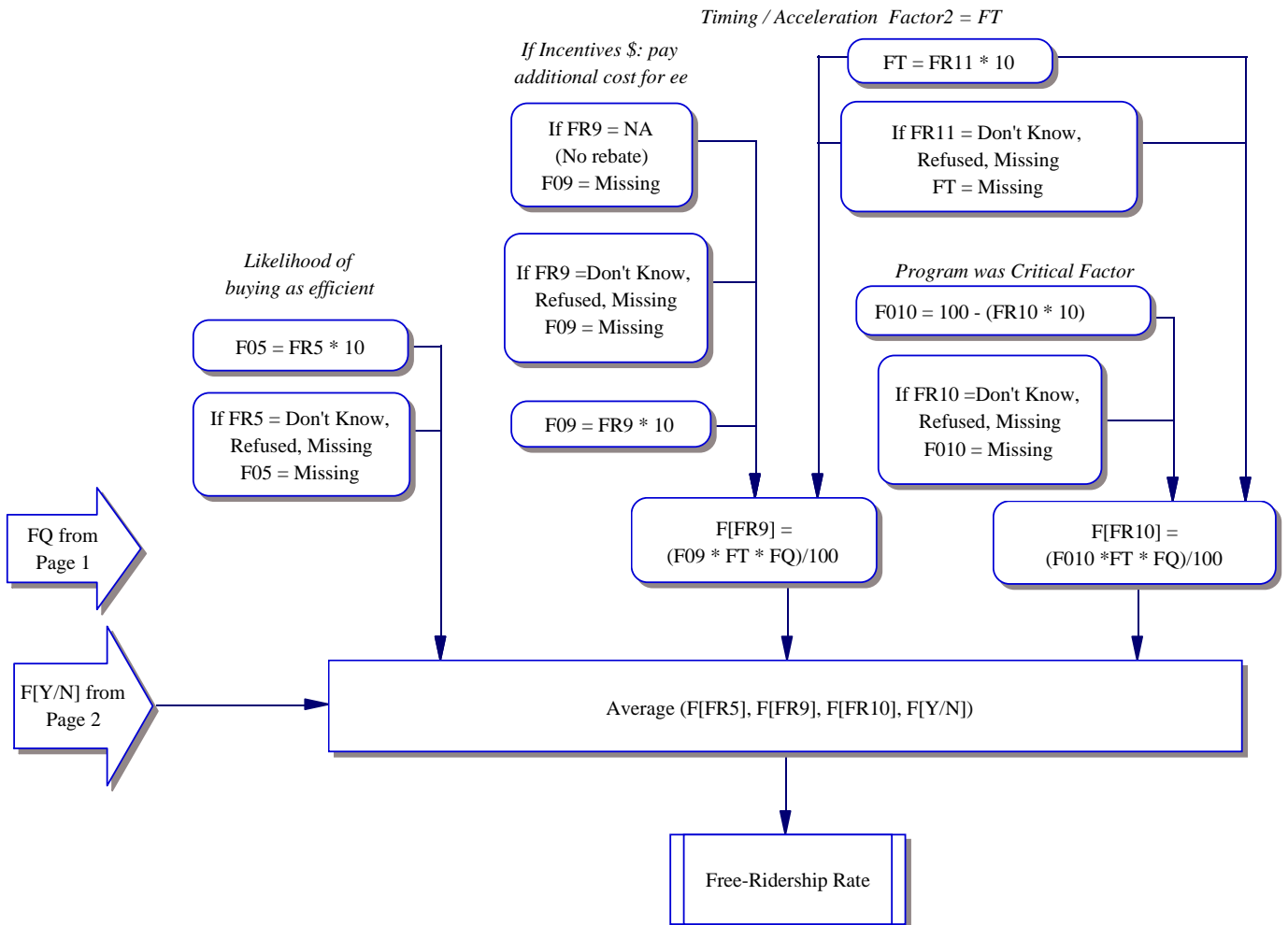
Simple Res./Small Commercial Free-Ridership Algorithm, November 2009
Page 2 of 3 -- Yes/No Series (Continued)

Timing / Acceleration
Factor = FA



Simple Res./Small Commercial Free-Ridership Algorithm, November 2009

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Appendix A-3

Nonresidential NTGR Methods

**Methodological Framework for Using the Self-
Report Approach to Estimating Net-to-Gross
Ratios for Nonresidential Customers**

**Prepared for the Energy Division, California Public Utilities
Commission**

By

The Nonresidential Net-To-Gross Ratio Working Group

Final Version

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Appendix A: References

Appendix B: Net-to-Gross Questions and Uses of Data by Level of NTGR Analysis

Appendix C: NTGR Scoring Algorithm and Example

Appendix D: Demonstration of Compliance with the CPUC/ED Guidelines for Estimating Net-to-Gross Ratios Using the Self-Report Approach

Acknowledgments

As part of the evaluation of the 2006-08 energy efficiency programs designed and implemented by the four investor-owned utilities (Pacific Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas and Electric Company) and third parties, the Energy Division of the California Public Utilities Commission (CPUC) formed a nonresidential net-to-gross ratio working group that was composed of experienced evaluation professionals. The main purpose of this group was to develop a standard methodological framework, including decision rules, for integrating in a systematic and consistent manner the findings from both quantitative and qualitative information in estimating net-to-gross ratios. The working group, listed alphabetically, was composed of the following evaluation professionals:

- Michael Baker, SBW Consulting
- Fred Coito, KEMA
- Kevin Cooney, Summit Blue Consulting
- Tim Drew, Energy Division, CPUC
- Jennifer Fagan, Itron, Inc.
- Miriam Goldberg, KEMA
- Nick Hall, TecMarket Works
- Kay Hardy, Energy Division, CPUC
- Ken Keating
- John Reed, Innovologie LLC
- Richard Ridge, Ridge & Associates
- Mike Rufo, Itron, Inc.
- Eric Swan, KEMA (formerly of RLW Analytics, Inc.)
- Christina Torok, Itron, Inc.
- Philippus Willems, PWP, Inc.

A public webinar was conducted to obtain feedback from the four investor-owned utilities and other interested stakeholders. The questionnaire was then pre-tested and, based on the pre-test results, finalized in November 2008.

1. OVERVIEW OF THE LARGE NONRESIDENTIAL FREE RIDERSHIP APPROACH

The methodology described in this section was developed to address the unique needs of Large Nonresidential customer projects developed through energy efficiency programs offered by the four California investor-owned utilities and third-parties. This method relies exclusively on the Self-Report Approach (SRA) to estimate project and program-level Net-to-Gross Ratios (NTGRs), since other available methods and research designs are generally not feasible for large nonresidential customer programs. This methodology provides a standard framework, including decision rules, for integrating findings from both quantitative and qualitative information in the calculation of the net-to-gross ratio in a systematic and consistent manner. This approach is designed to fully comply with the *California Energy Efficiency Evaluation: Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals* (Protocols) and the *Guidelines for Estimating Net-To-Gross Ratios Using the Self-Report Approaches* (Guidelines), as demonstrated in Appendix D.

This approach preserves the most important elements of the approaches previously used to estimate the NTGRs in large nonresidential customer programs¹. However, it also incorporates several enhancements that are designed to improve upon that approach, for example:

- The method introduces a 0 to 10 scoring system for key questions used to estimate the NTGR, rather than using fixed categories that were assigned weights (as was done previously).
- The method asks respondents to jointly consider and rate the importance of the many likely events or factors that may have influenced their energy efficiency decision making, rather than focusing narrowly on only their rating of the program's importance. This question structure more accurately reflects the complex nature of the real-world decision making and should help to ensure that all non-program influences are reflected in the NTGR assessment in addition to program influences.

It is important to note that the NTGR approach described in this document is a general framework, designed to address all large nonresidential programs. In order to implement this approach on a program-specific basis, it might need to be somewhat customized to reflect the unique nature of the individual programs.

¹ Such as, for example, the NTGR method used to evaluate NTGRs for the California Standard Performance Contracting Program.

2. BASIS FOR SRA IN SOCIAL SCIENCE LITERATURE

The social sciences literature provides strong support for use of the methods used in the SRA to assess program influence. As the *Guidelines* notes,

More specifically, the SRA is a mixed method approach that involves asking one or more key participant decision-makers a series of structured and open-ended questions about whether they would have installed the same EE equipment in the absence of the program as well as questions that attempt to rule out rival explanations for the installation (Weiss, 1972; Scriven, 1976; Shadish, 1991; Wholey et al., 1994; Yin, 1994; Mohr, 1995). In the simplest case (e.g., residential customers), the SRA is based primarily on quantitative data while in more complex cases the SRA is strengthened by the inclusion of additional quantitative and qualitative data which can include, among others, in-depth, open-ended interviews, direct observation, and review of program records. Many evaluators believe that additional qualitative data regarding the economics of the customer's decision and the decision process itself can be very useful in supporting or modifying quantitatively-based results (Britan, 1978; Weiss and Rein, 1972; Patton, 1987; Tashakkori and Teddlie, 1998).²

More details regarding the philosophical and methodological underpinnings of this approach are in Ridge, Willems and Fagan (2009), Ridge, Willems, Fagan and Randazzo (2009) and Megdal, Patil, Gregoire, Meissner, and Parlin (2009). In addition to these two articles, Appendix A provides an extensive listing of references in the social sciences literature regarding the methods employed in the SRA.

3. FREE RIDERSHIP ANALYSIS BY PROJECT TYPE

There are three levels of free-ridership analysis. The most detailed level of analysis, the **Standard – Very Large Project** NTGR, is applied to the largest and most complex projects (representing 10 to 20% of the total) with the greatest expected levels of gross savings.³ The **Standard** NTGR, involving a somewhat less detailed level of analysis, is applied to projects with moderately high levels of gross savings. The least detailed analysis, the **Basic** NTGR, is applied to all remaining projects. Evaluators must exercise their own discretion as to what the appropriate thresholds should be for each of these three levels.

4. SOURCES OF INFORMATION ON FREE RIDERSHIP

There are five sources of free-ridership information in this study. Each level of analysis relies on information from one or more of these sources. These sources are described below.

² *Guidelines for Estimating Net-To-Gross Ratios Using the Self-Report Approaches*, October 15, 2007, pg. 3.

³ Note that we do not refer to an Enhanced level of analysis, since this is defined by the Protocols to involve the application of two separate analysis approaches, such as billing analysis or discrete choice modeling.

1. **Program Files.** As described in previous sections of this report, programs often maintain a paper file for each paid application. These can contain various pieces of information which are relevant to the analysis of free-ridership, such as letters written by the utility's customer representatives that document what the customer had planned to do in the absence of the rebate and explain the customer's motivation for implementing the efficiency measure. Information on the measure payback with and without the rebate may also be available.

2. **Decision-Maker Surveys.** When a site is recruited, one must also determine who was involved in the decision-making process which led to the implementation of measures under the program. They are asked to complete a Decision Maker survey. This survey obtains highly structured responses concerning the probability that the customer would have implemented the same measure in the absence of the program. First, participants are asked about the timing of their program awareness relative to their decision to purchase or implement the energy efficiency measure. Next, they are asked to rate the importance of the program versus non-program influences in their decision making. Third, they are asked to rate the significance of various factors and events that may have led to their decision to implement the energy efficiency measure at the time that they did. These include:
 - the age or condition of the equipment,
 - information from a feasibility study or facility audit
 - the availability of an incentive or endorsement through the program
 - a recommendation from an equipment supplier, auditor or consulting engineer
 - their previous experience with the program or measure,
 - information from a program-sponsored training course or marketing materials provided by the program
 - the measure being included as part of a major remodeling project
 - a recommendation from program staff, a program vendor, or a utility representative
 - a standard business practice
 - an internal business procedure or policy
 - stated concerns about global warming or the environment
 - a stated desire to achieve energy independence.

In addition, the survey obtains a description of what the customer would have done in the absence of the program, beginning with whether the implementation was an early replacement action. If it was not, the decision maker is asked to provide a description of what equipment would have been implemented in the absence of the program, including both the efficiency level and quantities of these alternative measures. This is used to adjust the gross engineering savings estimate for partial free ridership, as discussed in Section 5.2.

This survey contains a core set of questions for **Basic** NTGR sites, and several supplemental questions for both **Standard** and **Standard – Very Large** NTGR

sites For example, if a Standard or Standard-Very Large respondent indicates that a financial calculation entered highly into their decision, they are asked additional questions about their *financial criteria* for investments and their rationale for the current project in light of them. Similarly, if they respond that a *corporate policy* was a primary consideration in their decision, they are asked a series of questions about the specific policy that led to their adoption of the installed measure. If they indicate the installation was a *standard practice*, there are supplemental questions to understand the origin and evolution of that standard practice within their organization. These questions are intended to provide a deeper understanding of the decision making process and the likely level of program influence versus these internal policies and procedures. Responses to these questions also serve as a basis for consistency checks to investigate conflicting answers regarding the relative importance of the program and other elements in influencing the decision. In addition, **Standard – Very Large** sites may receive additional detailed probing on various aspects of their installation decision based on industry- or technology-specific issues, as determined by review of other information sources. For Standard-Very Large sites all these data are used to construct an internally consistent “story” that supports the NTGR calculated based on the overall information given.

3. **Vendor Surveys.** A Vendor Survey is completed for all **Standard** and **Standard-Very Large** NTGR sites that utilized vendors, and for **Basic** NTGR sites that indicate a high level of vendor influence in the decision to implement the energy efficient measure. For those sites that indicate the vendor was very influential in decision making, the vendor survey results enter directly into the NTGR scoring. The vendor survey findings are also be used to corroborate Decision Maker findings, particularly with respect to the vendor’s specific role and degree of influence on the decision to implement the energy efficient measure. Vendors are queried on the program’s significance in their decision to recommend the energy efficient measures, and on their likelihood to have recommended the same measure in the absence of the program. Generally, the vendors contacted as part of this study are contractors, design engineers, distributors, and installers.
4. **Utility and Program Staff Interviews.** For the Standard and Standard-Very Large NTGR analyses, interviews with utility staff and program staff are also conducted. These interviews are designed to gather information on the historical background of the customer’s decision to install the efficient equipment, the role of the utility and program staff in this decision, and the name and contact information of vendors who were involved in the specification and installation of the equipment.
5. **Other information.** For **Standard – Very Large Project** NTGR sites, secondary research of other pertinent data sources is performed. For example, this could include a review of standard and best practices through industry associations, industry experts, and information from secondary sources (such as the U.S. Department of Energy's Industrial Technologies Program, Best Practices website URL, <http://www1.eere.energy.gov/industry/bestpractices/>). In addition, the Standard- Very Large NTGR analysis calls for interviews with other employees at the participant’s firm, sometimes in other states, and equipment vendor experts

from other states where the rebated equipment is being installed (some without rebates), to provide further input on standard practice within each company.

Table 1 below shows the data sources used in each of the three levels of free-ridership analysis. Although more than one level of analysis may share the same source, the amount of information that is utilized in the analysis may vary. For example, all three levels of analysis obtain core question data from the Decision Maker survey.

Table 1: Information Sources for Three Levels of NTGR Analysis

| | Program File | Decision Maker Survey Core Question | Vendor Surveys | Decision Maker Survey Supplemental Questions | Utility & Program Staff Interviews | Other Research Findings |
|-------------------------------------|--------------|-------------------------------------|----------------|----------------------------------------------|------------------------------------|-------------------------|
| Basic NTGR | √ | √ | √ ¹ | | √ ² | |
| Standard NTGR | √ | √ | √ ¹ | √ | √ | |
| Standard NTGR - Very Large Projects | √ | √ | √ ³ | √ | √ | √ |

¹Only performed for sites that indicate a vendor influence score (N3d) greater than maximum of the other program element scores (N3b, N3c, N3g, N3h, N3I).

²Only performed for sites that have a utility account representative

³Only performed if significant vendor influence reported or if secondary research indicates the installed measure may be becoming standard practice.

Appendix B provides the full battery of Decision Maker and Vendor survey questions along with notes, for each NTGR level, regarding which questions are asked (denoted by an “X”), and the intended uses of the information in the NTGR analysis. In the case of Basic sites, “TRIGGER” means that a vendor influence score greater than the maximum of other program element scores (N3b, N3c, N3g, N3h, N3I) triggers a vendor survey. In the case of Standard and Standard-Very Large NTGR sites, “TRIGGER” means that a score of 6 or greater triggers a further investigation. A copy of the complete survey forms (with lead-in text and skip patterns) are contained in *Final Large Nonresidential NTGR Survey Instruments.XLS* that is available upon request.

5. NTGR FRAMEWORK

The Self-Report-based Net-to-Gross analysis relies on responses to a series of survey questions that are designed to measure the influence of the program on the participant’s decision to implement program-eligible energy efficiency measure(s). Based on these

responses, a NTGR is derived based on responses to a set of “core” NTGR questions. The NTGR includes the effects of deferred free ridership (i.e., accelerated adoption).

5.1. NTGR Questions and Scoring Algorithm

A self-report NTGR is computed for all NTGR levels using the following approach. Adjustments may be made for **Standard – Very Large** NTGR sites, if the additional information that is collected is inconsistent with information provided through the Decision Maker survey.

The NTGR is calculated as an average of three scores. Each of these scores represents the highest response or the average of several responses given to one or more questions about the decision to install a program measure.

1. A **Timing and Selection** score that reflects the influence of the **most important** of various program and program-related elements in the customer’s decision to select the specific program measure at this time. Program influence through vendor recommendations is also incorporated in this score.
2. A **Program Influence** score that captures the perceived importance of the program (whether rebate, recommendation, training, or other program intervention) relative to non-program factors in the decision to implement the specific measure that was eventually adopted or installed. This score is determined by asking respondents to assign importance values to both the program and most important non-program influences so that the two total 10. The program influence score is adjusted (i.e., divided by 2) if respondents say they had already made their decision to install the specific program qualifying measure before they learned about the program.
3. A **No-Program** score that captures the likelihood of various actions the customer might have taken at this time and in the future if the program had not been available (the counterfactual). This score also accounts for deferred free ridership by incorporating the likelihood that the customer would have installed program-qualifying measures at a later date if the program had not been available.

When there are multiple questions that feed into the scoring algorithm, as is the case for both the **Timing and Selection** and **No-Program** scores, the maximum score is always used. The rationale for using the maximum value is to capture the most important element in the participant’s decision making. Thus, each score is always based on the strongest influence indicated by the respondent. However, high scores that are inconsistent with other previous responses trigger consistency checks and can lead to follow-up questions to clarify and resolve the discrepancy.

The calculation of each of the above scores is discussed below. For each score, the associated questions are presented and the computation of each score is described. For a detailed explanation of the scoring algorithm, including examples, see Appendix C.

5.1.1. Timing and Selection Score

For the Decision Maker, the questions asked are:

I'm going to ask you to rate the importance of the program as well as other factors that might influence your decision to implement [MEASURE.] Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.

Now, using this 0 to 10 rating scale, where 0 means “Not at all important” and 10 means “Very important,” please rate the importance of each of the following in your decision to implement this specific [MEASURE] at this time.

- Availability of the PROGRAM rebate
- Information provided through a recent feasibility study, energy audit or other types of technical assistance provided through PROGRAM
- Information from PROGRAM training course
- Information from other PROGRAM marketing materials
- Recommendation from a vendor/supplier (If a score of greater than 5 is given, a vendor interview is triggered)

For the Vendor, the questions asked (if the interview is triggered) are:

I'm going to ask you to rate the importance of the [PROGRAM] in influencing your decision to recommend [MEASURE] to [CUSTOMER] and other customers. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.

1. Using this 0 to 10 scale where 0 is “Not at all important” and 10 is “Very Important,” how important was the PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that CUSTOMER install the energy efficiency MEASURE at this time?
2. And using a 0 to 10 likelihood scale, where 0 denotes “not at all likely” and 10 denotes “very likely,” if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific energy efficiency MEASURE to CUSTOMER?
3. Now, using a 0 to 100 percent scale, in what percent of sales situations did you recommend MEASURE before you learned about the [PROGRAM]?
4. And using the same 0 to 100 percent scale, in what percent of sales situations do you recommend MEASURE now that you have worked with the [PROGRAM]?

5. And, using the same 0 to 10 scale where 0 is “Not at all important” and 10 is “Very important”, how important in your recommendation were:
 - a. Training seminars provided by UTILITY?
 - b. Information provided by the UTILITY website?
 - c. Your firm’s past participation in a rebate or audit program sponsored by UTILITY?

If the Vendor interview is triggered, a score is calculated that captures the highest degree of program influence on the vendor’s recommendation. This score (VMAX) is calculated as the MAXIMUM value of the following:

1. The response to question 1
2. 10 minus the response to question 2
3. The response to question 4 minus the response to question 3, divided by 10
4. The response to question 5a.
5. The response to question 5b.
6. The response to question 5c.

Note that vendors are asked an additional question regarding other ways that their recommendations regarding the measure might have been influenced. Their responses are not used in the direct calculation of the NTGR but are potentially useful in making adjustments to the core NTGR.

The Timing and Selection Score is calculated as:

The highest of the responses to the first four decision maker questions and, if the vendor interview has been triggered, the VMAX score multiplied by the score the decision makers assigned to the vendor recommendation.

5.1.2. Program Influence Score

The questions asked are:

1. Did you learn about PROGRAM BEFORE or AFTER you decided to implement the specific MEASURE that was eventually adopted or installed?
2. Now I'd like to ask you a last question about the importance of the program to your decision as opposed to other factors that may have influenced your decision. Again using the 0 to 10 rating scale we used earlier, where 0 means “Not at all important” and 10 means “Very important,” please rate the overall importance of PROGRAM versus the most important of the other factors we just discussed in your decision to implement the specific MEASURE that was adopted or installed. This time I would like to ask you to have the two importance ratings -- the program importance and the non-program importance -- total 10.

The Program Influence score is calculated as:

The importance of the program, on the 0 to 10 scale, to question 2. This score is reduced by half if the respondent learned about the program after the decision had been made.

5.1.3. No-Program Score

The questions asked are:

1. Regarding the installation of this equipment, if the PROGRAM had not been available, using a likelihood scale from 0 to 10, where 0 is “Not at all likely” and 10 is “Extremely likely” how likely is it that you would have installed exactly the same item/equipment, using a 0 to 10 scale, where 0 is not at all likely and 10 is extremely likely?

2. IF 1>0. You indicated that there was an “X” in 10 likelihood that you would have installed the same equipment if the PROGRAM had not been available. When do you think you would have installed this equipment? Please express your answer in months
 - a. _____ within 6 months? (Deferred NTG Value=0)
 - b. _____ 7 to 47 months later (Deferred NTG Value=(months-6)*.024)
 - c. _____ 48 or more months later (Deferred NTG Value =1)
 - d. _____ Never (Deferred NTG Value=1)

Note: The value 0.024 is 1 divided by 41 (41 is calculated as 47 – 6). This assumes that the deferred NTG value is a linear function beginning in month 7 through month 47, increasing 0.024 for each month of deferred installation.

The No-Program Score is calculated as:

10 minus (the likelihood of installing the same equipment multiplied by one minus the *deferred net-to-gross value* associated with the timing of that installation).

5.1.4. The Core NTGR

The self-reported core NTGR in most cases is simply the average of the Program Influence, Timing and Selection, and No-Program Scores, divided by 10. The one exception to this is when the respondent indicates a 10 in 10 probability of installing the same equipment at the same time in the absence of the program, in which case the NTGR is based on the average of the Program Influence and No-Program scores only.

5.2. Data Analysis and Integration

The calculation of the Core NTGR is fairly mechanical and is based on the answers to the closed-ended questions. However, the reliance of the Standard NTGR – Very Large on more information from so many different sources requires more of a case study level of effort. The SRA Guidelines point out that a case study is one method of assessing both quantitative and qualitative data in estimating a NTGR. A case study is an organized presentation of all these data available about a particular customer site with respect to all relevant aspects of the decision to install the efficient equipment. In such cases where multiple interviews are conducted eliciting both quantitative and qualitative data and a variety of program documentation has been collected, one will need to integrate all of this information into an internally consistent and coherent story that supports a specific NTGR.

The following data sources should be investigated and reviewed as appropriate to supplement the information collected through the decision maker interviews.

- Account Representative Interview
- Utility Program Manager/Staff Interview
- Utility Technical Contractor Interview
- Third party Program Manager Interview
- Evaluation Engineer Interview
- Gross Impact Site Plan/Analysis Review
- Corporate Green/Environmental Policy Review (if mentioned as important)
- Corporate Standard Practice Review (if mentioned as important)
- Industry Standard Practice Review (if mentioned as important)
- Corporate payback review (if mentioned as important)
- Review relevant codes and standards, including regulatory requirements
- Review industry publications, websites, reports such as the Commercial Energy Use Survey, historical purchase data of specific measures etc.

As detailed in the Self-Report NTGR Guidelines, when complementing the quantitative analysis of free-ridership with additional quantitative and qualitative data from multiple respondents and other sources, there are some basic concerns that one must keep in mind. Some of the other data – including interviews with third parties who were involved in the decision to install the energy efficient equipment – may reveal important influences on the customer’s decision to install the qualifying program measure. When one chooses to incorporate other data, one should keep the following principles in mind: 1) the method chosen should be balanced. That is, the method should allow for the possibility that the other influence can either increase or decrease the NTGR calculated from the decision maker survey responses, 2) the rules for deciding which customers will be examined for potential other influences should be balanced. In the case of Standard –Very Large interviews, all customers are subject to such a review, so that the pool of customers selected for such examination will not be biased towards ones for whom the evaluator believes the external influence will have the effect of influencing the NTGR in only one direction, 3) the plan for capturing other influences should be based on a well-conceived causal framework. The onus is on the evaluator to build a compelling case using a variety of quantitative and/or qualitative data for estimating a customer’s NTGR.

Establishing Rules for Data Integration

Before the analysis begins, the evaluation team should establish, to the extent feasible, rules for the integration of the quantitative and qualitative data. These rules should be as specific as possible and be strictly adhered to throughout the analysis. Such rules might include instructions regarding when the NTGR based on the quantitative data should be overridden based on qualitative data, how much qualitative data are needed to override the NTGR based on quantitative data, how to handle contradictory information provided by more than one person at a given site, how to handle situations when there is no

decision-maker interview, when there is no appropriate decision-maker interview, or when there is critical missing data on the questionnaire, and how to incorporate qualitative information on deferred free-ridership.

One must recognize that it is difficult to anticipate all the situations that one may encounter during the analysis. As a result, one may refine existing rules or even develop new ones during the initial phase of the analysis. One must also recognize that it is difficult to develop algorithms that effectively integrate the quantitative and qualitative data. It is therefore necessary to use judgment in deciding how much weight to give to the quantitative versus qualitative data and how to integrate the two. The methodology and estimates, however, must contain methods to support the validity of the integration methods through preponderance of evidence or other rules/procedures as discussed above.

For the **Standard-Very Large** cases in the large Nonresidential programs, the quantitative data used in the NTGR Calculator (which calculates the “core” NTGR), together with other information collected from the decision maker regarding the installation decision, form the initial basis for the NTG “story” for each site. Note that in most cases, supplemental data such as tracking data, program application files and results of interviews with program/IOU staff and vendors, will have been completed before the decision maker is contacted and will help guide the non-quantitative questioning in the interview. In practice, this means that most potential inconsistencies between decision maker responses and other sources of information should have been resolved before the interview is complete and data are entered into the NTGR Calculator. For example, if a company has an aggressive “green” policy widely promoted on its website that is not mentioned by the decision makers, the interviewer will ask the respondent to clarify the role of that policy in the decision. Conversely, if the decision maker attributes the decision to install the equipment to a new company wide initiative rather than the program, yet there is no evidence of such an initiative reported by program staff, vendors, or the company’s website, the decision maker will be asked to explain the discrepancy so that his or her responses can be changed if needed.

In some cases, however, it may be necessary to modify or override one of the scores contributing to the overall NTGR or the NTGR itself. Before this is done all quantitative and qualitative data will be systematically (and independently) analyzed by two experienced researchers who are familiar with the program, the individual site and the social science theory that underlies the decision maker survey instrument. Each will determine whether the additional information justifies modifying the previously calculated NTGR score, and will present any recommended modifications and their rationale in a well-organized manner, along with specific references to the supporting data. Again, it is important to note that the other influences can have the effect of either increasing or decreasing the NTGR calculated from the decision maker survey responses, and one should be skeptical about a consistent pattern of “corrections” in one direction or another.

Sometimes, *all* the quantitative and qualitative data will clearly point in the same direction while, in others, the *preponderance* of the data will point in the same direction. Other cases will be more ambiguous. In all cases, in order to maximize reliability, it is

essential that more than one person be involved in analyzing the data. Each person must analyze the data separately and then compare and discuss the results. Important insights can emerge from the different ways in which two analysts look at the same set of data. Ultimately, differences must be resolved and a case made for a particular NTGR. Careful training of analysts in the systematic use of rules is essential to insure inter-rater reliability⁴.

Once the individual analysts have completed their review, they meet to discuss their respective findings and present to the other the rationale for their recommended changes to the Calculator-derived NTGR. Key points of these arguments will be written down in summary form (e.g., Analyst 1 reviewed recent AQMD ruling and concluded that customer would have had to install the same measure within 2 years, not 3, thereby reducing NP score from 7.8 to 5.5) and also presented in greater detail in a workpaper so that an independent reviewer can understand and judge the data and the logic underlying each NTGR estimate. Equally important, the CPUC will have all the essential data to enable them to replicate the results, and if necessary, to derive their own estimates.

The outcome of the reconciliation by two analysts determines the final NTGR for a specific project. Again, the reasoning behind the “negotiated” final value must be thoroughly documented in a workpaper, while a more concise summary description of the rationale can be included in the NTGR Calculator workbook (e.g., Analyst 1 and Analyst 2 agreed that the NTGR score should have been higher than the calculated value of 0.45 because of extensive interaction between program technical staff and the customer, but they disagreed on whether this meant the NTGR should be .6 or .7. After discussion, they agreed on a NTGR of .65 as reflecting the extent of program influence on the decision).

In summary, it has been decided that supplemental data from non-core NTG questions collected through these surveys should be used in the following ways in the California Large Nonresidential evaluations:

- Vendor interview data will be used at times in the direct calculation of the NTGR. It will also be used to provide context and confirming/contradictory information for Standard-Very Large decision maker interviews.
- Qualitative and quantitative information from other sources (e.g., industry data, vendor estimates of sales in no-program areas, and other data as described above) may be used to alter core inputs only if contradictions are found with the core survey responses. Since judgments will have to be made in deciding which information is more compelling when there are contradictions, supplemental data are reviewed independently by two senior analysts, who then summarize their findings and recommendations and together reach a final NTGR value.

⁴ Inter-rater reliability is the extent to which two or more individuals (coders or raters) agree. Inter-rater reliability addresses the consistency of the implementation of a rating system.

- Responses will also be used to construct a NTGR “story” around the project; that is they will help to provide the context and rationale for the project. This is particularly valuable in helping to provide guidance to program design for future years. It may be, for example, that responses to the core questions yield a high NTGR for a project, but additional information sources strongly suggest that the program qualifying technology has since become standard practice for the firm or industry, so that free ridership rates in future years are likely to be higher if program rules are not changed.
- Findings from other non-core NTGR questions (e.g., Payback Battery, Corporate Policy Battery) are also be used to **cross-check the consistency** of responses to core NTGR questions. When an inconsistency is found, it is presented to the Decision Maker respondent who is then be asked to explain and resolve it if they can. If they are not able to do so, their responses to the core NTGR question with the inconsistency may be overridden by the findings from these supplemental probes. These situations are handled on a case-by-case basis; however consistency checks are programmed into the CATI survey instrument used for the Basic and Standard cases.

Finally, some analysis of additional information beyond the close-ended questions that are used to calculate the Core NTGR could be done for the **Standard NTGR**. For example information regarding the financial criteria used to make capital investments, corporate policy regarding the purchase of energy efficiency equipment or the influence of standard practice in the same industry as the participant could be taken into account and used to make adjustments to the Core NTGR in a manner similar what is done for the Standard – Very Large NTGR.

5.3. Accounting for Partial Free Ridership

Partial free-ridership can occur when, in the absence of the program, the participant would have installed something more efficient than the program-assumed baseline efficiency but not as efficient as the item actually installed as a result of the program.

In situations where there is partial free ridership, the assumed baseline condition is affected. Absent partial free ridership, the assumed baseline would normally be based on existing equipment (in early replacement cases), on code requirements (in normal replace on burnout cases), or on a level above current code (e.g., this could be a market average or value purposefully set above code minimum but below market average; in this case, the definition and requirement would typically be defined by a specific program’s baseline rules). In some cases, there may be a “dual” baseline (more specifically, a baseline that changes over the measure’s EUL) if the project involves early replacement plus partial free ridership. In such cases, the baseline basis for estimating savings is the existing equipment over the remaining useful life (RUL) of the equipment, and then a baseline of likely intermediate efficiency equipment (e.g., code or above) for the remainder of the analysis period (i.e., the period equal to the EUL-RUL). When there is partial free ridership, the baseline equipment that would have been installed absent the program is of an intermediate efficiency level (resulting in lower energy savings than that assumed by the program if the program took in situ equipment efficiency as the basis for

savings over the entire EUL). A related issue with respect to determination of the appropriate baseline is whether the adjustment made, if any, from the in situ or otherwise claimed baseline in the ex ante calculation, is whether the adjustment applies to the gross or net savings calculation.

Assignment of Partial Free Ridership Effects to Gross versus Net. In past evaluations, partial free ridership impacts have principally been incorporated into the net-to-gross ratio. This is because most partial free ridership is induced by market conditions, rather than by non-market factors. Market conditions refer primarily to standard adoption of a technology by a particular market segment or end user as a result of competitive market forces or other end user-specific factors. The key determining principle with respect to application of the adjustment to the net-to-gross ratio is whether there is a level of efficiency, below the efficiency of the measure for which savings are paid and claimed, but above what is required by code or minimum program baseline requirements that the end user would have implemented anyway without the program. Conditions that cause this adjustment to be made to gross savings rather than the net-to-gross ratio may include factors such as

- changing baseline equipment to meet changed business circumstances (such as increased production/throughput, changes in occupancy, etc.);
- compliance with environmental regulations, indoor air quality requirements, safety requirements; or
- the need to address an operational problem.

Each project should be examined separately for partial free ridership and a determination should be made based on the unique circumstances of each installation of whether an adjustment to gross savings or the net-to-gross ratio is warranted.

Data Collection Procedures. Information is gathered on partial free ridership using the following questions asked as part of the decision maker NTGR survey.

1. Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?
 - a. Install fewer units
 - b. Install standard efficiency equipment or whatever required by code
 - c. Install equipment more efficient than code but less efficient than what you installed through the program
 - d. repair/rewind or overhaul the existing equipment
 - e. do nothing (keep the existing equipment as is)
 - f. something else (specify what _____)
2. (IF FEWER UNITS) How many fewer units would you have installed? (It is okay to take an answer such as ...HALF...or 10 percent fewer ... etc.)

3. (IF MORE EFFICIENT THAN CODE) Can you tell me what model or efficiency level you were considering as an alternative? (It is okay to take an answer such as ... 10 percent more efficient than code or 10 percent less efficient than the program equipment)
4. (IF REPAIR/REWIND/OVERHAUL) How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

In addition, these same partial free ridership questions should be asked during the on-site audit for a given project. This latter interview will be conducted by the project engineers. The collected information helps the gross impact and NTG analysis teams gain a more complete understanding of the true project baseline and equipment selection decision. These decision maker questions are included in the Excel version of the CATI-based Standard and Basic decision maker survey instrument as well as in the Standard-Very Large instrument.

Data Analysis and Integration Procedures. In cases where partial free ridership is found and it is determined that the adjustment should be made to the net-to-gross ratio, the following procedure should be used:

On the net side, the adjustment is based on the intermediate baseline indicated by the decision maker for the time period in which the intermediate equipment would have been installed. The calculation of energy saved under this intermediate baseline is done, and then divided by the savings calculated under the in situ baseline. The resulting ratio is then multiplied by the initial NTGR which was previously calculated using only the 'core' scoring inputs. The effect of this adjustment is to reduce the NTGR further to reflect the effects of the revealed partial free ridership.

In all cases, the Gross Impacts and NTG analysis teams will need to carefully coordinate their calculations to ensure that they are not inadvertently adjusting the savings twice for the same partial free ridership, i.e., through adjustments both to the gross savings calculation and to the NTG ratio.

6. NTGR INTERVIEW PROCESS

The NTGR surveys are conducted via telephone interviews. Highly-trained professionals with experience levels that are commensurate with the interview requirements should perform these interviews. Basic and Standard level interviews should be conducted by senior interviewers, who are highly experienced conducting telephone interviews of this type. Standard - Very Large interviews should be completed by professional consulting staff due to the complex nature of these projects and related decision making processes. More than likely, these will involve interviews of several entities involved in the project including the primary decision maker, vendor representatives, utility account executives, program staff and other decision influencers, as well as a review of market data to help establish an appropriate baseline.

All but the Standard -Very Large interviews should be conducted using computer-aided telephone interview (CATI) software. Use of a CATI approach has several advantages: (1) the surveys can be customized to reflect the unique characteristics of each program, and associated program descriptions, response categories, and skip patterns; (2) it drastically reduces inaccuracies associated with the more traditional paper and pencil method; and (3) the process of checking for inconsistent answers can be automated, with follow up prompts triggered when inconsistencies are found.

7. COMPLIANCE WITH SELF-REPORT GUIDELINES

The proposed NTGR framework fully complies with all of the CPUC/ED and the MECT's Guidelines for Estimating Net-to-Gross Ratios Using the Self-Report Approach, as demonstrated in Appendix D.

Appendix B

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Appendix B

Net-to-Gross Questions and Uses of Data by Level of NTGR Analysis

Note: A more detailed version of this survey, with skip patterns and complete response categories, is available in Excel format from the NTG Working Group or at <http://www.energydataweb.com/cpuc/default.aspx>

DECISION MAKER SURVEY

| | Question Text | Basic | Standard and Standard – Very Large |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------|
| | <p>Introduction</p> <p>Hello, my name is _____ from COMPANY NAME and I am calling about your recent participation in PROGRAM NAME. Are you the person who was most involved with the decision to participate in the PROGRAM NAME? [IF YES, CONTINUE]. We are interviewing firms that participated in the PROGRAM NAME in 2006 and 2007 to discuss the factors that may have influenced your decision to participate in the program. The interview will take about 20 minutes. The questions on this survey pertain to work completed by your company at this current address, excluding other locations.</p> | | |
| | <p>WARM-UP QUESTIONS</p> | | |
| A1 | <p>First, according to our records, you participated in PROGRAM NAME on (approximate date). [READ: Program Description. PROGRAM NAME promotes energy efficiency improvements in commercial/industrial facilities. The program offers (choose all that apply): energy audits to help identify applicable measures, feasibility studies to analyze the energy and cost savings of recommended measures, incentives to help cover a portion of the cost of implementing energy efficient measures, etc. Is that correct?</p> | X | X |
| | <p>Yes, No, DK, Refused</p> | | |
| A2 | <p>Next, I'd like to confirm the following information regarding the measures you implemented through the program: (READ: PROJECT DETAILS INCLUDING SERVICES RECEIVED, MEASURES INSTALLED, KEY DATES, PARTICIPATING VENDORS, ETC.) Does that sound right?</p> | X | X |
| | <p>Yes, No, DK, Refused</p> | | |
| A3 | <p>Why did you decide to implement MEASURE NAME? Were there any other reasons?</p> | X | X |
| | <p>a. Record VERBATIM</p> | | |
| | <p>b. DK/Refused</p> | | |
| | <p>NET-TO-GROSS BATTERY</p> | | |
| N1 | <p>When did you first learn about PROGRAM? Was it BEFORE or AFTER you first began to think about implementing MEASURE?</p> | X | X |
| | <p>a. Before (Skip to N3)</p> | | |
| | <p>b. After</p> | | |
| | <p>c. DK/Refused</p> | | |

| | | | |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| | | | |
| N2 | Did you learn about PROGRAM BEFORE or AFTER you decided to implement the specific MEASURE that was eventually adopted or installed? | X | X |
| | a. Before | | |
| | b. After | | |
| | c. DK/Refused | | |
| | <i>READ: Program Description: As I mentioned earlier, [PROGRAM NAME] promotes energy efficiency improvements in commercial/industrial facilities. The program offers (choose all that apply): energy audits to help identify applicable measures, feasibility studies to analyze the energy and cost savings of recommended measures, incentives to help cover a portion of the cost of implementing energy efficient measures, etc. I'm going to ask you to rate the importance of the program as well as other factors that might influence your decision to implement [MEASURE.] Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.</i> | | |
| N3 | Now, using this 0 to 10 rating scale, where 0 means "Not at all important" and 10 means "Very important," please rate the importance of each of the following in your decision to implement this specific [MEASURE] at this time. [CUSTOMIZE LIST OF FACTORS FOR PROGRAM BEFORE ASKING THEM TO SCORE THE FULL LIST. ROTATE PRESENTATION OF ITEMS. FOLLOW UP WITH "And is there anything else that I may have missed?" RECORD AS p. Other (SPECIFY)] | | |
| | a. The age or condition of the old equipment | X | X |
| | b. Availability of the PROGRAM rebate | X | X |
| | c. Information provided through a recent feasibility study, energy audit or other types of technical assistance provided through the PROGRAM (probe on when and by whom?) | X | X |
| | d. Recommendation from a vendor/supplier (If >5, Vendor interview may be triggered) | TRIGGER | TRIGGER |
| | e. Previous experience with PROGRAM? | X | X |
| | f. Previous experience with this MEASURE? | X | X |
| | g. Information from PROGRAM training course? | X | X |
| | h. Information from other PROGRAM marketing materials? | X | X |
| | i. A recommendation from an auditor or consulting engineer | X | X |
| | j. Standard practice in our business/industry (IF >5, ask standard practice battery) | X | TRIGGER |
| | k. Endorsement or recommendation by PROGRAM staff, PROGRAM vendor, or UTILITY representative | X | X |
| | l. Corporate policy or guidelines (If >5 ask Policy questions) | X | TRIGGER |
| | m. Payback on the investment (If >5 ask payback battery) | X | TRIGGER |
| | n. General concerns about the environment | X | X |
| | o. Specific concerns about global warming | X | X |
| | p. Specific concerns about achieving energy independence | X | X |
| | q. Other (SPECIFY) | X | X |
| N4 | Now I'd like to ask you a last question about the importance of the program to your decision. Again using the 0 to 10 rating scale we used earlier, where 0 means "Not at all important" and 10 means "Very important," please rate | X | X |

| | | | |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|
| | the overall importance of PROGRAM versus the other factors we just discussed in your decision to implement the specific MEASURE. I'd like you to give me a 0 to 10 score for the PROGRAM's influence and a 0 to 10 score for the influence of the most important other factor so that the two scores total 10. | | |
| | a. _____ rating of the importance of PROGRAM NAME | X | X |
| | b. _____ rating of the importance of Other Factors | X | X |
| | <i>Now I would like you to think about the action you would have taken with regard to the installation of this equipment PROGRAM had not been available.</i> | | |
| N5 | Regarding the installation of this equipment if the PROGRAM had not been available, how likely is it that you would have installed exactly the same item/equipment, using a 0 to 10 likelihood scale, where 0 is not at all likely and 10 is extremely likely? | X | X |
| N6 | <i>IF N5>0.</i> You indicated in your previous responses that there was a X in 10 likelihood that you would have installed the same equipment if the PROGRAM had not been available. | X | X |
| | When do you think you would have installed this equipment? (Please answer in months)_____ | | |
| | a. _____ ..within 6 months? NTGR = 0 | | |
| | b. _____ .. 6 – 47 months later (NTGR=(months-6)*.024) | | |
| | c. _____ ..4 or more years later (NTGR=1) | | |
| | g. _____ ..Never (NTGR=1) | | |
| | PARTIAL FREE RIDERSHIP BATTERY | GROSS IMPACT | GROSS IMPACT |
| | | | |
| P1 | Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?: a. Install fewer high efficiency units (e.g., controls, VFDs, lights) b. Install standard efficiency equipment or whatever required by code c. Install equipment more efficient than code, but less efficient than we installed through the program d. Repair/rewind/refurbish the existing equipment e. do nothing (keep the existing equipment as is) f. Something else (specify) | | |
| P4 | If P1=a: How many units would you have installed? Record number of units or percentage of units actually installed | | |
| P5 | | | |
| P6 | If P1=c: Can you tell me what model or efficiency level you were considering as an alternative? (It is okay to take an answer such as ... 10 percent more efficient than code or 10 percent less efficient than the program equipment) | | |
| P7 | If P1=d: How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement? | | |
| P8 | | | |
| P9 | | | |
| | Additional Decision Maker Questions | | |

| | | | |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| | PAYBACK BATTERY (If payback importance >5) | | |
| N10 | What financial calculations does your company make before proceeding with installation of a MEASURE like this one? | | X |
| N11 | What is the cut-off point your company uses before deciding to proceed with the investment? | | X |
| N12 | What was the result of the calculation for MEASURE: a) with the rebate? b) without the rebate? | | X |
| | <i>INVESTIGATE INCONSISTENT RESPONSE</i> | | |
| N13 | What competing investments, if any, were considered for the funds that were allocated to the adoption of MEASURE? | | X |
| N14 | Why was MEASURE chosen over these other investments | | X |
| | CORPORATE POLICY BATTERY (If corporate policy importance >5) | | |
| N15 | Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be to "buy green" or use sustainable approaches to business investments. | | X |
| N16 | What specific corporate policy influenced your decision to adopt or install MEASURE? | | X |
| N17 | Had that policy caused you to adopt the MEASURE at this facility before participating in this program? | | X |
| N18 | Had that policy caused you to adopt the MEASURE at other facilities before participating in this program? When and where? | | X |
| N19 | Did you receive an incentive for a previous [MEASURE]? If so, please describe. | | X |
| | STANDARD PRACTICE BATTERY (If standard practice importance >5) | | |
| N20 | How long has MEASURE been standard practice in your industry? | | X |
| N21 | Does your company ever deviate from the standard practice? If yes, under what conditions? | | X |
| N22 | How did this standard practice influence your decision to install the energy efficiency equipment | | X |
| N23 | What industry group or trade organization do you look to establish standard practice for your industry? | | X |
| N24 | How do you and other firms/facilities receive information on updates in standard practice? | | X |
| | OTHER INFLUENCES BATTERY | | |
| N25 | Who provided the most assistance in the design or specification of MEASURE? Designer or Consultant, Equipment Distributor or Mfr Rep, Installer, Utility rep, or Internal staff | X | X |
| N26 | Please describe the type of assistance that they provided. | X | X |
| N27 | Please state, in your own words, any other factors that influenced your decision to go ahead on this energy efficient equipment/project. | X | X |

VENDOR SURVEY

| | Question Text | Basic | Standard and Standard Very Large |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------|
| | Warm Up | | |
| A1 | The CUSTOMER indicates that you recommended the installation of [EFFICIENT MEASURE] at their facility at [CUSTOMER LOCATION] on [DATE]. Do you recall making this recommendation? | X | X |
| | a. Yes | | |
| | b. No | | |
| | c. DK (-8) | | |
| | d. Refused (-9) | | |
| | <i>I'm going to ask you to rate the importance of the [PROGRAM] in influencing your decision to recommend [MEASURE] to [CUSTOMER] and other customers. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.</i> | | |
| V1 | Using this 0 to 10 scale where 0 is "Not at all important" and 10 is "Very Important", how important was PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that CUSTOMER install the energy efficiency MEASURE at this time? | X | X |
| V2 | And using a 0 to 10 likelihood scale, where 0 denotes "not at all likely" and 10 denotes "very likely," if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific energy efficiency MEASURE to CUSTOMER? | X | X |
| V3 | Now, using a 0 to 100 percent scale, in what percent of sales situations did you recommend MEASURE before you learned about the [PROGRAM]? | X | X |
| V4 | And using the same 0 to 100 percent scale, in what percent of sales situations do you recommend MEASURE now that you have worked with the [PROGRAM]? | X | X |
| V4a | In what other ways have your recommendations regarding MEASURE been influenced? [For each mention, ask: And using the same 0 to 10 scale, where 0 is "Not at all important" and 10 is "Very important", how important in influencing your recommendations. . . (INSERT FIRST MENTION, INSERT SECOND MENTION ETC.)] | X | X |
| V5 | And, using the same 0 to 10 scale where 0 is "Not at all important" and 10 is "Very important", how important in your recommendation were | | |
| | a. Training seminars provided by UTILITY? | X | X |
| | b. Information provided by the UTILITY website? | X | X |
| | c. Your firm's past participation in a rebate or audit program sponsored by UTILITY? | X | X |

| | Optional: | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| V6 | Approximately what percentage of your sales of MEASURE in UTILITY'S service territory are energy efficient models that qualify for incentives from the UTILITY program. | X | X |
| V7 | On a 0 percent to 100 percent scale, in what percent of sales situations do you encourage your customers in UTILITY territory to purchase program qualifying [MEASURES]? | X | X |
| V8. | (IF LESS THAN 100) In what situations do you NOT encourage your customers to purchase energy efficient models if they qualify for a rebate? Why is that? | X | X |
| V9 | Of those installations of EQUIPMENT in UTILITY service territory that qualify for incentives, approximately what percentage do not receive the incentive? | X | X |
| V10 | Why do they not receive the incentive (open end?) | X | X |
| V11 | Do you also sell MEASURE in areas where customers do not have access to incentives for energy efficient models? | X | X |
| V12 | About what percent of your sales of MEASURE are represented by these areas where incentives are not available? | X | X |
| V12a | IF AT LEAST 10%: And approximately what percentage of your sales of MEASURE in these areas are the energy efficient models that would qualify for incentives in UTILITY'S service territory? | X | X |
| V13 | Have you changed your stocking practices as a result of the UTILITY program? If yes, how? | X | X |
| V14 | Do you promote energy efficient models equally in areas with and without incentives? | X | X |

Appendix C

NTGR Scoring Algorithm and Example

The calculation of the self-report-based core NTGR is described below. The NTGR is calculated as an average of three scores representing responses to one or more questions about the decision to install a program measure.

1. A ***Timing and Selection*** score that captures the influence of the most important of various program and program-related elements in influencing the customer to select the specific program measure at this time. Program influence through vendor recommendations is also captured in this score.
2. An overall ***Program Influence*** score that captures the perceived importance of the program (whether rebate, recommendation, or other information) in the decision to implement the specific measure that that was eventually adopted or installed. The overall program influence score is reduced by half if the respondent says they learned about the program only after they decided to install the program qualifying measure.
3. A ***No-Program*** score that captures the likelihood of various actions the customer might have taken at this time and in the future if the program had not been available. This score accounts for deferred free ridership by capturing the likelihood that the customer would have installed program qualifying measures at a later date if the program had not been available.

Calculation of each of the above scores is discussed below. For each score, the questions contributing to the calculation are presented, the calculation is described, and an example is provided.

Timing and Selection Score

For the decision maker, the questions asked are:

Using a 0 to 10 rating scale, where 0 means not at all important and 10 means very important, please rate the importance of each of the following in your decision to implement this specific measure at this time:

- Availability of the PROGRAM rebate
- Information provided through a recent feasibility study, energy audit or other types of technical assistance provided through the PROGRAM
- Information from PROGRAM training course
- Information from other PROGRAM marketing materials
- Recommendation from a vendor/supplier (If >5, a vendor interview is triggered)

For the vendor, the questions asked if the interview is triggered are:

1. On a 0 to 10 scale where 0 is “Not at all important” and 10 is “Very important”, how important was PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that CUSTOMER install the energy efficiency MEASURE at this time?
2. And using a 0 to 10 likelihood scale, where 0 denotes “Not at all likely” and 10 denotes “Extremely Likely,” if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific energy efficiency MEASURE to CUSTOMER?
3. Now, using a 0 to 100 percent scale, in what percent of sales situations did you recommend this MEASURE before you learned about the PROGRAM?
4. And using the same 0 to 100 percent scale, in what percent of sales situations do you recommend this MEASURE now that you have worked with the PROGRAM?
5. And, using the same 0 to 10 scale where 0 is “Not at all important” and 10 is “Extremely Important”, how important in your recommendation were:
 - a. Training seminars provided by UTILITY?
 - b. Information provided by the UTILITY website?
 - c. Your firm’s past participation in a rebate or audit program sponsored by UTILITY?

If the vendor interview is triggered, a score is calculated that captures the highest degree of program influence on the vendor’s recommendation. This score (VMAX) is calculated as the MAXIMUM value of the following:

1. The response to question 1
2. 10 minus the response to question 2
3. The response to question 4 minus the response to question 3, divided by 10
4. The response to question 5 a.
5. The response to question 5b.
6. The response to question 5c.

The Timing and Selection Score is calculated as:

The highest of the responses to the first four decision maker questions and, if the vendor interview has been triggered, the VMAX score multiplied by the score the decision makers assigned to the vendor recommendation..

Example:

The decision maker provides responses of 5 for the importance of the rebate, 6 for an audit or feasibility study, 3 for training, 2 for other marketing materials, and 7 for the vendor recommendation, which means a vendor interview is triggered.

The vendor responses are 8 for the significance of the program, 5 for the likelihood of recommending the measure in the absence of the program, 40% for how often the measure was recommended before program awareness and 60% for how often it is recommended after program awareness, 3 for the importance of training, 2 for the importance of the website and 5

for the importance of previous participation. The VMAX score is the greatest of 8, (10-5), (60-40)/10, 3, 2 and 5. So VMAX is 8. This score is multiplied by the importance of the vendor recommendation, to which the decision maker assigned a 7, so the vendor score is 5.6.

The timing and selection score is the maximum of the four decision maker responses (5, 6, 3, and 2) and the vendor score (5.6). Even though the vendor interview was triggered, the vendor score is not as high as the 6 assigned to the importance of the audit or feasibility study, so the timing and selection score is 6.

Program Influence Score

The questions asked are:

1. Did you learn about PROGRAM BEFORE or AFTER you decided to implement the specific MEASURE that was eventually adopted or installed?
2. Again using the 0 to 10 rating scale we used earlier, where 0 means "Not at all important" and 10 means "Very important," please rate the overall importance of PROGRAM versus the most important of the other factors we just discussed in your decision to implement the specific MEASURE that was adopted or installed. This time I would like to ask you to have the two importance ratings -- the program importance and the non-program importance -- total 10.

The program influence score is calculated as:

The program importance response, on the 0 to 10 scale, to question 2. This score is reduced by half if the respondent became aware of the program only after having decided to adopt the program qualifying measure.

Example:

The decision maker says they became aware of the program before deciding to implement the measure, and provides a response of 7 to question 2, which becomes the program influence score.

No-Program Score

The questions asked are:

1. Regarding the installation of this equipment if the PROGRAM had not been available, how likely is it that you would have installed exactly the same item/equipment, using a 0 to 10 likelihood scale, where 0 is not at all likely and 10 is extremely likely?
2. IF 1>0. You indicated in your previous responses that there was an "X" in 10 likelihood that you would have installed the same equipment if the PROGRAM had not been available. When do you think you would have installed this equipment? Please express your answer in months
 - a. _____ Within 6 months? (Deferred NTG Value=0)
 - b. _____ 7 to 47 months later (Deferred NTG Value=(months-6)*.024)

- c. _____ 48 or more months later (Deferred NTG Value =1)
- d. _____ Never (Deferred NTG Value=1)

Note: The value 0.024 is 1 divided by 41 (41 is calculated as 47 – 6). This assumes that the deferred NTG value is a linear function beginning in month 7 through month 47, increasing 0.024 for each month of deferred installation.

The No-Program Score is calculated as:

10 minus (the likelihood of installing the same equipment multiplied by one minus the deferred net-to-gross value associated with the timing of that installation).

Example

The respondent says there is a 4 in 10 likelihood that they would have installed the same equipment. In response to question 5, the decision maker says they would have installed the qualifying equipment 18 months later, which has a NTGR value of $(18-6) \cdot 0.024$, or .29 associated with it.

The No-Program score is 10 minus $(4 \cdot (1 - .29))$, which is 10 minus $4 \cdot .71$ or 7.16.

Core NTG Ratio

The self-reported core NTGR in most cases is simply the average of the Program Influence, Timing and Selection, and No-Program Scores, divided by 10. The one exception to this is when the respondent indicates a 10 in 10 probability of installing the same equipment at the same time in the absence of the program, in which case the NTGR is based on the average of the Program Influence and No-Program scores only.

Example (Core NTGR)

The NTGR is the average of 6, 8 and 7.2, or 7.1 divided by 10 = .71. This figure is then applied to adjusted gross savings to yield net savings.

Appendix D

Demonstration of Compliance with the CPUC/ED and MEC's Guidelines for Estimating Net-to-Gross Ratios Using the Self-Report Approach

1. Timing of the interview

To minimize problems of recall, every effort should be made to conduct the NTGR interview as close to project completion as possible.

2. Identifying the correct respondent

The survey form includes some initial probing on the respondent's role in the completed project, to confirm their involvement in the decision to implement the energy efficiency measures. In addition, both the utility or third party representative and any trade allies involved should be asked to confirm they are the correct contact. If multiple decision makers are identified, each one should be interviewed and the results pooled.

In the unfortunate circumstance where the key decision maker has left the company, that sample point should be discarded and replaced with a respondent from within the same stratum in the backup sample.

3. Set-up questions

The survey includes a series of warm-up questions that serve to remind the respondent about the circumstances and motivations surrounding the project, the project scope (including installed measures), incentives paid, and the project schedule. This information also helps to build the "story" to substantiate the NTGR responses given.

4. Use of multiple questions

The NTGR scoring algorithm relies on responses from several questions to determine the final NTGR score. The scoring is a function of:

- The timing of their program awareness relative to their decision to implement the installed measure
- The importance of program versus non-program influences in their decision making
- The importance of specific influences in the participant's general decision to implement the measure and that led them to implement the specific measure at the time they did rather than an alternative
- Without the program, the probability of alternative actions to implementing the selected measure

5. Validity and reliability

The proposed NTGR method is designed to produce valid and reliable NTGR results, based on the use of:

- *"Tried and true" question wording.* Many of the core questions used in NTGR scoring are substantially the same as those that have been used extensively in previous large C&I program evaluations, such as the last several rounds of evaluation for the California Standard Performance Contracting Program. While the question construct is somewhat

different from in the past, the wording used is essentially the same as has been used previously.

- *Information from supplemental questions and multiple data sources to corroborate and triangulate on the NTGR “story”.* In addition to self-reported information, the NTGR findings for Standard and Standard – Very Large NTGR sites include responses to a number of supplemental questions surrounding the project (e.g., corporate policy, standard industry practice and payback), and the results from an interview with the vendor(s) involved in the project. These findings will be used to converge on a plausible estimate of the NTGR and to help tell the “story” behind the project and its context.
- *Multiple reviewers. Standard - Very Large customer projects are reviewed by two experienced analysts.* The two reviewers seek to develop a NTGR consensus on the project, and resolve any differences of opinion.
- *Identification and explicit consideration of alternate hypotheses.* Respondents are asked about the relative influence of a variety of program and non-program factors.

During the pre-test of the NTGR survey instrument, reliability tests should be conducted using the CATI software. Any problem areas detected should be corrected.

6. Consistency checks

Questions within the NTGR battery that are more likely to produce inconsistent responses have been flagged. These include questions regarding the program’s reported importance in the decision to implement the specified measure, alternative actions in the program’s absence, questions reporting the motivations for doing the project, as well as any closely related supplemental questions. The CATI software should be specifically programmed to flag any inconsistencies, and include follow-up prompts when they are found. Interviewers should be instructed how to administer these follow-up questions to resolve these inconsistencies. Interviewers should make every effort to resolve any inconsistencies before concluding the interview. Examples of the procedures for checking consistency of responses are provided in Section 3.

7. Making the Questions Measure-Specific

In general, most projects involve one type or class of measure. However, there are a few instances where the project consists of multiple types of measures, but usually, one measure predominates. In such cases, the interview should be conducted around the dominant measure with the greatest share of savings. If there are projects with multiple types of measures and no one measure class predominates, the NTGR sequence should be repeated for each significant measure class (e.g., once for lighting and once for process measures). At the beginning of each interview, there is a prompt with a description of the measure class that the questions pertain to so that it is clear in the minds of the respondent which measures they are being asked about.

8. Partial free-ridership

Questions P1-P9 are designed to collect the information necessary to adjust for any partial free-ridership. *However, this adjustment is be made to the **gross savings** estimates and not to the NTGR.*

9. Deferred free-ridership

Question N6 addresses deferred free ridership, and provides specific adjustment factors for each response category. The NTGR algorithm (See Section 5 and Appendix C) text fully explains the specifics of this adjustment.

10. Scoring algorithms

The methodology includes a specific algorithm for developing a NTGR based on responses received. The results of the 0 to 10 scoring are used to develop specific values for each question used to score the NTGR. A description of the scoring algorithm is provided in Section 5 and in Appendix C.

11. Handling unit and item non-response

Every effort should be made to discourage non-responses (i.e., refusals and terminates). For example, in California, the interviewer points out that the energy efficiency program requires the project to be evaluated as a condition of participation. Absent such a requirement, interviewers should stress such things as the importance of evaluation in improving program design and delivery. In some cases, incentives can be offered to respondents. In the event various strategies are not successful, the non-responding customer should be replaced by another customer within the same stratum. While efforts to minimize item non-response (“don’t knows” and “refusals”) should be made using a variety of available techniques, one should recognize that forcing a response can distort the respondent’s answer and introduce bias.

12. Weighting the NTGR

The mean NTGR for a given measure, end use or program should be weighted to take into account the size of the ex post gross impacts.

13. Ruling out rival hypotheses

The core NTGR questions, particularly question 4 of the Decision Maker survey, have been carefully constructed to try to rule out rival hypotheses. The method asks respondents to jointly consider and rate the importance of the many likely events or factors that may have influenced their energy efficiency decision making, rather than focusing narrowly on only their rating of the program’s importance. This question structure more accurately reflects the complex nature of the real-world decision making and should help to ensure that all non-program influences are reflected in the NTGR assessment in addition to program influences.

14. Precision of the NTGR

The calculation of the achieved relative precision of the NTGRs (for program-related measures and practices and non-program measures and practices) is expected to be straightforward. However, the inclusion of more complicated situations involving multiple participant and vendor

interviews as well as the inclusion of additional qualitative information means that the NTGR standard errors may underestimate the uncertainty surrounding the NTGR estimate.

15. Pre-testing the questionnaire

The NTGR survey should be carefully and extensively pre-tested and adjusted in response to pre-test findings before it is fielded.

16. Incorporation of additional qualitative and quantitative data in estimating the NTGR (data collection, rules for data integration, analysis)

Specific rules have been established for data integration and these are described in Section 3.

17. Qualified interviewers

The NTGR surveys should be fielded by highly experienced interviewers. High level professional interviewers should be used for the largest and most complex projects, while less experienced professional interviewers should be used for smaller, simpler projects. A CATI approach should be used for all but the very largest and most complex projects.

Basic Decision Maker NTG Survey Instrument Modified 06/22/09

Introduction

- This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. May I please speak with <%CONTACT> ... the person most knowledgeable about your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>?,
- AA1
1 Yes AA7
2 No AA2
- Who would be the person most knowledgeable about your firm's involvement with ...<%CUSTOMER>'s...project that involved the installation of ...<%MEASURE>... on approximately... <%INSTALL_DATE>?,
- AA2
1 Record name AA3
88 Refused Thank and Terminate
99 Don't know Thank and Terminate
- May I speak with him/her?
- AA3
1 Yes AA4
2 No (not available right now) SCHEDULE APPOINTMENT Reschedule appt.
- This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. I was told that you are the person most familiar with your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>? __Is this correct?
- AA4
1 Yes AA7
2 No, there is someone else (RECORD NAME) AA5
3 No and I don't know who to refer you to Thank and Terminate
88 Refused Thank and Terminate
99 Don't know Thank and Terminate
- This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. Am I speaking with the person most familiar with your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>? __Is this correct?
- AA5
1 Yes. AA7
2 Yes, but I need to make an appointment Reschedule appt.
3 No, but I will give you to the correct person AA7
88 Refused Thank and Terminate
99 Don't know Thank and Terminate
- We are interviewing firms that participated in <%PROGRAM> during 2006, 2007 and 2008 to discuss the factors that may have influenced their decision to participate in the program. By receiving a rebate of \$ <%INCENTIVE> through this program, your organization agreed to participate in this follow-up study on your experiences with this program.
IF VISIT = 1 We <(VISIT == 1)/Have already visited/will also be visiting> your site to get information on the measures installed. One of our engineers has already visited your site to get information on the measures installed.
1 .<%ENGINEER>... spoke to ...<%ONSITEREP> ... on ..<%ONSITEDATE>.\;
- AA7 A1

Your input to this research is extremely important. We will not identify or attribute any of your comments or organization information.

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor. For the sake of expediency, we will be recording this interview.

[Here are the contacts at the UTILITY level]

PGE Rob Roffrey - (415) 973-1222
SCE Ron Cobas - 626-633-3088
SDGE Sandra Williams 858-636-5802
CPUC Peter Lai 213-576-7087

- According to our records your organization participated in .. <%PROGRAM>... on ...<%INSTALL_DATE>... by installing ...<%MEASURE>. Does this sound right?
- A1
1 Yes A1b
2 No A1a
88 Refused A1a
99 Don't know A1a
- A1a. What do you remember installing through this program?
- 77 RECORD VERBATIM A1b
88 Refused A1b
99 Don't know A1b
- IF AUDIT == 1; THEN ASK ELSE A1c**
- A1b According to our records, your organization also received an AUDIT from <%UTILITY>. Is this correct?
- 1 Yes A1c
2 No A1c
88 Refused A1c
99 Don't know A1c
- IF TECH_ASST == 1, THEN ASK, ELSE A1d**
- A1c According to our records, your organization also received TECHNICAL ASSISTANCE from <%UTILITY>. Is this correct?
- 1 Yes A1d
2 No A1d
88 Refused A1d
99 Don't know A1d

- IF FEAS_STUDY == 1, THEN ASK, ELSE A1e**
- A1d According to our records, your organization also received a FEASABILITY STUDY from <%UTILITY>. Is this correct?
- 1 Yes A1e
2 No A1e
88 Refused A1e
99 Don't know A1e
- IF RCX == 1, THEN ASK, ELSE A1f**
- A1e. According to our records, your organization also received RETROCOMMISSIONING from <%UTILITY>. Is this correct?
- 1 Yes A1f
2 No A1f
88 Refused A1f
99 Don't know A1f
- IF PTRAIN == 1, THEN ASK ELSE A1g**
- A1f. According to our records, your organization also received PROGRAM TRAINING from <%UTILITY>. Is this correct?
- 1 Yes A1g
2 No A1g
88 Refused A1g
99 Don't know A1g
- A1g Our records show that your organization received \$ <%INCENTIVE> from ...<%PROGRAM>... for the installation of this equipment. Does this sound correct?
- 1 Yes A1h
2 No A1gg
88 Refused A1h
99 Don't know A1h
- A1gg. What was the incentive amount that your organization received through the program?
- 77 RECORD VERBATIM A1h
88 Refused A1h
99 Don't know A1h

[READ] For the sake of expediency, during the balance of the interview, we will be referring to the <%PROGRAM> as the PROGRAM and we will be referring to the installation of ... <%MEASURE> as the MEASURE. I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.

[READ] I would like to get some information on the VENDORS that may have helped you with the implementation of this equipment. As part of this study, we will be conducting a separate interview with the vendors that worked with you on the implementation of this equipment.

Revision

- A1h First let's talk about the EQUIPMENT SUPPLIER/INSTALLER Vendor. We show. . .
! VENDOR NAME... <%VEND1NAME>
! VENDOR PHONE...<%V1PHONE>
! as the EQUIPMENT VENDOR.
- A1h1 Can we have the VENDOR NAME _____, Their phone number, ___their CONTACT name _____,
Their Cell phone number !___their EMAIL ADDRESS ?
!! __MAKE SURE TO GET CONTACT NAME\
77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT NAME A1i
88 Don't know A1i
99 Refused A1i
- IF VENDOR2 = 1 OR 2, THEN ASK**
- A1i Our records show you also used a DESIGN or CONSULTING Engineer. Did you use a DESIGN OR CONSULTING Engineer?
! VENDOR NAME... <%VEND2NAME>
! VENDOR PHONE...<%V2PHONE>
1 Yes A1j
2 No A1i1
88 Refused A1j
99 Don't know A1j
- IF VENDOR2 =2 OR A1i=2, THEN ASK:**
- A1i1 Can we have the VENDOR NAME _____, Their phone number, ___their CONTACT name _____,
Their Cell phone number !___their EMAIL ADDRESS ?
!! __MAKE SURE TO GET CONTACT NAME\
77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A1j
88 Don't know A1j
99 Refused A1j
- IF VENDOR3 == 1 OR 2, THEN ASK**
- A1j. Our records show you also used a PROGRAM PROVIDED Vendor. Did you use a PROGRAM PROVIDED Vendor? [READ
NAME AND PHONE NUMBER]
! VENDOR NAME... <%VEND3NAME>
! VENDOR PHONE...<%V3PHONE>
1 Yes A2a
2 No A1j1
88 Refused A2a
99 Don't know A2a

IF VENDOR3 ==2, THEN ASK:

- A1j1 Can we have the VENDOR NAME _____, Their phone number, ___their CONTACT name _____,
 Their Cell phone number !___their EMAIL ADDRESS ?
 !! __MAKE SURE TO GET CONTACT NAME\
 77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A2a
 88 Don't know A2a
 99 Refused A2a

Thanks for helping us with this vendor information. Below, I am going to ask some questions about the implementation of the measure that you installed through the program. Should you remember any vendor information later on, please feel free to volunteer this information at that time, I can record vendor information at any time.

WARM-UP QUESTIONS:

- A2a How did you first become aware of the &MEASURE?
 1 Bill insert A2
 2 Program Literature A2
 3 Account representative A2
 4 Program provided vendor A2
 5 Program representative A2
 6 Utility or program website A2
 7 Trade publication A2
 8 Conference A2
 9 Newspaper article A2
 10 Word of mouth A2
 11 Previous experience with it A2
 12 Company used it at other locations A2
 13 Contractor A2
 14 Other (RECORD VERBATIM) A2
 88 Refused A2
 99 Don't know A2
- A2 **In your own words, can you tell me why you decided** to implement this MEASURE?
 77 RECORD VERBATIM N1
 88 Don't know N1
 99 Refused N1

Revision

NET-TO-GROSS QUESTIONS:

- N1 When did you first learn about <%UTILITY>'s PROGRAM? Was it BEFORE or AFTER you first began to THINK about implementing this MEASURE?
 1 Before N3
 2 After N2
 88 Refused N2
 99 Don't know N2
- N2 Did you learn about <%UTILITY>'s Program BEFORE or AFTER you DECIDED to implement the MEASURE that was installed?
 1 Before N3
 2 After N3
 88 Refused N3
 99 Don't know N3
- [READ: &PROGRAMDESCR]. Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement &MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.*
 Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important, so that an importance rating of 8 shows twice as much influence as a rating of 4. Now using this scale please rate the importance of each of the following in your decision to implement the MEASURE at this time.
- N3 N3a. The age or condition of the old equipment
 # Record 0 to 10 score (_____) N3b.
 88 Refused N3b.
 99 Don't know N3b.
- N3b. Availability of the PROGRAM rebate
 # Record 0 to 10 score (_____) N3bb
 88 Refused N3c
 99 Don't know N3c
- IF N3b > 7, THEN ASK.**
 N3bb Why do you give it this rating?
 77 Record VERBATIM N3c.
 88 Refused N3c.
 99 Don't know N3c.
- IF &FEAS_STUDY=1, &AUDIT=1, OR &TECH_ASSIST=1, THEN ASK, ELSE N3d**
 Information provided through...
 !! __<(FEAS_STUDY == 1)/ The Feasibility study/>
 !__<(AUDIT == 1)/The Facility or System AUDIT/>
 N3c. !__<(TECH_ASST == 1)/The Technical Assistance
 # Record 0 to 10 score (_____) N3c1.
 88 Refused N3c2.
 99 Don't know N3c2.

| | | |
|-------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| | IF N3c > 7, THEN ASK. | |
| N3c1. | Why do you give it this rating? | |
| | 77 Record VERBATIM | N3c2. |
| | 88 Refused | N3c2. |
| | 99 Don't know | N3c2. |
| | IF VENDOR1,NE.0,THEN ASK | |
| N3d. | Recommendation from an equipment vendor that sold you &MEASURE and/or installed it [VENDOR_1] | IF N3d > N3b, N3c, N3g, N3h, N3l then c |
| | # Record 0 to 10 score (_____) | N3dd |
| | 88 Refused | N3dd |
| | 99 Don't know | N3dd |
| N3e. | Previous experience with this &MEASURE? | |
| | # Record 0 to 10 score (_____) | N3f. |
| | 88 Refused | N3f. |
| | 99 Don't know | N3f. |
| N3f. | Previous experience with the utility &PROGRAM or a similar utility program (such as &SIM_PGM?) | |
| | # Record 0 to 10 score (_____) | N3g. |
| | 88 Don't know | N3g. |
| | 99 Refused | N3g. |
| | IF &PGM_TRAIN=1 OR &UTIL_TRAIN=1 THEN ASK, ELSE N3h | |
| N3g. | Information from &PROGRAM or &UTILITY training course? | |
| | # Record 0 to 10 score (_____) | N3gg |
| | 88 Refused | N3h |
| | 99 Don't know | N3h |
| | IF N3g >7, THEN ASK | |
| N3gg | Why do you give it this rating? | |
| | 77 Record VERBATIM | N3h. |
| | 88 Refused | N3h. |
| | 99 Don't know | N3h. |
| N3h. | Information from &PROGRAM or &UTILITY marketing materials? | |
| | # Record 0 to 10 score (_____) | N3hh. |
| | 88 Refused | N3i |
| | 99 Don't know | N3i |
| | IF N3h >7, THEN ASK | |
| N3hh | Why do you give it this rating? | |
| | 77 Record VERBATIM | N3i |
| | 88 Refused | N3i |
| | 99 Don't know | N3i |
| | IF VENDOR2,NE.0,THEN ASK | |
| N3i. | A recommendation from a design or consulting engineer [VENDOR_2] | IF N3d > N3b, N3c, N3g, N3h, N3l then c |
| | # Record 0 to 10 score (_____) | N3ii |
| | 88 Refused | N3ii |
| | 99 Don't know | N3ii |
| N3j. | Standard practice in your business/industry | |
| | # Record 0 to 10 score (_____) | N3k. |
| | 88 Refused | N3k. |
| | 99 Don't know | N3k. |
| | IF VENDOR3,NE.0,THEN ASK | |
| N3k. | Endorsement or recommendation by [PGM_VEND] [VENDOR_3] | |
| | # Record 0 to 10 score (_____) | N3k1 |
| | 88 Refused | N3k2 |
| | 99 Don't know | N3k2 |
| | IF N3k >7, THEN ASK | |
| N3k1 | Why do you say that? | |
| | 77 Record VERBATIM | N3k2 |
| | 88 Refused | N3k2 |
| | 99 Don't know | N3k2 |
| N3l. | Endorsement or recommendation by &ACCT_REP | |
| | # Record 0 to 10 score (_____) | N3ll |
| | 88 Refused | N3m |
| | 99 Don't know | N3m |
| | IF N3l >7, THEN ASK | |
| N3ll | Why do you say that? | |
| | 77 Record VERBATIM | N3m |
| | 88 Refused | N3m |
| | 99 Don't know | N3m |
| N3m. | Corporate policy or guidelines | |
| | # Record 0 to 10 score (_____) | N3n. |
| | 88 Refused | N3n. |
| | 99 Don't know | N3n. |
| N3n. | Payback on the investment | |
| | # Record 0 to 10 score (_____) | N3o. |
| | 88 Refused | N3o. |
| | 99 Don't know | N3o. |
| N3o. | Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE? | |
| | 1 Nothing else influential | N33 |
| | 77 Record verbatim | N3oo |
| | 88 Refused | N33 |
| | 99 Don't know | N33 |
| N3oo. | Using the same zero to 10 scale, how would you rate the influence of this factor? | |
| | # Record 0 to 10 score (_____) | N33 |
| | 88 Refused | N33 |
| | 99 Don't know | N33 |

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IF ACCT_REP = 1, ACCTREPNAME:= 0, THEN ASK.

N33 We do not have the name of your ACCOUNT REP at <%UTILITY>. Can you give me his or her name?
 !! ___ Do you have his/her email address?
 ! ___ Do you have a phone number for him/her?
 ! ___ Do you have a cell phone number for him/her? \,
 77 RECORD NAME, Phone, Email ETC N41
 88 Refused N41
 99 Don't know N41

!!! ___ For the sake of expediency, we are referring to the ... <%PROGRAM> ... as the PROGRAM and we are referring to the installation of ...<%MEASURE>... as the MEASURE.

!! ___ I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program. \;

Next, I would like you to rate the importance of the PROGRAM in your decision to implement this MEASURE as opposed to other factors that may have influenced your decision such as...(SCAN BELOW AND READ TO THEM THOSE ITEMS WHERE THEY GAVE A RATING OF 8 or higher)

! <%N3A> Age or condition of old equipment,
 ! <%N3D> Equipment Vendor recommendation
 ! <%N3E> Previous experience with this measure
 ! <%N3F> Previous experience with this program
 ! <%N3I> Recommendation from a design or consulting engineer
 ! <%N3J> Standard practice in your business/industry
 ! <%N3M> Corporate policy or guidelines
 ! <%N3N> Payback on investment.

If you were given 10 points to award in total, how many points would give to the importance of the program and how many points would you give to these other factors? \

N41 How many of the ten points would you give to the importance of the PROGRAM in your decision?
 # Record 0 to 10 score (_____) N42
 88 Refused N42
 99 Don't know N42

N42 and how many points would you give to these other factors? \

Record 0 to 10 score (_____) N41a
 88 Refused N41a
 99 Don't know N41a

___ We want these two sets of numbers to equal 10.
 ! <%N41> for Program influence and
 ! <%N42> for Non Program factors

CONSISTENCY CHECK ON PGM IMPORTANCE SCORE

IF N41 &PROGRAM>6 AND N3b, N3c, N3g, N3h, N3k AND N3I ALL<4, THEN ASK N41a. ELSE IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3I>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

N41a When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were not that important to you. Just to make sure I have recorded this properly, may I please take a second to review?

IF N3b<4, THEN ASK

N41aa When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was not that important to you. Can you tell me why the rebate was not that important?

77 Record VERBATIM N41ab
 88 Don't know N41ab
 99 Refused N41ab

IF N3c<4, THEN ASK

When I asked you about THE INFORMATION PROVIDED THROUGH

!! ___<(FEAS_STUDY == 1)/ The Feasibility study/>

! ___<(AUDIT == 1)/The Facility or System AUDIT/>

! ___<(TECH_ASST == 1)/The Technical Assistance/> !

you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was not that important to you. Can you tell

N41ab me why the information provided was not that important?

77 Record VERBATIM N41ac
 88 Don't know N41ac
 99 Refused N41ac

IF N3g<4, THEN ASK

When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ...<%N3G> ... out of ten, indicating that the information from the program or utility training course was not that important to you. Can you tell me why this information was not that important?

77 Record VERBATIM N41ad
 88 Don't know N41ad
 99 Refused N41ad

IF N3h<4, THEN ASK

When asked about THE INFORMATION from the PROGRAM or UTILITY MARKETING MATERIALS, you gave a rating of ...<%N3H> ... out of ten, indicating that this information from the program or utility marketing materials was not that important to you. Can you tell me why this information was not that important?

N41ad 77 Record VERBATIM N41ae
 88 Don't know N41ae
 99 Refused N41ae

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IF N3k<4, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by PROGRAM STAFF or PROGRAM VENDOR, you gave a rating of ...<%N3K> ... out of ten, indicating that this program endorsement was not that important to you. Can you tell me why this program endorsement was not that important?

- N41ae 77 Record VERBATIM N41af
- 88 Don't know N41af
- 99 Refused N41af

IF N3l<4, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP .<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you. Can you tell me why this endorsement was not that important?

- N41af 77 Record VERBATIM N41b
- 88 Don't know N41b
- 99 Refused N41b

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was not very important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were very important to you. Just to make sure I have recorded this properly, will you please state in your own words why you feel the program was not very important?

- N41b 77 Record VERBATIM N5
- 88 Don't know N5
- 99 Refused N5

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the &PROGRAM had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same equipment?

- N5 # Record 0 to 10 score (_____) N5a.
- 88 Refused N6
- 99 Don't know N6

CONSISTENCY CHECKS

IF N3b>7 and N5>7, THEN ASK.

When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same equipment without the rebate, it sounds like the rebate was not very important in your installation decision.

I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient equipment?

- N5a 77 Record VERBATIM N5aa
- 88 Don't know N5aa
- 99 Refused N5aa

Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same equipment without the rebate which you gave a rating of <%N5> and/or we can change both if you wish?

- N5aa 77 Record VERBATIM N9
- 88 Don't know N9
- 99 Refused N9

PROBE ON STANDARD PRACTICE if n3j>7, ELSE ASK N9

In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this MEASURE. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy?

- SP3a 1 Much more important N9
- 2 Somewhat more important N9
- 3 Equally important N9
- 4 Somewhat less important N9
- 5 Much less important N9
- 88 Don't know N9
- 99 Refused N9

IF N5>0, THEN ASK.

You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same equipment if THE PROGRAM had not been available. When do you think you would have installed this equipment?

Please express your answer in months.

- N9 a. at the same time TD1
- b. within _____.months N9b
- c. Never N6
- 88 Refused N6
- 99 Don't know N9a.

If respondent is having difficulty specifying answer in months...would it have been..

- N9a. a. _____..within 6 months? TD1
- b. _____.. 6 months to 1 year later TD1
- c. _____.. 1 - 2 years later TD1
- d. _____..2 - 3 years later? TD1
- e. _____..3 - 4 years later? TD1
- f. _____..4 or more years later N9b
- 88 Don't know N6
- 99 Refused N6

IF N9>=48 months OR N9a=response f, THEN ASK N9b, ELSE ASK N6.

N9b. Why do you think it would have been 4 or more years later?

77 Record VERBATIM TD1
 88 Don't know TD1
 99 Refused TD1

DEFERRED FREE RIDERSHIP FOLLOW-UP

INTRO You said that there was an <N5> in 10 likelihood that you would have installed the same equipment about <N9> months later (OR at the same time) if the PROGRAM had not been available. I'd like to ask a couple of questions to help us estimate at what point in the future you would definitely have installed new equipment. We understand that you can't know exactly when you would have done this, especially so far into the future. We're just trying to get a sense of how long you think the current equipment or process would have kept serving your company's needs before you had to or chose to replace it.

TD1 and TD1a

If N9 or N9a < 60 months, ask TD1, ELSE TD1A

TD1 So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 60 months, or 5 years, later if the program had not been available?

Record 0 to 10 score (_____) TD2
 88 Refused TD1A
 99 Don't know TD1A

TD2 IF <10 ASK TD2, ELSE GO TO N5a

And what would you say is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been available?

Record 0 to 10 score (_____) TD1A
 88 Refused TD1A
 99 Don't know TD1A

If N9 or N9a > 60 months, ask

TD1A Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been available?

Record 0 to 10 score (_____) N9bb
 88 Refused N9bb
 99 Don't know N9bb

CONSISTENCY CHECK ON AGE

IF (N3a>6 AND N9>=48 months) OR(N3a>6 AND N9a=response f), THEN ASK. ELSE N6.

N9bb you gave me a rating of <%N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the existing equipment played in your decision to install this new energy-efficient equipment.

77 Record VERBATIM N6
 88 Don't know N6
 99 Refused N6

Revision

PARTIAL FREE RIDERSHIP

N6 Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?

1 Install fewer units N6a
 2 Install standard efficiency equipment or whatever required by code SP1
 3 install equipment more efficient than code but less efficient than what you installed through the program N6b
 4 repair/rewind or overhaul the existing equipment N6c
 5 do nothing (keep the existing equipment as is) SP1
 6 something else (specify what _____) SP1
 88 Don't know SP1
 99 Refused SP1

N6a How many fewer units would you have installed? (It is okay to take an answer such as ...HALF...or 10 percent fewer ... etc.)

77 RECORD VERBATIM SP1
 88 Refused SP1
 99 Refused SP1

N6b Can you tell me what model or efficiency level you were considering as an alternative? (It is okay to take an answer such as ... 10 percent more efficient than code or 10 percent less efficient than the program equipment)

77 RECORD VERBATIM SP1
 88 Don't know SP1
 99 Refused SP1

N6c How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

77 RECORD VERBATIM SP1
 88 Don't know SP1
 99 Refused SP1

SPILLOVER QUESTIONS

SP1 Did you implement any additional energy efficiency measures at this facility since your participation in the 2006-2008 Program and before the end of 2008 that did not receive incentives through any utility or government program?

1 Yes SP2
 2 No CAFAC1
 88 Refused CAFAC1
 99 Don't know CAFAC1

Revision

| | | |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| SP2 | What was the first Measure that you implemented? 77 Record FIRST measure 88 Refused 99 Don't know | SP3 CAFAC1 CAFAC1 |
| SP3 | What was the second measure? 77 Record SECOND measure 88 Refused 99 Don't know | SP4 SP5 SP5 |
| SP4 | What was the third measure? 77 Record THIRD measure 88 Refused 99 Don't know | SP5 SP5 SP5 |
| SP5 | IF SP2=1 I have a few questions about the FIRST Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? 77 Record VERBATIM 88 Don't know 99 Refused | SP5b SP5b SP5b |
| SP5b | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. 77 Record VERBATIM 88 Don't know 99 Refused | SP5c SP5c SP5c |
| SP5c. | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? 1 Yes 2 No 88 Refused 99 Don't know | SP5d SP5d SP5d SP5d |
| SP5d. | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? # Record 0 to 10 score (_____) 88 Refused 99 Don't know | SP5dd SP5e SP5e |
| SP5dd. | Why do you give it this rating? 77 Record VERBATIM 88 Don't know 99 Refused | SP5e SP5e SP5e |
| SP5e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? # Record 0 to 10 likelihood rating (_____) 88 Refused 99 Don't know | SP5f SP5f SP5f |
| SP6 | IF SP3=1 I have a few questions about the SECOND Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? 77 Record VERBATIM 88 Don't know 99 Refused | SP6b SP6b SP6b |
| SP6b | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. 77 Record VERBATIM 88 Don't know 99 Refused | SP6c SP6c SP6c |
| SP6c. | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? 1 Yes 2 No 88 Refused 99 Don't know | SP6d SP6d SP6d SP6d |
| SP6d. | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? # Record 0 to 10 score (_____) 88 Refused 99 Don't know | SP6dd SP6e SP6e |
| SP6dd. | Why do you give it this rating? 77 Record VERBATIM 88 Don't know 99 Refused | SP6e SP6e SP6e |

| | | |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| SP6e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? # Record 0 to 10 likelihood rating (_____) | SP7 SP7 SP7 |
| | 88 Refused 99 Don't know IF SP4=1 | |
| SP7 | I have a few questions about the THIRD Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | SP7b SP7b SP7b |
| | 77 Record VERBATIM 88 Don't know 99 Refused | |
| SP7b | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | SP7c SP7c SP7c |
| | 77 Record VERBATIM 88 Don't know 99 Refused | |
| SP7c. | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | SP7d SP7d SP7d SP7d |
| | 1 Yes 2 No 88 Refused 99 Don't know | |
| SP7d. | How significant was your experience in the 2006-2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? # Record 0 to 10 score (_____) | SP7dd SP7e SP7e |
| | 88 Refused 99 Don't know | |
| SP7dd. | Why do you give it this rating? | SP7e SP7e SP7e |
| | 77 Record VERBATIM 88 Don't know 99 Refused | |
| SP7e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? # Record 0 to 10 likelihood rating (_____) | CAFAC1 CAFAC1 CAFAC1 |
| | 88 Refused 99 Don't know | |
| CAFAC1 | Now, thinking about other facilities operated by your organization in the regions of California that are served by PG&E, SCE, SDG&E or Southern California Gas Company , are you aware of any additional energy efficiency measures implemented at these other facilities since your participation in the 2006-2008 program and before the end of 2008 that did not receive an incentive through a utility or government program? | CAFAC2 C1 C1 C1 |
| | 1 Yes 2 No 88 Refused 99 Don't know | |
| CAFAC2 | What was the first Measure that you implemented? | CAFAC3 CAFAC3 CAFAC3 |
| | 77 Record FIRST MEASURE 88 Refused 99 Don't know | |
| CAFAC3 | What was the second measure? | CAFAC4 CAFAC4 CAFAC4 |
| | 77 Record SECOND MEASURE 88 Refused 99 Don't know | |
| CAFAC4 | What was the third measure? | MEAS1_1 MEAS1_1 MEAS1_1 |
| | 77 Record THIRD MEASURE 88 Refused 99 Don't know IF CAFAC1=1, THEN ASK, ELSE C1 | |
| MEAS1_1 | I have a few questions about the FIRST MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? | MEAS2_1 MEAS1_2 MEAS2_1 MEAS2_1 |
| | 1 Yes 2 No 88 Refused 99 Don't know | |
| MEAS1_2 | Why did you not install this measure through a Utility Program? | MEAS1_3 MEAS1_3 MEAS1_3 |
| | 77 Record VERBATIM 88 Don't know 99 Refused | |
| MEAS1_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | MEAS1_4 MEAS1_4 MEAS1_4 |
| | 77 Record VERBATIM 88 Don't know 99 Refused | |

Revision

| | | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| MEAS1_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | |
| | 1 Yes | MEAS1_5 |
| | 2 No | MEAS1_5 |
| | 88 Refused | MEAS1_5 |
| | 99 Don't know | MEAS1_5 |
| | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | |
| MEAS1_5 | # Record 0 to 10 score (_____) | MEAS1_6 |
| | 88 Refused | MEAS1_7 |
| | 99 Don't know | MEAS1_7 |
| MEAS1_6 | Why do you give it this rating? | |
| | 77 Record VERBATIM | MEAS1_7 |
| | 88 Don't know | MEAS1_7 |
| | 99 Refused | MEAS1_7 |
| | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | |
| MEAS1_7 | # Record 0 to 10 likelihood rating (_____) | MEAS2_1 |
| | 88 Refused | MEAS2_1 |
| | 99 Don't know | MEAS2_1 |
| | IF CAFAC2=1, THEN ASK, ELSE C1 | |
| | I have a few questions about the SECOND MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? | |
| MEAS2_1 | 1 Yes | MEAS3_1 |
| | 2 No | MEAS2_2 |
| | 88 Refused | MEAS3_1 |
| | 99 Don't know | MEAS3_1 |
| MEAS2_2 | Why did you not install this measure through a Utility Program? | |
| | 77 Record VERBATIM | MEAS2_3 |
| | 88 Don't know | MEAS2_3 |
| | 99 Refused | MEAS2_3 |
| MEAS2_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | |
| | 77 Record VERBATIM | MEAS2_4 |
| | 88 Don't know | MEAS2_4 |
| | 99 Refused | MEAS2_4 |
| MEAS2_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | |
| | 1 Yes | MEAS2_5 |
| | 2 No | MEAS2_5 |
| | 88 Refused | MEAS2_5 |
| | 99 Don't know | MEAS2_5 |
| | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | |
| MEAS2_5 | # Record 0 to 10 score (_____) | MEAS2_6 |
| | 88 Refused | MEAS2_7 |
| | 99 Don't know | MEAS2_7 |
| MEAS2_6 | Why do you give it this rating? | |
| | 77 Record VERBATIM | MEAS2_7 |
| | 88 Don't know | MEAS2_7 |
| | 99 Refused | MEAS2_7 |
| | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | |
| MEAS2_7 | # Record 0 to 10 likelihood rating (_____) | MEAS3_1 |
| | 88 Refused | MEAS3_1 |
| | 99 Don't know | MEAS3_1 |
| | IF CAFAC3=1, THEN ASK, ELSE C1 | |
| | I have a few questions about the THIRD MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? | |
| MEAS3_1 | 1 Yes | C1 |
| | 2 No | MEAS3_2 |
| | 88 Refused | C1 |
| | 99 Don't know | C1 |
| MEAS3_2 | Why did you not install this measure through a Utility Program? | |
| | 77 Record VERBATIM | MEAS3_3 |
| | 88 Don't know | MEAS3_3 |
| | 99 Refused | MEAS3_3 |
| MEAS3_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | |
| | 77 Record VERBATIM | MEAS3_4 |
| | 88 Don't know | MEAS3_4 |
| | 99 Refused | MEAS3_4 |

MEAS3_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?
 1 Yes
 2 No
 88 Refused
 99 Don't know

MEAS3_5
 MEAS3_5
 MEAS3_5
 MEAS3_5

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?
 # Record 0 to 10 score (_____)
 88 Refused
 99 Don't know

MEAS3_6
 MEAS3_7
 MEAS3_7

MEAS3_6 Why do you give it this rating?
 77 Record VERBATIM
 88 Don't know
 99 Refused

MEAS3_7
 MEAS3_7
 MEAS3_7

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?
 # Record 0 to 10 likelihood rating (_____)
 88 Refused
 99 Don't know

MEAS3_7
 C1
 C1
 C1

And finally, I have a few questions about the characteristics of your business.

C1. Our records indicate that the primary business code for the facility that installed &MEASURE is &NAICS. Is that correct?
 1 Yes
 2 No
 88 Don't know
 99 Refused

C2
 C2
 C2
 C2

C2. Please describe the type of work performed at this facility and/or the primary product made or main service provided.
 77 Record VERBATIM
 88 Don't know
 99 Refused

C3
 C3
 C3

C3. Please describe any changes made to this site since January 2006 that significantly impacted energy usage.
 77 Record VERBATIM
 88 Don't know
 99 Refused

END
 END
 END

Premise General Information

Please answer the following questions

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| C4. What kind of premise is this?: P = Part of a bldg B = 1 building, single footprint MF = 1 building w/multiple footprints SM = Small multi-building CM = Campus (multi-bldg) OT = Other | P B MF SM CM OT |
| C5. What is the total occupied floor area of this premise (excluding enclosed parking garage area)? C5a. If the premise has an enclosed parking garage, approximately what is the floor area? | ft ² ft ² |
| C6. How many buildings are part of this premise? | |
| C7. Is this premise owner-occupied (O) or leased (L)? | O L |
| C8. What year was this business established at this location? | |
| C9. How many full-time equivalent employees work at this premise? | |

END Those are all the questions I have for you. On behalf of the CPUC, thank you very much for your time. END OF SURVEY

Business/Building Type Codes

Standard Decision Maker NTG Survey Instrument Modified 06/22/09

Introduction

- This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. May I please speak with <%CONTACT> ... the person most knowledgeable about your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>?,
- AA1
1 Yes
2 No
AA7
AA2
- Who would be the person most knowledgeable about your firm's involvement with ...<%CUSTOMER>'s...project that involved the installation of ...<%MEASURE>... on approximately... <%INSTALL_DATE>?,
- AA2
1 Record name
88 Refused
99 Don't know
AA3
Thank and Terminate
Thank and Terminate
- May I speak with him/her?
- AA3
1 Yes
2 No (not available right now) SCHEDULE APPOINTMENT
AA4
Reschedule appt.
- This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. I was told that you are the person most familiar with your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>? __Is this correct?
- AA4
1 Yes
2 No, there is someone else (RECORD NAME)
3 No and I don't know who to refer you to
88 Refused
99 Don't know
AA7
AA5
Thank and Terminate
Thank and Terminate
Thank and Terminate
- This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. Am I speaking with the person most familiar with your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>? __Is this correct?
- AA5
1 Yes.
2 Yes, but I need to make an appointment
3 No, but I will give you to the correct person
88 Refused
99 Don't know
AA7
Reschedule appt.
AA7
Thank and Terminate
Thank and Terminate
- We are interviewing firms that participated in <%PROGRAM> during 2006, 2007 and 2008 to discuss the factors that may have influenced their decision to participate in the program. By receiving a rebate of \$ <%INCENTIVE> through this program, your organization agreed to participate in this follow-up study on your experiences with this program.
IF VISIT = 1 We <(VISIT == 1)/Have already visited/will also be visiting> your site to get information on the measures installed. One of our engineers has already visited your site to get information on the measures installed.
1 .<%ENGINEER>... spoke to ...<%ONSITEREP> ... on .<%ONSITEDATE>.;
- AA7
A1

Your input to this research is extremely important. We will not identify or attribute any of your comments or organization

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor. For the sake of expediency, we will be recording this interview.

[If INTERVEEWEE requests a contact at their local utility, the following are the appropriate representatives for this evaluation, note

PGE Rob Roffrey - (415) 973-1222
SCE Ron Cobas - 626-633-3088
SDGE Sandra Williams 858-636-5802
CPUC Peter Lai 213-576-7087

- According to our records your organization participated in ..<%PROGRAM>... on ...<%INSTALL_DATE>... by installing ...<%MEASURE>. Does this sound right?
- A1
1 Yes
2 No
88 Refused
99 Don't know
A1b
A1a
A1a
A1a
- What do you remember installing through this program?
- A1a.
77 RECORD VERBATIM
88 Refused
99 Don't know
A1b
A1b
A1b
- IF AUDIT == 1; THEN ASK ELSE A1c**
- A1b According to our records, your organization also received an AUDIT from <%UTILITY>. Is this correct?
- 1 Yes
2 No
88 Refused
99 Don't know
A1c
A1c
A1c
A1c
- IF TECH_ASST == 1, THEN ASK, ELSE A1d**
- A1c According to our records, your organization also received TECHNICAL ASSISTANCE from <%UTILITY>. Is this correct?
- 1 Yes
2 No
88 Refused
99 Don't know
A1d
A1d
A1d
A1d
- IF FEAS_STUDY == 1, THEN ASK, ELSE A1e**
- A1d According to our records, your organization also received a FEASABILITY STUDY from <%UTILITY>. Is this correct?
- 1 Yes
2 No
88 Refused
99 Don't know
A1e
A1e
A1e
A1e

- IF RCX == 1, THEN ASK, ELSE A1f**
- A1e. According to our records, your organization also received RETROCOMMISSIONING from <%UTILITY>. Is this correct?
- 1 Yes A1f
 - 2 No A1f
 - 88 Refused A1f
 - 99 Don't know A1f
- IF PTRAIN == 1, THEN ASK ELSE A1g**
- A1f. According to our records, your organization also received PROGRAM TRAINING from <%UTILITY>. Is this correct?
- 1 Yes A1g
 - 2 No A1g
 - 88 Refused A1g
 - 99 Don't know A1g
- A1g. Our records show that your organization received \$ <%INCENTIVE> from ...<%PROGRAM>... for the installation of this equipment. Does this sound correct?
- 1 Yes A1h
 - 2 No A1gg
 - 88 Refused A1h
 - 99 Don't know A1h
- A1gg. What was the incentive amount that your organization received through the program?
- 77 RECORD VERBATIM A1h
 - 88 Refused A1h
 - 99 Don't know A1h

[READ] For the sake of expediency, during the balance of the interview, we will be referring to the <%PROGRAM> as the PROGRAM and we will be referring to the installation of ... <%MEASURE> as the MEASURE. I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.

[READ] I would like to get some information on the VENDORS that may have helped you with the implementation of this equipment. As part of this study, we will be conducting a separate interview with the vendors that worked with you on the implementation of this equipment.

Revision

- A1h. First let's talk about the EQUIPMENT SUPPLIER/INSTALLER Vendor. We show (READ NAME AND PHONE) ! as the EQUIPMENT VENDOR.[READ NAME AND PHONE NUMBER] Is that correct?
- ! VENDOR NAME... <%VEND1NAME>
! VENDOR PHONE...<%V1PHONE>
- 1 Yes A1h
 - 2 No A1h1
 - 88 Refused A1h
 - 99 Don't know A1h
- IF VENDOR1 =2 OR A1h=2, THEN ASK:**
Can we have the VENDOR NAME _____, Their phone number, ___their CONTACT name _____,
A1h1 Their Cell phone number ! ___their EMAIL ADDRESS ?
- 77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A1i
 - 88 Don't know A1i
 - 99 Refused A1i
- IF VENDOR2 = 1 OR 2, THEN ASK**
Our records show you also used a DESIGN or CONSULTING Engineer. Did you use a DESIGN OR CONSULTING Engineer?
- A1i [READ NAME AND PHONE NUMBER]
! VENDOR NAME... <%VEND2NAME>
! VENDOR PHONE...<%V2PHONE>
- 1 Yes A1j
 - 2 No A1i1
 - 88 Refused A1j
 - 99 Don't know A1j
- IF VENDOR2 =2 OR A1i=2, THEN ASK:**
Can we have the VENDOR NAME _____, Their phone number, ___their CONTACT name _____,
A1i1 Their Cell phone number ! ___their EMAIL ADDRESS ?
- 77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A1j
 - 88 Don't know A1j
 - 99 Refused A1j
- IF VENDOR3 == 1 OR 2, THEN ASK**
Our records show you also used a PROGRAM PROVIDED Vendor. Did you use a PROGRAM PROVIDED Vendor? [READ NAME AND PHONE NUMBER]
- A1j. ! VENDOR NAME... <%VEND3NAME>
! VENDOR PHONE...<%V3PHONE>
- 1 Yes A2a
 - 2 No A1j1
 - 88 Refused A2a
 - 99 Don't know A2a
- IF VENDOR3 ==2, THEN ASK:**
Can we have the VENDOR NAME _____, Their phone number, ___their CONTACT name _____,
A1j1 Their Cell phone number ! ___their EMAIL ADDRESS ?
- 77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A2a
 - 88 Don't know A2a
 - 99 Refused A2a

Thanks for helping us with this vendor information. Below, I am going to ask some questions about the implementation of the measure that you installed through the program. Should you remember any vendor information later on, please feel free to volunteer this information at that time, I can record vendor information at any time.

WARM-UP QUESTIONS:

| | | | |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------|
| A2a | How did you first become aware of the &MEASURE? | | |
| | 1 Bill insert | | A2 |
| | 2 Program Literature | | A2 |
| | 3 Account representative | | A2 |
| | 4 Program provided vendor | | A2 |
| | 5 Program representative | | A2 |
| | 6 Utility or program website | | A2 |
| | 7 Trade publication | | A2 |
| | 8 Conference | | A2 |
| | 9 Newspaper article | | A2 |
| | 10 Word of mouth | | A2 |
| | 11 Previous experience with it | | A2 |
| | 12 Company used it at other locations | | A2 |
| | 13 Contractor | | A2 |
| | 14 Other (RECORD VERBATIM) | | A2 |
| | 88 Refused | | A2 |
| | 99 Don't know | | A2 |
| A2 | In your own words, can you tell me why you decided to implement this MEASURE? | | Revision |
| | 77 RECORD VERBATIM | | N1 |
| | 88 Don't know | | N1 |
| | 99 Refused | | N1 |
| NET-TO-GROSS QUESTIONS: | | | |
| N1 | When did you first learn about <%UTILITY>'s PROGRAM? Was it BEFORE or AFTER you first began to THINK about implementing this MEASURE? | | |
| | 1 Before | | N3 |
| | 2 After | | N2 |
| | 88 Refused | | N2 |
| | 99 Don't know | | N2 |
| N2 | Did you learn about <%UTILITY>'s Program BEFORE or AFTER you DECIDED to implement the MEASURE that was installed? | | |
| | 1 Before | | N3 |
| | 2 After | | N3 |
| | 88 Refused | | N3 |
| | 99 Don't know | | N3 |
| | <i>[READ:&PROGRAMDESCR]. Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement &MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.</i> | | |
| | Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important, so that an importance rating of 8 shows twice as much influence as a rating of 4. Now using this scale please rate the importance of each of the following in your decision to implement the MEASURE at this time. | | |
| N3 | | | N3a. |
| N3a. | The age or condition of the old equipment | | |
| | # Record 0 to 10 score (_____) | | N3b. |
| | 88 Refused | | N3b. |
| | 99 Don't know | | N3b. |
| N3b. | Availability of the PROGRAM rebate | | |
| | # Record 0 to 10 score (_____) | | N3bb |
| | 88 Refused | | N3bb |
| | 99 Don't know | | N3bb |
| | IF N3b > 7, THEN ASK. | | |
| N3bb | Why do you give it this rating? | | |
| | 77 Record VERBATIM | | N3c. |
| | 88 Refused | | N3c. |
| | 99 Don't know | | N3c. |
| | IF &FEAS_STUDY=1, &AUDIT=1, OR &TECH_ASSIST=1, THEN ASK, ELSE N3h | | |
| | Information provided through... | | |
| | !!__<(FEAS_STUDY == 1)/ The Feasibility study/> | | |
| | !__<(AUDIT == 1)/The Facility or System AUDIT/> | | |
| N3c. | !__<(TECH_ASSIST == 1)/The Technical Assistance | | |
| | # Record 0 to 10 score (_____) | | N3c1. |
| | 88 Refused | | N3c2. |
| | 99 Don't know | | N3c2. |
| | IF N3c > 7, THEN ASK. | | |
| N3c1. | Why do you give it this rating? | | |
| | 77 Record VERBATIM | | N3c2. |
| | 88 Refused | | N3c2. |
| | 99 Don't know | | N3c2. |
| | IF VENDOR1,NE.0,THEN ASK | | |
| N3d. | Recommendation from an equipment vendor that sold you &MEASURE and/or installed it [VENDOR_1] | | IF N3d > N3b, N3c, N3g, N3h, N3i then conduct ve |
| | # Record 0 to 10 score (_____) | | N3e. |
| | 88 Refused | | N3e. |
| | 99 Don't know | | N3e. |
| N3e. | Previous experience with this &MEASURE? | | |
| | # Record 0 to 10 score (_____) | | N3f. |
| | 88 Refused | | N3f. |
| | 99 Don't know | | N3f. |
| N3f. | Previous experience with the utility &PROGRAM or a similar utility program (such as &SIM_PGM? | | Revision |
| | # Record 0 to 10 score (_____) | | N3g. |
| | 88 Don't know | | N3g. |
| | 99 Refused | | N3g. |

IF &PGM_TRAIN=1 OR &UTIL_TRAIN=1 THEN ASK, ELSE N3h

N3g. Information from &PROGRAM or &UTILITY training course?
Record 0 to 10 score (_____) N3gg
88 Refused N3h
99 Don't know N3h

IF N3g >7, THEN ASK

N3gg Why do you give it this rating?
77 Record VERBATIM N3h.
88 Refused N3h.
99 Don't know N3h.

N3h. Information from &PROGRAM or &UTILITY marketing materials?
Record 0 to 10 score (_____) N3hh.
88 Refused N3i
99 Don't know N3i

IF N3h >7, THEN ASK

N3hh Why do you give it this rating?
77 Record VERBATIM N3i
88 Refused N3i
99 Don't know N3i

IF VENDOR2,NE.0,THEN ASK

N3i. A recommendation from a design or consulting engineer [VENDOR_2]
Record 0 to 10 score (_____) N3j.
88 Refused N3j.
99 Don't know N3j.

N3j. Standard practice in your business/industry
Record 0 to 10 score (_____) N3k.
88 Refused N3k.
99 Don't know N3k.

IF VENDOR3,NE.0,THEN ASK

N3k. Endorsement or recommendation by [&PGM_VEND] [VENDOR_3]
Record 0 to 10 score (_____) N3k1
88 Refused N3k2
99 Don't know N3k2

IF N3k >7, THEN ASK

N3k1 Why do you give it this rating?
77 Record VERBATIM N3k2
88 Refused N3k2
99 Don't know N3k2

N3i. Endorsement or recommendation by &ACCT_REP
Record 0 to 10 score (_____) N3ll
88 Refused N3m
99 Don't know N3m

IF N3i >7, THEN ASK

N3ll Why do you say that?
77 Record VERBATIM N3m
88 Refused N3m
99 Don't know N3m

N3m. Corporate policy or guidelines
Record 0 to 10 score (_____) N3n.
88 Refused N3n.
99 Don't know N3n.

N3n. Payback on the investment
Record 0 to 10 score (_____) N3o.
88 Refused N3o.
99 Don't know N3o.

N3o. Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE?
1 Nothing else influential N33
77 Record verbatim N3oo
88 Refused N33
99 Don't know N33

N3oo. Using the same zero to 10 scale, how would you rate the influence of this factor?
Record 0 to 10 score (_____) N33
88 Refused N33
99 Don't know N33

PAYBACK BATTERY (If payback importance >5)

P1 What financial calculations does your company make before proceeding with installation of a MEASURE like this one?
77 Record VERBATIM P2
88 Don't know P2
99 Refused P2

P2 What is the payback cut-off point your company uses (in months) before deciding to proceed with an investment?
1 0 to 6 months P3a
2 6 months to 1 year P3a
3 1 to 2 years P3a
4 2 to 3 years P3a
5 3 to 5 years P3a
6 Over 5 years P3a
88 Don't know P3a
99 Refused P3a

| | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| P3a | What was the payback calculation for &MEASURE:(in months) with the rebate from &PROGRAM? # payback in months (___ months) with rebate | P3b. P3b. P3b. |
| | 88 Don't know | |
| | 99 Refused | |
| P3b | And what was the payback calculation for &MEASURE:(in months) without the rebate from &PROGRAM? # payback in months (___ months) without rebate | P3c CP1 CP1 |
| | 88 Don't know | |
| | 99 Refused | |
| | IF P3b<P2, THEN ASK. "Even without the rebate, the &MEASURE project met your company's financial criteria. Would you have gone ahead with it even without the rebate?" | |
| P3c | 77 Record VERBATIM | P3d |
| | 88 Don't know | P3d |
| | 99 Refused | P3d |
| | IF P3a<P2, AND N3b<5, THEN ASK. "The rebate seemed to make the difference between meeting your financial criteria and not meeting them, but you are saying that the rebate didn't have much effect on your decision, why is that?" | |
| P3d | 77 Record VERBATIM | P3e |
| | 88 Don't know | P3e |
| | 99 Refused | P3e |
| | IF P3a>P2, AND N3b>7, THEN ASK. "The rebate didn't cause this &MEASURE to meet your company's financial criteria, but you said that the rebate had an impact on the decision to install &MEASURE. Why did it have an impact?" | |
| P3e. | 77 Record VERBATIM | CP1 |
| | 88 Don't know | CP1 |
| | 99 Refused | CP1 |

IF N3m.>5, THEN ASK, ELSE SP1

CORPORATE POLICY BATTERY (if corporate policy importance >5)

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| CP1 | Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be to "buy green" or use sustainable approaches to business investments. 1 Yes [CAN I OBTAIN A COPY OF THE POLICY?] | CP2 SP1 SP1 SP1 |
| | 2 No | |
| | 88 Don't know | |
| | 99 Refused | |
| CP2 | What specific corporate policy influenced your decision to adopt or install the &MEASURE? 1 RECORD VERBATIM [IF NOT ALREADY ASKED IN CP1: CAN I OBTAIN A COPY OF THE POLICY?] | CP3 CP3 CP3 |
| | 88 Don't know | |
| | 99 Refused | |
| CP3 | Had that policy caused you to adopt the &MEASURE at this facility before participating in the &PROGRAM? 1 Yes | CP4 CP4 CP4 CP4 |
| | 2 No | |
| | 88 Don't know | |
| | 99 Refused | |
| CP4 | Had that policy caused you to adopt the &MEASURE at other facilities before participating in the &PROGRAM? 1 Yes [RECORD Locations and Dates] | CP5 CP5 CP5 CP5 |
| | 2 No | |
| | 88 Don't know | |
| | 99 Refused | |
| CP5 | Did you receive an incentive for a previous installation of &MEASURE? If so, please describe the amount of incentive received, the approximately timing, and the name of the program that provided it. 77 Record VERBATIM | CP6 CP6 CP6 |
| | 88 Don't know | |
| | 99 Refused | |
| | IF CP3=1 OR CP4=1, THEN ASK. If I understand you correctly, you said that your company's corporate policy has caused you to adopt &MEASURE previously at this and/or other facilities. I want to make sure I fully understand how this corporate policy influenced your decision versus the &PROGRAM. Can you please clarify that? | |
| CP6 | 77 Record VERBATIM | SP1 |
| | 88 Don't know | SP1 |
| | 99 Refused | SP1 |

IF N3j.>5, THEN ASK, ELSE O1

STANDARD PRACTICE BATTERY (if standard practice importance >5)

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| SP1 | Approximately, how long has &MEASURE been standard practice in your industry? # Record Number of Months or Years | SP2 SP2 SP2 SP2 |
| | 88 Don't know | |
| | 99 Refused | |
| SP2 | Does your company ever deviate from the standard practice? 1. Yes [Under what conditions does your company deviate?] RECORD VERBATIM: _____ | |
| | 2 No | SP3 |
| | 88 Don't know | SP3 |
| | 99 Refused | SP3 |
| SP3 | How did this standard practice influence your decision to install the &MEASURE? 77 Record VERBATIM | SP3a SP3a SP3a |
| | 88 Don't know | |
| | 99 Refused | |

| | | |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| SP3a | Could you please rate the importance of the &PROGRAM, versus this standard industry practice in influencing your decision to install &MEASURE. Would you say the &PROGRAM was much more important, somewhat more important important, equally important, somewhat less important, or much less important than the standard practice? | |
| | 1 Much more important | SP4 |
| | 2 Somewhat more important | SP4 |
| | 3 Equally important | SP4 |
| | 4 Somewhat less important | SP4 |
| | 5 Much less important | SP4 |
| | 88 Don't know | SP4 |
| | 99 Refused | SP4 |
| SP4 | What industry group or trade organization do you look to to establish standard practice for your industry? | |
| | 77 Record VERBATIM | SP5 |
| | 88 Don't know | SP5 |
| | 99 Refused | SP5 |
| SP5 | How do you and other firms in your industry receive information on updates in standard practice? | |
| | 77 Record VERBATIM | OI1 |
| | 88 Don't know | OI1 |
| | 99 Refused | OI1 |

IF N3o.>5, THEN ASK, ELSE N33.

OTHER INFLUENCES BATTERY (If other influences importance >5)

| | | |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| OI1 | Who provided the most assistance in the design or specification of &MEASURE? [DO NOT READ: Was it: the Designer, the Consultant, the Equipment Distributor, the Mfr Rep, the Installer, the Utility rep, or Internal staff?] | |
| | 1 Designer | OI2 |
| | 2 Consultant | OI2 |
| | 3 Equipment distributor | OI2 |
| | 4 Installer | OI2 |
| | 5 &UTILITY account representative | OI2 |
| | 6 &PROGRAM staff | OI2 |
| | 77 Other: (Record VERBATIM) | OI2 |
| | 88 Don't know | OI2 |
| | 99 Refused | OI2 |
| OI2 | Please describe the type of assistance that they provided. | OI3 |
| | 77 Record VERBATIM | OI3 |
| | 88 Don't know | OI3 |
| | 99 Refused | OI3 |
| OI3 | Please state, in your own words, any other factors that influenced your decision to go ahead on this energy efficiency project? | |
| | 77 Record VERBATIM | N33. |
| | 88 Don't know | N33. |
| | 99 Refused | N33. |

NET-TO-GROSS QUESTIONS (CONTINUED)

IF ACCT_REP = 1, ACCTREPNAME:= 0, THEN ASK.

| | | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--|
| N33 | We do not have the name of your ACCOUNT REP at <%UTILITY>. Can you give me his or her name? !! ___ Do you have his/her email address? ! ___ Do you have a phone number for him/her? ! ___ Do you have a cell phone number for him/her?, | | |
| | 77 RECORD NAME, Phone, Email ETC | N41 | |
| | 88 Refused | N41 | |
| | 99 Don't know | N41 | |
| | !!! ___ For the sake of expediency, we are referring to the ... <%PROGRAM> ... as the PROGRAM and we are referring to the installation of ...<%MEASURE>... as the MEASURE. | | |
| | !! ___ I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.\; | | |
| | Next, I would like you to rate the importance of the PROGRAM in your decision to implement this MEASURE as opposed to other factors that may have influenced your decision such as...(SCAN BELOW AND READ TO THEM THOSE ITEMS WHERE THEY GAVE A RATING OF 8 or higher) ! <%N3A> Age or condition of old equipment, ! <%N3D> Equipment Vendor recommendation ! <%N3E> Previous experience with this measure ! <%N3F> Previous experience with this program ! <%N3I> Recommendation from a design or consulting engineer ! <%N3J> Standard practice in your business/industry ! <%N3M> Corporate policy or guidelines ! <%N3N> Payback on investment. | | |
| | If you were given 10 points to award in total, how many points would give to the importance of the program and how many points would you give to these other factors?\ | | |
| N41 | How many of the ten points would you give to the importance of the PROGRAM in your decision? | | |
| | # Record 0 to 10 score (_____) | N42 | |
| | 88 Refused | N42 | |
| | 99 Don't know | N42 | |
| N42 | and how many points would you give to these other factors?\ | | |
| | # Record 0 to 10 score (_____) | N41a | |
| | 88 Refused | N41a | |
| | 99 Don't know | N41a | |

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__We want these two sets of numbers to equal 10.
 ! <%N41> for Program influence and
 ! <%N42> for Non Program factors

CONSISTENCY CHECK ON PGM IMPORTANCE SCORE

IF N41 &PROGRAM<6 AND N3b, N3c, N3g, N3h, N3k AND N3l ALL<4, THEN ASK N41a. ELSE IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3l>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were not that important to you. Just to make sure I have recorded this properly, may I please take a second to review?

N41a 77 Record VERBATIM N5
 88 Don't know N5
 99 Refused N5

IF N3b<4, THEN ASK

N41aa When I asked you about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was not that important to you. Can you tell me why the rebate was not that important?

77 Record VERBATIM N41ab
 88 Don't know N41ab
 99 Refused N41ab

IF N3c<4, THEN ASK

When I asked you about THE INFORMATION PROVIDED THROUGH

!!__<(FEAS_STUDY == 1)/ The Feasibility study/>

!__<(AUDIT == 1)/The Facility or System AUDIT/>

!__<(TECH_ASSST == 1)/The Technical Assistance/> !

you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was not that important to you. Can you tell me why the information provided was not that important?

N41ab 77 Record VERBATIM N41ac
 88 Don't know N41ac
 99 Refused N41ac

N41ac **IF N3g<4, THEN ASK**

When I asked you about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ...<%N3G> ... out of ten, indicating that the information from the program or utility training course was not that important to you. Can you tell me why this information was not that important?

77 Record VERBATIM N41ad
 88 Don't know N41ad
 99 Refused N41ad

IF N3h<4, THEN ASK

When I asked you about THE INFORMATION from the PROGRAM or UTILITY MARKETING MATERIALS, you gave a rating of ...<%N3H> ... out of ten, indicating that this information from the program or utility marketing materials was not that important to you. Can you tell me why this information was not that important?

N41ad 77 Record VERBATIM N41ae
 88 Don't know N41ae
 99 Refused N41ae

IF N3k<4, THEN ASK

When I asked you about THE ENDORSEMENT or RECOMMENDATION by PROGRAM STAFF or PROGRAM VENDOR, you gave a rating of ...<%N3K> ... out of ten, indicating that this program endorsement was not that important to you. Can you tell me why this program endorsement was not that important?

N41ae 77 Record VERBATIM N41af
 88 Don't know N41af
 99 Refused N41af

IF N3l<4, THEN ASK

When I asked you about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you. Can you tell me why this endorsement was not that important?

N41af 77 Record VERBATIM N41b
 88 Don't know N41b
 99 Refused N41b

IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3l>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was not very important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were very important to you. Just to make sure I have recorded this properly, will you please state in your own words why you feel the program was not very important?

N41b 77 Record VERBATIM N5
 88 Don't know N5
 99 Refused N5

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the &PROGRAM had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same equipment?

N5 # Record 0 to 10 score (_____) N5a.
 88 Refused N6
 99 Don't know N6

CONSISTENCY CHECKS

IF N3b>7 and N5>7, THEN ASK.

When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ...<%N5>... for how likely you would be to install the same equipment without the rebate, it sounds like the rebate was not very important in your installation decision.

I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient equipment?

N5a 77 Record VERBATIM N5aa
 88 Don't know N5aa
 99 Refused N5aa

Would you like for me to change your score on the importance of the rebate that you gave a rating of <N3B> and/or change your rating on the likelihood you would install the same equipment without the rebate which you gave a rating of <N5> and/or we can change both if you wish?

N5aa 77 Record VERBATIM SP3a
88 Don't know SP3a
99 Refused SP3a

PROBE ON STANDARD PRACTICE if n3>7, ELSE ASK N9

In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this MEASURE. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy?

SP3a 1 Much more important N9
2 Somewhat more important N9
3 Equally important N9
4 Somewhat less important N9
5 Much less important N9
88 Don't know N9
99 Refused N9

IF N5>0, THEN ASK.

You indicated in your response to a previous question that there was a <N5> in 10 likelihood that you would have installed the same equipment if THE PROGRAM had not been available. When do you think you would have installed this equipment? Please express your answer in months.

N9 a. at the same time TD1
b. within _____ months N9b
c. Never N6
88 Refused N6
99 Don't know N9a.

N9a. If respondent is having difficulty specifying answer in months...would it have been..

a. _____ within 6 months? TD1
b. _____ 6 months to 1 year later TD1
c. _____ 1 - 2 years later TD1
d. _____ .2 - 3 years later? TD1
e. _____ .3 - 4 years later? TD1
f. _____ .4 or more years later N9b
88 Don't know N6
99 Refused N6

IF N9>=48 months OR N9a=response f, THEN ASK N9b, ELSE ASK N6.

N9b. Why do you think it would have been 4 or more years later?

77 Record VERBATIM TD1
88 Don't know TD1
99 Refused TD1

DEFERRED FREE RIDERSHIP FOLLOW-UP

INTRO FOR BOTH TD1 and TD1a You said that there was an <N5> in 10 likelihood that you would have installed the same equipment about <N9> months later (OR at the same time) if the PROGRAM had not been available. I'd like to ask a couple of questions to help us estimate at what point in the future you would definitely have installed new equipment. We understand that you can't know exactly when you would have done this, especially so far into the future. We're just trying to get a sense of how long you think the current equipment or process would have kept serving your company's needs before you had to or chose to replace it.

if N9 or N9a ≤ 60 months, ask TD1, ELSE TD1A

TD1 So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 60 months, or 5 years, later if the program had not been available?

Record 0 to 10 score (_____) TD2
88 Refused TD1A
99 Don't know TD1A

TD2 IF <10 ASK TD2, ELSE GO TO N5a

And what would you say is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been available?

Record 0 to 10 score (_____) TD1A
88 Refused TD1A
99 Don't know TD1A

if N9 or N9a > 60 months, ask

TD1A Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been available?

Record 0 to 10 score (_____) N9bb
88 Refused N9bb
99 Don't know N9bb

CONSISTENCY CHECK ON AGE

IF N3a>6 AND N9>=48 months OR N9a=response f, THEN ASK. ELSE N6.

Earlier when asked about the influence of the age/condition of the old equipment on your decision to install this new equipment, you gave me a rating of <N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the existing equipment played in your decision to install this new energy-efficient equipment.

N9bb 77 Record VERBATIM N6
88 Don't know N6
99 Refused N6

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PARTIAL FREE RIDERSHIP

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| | Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do? | |
| N6 | 1 Install fewer units | N6a |
| | 2 Install standard efficiency equipment or whatever required by code | SP1 |
| | 3 install equipment more efficient than code but less efficient than what you installed through the program | N6b |
| | 4 repair/rewind or overhaul the existing equipment | N6c |
| | 5 do nothing (keep the existing equipment as is) | SP1 |
| | 6 something else (specify what _____) | SP1 |
| | 88 Don't know | SP1 |
| | 99 Refused | SP1 |
| N6a | How many fewer units would you have installed? (It is okay to take an answer such as ...HALF...or 10 percent fewer ... etc.) | |
| | 77 RECORD VERBATIM | SP1 |
| | 88 Refused | SP1 |
| | 99 Refused | SP1 |
| N6b | Can you tell me what model or efficiency level you were considering as an alternative? (It is okay to take an answer such as ... 10 percent more efficient than code or 10 percent less efficient than the program equipment) | |
| | 77 RECORD VERBATIM | SP1 |
| | 88 Don't know | SP1 |
| | 99 Refused | SP1 |
| N6c | How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement? | |
| | 77 RECORD VERBATIM | SP1 |
| | 88 Don't know | SP1 |
| | 99 Refused | SP1 |

SPILLOVER QUESTIONS

| | | | |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|
| SP1 | Did you implement any additional energy efficiency measures at this facility since your participation in the 2006-2008 Program and before the end of 2008 that did not receive incentives through any utility or government program? | | Revision |
| | 1 Yes | SP2 | |
| | 2 No | CAFAC1 | |
| | 88 Refused | CAFAC1 | |
| | 99 Don't know | CAFAC1 | |
| SP2 | What was the first Measure that you implemented? | | |
| | 77 Record FIRST measure | SP3 | |
| | 88 Refused | CAFAC1 | |
| | 99 Don't know | CAFAC1 | |
| SP3 | What was the second measure? | | |
| | 77 Record SECOND measure | SP4 | |
| | 88 Refused | SP4 | |
| | 99 Don't know | SP4 | |
| SP4 | What was the third measure? | | |
| | 77 Record THIRD measure | SP5 | |
| | 88 Refused | SP5 | |
| | 99 Don't know | SP5 | |
| SP5 | I have a few questions about the FIRST Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | | |
| | 77 Record VERBATIM | SP5b | |
| | 88 Don't know | SP5b | |
| | 99 Refused | SP5b | |
| SP5b | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | | |
| | 77 Record VERBATIM | SP5c | |
| | 88 Don't know | SP5c | |
| | 99 Refused | SP5c | |
| SP5c. | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | | |
| | 1 Yes | SP5d | |
| | 2 No | SP5d | |
| | 88 Refused | SP5d | |
| | 99 Don't know | SP5d | |
| SP5d. | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | | |
| | # Record 0 to 10 score (_____) | SP5dd | |
| | 88 Refused | SP5e | |
| | 99 Don't know | SP5e | |
| SP5dd. | Why do you give it this rating? | | |
| | 77 Record VERBATIM | SP5e | |
| | 88 Don't know | SP5e | |
| | 99 Refused | SP5e | |
| SP5e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | | |
| | # Record 0 to 10 likelihood rating (_____) | SP5f | |
| | 88 Refused | SP5f | |
| | 99 Don't know | SP5f | |

| | | | |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------|
| SP6 | I have a few questions about the SECOND Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | 77 Record VERBATIM 88 Don't know 99 Refused | SP6b SP6b SP6b |
| SP6b | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | 77 Record VERBATIM 88 Don't know 99 Refused | SP6c SP6c SP6c |
| SP6c. | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | 1 Yes 2 No 88 Refused 99 Don't know | SP6d SP6d SP6d SP6d |
| SP6d. | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | # Record 0 to 10 score (_____) 88 Refused 99 Don't know | SP6dd SP6e SP6e |
| SP6dd. | Why do you give it this rating? | 77 Record VERBATIM 88 Don't know 99 Refused | SP6e SP6e SP6e |
| SP6e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | # Record 0 to 10 likelihood rating (_____) 88 Refused 99 Don't know | SP7 SP7 SP7 |
| SP7 | I have a few questions about the THIRD Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | 77 Record VERBATIM 88 Don't know 99 Refused | SP7b SP7b SP7b |
| SP7b | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | 77 Record VERBATIM 88 Don't know 99 Refused | SP7c SP7c SP7c |
| SP7c. | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | 1 Yes 2 No 88 Refused 99 Don't know | SP7d SP7d SP7d SP7d |
| SP7d. | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | # Record 0 to 10 score (_____) 88 Refused 99 Don't know | SP7dd SP7e SP7e |
| SP7dd. | Why do you give it this rating? | 77 Record VERBATIM 88 Don't know 99 Refused | SP7e SP7e SP7e |
| SP7e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | # Record 0 to 10 likelihood rating (_____) 88 Refused 99 Don't know | CAFAC1 CAFAC1 CAFAC1 |
| CAFAC1 | Now, thinking about other facilities operated by your organization in the regions of California that are served by PG&E, SCE, SDG&E or Southern California Gas Company, are you aware of any additional energy efficiency measures implemented at these other facilities since your participation in the 2006-2008 program and before the end of 2008 that did not receive an incentive through a utility or government program? | 1 Yes 2 No 88 Refused 99 Don't know | CAFAC2 C1 C1 C1 |
| CAFAC2 | What was the first Measure that you implemented? | 77 Record FIRST MEASURE 88 Refused 99 Don't know | CAFAC3 CAFAC3 CAFAC3 |

Revision

| | | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| CAFAC3 | What was the second measure? | |
| 77 | Record SECOND MEASURE | CAFAC4 |
| 88 | Refused | CAFAC4 |
| 99 | Don't know | CAFAC4 |
| CAFAC4 | What was the third measure? | |
| 77 | Record THIRD MEASURE | MEAS1_1 |
| 88 | Refused | MEAS1_1 |
| 99 | Don't know | MEAS1_1 |
| | IF CAFAC1=1, THEN ASK, ELSE C1 | |
| | I have a few questions about the FIRST MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? | |
| MEAS1_1 | | |
| 1 | Yes | MEAS2_1 |
| 2 | No | MEAS1_2 |
| 88 | Refused | MEAS2_1 |
| 99 | Don't know | MEAS2_1 |
| MEAS1_2 | Why did you not install this measure through a Utility Program? | |
| 77 | Record VERBATIM | MEAS1_3 |
| 88 | Don't know | MEAS1_3 |
| 99 | Refused | MEAS1_3 |
| MEAS1_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | |
| 77 | Record VERBATIM | MEAS1_4 |
| 88 | Don't know | MEAS1_4 |
| 99 | Refused | MEAS1_4 |
| MEAS1_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | |
| 1 | Yes | MEAS1_5 |
| 2 | No | MEAS1_5 |
| 88 | Refused | MEAS1_5 |
| 99 | Don't know | MEAS1_5 |
| MEAS1_5 | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | |
| # | Record 0 to 10 score (_____) | MEAS1_6 |
| 88 | Refused | MEAS1_7 |
| 99 | Don't know | MEAS1_7 |
| MEAS1_6 | Why do you give it this rating? | |
| 77 | Record VERBATIM | MEAS1_7 |
| 88 | Don't know | MEAS1_7 |
| 99 | Refused | MEAS1_7 |
| MEAS1_7 | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | |
| # | Record 0 to 10 likelihood rating (_____) | MEAS2_1 |
| 88 | Refused | MEAS2_1 |
| 99 | Don't know | MEAS2_1 |
| | IF CAFAC2=1, THEN ASK, ELSE C1 | |
| | I have a few questions about the SECOND MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? | |
| MEAS2_1 | | |
| 1 | Yes | MEAS3_1 |
| 2 | No | MEAS2_2 |
| 88 | Refused | MEAS3_1 |
| 99 | Don't know | MEAS3_1 |
| MEAS2_2 | Why did you not install this measure through a Utility Program? | |
| 77 | Record VERBATIM | MEAS2_3 |
| 88 | Don't know | MEAS2_3 |
| 99 | Refused | MEAS2_3 |
| MEAS2_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | |
| 77 | Record VERBATIM | MEAS2_4 |
| 88 | Don't know | MEAS2_4 |
| 99 | Refused | MEAS2_4 |
| MEAS2_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | |
| 1 | Yes | MEAS2_5 |
| 2 | No | MEAS2_5 |
| 88 | Refused | MEAS2_5 |
| 99 | Don't know | MEAS2_5 |
| MEAS2_5 | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | |
| # | Record 0 to 10 score (_____) | MEAS2_6 |
| 88 | Refused | MEAS2_7 |
| 99 | Don't know | MEAS2_7 |
| MEAS2_6 | Why do you give it this rating? | |
| 77 | Record VERBATIM | MEAS2_7 |
| 88 | Don't know | MEAS2_7 |
| 99 | Refused | MEAS2_7 |

MEAS2_7 If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?
 # Record 0 to 10 likelihood rating (_____) MEAS3_1
 88 Refused MEAS3_1
 99 Don't know MEAS3_1

IF CAFAC3=1, THEN ASK, ELSE C1

MEAS3_1 I have a few questions about the THIRD MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program?
 1 Yes C1
 2 No MEAS3_2
 88 Refused C1
 99 Don't know C1

MEAS3_2 Why did you not install this measure through a Utility Program?
 77 Record VERBATIM MEAS3_3
 88 Don't know MEAS3_3
 99 Refused MEAS3_3

MEAS3_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.
 77 Record VERBATIM MEAS3_4
 88 Don't know MEAS3_4
 99 Refused MEAS3_4

MEAS3_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?
 1 Yes MEAS3_5
 2 No MEAS3_5
 88 Refused MEAS3_5
 99 Don't know MEAS3_5

MEAS3_5 How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?
 # Record 0 to 10 score (_____) MEAS3_6
 88 Refused MEAS3_7
 99 Don't know MEAS3_7

MEAS3_6 Why do you give it this rating?
 77 Record VERBATIM MEAS3_7
 88 Don't know MEAS3_7
 99 Refused MEAS3_7

MEAS3_7 If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?
 # Record 0 to 10 likelihood rating (_____) C1
 88 Refused C1
 99 Don't know C1

And finally, I have a few questions about the characteristics of your business.

C1. Our records indicate that the primary business code for the facility that installed &MEASURE is &NAICS. Is that correct?
 1 Yes C2
 2 No C2
 88 Don't know C2
 99 Refused C2

C2. Please describe the type of work performed at this facility and/or the primary product made or main service provided.
 77 Record VERBATIM C3
 88 Don't know C3
 99 Refused C3

C3. Please describe any changes made to this site since January 2006 that significantly impacted energy usage.
 77 Record VERBATIM END
 88 Don't know END
 99 Refused END

Premise General Information

Please answer the following questions

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| C4. What kind of premise is this?: P = Part of a bldg B = 1 building, single footprint MF = 1 building w/multiple footprints SM = Small multi-building CM = Campus (multi-bldg) OT = Other | P B MF SM CM OT |
| C5. What is the total occupied floor area of this premise (excluding enclosed parking garage area)? | ft ² |
| C5a. If the premise has an enclosed parking garage, approximately what is the floor area? | ft ² |
| C6. How many buildings are part of this premise? | |
| C7. Is this premise owner-occupied (O) or leased (L)? | O L |
| C8. What year was this business established at this location? | --- |
| C9. How many full-time equivalent employees work at this premise? | --- |

END Those are all the questions I have for you. On behalf of the CPUC, thank you very much for your time. END OF SURVEY

Business/Building Type Codes

Account Rep NTG Survey Instrument - Final 06/02/09

Introduction

AA1 This is %n calling from ITRON, May I please speak with ...<%CONTACT>? This call is in regard to ...<%CUSTOMER>'s... installation of ...<%MEASURE>... Through the ...<%PROGRAM>... on approximately ...<%INSTALL_DATE>.\,
 1 Yes A2
 2 No AA2
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

AA2 Who would be the person most familiar the planning and implementation of ...<%CUSTOMER>'s... recently completed energy efficiency project. This project involved the installation of ...<%MEASURE> ... on approximately ...<%INSTALL_DATE>?
 1 Record name AA3
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

AA3 May I speak with him/her?
 1 Yes AA4
 2 No (not available right now) SCHEDULE APPOINTMENT Reschedule appt.

AA4 Hello, my name is ... %n .and I am calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. I was told that you are the person most knowledgeable about...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE> through the <%PROGRAM>. __Is this correct?
 1 Yes A2
 2 No, there is someone else (RECORD NAME) AA5
 3 No and I don't know who to refer you to Thank and Terminate
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

AA5 Am I speaking with ...<%CONTACT> ...the account representative that worked with ...<%CUSTOMER>... during the planning and implementation of their recently completed energy efficiency project. This project involved the installation of...<%MEASURE> ... on approximately ... <%INSTALL_DATE>?
 1 Yes A2
 2 Yes, but we need to make an appointment. Reschedule appt.
 3 No but I will give you to the correct person. AA4
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor. For the sake of expediency, we will be recording this interview.

[If INTERVIEWEE requests a contact at their local utility, the following are the appropriate representatives for this evaluation, note these are the program managers]

- PGE Angie Ong-Castillo - (415) 973-1887
- SCE Ron Cobas - 626-633-3088
- SDGE Sandra Williams 858-636-5802
- CPUC Peter Lai 213-576-7087

First, I would like to confirm the information I have regarding the Primary Decision Maker for ...<%CUSTOMER>'s..energy efficiency project.
 .
IF DM_NAME = 1;
 A2 I have ...<%DEC_MK_NAME>... as the Decision Maker's name. Is this correct?
 1 Yes A4
 2 No but here is the correct name (RECORD VERBATIM) A4
 88 Refused A4
 99 Don't know A4

IF DM_NAME = 0,2,99
 A3 Our records don't show the name of the primary decision maker. What is the name of the of the primary decision maker that you worked with?
 77 RECORD Name A4
 88 Refused A4
 99 Don't know A4

| | | |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| IF DM_PHONE = 1 | | |
| A4 | I have ...<%DEC_MK_PHONE>... as the Decision Maker's Phone Number. Is this correct? | |
| | 1 Yes | A6 |
| | 2 No but here is the correct phone number (RECORD VERBATIM) | A6 |
| | 88 Refused | A6 |
| | 99 Don't know | A6 |
| IF DM_PHONE = 0, 2, 99 | | |
| A5 | Our records don't show the phone number of the primary decision maker. What is the phone number of the primary decision maker that you worked with? | |
| | 77 RECORD Phone Number | A6 |
| | 88 Refused | A6 |
| | 99 Don't know | A6 |
| IF DM_CELL == 1; | | |
| A6 | I have ...<%DEC_MK_CELL>... as the Decision Maker's CELL Phone Number. Is this correct? | |
| | 1 Yes | A8 |
| | 2 No but here is the correct cell phone number (RECORD VERBATIM) | A8 |
| | 88 Refused | A8 |
| | 99 Don't know | A8 |
| IF DM_CELL == 0,2,99 | | |
| A7 | Our records don't show the CELL phone number of the primary decision maker. What is the CELL phone number of the primary decision maker that you worked with? | |
| | 77 RECORD Cell Phone Number | A8 |
| | 88 Refused | A8 |
| | 99 Don't know | A8 |
| IF DM_EMAIL = 1 | | |
| A8 | I have ... <%DEC_MK_EMAIL> ... as the Decision Maker's EMAIL ADDRESS. Is this correct? | |
| | 1 Yes | A10 |
| | 2 No but here is the correct email address (RECORD VERBATIM) | A10 |
| | 88 Refused | A10 |
| | 99 Don't know | A10 |
| IF DM_EMAIL == 0,2,99 | | |
| A9 | Our records don't show the email address of the primary decision maker. What is the EMAIL ADDRESS of the primary decision maker that you worked with? | |
| | 77 RECORD Email address | A10 |
| | 88 Refused | A10 |
| | 99 Don't know | A10 |
| IF DM_EMAIL = 1 | | |
| A10 | I have ...<%DEC_MK_TITLE> ... as the Decision Maker's title. Is this correct? | |
| | 1 Yes | A12 |
| | 2 No but here is the correct job title (RECORD VERBATIM) | A12 |
| | 88 Refused | A12 |
| | 99 Don't know | A12 |
| IF DM_TITLE == 0,2,99 | | |
| A11 | Our records don't show a title for the primary decision maker. What is the title for the primary decision maker that you worked with? | |
| | 77 RECORD Job title | A12 |
| | 88 Refused | A12 |
| | 99 Don't know | A12 |
| A12 | Next we would like to get a sense of when ...<%CUSTOMER>...FIRST became aware of ...<%MEASURE> ... and how it could help their company save energy and reduce energy costs. When did they FIRST become aware? | |
| | 77 RECORD VERBATIM | A13 |
| | 88 Refused | A13 |
| | 99 Don't know | A13 |
| A13 | We also would like to get a sense of HOW they FIRST heard about this measure and how it could help reduce energy costs. Do you know how they FIRST heard about this measure? | |
| | 77 RECORD VERBATIM | A14 |
| | 88 Refused | A14 |
| | 99 Don't know | A14 |
| A14 | What was your SPECIFIC role with respect to this project? | |
| | 77 RECORD VERBATIM | A15 |
| | 88 Refused | A15 |
| | 99 Don't know | A15 |

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------|-----|
| A15 | What is your understanding of the reasons that ...<%CUSTOMER>... decided to implement this project? | |
| | 77 RECORD VERBATIM | A16 |
| | 88 Refused | A16 |
| | 99 Don't know | A16 |
| A16 | Are there any other comments that you would like to add about ...<%CUSTOMER>... and their implementation of this project? | |
| | 77 RECORD VERBATIM | A17 |
| | 88 Refused | A17 |
| | 99 Don't know | A17 |
| | IF VEND1 = 1 | |
| | We show the EQUIPMENT SUPPLIER/INSTALLER VENDOR TO BE...[READ.<%VEND1NAME>.;<%V1PHONE>] Does this | |
| A17 | agree with your records? | |
| | 77 RECORD VERBATIM | A20 |
| | 88 Refused | A20 |
| | 99 Don't know | A20 |
| | IF VEND1 == 2,99 | |
| A18 | What is the name and phone number of the Equipment Supplier/Installer Vendor that worked with <%CUSTOMER>... on this installation? | |
| | 77 RECORD VERBATIM | A20 |
| | 88 Refused | A20 |
| | 99 Don't know | A20 |
| | IF VEND1 <> 0; | |
| A19 | Do you have a contact name for this vendor? | |
| | 77 RECORD VERBATIM | A20 |
| | 88 Refused | A20 |
| | 99 Don't know | A20 |
| | IF VEND2 == 1; | |
| A20 | We show the DESIGN OR CONSULTING ENGINEER to be...<%VEND2NAME>. <%V2PHONE>. Does this agree with your records? | |
| | 1 Yes | A23 |
| | 2 No but here are the correct name and phone number (RECORD VERBATIM) | A23 |
| | 88 Refused | A23 |
| | 99 Don't know | A23 |
| | IF VEND2 == 2,99 | |
| A21 | What is the name and phone number of the DESIGN OR CONSULTING ENGINEER that worked with <%CUSTOMER>... on this installation? | |
| | 77 RECORD VERBATIM | A23 |
| | 88 Refused | A23 |
| | 99 Don't know | A23 |
| | IF VEND2 <> 0; | |
| A22 | Do you have a contact name for this vendor?; | |
| | 77 RECORD VERBATIM | A23 |
| | 88 Refused | A23 |
| | 99 Don't know | A23 |
| | IF VEND3 == 1; | |
| A23 | We show the PROGRAM PROVIDED VENDOR to be...[READ <%VEND3NAME>., <%V3PHONE>] Does this agree with your records? | |
| | 1 Yes | A26 |
| | 2 No but here are the correct name and phone number (RECORD VERBATIM) | A26 |
| | 88 Refused | A26 |
| | 99 Don't know | A26 |
| | IF VENDOR3(2)[99] VEND3 == 2; | |
| A24 | What is the name and phone number of the PROGRAM PROVIDED VENDOR that worked with <%CUSTOMER>... on this installation? | |
| | 77 Record name and phone number (RECORD VERBATIM) | A26 |
| | 88 Refused | A26 |
| | 99 Don't know | A26 |
| | IF VEND3 <> 0; | |
| A25 | Do you have a contact name for this vendor? | |
| | 77 RECORD VERBATIM | A26 |
| | 88 Refused | A26 |
| | 99 Don't know | A26 |

IF VEND1 <> 0 | VEND2 <> 0 | VEND3 <> 0;

A26 Do you have any additional comments or information about the vendors that worked with this customer on the implementation and installation of this equipment?

77 RECORD VERBATIM

A27

88 Refused

A27

99 Don't know

A27

A27 And finally, for verification purposes only, may I please have your first name?

END

77 RECORD VERBATIM

END Those are all the questions I have for you today. Thank you very much for your time.

END OF SURVEY

Vendor NTG Survey Instrument - Final 06/02/09

Introduction

AA1 This is %n calling on behalf of the CPUC [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. I am calling about your firm's recent involvement in ...<%CUSTOMER>'s...installation of ...<%MEASURE>... through ...<%PROGRAM> ... on approximately ...<%INSTALL_DATE>.....Our records indicate that ...<%CONTACT>... would be the person most knowledgeable about this. Is he available?

1 Yes AA7
 2 No AA2
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

AA2 Who would be the person most knowledgeable about your firm's involvement with ...<%CUSTOMER>'s... recently completed energy efficiency project. This project involved the installation of ...<%MEASURE> ... on approximately ...<%INSTALL_DATE>.

1 Record name AA3
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

AA3 May I speak with him/her?

1 Yes AA4
 2 No (not available right now) SCHEDULE APPOINTMENT Reschedule appt.

AA4 Hello, my name is ... %n and I am calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. I was told that you are the person most knowledgeable about your firm's involvement with...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE> through the <%PROGRAM>. __Is this correct?

1 Yes A2
 2 No, there is someone else (RECORD NAME) AA5
 3 No and I don't know who to refer you to Thank and Terminate
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

AA5 Am I speaking with ..<%CONTACT> ...the representative of your company that worked with ...<%CUSTOMER>... during the planning and installation of their recently completed energy efficiency project. This project involved the installation of...<%MEASURE> ... on approximately ... <%INSTALL_DATE>?

1 Yes A2
 2 Yes, but we need to make an appointment. Reschedule appt.
 3 No but I will give you to the correct person. AA4
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor. For the sake of expediency, we will be recording this interview.

A1 <%CUSTOMER>... has indicated that your firm was involved in the implementation of their installation of ...<%MEASURE> at their facility on approximately ...<%INSTALL_DATE>. __Is this correct?...

1 Yes A2
 2 No Thank and Terminate
 88 Refused Thank and Terminate
 99 Don't know Thank and Terminate

[DO NOT READ: The following question will determine if we ask about influences on their recommendations. Please be sure to be thorough with this question. If they truly only installed this equipment, then a "No" is fine]

A2 As <%CUSTOMER>'s vendor, did you recommend the installation of this measure?

1 Yes V2
 2 No A3
 88 Refused A3
 99 Don't know A3

- A3 Can you please explain what was your firm's involvement with ...<%CUSTOMER>'s ... Implementation of this equipment? [IF NEEDED: were they just an order taker, were they just equipment suppliers, or were they instrumental in what equipment was selected?.....if they were instrumental, then you need to go back and correct the previous question.]
- 77 RECORD VERBATIM Thank and Terminate
- 88 Refused Thank and Terminate
- 99 Don't know Thank and Terminate

[READ] For the sake of expediency, during the balance of the interview, we will be referring to the <%PROGRAM> as the PROGRAM and we will be referring to the installation of ... <%MEASURE> as the MEASURE. I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.

I am going to ask you to rate the importance of the PROGRAM in influencing your decision to recommend this MEASURE to ...<%CUSTOMER>.and other customers. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.

..

- V2 Using this 0 to 10 scale where 0 is NOT AT ALL IMPORTANT and 10 is EXTREMELY IMPORTANT, how important was the PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that ...<%CUSTOMER>... install the energy efficiency MEASURE at this time?
- # Record 0 to 10 score (_____) V3
- 88 Refused V3
- 99 Don't know V3
- V3 And using a 0 to 10 likelihood scale where 0 is NOT AT ALL LIKELY and 10 is EXTREMELY LIKELY, if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific MEASURE to ...<%CUSTOMER>?
- # Record 0 to 10 score (_____) V4
- 88 Refused V4
- 99 Don't know V4
- V4 **Approximately**, in what percent of sales situations did you recommend this MEASURE before you learned about the PROGRAM?
- % Record PERCENTAGE V5
- 88 Don't know V5
- 99 Refused V5
- V5 And **approximately** in what percent of sales situations do you recommend this MEASURE now that you have worked with the PROGRAM?
- % Record PERCENTAGE V6a
- 88 Don't know V6a
- 99 Refused V6a
- V6a In what other ways has the PROGRAM influenced your recommendations regarding this MEASURE?
- 77 Record FIRST mention V6aa
- 88 Refused V6b
- 99 Don't know V6b
- V6aa Using a 0 to 10 scale, how important was this influence on this recommendation?
- # Record 0 to 10 score (_____) V6b
- 88 Don't know V6b
- 99 Refused V6b
- V6b Was there another way the PROGRAM influenced your recommendations regarding this MEASURE?
- 1 No other way V7a
- 77 Record SECOND mention V6bb
- 88 Refused V7a
- 99 Don't know V7a
- V6bb Using a 0 to 10 scale, how important was this influence on this recommendation?
- # Record 0 to 10 score (_____) V7a
- 88 Don't know V7a
- 99 Refused V7a

| | | | |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------|
| V7a | Using the same scale as before, how important was the TRAINING SEMINAR provided by <%UTILITY> in your recommendation? | | |
| | # Record 0 to 10 score (_____) | | V7b |
| | 88 Don't know | | V7b |
| | 99 Refused | | V7b |
| V7b | And how important was the information provided by the <%UTILITY> website? | | |
| | # Record 0 to 10 score (_____) | | V7c |
| | 88 Don't know | | V7c |
| | 99 Refused | | V7c |
| V7c | And how important was your firm's past participation in a rebate or audit program sponsored by <%UTILITY>? | | |
| | # Record 0 to 10 score (_____) | | V8 |
| | 88 Don't know | | V8 |
| | 99 Refused | | V8 |
| V8 | Approximately, what percentage of your sales over the last 12 months of this...<%MEASURE_TYPE> installed in <%UTILITY>'s service territory are energy efficient models...that qualify for incentives from the program? | | RCM |
| | % Record PERCENTAGE | | V9 |
| | 88 Don't know | | V9 |
| | 99 Refused | | V9 |
| V9 | On a 0 to 100 percent scale, in what percent of sales situations do you encourage your customers in <%UTILITY>'s territory to purchase program qualifying ...<%MEASURE_TYPE>...? | | |
| | % Record PERCENTAGE | | V9a |
| | 88 Don't know | | V10 |
| | 99 Refused | | V10 |
| | IF V9 << 100; | | |
| V9a | In what situations do you NOT encourage your customers to purchase energy efficient models if they qualify for a rebate? Why is that? | | |
| | 77 RECORD VERBATIM | | V10 |
| | 88 Refused | | V10 |
| | 99 Don't know | | V10 |
| V10 | Of those installations of ...<%MEASURE_TYPE>... in <%UTILITY>'s service territory that qualify for incentives, approximately what percentage do not receive the incentive? | | |
| | % Record PERCENTAGE | | V11 |
| | 88 Don't know | | V12 |
| | 99 Refused | | V12 |
| | IF V10 >> 0; | | |
| V11 | Why do you think they do not receive the incentive? | | |
| | 77 RECORD VERBATIM | | V12 |
| | 88 Refused | | V12 |
| | 99 Don't know | | V12 |
| V12 | Do you also sell ...<%MEASURE_TYPE>.. in areas where customers do not have access to incentives for energy efficient models? | | |
| | 1 Yes | | V13 |
| | 2 No | | V14 |
| | 88 Refused | | V14 |
| | 99 Don't know | | V14 |
| V13 | About what percent of your sales of ...<%MEASURE_TYPE> ... are represented by these areas where incentives are not offered? | | |
| | % Record PERCENTAGE | | V13a |
| | 88 Don't know | | V14 |
| | 99 Refused | | V14 |

IF V13 >> 10 & V13 << 101;

V13a And approximately what percentage of your sales of this ...<%MEASURE_TYPE>..in these areas are the energy efficient models that would qualify for incentives in <%UTILITY>'s service territory?

% Record PERCENTAGE V14
88 Don't know V14
99 Refused V14

V14 Have you changed your stocking practices as a result of the <%UTILITY> Program?,

1 Yes V15
2 No V15
88 Refused V15
99 Don't know V15

IF V12=1

V15 Do you promote energy efficient models equally in areas with and without incentives?

1 Yes V16
2 No V16
88 Refused V16
99 Don't know V16

V16 Do you know of any other vendors that worked with ...<%CUSTOMER>... during their implementation and/or installation of ...<%MEASURE> ...?

1 Yes V16a
2 No V17
88 Refused V17
99 Don't know V17

V16a Do you have their business name?

77 RECORD Business name and contact's name and phone number(s) V17
88 Refused V17
99 Don't know V17

V17 And finally, for verification purposes only, may I please have your first name?

77 RECORD VERBATIM END

END Those are all the questions I have for you today. Thank you very much for your time.

END OF SURVEY

Decision Maker NTG Scoring W

Application #

| |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Timing and Selection Score |
| Please rate the importance of each of the following in your decision to implement this specific [MEASURE] at this time. |
| Age or condition of the facility |
| Availability of the program rebate |
| Information provided through study, audit or other technical assistance provided through &PROGRAM |
| Recommendation from a vendor |
| VENDOR VMAX Score times Vendor Recommendation score if Vendor Recommendation > 5 |
| Previous experience with MEASURE |
| Previous experience with PROGRAM |
| Information from UTILITY or program training course |
| Information from UTILITY or program marketing materials |
| A recommendation from an auditor or consulting engineer |
| Standard practice in your industry |
| Recommendation from PROGRAM staff |
| Endorsement or recommendation by UTILITY Account Rep |
| Corporate policy or guidelines |
| Payback on the investment |
| Other, such as non-energy benefits |
| Importance of other factor |
| Program Influence Score (reduced by half if learned after decision) |
| Did you first learn about &PROGRAM BEFORE or AFTER you first began to think about implementing &MEASURE? |
| Did you learn about the program BEFORE or AFTER you decided to implement MEASURE? |
| Please rate the overall importance of the Program versus the non-program factors we just discussed in your decision to implement the measure, so that the two importance ratings total 10 |
| Please rate the overall importance of PROGRAM in your decision to implement MEASURE? |
| Please rate the overall importance of other factors in your decision to implement MEASURE? |
| No-Program Score |
| If the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same item/equipment |
| When do you think you would have done this? (months) |
| Number of months |
| NTGR SCORE = |

Worksheet

| Company A | Company B | Company C | Company D |
|-------------|---------------|------------------|-----------------|
| 1 | 2 | 3 | 4 |
| STANDARD | STANDARD | STANDARD | STANDARD |
| 10 | 9 | 9 | 7.2 |
| 0 | 0 | 0 | 5 |
| 5 | 6 | 9 | 5 |
| 8 | 9 | 8 | 7 |
| 8 | 2 | 6 | 8 |
| 3.2 | 0 | 4.2 | 7.2 |
| 5 | 7 | 9 | 7 |
| 8 | 0 | 8 | 7 |
| 0 | 0 | NA | 5 |
| 0 | 1 | 2 | 4 |
| 0 | NA | 7 | 7 |
| 0 | 7 | 6 | 7 |
| 0 | 9 | 7 | 5 |
| 10 | 7 | 5 | 5 |
| 0 | 1 | 7 | 10 |
| 8 | 3 | 9 | 10 |
| verbatim | verbatim | verbatim | verbatim |
| 0 | 5 | 7 | 8 |
| 5 | 2.5 | 3 | 5 |
| BEFORE | BEFORE | AFTER AFTER | AFTER BEFORE |
| 5 | 2.5 | 6 | 5 |
| 5 | 7.5 | 4 | 5 |
| 0.0 | 2.6 | 6.4 | 2.0 |
| 10 | 8 | 5 | 8 |
| Same time | 6 mos. - 1 yr | Spread out 2 yrs | Same time |
| 0 | 9 | 18 | 0 |
| 0.25 | 0.47 | 0.61 | 0.47 |

Vendor NTG Scoring

Application #

| Vendor VMAX Score | |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q1 | Using a 0 to 10 scale where 0 is 'Not at all important' and 10 is "Very Important", how important was PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that CUSTOMER install the energy efficiency MEASURE at this time? |
| Q2 | And using a 0 to 10 likelihood scale, where 0 denotes "not at all likely" and 10 denotes "very likely," if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific energy efficiency MEASURE to CUSTOMER? |
| Q3 | Now, using a 0 to 100 percent scale, in what percent of sales situations did you recommend MEASURE before you learned about the [PROGRAM]? |
| Q4 | And using the same 0 to 100 percent scale, in what percent of sales situations do you recommend MEASURE now that you have worked with the [PROGRAM]? |
| Q5a | And, using the same 0 to 10 scale where 0 is "Not at all important" and 10 is "Very important", how important in your recommendation were |
| Q5b | a. Training seminars provided by UTILITY? |
| Q5c | b. Information provided by the UTILITY website? |
| | c. Your firm's past participation in a rebate or audit program sponsored by UTILITY? |

1g Worksheet

| Company A | Company B | Company C | Company D |
|-----------|-----------|-----------|-----------|
| Vendor 1 | Vendor 2 | Vendor 3 | Vendor 4 |
| 4 | 0 | 7 | 9 |
| 3 | | 6 | 8 |
| 8 | | 9 | 1 |
| 100 | | 20 | 70 |
| 100 | | 80 | 75 |
| 3 | | 4 | 6 |
| 4 | | 6 | 7 |
| 2 | | 7 | 6 |

This score is automatically transfe

Appendix A-4

On-Site Data collection forms and Decision Maker Survey

Pipe Insulation HIM Data Collection Form

Rev. 08/13/09

General Site Information (from phone survey & IOU tracking database)

| | | | |
|---------------|--------|------------------|--|
| Itron ID | D__ __ | EEGA Program # | |
| Sample Strata | | Evaluation Phase | |

| | | | |
|-------------------------------|--|----------|--|
| Corporate (Multi-Site) Name | | | |
| Business Name (Tracking Data) | | | |
| Actual Business Name | | | |
| Service Address | | | |
| City | | Zip Code | |

CORRECTIONS TO SITE INFORMATION

| | | | |
|---------------------------------|--|-------------|--|
| Revised Corp. (Multi-Site) Name | | | |
| Revised Business Name | | | |
| Revised Service Address | | | |
| Revised City | | Revised Zip | |

Site Contact Information

CATI Survey (PS) Completion Date: _____ CATI Survey Respondent: _____

| | Contact Name | Phone Number | Alternate Phone | Email Address | Contacted |
|------------|--------------|--------------|-----------------|---------------|--------------------------|
| OS Primary | | | | | <input type="checkbox"/> |
| OS Back-up | | | | | <input type="checkbox"/> |
| OS Other | | | | | <input type="checkbox"/> |

Scheduling Notes/Special Instructions for On-site Visit:

Survey Tracking Information

| Date | Survey Company (Itron, ASW): | | Assigned Surveyor's Initials: | | Duration |
|------|------------------------------------------------|-------|------------------------------------------|-------|----------|
| | 1 st Site Visit Start (24 hr clock) | _____ | 1 st Survey End (24 hr clock) | _____ | |
| | 2 nd Site Visit Start (24 hr clock) | _____ | 2 nd Survey End (24 hr clock) | _____ | |

| | Date: | Initials |
|--------------------------------|-------------|----------|
| Field survey completed: | ___/___/___ | _____ |
| Survey received from surveyor: | ___/___/___ | _____ |
| ASW QC check completed: | ___/___/___ | _____ |
| Survey received at Itron: | ___/___/___ | _____ |
| Itron QC completed: | ___/___/___ | _____ |
| Data entry completed: | ___/___/___ | _____ |

Premise-Level General Information

| | |
|----------------------------------------|------------------------------|
| Site Billing Frame Information: | SIC CODE: __ __ __ __ |
|----------------------------------------|------------------------------|

Premise Business Type Description

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Uniqueness: Briefly describe the type of work or primary activity, product, or service of this facility. | |
| Recent Survey Area Changes: Give a brief description about any changes made to this site since installation that significantly impacted natural gas usage. | |

General Facility Information

| | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|----------|----------|----------|-----------|
| What kind of premise is this?: P = Part of a bldg B = Entire Building C = Campus (multi form) M = Multi-building (all bldgs surveyed) N = Non-Building OT = Other | <table style="width:100%"> <tr> <td style="text-align:center">P</td> <td style="text-align:center">B</td> <td style="text-align:center">C</td> </tr> <tr> <td style="text-align:center">M</td> <td style="text-align:center">N</td> <td style="text-align:center">OT</td> </tr> </table> | P | B | C | M | N | OT |
| P | B | C | | | | | |
| M | N | OT | | | | | |
| What <u>year</u> was this business established at this location? | _ _ _ _ | | | | | | |
| <i>Below circle one. Enter the appropriate NAICS code for this facility.</i> | NAICS Code | | | | | | |
| Coin-Op Laundry Commercial Laundry Dry Cleaners | | | | | | | |
| Industrial: Food Processing Agricultural Oil Refining Mnfg Light Mnfg Heavy | | | | | | | |
| Other Commercial: Auto Repair Education Grocery Hospital Health Care Lab/R&D Lodging Nursery Office Recreational Religious Restaurant Retail Store Refrigerated Warehouse Non-Refrig Warehouse Other (<i>Describe</i> →) | | | | | | | |

Verification Activity Checklist

| | |
|----------------------------------------------------------------------------------------------|--------------------------|
| Obtain a copy of invoice of work done and/or receipt of insulation purchase. | <input type="checkbox"/> |
| Obtain date work completed (or proof of date installed). Date ____/____/____ | <input type="checkbox"/> |
| Ask about P&ID or mechanical drawings. If complex get a copy of blueprint, if not sketch it. | <input type="checkbox"/> |
| Ask about and verify pre-installation pipe condition. (response at bottom of page 6) | <input type="checkbox"/> |
| Take pictures of insulation, boiler, piping system, and logger locations | <input type="checkbox"/> |

Insulation Measure List

| Measure Item # | SCG Tracking DB Measure Description | Qty - Linear Feet (LF) | IOU Gross Therms Savings | Therms Saved per LF |
|----------------|-------------------------------------|------------------------|--------------------------|---------------------|
| | | | | |

Visual Inspection

| | |
|---------------------------------------------------------------------------------------------------------------------------|----------------|
| How would you describe the quality of workmanship of the installation? P = Poor F = Fair G = Good E = Excellent | P F G E |
| Were pipe bends insulated? | Y N |
| Were valves insulated? | Y N |
| Were pipe unions insulated? | Y N |
| Were pipe supports properly insulated with wood, ceramic, glass blocks? | Y N |
| Was the jacket properly sealed? | Y N |
| For outdoor applications, are there any signs of any water ingress? | Y N |
| Describe any observed damage to "new" insulation | |

Verify the following phone survey responses or complete.

| Production Changes | Steam | Verify | Hot Water | Verify |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|---------------------|---------------|
| Has your steam or hw demand changed before and after the retrofit? Same Decrease Increase | S D I | | S D I | |
| When did the production change occur? (approx. date) | | | | |
| For each overall pipe system, are temperature or pressure requirements the same or have they changed between pre and post retrofit? | Same Changed | | Same Changed | |
| If pipe system fluid demand changed before and after the retrofit, what was the pre-retrofit demand | lb/hr | | gal/day | |
| What is the post-retrofit demand | lb/hr | | gal/day | |
| Laundry Production Changes | Pre-Install | | Post-Install | |
| Pounds of laundry washed per day? (lb) | | | | |

Primary Schedules and Operation

Business Hours

Define typical operation for all Day Types listed below and specify hours in military time (0 to 24). For partial (i.e., not full) operation days, also indicate the approximate reduced operation % in Partial Op%.

| Day Type | Business Hours | Closed All Day? | Open 24 hrs? |
|-----------------------------------|-----------------|--------------------------|--------------------------|
| Sunday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Monday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Tuesday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Wednesday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Thursday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Friday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Saturday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Holidays | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Number of Holidays per year _____ | | | |

N/A Seasonal Operation

If the business hours vary significantly during the year, please complete the following tables.

| | |
|---------------------------------------------------------------------------------|-----|
| Do the business hours vary during the year from the days/hours specified above? | Y N |
|---------------------------------------------------------------------------------|-----|

If yes, list the beginning/ending months (1-12) for up to 3 time periods.

| TIME PERIOD 1 | | | TIME PERIOD 2 | | | TIME PERIOD 3 | | |
|-----------------|--|--|-----------------|--|--|-----------------|--|--|
| Begin Month/Day | | | Begin Month/Day | | | Begin Month/Day | | |
| End Month/Day | | | End Month/Day | | | End Month/Day | | |

Comments

| |
|--|
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |

Energy-Efficiency Measures

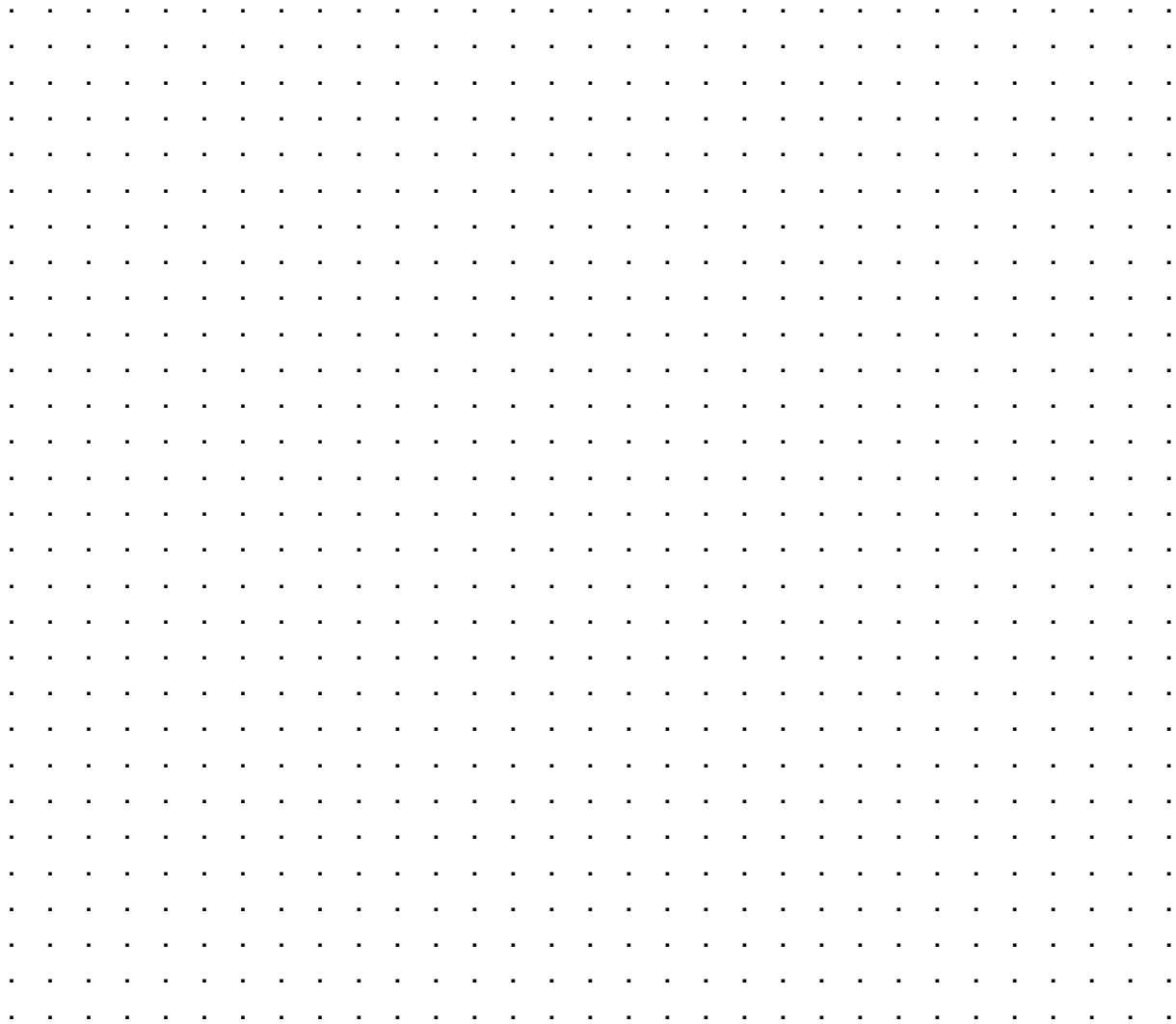
| <i>Identify energy-efficiency measures that are already present or any recent improvements since the piping insulation upgrade was completed.</i> | None | Measure Already Present | Recent EEM (since insulation project) |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|---------------------------------------|
| BOILERS | | | |
| Boiler tune-up/maintenance | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Boiler maintenance company & contact name and phone | | | |
| High-efficiency condensing boiler upgrade | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Automatic O2 trim controls | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Outdoor air reset control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Stack economizer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Flue gas condenser | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Blowdown heat recovery | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| BOILER or HW CONTROLS | | | |
| Energy management system or SCADA | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Boiler pump sequencing/optimization | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| VFDs on HW pump motors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| VFDs on feedwater pumps | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| VFDs on draft fans with auto pressure control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Boiler heat recovery | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Pipe System Details | Piping System #___ | Piping System #___ | Piping System #___ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Which boiler(s) serve each piping system (B1, B2, etc.) | | | |
| Which water heater(s) serve each piping system (DHW#) | | | |
| How many separate piping systems were insulated? (i.e. one system loop with one or multiple parallel sources of heat) | | | |
| Is your boiler piping system monitored by a SCADA or EMS? | Y N | Y N | Y N |
| If yes, which parameters are logged and can they obtain data for 12 months prior to installation and whatever is available post-installation? <i>Circle all available parameters</i> boiler op hours natural gas usage temperatures pressures flow rates Other parameters (describe) _____ | | | |
| Is this an Open (sewered) or Closed loop (returned) system? | O C | O C | O C |
| What is the piping system fluid? Steam HW Other (describe): _____ | S HW O | S HW O | S HW O |
| The number of pipe supply "drop-downs" for each system | | | |
| What is the typical end point usage/day (in hours or minutes)? | | | |
| What is the pipe material? Steel Copper Other (describe): _____ | S C O | S C O | S C O |
| Describe pipe surface condition (for emissivity): Black Galvanized(GLV) Rusty Polished Dull Green (GRN) | B GLV R P GRN | B GLV R P GRN | B GLV R P GRN |
| Baseline determination (pre-retrofit condition) | | | |
| <i>Determine the pre-existing piping fluid supply temperatures and pressures either from existing gauges (if unchanged), SCADA, or staff.</i> | | | |
| Did you change system pressures or temperatures at the time of the retrofit? If NO, skip the next two questions. | Y N | Y N | Y N |
| Average pre-retrofit demand-point fluid temperatures | °F | °F | °F |
| Average pre-retrofit demand-point pressures | psig | psig | psig |
| Pre-Existing Insulation: None (Skip to next section) Fiberglass Mineral Wool Calcium Silicate Ceramic Perlite(PR) Cellular Glass Polyisocyanurate(PI) Other (describe): _____ | N F M CS C PR CG PI O | N F M CS C PR CG PI O | N F M CS C PR CG PI O |
| Pre-retrofit R-value (or thickness inches) | | | |
| What % of the pre-retrofit pipe system length was insulated? | % | % | % |
| What was the age of the replaced insulation? | | | |
| What was the pre-existing pipe insulation condition? Bare Torn/Ripped Damaged Water Damaged Chemical Chewed Other (describe): _____ | B T DW DC C O | B T DW DC C O | B T DW DC C O |

| Post-Retrofit Pipe Insulation Condition | Piping System #___ | Piping System #___ | Piping System #___ |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|
| Do you have the retrofit insulation specification cut sheets available? <i>Get a copy of specification cut sheets (check model number to match properly)</i> | | | |
| Insulation Manufacturer | | | |
| Insulation Model Number | | | |
| <i>If above info NOT obtainable then please complete the following section:</i> | | | |
| Describe the type of insulation installed (circle one): | | | |
| Fiberglass Mineral Wool Calcium Silicate Ceramic Perlite(PR) Cellular Glass Polyisocyanurate(PI) Other (describe):_____ | | | |
| Thickness (inches) | | | |
| R-Value or K-Value | | | |
| Select the value | R K | R K | R K |
| Describe outer insulation (or sleeve) surface material: | | | |
| None Metallic Mastic Vinyl (PVC) Other | N Met Mas V O | N Met Mas V O | N Met Mas V O |
| For outdoor pipes only | | | |
| Describe surface color (darkness): Light Medium Dark | L M D | L M D | L M D |
| Describe surface finish: Dull Medium Bright | D M B | D M B | D M B |

Piping System Plan Sketch 1

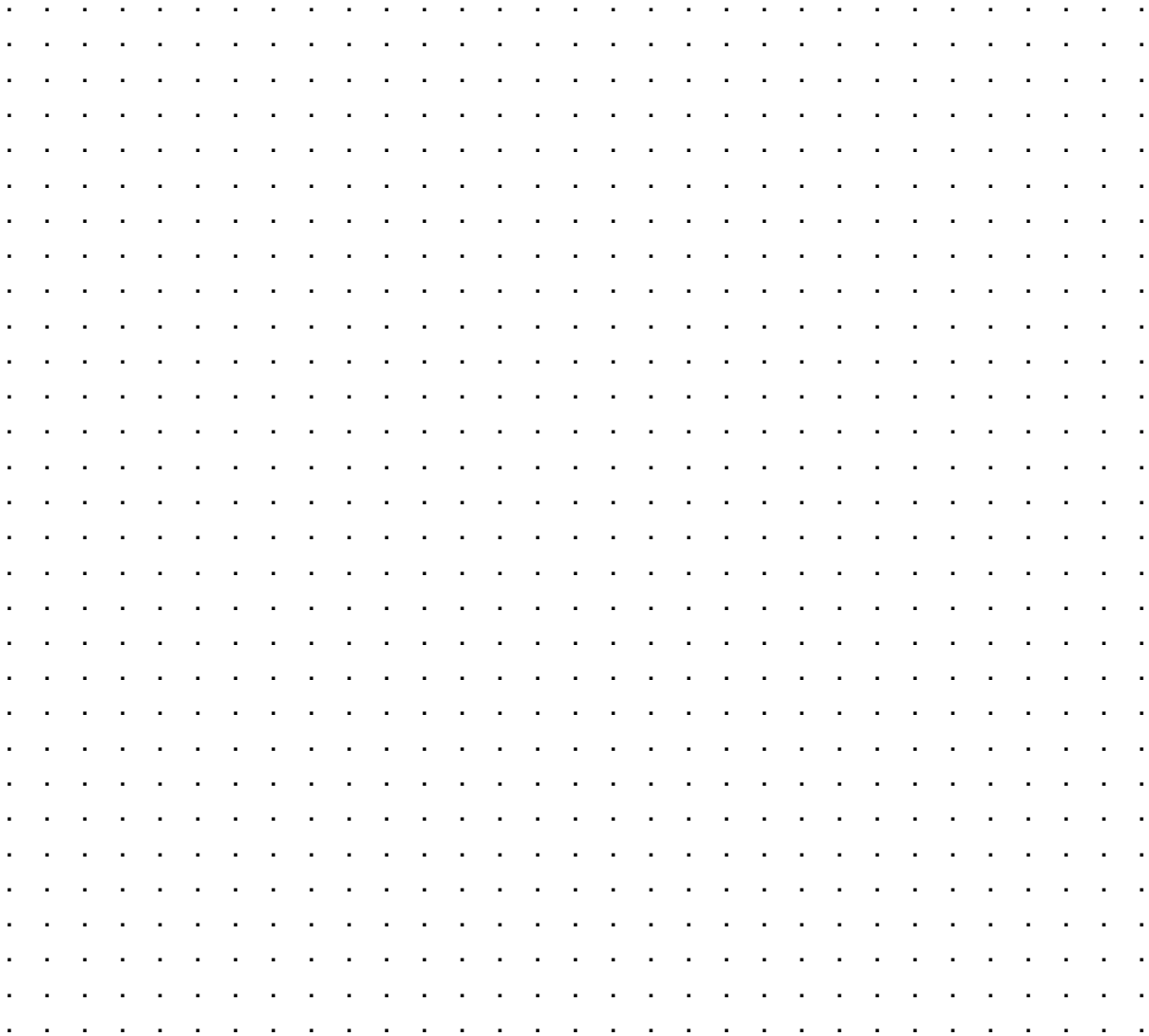
This sketch should provide a high-level view of the piping system as it is actually configured. Attach mechanical pipe elevation plans if available from other sources. Mark the linear feet of pipe and pipe diameters for the entire system, if feasible. Indicate insulation lengths, circumferences, horizontal and vertical runs, valves, gauges and logger placements. Also include any spot measurements and locations. For multiple piping systems, indicate where boilers and other steam or hot water end-uses are located (e.g. steam presses, heat exchangers, controlled heaters, or other process demand points). Use multiple sheets/drawings if necessary. Standard Abbreviations: IV=insulated vertical, IH=insulated horizontal; SP= spot measurements point; Circ =circumference, HX=heat exchanger, B= boiler, HWS=hot water supply, SS= steam supply, CR =condensate return



Sketch Comments:

| |
|--|
| |
| |
| |
| |

Piping System Plan Sketch 2



Sketch comments:

| |
|--|
| |
| |
| |
| |

Pipe Insulation Roll-up (from sketches) & Spot Measurements

| Visual Inspection | Pipe Run ____ | Pipe Run ____ | Pipe Run ____ |
|-----------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| Identify corresponding pipe system # | # ____ | # ____ | # ____ |
| Measure Item Number (from page 3) | | | |
| Pipe section description or location | | | |
| Pipe diameter (inches O.D.) | | | |
| Insulation circumference (inches) | | | |
| Length insulated (linear feet, LF) | | | |
| Pipe Run (V ertical or H orizontal) Circle one | V H | V H | V H |
| If piping system too large, then estimate % of total pipe run that is vertical | %V _____ | %V _____ | %V _____ |
| Location (I ndoor; O utdoor) Circle one only; if both apply make new pipe run. | I O | I O | I O |
| For Outdoor Pipes | | | |
| Length insulated | | | |
| Are outdoor pipes shaded? | Y N | Y N | Y N |
| If shaded, then identify sun exposure (circle all that apply) M orning M id-day A fternoon | M Mid A | M Mid A | M Mid A |
| Spot Temperature Measurements | | | |
| Spot Measurement 1 – Location Description | | | |
| Pipe Surface Temperature (°F) | | | |
| Insulation Surface Temperature (°F) | | | |
| Ambient Temperature (°F) | | | |
| Logger ID (to transfer to last page) | | | |
| Spot Measurement 2 – Location Description | | | |
| Location Description | | | |
| Pipe Surface Temperature (°F) | | | |
| Insulation Surface Temperature (°F) | | | |
| Ambient Temperature (°F) | | | |
| Logger ID (to transfer to last page) | | | |

☐ N/A Boilers: Type and Configuration

Obtain the boiler efficiency or performance data from maintenance records. Make a copy, or write down ALL OF THE FOLLOWING, if presented: BOILER EFFICIENCY, % EXCESS AIR, % O2, % CO2

| Boiler # | # _____ | # _____ | # _____ |
|----------------------------------------------------------------------------------------------|----------|----------|----------|
| Which pipe system #s are served by each boiler? | | | |
| Is the boiler sub-metered? | Y N | Y N | Y N |
| Avg daily hours of operation (from phone survey) | | | |
| How many times a <u>year</u> is the boiler serviced? | /year | /year | /year |
| When was your boiler(s) last serviced (date or # months ago) | | | |
| Boiler age (years) | | | |
| Primary fuel type: G = (Natural) Gas E = Electricity O = Other _____ | G E O | G E O | G E O |
| Manufacturer | | | |
| Model # (photograph nameplate) | | | |
| Actual Boiler Efficiency | _____ | _____ | _____ |
| Circle one: not available from maintenance records flue gas analysis done | | | |
| % excess air (from boiler operator) | | | |
| System Type: HW = Water S = Steam O = Other (describe): _____ | HW S O | HW S O | HW S O |
| Enter supply temperature spot measurement | °F | °F | °F |
| If HW , enter system water temperature (setpoint) | °F | °F | °F |
| If Steam , enter steam pressure (PSIG setpoint) | psig | psig | psig |
| Enter condensate return temp spot measurement | °F | °F | °F |
| Lead/lag or Back-up | L B | L B | L B |
| Forced or Natural draft fan | F N | F N | F N |
| Input rating (MMBtuh/unit) | | | |
| Boiler output (MMBtuh/unit or hp/unit) | | | |
| Boiler output rating units | MMBtu hp | MMBtu hp | MMBtu hp |
| Rated thermal efficiency/AFUE (%) -7 | | | |
| Efficiency units: T = Thermal efficiency A = AFUE | T A | T A | T A |
| High-efficient gas burners installed? | Y N | Y N | Y N |

N/A Water Heating Equipment

Complete if they have boiler(s) and HW is the only "other" (second) NG end-use at facility OR if they got an incentive to wrap hot water pipes from the hot water heater.

| Water heating Item # | # _____ | # _____ | # _____ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|
| Which piping system #s are served by each water heater? | | | |
| Equipment type: S = Standard/Storage water heater I = Instantaneous (tankless) HP = Heat pump water heater OT = Other _____ | S I HP OT | S I HP OT | S I HP OT |
| Fuel type: G = Natural Gas OT = Other _____ | G OT | G OT | G OT |
| Number of units | | | |
| Make | | | |
| Model | | | |
| How many times a <u>year</u> is the boiler serviced? | /year | /year | /year |
| Hot water heater age (years) | | | |
| Gallons per minute flow (gpm) -7 | | | |
| Tank capacity/volume (gallons) -7 | | | |
| Rated input capacity (kBtuh) -7 | | | |
| Rated output capacity (kBtuh) -7 | | | |
| Efficiency rating -7 | | | |
| Efficiency units: T = Thermal efficiency A = AFUE | T A | T A | T A |
| Tank internal insulation R-value (enter 0 if uninsulated) | | | |
| Does the hot water tank have an external insulation jacket? | Y N | Y N | Y N |
| HW Pump Inlet Pressure PSIG | | | |
| HW Pump Outlet Pressure PSIG | | | |
| Feed water temp (in) OR C =City R =Recirc W =Well | | | |
| Spot measured hot water outlet temperature (°F) -7 | | | |
| Long term measured hot water outlet temperature (°F) -7 | Y N | Y N | Y N |
| Are hot water pipes insulated? (Show sketch layout). | Y N | Y N | Y N |
| Recirculation pump (Y/N) | Y N | Y N | Y N |
| -- Recirc pump control type (circle all that apply): C = Continuous TP = Temperature TM = Timer D = Demand OT = Other _____ | C TP TM D OT | C TP TM D OT | C TP TM D OT |
| -- Pump operations (hours per week) | | | |

Site Photo Log

Record site photo information here including the PhotoID (i.e. digital file name) and a brief description of the photo where needed. Refer to the training manual for protocols on what photos to take and photo/file naming conventions.

| Item # | PhotoID | Description/Comments |
|--------|---------|----------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |
| 17 | | |
| 18 | | |
| 19 | | |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
| 25 | | |
| 26 | | |
| 27 | | |
| 28 | | |
| 29 | | |
| 30 | | |

Short-Term Metered Data

Installation date/time _____ Extraction date/time _____ Duration (days) _____

| Logger ID # | Pipe or Insulation Mount | Logger Temp | Spot Temp | Notes on Location and Installation | Pipe Runs Associated with Logger |
|-------------|--------------------------|-------------|-----------|------------------------------------|----------------------------------|
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |
| | P I | | | | |

Additional Comments:

Facility Decision Maker Interview (part 1)*Field engineer to conduct pre-onsite or during on-site visit.***Rev. 07/24/09****General Site Information** (from CATI survey & IOU tracking database)

| | | | |
|-------------------------------|--|------------------|--|
| Itron Onsite ID | | EEGA Program # | |
| Sample Strata | | Evaluation Phase | |
| Corporate (Multi-Site) Name | | | |
| Business Name (Tracking Data) | | | |
| Actual Business Name | | | |
| Service Address | | | |
| City | | Zip Code | |

Site Contact Information

| | Contact Name | Contact Title | Phone Number | Email Address |
|--------------------------------------------------------------------------------|--------------|-----------------|---------------|---------------|
| Who was the first person that decided to install pipe insulation at this site? | | | | |
| Who is the site manager at this facility (if different from above)? | | | | |
| Is there anyone else who knows about this pipe insulation retrofit? | | | | |
| | Contact Name | Alternate Phone | Email Address | |
| OS Primary | | | | |
| OS Alternate | | | | |
| OS DecMaker | | | | |
| OS SiteMngr | | | | |
| OS Back-up | | | | |

If the decision maker and the site manager are the same person then complete the questions from the Site Manager Survey (SMS). If contacts are different people, then administer the SMS with this different person who knows the details of the facility.

Decision Maker Interview Respondent: _____ Date: _____

| Determination of baseline condition | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Question 1A. Did you consider any alternatives to the pipe insulation you installed through the SCG Express Efficiency program that you would have implemented in the same time frame if the program had not been available? By the same time frame I mean within 6 months of the time when you participated in the program. Which of the following describes the alternatives you considered? (Check all that apply): | |
| • I considered insulating fewer piping systems (less linear feet) or no bends/valves | <input type="checkbox"/> |
| • I considered a different insulation thickness | <input type="checkbox"/> |
| • I considered a different insulation material | <input type="checkbox"/> |
| • I did not consider any alternatives (<i>If NO skip to Question 1C.</i>) | <input type="checkbox"/> |
| • Other: Specify: | <input type="checkbox"/> |
| Question 1B. Did you evaluate any of the below pipe insulation alternatives at the same time as you evaluated the insulation you eventually installed through the program? (<i>If NO skip to Question 1C.</i>) | |
| • Lower R-value (less thickness) or fewer linear feet of insulation. | Y N |
| • What percentage of the total would you have installed? | |
| • A standard insulation (or one that meets code or other regulatory requirements). What criteria, code or requirement would you have used to determine the efficiency of insulation? | |
| • The other insulation we evaluated is more efficient than code, but less efficient than we installed through the program. | Y N |
| <i>If yes, record below. If not available ask: In percentage terms, about how much less efficient would the insulation have been compared to the program qualifying equipment you installed?</i> | % |
| R-value | |
| K-Value | |
| Make | Model number |
| • Repair the damaged insulation. How long do you think the insulation repair would have lasted before requiring replacement? | |
| • Something else (specify): | |

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Question 1C. In the absence of the rebate program, is it more likely that you would have done nothing, chosen the same insulation and time frame, or chosen the above alternative? | Nothing Same Alternative |
| (IF ALTERNATIVE MORE LIKELY: Can you provide any notes or other documentation regarding your exploration?) | Y N |
| <u>Documentation Provided:</u> | |

| Production Changes | Steam | Hot Water |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|
| Has your steam or hw demand changed before and after the retrofit? Same Decrease Increase | S D I | S D I |
| When did the production change occur? (approx. date) | | |
| For each overall pipe system, are temperature or pressure requirements the same or have they changed between pre and post retrofit? | Same Changed | Same Changed |
| If pipe system fluid demand changed before and after the retrofit, what was the pre-retrofit demand | lb/hr | gals/day |
| What is the post-retrofit demand | lb/hr | gals/day |
| Laundry Production Changes (if applicable) | Pre-Install | Post-Install |
| Pounds of laundry washed per day? (lb) | | |

Site Manager Survey (part 2)

Field engineer to conduct prior to onsite visit.

Site Manager Survey Respondent: _____ **Date:** _____

| What are the main uses of steam or hot water at your facility (circle all that apply)? Steam Pressing Dry Cleaning Laundry Food Prep/Cleaning DHW Process Heating Other, describe: _____ _____ | Steam | Hot Water |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|
| | P D PH O | L C DHW PH |
| Do you have natural gas sub-metered at the boiler(s)? | | Y N |
| Do you have SCADA, DCS, EMS or other control system that monitors your steam or hot water piping systems? | | Y N |
| If NO to above, then skip to next section. If SCADA/DCS/EMS or other control system exists, then which of the following parameters does the system monitor? | | |
| Natural Gas Consumption | | Y N |
| Steam Pressures | | Y N |
| Fluid Temperatures | | Y N |
| Flow Rates | | Y N |

| | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------|---------------------------------------------------|
| On average how many hours a day do the boiler(s) operate? | B1 | B2 | B3 |
| How often is the boiler(s) serviced? Never Only upon Failure 1 time/yr 2 times/yr Other , describe: _____ | | | N F 1 2 Oth |
| How many months ago was the boiler last serviced (mark only if < 1 year, other wise mark NA?) | | | |
| Enter the name of the current boiler maintenance contractor? _____ | Contact Name | Phone Number | |
| Where are the newly insulated pipes located (circle all that apply)? Near Floor Overhead On Roof Interstitial Walls Other , describe: _____ | F O R I W Oth | | |
| Will we have access to all of the insulated pipes (i.e. overhead, on roof, in ceilings, floors or walls)? | | Y N | |
| When was the insulation installed at your facility? | Month | Year | |
| Will we have access to the installation invoices? | | Y N | |
| For Dry Cleaners Only | # Presses | # Dry Cleaning Machines | |
| How many steam presses and dry cleaning machines are present? | | | |
| What is the average number of hours (or minutes) a day that the steam presses are operating? | | Hrs/day Min/day | |
| For All Other Customers (non-Dry Cleaners) | Steam | Hot Water | |
| Approximately how many piping system drop-downs are there? | | | |
| Do you have a set of P&ID drawings or files that we can have E -mailed, make a C opy of, or V iew while on-site? | | E C V | |
| <i>If P&IDs can be e-mailed, provide e-mail address and have site manager send file prior to the first site visit.</i> | | | |
| <i>If P&IDs cannot be e-mailed, but copied, then determine the location of the closest kinkos or blueprint service and go to have a copy of the sheets needed; this might add time to your site visit. Plan ahead of to make a copy during lunch time, etc.</i> | | | |
| <i>If P&IDs can only be viewed, the field engineer will need to decide if doing take-offs will be faster more effective than making hand sketches and taking measurements.</i> | | | |
| Describe any safety rules our engineers need to be aware of prior to arriving on site? _____ _____ _____ _____ _____ _____ | | | |

Appendix A-5

Pipe Insulation Field Data Collection

Appendix A-5: Pipe Insulation Field Data Collection and Analysis, Detailed Summary

Table 1 below presents the key engineering parameters used to complete gross impact calculations and the data sources from which the information was collected. The measurement approach used for parameters is a combination of field observations, logger data, flue gas analysis, self-reported data, application data and independent third party sources. Descriptions of these parameters and how they were collected are presented below.

Table 1: Key Measured Parameters Used in Gross Impact Calculations

| Parameter | On-site Survey | Logger Data | Flue Gas Analysis | Independent Sources | Telephone Survey | Incentive Application |
|----------------------------------|----------------|-------------|-------------------|---------------------|------------------|-----------------------|
| Temperatures | X | X | | | | |
| Operating Hours | X | X | | | | |
| Pipe sizes/lengths | X | | | | | X |
| New Pipe/Pre-existing Insulation | X | | | | X | |
| Boiler efficiency | X | | X | | | |
| Emissivity | X | | | X | | |
| Wind/solar flux | X | | | X | | |

Ambient, Surface and Bare Pipe Temperatures

The temperature data collected in the field consisted of spot readings and data recorded with a logger device. The spot readings were taken with an Omega handheld digital thermometer with both rounded thermocouples (for pipe surfaces) and the RTD for both ambient and insulation surface measurements), and the temperatures were recorded with HOBO U12-012 and U12-014 thermocouple loggers. The temperature loggers were left in place for a minimum of one week, and typically between one and two weeks. In a few cases, loggers were left in as long as eight weeks. Temperature data was recorded every two minutes, or in some cases every five minutes.

Spot readings were taken at four locations within each piping system as follows: the steam pipe at the boiler (or water heater), the steam pipe at the associated end use, the condensate

return pipe at the associated end use, and the condensate return pipe at the boiler. At each location, the pipe surface temperature, insulation surface temperature, and ambient temperature were recorded. The presence of multiple boilers, separate piping systems, or other complex arrangement of piping required additional spot readings to be taken.

For most sites one logger was installed near the boiler (or water heater) that recorded both pipe temperatures, and ambient temperatures. However, two or more loggers were required at larger or more complex sites to provide reliable estimates of temperatures throughout the piping system. Some of the more complex circumstances commonly found include piping that traveled through multiple spaces, such as interstitial ceilings, walls, outdoors, cold areas, or boiler rooms, or that included tertiary piping systems that acted as loads which were also insulated (e.g. heat exchanger loads to heat a hot water loop from the steam pipes loop).

Logged temperatures provide more reliable temperature estimates than spot readings and were used wherever possible. Data recorded by the loggers reveal that temperatures often fluctuate significantly over the course of a day, and spot readings record just one moment in time. Temperatures recorded by the logger during the period over which the boiler or water heater was in operation were used as the basis for the ambient, bare pipe, and insulation surface temperature estimates. For outdoor piping systems, ambient temperatures were taken and local weather data was obtained to determine actual yearly temperature variations for normalization of ambient temperatures (during boiler operation) over the course of the year.

Operation Hours

The hours of operation for the boilers or water heaters associated with the insulated piping systems are a key parameter in determining annual heat loss. Operating hours were determined with the logged temperature data described above. Annual operating hours were extrapolated from the logged period.

The steam or hot water system was determined to have been turned on when the pipe surface temperature was observed to climb rapidly. Most of the loggers were programmed to take readings every two minutes or every five minutes, and with this time frame between readings a temperature increase of around five degrees showed that the system had started up. Determining when the system turned off required a broader perspective on the data. Temperatures were commonly observed to fluctuate significantly while the system was on, and then to slowly decrease consistently and more completely when the system was truly turned off. Within the fluctuating pattern, a final high temperature was logged prior to the consistent and complete cooling associated with the turn-off. The point at which this final high temperature occurred was identified as the time when the boiler turned off.

It was commonly found that the boiler or hot water heater ran only during the day, shutting down at night. In these cases, the average daily run time was combined with weekend and holiday schedules to produce annual estimated run time. In other cases, boilers and water heaters did not follow an orderly daily schedule. Instead, the equipment ran for several days at a time and then shut down for a period. In such cases, the total run time was calculated as a percent of the logged period. The resulting ratio, along with weekend and holiday schedule information was the basis for the annual run-time estimate.

Some sites had multiple boilers where each had unique operating hours. In these situations, the run time used in the calculation reflected the boiler that was used most. As long as one of the boilers is functioning, the system was operational and fluid was still moving and losing heat.

Pipe Sizes and Lengths

Pipe sizes and lengths were measured at the site with either a standard handheld or a rolling tape measure. Physical measurements taken at the sites also included determining the insulation thickness¹. The overall lengths of pipe as well as the nominal pipe size and insulation thickness were also provided on the SCG application. The application data was reviewed ahead of time to provide a rough idea of the pipe system. The on-site measurements included the length of each pipe run, the outside diameter of the pipe (usually measured with a caliper), the insulation circumference if accessible, and the insulation thickness specific to each pipe run if there were multiple sizes of insulation used at the site. Also, the function of the pipe run within the system (steam supply, condensate return, hot water supply, etc.) was recorded for each pipe run.

The dimensional characteristics and fluid content of the pipe runs were necessary to understand the heat loss of the system. Horizontal and vertical pipe orientations have slightly different heat loss calculations. The type of fluid inside the pipe (steam, condensate, etc.) can be useful in determining the temperature relationships between the pipe runs. A sketch of the piping system was made for each site with details about the pipe runs, the layout of the pipe system and the spatial relationship between the pipe runs.

A ‘roll up’ was created that summarized and organized the pipe-run data for analysis, including dimensional and fluid content data. The data on the ‘roll up’ was double checked against the sketch before use in heat loss calculations.

¹ Most sites installed 1 inch insulation throughout.

New Pipe and Pre-existing Insulation

Determining the program qualifying status of each retrofit required determining if there was any new pipe insulated through the program, or if there was pre-existing insulation present on pipe retrofit through the program.

The telephone survey gathered information on the age of the insulated pipes and the on-site work often was able to determine how much of the piping system was new and to specify specific pipe runs or sections of pipe runs that were new. For cases where survey data and on-site data were found to be inconsistent, follow up telephone calls to site staff were made to resolve those discrepancies.

Both the telephone survey and on-site survey also gathered information on the presence of pre-existing insulation. The telephone survey data determined for each respondent whether insulation had been present prior to the program-incented retrofit. The on-site survey determined which pipe systems were insulated prior to program participation, as well as the age, condition and thickness of the removed insulation. The on-site form provided substantially more detail and for this reason served as the primary source of data regarding pre-existing insulation.

Boiler Efficiency

The efficiency of gas fired boilers or water heaters plays an important role in the energy savings calculations and this data was collected on-site whenever possible. The primary and most preferred method of determining the efficiency of a boiler was to perform a 'flue gas analysis'. The 'flue gas analysis' involved inserting a specialized instrument into the flue and sampling the exhaust gases from the boiler. The instrument calculates the efficiency of the boiler based on components of the flue gas. Two or three readings were taken for each flue gas analysis and the average efficiency was used in the heat loss calculation.

The flue gas analysis is most easily performed when there is a hole where the probe can be inserted and exposed to the gas. This was not possible for all the boilers in the sample. Where there was no hole, the surveyor sometimes was able to insert the probe around the collar such that it was exposed to enough gas to allow for a successful test. Sometimes neither of these techniques were feasible, in which case boiler maintenance records were referenced. These records contained flue gas analysis results and provided similar useful data. In the rare case that flue gas analysis could not be performed and maintenance records were not available, flue gas analysis results from similar boilers in the sample were

referenced to determine efficiency. Boiler make and model numbers were recorded to relate rated efficiencies to actual measured efficiencies, which also served to inform the selection of appropriate efficiencies for any un-measured boilers. The characteristics defining ‘similar’ boilers include size, age, maintenance schedule, single or multiple-fire, and draft type (natural draft or forced draft). The unknown boiler efficiency was then estimated using the results from other similar boilers.

Emissivity

The emissivity (or emittance) of a surface involved in heat transfer is a material property that characterizes the ratio of the radiation that is absorbed by the material (which is the same amount as how much it emits) and how much is reflected. The higher the emissivity, the more radiation the material absorbs and emits and the less it reflects. Polished metal and other shiny surfaces have a very low emissivity because most of the radiation they are exposed to is reflected.

The emissivity of the surface material (the pipe itself, the insulation, or the insulation sleeving/jacketing) is an important part of calculating the radiative heat loss from the piping system, as well as the solar gain from outside pipe runs that were exposed to the sun. The emissivity of a surface depends on the material as well as the condition of the surface², both of which were determined and recorded at the site. Established average values for emissivity that have been experimentally determined were used in the calculations. These emissivity values were specific to each material and the condition of that material (for example rusty steel has a different emissivity than black steel) and were determined from the information collected at the site.

The surface materials found in the sample included aluminum jacketing, white mastic wrap, bare fiberglass, rusty steel pipe, black steel pipe, dull galvanized steel pipe, and dull copper tubing. ASHRAE was used as the primary source for emissivity data. However, ASHRAE did not provide a value for bare fiberglass, rusty steel pipe, or black steel pipe. For these emissivity values, an extensive list at www.infrared-thermography.com was consulted.

Wind Speed and Solar Flux

Insulated pipe situated in an outdoor environment may be subject to wind and sun, which affect the heat loss incurred over time. “Wind speed” and “solar flux” are metrics used in the

² Temperature also plays a role in determining emissivity. However, in the temperature ranges experienced by materials in the sample the emissivity does not change significantly.

heat loss calculation that quantify the effect of wind and sun on heat loss. However, where the metrics were required, they were not directly gathered at the site due to the need for a time-diversified sample. Instead, the site visit was used to determine which pipe runs were located outside and exposed to wind and/or sun. Where appropriate, site-specific averages for wind speed and solar flux were found using an online tool³ designed for evaluating solar and wind power projects. The tool provides an average annual wind speed and solar flux from a user-specified ZIP code. These values are used in the heat loss calculations where applicable.

³ www.solar-estimate.org

Appendix A-6

Small Commercial NTG Stability Analysis

Appendix A-6

Stability Analysis for Small Commercial Pipe Insulation Participant Net-to-Gross Ratio Estimation Results

This section reviews the results of stability analysis performed on the net-to-gross statistics for the small commercial net-to-gross ratio estimation methodology.

Table 1 and Table 2 below summarize key net-to-gross ratio estimation stability statistics for the PG&E and SCG small commercial respondents. Discussion and presentation of the components of these tables follow.

Table 1: PG&E Small Commercial Pipe Insulation Free Ridership Stability Indicators

| 4 Separate Free Ridership Measurements Possible – Number of Respondents Having ___* | |
|-------------------------------------------------------------------------------------|-----|
| Zero FR Measurements | 7 |
| One FR Measurements | 14 |
| Two FR Measurements | 0 |
| Three FR Measurements | 0 |
| Four FR Measurements | 17 |
| Proportion of respondents with an extreme FR ratio | |
| Proportion with 0 - 0.1 FR ratio | 42% |
| Proportion with 0.9 - 1 FR ratio | 32% |

* Some of the four separate free ridership measurements are from one survey question and others are from multiple responses. See the algorithm in the prior Appendix.

| Number and proportion of respondents where changes were made to the FR ratio due to inconsistent responses** | |
|--------------------------------------------------------------------------------------------------------------|-------|
| Number | 2 |
| Proportion | 6% |
| FR Ratio without those that had inconsistent responses corrected | |
| n = 29 | 49.5% |
| Respondents answering they already had installed measure before they learned of the program** | |
| n = 0 | - |

** These are included in the calculation of that respondent's free ridership and the overall weighted free ridership estimates as stipulated in the algorithm.

Table 2: SCG Small Commercial Pipe Insulation Free Ridership Stability Indicators

| 4 Separate Free Ridership Measurements Possible – Number of Respondents Having ___* | | Number and proportion of respondents where changes were made to the FR ratio due to inconsistent responses** | |
|-------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------|-------|
| Zero FR Measurements | 36 | Number | 16 |
| One FR Measurements | 97 | Proportion | 8% |
| Two FR Measurements | 4 | FR Ratio without those that had inconsistent responses corrected | |
| Three FR Measurements | 11 | n = 195 | 25.9% |
| Four FR Measurements | 99 | Respondents answering they already had installed measure before they learned of the program** | |
| Proportion of respondents with an extreme FR ratio | | n = 17 | 8% |
| Proportion with 0 - 0.1 FR ratio | 47% | | |
| Proportion with 0.9 - 1 FR ratio | 15% | | |

* Some of the four separate free ridership measurements are from one survey question and others are from multiple responses. See the algorithm in the prior Appendix.

** These are included in the calculation of that respondent's free ridership and the overall weighted free ridership estimates as stipulated in the algorithm.

As described in Appendix A-2, there are up to four component scores that contribute the final estimated net-to-gross ratio for participant respondents. Table 3 below shows the distribution of the number of component scores that contribute to the final ratios among the PG&E and SCG participant respondents. Respondents typically have either one or four scores, with only a small number of SCG respondents having two or three component scores.

Table 3:

| Number of Component Scores Contributing to final NTGR (1-4) | PG&E | SCG |
|--------------------------------------------------------------------|-----------------|------------|
| Zero | 7 | 36 |
| One | 14 | 97 |
| Two | 0 | 4 |
| Three | 0 | 11 |
| Four | 17 | 99 |
| (valid n) | 38 | 247 |

Table 4 below shows the percent of respondents from each participant population that had either very high or very low free ridership scores. A high proportion of extreme scores bodes well for the accuracy of the result, as extreme values are typically easier to gauge with greater accuracy.

Table 4:

| Proportion of respondents with extreme free ridership score | PG&E | SCG |
|--------------------------------------------------------------------|-----------------|------------|
| proportion with 0-.1 free ridership | 42% | 47% |
| proportion with .9-1 free ridership | 32% | 15% |
| (valid n) | 31 | 211 |

Table 5 below shows the percent of each participant population that was unable to respond to the question regarding whether they would have installed insulation in the absence of the program. Levels of such respondents are relatively moderate.

Table 5:

| Proportion of respondents who did not report whether they would have installed in the absence of the program | PG&E | SCG |
|---------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| proportion responding "don't know" | 0% | 4% |
| proportion that "refused" | 0% | 0% |
| (valid n) | 0 | 9 |

Table 6 below shows the final free ridership score assigned to respondents that indicated they had already installed pipe insulation when they found out about the program. There were 17 such SCG respondents, and all received a free ridership score of 1.

Table 6:

| Respondents answering they already had installed measure before they learned of the program | PG&E | SCG |
|----------------------------------------------------------------------------------------------------|-----------------|------------|
| final free ridership | - | 1 |
| (valid n) | 0 | 17 |

Table 7 below shows the final free ridership score and the percent of the responding participants that state that they would not have purchased pipe insulation without the program, but were assigned a free ridership rate greater than zero. There was only one such occurrence, with an associated net-to-gross ratio score of 0.5 percent.

Table 7:

| Respondents stating they would not have purchased pipe insulation without the program and were assigned a free ridership rate greater than 0 | PG&E | SCG |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| final free ridership | . | 0.01 |
| Proportion | 0 | 0.5% |
| (valid n) | 0 | 1 |

Table 8 below shows the final free ridership score and the percent of the responding participants that state that they *would have* purchased pipe insulation without the program, but were assigned a free ridership less than 1. There were 9 of these respondents in PG&E territory and 23 in SCG territory. Assigned free ridership values are just marginally less than one.

Table 8:

| Respondents stating they would definitely have purchased pipe insulation without the program and were assigned a free ridership rate less than 1 | PG&E | SCG |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| final free ridership | 0.94 | 0.96 |
| Proportion | 29% | 11% |
| (valid n) | 9 | 23 |

Table 9 below shows the proportion of each respondent population that incurred a change to the original response pattern due to identification of inconsistent responses.

Table 9:

| Proportion of respondents where changes were made to the free ridership due to inconsistent responses | PG&E | SCG |
|--------------------------------------------------------------------------------------------------------------|-----------------|------------|
| Proportion | 6% | 8% |
| (valid n) | 2 | 16 |

Table 10 shows the average of the final free ridership scores, and the proportion of the responding populations that indicate they *would not have* purchased without the program, but indicate otherwise in subsequent responses. More specifically they provide a positive probability or degree of agreement with one of the following:

- How likely is it that you would have installed in the absence of the program?
- If I had not had any assistance from the program, I would have paid the full price to buy the pipe insulation on my own outside the program.
- I would have bought the pipe insulation within 2 years of when I did even without the assistance from the Utility's Program.

Or by indicating a less than complete agreement with the following:

- There may have been several reasons for my purchase decision, but the assistance from the Utility Program was critical.

Table 10:

| Respondents that indicate they would not have purchased without the program, but indicate otherwise in subsequent responses | PG&E | SCG |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| final free ridership | 0.07 | 0.04 |
| Proportion | 39% | 45% |
| (valid n) | 12 | 96 |

Table 11 shows the average of the final free ridership scores, and the proportion of the responding populations that indicate they *would have* purchased without the program, but indicate otherwise in subsequent responses. More specifically they provided a non-confirming response to one of the following:

- How likely is it that you would have installed in the absence of the program?
- If I had not had any assistance from the program, I would have paid the full price to buy the pipe insulation on my own outside the program.
- I would have bought the pipe insulation within 2 years of when I did even without the assistance from the Utility's Program.

Or they indicated complete agreement with the following:

- There may have been several reasons for my purchase decision, but the assistance from the Utility Program was critical.

Table 11:

| Respondents that indicate they would have purchased without the program, but indicate otherwise in subsequent responses | PG&E | SCG |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| final free ridership | 0.87 | 0.72 |
| Proportion | 61% | 42% |
| (valid n) | 19 | 88 |

Table 12 below shows the correlation of the four component net-to-gross scores for the PG&E small commercial respondents. Correlation statistics range from a low of 37 percent (score 2 to score 1) to 88 percent (score 3 to score 1).

Table 12: PG&E Correlation across the four component scores contributing to the final estimated net-to-gross ratio

| Correlation and significant differences between the four component NTG scores | | Sc_1 | Sc_2 | Sc_3 | Sc_4 |
|--------------------------------------------------------------------------------------|------|-------------|-------------|-------------|-------------|
| Pearson Correlation | Sc_1 | 1 | 0.37 | 0.88 | 0.67 |
| Sig. (2-tailed) | Sc_1 | _ | 0.15 | - | 0.00 |
| Pearson Correlation | Sc_2 | 0.37 | 1 | 0.41 | 0.53 |
| Sig. (2-tailed) | Sc_2 | 0.15 | _ | 0.10 | 0.03 |
| Pearson Correlation | Sc_3 | 0.88 | 0.41 | 1 | 0.74 |
| Sig. (2-tailed) | Sc_3 | - | 0.10 | _ | 0.00 |
| Pearson Correlation | Sc_4 | 0.67 | 0.53 | 0.74 | 1 |
| Sig. (2-tailed) | Sc_4 | 0.00 | 0.03 | 0.00 | _ |

Table 13 below shows the correlation of the four component net-to-gross scores for the SCG small commercial respondents. Correlation statistics range from a low of 46 percent (score 2 to score 1) to 86 percent (score 3 to score 1).

Table 13: SCG Correlation across the four component scores contributing to the final estimated net-to-gross ratio

| Correlation and significant differences between the four component NTG scores | | Sc_1 | Sc_2 | Sc_3 | Sc_4 |
|--------------------------------------------------------------------------------------|------|-------------|-------------|-------------|-------------|
| Pearson Correlation | Sc_1 | 1 | 0.46 | 0.86 | 0.69 |
| Sig. (2-tailed) | Sc_1 | _ | 0.00 | 0.00 | 0.00 |
| Pearson Correlation | Sc_2 | 0.46 | 1 | 0.54 | 0.48 |
| Sig. (2-tailed) | Sc_2 | 0.00 | _ | 0.00 | 0.00 |
| Pearson Correlation | Sc_3 | 0.86 | 0.54 | 1 | 0.81 |
| Sig. (2-tailed) | Sc_3 | 0.00 | 0.00 | _ | 0.00 |
| Pearson Correlation | Sc_4 | 0.69 | 0.48 | 0.81 | 1 |
| Sig. (2-tailed) | Sc_4 | 0.00 | 0.00 | 0.00 | _ |

Appendix B

Steam Traps

B-1. Steam Trap and Pipe Insulation Telephone Survey Instruments

B-2. Steam Trap Participant Telephone Survey Response Frequencies

B-3. Industrial Steam Trap On-Site Protocols and On-Site Survey Form

B-4. Bibliography of Steam Trap Literature Search

B-5. Small Commercial NTG Stability Analysis for Steam Traps

B-6. Nonresidential NTG Consistency Checks for Steam Traps and Pipe Insulation

B-7. Industrial Steam Trap Sensitivity Analysis Variable Values and Alternative Scenario Charts

Appendix B-1

Steam Trap and Pipe Insulation Telephone Survey Instruments

This appendix contains the telephone survey instruments used to gather data for the steam trap and pipe insulation HIM measures. The following surveys are included in this appendix.

- Steam Trap and Pipe Insulation Commercial Telephone Survey
- Steam Trap and Pipe Insulation Corporate Telephone Survey
- Steam Trap and Pipe Insulation Commercial Callback Telephone Survey
- Steam Trap and Pipe Insulation Industrial Callback Telephone Survey
- Steam Trap Industrial Vendor Telephone Survey

**Participant Customer Survey for
06-08 SoCal Industrial Contract Group
ST/PI Only**

INTRODUCTION AND FINDING CORRECT RESPONDENT

OUTCOME1 Hello. This is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. This is not a sales call nor a service call.

[IF NEEDED] This is a fact-finding survey only, authorized by the California Public Utilities Commission.

May I please speak with &CONTACT, the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's 2006-2008 &PROG_LONG where you either replaced steam traps and/or installed pipe insulation. Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

| | | |
|----|--------------------------------------------|---------|
| 1 | No, that person is not available right now | Appoint |
| 2 | Unable to refer someone who can help | Appoint |
| 3 | Yes, that would be me | S1 |
| 4 | Yes, let me transfer you to _____. | Q1C |
| 77 | No, Other reason (specify) | Q1B |
| 88 | Refused | Q1B |
| 99 | Don't know | Q1B |

Appoint [IF RECOMMENDED CONTACT IS NOT CURRENTLY AVAILABLE]
When would be a good day and time for us to call back?

| | | |
|----|---------------------------------------------------------------------------------------------|-------------------|
| 77 | Record day of the week, time of day and date to call back, as &APPOINT | Name |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Name |

PERSON According to our records, your organization participated in &UTILITY's &PROG_LONG at your facility and received rebates of \$ <%REBATE_TOTAL> for installing steam traps and or pipe insulation. Are you the person most knowledgeable about your organization's participation in this program?

| | | |
|---|-------------------------------------------------|------------|
| 1 | Yes | Intro3:s |
| 2 | No | Hi |
| 3 | No one knows about participation in &PROG_LONG. | Intro3(99) |

If Person(3)

| | | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Intro3(99) | Thank you for your time. We need to speak with the person at your organization that is most familiar with your participation in the &Program. Those are all of the questions I have for you today. | Abandoned User30 |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|

Hi Who would be the person at this location who is most knowledgeable about your organization's installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG? [Enter technical Contact Name and move on.]

| | | |
|----|--------------------------|-------------------|
| 77 | Record Name, as &CONTACT | May_I |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Ext |

May_I May I speak with him/her?

| | | |
|----|---------------------------------------|-----------------------|
| 77 | Yes | Intro3:s |
| 88 | No (not available right now@, set cb) | Abandoned Appointment |

Intro3:s Hello, my name is <INTERVIEWER NAME> calling on behalf of the CPUC from Itron Consulting. This is not a sales call. We are interested in speaking with the person most knowledgeable about your organization's participation in &UTILITY's &PROG_LONG in which you installed steam traps and/or pipe insulation. I was told that would be you. Is this correct?

| | | |
|----|---------------------------------|-------------------|
| 1 | Yes | COMMENT |
| 2 | No one knows about the &Program | Thank & Terminate |
| 99 | No one knows about the &Program | Thank & Terminate |

According to our records, your organization participated in &UTILITY's &PROG_LONG at your facility and received rebates of \$ <%REBATE_TOTAL> for installing steam traps and or pipe insulation. Are you the person most knowledgeable about your organization's participation in this program?

Ext Is there a phone extension or phone number you recommend we use when we call back?

| | | |
|----|------------------------------------------|-------------------|
| 77 | Record Extension or Phone Number, &PHONE | Thank & Terminate |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Thank & Terminate |

Thank & Terminate Thank you for your time and help today.

END

[IF YOU ARE TRANSFERRED TO ANOTHER PERSON OTHER THAN THE BEST CONTACT]

Q1B Who would be the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's &PROG_LONG.

[IF NEEDED] This is not a sales call.

[IF NEEDED] This is a fact-finding survey only, and responses will not be connected with your firm in any way. The California Public Utilities Commission wants to better understand how businesses think about and manage their energy consumption.

| | | |
|----|----------------------------------------------------------------------------|-------------------|
| 77 | There is no one here who can help you | Thank & Terminate |
| 1 | Continue Q1B until you find appropriate contact person, record as &CONTACT | Q1C |

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[IF BEST CONTACT IS AVAILABLE]
Q1C Hello Mr./Mrs. &CONTACT, this is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. I understand you are the person at your location that is most knowledgeable about the installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG. Is this correct?

| | | |
|-----------|--------------------------------------|---------------------------|
| 1 | Current individual is best contact | S1 |
| 2 | Transferred to best contact | Repeat Q1C w/best contact |
| 3 | Given best contact's name and number | Appoint |
| 99 | Don't know/refused | Thank & Terminate |

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor.

Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

To help save time and keep things moving along, we will be referring to the full program name &PROG_LONG as &PROGRAM.

SCREENER

Scrn_Addr First, I'd like to ask you a few questions about your organization and facility. Our records show your firm is located at &ADDRESS in &CITY. Is that correct?

[CONTINUE IF ADDRESS REPORTED BY RESPONDENT IS SIMILAR ENOUGH]

| | | |
|-----------|------------|---------|
| 1 | Yes | CC1 |
| 2 | No | CORRECT |
| 88 | Refused | COMMENT |
| 99 | Don't know | COMMENT |

COMMENT We were attempting to reach the customer at &ADDRESS and since you cannot confirm this address, those are all the questions that we have for you today, on behalf of the California Public Utilities Commission, thank you for your time.

CORRECT May I have your correct address?

| | | |
|---------------------|-------------------|---------|
| &CORRECT | Corrected Address | COMPARE |
|---------------------|-------------------|---------|

Are these addresses similar or totally different?

COMPARE Computer Address - &ADDRESS
Corrected Address - &CORRECT

| | | |
|----------|-------------------|----------|
| 1 | Similar | COMMENT1 |
| 2 | Totally Different | COMMENT2 |

COMMENT2 We were attempting to reach the customer at &ADDRESS in &CITY and since that does not match your address, then we must have mis-dialed the telephone number. Those are all the questions that we have for you today, on behalf of the California Public Utilities Commission. Thank you for your time and cooperation.

T&T

CUSTOMER CHARACTERISTICS

Now, I'd like to ask you questions regarding your facility.

CC1 How many square feet of heated or cooled floor area is your facility?

| | | |
|-----------|-------------|------|
| 77 | Square feet | CC3a |
| 88 | Refused | CC3 |
| 99 | Don't know | CC3 |

IF CC1 IN (88, 99)

CC3 Would you say that the heated or cooled floor area is ...?

| | | |
|-----------|-------------------------------|------|
| 1 | Less than 1,500 sqft | CC3a |
| 2 | Between 1,500 - 5,000 sqft | CC3a |
| 3 | Between 5,000 - 10,000 sqft | CC3a |
| 4 | Between 10,000 - 25,000 sqft | CC3a |
| 5 | Between 25,000 - 50,000 sqft | CC3a |
| 6 | Between 50,000 - 75,000 sqft | CC3a |
| 7 | Between 75,000 - 100,000 sqft | CC3a |
| 8 | Over 100,000 sqft | CC3a |
| 88 | Refused | CC3a |
| 99 | Don't know | CC3a |

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| | | |
|------------------------------------------------------------|--------------------------|-----|
| CC3a Is your space heated using electricity or gas? | | |
| 1 | Electricity | CC4 |
| 2 | Gas | CC4 |
| 3 | Propane | CC4 |
| 4 | Both electricity and gas | CC4 |
| 5 | Neither | CC4 |
| 77 | OPEN/Other-RECORD | CC4 |
| 88 | Refused | CC4 |
| 99 | Don't know | CC4 |

| | | |
|------------------------------------------------------------------|------------|------|
| CC4 Does your business own, lease or manage the facility? | | |
| 1 | Own | CC8 |
| 2 | Lease/Rent | CC5a |
| 3 | Manage | CC5 |
| 88 | Refused | CC5 |
| 99 | Don't know | CC5 |

ASK IF CC4 in (3, 88, 99)

| | | |
|-----------------------------------------------------------------------------|------------|-----|
| CC5 Does your organization pay the electric and/or gas utility bill? | | |
| 1 | Yes | CC8 |
| 2 | No | CC8 |
| 88 | Refused | CC8 |
| 99 | Don't know | CC8 |

ASK IF CC4 = 2

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----|
| CC5a Which of the following best describes how your business pays the electric and/or gas utility bill for your space at this facility? Would you say...[READ LIST.] | | |
| 1 | You pay &UTILITY directly | CC8 |
| 2 | You pay a fee to your landlord that varies according to the size of the total utility bill | CC8 |
| 3 | You pay a fixed fee to your landlord | CC8 |
| 4 | You do not pay for electric and gas utilities | CC8 |
| 77 | OPEN/SOME OTHER ARRANGEMENT/OTHER (Specify) | CC8 |
| 88 | Refused | CC8 |
| 99 | Don't know | CC8 |

| | | |
|--------------------------------------------------|------------|------|
| CC8 In what year was your facility built? | | |
| &YRB | Year | CC11 |
| 88 | Refused | CC10 |
| 99 | Don't know | CC10 |

| | | |
|-------------------------------------|---------------|------|
| CC10 Would you say it was... | | |
| 1 | After 2000 | CC11 |
| 2 | In the 1990's | CC11 |
| 3 | 1980s | CC11 |
| 4 | 1970s | CC11 |
| 5 | 1960s | CC11 |
| 6 | 1950 | CC11 |
| 7 | Before 1950 | CC11 |
| 88 | Refused | CC11 |
| 99 | Don't know | CC11 |

| | | |
|------------------------------------------------------------|------------|-------|
| CC11 In what year was this facility last remodeled? | | |
| &YR | Year | CC12 |
| 66 | Never | CC12a |
| 88 | Refused | CC11a |
| 99 | Don't know | CC11a |

NOTE: Get year if prior to 2003, get year and month if during or after 2003.

ASK IF CC11 in (88, 99); ELSE SKIP TO CC12

| | | |
|--------------------------------------------------------------------------------|---------------------------------|-------|
| CC11a Would you say the last remodeling was done [READ RESPONSES.] | | |
| 1 | Between 2003 and Present | CC12a |
| 2 | Between the years 2000 and 2002 | CC12a |
| 3 | During the 1990's | CC12a |
| 4 | Before the 1990's | CC12a |
| 88 | Refused | CC12a |
| 99 | Don't know | CC12a |

ASK IF CC11A =1 or &YR >=2003 ; ELSE SKIP TO BC090

| | | |
|--------------------------------------------------------------------------------------------------------------|-----------|-------|
| CC12 In which month of &YR was the remodel complete? If you can not get month, try to get the season. | | |
| 1 | January | CC12a |
| 2 | February | CC12a |
| 3 | March | CC12a |
| 4 | April | CC12a |
| 5 | May | CC12a |
| 6 | June | CC12a |
| 7 | July | CC12a |
| 8 | August | CC12a |
| 9 | September | CC12a |
| 10 | October | CC12a |
| 11 | November | CC12a |
| 12 | December | CC12a |

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| | | |
|----|------------|-------|
| 13 | Fall | CC12a |
| 14 | Winter | CC12a |
| 15 | Spring | CC12a |
| 16 | Summer | CC12a |
| 88 | Refused | CC12a |
| 99 | Don't know | CC12a |

CC12a In what year was this business established at this location?

| | | |
|-----------------|------------|-------|
| &YRB | Year | BC090 |
| 88 | Refused | CC12b |
| 99 | Don't know | CC12b |

CC12b If don't know, would you say it was...

| | | |
|----|---------------|-------|
| 1 | After 2000 | BC090 |
| 2 | In the 1990's | BC090 |
| 3 | 1980s | BC090 |
| 4 | 1970s | BC090 |
| 5 | 1960s | BC090 |
| 6 | 1950 | BC090 |
| 7 | Before 1950 | BC090 |
| 88 | Refused | BC090 |
| 99 | Don't know | BC090 |

ADDITIONAL FACILITY CHARACTERISTICS

BC090 Has the square footage of the facility increased, decreased or remained the same since January 2006?

| | | |
|----|----------------------------|-------|
| 1 | Increase in square footage | BC100 |
| 2 | Decrease in square footage | BC110 |
| 3 | Stayed the same | FM050 |
| 88 | Refused | FM050 |
| 99 | Don't know | FM050 |

BC100 How many square feet were added?

| | | |
|-------------------|-------------|-------|
| &SQFTA | Square feet | BC120 |
| 88 | Refused | BC120 |
| 99 | Don't know | BC120 |

BC110 By how many square feet was the facility reduced?

| | | |
|-------------------|-------------|-------|
| &SQFTR | Square feet | BC120 |
| 88 | Refused | BC120 |
| 99 | Don't know | BC120 |

BC120 What year did this change in square feet occur? IF DON'T KNOW, ASK FOR BEST GUESS

| | | |
|----|------------|--------|
| 1 | 2006 | BC120a |
| 2 | 2007 | BC120a |
| 3 | 2008 | BC120a |
| 4 | 2009 | BC120a |
| 88 | Refused | BC120b |
| 99 | Don't know | BC120b |

BC120a And can you recall which month? If you can not get month, try to get the season. IF DON'T KNOW, ASK FOR BEST GUESS.

| | | |
|----|------------|-------|
| 1 | January | FM050 |
| 2 | February | FM050 |
| 3 | March | FM050 |
| 4 | April | FM050 |
| 5 | May | FM050 |
| 6 | June | FM050 |
| 7 | July | FM050 |
| 8 | August | FM050 |
| 9 | September | FM050 |
| 10 | October | FM050 |
| 11 | November | FM050 |
| 12 | December | FM050 |
| 13 | Fall | FM050 |
| 14 | Winter | FM050 |
| 15 | Spring | FM050 |
| 16 | Summer | FM050 |
| 88 | Refused | FM050 |
| 99 | Don't know | FM050 |

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| FM050 What is the main business ACTIVITY at your facility? | | |
|-------------------------------------------------------------------|-----------------------------------------------|-------|
| 1 | Office | FM070 |
| 2 | Retail (non-food) | FM070 |
| 3 | College/University | FM070 |
| 4 | School | FM070 |
| 5 | Grocery Store | FM070 |
| 6 | Restaurant | FM070 |
| 7 | Health Care (other than Hospital) | FM070 |
| 8 | Hospital | FM070 |
| 9 | Hotel or Motel | FM070 |
| 10 | Warehouse | FM070 |
| 11 | Construction | FM070 |
| 12 | Community Service/Church/Temple/ Municipality | FM070 |
| 13 | Industrial Process/ Manufacturing/ Assembly | FM070 |
| 14 | Condo Assoc./Apartment Mgr. | FM070 |
| 15 | Greenhouse | FM070 |
| 16 | Laundry/Cleaners/Dry Cleaners | FM070 |
| 77 | OPEN/Other - SPECIFY | FM070 |
| 88 | Refused | FM070 |
| 99 | Don't Know | FM070 |

FM070 How many people are currently working at the facility, including both full and part time? (IF DON'T KNOW ASK FOR BEST GUESS)

| | | |
|------|------------------|-------|
| &NUM | Number of people | FM080 |
| 88 | Refused | FM080 |
| 99 | Don't know | FM080 |

FM080 Since January 2006 has the number of people working at this facility changed by more than 10%?

| | | |
|----|------------|-------|
| 1 | Yes | FM081 |
| 2 | No | PC010 |
| 88 | Refused | FM100 |
| 99 | Don't know | FM100 |

FM081 Would these changes have increased or decreased number of employees?

| | | |
|----|-------------------------------|-------|
| 1 | Increased number of employees | FM100 |
| 2 | Decreased number of employees | PC010 |
| 88 | Refused | FM100 |
| 99 | Don't know | FM100 |

FM100 In 2005 approximately how many people were working at this facility, including both full- or part-time employees? (IF DON'T KNOW ASK FOR BEST GUESS)

| | | |
|--------|------------------|-------|
| &NUM03 | Number of people | PC010 |
| 88 | Refused | PC010 |
| 99 | Don't know | PC010 |

PC010 Thinking back to 2005, were any changes made to the facility during 2005 that would change the energy consumption by more than 10%?

| | | |
|----|------------|-------|
| 1 | Yes | PC020 |
| 2 | No | CA1 |
| 88 | Refused | CA1 |
| 99 | Don't know | CA1 |

PC020 Would these changes have increased or decreased consumption?

| | | |
|----|------------|-------|
| 1 | Increased | PC030 |
| 2 | Decreased | PC030 |
| 88 | Refused | PC030 |
| 99 | Don't know | PC030 |

PC030 During what season did these changes take place?

| | | |
|----|------------|-----|
| 1 | Fall | CA1 |
| 2 | Winter | CA1 |
| 3 | Spring | CA1 |
| 4 | Summer | CA1 |
| 88 | Refused | CA1 |
| 99 | Don't know | CA1 |

CUSTOMER ATTITUDE

CA1 How important is being environmentally conscious to your business? Would you say it is

| | | |
|----|----------------------------|-----|
| 1 | Essential to your business | CA2 |
| 2 | Very important | CA2 |
| 3 | Somewhat important or | CA2 |
| 4 | Not at all important | CA4 |
| 88 | Refused | CA4 |
| 99 | Don't know | CA4 |

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| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----|
| CA2 In marketing materials or in communications with customers, does your company highlight ways in which your business is environmentally conscious? | | |
| 1 | Yes | CA4 |
| 2 | No | CA4 |
| 77 | Other (Specify) | CA4 |
| 88 | Refused | CA4 |
| 99 | Don't know | CA4 |

| | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|
| CA4 Prior to 2006, had your facility ever installed equipment that involved the receipt of rebates or incentives from an energy efficiency program? | | |
| 1 | Yes | CA6 |
| 2 | No | CA15 |
| 88 | Refused | CA15 |
| 99 | Don't know | CA15 |

| | | |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------|
| CA6 What type of equipment did you install through this (these) program(s)? [READ RESPONSE CATEGORIES] | | |
| 1 | Indoor lighting | CA15 |
| 2 | Cooling equipment | CA15 |
| 3 | Natural gas equipment, such as water heater, furnace or appliances | CA15 |
| 4 | Insulation or windows | CA15 |
| 5 | Refrigeration | CA15 |
| 6 | Industrial process equipment | CA15 |
| 7 | Greenhouse heat curtains | CA15 |
| 8 | Food service equipment | CA15 |
| 9 | Pipe Insulation | CA15 |
| 10 | Steam Traps | CA15 |
| 77 | OTHER (specify) | CA15 |
| 99 | Don't Know | CA15 |

| | | |
|---------------------------------------------------------------------------------------------------------------|------------|-------|
| CA15 Over the past 3 years, how would you characterize your business outlook? Would you say it was ... | | |
| 1 | Excellent | CA15A |
| 2 | Good | CA15A |
| 3 | Fair | CA15A |
| 4 | Adequate | CA15A |
| 8 | Poor | CA15A |
| 88 | Refused | CA15A |
| 99 | Don't know | CA15A |

| | | |
|--------------------------------------------------------------------------------------------------------------------|------------|-----|
| CA15A Projecting over the next 3 years, how would you characterize your business outlook? Would you say.... | | |
| 1 | Excellent | ST1 |
| 2 | Good | ST1 |
| 3 | Fair | ST1 |
| 4 | Adequate | ST1 |
| 5 | Poor | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

INSTALLATION VERIFICATION

ASK IF &STEAMTRAP = 1 ELSE SKIP TO P11

| | | |
|-----------------------------------------------------------------------------------------------------------------------|------------|------|
| ST3 Our records indicate that &NUM_STEAMTRAP steam traps were installed at your facility. Is this about right? | | |
| 1 | Yes | ST1 |
| 2 | No | ST3X |
| 88 | Refused | ST3X |
| 99 | Don't know | ST3X |

| | | |
|-----------------------------------------------------------------------------------------------------|---------------|------|
| ST3X Approximately how many steam traps were installed at your facility through the program? | | |
| 77 | Record Answer | Calc |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

Calc QSL: IF ST3 << ST1UNDER THEN ASK ST30Y; ELSE IF ST3 >> ST1OVER THEN ASK ST30Z; ELSE ASK P11

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Were any of these &ST1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

| | | |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------|-----|
| ST30y match, it would really help us to evaluate the program's record keeping. | | |
| 1 | Have no idea why numbers differ | ST1 |
| 2 | Did not install all of the steam traps, put some in storage | ST1 |
| 3 | Installed steam traps at another facility | ST1 |
| 4 | Did not receive all of the steam traps | ST1 |
| 77 | Other | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

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Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

ST30Z would really help us to evaluate the program's record keeping.

| | | |
|-----------|--------------------------------------------|-----|
| 1 | Have no idea why numbers differ | ST1 |
| 2 | Multiple participation | ST1 |
| 3 | Installed equipment outside of the program | ST1 |
| 77 | Other | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

ST1 Approximately when were these steam traps installed?

| | | |
|-----------|-------------|-----|
| 1 | Record Date | PI3 |
| 88 | Refused | PI3 |
| 99 | Don't know | PI3 |

ASK IF &PIPEINSULATION = 1 ELSE SKIP TO V1

PI3 Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your facility. Is this about right?

| | | |
|-----------|------------|------|
| 1 | Yes | V1 |
| 2 | No | PI3X |
| 88 | Refused | PI3X |
| 99 | Don't know | PI3X |

PI3X Approximately how many feet of pipe insulation was installed at your facility through the program?

| | | |
|-----------|---------------|------|
| 77 | Record Answer | Calc |
| 88 | Refused | V1 |
| 99 | Don't know | V1 |

Calc QSL: IF PI3 << PI1UNDER THEN ASK PI30Y; ELSE IF PI3 >> PI1OVER THEN ASK PI30Z; ELSE ASK V1

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Was any of this &PI1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

PI30y would really help us to evaluate the program's record keeping.

| | | |
|-----------|-----------------------------------------------------------------|------|
| 1 | Have no idea why numbers differ | GS9a |
| 2 | Did not install all of the pipe insulation, put some in storage | GS9a |
| 3 | Installed some of the insulation at another facility | GS9a |
| 4 | Did not receive all of the pipe insulation | GS9a |
| 77 | Other | GS9a |
| 88 | Refused | GS9a |
| 99 | Don't know | GS9a |

Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

PI30Z would really help us to evaluate the program's record keeping.

| | | |
|-----------|--------------------------------------------|-----|
| 1 | Have no idea why numbers differ | PI1 |
| 2 | Multiple participation | PI1 |
| 3 | Installed equipment outside of the program | PI1 |
| 77 | Other | PI1 |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

PI1 Approximately when was this pipe insulation installed?

| | | |
|-----------|-------------|----|
| 1 | Record Date | V1 |
| 88 | Refused | V1 |
| 99 | Don't know | V1 |

ROLE OF CONTRACTORS

Now I would like to find out, did you use a contractor to install the measures rebated through the 2006-08 &PROGRAM

V1 Program?

| | | |
|-----------|------------|--------|
| 1 | Yes | V5 |
| 2 | No | V1_OTH |
| 88 | Refused | V41 |
| 99 | Don't know | V41 |

V5 Had you worked with this contractor before participating in this program?

| | | |
|-----------|------------|-----|
| 1 | Yes | V40 |
| 2 | No | V40 |
| 88 | Refused | V40 |
| 99 | Don't know | V40 |

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V40 How important was the input from the contractor you worked with in deciding which specific equipment to install? Was it...

| | | |
|----|----------------------------|-----|
| 1 | Very | V41 |
| 2 | Somewhat | V41 |
| 3 | Not at all important | V41 |
| 66 | They didn't have any input | V41 |
| 88 | Refused | V41 |
| 99 | Don't know | V41 |

If &PIPEINSULATION = 1 and &STEAMTRAP = 1 ELSE SKIP TO AP9

V41 Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously?

| | | |
|----|------------|-----|
| 1 | Yes | AP9 |
| 2 | No | AP9 |
| 88 | Refused | AP9 |
| 99 | Don't know | AP9 |

PROGRAM AWARENESS

Next, I'd like to ask you about various energy efficiency programs and what influenced your program participation.

AP9 How did you **FIRST** learn about the &UTILITY's &PROGRAM? [DO NOT READ]

| | | |
|----|--------------------------------------------------------------------------------------------|----|
| 1 | Utility provided advertising--radio, newspaper, trade journal, billboard, TV | G1 |
| 2 | Bill insert, newsletter, or other mailing from utility | G1 |
| 3 | Utility Website | G1 |
| 4 | Email from Utility | G1 |
| 5 | Other utility source (SPECIFY) | G1 |
| 6 | Local government, community or nonprofit meeting, event, workshop or training (SPECIFY) | G1 |
| 7 | Local government/community agency (SPECIFY) | G1 |
| 8 | Local government, community, or nonprofit advertising- radio, newspaper, trade journal, TV | G1 |
| 9 | School, classes, energy center (SPECIFY) | G1 |
| 10 | Building audit or assessment (SPECIFY) | G1 |
| 11 | Flex your Power TV or radio advertising | G1 |
| 12 | Other meeting, event or workshop training (SPECIFY) | G1 |
| 13 | Other advertising | G1 |
| 14 | Word of mouth: Friend/Relative/Neighbor/Co-worker | G1 |
| 15 | Contractor | G1 |
| 66 | No other sources | G1 |
| 77 | Other (SPECIFY) | G1 |
| 88 | Refused | G1 |
| 99 | Don't know | G1 |

If AP9 = 5

AP9_5 What was that other utility source?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 6

AP9_6a What was that other local government event?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 7

AP9_7a What was the name of this local government agency you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 9

AP9_9a What was the name of the schools or training centers that you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 10

AP9_10a What program was the building audit or assessment completed under?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 12

AP9_12a What was the name of the other meetings you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

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GAS EQUIPMENT BATTERY

In the next section we'll be discussing the gas equipment present at your facility.

GS1 Which of the following natural gas equipment is present at your facility?...

| | | |
|-----------|--------------------------------|---------|
| 1 | Water Heater | Comment |
| 2 | Furnace | Comment |
| 3 | Boiler | Comment |
| 4 | Stove | Comment |
| 5 | Clothes Dryer | Comment |
| 66 | NONE ... Don't use Natural Gas | END |
| 77 | Other (specify) | Comment |
| 88 | Refused | GS9 |
| 99 | Don't know | GS9 |

| | | |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Comment | One way that businesses can reduce their energy use is to install more energy efficient equipment. Since one of the factors that influences energy use is the kind of equipment a business has, we would like to ask you about natural gas equipment purchases you have made since January 2006. | GS9 |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|

Begin Loop

ASK GS9 THROUGH GS21 FOR UP TO 3 GAS MEASURES THAT ARE NOT STEAM TRAPS OR PIPE INSULATION

GS9 According to our records, your organization installed &GS1_QTY through the &UTILITY &PROGRAM. Is this correct?

| | | |
|-----------|------------------------------------------------|---------|
| 1 | Correct as described | GS9a |
| 2 | Gas equipment installed but not as described | GS9x |
| 3 | No gas equipment installed through the program | Comment |
| 88 | Refused | Comment |
| 99 | Don't know | Comment |

Ask if L19 = 2

GS9x Approximately how many &GS1_UNIT were installed under the &PROGRAM?

| | | |
|-----------|------------|------|
| | Record # | Calc |
| 88 | Refused | GS9a |
| 99 | Don't know | GS9a |

IF GS9X << GS1UNDER THEN ASK G9Y; ELSE IF GS9X >> GS1OVER THEN ASK GS9Z; ELSE G9A

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Were any of these &GS1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

GS9y match, it would really help us to evaluate the program's record keeping.

| | | |
|-----------|-------------------------------------------------------------|------|
| 1 | Have no idea why numbers differ | GS9a |
| 2 | Did not install all of the &GS1_UNIT, put some into storage | GS9a |
| 3 | Installed at another facility | GS9a |
| 4 | Did not receive all of the &GS1_UNIT | GS9a |
| 77 | Other | GS9a |
| 88 | Refused | GS9a |
| 99 | Don't know | GS9a |

Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

GS9z would really help us to evaluate the program's record keeping.

| | | |
|-----------|--------------------------------------------|------|
| 1 | Have no idea why numbers differ | GS9a |
| 2 | Multiple participation | GS9a |
| 3 | Installed equipment outside of the program | GS9a |
| 77 | Other | GS9a |
| 88 | Refused | GS9a |
| 99 | Don't know | GS9a |

GS9a What type of equipment was removed and replaced when you installed the new &GS1_MEAS?

| | | |
|-----------|------------------------------------------------------|-------|
| 1 | Boilers | GS9d1 |
| 2 | Water heaters | GS9d1 |
| 3 | Furnaces | GS9d1 |
| 4 | Gas boosters for dishwasher | GS9d1 |
| 5 | Gas range (stove) | GS9d1 |
| 6 | Clothes dryer | GS9d1 |
| 66 | NONE NEW EQUIPMENT WAS AN ADDITION NOT A REPLACEMENT | GS9d1 |
| 77 | Other (specify) | GS9d1 |
| 88 | Refused | GS9d1 |
| 99 | Don't know | GS9d1 |

ASK if &GS_INSTDT1 <> Null, else skip to GS9f1

Our records indicate that your company installed the natural gas equipment in &GS_INSTDT1 through the &PROGRAM, is

GS9d1 this correct?

| | | |
|-----------|------------|---------|
| 1 | Yes | Comment |
| 2 | No | GS9f1 |
| 88 | Refused | Comment |
| 99 | Don't know | Comment |

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If &GS_CHKDT1 <> Null and GS_INSTDT1 = null

Our records indicate that your company received a rebate for the natural gas equipment installed through &PROGRAM in &GS_CHKDT1.

GS9f1 In what year did you install &GS1_MEAS? (PROBE FOR BEST GUESS)

| | | |
|----|------------|---------|
| 1 | 2005 | GS9f2 |
| 2 | 2006 | GS9f2 |
| 3 | 2007 | GS9f2 |
| 4 | 2008 | GS9f2 |
| 88 | Refused | Comment |
| 99 | Don't know | Comment |

GS9f2 And what month? (If they can not recall month, try to get the season.)

| | | |
|----|-----------------------------------|---------|
| 1 | January | Comment |
| 2 | February | Comment |
| 3 | March | Comment |
| 4 | April | Comment |
| 5 | May | Comment |
| 6 | June | Comment |
| 7 | July | Comment |
| 8 | August | Comment |
| 9 | September | Comment |
| 10 | October | Comment |
| 11 | November | Comment |
| 12 | December | Comment |
| 13 | Fall | Comment |
| 14 | Winter | Comment |
| 15 | Spring | Comment |
| 16 | Same as weekday lighting schedule | Comment |
| 88 | Refused | Comment |
| 99 | Don't know | Comment |

End Loop

Start Loop

ASK IF GS1 ^=66

GS_MSP1 Since January 2005 have you purchased and installed any natural gas equipment on your own without any assistance from the &Utility &Program or another utility program either at this facility or at other locations?

| | | |
|----|-------------------------------------------|-----|
| 1 | Yes, only at this home/facility | GS8 |
| 2 | Yes, only at other locations | GS8 |
| 3 | Yes, at this facility and other locations | GS8 |
| 4 | No | GS8 |
| 88 | Refused | GS8 |
| 99 | Don't know | GS8 |

ASK GS8 IF GS_MSP1 IN (1 - 3)

What types of gas equipment was installed? [DO NOT READ] [AFTER EACH RESPONSE, PROMPT WITH, "Did you install any other gas equipment at your facility since January 2005?"]

GS8 GAS_TECH1B

| | | |
|----|-------------------------------------|------|
| 1 | Boilers | GS8a |
| 2 | Water heaters | GS8a |
| 3 | Furnaces | GS8a |
| 4 | Gas boosters for dishwasher | GS8a |
| 5 | Gas range (stove) | GS8a |
| 6 | Clothes dryer | GS8a |
| 77 | Other (specify) | GS8a |
| 78 | Other (specify) | GS8a |
| 79 | Other (specify) | GS8a |
| 80 | Nothing Else | GS50 |
| 88 | Refused (IF ONLY 88 skip to G35) | GS50 |
| 99 | Don't know (IF ONLY 99 skip to G35) | GS50 |

FOR FIRST 3 MENTIONS LOOP THROUGH G8a TO G21a.

GS8a Is the &GAS_TECH1B a high efficiency or energy saving measure?

| | | |
|----|------------|---------|
| 1 | Yes | GS_MSP2 |
| 2 | No | GS10 |
| 88 | Refused | GS10 |
| 99 | Don't know | GS10 |

Ask If G8a=1; else skip to G10

ASK IF GS_MSP1(1 - 3);

GS_MSP2 How many high efficiency gas measures did you buy on your own at this facility?

| | | |
|----|----------------------------------|----------|
| # | {Record Number} at this facility | GS_MSP2B |
| 88 | Refused | GS_MSP2B |
| 99 | Don't know | GS_MSP2B |

ASK IF GS_MSP1(2, 3);

GS_MSP2B How many high efficiency gas measures did you buy on your own at another locations?

| | | |
|----|-------------------------------------|---------|
| # | {Record Number} at another facility | GS_MSP4 |
| 88 | Refused | GS_MSP4 |
| 99 | Don't know | GS_MSP4 |

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Using a scale from 0-10, with 0 indicating that you strongly disagree, and 10 indicating that you strongly agree, how would you rate the following statement:

My experience with the 2006-2008 &Utility &Program influenced my decision to install GS_TECH1B on my own, outside the program.

GS_MSP4

| | | |
|----|--------------------------|---------|
| # | {Record Response (0-10)} | |
| 88 | Refused | GS_MSP5 |
| 99 | Don't Know | GS_MSP5 |

Why did you purchase this equipment without the financial assistance available through &Utility program? {DO NOT READ;

GS_MSP5 INDICATE ALL THAT APPLY)

| | | |
|----|------------------------------------------------------|------|
| 1 | Too much paperwork | GS17 |
| 2 | Takes too long to get approval | GS17 |
| 3 | No time to participate, needed equipment immediately | GS17 |
| 4 | The program had ended | GS17 |
| 5 | The equipment would not qualify (PROBE: Why not?) | GS17 |
| 6 | The amount of the rebate wasn't important enough | GS17 |
| 7 | Did not know the program was available | GS17 |
| 8 | There was no program available | GS17 |
| 77 | Other (SPECIFY) | GS17 |
| 88 | Refused | GS17 |
| 99 | Don't know | GS17 |

GS10 In what year did you install GAS_TECH1B?

| | | |
|----|------------|------|
| 1 | 2005 | GS11 |
| 2 | 2006 | GS11 |
| 3 | 2007 | GS11 |
| 4 | 2008 | GS11 |
| 88 | Refused | GS20 |
| 99 | Don't know | GS20 |

GS11 And can you recall which month? If you cannot get month, try to get season.

| | | |
|----|------------|------|
| 1 | January | GS20 |
| 2 | February | GS20 |
| 3 | March | GS20 |
| 4 | April | GS20 |
| 5 | May | GS20 |
| 6 | June | GS20 |
| 7 | July | GS20 |
| 8 | August | GS20 |
| 9 | September | GS20 |
| 10 | October | GS20 |
| 11 | November | GS20 |
| 12 | December | GS20 |
| 13 | Fall | GS20 |
| 14 | Winter | GS20 |
| 15 | Spring | GS20 |
| 16 | Summer | GS20 |
| 88 | Refused | GS20 |
| 99 | Don't know | GS20 |

GS21 What type of equipment was removed and replaced when you installed the new GAS_TECH1B?

&REMEQUIP

| | | |
|----|------------------------------------------------------|--------|
| 1 | Boilers | GS21a |
| 2 | Water heaters | GS21a |
| 3 | Furnaces | GS21a |
| 4 | Gas boosters for dishwasher | GS21a |
| 5 | Gas range (stove) | GS21a |
| 6 | Clothes dryer | GS21a |
| 66 | NONE NEW EQUIPMENT WAS AN ADDITION NOT A REPLACEMENT | GSGS1a |
| 77 | Other (specify) | GS21a |
| 88 | Refused | GS21a |
| 99 | Don't know | GS21a |

GS21a What type of fuel did this equipment use?

| | | |
|----|---------------|------|
| 1 | Natural Gas | GS22 |
| 2 | Electricity | GS22 |
| 3 | Propane | GS22 |
| 77 | Other SPECIFY | GS22 |
| 88 | Refused | GS22 |
| 99 | Don't know | GS22 |

End Loop

GS22 Since January 2005, have you made any other changes that would have increased or decreased gas usage? For example, have you switched an electric measure to a gas measure or a gas measure to an electric measure? Have you increased or decreased your production level?

| | | |
|----|----------------------|----------|
| 1 | Yes, electric to gas | SEE NOTE |
| 2 | Yes, gas to electric | SEE NOTE |
| 5 | No | SEE NOTE |
| 77 | Other (specify) | SEE NOTE |
| 88 | Refused | SEE NOTE |
| 99 | Don't know | SEE NOTE |

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NOTE If SteamTrap = 1 and PipeInsulation = 0 go to ST3a and perform STEAMTRAP block, else if SteamTrap = 0 and PipeInsulation = 1 go to PI3a and perform PIPEINSULATION block, else if SteamTrap = 1 and PipeInsulation = 1 randomize choice between going to ST3a and PI3a by assigning values of 0 or 1 to STEAMRANDOM and the value (1 - STEAMRANDOM) to the variable PIPERANDOM

STEAM TRAP BATTERY

if &SteamTrap = 1

In the next section we'll be discussing the steam traps present at your facility.

ST3a How many steam traps are located at your facility?

| | | |
|----|------------------------------|------|
| # | Total number of steam traps: | ST3b |
| 88 | Refused | ST3b |
| 99 | Don't know | ST3b |

ST3b What percentage of the steam traps at your facility were replaced through the program?

| | | |
|-----|-------------------------------------|-----|
| % | Percentage of steam traps replaced. | ST4 |
| 101 | Refused | ST4 |
| 102 | Don't know | ST4 |

ST4 What led you to install the new steam traps? (Permit more than one answer.)

| | | |
|----|-----------------------------------------------------------------------------|-----|
| 1 | Needed to replace old steam traps because system efficiency had diminished. | ST5 |
| 2 | Installed new steam traps to improve system efficiency. | ST5 |
| 3 | Wanted to save on our energy bill. | ST5 |
| 77 | Other (specify) | ST5 |
| 88 | Refused | ST5 |
| 99 | Don't know | ST5 |

ST5 Whose idea was it to install new steam traps?

| | | |
|----|-------------------------------|------|
| 1 | Me or someone at my facility. | ST5a |
| 2 | Contractor. | ST5a |
| 3 | Utility company contact. | ST5a |
| 4 | Manufacturer. | ST5a |
| 77 | Other (specify) | ST5a |
| 88 | Refused | ST5a |
| 99 | Don't know | ST5a |

ST5a Prior to the installation of the new steam traps, did you have a steam trap maintenance program?

| | | |
|----|------------|------|
| 1 | Yes | ST5b |
| 2 | No | ST5b |
| 88 | Refused | ST5b |
| 99 | Don't know | ST5b |

ST5b What percentage of your steam traps were NOT in good condition prior to replacement?

| | | |
|-----|------------|------|
| % | Percentage | ST6a |
| 101 | Refused | ST6b |
| 102 | Don't Know | ST6b |

ASK IF RESPONSE TO ST5b is > 0 and < 101; ELSE SKIP TO ST7.

Of these steam traps that were not in good condition, about how long had they been in less than good condition? (Record

ST6a longest period of time if multiple answers given)

| | | |
|----|---------------------------------------------|------|
| 1 | 1-2 months | ST6b |
| 2 | 3-4 months | ST6b |
| 3 | 5-6 months | ST6b |
| 4 | 7-8 months | ST6b |
| 5 | 9-10 months | ST6b |
| 6 | 11-12 months | ST6b |
| 7 | Less than 1 1/2 years but more than 1 year | ST6b |
| 8 | Less than 2 years but more than 1 1/2 years | ST6b |
| 9 | More than 2 years | ST6b |
| 88 | Refused | ST6b |
| 99 | Don't know | ST6b |

ST6b Were any of the replaced steam traps in good condition?

| | | |
|----|---------------------------------------------------------------|---------|
| 1 | Yes | ST6BPCT |
| 2 | No | ST7 |
| 88 | Refused | ST7 |
| 99 | I don't know the pre-existing condition of the replaced traps | ST7 |

ST6BPCT What percentage of the replaced traps were in good condition prior to replacement?

| | | |
|-----|------------|------|
| % | Percentage | ST6d |
| 101 | Refused | ST7 |
| 102 | Don't know | ST7 |

ASK IF ST5b = 0 OR ST6B = 1

ST6d Why did you replace the steam traps that were in good condition?

| | | |
|----|-----------------|-----|
| 77 | Record verbatim | ST7 |
| 88 | Refused | ST7 |
| 99 | Don't know | ST7 |

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| | | |
|---------------------------------------------------------------------------------------------------|-------------------------------------------|-----|
| ST7 What percentage of the steam trap cost would you estimate the &PROGRAM rebate covered? | | |
| 1 | Rebate covered all of the cost | ST8 |
| 2 | Rebate covered most of the cost | ST8 |
| 3 | Rebate covered less than half of the cost | ST8 |
| 4 | Other | ST8 |
| 88 | Refused | ST8 |
| 99 | Don't know | ST8 |

| | | |
|--------------------------------------------------------------------------------------|--------------------------|------|
| ST8 How effective were the new steam traps in reducing your natural gas bill? | | |
| 1 | Considerable gas savings | ST8a |
| 2 | Some gas savings | ST8a |
| 3 | No noticeable savings | ST8a |
| 88 | Refused | ST8a |
| 99 | Don't know | ST8a |

| | | |
|------------------------------------------------------------------------------------------|------------|-----|
| ST8a Have you noticed any problems with the steam traps since their installation? | | |
| 1 | Yes | ST9 |
| 2 | No | ST9 |
| 88 | Refused | ST9 |
| 99 | Don't know | ST9 |

| | | |
|-------------------------------------------------------------------------------------------------------|------------|------|
| ST9 In your opinion, with the &Program rebate, was installing these team traps cost-effective? | | |
| 1 | Yes | ST10 |
| 2 | No | ST11 |
| 3 | Somewhat | ST10 |
| 88 | Refused | ST10 |
| 99 | Don't know | ST10 |

ASK IF RESPONSE TO ST9 # 2; ELSE SKIP TO ST11.

| | | |
|-----------------------------------------------------------------------------------------------------------------------------|------------|------|
| ST10 Without the &PROGRAM rebate, do you think you would have found installing the steam traps to be cost-effective? | | |
| 1 | Yes | ST11 |
| 2 | No | ST11 |
| 3 | Somewhat | ST11 |
| 88 | Refused | ST11 |
| 99 | Don't know | ST11 |

| | | |
|---------------------------------------------------------------|---------------------------------------------------------------|------|
| ST11 What are the main uses of steam at your facility? | | |
| 1 | Laundry presses or laundry related | ST12 |
| 2 | Other, specify: If LAUNDRY IS SPECIFIED HERE, THEN GO TO ST12 | ST13 |
| 88 | Refused | ST12 |
| 99 | Don't know | ST12 |

| | | |
|--------------------------------------------------------------------|---------------|------|
| ST12 How many laundry presses do you have at your facility? | | |
| # | Record Number | ST13 |
| 88 | Refused | ST13 |
| 99 | Don't know | ST13 |

Were there other changes at your site at the time or since the new steam traps were installed? (Permit more than one response.)

| | | |
|------------------------|-------------------------------|------|
| ST13 response.) | | |
| 1 | Added equipment | ST14 |
| 2 | Decreased equipment | ST14 |
| 3 | Increased hours of operation | ST14 |
| 4 | Decreased hours of operation | ST14 |
| 5 | Increased employees | ST14 |
| 6 | Decreased employees | ST14 |
| 7 | Added controls | ST14 |
| 8 | Decreased controls | ST14 |
| 9 | Added pipe or tank insulation | ST14 |
| 66 | No changes | |
| 77 | Record Verbatim | |
| 88 | Refused | ST14 |
| 99 | Don't know | ST14 |

If FM050 = 16, ASK ST14 ELSE SKIP TO PI3a

Since January 2006, has there been a period where there was a significant increase in demand for laundry production at this

| | | |
|--------------------------------------------------------------------------------------------------------|------------|-------|
| ST14 site? In other words, was there any period where laundry production was higher than usual? | | |
| 1 | Yes | ST14A |
| 2 | No | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

| | | |
|------------------------------------------------|---------------|------|
| ST14A When was this increase in demand? | | |
| 77 | record answer | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

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Since January 2006, has there been a period where there was a significant decrease in demand for laundry production at this site? In other words, was there any period where laundry production was lower than usual?

| | | |
|-----------|------------|-------|
| 1 | Yes | ST15A |
| 2 | No | FRA |
| 88 | Refused | FRA |
| 99 | Don't know | FRA |

ST15A When did this decrease occur?

| | | |
|-----------|---------------|-----|
| 77 | record answer | FRA |
| 88 | Refused | FRA |
| 99 | Don't know | FRA |

PIPE INSULATION

if &PipeInsulation = 1

Next I would like to discuss how the program may have influenced your decision to purchase pipe insulation.

PI3a How much linear feet of pipe insulation is present at your facility?

| | | |
|-----------|----------------------------------------------|------|
| # | RECORD Total linear feet of pipe insulation: | PI7 |
| 88 | Refused | PI3b |
| 99 | Don't know | PI3b |

ASK IF P13A = 88,99

PI3b Can you estimate what percent of the pipes present at your facility were insulated through the &program?

| | | |
|------------|-----------------------------------------|-----|
| % | Percentage of pipe insulation replaced: | PI7 |
| 101 | Refused | PI7 |
| 102 | Don't know | PI7 |

PI7 Was the pipe insulation installed on new pipes or was it a retrofit of older pipes?

| | | |
|-----------|--------------------|------|
| 1 | ONLY NEW | P18 |
| 2 | ONLY OLDER | PI7b |
| 3 | BOTH NEW AND OLDER | P17b |
| 88 | Refused | P18 |
| 99 | Don't know | P18 |

If P17 = 3, else skip

PI7a What percentage of the pipe insulation was installed on new pipes?

| | | |
|------------|-------------------|------|
| % | Record Percentage | PI7b |
| 101 | Refused | PI7b |
| 102 | Don't know | PI7b |

PI7b How old were these older pipes that received the pipe insulation?

| | | |
|-----------|------------------------|-----|
| # | (record in # of years) | P18 |
| 88 | Refused | P18 |
| 99 | Don't know | P18 |

ASK IF P17 ne 1; else skip to P25

P18 Was insulation already present on the pipes before the insulation was installed through the program?

| | | |
|-----------|------------|-----|
| 1 | Yes | P21 |
| 2 | No | P25 |
| 88 | Refused | P25 |
| 99 | Don't know | P25 |

P21 Was the existing insulation removed and replaced, or was additional insulation added to existing insulation?

| | | |
|-----------|-------------------------------------------------|-----|
| 1 | Old insulation removed and replaced | P23 |
| 2 | Additional insulation added over old insulation | P23 |
| 88 | Refused | P23 |
| 99 | Don't know | P23 |

P23 What condition was your pipe insulation in at the time of the replacement?

| | | |
|-----------|------------|-----|
| 1 | Good | P25 |
| 2 | Fair | P25 |
| 3 | Poor | P25 |
| 88 | Refused | P25 |
| 99 | Don't know | P25 |

ASK ALL

P25 Are boilers present at your facility?

| | | |
|-----------|------------|-----|
| 1 | Yes | P27 |
| 2 | No | P27 |
| 88 | Refused | P27 |
| 99 | Don't know | P27 |

P27 Since the pipe insulation was installed, have the boilers been repaired or replaced?

| | | |
|-----------|------------|-----|
| 1 | Yes | P29 |
| 2 | No | P31 |
| 88 | Refused | P31 |
| 99 | Don't know | P31 |

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| | | |
|----------------------------------------------------------------------------------|--------------------------------|-----|
| P29 How many months ago was the most recent boiler repair or replacement? | | |
| # | Record DATE or # of months ago | P31 |
| 88 | Refused | P31 |
| 99 | Don't know | P31 |

| | | |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----|
| P31 What led you to install the new pipe insulation? Was it...(Permit more than one answer.) | | |
| 1 | Needed to replace some old deteriorated insulation | P15 |
| 2 | Installed new pipe insulation because there was no prior insulation | P15 |
| 3 | Wanted to save on our energy bill. | P15 |
| 88 | Refused | P15 |
| 99 | Don't know | P15 |

| | | |
|--------------------------------------------------------------|-------------------------------|-----|
| P33 Whose idea was it to install new pipe insulation? | | |
| 1 | Me or someone at my facility. | P35 |
| 2 | Contractor. | P35 |
| 3 | Utility company contact. | P35 |
| 4 | Manufacturer. | P35 |
| 77 | Other (specify) | P35 |
| 88 | Refused | P35 |
| 99 | Don't know | P35 |

| | | |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------|-----|
| P35 What percentage of the pipe insulation cost would you estimate the &Program rebate covered? | | |
| 1 | Rebate covered all of the cost | P37 |
| 2 | Rebate covered most of the cost | P37 |
| 3 | Rebate covered less than half of the cost | P37 |
| 4 | Other | P37 |
| 88 | Refused | P37 |
| 99 | Don't know | P37 |

| | | |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------|-----|
| P37 How effective was the new pipe insulation in reducing your natural gas bill? Would you say you are seeing.... | | |
| 1 | Considerable gas savings | P39 |
| 2 | Some gas savings | P39 |
| 3 | No noticeable savings | P39 |
| 88 | Refused | P39 |
| 99 | Don't know | P39 |

| | | |
|-------------------------------------------------------------------------------------------|------------|-----|
| P39 Have you noticed any problems with the pipe insulation since the installation? | | |
| 1 | Yes | P40 |
| 2 | No | P40 |
| 88 | Refused | P40 |
| 99 | Don't know | P40 |

| | | |
|------------------------------------------------------------------------------------------------------|------------|-----|
| P40 In your opinion, with the &Program rebate, was installing pipe insulation cost-effective? | | |
| 1 | Yes | P42 |
| 2 | No | FRA |
| 3 | Somewhat | P42 |
| 88 | Refused | P42 |
| 99 | Don't know | P42 |

ASK IF RESPONSE TO PI9 # 2; ELSE SKIP TO PI11.

| | | |
|--------------------------------------------------------------------------------------------------------------------------------|------------|-----|
| P42 Without the &PROGRAM rebate, do you think you would have found installing the pipe insulation to be cost-effective? | | |
| 1 | Yes | FRA |
| 2 | No | FRA |
| 3 | Somewhat | FRA |
| 88 | Refused | FRA |
| 99 | Don't know | FRA |

SR FREE RIDERSHIP; ASK FOR STEAM TRAPS AND PIPE INSULATION

Next, I'd like to discuss how the program may have influenced your decision to purchase &Measure (where &Measure equals Steam Traps or Pipe Insulation).

| | | |
|--------------------------------------------------------------------------------------------|------------|-----|
| FRA Did the vendor/contractor who sold you the &Measure tell you about the program? | | |
| 1 | Yes | FRB |
| 2 | No | FRB |
| 88 | Refused | FRB |
| 99 | Don't know | FRB |

| | | |
|--------------------------------------------------------------------------|------------|-----|
| FRB Did your vendor/contractor recommend purchasing the &Measure? | | |
| 1 | Yes | FRC |
| 2 | No | FRC |
| 88 | Refused | FRC |
| 99 | Don't Know | FRC |

Using a 0 to 10 scale where 0 is not influential at all and 10 is extremely influential how influential was your vendor/contractor in your decision to purchase &measure?

| | | |
|---------------|------------|-----|
| FRC | | |
| RECORD | 1-10 scale | FRD |
| 88 | Refused | FRD |
| 99 | Don't Know | FRD |

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| | | |
|----------------------------------------------------------------------|-----------------------------------------|-----|
| FRD Did you purchase what your vendor/contractor recommended? | | |
| 1 | Yes | FR1 |
| 2 | No | FR1 |
| 3 | Contractor didn't make a recommendation | |
| 88 | Refused | FR1 |
| 99 | Don't Know | FR1 |

| | | |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------|
| FR1 At the time that you first heard about the assistance from &Utility for this &Measure, had you...? {READ LIST} | | |
| 1 | Already been thinking about purchasing &MEASURE? | FR2a |
| 2 | Already begun collecting information about &MEASURE? | FR2a |
| 3 | Already selected the particular &MEASURE you were going to get? | FR2a |
| 4 | Already installed the &MEASURE? | FR1a |
| 66 | None of these | FR2a |
| 77 | Other | FR2a |
| 88 | Refused | FR2a |
| 99 | Don't know | FR2a |

| | | |
|---------------------------------------------------------------------------------------------------|------------|------|
| FR1a So, the &measure was installed before you learned about the assistance from &Utility? | | |
| 1 | Yes | FR7 |
| 2 | No | FR2a |
| 88 | Refused | FR2a |
| 99 | Don't Know | FR2a |

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|
| FR2a Just to be sure I understand, did you have specific plans to install &product before learning about the assistance available through the &Program? | | |
| 1 | Yes | FR3 |
| 2 | No | FR4a |
| 88 | Refused | FR4a |
| 99 | Don't Know | FR4a |

| | | |
|--------------------------------------------------------------------------------------------------------------------------------|------------|------|
| FR3 Did you have to make any changes to your existing plans in order to receive this [assistance] through the &Program? | | |
| 1 | Yes | FR3a |
| 2 | No | FR4a |
| 88 | Refused | FR4a |
| 99 | Don't Know | FR4a |

| | | |
|----------------------------------------|--------------------------|------|
| FR3a What changes did you make? | | |
| 77 | {RECORD RESPONSE}: _____ | FR4a |
| 88 | Refused | FR4a |
| 99 | Don't Know | FR4a |

{REPEAT AS NEEDED FOR FR4 PARTS A – D} If the [assistance] had not been available, would you still have:

| | | |
|-------------------------------------|------------|------|
| FR4a Purchased the &measure? | | |
| 1 | Yes | FR4b |
| 2 | No | FR5 |
| 88 | Refused | FR4b |
| 99 | Don't Know | FR4b |

| | | |
|-----------------------------------------------------------------|------------|-------|
| FR4b Purchased the &measure at the same time as you did? | | |
| 1 | Yes | FR4c |
| 2 | No | FR4b1 |
| 88 | Refused | FR4b1 |
| 99 | Don't Know | FR4b1 |

| | | |
|---------------------------------------------------------------------------------|------------|-------|
| FR4b1 Would you have bought the &measure earlier than you did, or later? | | |
| 1 | Earlier | FR4b2 |
| 2 | Same Time | FR4c |
| 3 | Later | FR4b2 |
| 88 | Refused | FR4c |
| 99 | Don't Know | FR4c |

| | | |
|--------------------------------------------------------------------------|-----------------------------------------------------|------|
| FRb2 How much [earlier/later] would you have bought the &measure? | | |
| 1 | Within 6 months | FR4c |
| 2 | 6 months to a year later | FR4c |
| 3 | 1 to 2 years later | FR4c |
| 4 | 2 to 3 years later | FR4c |
| 5 | 3 to 4 years later | FR4c |
| 6 | 4 or more years later | FR4c |
| 77 | {RECORD RESPONSE} _____ Years (and/or) _____ Months | FR4c |
| 88 | Refused | FR4c |
| 99 | Don't know | FR4c |

| | | |
|------------------------------------------------------------------------------------------------------------------|---------------|-------|
| FR4c Without the program, would the quantity of &measure you purchased have been the same, less, or more? | | |
| 1 | More | FR4c1 |
| 2 | Same quantity | FR4d |
| 3 | Less | FR4c1 |
| 88 | Refused | FR4d |
| 99 | Don't Know | FR4d |

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| | | |
|-----------------------------------------------------------------|-----------------|------|
| FR4c1 How many [more/less] would you have bought? | | |
| 77 | Record Verbatim | FR4d |
| 88 | Refused | FR4d |
| 99 | Don't know | FR4d |

| | | |
|--------------------------------------------------------------------------------------------------------|-------------------|-------|
| FR4e If the [assistance] had not been available, would you have done anything else differently? | | |
| 1 | Nothing Different | FR4e1 |
| 77 | Record Verbatim | FR5 |
| 88 | Refused | FR5 |
| 99 | Don't Know | FR5 |

FR5 On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely is it that you would have bought &Measure if you had not received any [assistance] from the program?

| | | |
|----|--------------------------------|-----|
| # | {RECORD RESPONSE (0-10)} _____ | FR7 |
| 88 | Refused | FR7 |
| 99 | Don't Know | FR7 |

FR7 Our records indicate you received about &ST_REBATE from the &Utility &Program either directly or at the time of purchase to offset the cost of the &MEASURE that you installed. Does this sound about right?

| | | |
|----|------------|-----|
| 1 | Yes | FR9 |
| 2 | No | FR8 |
| 88 | Refused | FR9 |
| 99 | Don't Know | FR9 |

FR8 What would you estimate to be the actual amount?

| | | |
|----|-------------------------------------------------------------------------|-----|
| | {RECORD RESPONSE} _____ {SET = NEW AMOUNT OF PROGRAM INCENTIVE/SUBSIDY} | FR9 |
| 88 | Refused | FR9 |
| 99 | Don't know | FR9 |

I'm going to read several statements about how you came to choose to install new &measure. On a scale of 0 to 10, where 0 is strongly disagree and 10 is strongly agree, how much do you agree with each statement?
If I had not had any assistance from the program, I would have paid the full price to buy the &Measure on my own outside the program.

FR9

| | | |
|----|--------------------------------|------|
| # | {Record Response (0-10)} _____ | FR10 |
| 88 | Refused | FR10 |
| 99 | Don't know | FR10 |

FR10 There may have been several reasons for my purchase decision, but the assistance from the &Utility &Program was a critical factor in my decision to purchase these &measure.

| | | |
|----|--------------------------------|------|
| # | {Record Response (0-10)} _____ | FR11 |
| 88 | Refused | FR11 |
| 99 | Don't know | FR11 |

FR11 I would have bought the &measure within 2 years of when I did even without the assistance from &Utility's Program.

| | | |
|----|--------------------------------|-------|
| # | {Record Response (0-10)} _____ | FR12a |
| 88 | Refused | FR12a |
| 99 | Don't know | FR12a |

CONSISTENCY CHECK & RESOLUTION

DEVELOPING PROGRAMMING TO TEST FOR INCONSISTENCIES BETWEEN RESPONSES IN THE FREE-RIDERSHIP BATTERY, C1 WILL TAKE PRECEDENCE OVER INCONSISTENT RESPONSES.
 IF (FR4A or FR4D = 1) AND FR5 = 0,1 AND FR10 = 9,10 AND FR11 = 0,1;
 IF (FR4A or FR4D = 2) AND FR5 = 9,10 AND FR10 = 0,1 AND FR11 = 9,10;
 IF FR5 = 0,1 AND (FR4A or FR4D = 1) AND FR10 = 0,1 AND FR11 = 9,10;
 IF FR5 = 9,10 AND (FR4A or FR4D = 2) AND FR10 = 9,10 AND FR11 = 0,1;
 IF FR10 = 0,1 AND (FR4A or FR4D = 2) AND FR5 = 0,1 AND FR11 = 0,1;
 IF FR10 = 9,10 AND (FR4A or FR4D = 1) AND FR5 = 9,10 AND FR11 = 9,10;
 IF FR11 = 9,10 AND (FR4A or FR4D = 2) AND FR5 = 0,1 AND FR10 = 9,10;
 IF FR11 = 0,1 AND (FR4A or FR4D = 1) AND FR5 = 9,10 AND FR10 = 0,1

Let me make sure I understand you. In your own words, could you please describe how the program influenced your decision to purchase and install your new &Measure at the time you did?

| | | |
|----|-------------------------|-----|
| 77 | {Record Response} _____ | End |
| 88 | Refused | End |
| 99 | Don't know | End |

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OPERATING HOURS

Ask Everyone

Now we'd like to talk about the hours that your locations are typically open.

HROPEN What time does your location typically open during the week?

| | | |
|----|--------------|---------|
| 1 | 1:00 AM | HRCLOSE |
| 2 | 1:30 AM | HRCLOSE |
| 3 | 2:00 AM | HRCLOSE |
| 4 | 2:30 AM | HRCLOSE |
| 5 | 3:00 AM | HRCLOSE |
| 6 | 3:30 AM | HRCLOSE |
| 7 | 4:00 AM | HRCLOSE |
| 8 | 4:30 AM | HRCLOSE |
| 9 | 5:00 AM | HRCLOSE |
| 10 | 5:30 AM | HRCLOSE |
| 11 | 6:00 AM | HRCLOSE |
| 12 | 6:30 AM | HRCLOSE |
| 13 | 7:00 AM | HRCLOSE |
| 14 | 7:30 AM | HRCLOSE |
| 15 | 8:00 AM | HRCLOSE |
| 16 | 8:30 AM | HRCLOSE |
| 17 | 9:00 AM | HRCLOSE |
| 18 | 9:30 AM | HRCLOSE |
| 19 | 10:00 AM | HRCLOSE |
| 20 | 10:30 AM | HRCLOSE |
| 21 | 11:00 AM | HRCLOSE |
| 22 | 11:30 AM | HRCLOSE |
| 23 | 12:00 NOON | HRCLOSE |
| 24 | 12:30 PM | HRCLOSE |
| 25 | 1:00 PM | HRCLOSE |
| 26 | 1:30 PM | HRCLOSE |
| 27 | 2:00 PM | HRCLOSE |
| 28 | 2:30 PM | HRCLOSE |
| 29 | 3:00 PM | HRCLOSE |
| 30 | 3:30 PM | HRCLOSE |
| 31 | 4:00 PM | HRCLOSE |
| 32 | 4:30 PM | HRCLOSE |
| 33 | 5:00 PM | HRCLOSE |
| 34 | 5:30 PM | HRCLOSE |
| 35 | 6:00 PM | HRCLOSE |
| 36 | 6:30 PM | HRCLOSE |
| 37 | 7:00 PM | HRCLOSE |
| 38 | 7:30 PM | HRCLOSE |
| 39 | 8:00 PM | HRCLOSE |
| 40 | 8:30 PM | HRCLOSE |
| 41 | 9:00 PM | HRCLOSE |
| 42 | 9:30 PM | HRCLOSE |
| 43 | 10:00 PM | HRCLOSE |
| 44 | 10:30 PM | HRCLOSE |
| 45 | 11:00 PM | HRCLOSE |
| 46 | 11:30 PM | HRCLOSE |
| 47 | 12:00:00 MID | HRCLOSE |
| 48 | 12:30 AM | HRCLOSE |
| 65 | Never Close | HRCLOSE |
| 66 | Open 24 Hrs | HRCLOSE |
| 88 | Refused | HRCLOSE |
| 99 | Don't know | HRCLOSE |

HRCLOSE What time does your location typically open during the week?

| | | |
|----|----------|----------|
| 1 | 1:00 AM | OS_NAME1 |
| 2 | 1:30 AM | OS_NAME1 |
| 3 | 2:00 AM | OS_NAME1 |
| 4 | 2:30 AM | OS_NAME1 |
| 5 | 3:00 AM | OS_NAME1 |
| 6 | 3:30 AM | OS_NAME1 |
| 7 | 4:00 AM | OS_NAME1 |
| 8 | 4:30 AM | OS_NAME1 |
| 9 | 5:00 AM | OS_NAME1 |
| 10 | 5:30 AM | OS_NAME1 |
| 11 | 6:00 AM | OS_NAME1 |
| 12 | 6:30 AM | OS_NAME1 |
| 13 | 7:00 AM | OS_NAME1 |
| 14 | 7:30 AM | OS_NAME1 |
| 15 | 8:00 AM | OS_NAME1 |
| 16 | 8:30 AM | OS_NAME1 |
| 17 | 9:00 AM | OS_NAME1 |
| 18 | 9:30 AM | OS_NAME1 |
| 19 | 10:00 AM | OS_NAME1 |

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| | | |
|----|--------------|----------|
| 20 | 10:30 AM | OS_NAME1 |
| 21 | 11:00 AM | OS_NAME1 |
| 22 | 11:30 AM | OS_NAME1 |
| 23 | 12:00 NOON | OS_NAME1 |
| 24 | 12:30 PM | OS_NAME1 |
| 25 | 1:00 PM | OS_NAME1 |
| 26 | 1:30 PM | OS_NAME1 |
| 27 | 2:00 PM | OS_NAME1 |
| 28 | 2:30 PM | OS_NAME1 |
| 29 | 3:00 PM | OS_NAME1 |
| 30 | 3:30 PM | OS_NAME1 |
| 31 | 4:00 PM | OS_NAME1 |
| 32 | 4:30 PM | OS_NAME1 |
| 33 | 5:00 PM | OS_NAME1 |
| 34 | 5:30 PM | OS_NAME1 |
| 35 | 6:00 PM | OS_NAME1 |
| 36 | 6:30 PM | OS_NAME1 |
| 37 | 7:00 PM | OS_NAME1 |
| 38 | 7:30 PM | OS_NAME1 |
| 39 | 8:00 PM | OS_NAME1 |
| 40 | 8:30 PM | OS_NAME1 |
| 41 | 9:00 PM | OS_NAME1 |
| 42 | 9:30 PM | OS_NAME1 |
| 43 | 10:00 PM | OS_NAME1 |
| 44 | 10:30 PM | OS_NAME1 |
| 45 | 11:00 PM | OS_NAME1 |
| 46 | 11:30 PM | OS_NAME1 |
| 47 | 12:00:00 MID | OS_NAME1 |
| 48 | 12:30 AM | OS_NAME1 |
| 65 | Never Close | OS_NAME1 |
| 66 | Open 24 Hrs | OS_NAME1 |
| 88 | Refused | OS_NAME1 |
| 99 | Don't know | OS_NAME1 |

RECRUITING FOR ONSITES

if Pipe Insulation = 1 and &UTILITY = SoCalGas

As we have discussed, the &PROGRAM is an important component of the CPUC's ongoing efforts to save energy and reduce emissions affecting climate change. In order to improve this program's performance, the CPUC would like to make an accurate measurement of the energy savings associated with the energy efficient equipment installed by collecting and analyzing information from selected customers.

Your input into this research is extremely important. By receiving a rebate through the %PROGRAM your property has agreed to allow verification of the installation of the equipment rebated through the program. Our verification technician will need to see a facilities representative of your property. This should be either the manager of the facility or part of the facilities staff.

OS_NAME1 May I please have the name of the person who our technician can call to set up an appointment to collect information on the boiler and pipe insulation?

| | | |
|----------------------|-------------------------|-----------|
| &OS_NAME1 | NAME OF PRIMARY CONTACT | OS_PHONE1 |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

OS_PHONE1 May I also have the best phone number for the technician to reach you?

| | | |
|-----------------------|---------------------------|--------|
| &OS_PHONE1 | PHONE FOR PRIMARY CONTACT | OTHER |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

OTHER Is there another person that the engineer might speak with at your facility, if you are not available?

| | | |
|---|-----|----------|
| 1 | Yes | OS_NAME2 |
| 2 | No | |

OS_NAME2 May I please have their name so our technician can call them if necessary?

| | | |
|----------------------|------------|-----------|
| &OS_NAME2 | Get name | OS_PHONE2 |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

OS_PHONE2 May I also have the best phone number for the technician to reach them?

| | | |
|-----------------------|------------------|--------|
| &OS_PHONE2 | Get phone number | VERIFY |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

VERIFY For verification purposes only, may I please have your name?

| | | |
|----|------------|-----|
| 77 | Get name | END |
| 88 | Refused | END |
| 99 | Don't know | END |

Do you have any questions that I may be able to answer at this time?

END Those are all the questions I have for today. Thank you for your time and help in this important study.

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INTRODUCTION AND FINDING CORRECT RESPONDENT

OUTCOME1 Hello. This is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. This is not a sales call nor a service call.

[IF NEEDED] This is a fact-finding survey only, authorized by the California Public Utilities Commission.

May I please speak with &CONTACT, the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's 2006-2008 &PROG_LONG where you either replaced steam traps and/or installed pipe insulation. Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

| | | |
|-----------|--------------------------------------------|---------|
| 1 | No, that person is not available right now | Appoint |
| 2 | Unable to refer someone who can help | Appoint |
| 3 | Yes, that would be me | S1 |
| 4 | | Q1C |
| 77 | No, Other reason (specify) | Q1B |
| 88 | Refused | Q1B |
| 99 | Don't know | Q1B |

Appoint [IF RECOMMENDED CONTACT IS NOT CURRENTLY AVAILABLE]
When would be a good day and time for us to call back?

| | | |
|-----------|---------------------------------------------------------------------------------------------|-------------------|
| 77 | Record day of the week, time of day and date to call back, as &APPOINT | Name |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Name |

PERSON According to our records, your organization participated in &UTILITY's &PROG_LONG at your facility. Are you the person most knowledgeable about your organization's participation in this program?

| | | |
|----------|-------------------------------------------------|------------|
| 1 | Yes | Intro3:s |
| 2 | No | Hi |
| 3 | No one knows about participation in &PROG_LONG. | Intro3(99) |

If Person(3)

| | | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Intro3(99) | Thank you for your time. We need to speak with the person at your organization that is most familiar with your participation in the &Program. Those are all of the questions I have for you today. | Abandoned User30 |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|

Hi Who would be the person at this location who is most knowledgeable about your organization's installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG? [Enter technical Contact Name and move on.]

| | | |
|-----------|--------------------------|-------------------|
| 77 | Record Name, as &CONTACT | May I |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Ext |

May I May I speak with him/her?

| | | |
|-----------|---------------------------------------|-----------------------|
| 77 | Yes | Intro3:s |
| 88 | No (not available right now@, set cb) | Abandoned Appointment |

Intro3:s Hello, my name is <INTERVIEWER NAME> calling on behalf of the CPUC from Itron Consulting. This is not a sales call. We are interested in speaking with the person most knowledgeable about your organization's participation in &UTILITY's &PROG_LONG in which you installed steam traps and/or pipe insulation. I was told that would be you. Is this correct?

| | | |
|-----------|---------------------------------|-------------------|
| 1 | Yes | COMMENT |
| 2 | No | Thank & Terminate |
| 99 | No one knows about the &Program | Thank & Terminate |

According to our records, our organization participated in &UTILITY's &PROG_LONG and received rebates for installing steam traps and/or pipe insulation. Are you the person most knowledgeable about your organization's participation in &UTILITY's &PROG_LONG?

Ext Is there a phone extension or phone number you recommend we use when we call back?

| | | |
|-----------|------------------------------------------|-------------------|
| 77 | Record Extension or Phone Number, &PHONE | Thank & Terminate |
|-----------|------------------------------------------|-------------------|

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| | | |
|----|------------|-------------------|
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Thank & Terminate |

Thank & Terminate Thank you for your time and help today.

END

[IF YOU ARE TRANSFERRED TO ANOTHER PERSON OTHER THAN THE BEST CONTACT]

Q1B Who would be the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's &PROG_LONG.

[IF NEEDED] This is not a sales call.

[IF NEEDED] This is a fact-finding survey only, and responses will not be connected with your firm in any way. The California Public Utilities Commission wants to better understand how businesses think about and manage their energy consumption.

| | | |
|----|----------------------------------------------------------------------------|-------------------|
| 77 | There is no one here who can help you | Thank & Terminate |
| 1 | Continue Q1B until you find appropriate contact person, record as &CONTACT | Q1C |

[IF BEST CONTACT IS AVAILABLE]

Q1C Hello Mr./Mrs. &CONTACT, this is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. I understand you are the person at your location that is most knowledgeable about the installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG. Is this correct?

| | | |
|----|--------------------------------------|---------------------------|
| 1 | Current individual is best contact | S1 |
| 2 | Transferred to best contact | Repeat Q1C w/best contact |
| 3 | Given best contact's name and number | Appoint |
| 99 | Don't know/refused | Thank & Terminate |

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor.

Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

To help save time and keep things moving along, we will be referring to the full program name &PROG_LONG as &PROGRAM.

SCREENER

If the Site is in the Large Survey due to CORPORATE = 1

Scrn_Addr First, I'd like to ask you a few questions about your organization and facilities. Our records show your firm has many locations including &ADDRESS1 in &CITY1, &ADDRESS2 in &CITY2, and &ADDRESS3 in &CITY3 which each participated in the &PROGRAM. Is that correct?

[CONTINUE IF ADDRESSES REPORTED BY RESPONDENT ARE SIMILAR ENOUGH]

| | | |
|----|------------|---------|
| 1 | Yes | S4 |
| 2 | No | CORRECT |
| 88 | Refused | COMMENT |
| 99 | Don't know | COMMENT |

If the Site is in the Large Survey due to CONSUMPTION = 1 OR REBATEFLAG = 1

Scrn_Addr First, I'd like to ask you a few questions about your organization and facilities. Our records show your firm is located at &ADDRESS1 in &CITY1, and that this location participated in the &PROGRAM. Is that correct?

[CONTINUE IF ADDRESS REPORTED BY RESPONDENT IS SIMILAR ENOUGH]

| | | |
|----|------------|---------|
| 1 | Yes | FM050a |
| 2 | No | CORRECT |
| 88 | Refused | COMMENT |
| 99 | Don't know | COMMENT |

COMMENT We were attempting to reach the customer at &ADDRESS1 in &CITY1 and since you cannot confirm this address, those are all the questions that we have for you today, on behalf of the California Public Utilities Commission, thank you for your time.

CORRECT May I have your correct address?

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| | | |
|---------------------|-------------------|---------|
| &CORRECT | Corrected Address | COMPARE |
|---------------------|-------------------|---------|

Are these addresses similar or totally different?

COMPARE Computer Address - &ADDRESS
Corrected Address - &CORRECT

| | | |
|----------|-------------------|----------|
| 1 | Similar | COMMENT |
| 2 | Totally Different | COMMENT2 |

COMMENT2 We were attempting to reach the customer at &ADDRESS1 in &CITY1 and since that does not match your address, then we must have mis-dialed the telephone number. Those are all the questions that we have for you today, on behalf of the California Public Utilities Commission. Thank you for your time and cooperation.

COMMENT The questions in this survey will refer to your "ORGANIZATION," which means ALL of the locations serviced by &UTILITY. [INTERVIEWERS SHOULD RE-READ THIS STATEMENT AS NEEDED THROUGHOUT THE SURVEY TO REMIND THE RESPONDENTS]

CUSTOMER CHARACTERISTICS

FM050a What is your position/title for &BUS_NAME?

| | | |
|-----------|-----------------------------|--------|
| 1 | Regional Manager | FM050b |
| 2 | Regional Facilities Manager | FM050b |
| 3 | Energy Manager | FM050b |
| 77 | Other | FM050b |
| 88 | Refused | FM050b |
| 99 | Don't Know | FM050b |

ASK IF CORPORATE = 1, Else skip to FM50

FM050b What region do your energy decisions affect?

| | | |
|-----------|---------------------|--------|
| 1 | California | FM050c |
| 2 | Northern California | FM050c |
| 3 | Southern California | FM050c |
| 4 | Bay Area | FM050c |
| 5 | Greater LA | FM050c |
| 6 | San Diego | FM050c |
| 77 | Other | FM050c |
| 88 | Refused | FM050c |
| 99 | Don't Know | FM050c |

FM050c Are you aware of the energy decisions being made and/or energy policies for your company outside of California?

| | | |
|-----------|-------------------------------------------------------------------------------------|--------|
| 1 | Yes, I make energy decisions in other states | FM050d |
| 2 | Yes, I am aware of energy decisions in other states but I am not the decision maker | FM050d |
| 3 | No, I am not aware of energy decisions in other states | FM050d |
| 4 | No locations outside California | FM050d |
| 88 | Refused | FM050d |
| 99 | Don't know | FM050d |

ASK IF &MULTUTILITY = 1, ELSE SKIP TO FM050

FM050d Our records show that you had locations in the &OTHERUTILITY utility region as well. Are you the contact responsible for those decisions as well?

| | | |
|-----------|------------|------------|
| 1 | Yes | FM050 |
| 2 | No | FM050eName |
| 88 | Refused | FM050 |
| 99 | Don't know | FM050 |

FM050eName What is the name and contact information for the person responsible for &OTHERUTILITY program information?

| | | |
|-----------|-------------|-------------|
| 77 | Record Name | FM050ePhone |
| 88 | Refused | FM050 |
| 99 | Don't know | FM050 |

FM050ePhone Do you have a phone number for this contact?

| | | |
|-----------|---------------------|-------|
| 77 | Record Phone number | FM050 |
| 88 | Refused | FM050 |
| 99 | Don't know | FM050 |

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FM050 What is the main business ACTIVITY at your locations that participated in the &UTILITY &PROGRAM? [ALLOW MULTIPLE]

| | | |
|----|-----------------------------------------------|-----|
| 1 | Office | CA4 |
| 2 | Retail (non-food) | CA4 |
| 3 | College/University | CA4 |
| 4 | School | CA4 |
| 5 | Grocery Store | CA4 |
| 6 | Restaurant | CA4 |
| 7 | Health Care (other than Hospital) | CA4 |
| 8 | Hospital | CA4 |
| 9 | Hotel or Motel | CA4 |
| 10 | Warehouse | CA4 |
| 11 | Construction | CA4 |
| 12 | Community Service/Church/Temple/ Municipality | CA4 |
| 13 | Industrial Process/ Manufacturing/ Assembly | CA4 |
| 14 | Condo Assoc./Apartment Mgr. | CA4 |
| 15 | Greenhouse | CA4 |
| 16 | Laundry/Cleaners/Dry Cleaners | CA4 |
| 17 | Refinery | CA4 |
| 18 | Nursery | CA4 |
| 77 | Other (Please specify) | CA4 |
| 88 | Refused | CA4 |
| 99 | Don't Know | CA4 |

CUSTOMER ATTITUDE

CA4 Prior to 2006, had your organization ever installed equipment that involved the receipt of rebates or incentives from an energy efficiency program?

| | | |
|----|------------|------|
| 1 | Yes | CA6 |
| 2 | No | CA15 |
| 88 | Refused | CA15 |
| 99 | Don't know | CA15 |

CA6 What type of equipment did you install through this (these) program(s)? [READ RESPONSE CATEGORIES]

| | | |
|----|--------------------------------------------------------------------|------|
| 1 | Indoor lighting | CA6a |
| 2 | Cooling equipment | CA6a |
| 3 | Natural gas equipment, such as water heater, furnace or appliances | CA6a |
| 4 | Insulation or windows | CA6a |
| 5 | Refrigeration | CA6a |
| 6 | Industrial process equipment | CA6a |
| 7 | Greenhouse heat curtains | CA6a |
| 8 | Food service equipment | CA6a |
| 9 | Pipe Insulation | CA6a |
| 10 | Steam Traps | CA6a |
| 77 | OTHER (specify) | CA6a |
| 88 | Refused | CA6a |
| 99 | Don't Know | CA6a |

CA6a What year did you participate in this (these) program(s)?

| | | |
|----|---------------|------|
| 1 | prior to 2004 | CA15 |
| 2 | 2004 | CA15 |
| 3 | 2005 | CA15 |
| 88 | Refused | CA15 |
| 99 | Don't know | CA15 |

CA15 Over the past 3 years, how would you characterize your organization's business outlook? Would you say it was ...

| | | |
|---|-----------|-------|
| 1 | Excellent | CA15A |
| 2 | Good | CA15A |
| 3 | Fair | CA15A |
| 4 | Adequate | CA15A |

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| | | |
|----|------------|-------|
| 8 | Poor | CA15A |
| 88 | Refused | CA15A |
| 99 | Don't know | CA15A |

CA15A Projecting over the NEXT 3 years, how would you characterize your business outlook? Would you say....

| | | |
|----|------------|-----|
| 1 | Excellent | ST1 |
| 2 | Good | ST1 |
| 3 | Fair | ST1 |
| 4 | Adequate | ST1 |
| 5 | Poor | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

INSTALLATION VERIFICATION

ASK If &STEAMTRAP = 1 ELSE SKIP TO PI1g

ST3 Our records indicate that &NUM_STEAMTRAP steam traps were installed at your facility. Is this about right?

| | | |
|----|---------------------------------------------------|------|
| 1 | Yes | ST1 |
| 2 | Steamtraps were installed, but different quantity | ST3X |
| 3 | None were installed | ST3X |
| 88 | Refused | ST3X |
| 99 | Don't know | ST3X |

ST3X Approximately how many steam traps were installed at your facility through the program?

| | | |
|----|---------------|-------|
| # | Record Answer | CALC |
| 88 | Refused | ST_1G |
| 99 | Don't know | ST_1G |

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Were any of these &ST1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our

ST3Y counts don't match, it would really help us to evaluate the program's record keeping.

| | | |
|----|-------------------------------------------------------------|-----|
| 1 | Have no idea why numbers differ | ST1 |
| 2 | Did not install all of the steam traps, put some in storage | ST1 |
| 3 | Installed steam traps at another facility | |
| 4 | Did not receive all of the steam traps | ST1 |
| 77 | Other | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our

ST3OZ counts don't match, it would really help us to evaluate the program's record keeping.

| | | |
|----|--------------------------------------------|-----|
| 1 | Have no idea why numbers differ | ST1 |
| 2 | Multiple participation | ST1 |
| 3 | Installed equipment outside of the program | ST1 |
| 77 | Other | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

ST_1G Our records indicate that your organization received &ST_Rebate for Steam Traps during 2006-2008. Is this correct?

| | | |
|----|------------|--------|
| 1 | Yes | ST_1GG |
| 2 | No | ST_1GG |
| 88 | Refused | ST_1GG |
| 99 | Don't Know | ST_1GG |

ST_1GG May I have the correct amount?

| | | |
|------------------------|---------------|---------|
| &ST_correct | Record Amount | ST_1GGG |
|------------------------|---------------|---------|

ST_1GGG Approximately when were these steam traps installed?

| | | |
|----|-------------|------------|
| 77 | Record Date | Vend Maint |
|----|-------------|------------|

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| | | |
|----|------------|------------|
| 88 | Refused | Vend Maint |
| 99 | Don't know | Vend Maint |

VEND_MAINT Prior to installing steam traps under the program, did you have an existing maintenance contract with a vendor that involved servicing your steam traps?

| | | |
|----|------------|-----|
| 1 | Yes | PI3 |
| 2 | No | PI3 |
| 77 | Other | PI3 |
| 88 | Refused | PI3 |
| 99 | Don't know | PI3 |

ASK IF &PIPEINSULATION = 1 ELSE SKIP TO V1

PI3 Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your facility. Is this about right?

| | | |
|----|-------------------------------------------------------|-------|
| 1 | Yes | PI 1g |
| 2 | Pipe Insulation was installed, but different quantity | PI3X |
| 3 | None was installed | PI3X |
| 88 | Refused | PI3X |
| 99 | Don't know | PI3X |

PI3X Approximately how many feet of pipe insulation was installed at your facility through the program?

| | | |
|----|---------------|-------|
| # | Record Answer | Calc |
| 88 | Refused | PI 1G |
| 99 | Don't know | PI 1G |

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Was any of this &PI1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

PI30y

| | | |
|----|-----------------------------------------------------------------|-------|
| 1 | Have no idea why numbers differ | PI 1G |
| 2 | Did not install all of the pipe insulation, put some in storage | PI 1G |
| 3 | Installed some of the insulation at another facility | PI 1G |
| 4 | Did not receive all of the insulation | PI 1G |
| 77 | Other | PI 1G |
| 88 | Refused | PI 1G |
| 99 | Don't know | PI 1G |

Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

PI30Z

| | | |
|----|--------------------------------------------|-------|
| 1 | Have no idea why numbers differ | PI 1G |
| 2 | Multiple participation | PI 1G |
| 3 | Installed equipment outside of the program | PI 1G |
| 77 | Other | PI 1G |
| 88 | Refused | PI 1G |
| 99 | Don't know | PI 1G |

PI_1G Our records indicate that your organization received &PI_Rebate for Pipe Insulation during 2006-2008. Is this correct?

| | | |
|----|------------|--------|
| 1 | Yes | PI 1GG |
| 2 | No | PI 1GG |
| 88 | Refused | PI 1GG |
| 99 | Don't Know | PI 1GG |

PI_1GG May I have the correct amount?

| | | |
|----|---------------|---------|
| # | Record Amount | PI 1GGG |
| 88 | Refused | PI 1GGG |
| 99 | Don't know | PI 1GGG |

PI_1GGG Approximately when was this pipe insulation installed?

| | | |
|----|-------------|-------|
| 77 | Record Date | Joint |
| 88 | Refused | Joint |
| 99 | Don't know | Joint |

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ROLE OF CONTRACTORS

If &PIPEINSULATION = 1 and &STEAMTRAP = 1 ELSE SKIP TO V1

Your organization installed BOTH steam traps and pipe insulation. Can you tell me if this was a JOINT DECISION? In other words, was the decision to install the steam traps and the pipe insulation made by the same individuals and at the same time?

Joint

| | | |
|-----------|-------------------------------|----|
| 1 | Yes, continue | V1 |
| 2 | No. If NO, THEN ASK HOW MANY. | V1 |
| 88 | Refused | V1 |
| 99 | Don't know | V1 |

Now I would like to find out, did you use a contractor to install the measures rebated through the 2006-08 &PROGRAM

V1 Program?

| | | |
|-----------|---------------|-----|
| 1 | Contractor | V41 |
| 2 | In-house | V41 |
| 77 | Record Answer | V41 |
| 88 | Refused | V41 |
| 99 | Don't know | V41 |

If &PIPEINSULATION = 1 and &STEAMTRAP = 1 ELSE SKIP TO ST140

V41 Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously?

| | | |
|-----------|------------|------|
| 1 | Yes | ST14 |
| 2 | No | ST14 |
| 88 | Refused | ST14 |
| 99 | Don't know | ST14 |

PROGRAM AWARENESS

Next, I'd like to ask you about various energy efficiency programs and what influenced your program participation.

Since January 2006, has there been a period where there was a significant increase in production at this site? In other words, was there any period where your production was higher than usual?

ST14

| | | |
|-----------|------------|-------|
| 1 | Yes | ST14A |
| 2 | No | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

ST14A When was this increase in demand?

| | | |
|-----------|---------------|------|
| 77 | Record Answer | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

Since January 2006, has there been a period where there was a significant decrease in production at this site? In other words, was there any period where your production was lower than usual?

ST15

| | | |
|-----------|------------|-------|
| 1 | Yes | ST15A |
| 2 | No | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

ST150A When did this decrease occur?

| | | |
|-----------|---------------|-------|
| 77 | Record Answer | ST15B |
| 88 | Refused | ST15B |
| 99 | Don't know | ST15B |

ST15B Do you believe that the decrease in production is associated with the ongoing recession?

| | | |
|-----------|------------|-------|
| 1 | Yes | ST15C |
| 2 | No | ST15C |
| 88 | Refused | ST15C |
| 99 | Don't know | ST15C |

ST15C When do you believe that your company will experience an increase in production?

| | | |
|-----------|---------------|-----|
| 77 | Record Answer | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

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STEAM TRAP BATTERY

if &STEAMTRAP = 1

In the next section we'll be discussing the steam traps present at your facility.

Did the steam traps installed under the &Program represent the installation of new traps where there previously were no traps or were the steam traps used for the replacement of existing traps?

ST1_1

| | | |
|-----------|--------------------------------------|------|
| 1 | Replacement of existing traps | ST3a |
| 2 | New traps, not replacements | ST3a |
| 3 | Some new traps and some replacements | ST2 |
| 88 | Refused | ST3a |
| 99 | Don't know | ST3a |

ST2 How many of the traps installed under the &Program were replacement traps?

| | | |
|-----------|---------------|------|
| # | Record Number | ST3a |
| 88 | Refused | ST3a |
| 99 | Don't know | ST3a |

ST3a How many steam traps are located at your facility?

| | | |
|-----------|------------------------------|-------|
| # | Total number of steam traps: | ST3aa |
| 88 | Refused | ST3aa |
| 99 | Don't know | ST3aa |

ST3aa Do you have high pressure traps at your facility?

| | | |
|-----------|------------|--------|
| 1 | Yes | ST3aaa |
| 2 | No | ST300 |
| 88 | Refused | ST300 |
| 99 | Don't know | ST300 |

ST3aaa How many of the traps at your facility are high pressure traps?

| | | |
|-----------|-------------------------------------------------------------------------------|-------|
| # | Number of high pressure traps | ST3b |
| 2 | Don't know the number of high pressure traps, but we have high pressure traps | ST30 |
| 3 | No high pressure traps | ST300 |
| 88 | Refused | ST300 |
| 99 | Don't know if I have any | ST30 |

ST30 Can you provide a range of the possible number of high pressure traps at your facility? Would you say....

| | | |
|-----------|----------------|------|
| 1 | 0-10 traps | ST3b |
| 2 | 11-20 traps | ST3b |
| 3 | 21-30 traps | ST3b |
| 4 | 31-40 traps | ST3b |
| 5 | 41-50 traps | ST3b |
| 6 | 51-75 traps | ST3b |
| 7 | 76-100 traps | ST3b |
| 8 | 101-200 traps | ST3b |
| 9 | over 200 traps | ST3b |
| 88 | Refused | ST3b |
| 99 | Don't know | ST3b |

ST3b What percentage of the high pressure steam traps at your facility were replaced at this time?

| | | |
|------------|-------------------------------------|-------|
| % | Percentage of steam traps replaced. | ST3bb |
| 101 | Refused | ST3bb |
| 102 | Don't know | ST3bb |

ST3bb What are the average weekly hours of operation for your high pressure steam traps?

| | | |
|------------|---------------|--------|
| Hrs | Average hours | ST3000 |
| 88 | Refused | ST3000 |
| 99 | Don't know | ST3000 |

ST3000 Do you have low pressure traps at your facility?

| | | |
|-----------|------------|-------|
| 1 | Yes | ST300 |
| 2 | No | ST40 |
| 88 | Refused | ST40 |
| 99 | Don't know | ST40 |

ST300 How many of the traps at your facility are low pressure traps?

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| | | |
|----|-----------------------------------------------------------------------------|-------|
| # | Number of low pressure traps | ST3d |
| 2 | Don't know the number of low pressure traps, but we have low pressure traps | ST301 |
| 3 | No low pressure traps | ST40 |
| 88 | Refused | ST40 |
| 99 | Don't know | ST301 |

ST301 Can you provide a range of the possible number of low pressure traps at your facility? Would you say....

| | | |
|----|----------------|------|
| 1 | 0-10 traps | ST3d |
| 2 | 11-20 traps | ST3d |
| 3 | 21-30 traps | ST3d |
| 4 | 31-40 traps | ST3d |
| 5 | 41-50 traps | ST3d |
| 6 | 51-75 traps | ST3d |
| 7 | 76-100 traps | ST3d |
| 8 | 101-200 traps | ST3d |
| 9 | over 200 traps | ST3d |
| 88 | Refused | ST40 |
| 99 | Don't know | ST40 |

ST3d What percentage of the low pressure steam traps at your facility were replaced through the program?

| | | |
|-----|-------------------------------------|-------|
| % | Percentage of steam traps replaced. | ST3dd |
| 101 | Refused | ST3dd |
| 102 | Don't know | ST3dd |

ST3dd How many hours a week on average do you operate your low pressure steam traps?

| | | |
|-----|---------------|------|
| Hrs | Average hours | ST40 |
| 88 | Refused | ST40 |
| 99 | Don't know | ST40 |

ST40 What led you to replace the steam traps? (Permit more than one answer.)

| | | |
|----|--------------------------------------------------------------------|-----|
| 1 | Replaced old steam traps because system efficiency had diminished. | ST5 |
| 2 | Installed new steam traps to improve system efficiency. | ST5 |
| 3 | Wanted to save on our energy bill. | ST5 |
| 4 | Traps had failed | ST5 |
| 5 | Traps had failed open | ST5 |
| 6 | Traps were leaking | ST5 |
| 7 | Traps had failed shut | ST5 |
| 8 | Regular maintenance | ST5 |
| 9 | Other (record verbatim) | ST5 |
| 88 | Refused | ST5 |
| 99 | Don't know | ST5 |

ST5 Whose idea was it to replace the steam traps?

| | | |
|----|-------------------------------|-----|
| 1 | Me or someone at my facility. | ST6 |
| 2 | Contractor. | ST6 |
| 3 | Utility company contact. | ST6 |
| 4 | Manufacturer. | ST6 |
| 77 | Other (specify) | ST6 |
| 88 | Refused | ST6 |
| 99 | Don't know | ST6 |

ST6 Do you regularly consult with a contractor concerning the steam traps for your location(s) in California?

| | | |
|----|------------|------|
| 1 | Yes | ST6a |
| 2 | No | ST7 |
| 88 | Refused | ST7 |
| 99 | Don't know | ST7 |

ST7_N Do you have a regular maintenance program for your steam traps at your locations in California?

| | | |
|----|------------|------|
| 1 | Yes | ST70 |
| 2 | No | ST90 |
| 88 | Refused | ST90 |
| 99 | Don't know | ST90 |

ST70a What percentage of your traps do you survey during your regular maintenance program?

| | | |
|-----|-------------------|---------|
| % | Record percentage | ST DIAG |
| 101 | Refused | ST DIAG |
| 102 | Don't know | ST DIAG |

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ST_DIAG Does your maintenance survey include diagnostic testing to determine if the steam traps needed replacement?

| | | |
|----|------------|----------|
| 1 | Yes | ST_DIAG2 |
| 2 | No | ST_DIAG2 |
| 88 | Refused | ST_DIAG2 |
| 99 | Don't know | ST_DIAG2 |

ST_DIAG2 Who conducted this diagnostic testing for steam traps at this facility?

| | | |
|----|------------|-------|
| 1 | Utility | ST70b |
| 2 | A Vendor | ST70b |
| 3 | In House | ST70b |
| 77 | Other | ST70b |
| 88 | Refused | ST70b |
| 99 | Don't know | ST70b |

ST70E How often do you perform these maintenance surveys?

| | | |
|---------------|------------------------|--------|
| Record | (record in # of years) | ST70EE |
| 77 | Other | ST70EE |
| 88 | Refused | ST70c |
| 99 | Don't know | ST70c |

ST70EE When was the survey of steam traps last completed at your locations in California?

| | | |
|---------------|------------------------|-------|
| Record | (record in # of years) | ST70c |
| 77 | Other | ST70c |
| 88 | Refused | ST70c |
| 99 | Don't know | ST70c |

ST70c During your regular maintenance cycles, what is the average percentage of traps that typically need to be replaced?

| | | |
|-----|-------------------|------|
| % | Record percentage | ST7b |
| 101 | Refused | ST7b |
| 102 | Don't know | ST7b |

What percentage of the steam traps that were replaced under the &Program were identified as needing replacement during your maintenance?

| | | |
|-----|-------------------|------|
| % | Record percentage | ST7b |
| 101 | Refused | ST7b |
| 102 | Don't know | ST7b |

NOTE: IF ASK ST7b, REMIND RESPONDENT THAT THE SET OF QUESTIONS FROM ST7b TO ST90 ARE FOR STEAM TRAPS AT LOCATIONS OUTSIDE CALIFORNIA

Ask if FM050c = 1,2 else skip to ST90

ST6a_N Do you regularly consult with a contractor concerning the steam traps for your location(s) outside California?

| | | |
|----|------------|-----|
| 1 | Yes | ST7 |
| 2 | No | ST7 |
| 88 | Refused | ST7 |
| 99 | Don't know | ST7 |

ST7b Do you have a regular maintenance program for your steam traps at your locations outside California?

| | | |
|----|------------|------|
| 1 | Yes | ST7c |
| 2 | No | ST90 |
| 88 | Refused | ST90 |
| 99 | Don't know | ST90 |

ST7A What percentage of your traps do you survey during your regular maintenance program?

| | | |
|-----|-------------------|-------|
| % | Record percentage | ST7ee |
| 101 | Refused | ST7ee |
| 102 | Don't know | ST7ee |

ST7EE When did you last perform a replacement survey for your locations OUTSIDE California for repairs or retrofit?

| | | |
|---------------|------------------------|------|
| Record | (record in # of years) | ST7C |
| 77 | Other | ST7C |
| 88 | Refused | ST7C |
| 99 | Don't know | ST7C |

ST7C During your regular maintenance cycles, what is the average percentage of traps that typically need to be replaced?

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| | | |
|-----|---------------------|------|
| | % Record percentage | ST90 |
| 101 | Refused | ST90 |
| 102 | Don't know | ST90 |

Now getting back to the steam traps that were replaced through the program

ST5B What percentage of your steam traps were NOT in good condition prior to replacement?

| | | |
|-----|--------------|-------|
| | % Percentage | ST90a |
| 101 | Refused | ST90a |
| 102 | Don't Know | ST90a |

ASK IF RESPONSE TO ST90 > 0 ELSE SKIP TO ST9b.

Prior to their replacement, how long had the steam traps been in fair or poor condition? If more than 1 answer, record the

ST6A longest period of time. {Push for best estimate}

| | | |
|----|---------------------------------------------|-------|
| 1 | 1-2 months | ST9aa |
| 2 | 3-4 months | ST9aa |
| 3 | 5-6 months | ST9aa |
| 4 | 7-8 months | ST9aa |
| 5 | 9-10 months | ST9aa |
| 6 | 11-12 months | ST9aa |
| 7 | Less than 1 1/2 years but more than 1 year | ST9aa |
| 8 | Less than 2 years but more than 1 1/2 years | ST9aa |
| 9 | More than 2 years | ST9aa |
| 88 | Refused | ST9aa |
| 99 | Don't know | ST9aa |

If ST7 = 1 and ST90 > 0

Given that you have a regular maintenance program for your steam traps, when would the traps that were in fair or poor condition have been replaced as part of your regular maintenance program if there were no &Program? Would you say

ST9aa they would have been replaced..

| | | |
|----|-------------------------------|------|
| 1 | Earlier than they were. | ST12 |
| 2 | At the same time. | ST9b |
| 3 | Later than they were replaced | ST11 |
| 88 | Refused | ST9b |
| 99 | Don't know | ST9b |

ST11_N How much later would they have been replaced under your regular maintenance program?

| | | |
|----|------------|------|
| 77 | Record | ST9b |
| 88 | Refused | ST9b |
| 99 | Don't know | ST9b |

ST12_N How much earlier would they have been replaced under your regular maintenance program?

| | | |
|----|------------|------|
| 77 | Record | ST9b |
| 88 | Refused | ST9b |
| 99 | Don't know | ST9b |

ST6b Were any of the replaced traps in good condition?

| | | |
|----|------------|------|
| 1 | Yes | ST9d |
| 2 | No | ST9c |
| 88 | Refused | ST20 |
| 99 | Don't know | ST20 |

ST6BPCT What share of the replaced traps were in good condition prior to replacement?

| | | |
|----|--------------|------|
| | % Percentage | ST9d |
| 88 | Refused | ST20 |
| 99 | Don't know | ST20 |

ST9dd Why were traps replaced that were in good condition?

| | | |
|----|-----------------|------|
| 77 | Record verbatim | ST20 |
| 88 | Refused | ST20 |
| 99 | Don't know | ST20 |

ST20 Did you receive an incentive for a previous installation of steam traps? If so, please describe the approximate timing and the name of the program that provided it.

| | | |
|----|------------|-------|
| 1 | Yes | ST20a |
| 2 | No | PI3a |
| 88 | Refused | PI3a |
| 99 | Don't know | PI3a |

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ST20a What was the name of the program that provided this incentive?

| | | |
|----|-----------------|-------|
| 77 | Record verbatim | ST20b |
| 88 | Refused | ST20b |
| 99 | Don't know | ST20b |

ST20b About when was this previous steam trap installation done?

| | | |
|----|-----------------|------|
| 77 | Record verbatim | PI3a |
| 88 | Refused | PI3a |
| 99 | Don't know | PI3a |

PIPE INSULATION BATTERY

if &PipeInsulation = 1

In the next section we'll be discussing the pipe insulation present at your facility.

PI3a How much linear feet of pipe insulation is present at your facility?

| | | |
|----|---------------------------------------|------|
| # | Total linear feet of pipe insulation: | PI7 |
| 88 | Refused | PI3b |
| 99 | Don't know | PI3b |

ASK IF P13a = 88,99

PI3b Can you estimate what percent of the pipes present at your facility were insulated through the &PROGRAM?

| | | |
|-----|-----------------------------------------|-----|
| % | Percentage of pipe insulation replaced: | PI7 |
| 101 | Refused | PI7 |
| 102 | Don't know | PI7 |

PI7 Was the pipe insulation installed on new pipes or was it a retrofit of older pipes?

| | | |
|----|--------------------|------|
| 1 | ONLY NEW | PI7b |
| 2 | ONLY OLDER | PI7b |
| 3 | BOTH NEW AND OLDER | PI7a |
| 88 | Refused | PI8 |
| 99 | Don't know | PI8 |

ASK If PI7 = 3, else skip to PI7b

PI7a What percentage of the pipe insulation was installed on new pipes (prompt for bePI answer)?

| | | |
|-----|-------------------|------|
| % | Record Percentage | PI7b |
| 101 | Refused | PI7b |
| 102 | Don't know | PI7b |

PI7b How old were the pipes receiving the pipe insulation?

| | | |
|----|------------------------|-----|
| # | (record in # of years) | PI8 |
| 88 | Refused | PI8 |
| 99 | Don't know | PI8 |

ASK IF PI7 ne 1; else skip to P25

PI18 Was insulation already present on the pipes before the insulation was installed through the &PROGRAM program?

| | | |
|----|------------|------|
| 1 | Yes | PI21 |
| 2 | No | PI25 |
| 88 | Refused | PI25 |
| 99 | Don't know | PI25 |

PI21 Was the existing insulation removed and replaced, or was additional insulation added to existing insulation?

| | | |
|----|-------------------------------------------------|------|
| 1 | old insulation removed and replaced | PI23 |
| 2 | Additional insulation added over old insulation | PI23 |
| 88 | Refused | PI23 |
| 99 | Don't know | PI23 |

PI23 What condition was your pipe insulation in at the time of the replacement?

| | | |
|----|------------|------|
| 1 | Good | PI25 |
| 2 | Fair | PI25 |
| 3 | Poor | PI25 |
| 88 | Refused | PI25 |
| 99 | Don't know | PI25 |

ASK ALL

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PI25 Are boilers present at your facility?

| | | |
|-----------|------------|------|
| 1 | Yes | PI27 |
| 2 | No | PI27 |
| 88 | Refused | PI27 |
| 99 | Don't know | PI27 |

PI27 Since the pipe insulation was installed, have the boilers been repaired or replaced?

| | | |
|-----------|------------|------|
| 1 | Yes | PI29 |
| 2 | No | PI33 |
| 88 | Refused | PI33 |
| 99 | Don't know | PI33 |

PI29 When was the most recent boiler repair or replacement?

| | | |
|-----------|--------------------------------|------|
| 77 | Record DATE or # of months ago | PI33 |
| 88 | Refused | PI33 |
| 99 | Don't know | PI33 |

PI33 Whose idea was it to install new pipe insulation?

| | | |
|-----------|-------------------------------|------|
| 1 | Me or someone at my facility. | PI35 |
| 2 | Contractor. | PI35 |
| 3 | Utility company contact. | PI35 |
| 4 | Manufacturer. | PI35 |
| 77 | Other (specify) | PI35 |
| 88 | Refused | PI35 |
| 99 | Don't know | PI35 |

PI35 What percentage of the pipe insulation cost would you estimate the &Program rebate covered?

| | | |
|-----------|-------------------------------------------|------|
| 1 | Rebate covered all of the cost | PI37 |
| 2 | Rebate covered most of the cost | PI37 |
| 3 | Rebate covered less than half of the cost | PI37 |
| 4 | Other | PI37 |
| 88 | Refused | PI37 |
| 99 | Don't know | PI37 |

PI37 How effective was the new pipe insulation in reducing your natural gas bill? Would you say you are seeing...

| | | |
|-----------|--------------------------|------|
| 1 | Considerable gas savings | PI39 |
| 2 | Some gas savings | PI39 |
| 3 | No noticeable savings | PI39 |
| 88 | Refused | PI39 |
| 99 | Don't know | PI39 |

PI39 Have you noticed any problems with the pipe insulation since the installation?

| | | |
|-----------|------------|-----|
| 1 | Yes | A1b |
| 2 | No | A1b |
| 88 | Refused | A1b |
| 99 | Don't know | A1b |

UTILITY ASSISTANCE BATTERY

IF AUDIT == 1, THEN ASK,ELSE A1c

According to our records, your organization received additional non-rebated assistance from <%UTILITY>.

A1b Did your organization receive an AUDIT from <%UTILITY>?

| | | |
|-----------|------------|-----|
| 1 | Yes | A1c |
| 2 | No | A1c |
| 88 | Refused | A1c |
| 99 | Don't know | A1c |

A1c Did your organization receive any TECHNICAL ASSESMENT to help identify the need to replace or retrofit existing measures from <%UTILITY>?

| | | |
|-----------|------------|-----|
| 1 | Yes | A1d |
| 2 | No | A1d |
| 88 | Refused | A1d |
| 99 | Don't know | A1d |

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Did your organization receive a FEASIBILITY STUDY to analyze the energy and cost savings of &measure from

A1d <%UTILITY>?

| | | |
|-----------|------------|-----|
| 1 | Yes | A1e |
| 2 | No | A1e |
| 88 | Refused | A1e |
| 99 | Don't know | A1e |

A1e Did your organization receive RETROCOMMISSIONING services from <%UTILITY>?

| | | |
|-----------|------------|-----|
| 1 | Yes | A1f |
| 2 | No | A1f |
| 88 | Refused | A1f |
| 99 | Don't know | A1f |

IF PTRAIN == 1, THEN ASK, ELSE A1g

A1f Did your organization receive information from a <%UTILITY> seminar or training course?

| | | |
|-----------|------------|-------|
| 1 | Yes | ST_1H |
| 2 | No | ST_1H |
| 88 | Refused | ST_1H |
| 99 | Don't know | ST_1H |

VENDOR INFORMATION

[READ] For the sake of expediency, during the balance of the interview, we will be referring to the <%PROG_LONG> as the PROGRAM and we will be referring to the installation of ... <%MEASURE> as the MEASURE. I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.

[READ] I would like to get some information on the VENDORS that may have helped you acquire or install this equipment. As part of this study, we will be conducting a separate interview with these vendors.

We show ...

! VENDOR NAME... <%VEND1NAME>

! VENDOR PHONE...<%V1PHONE>

First lets talk about the EQUIPMENT SUPPLIER/INSTALLER Vendor. . . .

ST_1H According to our records, you purchased your steam traps from <%ST_NAME>. Is this correct?

| | | |
|-----------|------------|---------|
| 1 | Yes | PI_1H |
| 2 | No | ST_1H_A |
| 88 | Refused | PI_1H |
| 99 | Don't know | PI_1H |

ST_1H_A From whom did you purchase your steam traps?

| | | |
|-----------|----------------------------------|---------|
| 1 | 25 Plumbing heating and ac | ST_1H_B |
| 2 | Advanced Engineering Prods | ST_1H_B |
| 3 | Advanced Sealing & Supply | ST_1H_B |
| 4 | ALPI Industrial Supply | ST_1H_B |
| 5 | Anderson Systems | ST_1H_B |
| 6 | Armstrong World Industries | ST_1H_B |
| 7 | Assoc Flow Controls | ST_1H_B |
| 8 | Bakersfield Pipe & Supply | ST_1H_B |
| 9 | Bell Pipe & Supply | ST_1H_B |
| 10 | Birmingham Controls | ST_1H_B |
| 11 | CalPacific Equipment | ST_1H_B |
| 12 | Caltrol Inc | ST_1H_B |
| 13 | Cleaners Supply | ST_1H_B |
| 14 | Consolidated International Corp | ST_1H_B |
| 15 | Consumer Pipe & Supply | ST_1H_B |
| 16 | Donahue and Assoc | ST_1H_B |
| 17 | Donates Boiler Corp | ST_1H_B |
| 18 | Edmond Engineering | ST_1H_B |
| 19 | Fluid Gauge Co | ST_1H_B |
| 20 | Fresno Pipe & Supply | ST_1H_B |
| 21 | Grainger | ST_1H_B |
| 22 | HM Craig Metal | ST_1H_B |
| 23 | Hi Tech Industrial | ST_1H_B |
| 24 | International Medication Systems | ST_1H_B |

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| | | |
|----|---------------------------------|---------|
| 25 | Jack Mills | ST 1H B |
| 26 | Jason Gusman | ST 1H B |
| 27 | John H Coon | ST 1H B |
| 28 | JR Supply Co | ST 1H B |
| 29 | JW Wood Co | ST 1H B |
| 30 | K & K Specialties | ST 1H B |
| 31 | Kerco Inc | ST 1H B |
| 32 | Kings Construction | ST 1H B |
| 33 | Kleen Kraft Serv | ST 1H B |
| 34 | Los Angeles Pipe & Supply | ST 1H B |
| 35 | MCG Boilers | ST 1H B |
| 36 | McJunkin Redman Co | ST 1H B |
| 37 | McKenna Boiler Works | ST 1H B |
| 38 | McMaster Carr | ST 1H B |
| 39 | Mead OBrien | ST 1H B |
| 40 | Neal Supply Co | ST 1H B |
| 41 | Norman S Wright Co | ST 1H B |
| 42 | Onsite Energy | ST 1H B |
| 43 | Pacific Molded Tech | ST 1H B |
| 44 | Pacmech | ST 1H B |
| 45 | Pan Pacific Supply | ST 1H B |
| 46 | Paramount Supply | ST 1H B |
| 47 | Parker Industrial Boiler | ST 1H B |
| 48 | Parker Supply Co | ST 1H B |
| 49 | Parks Cleaners Service | ST 1H B |
| 50 | Quality Plumbing | ST 1H B |
| 51 | Richard Garr Mechanical Service | ST 1H B |
| 52 | Rick Refrigeration & Heating | ST 1H B |
| 53 | SK Technology | ST 1H B |
| 54 | Smock and Schonthaler | ST 1H B |
| 55 | Southern California Boiler | ST 1H B |
| 56 | Southwest Laundry Equip | ST 1H B |
| 57 | Spirax Sarco | ST 1H B |
| 58 | SR&B Boilers | ST 1H B |
| 59 | Stainless Distributors | ST 1H B |
| 60 | Teds Industrial Insulation | ST 1H B |
| 61 | Temper Insulation Co | ST 1H B |
| 62 | The Cleaners Mart | ST 1H B |
| 63 | United Cleaners Supply Inc | ST 1H B |
| 64 | United Fabricare Supply | ST 1H B |
| 65 | Warden | ST 1H B |
| 66 | West Coast Industrial Supply | ST 1H B |
| 67 | WSI Distributors | ST 1H B |
| 77 | Other - Record Vendor Name | ST 1H B |
| 88 | Refused | PI 1H |
| 99 | Don't know | PI 1H |

ST_1H_B Do you have a contact name?

| | | |
|----|---------------------|-------|
| 77 | RECORD CONTACT NAME | PI 1H |
|----|---------------------|-------|

PI_1H According to our records, you purchased your pipe insulation from <%PI_NAME>. Is this correct?

| | | |
|----|------------|---------|
| 1 | Yes | A1i |
| 2 | No | PI 1H A |
| 88 | Refused | A1i |
| 99 | Don't know | A1i |

PI_1H_A From whom did you purchase your pipe insulation?

| | | |
|----|------------------------|---------|
| 1 | AIPI Industrial Supply | PI 1H B |
| 2 | Cal Therm corp | PI 1H B |
| 3 | Cleaners Supply | PI 1H B |
| 4 | Crown Cleaners | PI 1H B |
| 5 | CSCI Insulation of LA | PI 1H B |
| 6 | DAHL Air Cond | PI 1H B |
| 7 | Everbloom | PI 1H B |
| 8 | Georges Equip | PI 1H B |
| 9 | GNS Engineering | PI 1H B |
| 10 | Grolink Plant Co | PI 1H B |

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| | | |
|----|-------------------------------------|---------|
| 11 | Horticultural Labor Serv | PI 1H B |
| 12 | Kerco | PI 1H B |
| 13 | Kleen Kraft Serv | PI 1H B |
| 14 | Luxary Cleaning | PI 1H B |
| 15 | MDH Burner & Boiler co | PI 1H B |
| 16 | MW Equipment | PI 1H B |
| 17 | N Channel America | PI 1H B |
| 18 | NP Services | PI 1H B |
| 19 | Pacific Industrial | PI 1H B |
| 20 | Pacific Insulation Co | PI 1H B |
| 21 | Perker Supply Co | PI 1H B |
| 22 | Parks Cleaners Serv | PI 1H B |
| 23 | Pertor Boiler Serv | PI 1H B |
| 24 | Petrochem | PI 1H B |
| 25 | Plumbing & Industrial Supply | PI 1H B |
| 26 | Ricks Refrigeration & Heating | PI 1H B |
| 27 | Ricks Refrigeration & Heating | PI 1H B |
| 28 | Superior Boiler Repairs | PI 1H B |
| 29 | Superior Insulation | PI 1H B |
| 30 | System USA | PI 1H B |
| 31 | The Cleaners Mart | PI 1H B |
| 32 | Thermo Power Industries | PI 1H B |
| 33 | Trinity Process | PI 1H B |
| 34 | Tuscan Construction | PI 1H B |
| 35 | United Fabricare Supply | PI 1H B |
| 36 | Warden | PI 1H B |
| 37 | WSI Distributors | PI 1H B |
| 77 | RECORD VENDOR NAME AND PHONE NUMBER | A1i |
| 88 | Refused | A1i |
| 99 | Don't know | A1i |

PI_1H_B Do you have a contact name?

| | | |
|----|---------------------|-----|
| 77 | RECORD CONTACT NAME | A1i |
|----|---------------------|-----|

A1i Did you also use a CONSULTING Engineer?

| | | |
|----|------------|------|
| 1 | Yes | A1i1 |
| 2 | No | N33 |
| 88 | Refused | N33 |
| 99 | Don't know | N33 |

IF A1i=1, THEN ASK:

A1i_a Do you have a contact name?

| | | |
|----|----------------------------------------------------------|-----|
| 77 | RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION | N33 |
| 88 | Refused | N33 |
| 99 | Don't know | N33 |

N33 We do not have the name of your ACCOUNT REP at <%UTILITY>. Can you give me his/her name?

| | | |
|----|------------|------|
| 1 | Yes | A1i1 |
| 2 | No | N33 |
| 88 | Refused | N33 |
| 99 | Don't know | N33 |

N33Name May I have their name?

| | | |
|----|------------------------------------------------------------------|-----|
| 77 | RECORD REPRESENTATIVE NAME, PHONE NUMBER AND CONTACT INFORMATION | N33 |
| 88 | Refused | N33 |
| 99 | Don't know | N33 |

Thanks for helping us with this vendor information. Below, I am going to ask some questions about the implementation of the measure that you installed through the program. Should you remember any vendor information later on, please feel free to volunteer this information at that time, I can record vendor information at any time.

WARM-UP QUESTIONS FOR NTG BATTERY

AP9 How did you FIRST learn about the &UTILITYs &PROGRAM? [DO NOT READ]

| | | |
|---|------------------------------------------------------------------------------|-----|
| 1 | Utility provided advertising--radio, newspaper, trade journal, billboard, TV | A2a |
| 2 | Bill insert, newsletter, or other mailing from utility | A2a |

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| | | |
|----|--------------------------------------------------------------------------------------------|--------|
| 3 | Utility Website | A2a |
| 4 | Email from Utility | A2a |
| 5 | Other utility source (SPECIFY) | A9 5 |
| 6 | Local government, community or nonprofit meeting, event, workshop or training (SPECIFY) | A9 6a |
| 7 | Local government/community agency (SPECIFY) | A9 7a |
| 8 | Local government, community, or nonprofit advertising- radio, newspaper, trade journal, TV | A2a |
| 9 | School, classes, energy center (SPECIFY) | A9 9a |
| 10 | Building audit or assessment (SPECIFY) | A9 10a |
| 11 | Flex your Power TV or radio advertising | A2a |
| 12 | Other meeting, event or workshop training (SPECIFY) | A9 12a |
| 13 | Other advertising | A2a |
| 14 | Word of mouth: Friend/Relative/Neighbor/Co-worker | A2a |
| 15 | Contractor | A2a |
| 66 | No other sources | A2a |
| 77 | Other (SPECIFY) | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 5

AP9_5 What was that other utility source?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
|----|-----------------|-----|

If AP9 = 6

AP9_6a What was that other local government event?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
|----|-----------------|-----|

If AP9 = 7

AP9_7a What was the name of this local government agency you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
|----|-----------------|-----|

If AP9 = 9

AP9_9a What was the name of the schools or training centers that you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
|----|-----------------|-----|

If AP9 = 10

AP9_10a What program was the building audit or assessment completed under?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
|----|-----------------|-----|

If AP9 = 11

AP9_12a What was the name of the other meetings you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
|----|-----------------|-----|

A2a How did you first become aware that &MEASURE was rebated through &Program?

| | | |
|----|------------------------------------|----|
| 1 | Bill insert | A2 |
| 2 | Program Literature | A2 |
| 3 | Account representative | A2 |
| 4 | Program provided vendor | A2 |
| 5 | Program representative | A2 |
| 6 | Utility or program website | A2 |
| 7 | Trade publication | A2 |
| 8 | Conference | A2 |
| 9 | Newspaper article | A2 |
| 10 | Word of mouth | A2 |
| 11 | Previous experience with it | A2 |
| 12 | Company used it at other locations | A2 |
| 13 | Contractor | A2 |
| 77 | Other (RECORD VERBATIM) | A2 |
| 88 | Refused | A2 |
| 99 | Don't know | A2 |

A2 In your own words, can you tell me why you decided to implement this &MEASURE?

| | | |
|----|-----------------|----|
| 77 | RECORD VERBATIM | N1 |
| 88 | Refused | N1 |
| 99 | Don't know | N1 |

STEAM TRAP NTG QUESTIONS

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When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about implementing
N1_ST &MEASURE?

| | | |
|-----------|------------|--------|
| 1 | Before | N3a_ST |
| 2 | After | N2_ST |
| 3 | During | N2_ST |
| 88 | Refused | N2_ST |
| 99 | Don't know | N2_ST |

N2_ST Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the &MEASURE that was installed?

| | | |
|-----------|------------|--------|
| 1 | Before | N3a_ST |
| 2 | After | N3a_ST |
| 3 | During | N3a_ST |
| 88 | Refused | N3a_ST |
| 99 | Don't know | N3a_ST |

Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important, so that an importance rating of 8 shows twice as much influence as a rating of 4. Now using this scale please rate the importance of each of the following in your decision to implement the MEASURE at this time.

N3a_ST The age or condition of the old equipment

| | | |
|-----------|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3b_ST |
| 88 | Refused | N3b_ST |
| 99 | Don't know | N3b_ST |

N3b_ST Availability of the PROGRAM rebate

| | | |
|-----------|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3BWHY_ST |
| 88 | Refused | N3c_ST |
| 99 | Don't know | N3c_ST |

IF N3b > 7, THEN ASK N3WHY, ELSE SKIP TO N3c

N3BWHY_ST Why would you give it this rating?

| | | |
|-----------|-----------------|--------|
| 77 | Record VERBATIM | N3c_ST |
| 88 | Refused | N3c_ST |
| 99 | Don't know | N3c_ST |

IF &AUDIT=1 THEN ASK N3c, ELSE N3d

Information provided through...!_<(FEAS_STUDY == 1)/ The Feasibility study/> !_<(AUDIT == 1)/The Facility or

N3c_ST System AUDIT/> !_<(AUDIT == 1)/The Facility or System AUDIT/>

| | | |
|-----------|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3CWHY_ST |
| 88 | Refused | N3d_ST |
| 99 | Don't know | N3d_ST |

IF N3c > 7, THEN ASK

N3CWHY_ST Why would you give it this rating?

| | | |
|-----------|-----------------|--------|
| 77 | Record VERBATIM | N3d_ST |
| 88 | Refused | N3d_ST |
| 99 | Don't know | N3d_ST |

N3d_ST Recommendation from an equipment vendor that sold you &MEASURE and/or installed it [VENDOR_1]

| | | |
|-----------|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3e_ST |
| 88 | Refused | N3e_ST |
| 99 | Don't know | N3e_ST |

N3e_ST Previous experience with this &MEASURE?

| | | |
|-----------|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3f_ST |
| 88 | Refused | N3f_ST |
| 99 | Don't know | N3f_ST |

N3f_ST Previous experience with the utility &PROGRAM or a similar utility program?

| | | |
|-----------|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3g_ST |
| 88 | Refused | N3g_ST |
| 99 | Don't know | N3g_ST |

IF &PTRAIN=1 THEN ASK N3g, ELSE N3i

N3g_ST Information from &PROGRAM or &UTILITY training course or marketing material?

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| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | N3WHY_ST |
| 88 | Refused | N3h_ST |
| 99 | Don't know | N3h_ST |

N3GWHY_ST Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3i_ST |
| 88 | Refused | N3i_ST |
| 99 | Don't know | N3i_ST |

IF VENDOR2 NE.0, THEN ASK

N3i_ST A recommendation from a consulting engineer [VENDOR_2]

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3j_ST |
| 88 | Refused | N3j_ST |
| 99 | Don't know | N3j_ST |

N3j_ST Standard practice in your business/industry

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3k_ST |
| 88 | Refused | N3k_ST |
| 99 | Don't know | N3k_ST |

N3l_ST Endorsement or recommendation by an ACCT REP

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3LWHY_ST |
| 88 | Refused | N3m_ST |
| 99 | Don't know | N3m_ST |

N3LWHY_ST Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3m_ST |
| 88 | Refused | N3m_ST |
| 99 | Don't know | N3m_ST |

N3m_ST Corporate policy or guidelines

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3n_ST |
| 88 | Refused | N3n_ST |
| 99 | Don't know | N3n_ST |

N3n_ST Payback on the investment

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3o_ST |
| 88 | Refused | N3o_ST |
| 99 | Don't know | N3o_ST |

N3o_ST Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N3oo_ST |
| 88 | Refused | N3oo_ST |
| 99 | Don't know | N3oo_ST |

N3o_ten_ST Using the same zero to 10 scale, how would you rate the influence of this factor?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N41_ST |
| 88 | Refused | N41_ST |
| 99 | Don't know | N41_ST |

Next, I would like you to rate the importance of the PROGRAM in your decision to implement this MEASURE as opposed to other factors that may have influenced your decision such as...(SCAN BELOW AND READ TO THEM THOSE ITEMS WHERE THEY GAVE A RATING OF 8 or higher)

- ! <%N3A> Age or condition of old equipment,
- ! <%N3D> Equipment Vendor recommendation
- ! <%N3E> Previous experience with this measure
- ! <%N3F> Previous experience with this program
- ! <%N3I> Recommendation from a design or consulting engineer
- ! <%N3J> Standard practice in your business/industry
- ! <%N3M> Corporate policy or guidelines
- ! <%N3N> Payback on investment.

If you were given 10 points to award in total, how many points would give to the importance of the program and how many points would you give to these other factors?

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N41_ST How many of the ten points would you give to the importance of the PROGRAM in your decision?

| | | |
|----|--------------------------|--------|
| # | Record 0 to 10 score () | N42_ST |
| 88 | Refused | N42_ST |
| 99 | Don't know | N42_ST |

N42_ST and how many points would you give to these other factors?

| | | |
|----|--------------------------|---------|
| # | Record 0 to 10 score () | N41a_ST |
| 88 | Refused | N41a_ST |
| 99 | Don't know | N41a_ST |

__ We want these two sets of numbers to equal 10.
! <%N41> for Program influence and
! <%N42> for Non Program factors

CONSISTENCY CHECK ON PGM IMPORTANCE SCORE

IF N41 &PROGRAM>6 AND N3b, N3c, N3g, N3k AND N3l ALL<4, THEN ASK N41a. ELSE IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3l>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were not that important to you. Just to make sure I have recorded this properly, may I please take a second to review?

N41a_ST

IF N3b<4, THEN ASK

When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was not that important to you. Can you tell me why the rebate was not that important?

N3B_REDO_ST

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3C_REDO_ST |
| 88 | Refused | N3C_REDO_ST |
| 99 | Don't know | N3C_REDO_ST |

IF N3c<4, THEN ASK

When I asked you about THE INFORMATION PROVIDED THROUGH

!! __ <(FEAS_STUDY == 1)/ The Feasibility study/>

! __ <(AUDIT == 1)/The Facility or System AUDIT/>

! __ <(TECH_ASST == 1)/The Technical Assistance/> !

you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was not that important to you. Can you tell me why the information provided was not that important?

N3C_REDO_ST

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3G_REDO_ST |
| 88 | Refused | N3G_REDO_ST |
| 99 | Don't know | N3G_REDO_ST |

IF N3g<4, THEN ASK

When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ...<%N3G> ... out of ten, indicating that the information from the program or utility training course was not that important to you. Can you tell me why this information was not that important?

N3G_REDO_ST

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3L_REDO_ST |
| 88 | Refused | N3L_REDO_ST |
| 99 | Don't know | N3L_REDO_ST |

IF N3l<4, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ...<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you. Can you tell me why this endorsement was not that important?

N3L_REDO_ST

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5_ST |
| 88 | Refused | N5_ST |
| 99 | Don't know | N5_ST |

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was not very important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were very important to you.

N41b_ST

IF N3b>7, THEN ASK

When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was quite important to you. Can you tell me why the rebate was that important?

N3BB_REDO_ST

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3CC_REDO_ST |
|----|-----------------|--------------|

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| | | |
|----|------------|--------------|
| 88 | Refused | N3CC REDO ST |
| 99 | Don't know | N3CC REDO ST |

IF N3c>7, THEN ASK

When asked about THE INFORMATION PROVIDED THROUGH

!!_<(FEAS_STUDY == 1)/ The Feasibility study/>

!_<(AUDIT == 1)/The Facility or System AUDIT/>

!_<(TECH_ASST == 1)/The Technical Assistance/> !

you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was quite important to you. Can you

N3CC_REDO_ST tell me why the information provided was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3GG REDO ST |
| 88 | Refused | N3GG REDO ST |
| 99 | Don't know | N3GG REDO ST |

IF N3g>7, THEN ASK

When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES or MARKETING

MATERIAL, you gave a rating of ..<%N3G> ... out of ten, indicating that the information from the program or utility training

N3GG_REDO_ST course was quite important to you. Can you tell me why this information was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3LL REDO ST |
| 88 | Refused | N3LL REDO ST |
| 99 | Don't know | N3LL REDO ST |

IF N3l>7, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>,

you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was quite important to you.

N3LL_REDO_ST Can you tell me why this endorsement was that important?

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5 ST |
| 88 | Refused | N5 ST |
| 99 | Don't know | N5 ST |

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the &PROGRAM had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not

N5_ST been available, what is the likelihood that you would have installed exactly the same equipment?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N5a ST |
| 88 | Refused | N6 ST |
| 99 | Don't know | N6 ST |

CONSISTENCY CHECKS

IF N3b>7 and N5>7, THEN ASK.

When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same equipment without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will

N5a_ST you explain in your own words, the role the rebate played in your decision to install this efficient equipment?

| | | |
|----|-----------------|------------|
| 77 | Record VERBATIM | N5Again_ST |
| 88 | Refused | N5Again_ST |
| 99 | Don't know | N5Again_ST |

Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same equipment without the rebate which you gave a rating of

N5Again_ST <%N5> and/or we can change both if you wish?

| | | |
|----|-----------------|-------|
| 1 | No change | N9 ST |
| 77 | Record VERBATIM | N9 ST |
| 88 | Refused | N9 ST |
| 99 | Don't know | N9 ST |

PROBE ON STANDARD PRACTICE if N3j>7, ELSE ASK N9

In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this MEASURE. Would you say the program was much more important, somewhat more

N5B_ST important, equally important, somewhat less important, or much less important than the standard practice or policy?

| | | |
|---|-------------------------|-------|
| 1 | Much more important | N9 ST |
| 2 | Somewhat more important | N9 ST |
| 3 | Equally important | N9 ST |
| 4 | Somewhat less important | N9 ST |

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| | | |
|----|---------------------|-------|
| 5 | Much less important | N9_ST |
| 88 | Refused | N9_ST |
| 99 | Don't know | N9_ST |

IF N5>0, THEN ASK.

You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same equipment if THE PROGRAM had not been available. When do you think you would have installed this

N9_ST equipment? Please express your answer in months.

| | | |
|----|-----------------------------|--------|
| 1 | At the same time | TD1_ST |
| 2 | Within 6 months? | TD1_ST |
| 3 | 6 months to 1 year | TD1_ST |
| 4 | 1 - 2 years | TD1_ST |
| 5 | 2 - 3 years | TD1_ST |
| 6 | 3 - 4 years | TD1_ST |
| 7 | 4 - 5 years | N9b_ST |
| 8 | 5 years or more | N9b_ST |
| 66 | Would not have installed it | TD1_ST |
| 88 | Refused | TD1_ST |
| 99 | Don't know | TD1_ST |

IF N9 >= 48 months OR N9a = 6, THEN ASK N9b, ELSE ASK N6

N9b_ST Why do you think it would have been 4 or more years later?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | TD1_ST |
| 88 | Refused | TD1_ST |
| 99 | Don't know | TD1_ST |

DEFERRED FREE RIDERSHIP FOLLOW-UP

You said that there was an <N5> in 10 likelihood that you would have installed the same equipment about <N9> months later (OR at the same time) if the PROGRAM had not been available. I'd like to ask a couple of questions to help us estimate at what point in the future you would definitely have installed new equipment. We understand that you can't know exactly when you would have done this, especially so far into the future. We're just trying to get a sense of how long you think the current equipment or process would have kept serving your company's needs before you had to or chose to

INTRO FOR BOTH TD1 and TD1a replace it.

If N9 or N9a ≤ 60 months, ask TD1, ELSE TD1A

So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that **TD1_ST** you would have installed the same equipment within 60 months, or 5 years, later if the program had not been available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | TD2_ST |
| 88 | Refused | TD1A_ST |
| 99 | Don't know | TD1A_ST |

IF TD1 < 10 ASK TD2, ELSE GO TO N5a

And what would you say is the likelihood that you would have installed the same equipment within 120 months, or 10 **TD2_ST** years, later if the program had not been available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | TD1A_ST |
| 88 | Refused | TD1A_ST |
| 99 | Don't know | TD1A_ST |

If N9 or N9a > 60 months, ask

Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been **TD1A_ST** available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N9bb_ST |
| 88 | Refused | N9bb_ST |
| 99 | Don't know | N9bb_ST |

CONSISTENCY CHECK ON AGE

IF (N3a > 6 AND N9 > =48 months) OR (N3a > 6 AND N9a = 6), THEN ASK N9bb, ELSE N6

Earlier when asked about the influence of the age/condition of the old equipment on your decision to install this new equipment, you gave me a rating of <%N3a> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the existing equipment played in **N9bb_ST** your decision to install this new energy-efficient equipment.

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N6_ST |
| 88 | Refused | N6_ST |
| 99 | Don't know | N6_ST |

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PARTIAL FREE RIDERSHIP

Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?

N6_ST been MOST likely to do?

| | | |
|----|------------------------------------------------|--------|
| 1 | Install fewer units | N6a_ST |
| 2 | Repaired or overhaul the existing equipment | N6c_ST |
| 3 | Do nothing (keep the existing equipment as is) | SPILL1 |
| 77 | Something else (specify what _____) | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

How many fewer units would you have installed? (It is okay to take an answer such as ...HALF...or 10 percent fewer ...
etc.)

N6a_ST

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Don't know | SPILL1 |
| 99 | Refused | SPILL1 |

N6c_ST How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

In regards to the pipe insulation, if the program had not been available. Supposing that you had not installed the program qualifying insulation, which of the following alternatives would you have been MOST likely to do? Would you have...

N6_JT qualifying insulation, which of the following alternatives would you have been MOST likely to do? Would you have...

| | | |
|----|-----------------------------------------------------|--------|
| 1 | Installed fewer linear feet of pipe insulating | N6a_JT |
| 2 | Installed insulation with a lower R value (thinner) | N6b_JT |
| 3 | Repaired or overhauled the existing equipment | N6c_JT |
| 4 | Do nothing (keep the existing equipment as is) | SPILL1 |
| 77 | Something else (specify what _____) | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6a_JT How many fewer linear feet of insulation would you have installed?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6b_JT Can you tell me what R value or insulation thickness you would have installed without assistance from the program?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6c_JT How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

PIPE INSULATION NTG QUESTIONS

When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about implementing

N1_PI &MEASURE?

| | | |
|----|------------|--------|
| 1 | Before | N3a_PI |
| 2 | After | N2_PI |
| 3 | During | N2_PI |
| 88 | Refused | N2_PI |
| 99 | Don't know | N2_PI |

N2_PI Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the &MEASURE that was installed?

| | | |
|----|------------|--------|
| 1 | Before | N3a_PI |
| 2 | After | N3a_PI |
| 3 | During | N3a_PI |
| 88 | Refused | N3a_PI |
| 99 | Don't know | N3a_PI |

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Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important, so that an importance rating of 8 shows twice as much influence as a rating of 4. Now using this scale please rate the importance of each of the following in your decision to implement the MEASURE at this time.

N3a_PI The age or condition of the old equipment

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3b_PI |
| 88 | Refused | N3b_PI |
| 99 | Don't know | N3b_PI |

N3b_PI Availability of the PROGRAM rebate

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3BWHY_PI |
| 88 | Refused | N3c_PI |
| 99 | Don't know | N3c_PI |

IF N3b > 7, THEN ASK N3BWHY, ELSE SKIP TO N3c

N3BWHY_PI Why would you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3c_PI |
| 88 | Refused | N3c_PI |
| 99 | Don't know | N3c_PI |

IF &AUDIT=1 THEN ASK N3c, ELSE N3d

Information provided through...!_<(FEAS_PIUDY == 1)/ The Feasibility study/> !_<(AUDIT == 1)/The Facility or

N3c_PI System AUDIT/> !_<(AUDIT == 1)/The Facility or System AUDIT/>

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3CWHY_PI |
| 88 | Refused | N3d_PI |
| 99 | Don't know | N3d_PI |

IF N3c > 7, THEN ASK

N3CWHY_PI Why would you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3d_PI |
| 88 | Refused | N3d_PI |
| 99 | Don't know | N3d_PI |

N3d_PI Recommendation from an equipment vendor that sold you &MEASURE and/or installed it [VENDOR_1]

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3e_PI |
| 88 | Refused | N3e_PI |
| 99 | Don't know | N3e_PI |

N3e_PI Previous experience with this &MEASURE?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3f_PI |
| 88 | Refused | N3f_PI |
| 99 | Don't know | N3f_PI |

N3f_PI Previous experience with the utility &PROGRAM or a similar utility program?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3g_PI |
| 88 | Refused | N3g_PI |
| 99 | Don't know | N3g_PI |

IF &PTRAIN=1 THEN ASK N3g, ELSE N3i

N3g_PI Information from &PROGRAM or &UTILITY training course or marketing material?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | N3WHY_PI |
| 88 | Refused | N3h_PI |
| 99 | Don't know | N3h_PI |

N3GWHY_PI Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3i_PI |
| 88 | Refused | N3i_PI |
| 99 | Don't know | N3i_PI |

IF VENDOR2 NE.0, THEN ASK

N3i_PI A recommendation from a consulting engineer [VENDOR_2]

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3j_PI |
| 88 | Refused | N3j_PI |
| 99 | Don't know | N3j_PI |

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N3j_PI Standard practice in your business/industry

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3k PI |
| 88 | Refused | N3k PI |
| 99 | Don't know | N3k PI |

N3l_PI Endorsement or recommendation by an ACCT REP

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3LWHY PI |
| 88 | Refused | N3m PI |
| 99 | Don't know | N3m PI |

N3LWHY_PI Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3m PI |
| 88 | Refused | N3m PI |
| 99 | Don't know | N3m PI |

N3m_PI Corporate policy or guidelines

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3n PI |
| 88 | Refused | N3n PI |
| 99 | Don't know | N3n PI |

N3n_PI Payback on the investment

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3o PI |
| 88 | Refused | N3o PI |
| 99 | Don't know | N3o PI |

N3o_PI Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N3oo PI |
| 88 | Refused | N3oo PI |
| 99 | Don't know | N3oo PI |

N3o_ten_PI Using the same zero to 10 scale, how would you rate the influence of this factor?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N41 PI |
| 88 | Refused | N41 PI |
| 99 | Don't know | N41 PI |

Next, I would like you to rate the importance of the PROGRAM in your decision to implement this MEASURE as opposed to other factors that may have influenced your decision such as...(SCAN BELOW AND READ TO THEM THOSE ITEMS WHERE THEY GAVE A RATING OF 8 or higher)

- ! <%N3A> Age or condition of old equipment,
- ! <%N3D> Equipment Vendor recommendation
- ! <%N3E> Previous experience with this measure
- ! <%N3F> Previous experience with this program
- ! <%N3I> Recommendation from a design or consulting engineer
- ! <%N3J> Standard practice in your business/industry
- ! <%N3M> Corporate policy or guidelines
- ! <%N3N> Payback on investment.

If you were given 10 points to award in total, how many points would give to the importance of the program and how many points would you give to these other factors?

N41_PI How many of the ten points would you give to the importance of the PROGRAM in your decision?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N42 PI |
| 88 | Refused | N42 PI |
| 99 | Don't know | N42 PI |

N42_PI and how many points would you give to these other factors?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N41a PI |
| 88 | Refused | N41a PI |
| 99 | Don't know | N41a PI |

__ We want these two sets of numbers to equal 10.

- ! <%N41> for Program influence and
- ! <%N42> for Non Program factors

CONSISTENCY CHECK ON PGM IMPORTANCE SCORE

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IF N41 &PROGRAM>6 AND N3b, N3c, N3g, N3k AND N3l ALL<4, THEN ASK N41a. ELSE IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3l>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were not that important to you.

N41a_PI Just to make sure I have recorded this properly, may I please take a second to review?

IF N3b<4, THEN ASK

When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten,

N3B_REDO_PI indicating that the program rebate was not that important to you. Can you tell me why the rebate was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3C REDO PI |
| 88 | Refused | N3C REDO PI |
| 99 | Don't know | N3C REDO PI |

IF N3c<4, THEN ASK

When I asked you about THE INFORMATION PROVIDED THROUGH

!!__<(FEAS_PIUDY == 1)/ The Feasibility study/>

!__<(AUDIT == 1)/The Facility or System AUDIT/>

!__<(TECH_ASST == 1)/The Technical Assistance/> !

you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was not that important to you. Can

N3C_REDO_PI you tell me why the information provided was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3G REDO PI |
| 88 | Refused | N3G REDO PI |
| 99 | Don't know | N3G REDO PI |

IF N3g<4, THEN ASK

When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ..<%N3G> ... out of ten, indicating that the information from the program or utility training course was not that important to you.

N3G_REDO_PI Can you tell me why this information was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3L REDO PI |
| 88 | Refused | N3L REDO PI |
| 99 | Don't know | N3L REDO PI |

IF N3l<4, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you.

N3L_REDO_PI Can you tell me why this endorsement was not that important?

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5 PI |
| 88 | Refused | N5 PI |
| 99 | Don't know | N5 PI |

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was not very important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were very important to you.

N41b_PI Just to make sure I have recorded this properly, may I please take a second to review.

IF N3b>7, THEN ASK

When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten,

N3BB_REDO_PI indicating that the program rebate was quite important to you. Can you tell me why the rebate was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3CC REDO PI |
| 88 | Refused | N3CC REDO PI |
| 99 | Don't know | N3CC REDO PI |

IF N3c>7, THEN ASK

When asked about THE INFORMATION PROVIDED THROUGH

!!__<(FEAS_PIUDY == 1)/ The Feasibility study/>

!__<(AUDIT == 1)/The Facility or System AUDIT/>

!__<(TECH_ASST == 1)/The Technical Assistance/> !

you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was quite important to you. Can you

N3CC_REDO_PI tell me why the information provided was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3GG REDO PI |
| 88 | Refused | N3GG REDO PI |
| 99 | Don't know | N3GG REDO PI |

IF N3g>7, THEN ASK

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When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES or MARKETING MATERIAL, you gave a rating of ..<%N3G> ... out of ten, indicating that the information from the program or utility training course was quite important to you. Can you tell me why this information was that important?

N3GG_REDO_PI

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3LL_REDO_PI |
| 88 | Refused | N3LL_REDO_PI |
| 99 | Don't know | N3LL_REDO_PI |

IF N3I>7, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was quite important to you.

N3LL_REDO_PI Can you tell me why this endorsement was that important?

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5_PI |
| 88 | Refused | N5_PI |
| 99 | Don't know | N5_PI |

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the &PROGRAM had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same equipment?

N5_PI

| | | |
|----|--------------------------|--------|
| # | Record 0 to 10 score () | N5a_PI |
| 88 | Refused | N6_PI |
| 99 | Don't know | N6_PI |

CONSISTENCY CHECKS

IF N3b>7 and N5>7, THEN ASK.

When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same equipment without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will

N5a_PI you explain in your own words, the role the rebate played in your decision to install this efficient equipment?

| | | |
|----|-----------------|------------|
| 77 | Record VERBATIM | N5Again_PI |
| 88 | Refused | N5Again_PI |
| 99 | Don't know | N5Again_PI |

Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same equipment without the rebate which you gave a rating of <%N5> and/or we can change both if you wish?

N5Again_PI

| | | |
|----|-----------------|-------|
| 1 | No change | N9_PI |
| 77 | Record VERBATIM | N9_PI |
| 88 | Refused | N9_PI |
| 99 | Don't know | N9_PI |

PROBE ON STANDARD PRACTICE if N3j>7, ELSE ASK N9

In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this MEASURE. Would you say the program was much more important, somewhat more

N5B_PI important, equally important, somewhat less important, or much less important than the standard practice or policy?

| | | |
|----|-------------------------|-------|
| 1 | Much more important | N9_PI |
| 2 | Somewhat more important | N9_PI |
| 3 | Equally important | N9_PI |
| 4 | Somewhat less important | N9_PI |
| 5 | Much less important | N9_PI |
| 88 | Refused | N9_PI |
| 99 | Don't know | N9_PI |

IF N5>0, THEN ASK.

You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same equipment if THE PROGRAM had not been available. When do you think you would have installed this

N9_PI equipment? Please express your answer in months.

| | | |
|---|--------------------|--------|
| 1 | At the same time | TD1_PI |
| 2 | Within 6 months? | TD1_PI |
| 3 | 6 months to 1 year | TD1_PI |
| 4 | 1 - 2 years | TD1_PI |
| 5 | 2 - 3 years | TD1_PI |
| 6 | 3 - 4 years | TD1_PI |

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| | | |
|----|-----------------------------|--------|
| 7 | 4 - 5 years | N9b_PI |
| 8 | 5 years or more | N9b_PI |
| 66 | Would not have installed it | TD1_PI |
| 88 | Refused | TD1_PI |
| 99 | Don't know | TD1_PI |

IF N9 >= 48 months OR N9a = 6, THEN ASK N9b, ELSE ASK N6

N9b_PI Why do you think it would have been 4 or more years later?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | TD1_PI |
| 88 | Refused | TD1_PI |
| 99 | Don't know | TD1_PI |

DEFERRED FREE RIDERSHIP FOLLOW-UP

You said that there was an <N5> in 10 likelihood that you would have installed the same equipment about <N9> months later (OR at the same time) if the PROGRAM had not been available. I'd like to ask a couple of questions to help us estimate at what point in the future you would definitely have installed new equipment. We understand that you can't know exactly when you would have done this, especially so far into the future. We're just trying to get a sense of how long you think the current equipment or process would have kept serving your company's needs before you had to or chose to replace it.

**INTRO FOR BOTH
TD1 and TD1a**

If N9 or N9a ≤ 60 months, ask TD1, ELSE TD1A

So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that **TD1_PI** you would have installed the same equipment within 60 months, or 5 years, later if the program had not been available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | TD2_PI |
| 88 | Refused | TD1A_PI |
| 99 | Don't know | TD1A_PI |

IF TD1 < 10 ASK TD2, ELSE GO TO N5a

And what would you say is the likelihood that you would have installed the same equipment within 120 months, or 10 **TD2_PI** years, later if the program had not been available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | TD1A_PI |
| 88 | Refused | TD1A_PI |
| 99 | Don't know | TD1A_PI |

If N9 or N9a > 60 months, ask

Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been **TD1A_PI** available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N9bb_PI |
| 88 | Refused | N9bb_PI |
| 99 | Don't know | N9bb_PI |

CONSISTENCY CHECK ON AGE

IF (N3a > 6 AND N9 > =48 months) OR (N3a > 6 AND N9a = 6), THEN ASK N9bb, ELSE N6

Earlier when asked about the influence of the age/condition of the old equipment on your decision to install this new equipment, you gave me a rating of <%N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the existing equipment played in **N9bb_PI** your decision to install this new energy-efficient equipment.

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N6_PI |
| 88 | Refused | N6_PI |
| 99 | Don't know | N6_PI |

PARTIAL FREE RIDERSHIP

Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have **N6_PI** been MOST likely to do?

| | | |
|----|-----------------------------------------------------|--------|
| 1 | Installed fewer linear feet of insulation | N6a_PI |
| 2 | Installed insulation with a lower R value (thinner) | N6b_JT |
| 3 | Repaired or overhaul the existing equipment | N6c_PI |
| 4 | Do nothing (keep the existing equipment as is) | SPILL1 |
| 77 | Something else (specify what _____) | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6a_PI How many fewer linear feet of insulation would you have installed?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
|----|-----------------|--------|

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| | | |
|----|------------|--------|
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6b_PI Can you tell me what R value or insulation thickness you would have installed without assistance from the program?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6c_PI How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

STANDARD NTG QUESTIONS

IF N3n>5, THEN ASK, ELSE CP1

P1 What financial calculations does your company make before proceeding with installation of a Measure like this one?

| | | |
|----|-----------------|----|
| 77 | RECORD VERBATIM | P2 |
| 88 | Refused | P2 |
| 99 | Don't know | P2 |

P2 What is the payback cut-off point your company uses (in months) before deciding to proceed with an investment?

| | | |
|----|--------------------|-----|
| 1 | 0 to 6 months | P3A |
| 2 | 6 months to 1 year | P3A |
| 3 | 1 to 2 years | P3A |
| 4 | 2 to 3 years | P3A |
| 5 | 3 to 5 years | P3A |
| 6 | Over 5 years | P3A |
| 88 | Refused | P3A |
| 99 | Don't know | P3A |

P3A What was the payback calculation for this MEASURE (in months) with the rebate from the Program?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | P3B |
| 88 | Refused | P3B |
| 99 | Don't know | P3B |

P3B And what was the payback calculation for this Measure (in months) without the rebate from the Program?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | P3C |
| 88 | Refused | P3C |
| 99 | Don't know | P3C |

IF P3b<P2, THEN ASK.

Even without the rebate, this measure met your company's financial payback criteria. Would you have gone ahead with it

P3C even without the rebate?

| | | |
|----|-----------------|-----|
| 1 | Yes | CP1 |
| 2 | No | CP1 |
| 77 | RECORD VERBATIM | CP1 |
| 88 | Refused | CP1 |
| 99 | Don't know | CP1 |

IF P3a<P2, AND N3b<5, THEN ASK.

The rebate seemed to make the difference between meeting your financial criteria and not meeting them, but you said that

P3D the rebate didn't have much effect on your decision, why is that?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | CP1 |
| 88 | Refused | CP1 |
| 99 | Don't know | CP1 |

IF P3a>P2, AND N3b>7, THEN ASK.

The rebate didn't cause this measure to meet your company's financial criteria, but you said that the rebate had an impact

P3E on the decision to install this measure. Why did the rebate have an impact?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | CP1 |
| 88 | Refused | CP1 |
| 99 | Don't know | CP1 |

IF N3m>5, THEN ASK, ELSE SP1

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Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be a "buy Green" or use sustainable approaches to business investments? And if yes, Can I obtain a copy of this policy?

CP1

| | | |
|----|------------------------------------------------|-----|
| 1 | Yes, I can obtain a copy of the policy | CP2 |
| 2 | Yes, but I can NOT obtain a copy of the policy | CP2 |
| 77 | No | CP2 |
| 88 | Refused | CP2 |
| 99 | Don't know | CP2 |

CP2 What specific corporate policy influenced your decision to install these measures?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | CP3 |
| 88 | Don't know | CP3 |
| 99 | Refused | CP3 |

CP3 Had that policy caused you to retrofit or install this measure at this facility before participating in the PROGRAM?

| | | |
|----|------------|-----|
| 1 | Yes | CP4 |
| 2 | No | CP4 |
| 88 | Refused | CP4 |
| 99 | Don't know | CP4 |

CP4 Had that policy caused you to retrofit or install this measure at other facilities before participating in the PROGRAM?

| | | |
|----|------------|-----|
| 1 | Yes | CP5 |
| 2 | No | CP5 |
| 88 | Don't know | CP5 |
| 99 | Refused | CP5 |

Did you receive an incentive for a previous installation of...this MEASURE? If so, please describe the amount of incentive received, the approximate timing and the name of the program that provided it.

CP5

| | | |
|----|-----------------|-----|
| 1 | Did not receive | CP6 |
| 77 | RECORD VERBATIM | CP6 |
| 88 | Refused | CP6 |
| 99 | Don't know | CP6 |

If I understand you correctly, you said that your company's corporate policy has caused you to retrofit or install this measure previously at this and/or other facilities. I want to make sure I fully understand how this corporate policy influenced your decision versus the PROGRAM. Can you please clarify that?

CP6

| | | |
|----|-----------------|------|
| 77 | RECORD VERBATIM | SP1A |
| 88 | Refused | SP1A |
| 99 | Don't know | SP1A |

IF N3j>5, THEN ASK, ELSE O11

SP1A Approximately how long has PIPE INSULATION been a standard practice in your industry?

| | | |
|----|-----------------|------|
| 77 | RECORD VERBATIM | SP1B |
| 88 | Refused | SP1B |
| 99 | Don't know | SP1B |

SP1B Approximately how long has regular maintenance and retrofitting of STEAM TRAPS been a practice in your industry?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | SP2 |
| 88 | Refused | SP2 |
| 99 | Don't know | SP2 |

SP2 Does your company ever deviate from the standard practice? IF so, Under what conditions does your company deviate?

| | | |
|----|-----------------|-----|
| 1 | Do not deviate | SP3 |
| 77 | RECORD VERBATIM | SP3 |
| 88 | Refused | SP3 |
| 99 | Don't know | SP3 |

How did this standard practice influence your decision to install these <(ST3(1|2))/STEAMTRAP(s)/>.. <(PI3(1|2))/PIPE INSULATION/>

SP3

| | | |
|----|-----------------|------|
| 77 | RECORD VERBATIM | SP3A |
| 88 | Refused | SP3A |
| 99 | Don't know | SP3A |

Could you please rate the importance of the program ...<%PROGRAM> ...versus the standard industry practice in influencing your decision to install this measure. Would you say the program was ...

SP3A

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| | | |
|----|--------------------------------------------|-----|
| 1 | Much more important than industry practice | SP4 |
| 2 | Somewhat more important | SP4 |
| 3 | Equally important as industry practice | SP4 |
| 4 | Somewhat less important | SP4 |
| 5 | Much less important than industry practice | SP4 |
| 88 | Refused | SP4 |
| 99 | Don't know | SP4 |

SP4 What industry group or trade organization do you look to when establishing standard practice for your industry?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | SP5 |
| 88 | Refused | SP5 |
| 99 | Don't know | SP5 |

SP5 How do you and other firms in your industry receive information on updates in standard practices?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | OI1 |
| 88 | Refused | OI1 |
| 99 | Don't know | OI1 |

IF N3o>5, THEN ASK, ELSE N33.

Who provided the most assistance in the choice to retrofit your <(ST3(1|2))/STEAMTRAP(s)/>.. <(PI3(1|2))/PIPE

O11 INSULATION

| | | |
|----|-------------------------------------|-----|
| 1 | Consultant Engineer | OI2 |
| 2 | Equipment distributor | OI2 |
| 3 | Installer | OI2 |
| 4 | UTILITY ACCT REP | OI2 |
| 5 | Program staff | OI2 |
| 6 | IN HOUSE Engineer/Maintenance Staff | OI2 |
| 77 | RECORD VERBATIM | OI2 |
| 88 | Refused | OI2 |
| 99 | Don't know | OI2 |

O12 Please describe the type of assistance that they provided?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | O13 |
| 88 | Refused | O13 |
| 99 | Don't know | O13 |

Please state in your own words any other factors that influenced your decision to go ahead on this energy efficiency project?

O13

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | SP1 |
| 88 | Refused | SP1 |
| 99 | Don't know | SP1 |

SPILLOVER QUESTIONS

Did you implement any additional energy efficiency measures at this facility since your participation in the 2006-2008

SPILL1 Program and before the end of 2008 that did not receive incentives through any utility or government program?

| | | |
|----|------------|----------|
| 1 | Yes | SPILL2_1 |
| 2 | No | CAFAC1 |
| 88 | Refused | CAFAC1 |
| 99 | Don't know | CAFAC1 |

SPILL2_1 What was the first Measure that you implemented?

| | | |
|----|----------------------|----------|
| 77 | Record FIRST measure | SPILL2_2 |
| 88 | Refused | CAFAC1 |
| 99 | Don't know | CAFAC1 |

SPILL2_2 What was the second measure?

| | | |
|----|-----------------------|----------|
| 1 | No other measures | MEAS1_2 |
| 77 | Record SECOND measure | SPILL2_3 |
| 88 | Refused | MEAS1_2 |
| 99 | Don't know | MEAS1_2 |

SPILL2_3 What was the third measure?

| | | |
|----|----------------------|---------|
| 1 | No other measures | MEAS1_2 |
| 77 | Record THIRD measure | MEAS1_2 |
| 88 | Refused | MEAS1_2 |
| 99 | Don't know | MEAS1_2 |

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IF SPILL2_1=1

I have a few questions about the FIRST Measure that you installed. Why are you not expecting a rebate for this measure?

MEAS1_2 Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS1_3 |
| 88 | Refused | MEAS1_3 |
| 99 | Don't know | MEAS1_3 |

MEAS1_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS1_4 |
| 88 | Refused | MEAS1_4 |
| 99 | Don't know | MEAS1_4 |

MEAS1_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|---------|
| 1 | Yes | MEAS1_5 |
| 2 | No | MEAS1_5 |
| 88 | Refused | MEAS1_5 |
| 99 | Don't know | MEAS1_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale

MEAS1_5 of 0 to 10, where 0 is not at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | MEAS1_6 |
| 88 | Refused | MEAS1_7 |
| 99 | Don't know | MEAS1_7 |

MEAS1_6 Why do you give it this rating?

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS1_7 |
| 88 | Refused | MEAS1_7 |
| 99 | Don't know | MEAS1_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10

MEAS1_7 means you definitely WOULD have implemented this measure?

| | | |
|----|------------------------------------------|---------|
| # | Record 0 to 10 likelihood rating (_____) | MEAS2_2 |
| 88 | Refused | MEAS2_2 |
| 99 | Don't know | MEAS2_2 |

IF SPILL2_2=1

I have a few questions about the SECOND Measure that you installed. Why are you not expecting a rebate for this

MEAS2_2 measure? Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS2_3 |
| 88 | Refused | MEAS2_3 |
| 99 | Don't know | MEAS2_3 |

MEAS2_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS2_4 |
| 88 | Refused | MEAS2_4 |
| 99 | Don't know | MEAS2_4 |

MEAS2_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|---------|
| 1 | Yes | MEAS2_5 |
| 2 | No | MEAS2_5 |
| 88 | Refused | MEAS2_5 |
| 99 | Don't know | MEAS2_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale

MEAS2_5 of 0 to 10, where 0 is not at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | MEAS2_6 |
| 88 | Refused | MEAS2_6 |
| 99 | Don't know | MEAS2_6 |

MEAS2_6 Why do you give it this rating?

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS2_7 |
| 88 | Refused | MEAS2_7 |
| 99 | Don't know | MEAS2_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10

MEAS2_7 means you definitely WOULD have implemented this measure?

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| | | |
|----|------------------------------------------|---------|
| # | Record 0 to 10 likelihood rating (_____) | MEAS3_2 |
| 88 | Refused | MEAS3_2 |
| 99 | Don't know | MEAS3_2 |

IF SPILL2_3=1

I have a few questions about the THIRD Measure that you installed. Why are you not expecting a rebate for this measure?

MEAS3_2 Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS3_3 |
| 88 | Refused | MEAS3_3 |
| 99 | Don't know | MEAS3_3 |

MEAS3_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS3_4 |
| 88 | Refused | MEAS3_4 |
| 99 | Don't know | MEAS3_4 |

MEAS3_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|---------|
| 1 | Yes | MEAS3_5 |
| 2 | No | MEAS3_5 |
| 88 | Refused | MEAS3_5 |
| 99 | Don't know | MEAS3_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?

MEAS3_5

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | MEAS3_6 |
| 88 | Refused | MEAS3_6 |
| 99 | Don't know | MEAS3_6 |

MEAS3_6 Why do you give it this rating?

| | | |
|----|-----------------|---------|
| 77 | Record VERBATIM | MEAS3_7 |
| 88 | Refused | MEAS3_7 |
| 99 | Don't know | MEAS3_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?

MEAS3_7

| | | |
|----|------------------------------------------|--------|
| # | Record 0 to 10 likelihood rating (_____) | CAFAC1 |
| 88 | Refused | CAFAC1 |
| 99 | Don't know | CAFAC1 |

Now, thinking about other facilities operated by your organization in the regions of California that are served by PG&E, SCE, SDG&E or Southern California Gas Company, are you aware of any additional energy efficiency measures implemented at these other facilities since your participation in the 2006-2008 program and before the end of 2008 that did not receive an incentive through a utility or government program?

CAFAC1

| | | |
|----|------------|----------|
| 1 | Yes | CAFAC2_1 |
| 2 | No | C1 |
| 88 | Refused | C1 |
| 99 | Don't know | C1 |

CAFAC2_1 What was the first Measure that you implemented?

| | | |
|----|----------------------|----------|
| 77 | Record FIRST MEASURE | CAFAC2_2 |
| 88 | Refused | CAFAC2_2 |
| 99 | Don't know | CAFAC2_2 |

CAFAC2_2 What was the second measure?

| | | |
|----|-----------------------|----------|
| 1 | No other measure | MSURE1_1 |
| 77 | Record SECOND MEASURE | CAFAC2_3 |
| 88 | Refused | CAFAC2_3 |
| 99 | Don't know | CAFAC2_3 |

CAFAC2_3 What was the third measure?

| | | |
|----|----------------------|----------|
| 1 | No other measure | MSURE1_1 |
| 77 | Record THIRD MEASURE | MSURE1_1 |
| 88 | Refused | MSURE1_1 |
| 99 | Don't know | MSURE1_1 |

IF CAFAC1=1, THEN ASK, ELSE C1

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I have a few questions about the FIRST MEASURE that you installed. Was this measure part of a <%UTILITY> program MSURE1_1 or any other utility or government energy efficiency incentive Program?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE1_2 |
| 2 | No | MSURE1_2 |
| 88 | Refused | MSURE1_2 |
| 99 | Don't know | MSURE1_2 |

MSURE1_2 Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE1_3 |
| 88 | Refused | MSURE1_3 |
| 99 | Don't know | MSURE1_3 |

MSURE1_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE1_4 |
| 88 | Refused | MSURE1_4 |
| 99 | Don't know | MSURE1_4 |

MSURE1_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE1_5 |
| 2 | No | MSURE1_5 |
| 88 | Refused | MSURE1_5 |
| 99 | Don't know | MSURE1_5 |

MSURE1_5 How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | MSURE1_6 |
| 88 | Refused | MSURE1_7 |
| 99 | Don't know | MSURE1_7 |

MSURE1_6 Why do you give it this rating?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE1_7 |
| 88 | Refused | MSURE1_7 |
| 99 | Don't know | MSURE1_7 |

MSURE1_7 If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?

| | | |
|----|------------------------------------------|----------|
| # | Record 0 to 10 likelihood rating (_____) | MSURE2_1 |
| 88 | Refused | MSURE2_1 |
| 99 | Don't know | MEAS2_1 |

IF CAFAC2_2=1, THEN ASK, ELSE C1

MSURE2_1 I have a few questions about the SECOND MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE3_1 |
| 2 | No | MSURE2_2 |
| 88 | Refused | MSURE3_1 |
| 99 | Don't know | MSURE3_1 |

MSURE2_2 Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE2_3 |
| 88 | Refused | MSURE2_3 |
| 99 | Don't know | MSURE2_3 |

MSURE2_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE2_4 |
| 88 | Don't know | MSURE2_4 |
| 99 | Refused | MSURE2_4 |

MSURE2_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE2_5 |
| 2 | No | MSURE2_5 |
| 88 | Refused | MSURE2_5 |
| 99 | Don't know | MSURE2_5 |

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How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale MSURE2_5 of 0 to 10, where 0 is not at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | MSURE2_6 |
| 88 | Refused | MSURE2_7 |
| 99 | Don't know | MSURE2_7 |

MSURE2_6 Why do you give it this rating?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE2_7 |
| 88 | Refused | MSURE2_7 |
| 99 | Don't know | MSURE2_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?

MSURE2_7 means you definitely WOULD have implemented this measure?

| | | |
|----|------------------------------------------|----------|
| # | Record 0 to 10 likelihood rating (_____) | MSURE3_1 |
| 88 | Refused | MSURE3_1 |
| 99 | Don't know | MSURE3_1 |

IF CAFAC2_3=1, THEN ASK, ELSE C1

I have a few questions about the THIRD MEASURE that you installed. Was this measure part of a <%UTILITY> program

MSURE3_1 or any other utility or government energy efficiency incentive Program?

| | | |
|----|------------|----------|
| 1 | Yes | C1 |
| 2 | No | MSURE3_2 |
| 88 | Refused | C1 |
| 99 | Don't know | C1 |

MSURE3_2 Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE3_3 |
| 88 | Refused | MSURE3_3 |
| 99 | Don't know | MSURE3_3 |

MSURE3_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE3_4 |
| 88 | Refused | MSURE3_4 |
| 99 | Don't know | MSURE3_4 |

MSURE3_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE3_5 |
| 2 | No | MSURE3_5 |
| 88 | Refused | MSURE3_5 |
| 99 | Don't know | MSURE3_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale MSURE3_5 of 0 to 10, where 0 is not at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | MSURE3_6 |
| 88 | Refused | MSURE3_7 |
| 99 | Don't know | MSURE3_7 |

MSURE3_6 Why do you give it this rating?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE3_7 |
| 88 | Refused | MSURE3_7 |
| 99 | Don't know | MSURE3_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?

MSURE3_7 means you definitely WOULD have implemented this measure?

| | | |
|----|------------------------------------------|----|
| # | Record 0 to 10 likelihood rating (_____) | C1 |
| 88 | Refused | C1 |
| 99 | Don't know | C1 |

BUSINESS CHARACTERISTICS

And finally, I have a few questions about the characteristics of your business.

C1 Our records indicate that the primary business code for the facility that installed &MEASURE is &NAICS. Is that correct?

| | | |
|---|-----|----|
| 1 | Yes | C2 |
|---|-----|----|

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| | | |
|----|------------|----|
| 2 | No | C2 |
| 88 | Refused | C2 |
| 99 | Don't know | C2 |

C2 Please describe the type of work performed at this facility and/or the primary product made or main service provided.

| | | |
|----|-----------------|----|
| 77 | Record VERBATIM | C3 |
| 88 | Refused | C3 |
| 99 | Don't know | C3 |

C3 Please describe any changes made to this site since January 2006 that significantly impacted energy usage.

| | | |
|----|-----------------|----|
| 77 | Record VERBATIM | C4 |
| 88 | Refused | C4 |
| 99 | Don't know | C4 |

Please answer the following questions

C4 What kind of premise is this?:

| | | |
|----|----------------------------------|----|
| 1 | Part of a building | C5 |
| 2 | 1 building - single footprint | C5 |
| 3 | 1 building - multiple footprints | C5 |
| 4 | Small multi-building | C5 |
| 5 | Campus | C5 |
| 77 | Record VERBATIM | C5 |
| 88 | Refused | C5 |
| 99 | Don't know | C5 |

C5 What is the total occupied floor area of this premise (excluding enclosed parking garage area)?

| | | |
|----|-------------------|----|
| 77 | Record floor area | C6 |
|----|-------------------|----|

C6 How many buildings are part of this premise?

| | | |
|----|----------------------------|----|
| 77 | Record number of buildings | C7 |
|----|----------------------------|----|

C7 Is this premise owner-occupied (O) or leased (L)?

| | | |
|----|----------------|----|
| 1 | Owner-occupied | C8 |
| 2 | Leased | C8 |
| 3 | Both | C8 |
| 88 | Refused | C8 |
| 99 | Don't know | C8 |

C8 What year was this business established at this location?

| | | |
|----|-------------|----|
| 77 | Record year | C9 |
|----|-------------|----|

C9 How many full-time equivalent employees work at this premise?

| | | |
|----|----------------------------|--------|
| 77 | Record number of employees | HROPEN |
|----|----------------------------|--------|

OPERATING HOURS

Ask Everyone

Now we'd like to talk about the hours that your locations are typically open.

HROPEN What time does your location typically open during the week?

| | | |
|----|---------|---------|
| 1 | 1:00 AM | HRCLOSE |
| 2 | 1:30 AM | HRCLOSE |
| 3 | 2:00 AM | HRCLOSE |
| 4 | 2:30 AM | HRCLOSE |
| 5 | 3:00 AM | HRCLOSE |
| 6 | 3:30 AM | HRCLOSE |
| 7 | 4:00 AM | HRCLOSE |
| 8 | 4:30 AM | HRCLOSE |
| 9 | 5:00 AM | HRCLOSE |
| 10 | 5:30 AM | HRCLOSE |
| 11 | 6:00 AM | HRCLOSE |
| 12 | 6:30 AM | HRCLOSE |
| 13 | 7:00 AM | HRCLOSE |

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| | | |
|----|--------------|---------|
| 14 | 7:30 AM | HRCLOSE |
| 15 | 8:00 AM | HRCLOSE |
| 16 | 8:30 AM | HRCLOSE |
| 17 | 9:00 AM | HRCLOSE |
| 18 | 9:30 AM | HRCLOSE |
| 19 | 10:00 AM | HRCLOSE |
| 20 | 10:30 AM | HRCLOSE |
| 21 | 11:00 AM | HRCLOSE |
| 22 | 11:30 AM | HRCLOSE |
| 23 | 12:00 NOON | HRCLOSE |
| 24 | 12:30 PM | HRCLOSE |
| 25 | 1:00 PM | HRCLOSE |
| 26 | 1:30 PM | HRCLOSE |
| 27 | 2:00 PM | HRCLOSE |
| 28 | 2:30 PM | HRCLOSE |
| 29 | 3:00 PM | HRCLOSE |
| 30 | 3:30 PM | HRCLOSE |
| 31 | 4:00 PM | HRCLOSE |
| 32 | 4:30 PM | HRCLOSE |
| 33 | 5:00 PM | HRCLOSE |
| 34 | 5:30 PM | HRCLOSE |
| 35 | 6:00 PM | HRCLOSE |
| 36 | 6:30 PM | HRCLOSE |
| 37 | 7:00 PM | HRCLOSE |
| 38 | 7:30 PM | HRCLOSE |
| 39 | 8:00 PM | HRCLOSE |
| 40 | 8:30 PM | HRCLOSE |
| 41 | 9:00 PM | HRCLOSE |
| 42 | 9:30 PM | HRCLOSE |
| 43 | 10:00 PM | HRCLOSE |
| 44 | 10:30 PM | HRCLOSE |
| 45 | 11:00 PM | HRCLOSE |
| 46 | 11:30 PM | HRCLOSE |
| 47 | 12:00:00 MID | HRCLOSE |
| 48 | 12:30 AM | HRCLOSE |
| 65 | Never Close | HRCLOSE |
| 66 | Open 24 Hrs | HRCLOSE |
| 88 | Refused | HRCLOSE |
| 99 | Don't know | HRCLOSE |

HRCLOSE What time does your location typically open during the week?

| | | |
|----|------------|---------|
| 1 | 1:00 AM | UR UTIL |
| 2 | 1:30 AM | UR UTIL |
| 3 | 2:00 AM | UR UTIL |
| 4 | 2:30 AM | UR UTIL |
| 5 | 3:00 AM | UR UTIL |
| 6 | 3:30 AM | UR UTIL |
| 7 | 4:00 AM | UR UTIL |
| 8 | 4:30 AM | UR UTIL |
| 9 | 5:00 AM | UR UTIL |
| 10 | 5:30 AM | UR UTIL |
| 11 | 6:00 AM | UR UTIL |
| 12 | 6:30 AM | UR UTIL |
| 13 | 7:00 AM | UR UTIL |
| 14 | 7:30 AM | UR UTIL |
| 15 | 8:00 AM | UR UTIL |
| 16 | 8:30 AM | UR UTIL |
| 17 | 9:00 AM | UR UTIL |
| 18 | 9:30 AM | UR UTIL |
| 19 | 10:00 AM | UR UTIL |
| 20 | 10:30 AM | UR UTIL |
| 21 | 11:00 AM | UR UTIL |
| 22 | 11:30 AM | UR UTIL |
| 23 | 12:00 NOON | UR UTIL |
| 24 | 12:30 PM | UR UTIL |
| 25 | 1:00 PM | UR UTIL |
| 26 | 1:30 PM | UR UTIL |

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| | | |
|----|--------------|---------|
| 27 | 2:00 PM | UR UTIL |
| 28 | 2:30 PM | UR UTIL |
| 29 | 3:00 PM | UR UTIL |
| 30 | 3:30 PM | UR UTIL |
| 31 | 4:00 PM | UR UTIL |
| 32 | 4:30 PM | UR UTIL |
| 33 | 5:00 PM | UR UTIL |
| 34 | 5:30 PM | UR UTIL |
| 35 | 6:00 PM | UR UTIL |
| 36 | 6:30 PM | UR UTIL |
| 37 | 7:00 PM | UR UTIL |
| 38 | 7:30 PM | UR UTIL |
| 39 | 8:00 PM | UR UTIL |
| 40 | 8:30 PM | UR UTIL |
| 41 | 9:00 PM | UR UTIL |
| 42 | 9:30 PM | UR UTIL |
| 43 | 10:00 PM | UR UTIL |
| 44 | 10:30 PM | UR UTIL |
| 45 | 11:00 PM | UR UTIL |
| 46 | 11:30 PM | UR UTIL |
| 47 | 12:00:00 MID | UR UTIL |
| 48 | 12:30 AM | UR UTIL |
| 65 | Never Close | UR UTIL |
| 66 | Open 24 Hrs | UR UTIL |
| 88 | Refused | UR UTIL |
| 99 | Don't know | UR UTIL |

UR_UTIL What is the name of the utility that provides your electricity?

| | | |
|----|-----------------|----------|
| 77 | Name of Utility | OS_NAME1 |
| 88 | Refused | OS_NAME1 |
| 99 | Don't know | OS_NAME1 |

As we have discussed, the &PROGRAM is an important component of the CPUC's ongoing efforts to save energy and reduce emissions affecting climate change. In order to improve this program's performance, the CPUC would like to make an accurate measurement of the energy savings associated with the energy efficient equipment installed by collecting and analyzing information from selected customers.

Your input into this research is extremely important. By receiving a rebate through the %PROGRAM your property has agreed to allow verification of the installation of the equipment rebated through the program. Our verification technician will need to see a facilities representative of your property. This should be either the manager of the facility or part of the facilities staff.

OS_NAME1 May I please have the name of the person who our technician can call to set up a verification appointment?

| | | |
|----------------------|-------------------------|-----------|
| &OS_NAME1 | NAME OF PRIMARY CONTACT | OS_PHONE1 |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

OS_PHONE1 May I also have the best phone number for the technician to reach you?

| | | |
|-----------------------|---------------------------|--------|
| &OS_PHONE1 | PHONE FOR PRIMARY CONTACT | OTHER |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

OTHER Is there another person that the engineer might speak with at your organization, if you are not available?

| | | |
|---|-----|----------|
| 1 | Yes | OS_NAME2 |
| 2 | No | |

OS_NAME2 May I please have their name so our technician can call them if necessary?

| | | |
|----------------------|------------|-----------|
| &OS_NAME2 | Get name | OS_PHONE2 |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

OS_PHONE2 May I also have the best phone number for the technician to reach them?

| | | |
|-----------------------|------------------|--------|
| &OS_PHONE2 | Get phone number | VERIFY |
| 88 | Refused | VERIFY |
| 99 | Don't know | VERIFY |

VERIFY For verification purposes only, may I please have your name?

| | | |
|----|----------|------|
| 77 | Get name | Copy |
| 88 | Refused | Copy |

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| | | |
|----|------------|------|
| 99 | Don't know | Copy |
|----|------------|------|

Previously you mentioned that your company's maintenance program includes a steam trap survey. If the survey results for the traps installed under the &Program are available, it is likely that they contain much of the information that our personnel needs to complete the verification and evaluation. Receipt of a copy of the steam survey associated with the rebated measure would assist our survey and help to limit any further inconvenience that we may be causing. If there is a survey or multiple survey available, can we receive a copy?

Copy Is there such a survey or multiple surveys available that we could get a copy of for this evaluation?

| | | |
|----|------------|-----------|
| 1 | Yes | Copy_Type |
| 2 | No | Copy_Type |
| 88 | Refused | Copy_Type |
| 99 | Don't know | Copy_Type |

Copy_Type Is it a hard copy or electronic?

| | | |
|----|------------|-----|
| 1 | Hard copy | How |
| 2 | Electronic | How |
| 3 | Both | How |
| 88 | Refused | How |
| 99 | Don't know | How |

How How you would prefer to mail it, fax it or email it?

| | | |
|---|---------|-----|
| 1 | Mail | END |
| 2 | Fax | END |
| 3 | Email | END |
| 4 | Nothing | END |

If a copy is available in hard copy please mail to Jean Shelton, 11236 El Camino Real, San Diego, CA 92130.

If a copy is available in hard copy please fax to Jean Shelton at (619) 724-2690

If a copy is available electronically, please send the copy to jean.shelton@ltron.com

| | | |
|------------|-------------------------------------------------------------------------------------------------------|----------------------|
| END | Those are all the questions I have for you. On behalf of the CPUC, thank you very much for your time. | END OF SURVEY |
|------------|-------------------------------------------------------------------------------------------------------|----------------------|

**Participant Customer Survey for
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ST/PI Only - Commercial Callback Survey**

INTRODUCTION AND FINDING CORRECT RESPONDENT

OUTCOME1 Hello. This is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. This is not a sales call nor a service call.

[IF NEEDED] We are conducting a follow-up survey, authorized by the California Public Utilities Commission.

We conducted a survey with &CONTACT on &SURVEYDATE where we asked about the energy efficient equipment installed at your facility under the **&PROGRAM**. We had additional questions we would like to ask in order to fully inform the evaluation study Itron is conducting for the CPUC.

May I please speak with &CONTACT, the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's 2006-2008 &PROG_LONG where you either replaced steam traps and/or installed pipe insulation. Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

| | | |
|-----------|--------------------------------------------|---------|
| 1 | No, that person is not available right now | Appoint |
| 2 | Unable to refer someone who can help | Appoint |
| 3 | Yes, that would be me | S1 |
| 4 | Yes, let me transfer you to | Q1C |
| 77 | No, Other reason (specify) | Q1B |
| 88 | Refused | Q1B |
| 99 | Don't know | Q1B |

Appoint [IF RECOMMENDED CONTACT IS NOT CURRENTLY AVAILABLE]
When would be a good day and time for us to call back?

| | | |
|-----------|---------------------------------------------------------------------------------------------|-------------------|
| 77 | Record day of the week, time of day and date to call back, as &APPOINT | Name |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Name |

PERSON According to our records, your organization participated in &UTILITY's &PROG_LONG at your facility. Are you the person most knowledgeable about your organization's participation in this program?

| | | |
|----------|-------------------------------------------------|------------|
| 1 | Yes | Intro3:s |
| 2 | No | Hi |
| 3 | No one knows about participation in &PROG_LONG. | Intro3(99) |

If Person(3)

| | | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Intro3(99) | Thank you for your time. We need to speak with the person at your organization that is most familiar with your participation in the &Program. Those are all of the questions I have for you today. | Abandoned User30 |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|

Hi Who would be the person at this location who is most knowledgeable about your organization's installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG? [Enter technical Contact Name and move on.]

| | | |
|-----------|--------------------------|-------------------|
| 77 | Record Name, as &CONTACT | May I |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Ext |

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May 1 May I speak with him/her?

| | | |
|-----------|---------------------------------------|-----------------------|
| 77 | Yes | Intro3:s |
| 88 | No (not available right now@, set cb) | Abandoned Appointment |

Intro3:s

Hello, my name is <INTERVIEWER NAME> calling on behalf of the CPUC from Itron Consulting. This is not a sales call. We are interested in speaking with the person most knowledgeable about your organization's participation in &UTILITY's &PROG_LONG in which you installed steam traps and/or pipe insulation. I was told that would be you. Is this correct?

| | | |
|-----------|---------------------------------|-------------------|
| 1 | Yes | COMMENT |
| 2 | No | Thank & Terminate |
| 99 | No one knows about the &Program | Thank & Terminate |

According to our records, our organization participated in &UTILITY's &PROG_LONG and received rebates for installing steam traps and/or pipe insulation. Are you the person most knowledgeable about your organization's participation in &UTILITY's &PROG_LONG?

Ext Is there a phone extension or phone number you recommend we use when we call back?

| | | |
|-----------|------------------------------------------|-------------------|
| 77 | Record Extension or Phone Number, &PHONE | Thank & Terminate |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Thank & Terminate |

Thank & Terminate

Thank you for your time and help today.

END

[IF YOU ARE TRANSFERRED TO ANOTHER PERSON OTHER THAN THE BEST CONTACT]

Q1B

Who would be the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's &PROG_LONG.

[IF NEEDED] This is not a sales call.

[IF NEEDED] This is a fact-finding survey only, and responses will not be connected with your firm in any way. The California Public Utilities Commission wants to better understand how businesses think about and manage their energy consumption.

| | | |
|-----------|----------------------------------------------------------------------------|-------------------|
| 77 | There is no one here who can help you | Thank & Terminate |
| 1 | Continue Q1B until you find appropriate contact person, record as &CONTACT | Q1C |

[IF BEST CONTACT IS AVAILABLE]

Hello Mr./Mrs. &CONTACT, this is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. I understand you are the person at your location that is most knowledgeable about the installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG. Is this correct?

Q1C

| | | |
|-----------|--------------------------------------|---------------------------|
| 1 | Current individual is best contact | S1 |
| 2 | Transferred to best contact | Repeat Q1C w/best contact |
| 3 | Given best contact's name and number | Appoint |
| 99 | Don't know/refused | Thank & Terminate |

**Participant Customer Survey for
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ST/PI Only - Commercial Callback Survey**

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor.

Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

To help save time and keep things moving along, we will be referring to the full program name &PROG_LONG as &PROGRAM.

INSTALLATION VERIFICATION

**ASK PI1 IF INSULATION_DATE <> NULL
ASK If &PIPEINSULATION = 1 ELSE SKIP TO V1**

Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your **PI3** facility. Is this about right?

| | | |
|-----------|--------------------|------|
| 1 | Yes | PI1 |
| 2 | No, then how many? | PI3X |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

Approximately how many feet of pipe insulation was installed at your facility through the **PI3X** program?

| | | |
|-----------|---------------|------|
| 77 | Record Answer | Calc |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

QSL: IF PI3 << PI1UNDER THEN ASK PI30Y; ELSE IF PI3 >> PI1OVER THEN ASK Calc PI30Z; ELSE ASK V1

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Was any of this &PI1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. **PI30y**

| | | |
|-----------|-----------------------------------------------------------------|-----|
| 1 | Have no idea why numbers differ | PI1 |
| 2 | Did not install all of the pipe insulation, put some in storage | PI1 |
| 3 | Installed some of the insulation at another facility | PI1 |
| 4 | Did not receive all of the &PI1_UNIT | PI1 |
| 77 | Other | PI1 |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. **PI30Z**

| | | |
|----------|---------------------------------|-----|
| 1 | Have no idea why numbers differ | PI1 |
|----------|---------------------------------|-----|

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| | | |
|----|--------------------------------------------|-----|
| 2 | Multiple participation | PI1 |
| 3 | Installed equipment outside of the program | PI1 |
| 77 | Other | PI1 |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

PI1 Approximately when was this pipe insulation installed?

| | | |
|----|---------------|----|
| 77 | Record Answer | V1 |
| 88 | Refused | V1 |
| 99 | Don't know | V1 |

ROLE OF CONTRACTORS

Now I would like to find out, did you use a contractor to install the &measure rebated through
V1 the 2006-08 &PROGRAM Program?

| | | |
|----|------------------------------------|--------|
| 1 | Yes | V1_OTH |
| 2 | No | V1_OTH |
| 99 | [DO NOT READ] Don't know/No Answer | V1_OTH |

V1_OTH Who installed this rebated equipment?

| | | |
|----|----------------|-----|
| 1 | In-house staff | V41 |
| 77 | Record Answer | V41 |
| 88 | Refused | V41 |
| 99 | Don't know | V41 |

If &PIPEINSULATION = 1 and &STEAMTRAP = 1 ELSE SKIP TO GS22

V41 Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously?

| | | |
|--|------------|------|
| | Yes | GS22 |
| | No | GS22 |
| | Refused | GS22 |
| | Don't know | GS22 |

GAS EQUIPMENT BATTERY

When we conducted this survey with your organization on &SURVEYDATE, we asked you about some of the natural gas measures you installed through the program.

Aside from the installation of these measures, have you made any other changes that would have increased or decreased gas usage since 2005? For example, have you switched an electric measure to a gas measure or a gas measure to an electric measure? Have you

GS22 increased or decreased your production level?

| | | |
|----|----------------------------------------------|----------|
| 1 | Switched some equipment from electric to gas | SEE NOTE |
| 2 | Switched some equipment from gas to electric | SEE NOTE |
| 3 | Yes, increased production | SEE NOTE |
| 4 | Yes, decreased production | SEE NOTE |
| 66 | No | SEE NOTE |
| 77 | Other (specify) | SEE NOTE |
| 88 | Refused | SEE NOTE |
| 99 | Don't know | SEE NOTE |

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NOTE If SteamTrap = 1 and PipeInsulation = 0 go to ST3a and perform STEAMTRAP block, else if SteamTrap = 0 and PipeInsulation = 1 go to PI3a and perform PIPEINSULATION block, else if SteamTrap = 1 and PipeInsulation = 1 randomize choice between going to ST3a and PI3a by assigning values of 0 or 1 to STEAMRANDOM and the value (1 - STEAMRANDOM) to the variable PIPERANDOM

STEAM TRAP BATTERY

if &SteamTrap = 1

In the next section we'll be discussing the steam traps present at your facility.

ST3b What percentage of the steam traps at your facility were replaced through the program?

| | | |
|------------|-------------------------------------|-----|
| % | Percentage of steam traps replaced. | ST4 |
| 101 | Refused | ST4 |
| 102 | Don't know | ST4 |

ST5a Prior to the installation of the new steam traps, did you have a steam trap maintenance program?

| | | |
|-----------|------------|------|
| 1 | Yes | ST5b |
| 2 | No | ST5b |
| 88 | Refused | ST5b |
| 99 | Don't know | ST5b |

ST5b What percentage of your steam traps were NOT in good condition prior to replacement?

| | | |
|------------|------------|------|
| % | Percentage | ST6a |
| 101 | Refused | ST6b |
| 102 | Don't Know | ST6b |

ASK IF RESPONSE TO ST5b is > 0 and < 101; ELSE SKIP TO ST7.

| | | |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| ST6a | Of these steam traps that were not in good condition, about how long had they been in less than good condition? (Record longest period of time if multiple answers given) | |
| 1 | 1-2 months | ST6b |
| 2 | 3-4 months | ST6b |
| 3 | 5-6 months | ST6b |
| 4 | 7-8 months | ST6b |
| 5 | 9-10 months | ST6b |
| 6 | 11-12 months | ST6b |
| 7 | Less than 1 1/2 years but more than 1 year | ST6b |
| 8 | Less than 2 years but more than 1 1/2 years | ST6b |
| 9 | More than 2 years | ST6b |
| 88 | Refused | ST6b |
| 99 | Don't know | ST6b |

ST6b Were any of the replaced steam traps in good condition?

| | | |
|-----------|---------------------------------------------------------------|---------|
| 1 | Yes | ST6BPCT |
| 2 | No | ST7 |
| 88 | Refused | ST7 |
| 99 | I don't know the pre-existing condition of the replaced traps | ST7 |

ST6BPCT What percentage of the replaced traps were in good condition prior to replacement?

| | | |
|------------|------------|------|
| % | Percentage | ST6d |
| 101 | Refused | ST14 |

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| | | |
|-----|------------|------|
| 102 | Don't know | ST14 |
|-----|------------|------|

ASK IF ST5b = 0 OR ST6B = 1

ST6d Why did you replace the steam traps that were in good condition?

| | | |
|----|-----------------|------|
| 77 | Record verbatim | ST14 |
| 88 | Refused | ST14 |
| 99 | Don't know | ST14 |

If FM050 = 16, ASK ST14 ELSE SKIP TO PI3a

Since January 2006, has there been a period where there was a significant increase in demand for laundry production at this site? In other words, was there any period where

ST14 laundry production was higher than usual?

| | | |
|----|------------|-------|
| 1 | Yes | ST14A |
| 2 | No | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

ST14A When was this increase in demand?

| | | |
|----|---------------|------|
| 77 | Record answer | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

Since January 2006, has there been a period where there was a significant decrease in demand for laundry production at this site? In other words, was there any period where

ST15 laundry production was lower than usual?

| | | |
|--|------------|-------|
| | Yes | ST15A |
| | No | FRA |
| | Refused | FRA |
| | Don't know | FRA |

ST15A When did this decrease occur?

| | | |
|----|---------------|-----|
| 77 | record answer | FRA |
| 88 | Refused | FRA |
| 99 | Don't know | FRA |

PIPE INSULATION

if &PipeInsulation = 1

Next I would like to discuss how the program may have influenced your decision to purchase pipe insulation.

Can you estimate what percent of the pipes present at your facility were insulated through the

PI3b &program?

| | | |
|-----|-----------------------------------------|-----|
| % | Percentage of pipe insulation replaced: | PI7 |
| 101 | Refused | PI7 |
| 102 | Don't know | PI7 |

PI7 Was the pipe insulation installed on new pipes or was it a retrofit of older pipes?

| | | |
|----|--------------------|------|
| 1 | ONLY NEW | P18 |
| 2 | ONLY OLDER | PI7b |
| 3 | BOTH NEW AND OLDER | P17b |
| 88 | Refused | PI8 |

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| | | |
|-----------|------------|-----|
| 99 | Don't know | PI8 |
|-----------|------------|-----|

If PI7 = 3, else skip

PI7a What percentage of the pipe insulation was installed on new pipes?

| | | |
|------------|---------------|------|
| % | (record in %) | PI7b |
| 101 | Refused | PI7b |
| 102 | Don't know | PI7b |

PI7b How old were these older pipes that received the pipe insulation?

| | | |
|-----------|------------------------|-----|
| # | (record in # of years) | PI8 |
| 88 | Refused | PI8 |
| 99 | Don't know | PI8 |

ASK IF P17 ne 1; else skip to P25

Was insulation already present on the pipes before the insulation was installed through the **PI8** program?

| | | |
|-----------|------------|------|
| 1 | Yes | PI21 |
| 2 | No | PI25 |
| 88 | Refused | PI25 |
| 99 | Don't know | PI25 |

Was the existing insulation removed and replaced, or was additional insulation added to **PI21** existing insulation?

| | | |
|-----------|-------------------------------------------------|------|
| 1 | old insulation removed and replaced | PI23 |
| 2 | Additional insulation added over old insulation | PI23 |
| 88 | Refused | PI23 |
| 99 | Don't know | PI23 |

PI23 What condition was your pipe insulation in at the time of the replacement?

| | | |
|-----------|------------|------|
| 1 | Good | PI25 |
| 2 | Fair | PI25 |
| 3 | Poor | PI25 |
| 88 | Refused | PI25 |
| 99 | Don't know | PI25 |

ASK ALL

PI25 Are boilers present at your facility?

| | | |
|-----------|------------|------|
| 1 | Yes | PI27 |
| 2 | No | PI27 |
| 88 | Refused | PI27 |
| 99 | Don't know | PI27 |

PI27 Since the pipe insulation was installed, have the boilers been repaired or replaced?

| | | |
|-----------|------------|------|
| 1 | Yes | PI29 |
| 2 | No | PI31 |
| 88 | Refused | PI31 |
| 99 | Don't know | PI31 |

PI29 How many months ago was the most recent boiler repair or replacement?

| | | |
|-----------|--------------------------------|------|
| # | Record DATE or # of months ago | PI31 |
| 88 | Refused | PI31 |
| 99 | Don't know | PI31 |

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PI31 What led you to install the new pipe insulation? (Permit more than one answer.)

| | | |
|-----------|---------------------------------------------------------------------|------|
| 1 | Needed to replace some old deteriorated insulation | PI33 |
| 2 | Installed new pipe insulation because there was no prior insulation | PI33 |
| 3 | Wanted to save on our energy bill. | PI33 |
| 77 | Other (specify) | PI33 |
| 88 | Refused | PI33 |
| 99 | Don't know | PI33 |

PI33 Whose idea was it to install new pipe insulation?

| | | |
|-----------|-------------------------------|------|
| 1 | Me or someone at my facility. | PI35 |
| 2 | Contractor. | PI35 |
| 3 | Utility company contact. | PI35 |
| 4 | Manufacturer. | PI35 |
| 77 | Other (specify) | PI35 |
| 88 | Refused | PI35 |
| 99 | Don't know | PI35 |

What percentage of the pipe insulation cost would you estimate the &Program rebate

PI35 covered?

| | | |
|-----------|-------------------------------------------|------|
| 1 | Rebate covered all of the cost | PI37 |
| 2 | Rebate covered most of the cost | PI37 |
| 3 | Rebate covered less than half of the cost | PI37 |
| 4 | Other | PI37 |
| 88 | Refused | PI37 |
| 99 | Don't know | PI37 |

How effective was the new pipe insulation in reducing your natural gas bill? Would you say

PI37 you are seeing....

| | | |
|-----------|--------------------------|------|
| 1 | Considerable gas savings | PI39 |
| 2 | Some gas savings | PI39 |
| 3 | No noticeable savings | PI39 |
| 77 | Other (specify) | PI39 |
| 88 | Refused | PI39 |
| 99 | Don't know | PI39 |

PI39 Have you noticed any problems with the pipe insulation since the installation?

| | | |
|-----------|------------|------|
| 1 | Yes | PI40 |
| 2 | No | PI40 |
| 88 | Refused | PI40 |
| 99 | Don't know | PI40 |

PI40 In your opinion, with the &Program rebate, was installing pipe insulation cost-effective?

| | | |
|-----------|------------|------|
| 1 | Yes | PI42 |
| 2 | No | FRA |
| 3 | Somewhat | PI42 |
| 88 | Refused | PI42 |
| 99 | Don't know | PI42 |

ASK IF RESPONSE TO PI9 ≠ 2; ELSE SKIP TO PI11.

Without the &PROGRAM rebate, do you think you would have found installing the pipe

PI42 insulation to be cost-effective?

| | | |
|----------|-----|-----|
| 1 | Yes | FRA |
| 2 | No | FRA |

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| | | |
|-----------|------------|-----|
| 3 | Somewhat | FRA |
| 88 | Refused | FRA |
| 99 | Don't know | FRA |

SR FREE RIDERSHIP; ASK FOR PIPE INSULATION

if &PipeInsulation = 1

Next, I'd like to discuss how the program may have influenced your decision to purchase &Measure (where &Measure equals Steam Traps or Pipe Insulation).

FRA Did the vendor/contractor who sold you the &Measure tell you about the program?

| | | |
|-----------|------------|-----|
| 1 | Yes | FRB |
| 2 | No | FRB |
| 88 | Refused | FRB |
| 99 | Don't know | FRB |

FRB Did your vendor/contractor recommend purchasing the &Measure?

| | | |
|-----------|------------|-----|
| 1 | Yes | FRC |
| 2 | No | FRC |
| 88 | Refused | FRC |
| 99 | Don't Know | FRC |

Using a 0 to 10 scale where 0 is not influential at all and 10 is extremely influential how influential was your vendor/contractor in your decision to purchase &measure?

FRC

| | | |
|-----------|------------|-----|
| # | 1-10 scale | FRD |
| 88 | Refused | FRD |
| 99 | Don't Know | FRD |

FRD Did you purchase what your vendor/contractor recommended?

| | | |
|-----------|-----------------------------------|-----|
| 1 | Yes | FR1 |
| 2 | No | FR1 |
| 66 | They didn't make a recommendation | FR1 |
| 88 | Refused | FR1 |
| 99 | Don't Know | FR1 |

FR1 At the time that you first heard about the assistance from &Utility for this &Measure, had you...? {READ LIST}

| | | |
|-----------|-----------------------------------------------------------------|------|
| 1 | Already been thinking about purchasing &MEASURE? | FR2a |
| 2 | Already begun collecting information about &MEASURE? | FR2a |
| 3 | Already selected the particular &MEASURE you were going to get? | FR2a |
| 4 | Already installed the &MEASURE? | FR1a |
| 66 | None of these | FR2a |
| 77 | Other | FR2a |
| 88 | Refused | FR2a |
| 99 | Don't know | FR2a |

FR1a So, the &measure was installed before you learned about the assistance from &Utility?

| | | |
|-----------|------------|------|
| 1 | Yes | FR7 |
| 2 | No | FR2a |
| 88 | Refused | FR2a |
| 99 | Don't Know | FR2a |

FR2a Just to be sure I understand, did you have specific plans to install &product before learning about the assistance available through the &Program?

**Participant Customer Survey for
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| | | |
|----|------------|------|
| 1 | Yes | FR3 |
| 2 | No | FR4a |
| 88 | Refused | FR4a |
| 99 | Don't Know | FR4a |

FR3 Did you have to make any changes to your existing plans in order to receive this [assistance] through the &Program?

| | | |
|----|------------|------|
| 1 | Yes | FR3a |
| 2 | No | FR4a |
| 88 | Refused | FR4a |
| 99 | Don't Know | FR4a |

FR3a What changes did you make?

| | | |
|----|--------------------------|------|
| 77 | {RECORD RESPONSE}: _____ | FR4a |
| 88 | Refused | FR4a |
| 99 | Don't Know | FR4a |

{REPEAT AS NEEDED FOR FR4 PARTS A – D} If the [assistance] had not been available, would you still have:

FR4a Installed the &measure?

| | | |
|----|------------|------|
| 1 | Yes | FR4b |
| 2 | No | FR5 |
| 88 | Refused | FR4b |
| 99 | Don't Know | FR4b |

FR4b Purchased the &measure at the same time as you did?

| | | |
|----|------------|-------|
| 1 | Yes | FR4c |
| 2 | No | FR4b1 |
| 88 | Refused | FR4b1 |
| 99 | Don't Know | FR4b1 |

FR4b1 Would you have installed the &measure earlier than you did, or later?

| | | |
|----|------------|-------|
| 1 | Earlier | FR4b2 |
| 2 | Same Time | FR4c |
| 3 | Later | FR4b2 |
| 88 | Refused | FR4c |
| 99 | Don't Know | FR4c |

FRb2 How much [earlier/later] would you have bought the &measure?

| | | |
|----|--------------------------|------|
| 1 | Within 6 months | FR4c |
| 2 | 6 months to a year later | FR4c |
| 3 | 1 to 2 years later | FR4c |
| 4 | 2 to 3 years later | FR4c |
| 5 | 3 to 4 years later | FR4c |
| 6 | 4 or more years later | FR4c |
| 88 | Refused | FR4c |
| 99 | Don't know | FR4c |

FR4c Without the program, would the quantity of &measure you purchased have been the same, less, or more?

| | | |
|---|---------------|-------|
| 1 | More | FR4c1 |
| 2 | Same quantity | FR4d |
| 3 | Less | FR4c1 |

**Participant Customer Survey for
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| | | |
|----|---------------------------|------|
| 88 | Refused {SKIP TO FR4d} | FR4d |
| 99 | Don't Know {SKIP TO FR4d} | FR4d |

FR4c1 How many [more/less] would you have bought?

| | | |
|----|-------------------|------|
| 77 | {RECORD RESPONSE} | FR4e |
| 88 | Refused | FR4e |
| 99 | Don't know | FR4e |

FR4e If the [assistance] had not been available, would you have done anything else differently?

| | | |
|----|-------------------|-----|
| 1 | Nothing Different | FR5 |
| 77 | Record Other | FR5 |
| 88 | Refused | FR5 |
| 99 | Don't Know | FR5 |

FR5 On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely is it that you would have installed &Measure if you had not received any [assistance] from the program?

| | | |
|----|--------------------------------|-----|
| # | {RECORD RESPONSE (0-10)} _____ | FR7 |
| 88 | Refused | FR7 |
| 99 | Don't Know | FR7 |

FR7 Our records indicate you received about &ST_REBATE from the &Utility &Program either directly or at the time of purchase to offset the cost of the &MEASURE that you installed. Does this sound about right?

| | | |
|----|------------|-----|
| 1 | Yes | FR9 |
| 2 | No | FR8 |
| 88 | Refused | FR9 |
| 99 | Don't Know | FR9 |

FR8 What would you estimate to be the actual amount?

| | | |
|----|---------------------------------------------------------------------|-----|
| # | {RECORD RESPONSE} _____ {SET = NEW AMOUNT OF PROGRAM INCENTIVE/SUBS | FR9 |
| 88 | Refused | FR9 |
| 99 | Don't know | FR9 |

FR9 I'm going to read several statements about how you came to choose to install new &measure. On a scale of 0 to 10, where 0 is strongly disagree and 10 is strongly agree, how much do you agree with each statement?

If I had not had any assistance from the program, I would have paid the full price to buy the &Measure on my own outside the program.

| | | |
|----|--------------------------------|------|
| # | {Record Response (0-10)} _____ | FR10 |
| 88 | Refused | FR10 |
| 99 | Don't know | FR10 |

FR10 There may have been several reasons for my purchase decision, but the assistance from the &Utility &Program was a critical factor in my decision to purchase these &measure.

| | | |
|----|--------------------------------|------|
| # | {Record Response (0-10)} _____ | FR11 |
| 88 | Refused | FR11 |
| 99 | Don't know | FR11 |

FR11 I would have bought the &measure within 2 years of when I did even without the assistance from &Utility's Program.

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| | | |
|----|--------------------------------|-------|
| # | {Record Response (0-10)} _____ | FR12a |
| 88 | Refused | FR12a |
| 99 | Don't know | FR12a |

CONSISTENCY CHECK & RESOLUTION

DEVELOPING PROGRAMMING TO TEST FOR INCONSISTENCIES BETWEEN RESPONSES IN THE FREE-RIDERSHIP BATTERY, C1 WILL TAKE PRECEDENCE OVER INCONSISTENT RESPONSES.

- IF (FR4A or FR4D = 1) AND FR5 = 0,1 AND FR10 = 9,10 AND FR11 = 0,1;
- IF (FR4A or FR4D = 2) AND FR5 = 9,10 AND FR10 = 0,1 AND FR11 = 9,10;
- IF FR5 = 0,1 AND (FR4A or FR4D = 1) AND FR10 = 0,1 AND FR11 = 9,10;
- IF FR5 = 9,10 AND (FR4A or FR4D = 2) AND FR10 = 9,10 AND FR11 = 0,1;
- IF FR10 = 0,1 AND (FR4A or FR4D = 2) AND FR5 = 0,1 AND FR11 = 0,1;
- IF FR10 = 9,10 AND (FR4A or FR4D = 1) AND FR5 = 9,10 AND FR11 = 9,10;
- IF FR11 = 9,10 AND (FR4A or FR4D = 2) AND FR5 = 0,1 AND FR10 = 9,10;
- IF FR11 = 0,1 AND (FR4A or FR4D = 1) AND FR5 = 9,10 AND FR10 = 0,1

Let me make sure I understand you. In your own words, could you please describe how the program influenced your decision to purchase and install your new &Measure at the time you did?

C1a

| | | |
|----|-------------------------|-----|
| 77 | {Record Response} _____ | End |
| 88 | Refused | End |
| 99 | Don't know | End |

**Participant Corporate Customer Survey for
06-08 Small Commercial Contract Group
ST/PI Only - Corporate/Industrial Callback Survey**

INTRODUCTION AND FINDING CORRECT RESPONDENT

OUTCOME1 Hello. This is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. This is not a sales call nor a service call.

[IF NEEDED] We are conducting a follow-up survey, authorized by the California Public Utilities Commission.

We conducted a survey with &CONTACT on &SURVEYDATE where we asked about the energy efficient equipment installed at your facility under the &PROG_LONG. We had additional questions we would like to ask in order to fully inform the evaluation study Itron is conducting for the CPUC.

May I please speak with &CONTACT, the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's 2006-2008 &PROG_LONG where you either replaced steam traps and/or installed pipe insulation. Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

| | | |
|----|--------------------------------------------|---------|
| 1 | No, that person is not available right now | Appoint |
| 2 | Unable to refer someone who can help | Appoint |
| 3 | Yes, that would be me | S1 |
| 4 | Yes, let me transfer you to | FM050a |
| 77 | No, Other reason (specify) | FM050a |
| 88 | Refused | FM050a |
| 99 | Don't know | FM050a |

Appoint [IF RECOMMENDED CONTACT IS NOT CURRENTLY AVAILABLE]
When would be a good day and time for us to call back?

| | | |
|----|---------------------------------------------------------------------------------------------|-------------------|
| 77 | Record day of the week, time of day and date to call back, as &APPOINT | Name |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Name |

PERSON According to our records, your organization participated in &UTILITY's &PROG_LONG at your facility. Are you the person most knowledgeable about your organization's participation in this program?

| | | |
|---|-------------------------------------------------|------------|
| 1 | Yes | Intro3:s |
| 2 | No | Hi |
| 3 | No one knows about participation in &PROG_LONG. | Intro3(99) |

If Person(3)

| | | |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Intro3(99) | Thank you for your time. We need to speak with the person at your organization that is most familiar with your participation in the &Program. Those are all of the questions I have for you today. | Abandoned User30 |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|

Hi Who would be the person at this location who is most knowledgeable about your organization's installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG? [Enter technical Contact Name and move on.]

| | | |
|----|--------------------------|-------------------|
| 77 | Record Name, as &CONTACT | May I |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Ext |

May I May I speak with him/her?

| | | |
|----|---------------------------------------|-----------------------|
| 77 | Yes | Intro3:s |
| 88 | No (not available right now@, set cb) | Abandoned Appointment |

Intro3:s Hello, my name is <INTERVIEWER NAME> calling on behalf of the CPUC from Itron Consulting. This is not a sales call. We are interested in speaking with the person most knowledgeable about your organization's participation in &UTILITY's &PROG_LONG in which you installed steam traps and/or pipe insulation. I was told that would be you. Is this correct?

| | | |
|----|---------------------------------|-------------------|
| 1 | Yes | COMMENT |
| 2 | No | Thank & Terminate |
| 99 | No one knows about the &Program | Thank & Terminate |

According to our records, our organization participated in &UTILITY's &PROG_LONG and received rebates for installing steam traps and/or pipe insulation. Are you the person most knowledgeable about your organization's participation in &UTILITY's &PROG_LONG?

Ext Is there a phone extension or phone number you recommend we use when we call back?

| | | |
|----|------------------------------------------|-------------------|
| 77 | Record Extension or Phone Number, &PHONE | Thank & Terminate |
| 88 | Refused | Thank & Terminate |
| 99 | Don't know | Thank & Terminate |

Thank & Terminate Thank you for your time and help today.

END

**Participant Corporate Customer Survey for
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ST/PI Only - Corporate/Industrial Callback Survey**

Q1B [IF YOU ARE TRANSFERRED TO ANOTHER PERSON OTHER THAN THE BEST CONTACT]

Who would be the person at this location who is most knowledgeable about your organizations' participation in &UTILITY's &PROG_LONG.

[IF NEEDED] This is not a sales call.

[IF NEEDED] This is a fact-finding survey only, and responses will not be connected with your firm in any way. The California Public Utilities Commission wants to better understand how businesses think about and manage their energy consumption.

| | | |
|-----------|----------------------------------------------------------------------------|-------------------|
| 77 | There is no one here who can help you | Thank & Terminate |
| 1 | Continue Q1B until you find appropriate contact person, record as &CONTACT | FM050a |

[IF BEST CONTACT IS AVAILABLE]

Q1C Hello Mr./Mrs. &CONTACT, this is <INTERVIEWER NAME> calling on behalf of the California Public Utilities Commission from Itron Consulting. I understand you are the person at your location that is most knowledgeable about the installation of steam traps or pipe insulation through &UTILITY's &PROG_LONG. Is this correct?

| | | |
|-----------|--------------------------------------|---------------------------|
| 1 | Current individual is best contact | S1 |
| 2 | Transferred to best contact | Repeat Q1C w/best contact |
| 3 | Given best contact's name and number | Appoint |
| 99 | Don't know/refused | Thank & Terminate |

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor.

Your input will allow the CPUC to continue to build and maintain better energy savings programs for customers like you. And we would like to remind you that your responses will not be connected with your organization in any way.

To help save time and keep things moving along, we will be referring to the full program name &PROG_LONG as &PROGRAM.

FM050a What is your position/title for &BUS_NAME?

| | | |
|-----------|-----------------------------|--------|
| 1 | Regional Manager | FM050b |
| 2 | Regional Facilities Manager | FM050b |
| 3 | Energy Manager | FM050b |
| 77 | Other | FM050b |
| 88 | Refused | FM050b |
| 99 | Don't Know | FM050b |

ASK IF CORPORATE = 1, Else skip to CA15A

FM050b What region do your energy decisions affect?

| | | |
|-----------|---------------------|--------|
| 1 | California | FM050c |
| 2 | Northern California | FM050c |
| 3 | Southern California | FM050c |
| 4 | Bay Area | FM050c |
| 5 | Greater LA | FM050c |
| 6 | San Diego | FM050c |
| 77 | Other | FM050c |
| 88 | Refused | FM050c |
| 99 | Don't Know | FM050c |

FM050c Are you aware of the energy decisions being made and/or energy policies for your company outside of California?

| | | |
|-----------|-------------------------------------------------------------------------------------|--------|
| 1 | Yes, I make energy decisions in other states | FM050d |
| 2 | Yes, I am aware of energy decisions in other states but I am not the decision maker | FM050d |
| 3 | No, I am not aware of energy decisions in other states | FM050d |
| 4 | No locations outside California | FM050d |
| 88 | Refused | FM050d |
| 99 | Don't know | FM050d |

ASK IF &MULTILITY = 1, ELSE SKIP TO CA15A

FM050d Our records show that you had locations in the &OTHERUTILITY utility region as well. Are you the contact responsible for those decisions as well?

| | | |
|-----------|------------|--------|
| 1 | Yes | CA15A |
| 2 | No | FM050e |
| 88 | Refused | CA15A |
| 99 | Don't know | CA15A |

FM050eName What is the name and contact information for the person responsible for &OTHERUTILITY program information?

| | | |
|-----------|-------------|-------------|
| 77 | Record Name | FM050ePhone |
| 88 | Refused | FM050 |
| 99 | Don't know | FM050 |

FM050ePhone Do you have a phone number for this contact?

| | | |
|-----------|---------------------|-------|
| 77 | Record Phone number | FM050 |
| 88 | Refused | FM050 |
| 99 | Don't know | FM050 |

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CA15A Projecting over the NEXT 3 years, how would you characterize your business outlook? Would you say....

| | | |
|----|------------|-----|
| 1 | Excellent | ST1 |
| 2 | Good | ST1 |
| 3 | Fair | ST1 |
| 4 | Adequate | ST1 |
| 5 | Poor | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

INSTALLATION VERIFICATION

Do we want to keep this to refresh their memory every though they were asked this previously?

ASK IF &STEAMTRAP = 1 ELSE SKIP TO PI1g

ST3 Our records indicate that &NUM_STEAMTRAP steam traps were installed at your facility. Is this about right?

| | | |
|----|------------|------|
| 1 | Yes | ST1 |
| 2 | No | ST3X |
| 88 | Refused | ST3X |
| 99 | Don't know | ST3X |

ST3X Approximately how many steam traps were installed at your facility through the program?

| | | |
|----|---------------|------|
| # | Record Answer | Calc |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Were any of these &ST1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record

ST30y keeping.

| | | |
|----|--------------------------------------------|-----|
| 1 | Have no idea why numbers differ | ST1 |
| 2 | Multiple participation | ST1 |
| 3 | Installed equipment outside of the program | ST1 |
| 77 | Other | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

ST30Z

| | | |
|----|--------------------------------------------|-----|
| 1 | Have no idea why numbers differ | ST1 |
| 2 | Multiple participation | ST1 |
| 3 | Installed equipment outside of the program | ST1 |
| 77 | Other | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

ST_1G Our records indicate that your organization received &ST_Rebate for Steam Traps during 2006-2008. Is this correct?

| | | |
|----|------------|--------|
| 1 | Yes | ST_1gg |
| 2 | No | ST_1gg |
| 88 | Refused | ST_1gg |
| 99 | Don't Know | ST_1gg |

ST_1GG May I have the correct amount?

| | | |
|-------------|---------------|--|
| &ST_correct | Record Amount | |
|-------------|---------------|--|

ST_1GGG Approximately when were these steam traps installed?

| | | |
|----|---------------|------------|
| 1 | Yes, continue | Vend Maint |
| 2 | No | Vend Maint |
| 88 | Refused | Vend Maint |
| 99 | Don't know | Vend Maint |

During our previous interview with your organization, &CONTACT, indicated that &NUM_STEAMTRAP were installed at your facility.

Prior to installing these steam traps under the program, did you have an existing maintenance contract with a vendor that involved servicing your steam traps?

| | | |
|----|------------|-----|
| 1 | Yes | PI3 |
| 2 | No | PI3 |
| 77 | Other | PI3 |
| 88 | Refused | PI3 |
| 99 | Don't know | PI3 |

ASK IF &PIPEINSULATION = 1 ELSE SKIP TO V1

PI3 Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your facility. Is this about right?

| | | |
|----|--------------------|-------|
| 1 | Yes | PI_1g |
| 2 | No, then how many? | PI3X |
| 88 | Refused | PI3X |
| 99 | Don't know | PI3X |

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PI3X Approximately how many feet of pipe insulation was installed at your facility through the program?

| | | |
|----|---------------|-------|
| 77 | Record Answer | Calc |
| 88 | Refused | PI_1g |
| 99 | Don't know | PI_1g |

Calc QSL: IF PI3 << PI1UNDER THEN ASK PI30Y; ELSE IF PI3 >> PI1OVER THEN ASK PI30Z; ELSE ASK V1

Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Was any of this &PI1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know

PI30y why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

| | | |
|----|--------------------------------------|------|
| 1 | Have no idea why numbers differ | GS9a |
| 2 | Put in storage | GS9a |
| 3 | Installed at another facility | GS9a |
| 4 | Did not receive all of the &PI1_UNIT | GS9a |
| 77 | Other | GS9a |
| 88 | Refused | GS9a |
| 99 | Don't know | GS9a |

Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but

PI30z if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping.

| | | |
|----|--------------------------------------------|-----|
| 1 | Have no idea why numbers differ | PI1 |
| 2 | Multiple participation | PI1 |
| 3 | Installed equipment outside of the program | PI1 |
| 77 | Other | PI1 |
| 88 | Refused | PI1 |
| 99 | Don't know | PI1 |

PI_1g Our records indicate that your organization received &PI_REBATE for Pipe Insulation during 2006-2008. Is this correct?

| | | |
|----|------------|--------|
| 1 | Yes | PI_1gg |
| 2 | No | PI_1gg |
| 88 | Refused | PI_1gg |
| 99 | Don't Know | PI_1gg |

PI_1gg May I have the correct amount?

| | | |
|-------------|---------------|----|
| &PI_correct | Record Amount | V1 |
|-------------|---------------|----|

PI_1GGG Approximately when was this pipe insulation installed?

| | | |
|----|-------------------------------|----|
| 1 | Yes, continue | V1 |
| 2 | No. If NO, THEN ASK HOW MANY. | V1 |
| 88 | Refused | V1 |
| 99 | Don't know | V1 |

ROLE OF CONTRACTORS

If &PIPEINSULATION = 1 and &STEAMTRAP = 1 ELSE SKIP TO V1

Your organization installed BOTH steam traps and pipe insulation. Can you tell me if this was a JOINT DECISION? In other words, was the decision

Joint to install the steam traps and the pipe insulation made by the same individuals and at the same time?

| | | |
|----|-------------------------------|----|
| 1 | Yes, continue | V1 |
| 2 | No. If NO, THEN ASK HOW MANY. | V1 |
| 88 | Refused | V1 |
| 99 | Don't know | V1 |

V1 Now I would like to find out, did you use a contractor to install the &measure rebated through the 2006-08 &PROGRAM?

| | | |
|----|------------------------------------|-----|
| 1 | Yes | V5 |
| 2 | No | AP9 |
| 99 | [DO NOT READ] Don't know/No Answer | AP9 |

If &PIPEINSULATION = 1 and &STEAMTRAP = 1 ELSE SKIP TO AP9

V41 Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously?

| | | |
|--|------------|-----|
| | Yes | AP9 |
| | No | AP9 |
| | Refused | AP9 |
| | Don't know | AP9 |

PROGRAM AWARENESS

Next, I'd like to ask you about various energy efficiency programs and what influenced your program participation.

Since January 2006, has there been a period where there was a significant increase in production at this site? In other words, was there any period

ST14 where your production was higher than usual?

| | | |
|----|------------|-------|
| 1 | Yes | ST14A |
| 2 | No | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

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ST14A When was this increase in demand?

| | | |
|----|---------------|------|
| 77 | Record Answer | ST15 |
| 88 | Refused | ST15 |
| 99 | Don't know | ST15 |

Since January 2006, has there been a period where there was a significant decrease in production at this site? In other words, was there any period

ST15 where your production was lower than usual?

| | | |
|----|------------|-------|
| 1 | Yes | ST15A |
| 2 | No | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

ST15A When did this decrease occur?

| | | |
|----|---------------|-------|
| 77 | Record Answer | ST15B |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

ST15B Do you believe that the decrease in production is associated with the ongoing recession?

| | | |
|----|------------|-------|
| 1 | Yes | ST15C |
| 2 | No | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

ST15C When do you believe that your company will experience an increase in production?

| | | |
|----|---------------|-----|
| 77 | Record Answer | ST1 |
| 88 | Refused | ST1 |
| 99 | Don't know | ST1 |

STEAM TRAP BATTERY

if &STEAMTRAP = 1

In the next section we'll be discussing the steam traps present at your facility.

Did the steam traps installed under the &Program represent the installation of new traps where there previously were no traps or were the steam

ST1_1 traps used for the replacement of existing traps?

| | | |
|----|--------------------------------------|-------|
| 1 | Replacement of existing traps | ST3aa |
| 2 | New traps, not replacements | ST3aa |
| 3 | Some new traps and some replacements | ST2 |
| 88 | Refused | ST3aa |
| 99 | Don't know | ST3aa |

ST2 How many of the traps installed under the &Program were replacement traps?

| | | |
|----|---------------|-------|
| # | Record number | ST3aa |
| 88 | Refused | ST3aa |
| 99 | Don't know | ST3aa |

ST3a How many steam traps are located at your facility?

| | | |
|----|------------------------------|-------|
| # | Total number of steam traps: | ST3aa |
| 88 | Refused | ST3aa |
| 99 | Don't know | ST3aa |

ST3aa Do you have high pressure traps at your facility?

| | | |
|----|------------|--------|
| 1 | Yes | ST3aaa |
| 2 | No | ST300 |
| 88 | Refused | ST300 |
| 99 | Don't know | ST300 |

ST3aaa How many of the traps at your facility are high pressure traps?

| | | |
|----|-------------------------------------------------------------------------------|-------|
| # | Number of high pressure traps | ST3b |
| 2 | Don't know the number of high pressure traps, but we have high pressure traps | ST30 |
| 3 | No high pressure traps | ST300 |
| 88 | Refused | ST300 |
| 99 | Don't know if I have any | ST30 |

ST30 Can you provide a range of the possible number of high pressure traps at your facility? Would you say....

| | | |
|----|----------------|------|
| 1 | 0-10 traps | ST3b |
| 2 | 11-20 traps | ST3b |
| 3 | 21-30 traps | ST3b |
| 4 | 31-40 traps | ST3b |
| 5 | 41-50 traps | ST3b |
| 6 | 51-75 traps | ST3b |
| 7 | 76-100 traps | ST3b |
| 8 | 101-200 traps | ST3b |
| 9 | over 200 traps | ST3b |
| 88 | Refused | ST3b |
| 99 | Don't know | ST3b |

ST3b What percentage of the high pressure steam traps at your facility were replaced at this time?

| | | |
|---|-------------------------------------|-------|
| % | Percentage of steam traps replaced. | ST3bb |
|---|-------------------------------------|-------|

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| | | |
|-----|------------|-------|
| 101 | Refused | ST3bb |
| 102 | Don't know | ST3bb |

ST3bb What are the average weekly hours of operation for your high pressure steam traps?

| | | |
|-----|---------------|--------|
| Hrs | Average hours | ST3000 |
| 88 | Refused | ST3000 |
| 99 | Don't know | ST3000 |

ST3000 Do you have low pressure traps at your facility?

| | | |
|----|------------|-------|
| 1 | Yes | ST300 |
| 2 | No | ST40 |
| 88 | Refused | ST40 |
| 99 | Don't know | ST40 |

ST300 How many of the traps at your facility are low pressure traps?

| | | |
|----|-----------------------------------------------------------------------------|-------|
| # | Number of low pressure traps | ST3d |
| 2 | Don't know the number of low pressure traps, but we have low pressure traps | ST301 |
| 3 | No low pressure traps | ST40 |
| 88 | Refused | ST40 |
| 99 | Don't know if I have any | ST301 |

ST301 Can you provide a range of the possible number of low pressure traps at your facility? Would you say....

| | | |
|----|----------------|------|
| 1 | 0-10 traps | ST3d |
| 2 | 11-20 traps | ST3d |
| 3 | 21-30 traps | ST3d |
| 4 | 31-40 traps | ST3d |
| 5 | 41-50 traps | ST3d |
| 6 | 51-75 traps | ST3d |
| 7 | 76-100 traps | ST3d |
| 8 | 101-200 traps | ST3d |
| 9 | over 200 traps | ST3d |
| 88 | Refused | ST40 |
| 99 | Don't know | ST40 |

ST3d What percentage of the low pressure steam traps at your facility were replaced at this time?

| | | |
|-----|-------------------------------------|-------|
| % | Percentage of steam traps replaced. | ST3dd |
| 101 | Refused | ST3dd |
| 102 | Don't know | ST3dd |

ST3dd What are the average weekly hours of operation for your low pressure steam traps?

| | | |
|-----|---------------|------|
| Hrs | Average hours | ST40 |
| 88 | Refused | ST40 |
| 99 | Don't know | ST40 |

ST40 What led you to replace the steam traps? (Permit more than one answer.)

| | | |
|----|----------------------------------------------------------------------------------|-----|
| 1 | Needed to replace some old steam traps because system efficiency had diminished. | ST5 |
| 2 | Installed new steam traps to improve system efficiency. | ST5 |
| 3 | Wanted to save on our energy bill. | ST5 |
| 4 | Traps had failed | ST5 |
| 5 | Traps had failed open | ST5 |
| 6 | Traps were leaking | ST5 |
| 7 | Traps had failed shut | ST5 |
| 8 | Regular mantanance | ST5 |
| 9 | Other (record verbatim) | ST5 |
| 88 | Refused | ST5 |
| 99 | Don't know | ST5 |

ST5 Whose idea was it to replace the steam traps?

| | | |
|----|-------------------------------|-----|
| 1 | Me or someone at my facility. | ST6 |
| 2 | Contractor. | ST6 |
| 3 | Utility company contact. | ST6 |
| 4 | Manufacturer. | ST6 |
| 77 | Other (specify) | ST6 |
| 88 | Refused | ST6 |
| 99 | Don't know | ST6 |

ST6 Do you regularly consult with a contractor concerning the steam traps for your location(s) in California?

| | | |
|----|------------|-------|
| 1 | Yes | ST7 N |
| 2 | No | ST7 N |
| 88 | Refused | ST7 N |
| 99 | Don't know | ST7 N |

ST7 N Do you have a regular maintenance program for your steam traps at your locations in California?

| | | |
|----|------------|-------|
| 1 | Yes | ST70a |
| 2 | No | ST90 |
| 88 | Refused | ST90 |
| 99 | Don't know | ST90 |

ST70a What percentage of your traps do you survey during your regular maintenance program?

| | | |
|---|-------------------|---------|
| % | Record percentage | ST DIAG |
|---|-------------------|---------|

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| | | |
|----|------------|---------|
| 88 | Refused | ST DIAG |
| 99 | Don't know | ST DIAG |

ST DIAG Does your maintenance survey include diagnostic testing to determine if the steam traps needed replacement?

| | | |
|----|------------|----------|
| 1 | Yes | ST DIAG2 |
| 2 | No | ST DIAG2 |
| 88 | Refused | ST DIAG2 |
| 99 | Don't know | ST DIAG2 |

ST DIAG2 Who conducted this diagnostic testing for steam traps at this facility?

| | | |
|----|------------|-------|
| 1 | Utility | ST70b |
| 2 | A Vendor | ST70b |
| 3 | In House | ST70b |
| 77 | Other | ST70b |
| 88 | Refused | ST70b |
| 99 | Don't know | ST70b |

ST70E How often do you perform a maintenance survey?

| | | |
|--------|------------------------|--------|
| Record | (record in # of years) | ST70ee |
| 77 | Other | ST70ee |
| 88 | Refused | ST70ee |
| 99 | Don't know | ST70ee |

ST70EE When was the survey of steam traps last completed at your locations in California?

| | | |
|--------|------------------------|-------|
| Record | (record in # of years) | ST70c |
| 77 | Other | ST70c |
| 88 | Refused | ST70c |
| 99 | Don't know | ST70c |

ST70c During your regular maintenance cycles, what is the average percentage of traps that typically need to be replaced?

| | | |
|-----|-------------------|------|
| % | Record percentage | ST7b |
| 101 | Refused | ST7b |
| 102 | Don't know | ST7b |

ST70d What percentage of the steam traps that were replaced under the &Program were identified as needing replacement during your maintenance?

| | | |
|-----|-------------------|--------|
| % | Record percentage | ST6a N |
| 101 | Refused | ST6a N |
| 102 | Don't know | ST6a N |

NOTE: IF ASK ST7b, REMIND RESPONDENT THAT THE SET OF QUESTIONS FROM ST7b TO ST90 ARE FOR STEAM TRAPS AT LOCATIONS OUTSIDE CALIFORNIA
Ask if FM050c=1,2 else skip to ST90

Ask if FM050c = 1,2 else skip to ST90

ST6a N Do you regularly consult with a contractor concerning the steam traps for your location(s) outside California?

| | | |
|----|------------|------|
| 1 | Yes | ST7b |
| 2 | No | ST7b |
| 88 | Refused | ST7b |
| 99 | Don't know | ST7b |

ST7b Do you have a regular maintenance program for your steam traps at your locations outside California?

| | | |
|----|------------|------|
| 1 | Yes | ST7a |
| 2 | No | ST90 |
| 88 | Refused | ST90 |
| 99 | Don't know | ST90 |

ST7A What percentage of your traps do you survey during your regular maintenance program?

| | | |
|-----|-------------------|-------|
| % | Record percentage | ST7ee |
| 101 | Refused | ST7ee |
| 102 | Don't know | ST7ee |

ST7EE When did you last perform a replacement survey for your locations OUTSIDE California for repairs or retrofit?

| | | |
|--------|------------------------|------|
| Record | (record in # of years) | ST7C |
| 77 | Other | ST7C |
| 88 | Refused | ST7C |
| 99 | Don't know | ST7C |

ST7C During your regular maintenance cycles, what is the average percentage of traps that typically need to be replaced?

| | | |
|-----|-------------------|------|
| % | Record percentage | ST5b |
| 101 | Refused | ST5b |
| 102 | Don't know | ST5b |

ST5B What percentage of your steam traps were NOT in good condition prior to replacement?

| | | |
|-----|------------|------|
| % | Percentage | ST6a |
| 101 | Refused | ST6a |
| 102 | Don't Know | ST6a |

ASK IF RESPONSE TO ST90 > 0 ELSE SKIP TO ST9b.

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Prior to their replacement, how long had the steam traps been in fair or poor condition? If more than 1 answer, record the longest period of time.

ST6A (Push for best estimate)

| | | |
|----|---------------------------------------------|-------|
| 1 | 1-2 months | ST9aa |
| 2 | 3-4 months | ST9aa |
| 3 | 5-6 months | ST9aa |
| 4 | 7-8 months | ST9aa |
| 5 | 9-10 months | ST9aa |
| 6 | 11-12 months | ST9aa |
| 7 | Less than 1 1/2 years but more than 1 year | ST9aa |
| 8 | Less than 2 years but more than 1 1/2 years | ST9aa |
| 9 | More than 2 years | ST9aa |
| 88 | Refused | ST9aa |
| 99 | Don't know | ST9aa |

If ST7 = 1 and ST90 > 0

Given that you have a regular maintenance program for your steam traps, when would the traps that were in fair or poor condition have been

ST9aa replaced as part of your regular maintenance program if there were no &Program?

| | | |
|----|-------------------------------|------|
| 1 | Earlier than they were. | ST12 |
| 2 | At the same time. | ST6b |
| 3 | Later than they were replaced | ST11 |
| 88 | Refused | ST6b |
| 99 | Don't know | ST6b |

ST11_N How much later would they have been replaced under your regular maintenance program?

| | | |
|----|------------|------|
| 77 | Record | ST6b |
| 88 | Refused | ST6b |
| 99 | Don't know | ST6b |

ST12_N How much earlier would they have been replaced under your regular maintenance program?

| | | |
|----|------------|------|
| 77 | Record | ST6b |
| 88 | Refused | ST6b |
| 99 | Don't know | ST6b |

ST6b Were any of the replaced traps in good condition?

| | | |
|----|------------|---------|
| 1 | Yes | ST6BPCT |
| 2 | No | ST20 |
| 88 | Refused | ST20 |
| 99 | Don't know | ST20 |

ST6BPCT What share of the replaced traps were in good condition prior to replacement?

| | | |
|-----|------------|------|
| % | Percentage | ST9d |
| 101 | Refused | ST20 |
| 102 | Don't know | ST20 |

ST9dd Why were traps replaced that were in good condition?

| | | |
|----|-----------------|------|
| 77 | Record verbatim | ST20 |
| 88 | Refused | ST20 |
| 99 | Don't know | ST20 |

ST20 Did you receive an incentive for a previous installation of steam traps? If so, please describe the approximate timing and the name of the program that provided it.

| | | |
|----|------------|------|
| 1 | Yes | PI3a |
| 2 | No | PI3a |
| 88 | Refused | PI3a |
| 99 | Don't know | PI3a |

PIPE INSULATION BATTERY

if &PipeInsulation = 1

In the next section we'll be discussing the pipe insulation present at your facility.

PI3a How much pipe insulation is present at your facility?

| | | |
|----|---------------------------------------|------|
| 77 | Total linear feet of pipe insulation: | PI7 |
| 88 | Refused | PI3b |
| 99 | Don't know | PI3b |

ASK IF P13a = 88,99

PI3b Can you estimate what percent of the pipes present at your facility that were insulated through the &PROGRAM?

| | | |
|-----|-----------------------------------------|-----|
| % | Percentage of pipe insulation replaced: | PI7 |
| 101 | Refused | PI7 |
| 102 | Don't know | PI7 |

PI7 Was the pipe insulation installed on new pipes or was it a retrofit of older pipes?

| | | |
|----|--------------------|------|
| 1 | ONLY NEW | PI7b |
| 2 | ONLY OLDER | PI7b |
| 3 | BOTH NEW AND OLDER | PI7a |
| 88 | Refused | PI8 |
| 99 | Don't know | PI8 |

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ASK IF PI7 = 3, else skip to PI7b

PI7a What percentage of the pipe insulation was installed on new pipes (prompt for bePI answer)?

| | |
|--------------------------|------|
| % (record in # of years) | PI7b |
| 101 Refused | PI7b |
| 102 Don't know | PI7b |

PI7b How old were the pipes receiving the pipe insulation?

| | |
|--------------------------------------|-----|
| Record (record in # of years) | P18 |
| 88 Refused | P18 |
| 99 Don't know | P18 |

ASK IF PI7 ne 1; else skip to P25

P18 Was insulation already present on the pipes before the insulation was installed through the &PROGRAM program?

| | |
|---------------|-----|
| 1 Yes | P21 |
| 2 No | P25 |
| 88 Refused | P25 |
| 99 Don't know | P25 |

P21 Was the existing insulation removed and replaced, or was additional insulation added to existing insulation?

| | |
|---------------------------------------------------|-----|
| 1 old insulation removed and replaced | P23 |
| 2 Additional insulation added over old insulation | P23 |
| 88 Refused | P23 |
| 99 Don't know | P23 |

P23 What condition was your pipe insulation in at the time of the replacement?

| | |
|---------------|-----|
| 1 Good | P25 |
| 2 Fair | P25 |
| 3 Poor | P25 |
| 88 Refused | P25 |
| 99 Don't know | P25 |

ASK ALL

P25 Are boilers present at your facility?

| | |
|---------------|-----|
| 1 Yes | P27 |
| 2 No | P27 |
| 88 Refused | P27 |
| 99 Don't know | P27 |

P27 Since the pipe insulation was installed, have the boilers been repaired or replaced?

| | |
|---------------|-----|
| 1 Yes | P29 |
| 2 No | P33 |
| 88 Refused | P33 |
| 99 Don't know | P33 |

P29 When was the most recent boiler repair or replacement?

| | |
|-----------------------------------|-----|
| 77 Record DATE or # of months ago | P33 |
| 88 Refused | P33 |
| 99 Don't know | P33 |

P33 Whose idea was it to install new pipe insulation?

| | |
|---------------------------------|-----|
| 1 Me or someone at my facility. | P35 |
| 2 Contractor. | P35 |
| 3 Utility company contact. | P35 |
| 4 Manufacturer. | P35 |
| 77 Other (specify) | P35 |
| 88 Refused | P35 |
| 99 Don't know | P35 |

P35 What percentage of the pipe insulation cost would you estimate the &Program rebate covered?

| | |
|---------------------------------------------|-----|
| 1 Rebate covered all of the cost | P37 |
| 2 Rebate covered most of the cost | P37 |
| 3 Rebate covered less than half of the cost | P37 |
| 4 Other | P37 |
| 88 Refused | P37 |
| 99 Don't know | P37 |

P37 How effective was the new pipe insulation in reducing your natural gas bill?

| | |
|----------------------------|-----|
| 1 Considerable gas savings | P39 |
| 2 Some gas savings | P39 |
| 3 No noticeable savings | P39 |
| 88 Refused | P39 |
| 99 Don't know | P39 |

P39 Have you noticed any problems with the pipe insulation since the installation?

| | |
|---------------|-----|
| 1 Yes | A1b |
| 2 No | A1b |
| 88 Refused | A1b |
| 99 Don't know | A1b |

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UTILITY ASSISTANCE BATTERY

IF AUDIT == 1, THEN ASK, ELSE A1c

According to our records, your organization received additional non-rebated assistance from &UTILITY.

A1b Did your organization receive an AUDIT from &UTILITY?

| | | |
|----|------------|-----|
| 1 | Yes | A1c |
| 2 | No | A1c |
| 88 | Refused | A1c |
| 99 | Don't know | A1c |

A1c Did your organization receive any TECHNICAL ASSESSMENT to help identify the need to replace or retrofit existing measures from &UTILITY?

| | | |
|----|------------|-----|
| 1 | Yes | A1d |
| 2 | No | A1d |
| 88 | Refused | A1d |
| 99 | Don't know | A1d |

A1d Did your organization receive a FEASIBILITY STUDY to analyze the energy and cost savings of &measure from &UTILITY?

| | | |
|----|------------|-----|
| 1 | Yes | A1e |
| 2 | No | A1e |
| 88 | Refused | A1e |
| 99 | Don't know | A1e |

A1e Did your organization receive RETROCOMMISSIONING services from &UTILITY?

| | | |
|----|------------|-----|
| 1 | Yes | A1f |
| 2 | No | A1f |
| 88 | Refused | A1f |
| 99 | Don't know | A1f |

IF PTRAIN == 1, THEN ASK, ELSE A1g

A1f Did your organization receive information from a &UTILITY seminar or training course?

| | | |
|----|------------|-------|
| 1 | Yes | ST_1H |
| 2 | No | ST_1H |
| 88 | Refused | ST_1H |
| 99 | Don't know | ST_1H |

VENDOR INFORMATION

[READ] For the sake of expediency, during the balance of the interview, we will be referring to the <%PROG_LONG> as the PROGRAM and we will be referring to the installation of ... <%MEASURE> as the MEASURE. I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.

[READ] I would like to get some information on the VENDORS that may have helped you acquire or install this equipment. As part of this study, we will be conducting a separate interview with these vendors.

We show ...

! VENDOR NAME...<%VEND1NAME>

! VENDOR PHONE...<%V1PHONE>

First let's talk about the EQUIPMENT SUPPLIER/INSTALLER Vendor. . . .

ST_1H According to our records, you purchased your steam traps from <%ST_NAME>. Is this correct?

| | | |
|----|------------|---------|
| 1 | Yes | PI 1H |
| 2 | No | ST_1H A |
| 88 | Refused | PI 1H |
| 99 | Don't know | PI 1H |

ST_1H A From whom did you purchase your steam traps?

| | | |
|----|---------------------------------|---------|
| 1 | 25 Plumbing heating and ac | ST 1H B |
| 2 | Advanced Engineering Prods | ST 1H B |
| 3 | Advanced Sealing & Supply | ST 1H B |
| 4 | ALPI Industrial Supply | ST 1H B |
| 5 | Anderson Systems | ST 1H B |
| 6 | Armstrong World Industries | ST 1H B |
| 7 | Assoc Flow Controls | ST 1H B |
| 8 | Bakersfield Pipe & Supply | ST 1H B |
| 9 | Bell Pipe & Supply | ST 1H B |
| 10 | Birmingham Controls | ST 1H B |
| 11 | CalPacific Equipment | ST 1H B |
| 12 | Caltrol Inc | ST 1H B |
| 13 | Cleaners Supply | ST 1H B |
| 14 | Consolidated International Corp | ST 1H B |
| 15 | Consumer Pipe & Supply | ST 1H B |
| 16 | Donahue and Assoc | ST 1H B |
| 17 | Donates Boiler Corp | ST 1H B |
| 18 | Edmond Engineering | ST 1H B |
| 19 | Fluid Gauge Co | ST 1H B |
| 20 | Fresno Pipe & Supply | ST 1H B |
| 21 | Grainger | ST 1H B |
| 22 | HM Craig Metal | ST 1H B |

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| | | |
|----|----------------------------------|---------|
| 23 | Hi Tech Industrial | ST 1H B |
| 24 | International Medication Systems | ST 1H B |
| 25 | Jack Mills | ST 1H B |
| 26 | Jason Gusman | ST 1H B |
| 27 | John H Coon | ST 1H B |
| 28 | JR Supply Co | ST 1H B |
| 29 | JW Wood Co | ST 1H B |
| 30 | K & K Specialties | ST 1H B |
| 31 | Kerco Inc | ST 1H B |
| 32 | Kings Construction | ST 1H B |
| 33 | Kleen Kraft Serv | ST 1H B |
| 34 | Los Angeles Pipe & Supply | ST 1H B |
| 35 | MCG Boilers | ST 1H B |
| 36 | McJunkin Redman Co | ST 1H B |
| 37 | McKenna Boiler Works | ST 1H B |
| 38 | McMaster Carr | ST 1H B |
| 39 | Mead OBrien | ST 1H B |
| 40 | Neal Supply Co | ST 1H B |
| 41 | Norman S Wright Co | ST 1H B |
| 42 | Onsite Energy | ST 1H B |
| 43 | Pacific Molded Tech | ST 1H B |
| 44 | Pacmech | ST 1H B |
| 45 | Pan Pacific Supply | ST 1H B |
| 46 | Paramount Supply | ST 1H B |
| 47 | Parker Industrial Boiler | ST 1H B |
| 48 | Parker Supply Co | ST 1H B |
| 49 | Parks Cleaners Service | ST 1H B |
| 50 | Quality Plumbing | ST 1H B |
| 51 | Richard Garr Mechanical Service | ST 1H B |
| 52 | Rick Refrigeration & Heating | ST 1H B |
| 53 | SK Technology | ST 1H B |
| 54 | Smock and Schonhaler | ST 1H B |
| 55 | Southern California Boiler | ST 1H B |
| 56 | Southwest Laundry Equip | ST 1H B |
| 57 | Spirax Sarco | ST 1H B |
| 58 | SR&B Boilers | ST 1H B |
| 59 | Stainless Distributors | ST 1H B |
| 60 | Teds Industrial Insulation | ST 1H B |
| 61 | Temper Insulation Co | ST 1H B |
| 62 | The Cleaners Mart | ST 1H B |
| 63 | United Cleaners Supply Inc | ST 1H B |
| 64 | United Fabricare Supply | ST 1H B |
| 65 | Warden | ST 1H B |
| 66 | West Coast Industrial Supply | ST 1H B |
| 67 | WSI Distributors | ST 1H B |
| 77 | Other - Record Vendor Name | ST 1H B |
| 88 | Refused | PI 1H |
| 99 | Don't know | PI 1H |

ST_1H_B Do you have a contact name?

| | | |
|----|---------------------|-------|
| 77 | RECORD CONTACT NAME | PI 1H |
|----|---------------------|-------|

PI_1H According to our records, you purchased your pipe insulation from <%PI_NAME>. Is this correct?

| | | |
|----|------------|---------|
| 1 | Yes | A1i |
| 2 | No | PI 1H A |
| 88 | Refused | A1i |
| 99 | Don't know | A1i |

PI_1H_A From whom did you purchase your pipe insulation?

| | | |
|----|--------------------------|---------|
| 1 | AIPi Industrial Supply | PI 1H B |
| 2 | Cal Therm corp | PI 1H B |
| 3 | Cleaners Supply | PI 1H B |
| 4 | Crown Cleaners | PI 1H B |
| 5 | CSCI Insulation of LA | PI 1H B |
| 6 | DAHL Air Cond | PI 1H B |
| 7 | Everbloom | PI 1H B |
| 8 | Georges Equip | PI 1H B |
| 9 | GNS Engineering | PI 1H B |
| 10 | Grolink Plant Co | PI 1H B |
| 11 | Horticultural Labor Serv | PI 1H B |
| 12 | Kerco | PI 1H B |
| 13 | Kleen Kraft Serv | PI 1H B |
| 14 | Luxary Cleaning | PI 1H B |
| 15 | MDH Burner & Boiler co | PI 1H B |
| 16 | MW Equipment | PI 1H B |
| 17 | N Channel America | PI 1H B |
| 18 | NP Services | PI 1H B |
| 19 | Pacific Industrial | PI 1H B |
| 20 | Pacific Insulation Co | PI 1H B |

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| | | |
|----|-------------------------------------|---------|
| 21 | Perker Supply Co | PI 1H B |
| 22 | Parks Cleaners Serv | PI 1H B |
| 23 | Perter Boiler Serv | PI 1H B |
| 24 | Petrochem | PI 1H B |
| 25 | Plumbing & Industrial Supply | PI 1H B |
| 26 | Ricks Refrigeration & Heating | PI 1H B |
| 27 | Ricks Refrigeration & Heating | PI 1H B |
| 28 | Superior Boiler Repairs | PI 1H B |
| 29 | Superior Insulation | PI 1H B |
| 30 | System USA | PI 1H B |
| 31 | The Cleaners Mart | PI 1H B |
| 32 | Thermo Power Industries | PI 1H B |
| 33 | Trinity Process | PI 1H B |
| 34 | Tuscan Construction | PI 1H B |
| 35 | United Fabricare Supply | PI 1H B |
| 36 | Warden | PI 1H B |
| 37 | WST Distributors | PI 1H B |
| 77 | RECORD VENDOR NAME AND PHONE NUMBER | A1i |
| 88 | Refused | A1i |
| 99 | Don't know | A1i |

PI_1H_B Do you have a contact name?

| | | |
|----|---------------------|-----|
| 77 | RECORD CONTACT NAME | A1i |
|----|---------------------|-----|

A1i Did you also use a CONSULTING Engineer?

| | | |
|----|------------|------|
| 1 | Yes | A111 |
| 2 | No | N33 |
| 88 | Refused | N33 |
| 99 | Don't know | N33 |

IF A1i=1, THEN ASK:

A1i_a Do you have a contact name?

| | | |
|----|----------------------------------------------------------|-----|
| 77 | RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION | N33 |
| 88 | Refused | N33 |
| 99 | Don't know | N33 |

N33 We do not have the name of your ACCOUNT REP at &UTILITY.Can you give me his/her name?

| | | |
|----|---------------------------------------------------------------|-----|
| 77 | RECORD ACCOUNT REP NAME, PHONE NUMBER AND CONTACT INFORMATION | AP9 |
| 88 | Refused | AP9 |
| 99 | Don't know | AP9 |

Thanks for helping us with this vendor information. Below, I am going to ask some questions about the implementation of the measure that you installed through the program. Should you remember any vendor information later on, please feel free to volunteer this information at that time, I can record vendor information at any time.

WARM-UP QUESTIONS FOR NTG BATTERY

AP9 How did you FIRST learn about the &UTILITY's &PROGRAM? [DO NOT READ]

| | | |
|----|--------------------------------------------------------------------------------------------|-----|
| 1 | Utility provided advertising--radio, newspaper, trade journal, billboard, TV | A2a |
| 2 | Bill insert, newsletter, or other mailing from utility | A2a |
| 3 | Utility Website | A2a |
| 4 | Email from Utility | A2a |
| 5 | Other utility source (SPECIFY) | A2a |
| 6 | Local government, community or nonprofit meeting, event, workshop or training (SPECIFY) | A2a |
| 7 | Local government/community agency (SPECIFY) | A2a |
| 8 | Local government, community, or nonprofit advertising- radio, newspaper, trade journal, TV | A2a |
| 9 | School, classes, energy center (SPECIFY) | A2a |
| 10 | Building audit or assessment (SPECIFY) | A2a |
| 11 | Flex your Power TV or radio advertising | A2a |
| 12 | Other meeting, event or workshop training (SPECIFY) | A2a |
| 13 | Other advertising | A2a |
| 14 | Word of mouth: Friend/Relative/Neighbor/Co-worker | A2a |
| 15 | Contractor | A2a |
| 66 | No other sources | A2a |
| 77 | Other (SPECIFY) | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 5

AP9_5 What was that other utility source?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 6

AP9_6a What was that other local government event?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

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If AP9 = 7

AP9_7a What was the name of this local government agency you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 9

AP9_9a What was the name of the schools or training centers that you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 10

AP9_10a What program was the building audit or assessment completed under?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

If AP9 = 11

AP9_12a What was the name of the other meetings you mentioned?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | A2a |
| 88 | Refused | A2a |
| 99 | Don't know | A2a |

A2a How did you first become aware that &MEASURE was rebated through &PROGRAM?

| | | |
|----|------------------------------------|----|
| 1 | Bill insert | A2 |
| 2 | Program Literature | A2 |
| 3 | Account representative | A2 |
| 4 | Program provided vendor | A2 |
| 5 | Program representative | A2 |
| 6 | Utility or program website | A2 |
| 7 | Trade publication | A2 |
| 8 | Conference | A2 |
| 9 | Newspaper article | A2 |
| 10 | Word of mouth | A2 |
| 11 | Previous experience with it | A2 |
| 12 | Company used it at other locations | A2 |
| 13 | Contractor | A2 |
| 14 | Other (RECORD VERBATIM) | A2 |
| 88 | Refused | A2 |
| 99 | Don't know | A2 |

A2 In your own words, can you tell me why you decided to implement this &MEASURE?

| | | |
|----|-----------------|----|
| 77 | RECORD VERBATIM | N1 |
| 88 | Refused | N1 |
| 99 | Don't know | N1 |

NTG QUESTIONS

N1_ST When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about implementing &MEASURE?

| | | |
|----|------------|--------|
| 1 | Before | N3a_ST |
| 2 | After | N2_ST |
| 3 | During | N2_ST |
| 88 | Refused | N2_ST |
| 99 | Don't know | N2_ST |

N2_ST Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the &MEASURE that was installed?

| | | |
|----|------------|--------|
| 1 | Before | N3a_ST |
| 2 | After | N3a_ST |
| 3 | During | N3a_ST |
| 88 | Refused | N3a_ST |
| 99 | Don't know | N3a_ST |

Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important, so that an importance rating of 8 shows twice as much influence as a rating of 4. Now using this scale please rate the importance of each of the following in your decision to implement the MEASURE at this time.

N3a_ST The age or condition of the old equipment

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3b_ST |
| 88 | Refused | N3b_ST |
| 99 | Don't know | N3b_ST |

N3b_ST Availability of the PROGRAM rebate

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3BWHY_ST |
| 88 | Refused | N3c_ST |
| 99 | Don't know | N3c_ST |

IF N3b > 7, THEN ASK N3WHY, ELSE SKIP TO N3c

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N3BWHY_S

T Why would you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3c_ST |
| 88 | Refused | N3c_ST |
| 99 | Don't know | N3c_ST |

IF &AUDIT=1 THEN ASK N3c, ELSE N3d
Information provided through...!__<(FEAS_STUDY == 1)/ The Feasibility study/> !__<(AUDIT == 1)/The Facility or System AUDIT/>

N3c_ST !__<(AUDIT == 1)/The Facility or System AUDIT/>

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3CWHY_ST |
| 88 | Refused | N3d_ST |
| 99 | Don't know | N3d_ST |

IF N3c > 7, THEN ASK

N3CWHY_S

T Why would you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3d_ST |
| 88 | Refused | N3d_ST |
| 99 | Don't know | N3d_ST |

N3d_ST Recommendation from an equipment vendor that sold you &MEASURE and/or installed it [VENDOR_1]

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3e_ST |
| 88 | Refused | N3e_ST |
| 99 | Don't know | N3e_ST |

N3e_ST Previous experience with this &MEASURE?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3f_ST |
| 88 | Refused | N3f_ST |
| 99 | Don't know | N3f_ST |

N3f_ST Previous experience with the utility &PROGRAM or a similar utility program?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3g_ST |
| 88 | Refused | N3g_ST |
| 99 | Don't know | N3g_ST |

IF &PTRAIN=1 THEN ASK N3g, ELSE N3i

N3g_ST Information from &PROGRAM or &UTILITY training course or marketing material?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | N3WHY_ST |
| 88 | Refused | N3h_ST |
| 99 | Don't know | N3h_ST |

N3GWHY_S

T Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3i_ST |
| 88 | Refused | N3i_ST |
| 99 | Don't know | N3i_ST |

IF VENDOR2 NE.0, THEN ASK

N3i_ST A recommendation from a consulting engineer [VENDOR_2]

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3j_ST |
| 88 | Refused | N3j_ST |
| 99 | Don't know | N3j_ST |

N3j_ST Standard practice in your business/industry

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3k_ST |
| 88 | Refused | N3k_ST |
| 99 | Don't know | N3k_ST |

N3l_ST Endorsement or recommendation by an ACCT REP

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3LWHY_ST |
| 88 | Refused | N3m_ST |
| 99 | Don't know | N3m_ST |

N3LWHY_ST Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3m_ST |
| 88 | Refused | N3m_ST |
| 99 | Don't know | N3m_ST |

N3m_ST Corporate policy or guidelines

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3n_ST |
| 88 | Refused | N3n_ST |
| 99 | Don't know | N3n_ST |

N3n_ST Payback on the investment

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3o_ST |
| 88 | Refused | N3o_ST |
| 99 | Don't know | N3o_ST |

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N3o_ST Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE?

| | | |
|----|--------------------------|---------|
| # | Record 0 to 10 score () | N3oo_ST |
| 88 | Refused | N3oo_ST |
| 99 | Don't know | N3oo_ST |

N3o_ten_ST Using the same zero to 10 scale, how would you rate the influence of this factor?

| | | |
|----|--------------------------|--------|
| # | Record 0 to 10 score () | N41_ST |
| 88 | Refused | N41_ST |
| 99 | Don't know | N41_ST |

Next, I would like you to rate the importance of the PROGRAM in your decision to implement this MEASURE as opposed to other factors that may have influenced your decision such as...(SCAN BELOW AND READ TO THEM THOSE ITEMS WHERE THEY GAVE A RATING OF 8 or higher)
 ! <%N3A> Age or condition of old equipment,
 ! <%N3D> Equipment Vendor recommendation
 ! <%N3E> Previous experience with this measure
 ! <%N3F> Previous experience with this program
 ! <%N3I> Recommendation from a design or consulting engineer
 ! <%N3J> Standard practice in your business/industry
 ! <%N3M> Corporate policy or guidelines
 ! <%N3N> Payback on investment.

If you were given 10 points to award in total, how many points would give to the importance of the program and how many points would you give to these other factors?

N41_ST How many of the ten points would you give to the importance of the PROGRAM in your decision?

| | | |
|----|--------------------------|--------|
| # | Record 0 to 10 score () | N42_ST |
| 88 | Refused | N42_ST |
| 99 | Don't know | N42_ST |

N42_ST and how many points would you give to these other factors?

| | | |
|----|--------------------------|---------|
| # | Record 0 to 10 score () | N41a_ST |
| 88 | Refused | N41a_ST |
| 99 | Don't know | N41a_ST |

_ We want these two sets of numbers to equal 10.
 ! <%N41> for Program influence and
 ! <%N42> for Non Program factors

CONSISTENCY CHECK ON PGM IMPORTANCE SCORE

IF N41 &PROGRAM>6 AND N3b, N3c, N3g, N3k AND N3I ALL<4, THEN ASK N41a. ELSE IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3I>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were not that important to you. Just to make sure I have recorded this properly, may I please take a second to

N41a_ST review?

IF N3b<4, THEN ASK

N3B_REDO_ST When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was not that important to you. Can you tell me why the rebate was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3C_REDO_ST |
| 88 | Refused | N3C_REDO_ST |
| 99 | Don't know | N3C_REDO_ST |

IF N3c<4, THEN ASK

When I asked you about THE INFORMATION PROVIDED THROUGH

!!_<(FEAS_STUDY == 1)/ The Feasibility study/>

!_<(AUDIT == 1)/The Facility or System AUDIT/>

!_<(TECH_ASST == 1)/The Technical Assistance/> !

N3C_REDO_ST you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was not that important to you. Can you tell me why the information provided was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3G_REDO_ST |
| 88 | Refused | N3G_REDO_ST |
| 99 | Don't know | N3G_REDO_ST |

IF N3g<4, THEN ASK

When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ...<%N3G> ... out of ten,

N3G_REDO_ST indicating that the information from the program or utility training course was not that important to you. Can you tell me why this information was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3L_REDO_ST |
| 88 | Refused | N3L_REDO_ST |
| 99 | Don't know | N3L_REDO_ST |

IF N3I<4, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of

N3L_REDO_ST ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you. Can you tell me why this endorsement was not that important?

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5_ST |
| 88 | Refused | N5_ST |

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| | | |
|----|------------|-------|
| 99 | Don't know | N5_ST |
|----|------------|-------|

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was not very important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were very important to you. Just to make sure I have recorded this properly, may I please take a second N41b_ST to review.

IF N3b>7, THEN ASK

N3BB_RED When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program O_ST rebate was quite important to you. Can you tell me why the rebate was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3CC REDO ST |
| 88 | Refused | N3CC REDO ST |
| 99 | Don't know | N3CC REDO ST |

IF N3c>7, THEN ASK

When asked about THE INFORMATION PROVIDED THROUGH
!!_<(FEAS_STUDY == 1)/ The Feasibility study/>
!_<(AUDIT == 1)/The Facility or System AUDIT/>
!_<(TECH_ASST == 1)/The Technical Assistance/> !

N3CC_RED you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was quite important to you. Can you tell me why the information O_ST provided was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3GG REDO ST |
| 88 | Refused | N3GG REDO ST |
| 99 | Don't know | N3GG REDO ST |

IF N3g>7, THEN ASK

When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES or MARKETING MATERIAL, you gave a rating N3GG_RED of ..<%N3G> ... out of ten, indicating that the information from the program or utility training course was quite important to you. Can you tell me why O_ST this information was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3LL REDO ST |
| 88 | Refused | N3LL REDO ST |
| 99 | Don't know | N3LL REDO ST |

IF N3i>7, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of N3LL_REDO ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was quite important to you. Can you tell me why this endorsement was that O_ST important?

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5_ST |
| 88 | Refused | N5_ST |
| 99 | Don't know | N5_ST |

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the &PROGRAM had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the N5_ST likelihood that you would have installed exactly the same equipment?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N5a_ST |
| 88 | Refused | N6_ST |
| 99 | Don't know | N6_ST |

CONSISTENCY CHECKS

IF N3b>7 and N5>7, THEN ASK.

When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same equipment without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient N5a_ST equipment?

| | | |
|----|-----------------|------------|
| 77 | Record VERBATIM | N5Again_ST |
| 88 | Refused | N5Again_ST |
| 99 | Don't know | N5Again_ST |

N5Again_ST Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same equipment without the rebate which you gave a rating of <%N5> and/or we can change both if you wish?

| | | |
|----|-----------------|-------|
| 1 | No change | N9_ST |
| 77 | Record VERBATIM | N9_ST |
| 88 | Refused | N9_ST |
| 99 | Don't know | N9_ST |

PROBE ON STANDARD PRACTICE if N3j>7, ELSE ASK N9

In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this MEASURE. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the N5B_ST standard practice or policy?

| | | |
|----|-------------------------|-------|
| 1 | Much more important | N9_ST |
| 2 | Somewhat more important | N9_ST |
| 3 | Equally important | N9_ST |
| 4 | Somewhat less important | N9_ST |
| 5 | Much less important | N9_ST |
| 88 | Refused | N9_ST |
| 99 | Don't know | N9_ST |

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IF N5>0, THEN ASK.

You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same equipment if N9_ST THE PROGRAM had not been available. When do you think you would have installed this equipment? Please express your answer in months.

| | | |
|----|-----------------------------|--------|
| 1 | At the same time | TD1 ST |
| 2 | Within 6 months? | TD1 ST |
| 3 | 6 months to 1 year | TD1 ST |
| 4 | 1 - 2 years | TD1 ST |
| 5 | 2 - 3 years | TD1 ST |
| 6 | 3 - 4 years | TD1 ST |
| 7 | 4 - 5 years | N9b ST |
| 8 | 5 years or more | N9b ST |
| 66 | Would not have installed it | TD1 ST |
| 88 | Refused | TD1 ST |
| 99 | Don't know | TD1 ST |

IF N9 >= 48 months OR N9a = 6, THEN ASK N9b, ELSE ASK N6

N9b_ST Why do you think it would have been 4 or more years later?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | TD1 ST |
| 88 | Refused | TD1 ST |
| 99 | Don't know | TD1 ST |

| | | |
|----|-----------------|-----|
| 77 | Record VERBATIM | TD1 |
| 88 | Refused | TD1 |
| 99 | Don't know | TD1 |

DEFERRED FREE RIDERSHIP FOLLOW-UP

You said that there was an <N5> in 10 likelihood that you would have installed the same equipment about <&N9> months later (OR at the same time) if the PROGRAM had not been available. I'd like to ask a couple of questions to help us estimate at what point in the future you would definitely

INTRO FOR have installed new equipment. We understand that you can't know exactly when you would have done this, especially so far into the future. Were just **BOTH TD1** trying to get a sense of how long you think the current equipment or process would have kept serving your company's needs before you had to or **and TD1a** chose to replace it.

If N9 or N9a ≤ 60 months, ask TD1, ELSE TD1A

So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the TD1_ST same equipment within 60 months, or 5 years, later if the program had not been available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | TD2 ST |
| 88 | Refused | TD1A ST |
| 99 | Don't know | TD1A ST |

IF TD1 < 10 ASK TD2, ELSE GO TO N5a

And what would you say is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had TD2_ST not been available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | TD1A ST |
| 88 | Refused | TD1A ST |
| 99 | Don't know | TD1A ST |

If N9 or N9a > 60 months, ask

Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed TD1A_ST the same equipment within 120 months, or 10 years, later if the program had not been available?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N9bb ST |
| 88 | Refused | N9bb ST |
| 99 | Don't know | N9bb ST |

CONSISTENCY CHECK ON AGE

IF (N3a > 6 AND N9 > =48 months) OR (N3a > 6 AND N9a = 6), THEN ASK N9bb, ELSE N6

Earlier when asked about the influence of the age/condition of the old equipment on your decision to install this new equipment, you gave me a rating of <%N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the

N9bb_ST existing equipment played in your decision to install this new energy-efficient equipment.

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N6 ST |
| 88 | Refused | N6 ST |
| 99 | Don't know | N6 ST |

PARTIAL FREE RIDERSHIP

Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had

N6_ST not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?

| | | |
|----|------------------------------------------------|--------|
| 1 | Install fewer units | N6a ST |
| 2 | Repaired or overhaul the existing equipment | N6c ST |
| 3 | Do nothing (keep the existing equipment as is) | SPILL1 |
| 77 | Something else (specify what _____) | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6a_ST How many fewer units would you have installed? (It is okay to take an answer such as ...HALF...or 10 percent fewer ... etc.)

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Don't know | SPILL1 |
| 99 | Refused | SPILL1 |

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N6c_ST How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

In regards to the pipe insulation, if the program had not been available. Supposing that you had not installed the program qualifying insulation, which

N6_JT of the following alternatives would you have been MOST likely to do? Would you have...

| | | |
|----|-----------------------------------------------------|--------|
| 1 | Installed fewer linear feet of pipe insulating | N6a_JT |
| 2 | Installed insulation with a lower R value (thinner) | N6b_JT |
| 3 | Repaired or overhauled the existing equipment | N6c_JT |
| 4 | Do nothing (keep the existing equipment as is) | SPILL1 |
| 77 | Something else (specify what _____) | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6a_JT How many fewer linear feet of insulation would you have installed?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6b_JT Can you tell me what R value or insulation thickness you would have installed without assistance from the program?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6c_JT How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

PIPE INSULATION NTG QUESTIONS

N1_PI When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about implementing &MEASURE?

| | | |
|----|------------|--------|
| 1 | Before | N3a_PI |
| 2 | After | N2_PI |
| 3 | During | N2_PI |
| 88 | Refused | N2_PI |
| 99 | Don't know | N2_PI |

N2_PI Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the &MEASURE that was installed?

| | | |
|----|------------|--------|
| 1 | Before | N3a_PI |
| 2 | After | N3a_PI |
| 3 | During | N3a_PI |
| 88 | Refused | N3a_PI |
| 99 | Don't know | N3a_PI |

Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important, so that an importance rating of 8 shows twice as much influence as a rating of 4. Now using this scale please rate the importance of each of the following in your decision to implement the MEASURE at this time.

N3a_PI The age or condition of the old equipment

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3b_PI |
| 88 | Refused | N3b_PI |
| 99 | Don't know | N3b_PI |

N3b_PI Availability of the PROGRAM rebate

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3BWHY_PI |
| 88 | Refused | N3c_PI |
| 99 | Don't know | N3c_PI |

IF N3b > 7, THEN ASK N3WHY, ELSE SKIP TO N3c

N3BWHY_PI Why would you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3c_PI |
| 88 | Refused | N3c_PI |
| 99 | Don't know | N3c_PI |

IF &AUDIT=1 THEN ASK N3c, ELSE N3d

Information provided through...!_<(FEAS_PIUDY == 1)/ The Feasibility study/> !_<(AUDIT == 1)/The Facility or System AUDIT/> !_<(AUDIT

N3c_PI == 1)/The Facility or System AUDIT/>

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3CWHY_PI |
| 88 | Refused | N3d_PI |
| 99 | Don't know | N3d_PI |

IF N3c > 7, THEN ASK

N3CWHY_PI Why would you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3d_PI |
| 88 | Refused | N3d_PI |
| 99 | Don't know | N3d_PI |

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N3d_PI Recommendation from an equipment vendor that sold you &MEASURE and/or installed it [VENDOR_1]

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3e_PI |
| 88 | Refused | N3e_PI |
| 99 | Don't know | N3e_PI |

N3e_PI Previous experience with this &MEASURE?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3f_PI |
| 88 | Refused | N3f_PI |
| 99 | Don't know | N3f_PI |

N3f_PI Previous experience with the utility &PROGRAM or a similar utility program?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3g_PI |
| 88 | Refused | N3g_PI |
| 99 | Don't know | N3g_PI |

IF &PTRAIN=1 THEN ASK N3g, ELSE N3i

N3g_PI Information from &PROGRAM or &UTILITY training course or marketing material?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | N3WHY_PI |
| 88 | Refused | N3h_PI |
| 99 | Don't know | N3h_PI |

N3GWHY_PI Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3i_PI |
| 88 | Refused | N3i_PI |
| 99 | Don't know | N3i_PI |

IF VENDOR2 NE.0, THEN ASK

N3i_PI A recommendation from a consulting engineer [VENDOR_2]

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3j_PI |
| 88 | Refused | N3j_PI |
| 99 | Don't know | N3j_PI |

N3j_PI Standard practice in your business/industry

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3k_PI |
| 88 | Refused | N3k_PI |
| 99 | Don't know | N3k_PI |

N3l_PI Endorsement or recommendation by an ACCT REP

| | | |
|----|------------------------------|-----------|
| # | Record 0 to 10 score (_____) | N3LWHY_PI |
| 88 | Refused | N3m_PI |
| 99 | Don't know | N3m_PI |

N3LWHY_PI Why do you give it this rating?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | N3m_PI |
| 88 | Refused | N3m_PI |
| 99 | Don't know | N3m_PI |

N3m_PI Corporate policy or guidelines

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3n_PI |
| 88 | Refused | N3n_PI |
| 99 | Don't know | N3n_PI |

N3n_PI Payback on the investment

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N3o_PI |
| 88 | Refused | N3o_PI |
| 99 | Don't know | N3o_PI |

N3o_PI Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N3oo_PI |
| 88 | Refused | N3oo_PI |
| 99 | Don't know | N3oo_PI |

N3o_ten_PI Using the same zero to 10 scale, how would you rate the influence of this factor?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N41_PI |
| 88 | Refused | N41_PI |
| 99 | Don't know | N41_PI |

Next, I would like you to rate the importance of the PROGRAM in your decision to implement this MEASURE as opposed to other factors that may have influenced your decision such as...(SCAN BELOW AND READ TO THEM THOSE ITEMS WHERE THEY GAVE A RATING OF 8 or higher)

- ! <%N3A> Age or condition of old equipment,
- ! <%N3D> Equipment Vendor recommendation
- ! <%N3E> Previous experience with this measure
- ! <%N3F> Previous experience with this program
- ! <%N3I> Recommendation from a design or consulting engineer
- ! <%N3J> Standard practice in your business/industry
- ! <%N3M> Corporate policy or guidelines

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! <%N3N> Payback on investment.

If you were given 10 points to award in total, how many points would give to the importance of the program and how many points would you give to these other factors?

N41_PI How many of the ten points would you give to the importance of the PROGRAM in your decision?

| | | |
|----|------------------------------|--------|
| # | Record 0 to 10 score (_____) | N42_PI |
| 88 | Refused | N42_PI |
| 99 | Don't know | N42_PI |

N42_PI and how many points would you give to these other factors?

| | | |
|----|------------------------------|---------|
| # | Record 0 to 10 score (_____) | N41a_PI |
| 88 | Refused | N41a_PI |
| 99 | Don't know | N41a_PI |

__ We want these two sets of numbers to equal 10.

! <%N41> for Program influence and

! <%N42> for Non Program factors

CONSISTENCY CHECK ON PGM IMPORTANCE SCORE

IF N41 &PROGRAM>6 AND N3b, N3c, N3g, N3k AND N3l ALL<4, THEN ASK N41a. ELSE IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3l>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were not that important to you. Just to make sure I have recorded this properly, may I please take a second to

N41a_PI review?

IF N3b<4, THEN ASK

N3B_REDO_PI When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was not that important to you. Can you tell me why the rebate was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3C_REDO_PI |
| 88 | Refused | N3C_REDO_PI |
| 99 | Don't know | N3C_REDO_PI |

IF N3c<4, THEN ASK

When I asked you about THE INFORMATION PROVIDED THROUGH

!! __<(FEAS_PIUDY == 1)/ The Feasibility study/>

! __<(AUDIT == 1)/The Facility or System AUDIT/>

! __<(TECH_ASST == 1)/The Technical Assistance/> !

N3C_REDO_PI you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was not that important to you. Can you tell me why the information provided was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3G_REDO_PI |
| 88 | Refused | N3G_REDO_PI |
| 99 | Don't know | N3G_REDO_PI |

IF N3g<4, THEN ASK

N3G_REDO_PI When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ...<%N3G> ... out of ten, indicating that the information from the program or utility training course was not that important to you. Can you tell me why this information was not that important?

| | | |
|----|-----------------|-------------|
| 77 | Record VERBATIM | N3L_REDO_PI |
| 88 | Refused | N3L_REDO_PI |
| 99 | Don't know | N3L_REDO_PI |

IF N3l<4, THEN ASK

N3L_REDO_PI When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you. Can you tell me why this endorsement was not that important?

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5_PI |
| 88 | Refused | N5_PI |
| 99 | Don't know | N5_PI |

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was not very important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were very important to you. Just to make sure I have recorded this properly, may I please take a second

N41b_PI to review.

IF N3b>7, THEN ASK

N3BB_RED_O_PI When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was quite important to you. Can you tell me why the rebate was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3CC_REDO_PI |
| 88 | Refused | N3CC_REDO_PI |
| 99 | Don't know | N3CC_REDO_PI |

IF N3c>7, THEN ASK

When asked about THE INFORMATION PROVIDED THROUGH

!! __<(FEAS_PIUDY == 1)/ The Feasibility study/>

! __<(AUDIT == 1)/The Facility or System AUDIT/>

! __<(TECH_ASST == 1)/The Technical Assistance/> !

N3CC_RED_O_PI you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was quite important to you. Can you tell me why the information provided was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3GG_REDO_PI |
| 88 | Refused | N3GG_REDO_PI |

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| | | |
|----|------------|--------------|
| 99 | Don't know | N3GG REDO PI |
|----|------------|--------------|

IF N3g>7, THEN ASK

When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES or MARKETING MATERIAL, you gave a rating N3GG_RED of ..<%N3G> ... out of ten, indicating that the information from the program or utility training course was quite important to you. Can you tell me why O_PI this information was that important?

| | | |
|----|-----------------|--------------|
| 77 | Record VERBATIM | N3LL REDO PI |
| 88 | Refused | N3LL REDO PI |
| 99 | Don't know | N3LL REDO PI |

IF N3l>7, THEN ASK

When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of N3LL_REDO ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was quite important to you. Can you tell me why this endorsement was that PI important?

| | | |
|----|-----------------|-------|
| 77 | Record VERBATIM | N5 PI |
| 88 | Refused | N5 PI |
| 99 | Don't know | N5 PI |

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the &PROGRAM had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the N5_PI likelihood that you would have installed exactly the same equipment?

| | | |
|----|--------------------------|--------|
| # | Record 0 to 10 score () | N5a PI |
| 88 | Refused | N6 PI |
| 99 | Don't know | N6 PI |

CONSISTENCY CHECKS

IF N3b>7 and N5>7, THEN ASK.

When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same equipment without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient

N5a_PI equipment?

| | | |
|----|-----------------|------------|
| 77 | Record VERBATIM | N5Again PI |
| 88 | Refused | N5Again PI |
| 99 | Don't know | N5Again PI |

Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the N5Again_PI likelihood you would install the same equipment without the rebate which you gave a rating of <%N5> and/or we can change both if you wish?

| | | |
|----|-----------------|-------|
| 1 | No change | N9 PI |
| 77 | Record VERBATIM | N9 PI |
| 88 | Refused | N9 PI |
| 99 | Don't know | N9 PI |

PROBE ON STANDARD PRACTICE if N3j>7, ELSE ASK N9

In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this MEASURE. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the

N5B_PI standard practice or policy?

| | | |
|----|-------------------------|-------|
| 1 | Much more important | N9 PI |
| 2 | Somewhat more important | N9 PI |
| 3 | Equally important | N9 PI |
| 4 | Somewhat less important | N9 PI |
| 5 | Much less important | N9 PI |
| 88 | Refused | N9 PI |
| 99 | Don't know | N9 PI |

IF N5>0, THEN ASK.

You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same equipment if N9_PI THE PROGRAM had not been available. When do you think you would have installed this equipment? Please express your answer in months.

| | | |
|----|-----------------------------|--------|
| 1 | At the same time | TD1 PI |
| 2 | Within 6 months? | TD1 PI |
| 3 | 6 months to 1 year | TD1 PI |
| 4 | 1 - 2 years | TD1 PI |
| 5 | 2 - 3 years | TD1 PI |
| 6 | 3 - 4 years | TD1 PI |
| 7 | 4 - 5 years | N9b PI |
| 8 | 5 years or more | N9b PI |
| 66 | Would not have installed it | TD1 PI |
| 88 | Refused | TD1 PI |
| 99 | Don't know | TD1 PI |

IF N9 >= 48 months OR N9a = 6, THEN ASK N9b, ELSE ASK N6

N9b_PI Why do you think it would have been 4 or more years later?

| | | |
|----|-----------------|--------|
| 77 | Record VERBATIM | TD1 PI |
| 88 | Refused | TD1 PI |
| 99 | Don't know | TD1 PI |

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DEFERRED FREE RIDERSHIP FOLLOW-UP

You said that there was an <N5> in 10 likelihood that you would have installed the same equipment about <N9> months later (OR at the same time) if the PROGRAM had not been available. I'd like to ask a couple of questions to help us estimate at what point in the future you would definitely have installed new equipment. We understand that you can't know exactly when you would have done this, especially so far into the future. Were just trying to get a sense of how long you think the current equipment or process would have kept serving your company's needs before you had to or chose to replace it.

INTRO FOR BOTH TD1 and TD1a

If N9 or N9a ≤ 60 months, ask TD1, ELSE TD1A

So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 60 months, or 5 years, later if the program had not been available?

TD1_PI

| | | |
|----|--------------------------|---------|
| # | Record 0 to 10 score () | TD2_PI |
| 88 | Refused | TD1A_PI |
| 99 | Don't know | TD1A_PI |

IF TD1 < 10 ASK TD2, ELSE GO TO N5a

And what would you say is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been available?

TD2_PI

| | | |
|----|--------------------------|---------|
| # | Record 0 to 10 score () | TD1A_PI |
| 88 | Refused | TD1A_PI |
| 99 | Don't know | TD1A_PI |

If N9 or N9a > 60 months, ask

Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later if the program had not been available?

TD1A_PI

| | | |
|----|--------------------------|---------|
| # | Record 0 to 10 score () | N9bb_PI |
| 88 | Refused | N9bb_PI |
| 99 | Don't know | N9bb_PI |

CONSISTENCY CHECK ON AGE

IF (N3a > 6 AND N9 > =48 months) OR (N3a > 6 AND N9a = 6), THEN ASK N9bb, ELSE N6

Earlier when asked about the influence of the age/condition of the old equipment on your decision to install this new equipment, you gave me a rating of <N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the existing equipment played in your decision to install this new energy-efficient equipment.

N9bb_PI

| | | |
|----|-----------------|-------|
| 77 | RECORD VERBATIM | N6_PI |
| 88 | Refused | N6_PI |
| 99 | Don't know | N6_PI |

PARTIAL FREE RIDERSHIP

Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?

N6_PI

| | | |
|----|-----------------------------------------------------|--------|
| 1 | Installed fewer linear feet of insulation | N6a_PI |
| 2 | Installed insulation with a lower R value (thinner) | N6b_JT |
| 3 | Repaired or overhaul the existing equipment | N6c_PI |
| 4 | Do nothing (keep the existing equipment as is) | SPILL1 |
| 77 | Something else (specify what) | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6a_PI How many fewer linear feet of insulation would you have installed?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6b_PI Can you tell me what R value or insulation thickness you would have installed without assistance from the program?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

N6c_PI How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

| | | |
|----|-----------------|--------|
| 77 | RECORD VERBATIM | SPILL1 |
| 88 | Refused | SPILL1 |
| 99 | Don't know | SPILL1 |

STANDARD NTG QUESTIONS

IF N3n>5, THEN ASK, ELSE CP1

P1 What financial calculations does your company make before proceeding with installation of a Measure like this one?

| | | |
|----|-----------------|----|
| 77 | RECORD VERBATIM | P2 |
| 88 | Refused | P2 |
| 99 | Don't know | P2 |

P2 What is the payback cut-off point your company uses (in months) before deciding to proceed with an investment?

| | | |
|---|--------------------|-----|
| 1 | 0 to 6 months | P3A |
| 2 | 6 months to 1 year | P3A |
| 3 | 1 to 2 years | P3A |
| 4 | 2 to 3 years | P3A |
| 5 | 3 to 5 years | P3A |
| 6 | Over 5 years | P3A |

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| | | |
|----|------------|-----|
| 88 | Refused | P3A |
| 99 | Don't know | P3A |

P3A What was the payback calculation for this MEASURE (in months) with the rebate from the Program?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | P3B |
| 88 | Refused | P3B |
| 99 | Don't know | P3B |

P3B And what was the payback calculation for this Measure (in months) without the rebate from the Program?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | P3C |
| 88 | Refused | P3C |
| 99 | Don't know | P3C |

IF P3b<P2, THEN ASK.

P3C Even without the rebate, this measure met your company's financial payback criteria. Would you have gone ahead with it even without the rebate?

| | | |
|----|-----------------|-----|
| 1 | Yes | CP1 |
| 2 | No | CP1 |
| 77 | RECORD VERBATIM | CP1 |
| 88 | Refused | CP1 |
| 99 | Don't know | CP1 |

IF P3a<P2, AND N3b<5, THEN ASK.

The rebate seemed to make the difference between meeting your financial criteria and not meeting them, but you said that the rebate didn't have much effect on your decision, why is that?

P3D

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | CP1 |
| 88 | Refused | CP1 |
| 99 | Don't know | CP1 |

IF P3a>P2, AND N3b>7, THEN ASK.

The rebate didn't cause this measure to meet your company's financial criteria, but you said that the rebate had an impact on the decision to install this measure. Why did the rebate have an impact?

P3E

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | CP1 |
| 88 | Refused | CP1 |
| 99 | Don't know | CP1 |

IF N3m>5, THEN ASK, ELSE SP1

Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be a "buy Green" or use sustainable approaches to business investments? And if yes, Can I obtain a copy of this policy?

CP1

| | | |
|----|------------------------------------------------|-----|
| 1 | Yes, I can obtain a copy of the policy | CP2 |
| 2 | Yes, but I can NOT obtain a copy of the policy | CP2 |
| 77 | No | CP2 |
| 88 | Refused | CP2 |
| 99 | Don't know | CP2 |

CP2 What specific corporate policy influenced your decision to install these measures?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | CP3 |
| 88 | Don't know | CP3 |
| 99 | Refused | CP3 |

CP3 Had that policy caused you to retrofit or install this measure at this facility before participating in the PROGRAM?

| | | |
|----|------------|-----|
| 1 | Yes | CP4 |
| 2 | No | CP4 |
| 88 | Refused | CP4 |
| 99 | Don't know | CP4 |

CP4 Had that policy caused you to retrofit or install this measure at other facilities before participating in the PROGRAM?

| | | |
|----|------------|-----|
| 1 | Yes | CP5 |
| 2 | No | CP5 |
| 88 | Don't know | CP5 |
| 99 | Refused | CP5 |

Did you receive an incentive for a previous installation of...this MEASURE? If so, please describe the amount of incentive received, the approximate timing and the name of the program that provided it.

CP5

| | | |
|----|-----------------|-----|
| 1 | Did not receive | CP6 |
| 77 | RECORD VERBATIM | CP6 |
| 88 | Refused | CP6 |
| 99 | Don't know | CP6 |

If I understand you correctly, you said that your company's corporate policy has caused you to retrofit or install this measure previously at this and/or other facilities. I want to make sure I fully understand how this corporate policy influenced your decision versus the PROGRAM. Can you please clarify that?

CP6

| | | |
|----|-----------------|------|
| 77 | RECORD VERBATIM | SP1A |
| 88 | Refused | SP1A |
| 99 | Don't know | SP1A |

IF N3j>5, THEN ASK, ELSE OI1

SP1A Approximately how long has PIPE INSULATION been a standard practice in your industry?

| | | |
|----|-----------------|------|
| 77 | RECORD VERBATIM | SP1B |
| 88 | Refused | SP1B |

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| | | |
|----|------------|------|
| 99 | Don't know | SP1B |
|----|------------|------|

SP1B Approximately how long has regular maintenance and retrofitting of STEAM TRAPS been a practice in your industry?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | SP2 |
| 88 | Refused | SP2 |
| 99 | Don't know | SP2 |

SP2 Does your company ever deviate from the standard practice? IF so, Under what conditions does your company deviate?

| | | |
|----|-----------------|-----|
| 1 | Do not deviate | SP3 |
| 77 | RECORD VERBATIM | SP3 |
| 88 | Refused | SP3 |
| 99 | Don't know | SP3 |

SP3 How did this standard practice influence your decision to install these <(ST3(12))/STEAMTRAP(s)/>.. <(PI3(12))/PIPE INSULATION/>

| | | |
|----|-----------------|------|
| 77 | RECORD VERBATIM | SP3A |
| 88 | Refused | SP3A |
| 99 | Don't know | SP3A |

Could you please rate the importance of the program ...<%PROGRAM> ...versus the standard industry practice in influencing your decision to install this measure. Would you say the program was ...

SP3A this measure. Would you say the program was ...

| | | |
|----|--------------------------------------------|-----|
| 1 | Much more important than industry practice | SP4 |
| 2 | Somewhat more important | SP4 |
| 3 | Equally important as industry practice | SP4 |
| 4 | Somewhat less important | SP4 |
| 5 | Much less important than industry practice | SP4 |
| 88 | Refused | SP4 |
| 99 | Don't know | SP4 |

SP4 What industry group or trade organization do you look to when establishing standard practice for your industry?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | SP5 |
| 88 | Refused | SP5 |
| 99 | Don't know | SP5 |

SP5 How do you and other firms in your industry receive information on updates in standard practices?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | O11 |
| 88 | Refused | O11 |
| 99 | Don't know | O11 |

IF N30-5, THEN ASK, ELSE N33.

O11 Who provided the most assistance in the choice to retrofit your <(ST3(12))/STEAMTRAP(s)/>.. <(PI3(12))/PIPE INSULATION

| | | |
|----|-------------------------------------|-----|
| 1 | Consultant Engineer | O12 |
| 2 | Equipment distributor | O12 |
| 3 | Installer | O12 |
| 4 | UTILITY ACCT REP | O12 |
| 5 | Program staff | O12 |
| 6 | IN HOUSE Engineer/Maintenance Staff | O12 |
| 77 | RECORD VERBATIM | O12 |
| 88 | Refused | O12 |
| 99 | Don't know | O12 |

O12 Please describe the type of assistance that they provided?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | O13 |
| 88 | Refused | O13 |
| 99 | Don't know | O13 |

O13 Please state in your own words any other factors that influenced your decision to go ahead on this energy efficiency project?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | SP1 |
| 88 | Refused | SP1 |
| 99 | Don't know | SP1 |

SPILLOVER QUESTIONS

Did you implement any additional energy efficiency measures at this facility since your participation in the 2006-2008 Program and before the end of

SPILL1 2008 that did not receive incentives through any utility or government program?

| | | |
|----|------------|----------|
| 1 | Yes | SPILL2_1 |
| 2 | No | CAFAC1 |
| 88 | Refused | CAFAC1 |
| 99 | Don't know | CAFAC1 |

SPILL2_1 What was the first Measure that you implemented?

| | | |
|----|----------------------|----------|
| 77 | Record FIRST measure | SPILL2_2 |
| 88 | Refused | CAFAC1 |
| 99 | Don't know | CAFAC1 |

SPILL2_2 What was the second measure?

| | | |
|----|-----------------------|----------|
| 1 | No other measures | MEAS1_2 |
| 77 | Record SECOND measure | SPILL2_3 |
| 88 | Refused | MEAS1_2 |
| 99 | Don't know | MEAS1_2 |

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SPILL2_3 What was the third measure?

| | | |
|-----------|----------------------|---------|
| 1 | No other measures | MEAS1_2 |
| 77 | Record THIRD measure | MEAS1_2 |
| 88 | Refused | MEAS1_2 |
| 99 | Don't know | MEAS1_2 |

IF SPILL2_1=1

I have a few questions about the FIRST Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install

MEAS1_2 this measure through a Utility Program?

| | | |
|-----------|-----------------|---------|
| 77 | Record VERBATIM | MEAS1_3 |
| 88 | Refused | MEAS1_3 |
| 99 | Don't know | MEAS1_3 |

MEAS1_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|-----------|-----------------|---------|
| 77 | Record VERBATIM | MEAS1_4 |
| 88 | Refused | MEAS1_4 |
| 99 | Don't know | MEAS1_4 |

MEAS1_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|-----------|------------|---------|
| 1 | Yes | MEAS1_5 |
| 2 | No | MEAS1_5 |
| 88 | Refused | MEAS1_5 |
| 99 | Don't know | MEAS1_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not

MEAS1_5 at all significant and 10 is extremely significant?

| | | |
|-----------|------------------------------|---------|
| # | Record 0 to 10 score (_____) | MEAS1_6 |
| 88 | Refused | MEAS1_7 |
| 99 | Don't know | MEAS1_7 |

MEAS1_6 Why do you give it this rating?

| | | |
|-----------|-----------------|---------|
| 77 | Record VERBATIM | MEAS1_7 |
| 88 | Refused | MEAS1_7 |
| 99 | Don't know | MEAS1_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this

MEAS1_7 measure?

| | | |
|-----------|------------------------------------------|---------|
| # | Record 0 to 10 likelihood rating (_____) | MEAS2_2 |
| 88 | Refused | MEAS2_2 |
| 99 | Don't know | MEAS2_2 |

IF SPILL2_2=1

I have a few questions about the SECOND Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install

MEAS2_2 this measure through a Utility Program?

| | | |
|-----------|-----------------|---------|
| 77 | Record VERBATIM | MEAS2_3 |
| 88 | Refused | MEAS2_3 |
| 99 | Don't know | MEAS2_3 |

MEAS2_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|-----------|-----------------|---------|
| 77 | Record VERBATIM | MEAS2_4 |
| 88 | Refused | MEAS2_4 |
| 99 | Don't know | MEAS2_4 |

MEAS2_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|-----------|------------|---------|
| 1 | Yes | MEAS2_5 |
| 2 | No | MEAS2_5 |
| 88 | Refused | MEAS2_5 |
| 99 | Don't know | MEAS2_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not

MEAS2_5 at all significant and 10 is extremely significant?

| | | |
|-----------|------------------------------|---------|
| # | Record 0 to 10 score (_____) | MEAS2_6 |
| 88 | Refused | MEAS2_6 |
| 99 | Don't know | MEAS2_6 |

MEAS2_6 Why do you give it this rating?

| | | |
|-----------|-----------------|---------|
| 77 | Record VERBATIM | MEAS2_7 |
| 88 | Refused | MEAS2_7 |
| 99 | Don't know | MEAS2_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this

MEAS2_7 measure?

| | | |
|-----------|------------------------------------------|---------|
| # | Record 0 to 10 likelihood rating (_____) | MEAS3_2 |
| 88 | Refused | MEAS3_2 |
| 99 | Don't know | MEAS3_2 |

IF SPILL2_3=1

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I have a few questions about the THIRD Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?

| | | |
|----------------|--------------------|---------|
| MEAS3_2 | 77 Record VERBATIM | MEAS3_3 |
| | 88 Refused | MEAS3_3 |
| | 99 Don't know | MEAS3_3 |

MEAS3_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|--|--------------------|---------|
| | 77 Record VERBATIM | MEAS3_4 |
| | 88 Refused | MEAS3_4 |
| | 99 Don't know | MEAS3_4 |

MEAS3_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|--|---------------|---------|
| | 1 Yes | MEAS3_5 |
| | 2 No | MEAS3_5 |
| | 88 Refused | MEAS3_5 |
| | 99 Don't know | MEAS3_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?

| | | |
|----------------|--------------------------------|---------|
| MEAS3_5 | # Record 0 to 10 score (_____) | MEAS3_6 |
| | 88 Refused | MEAS3_6 |
| | 99 Don't know | MEAS3_6 |

MEAS3_6 Why do you give it this rating?

| | | |
|--|--------------------|---------|
| | 77 Record VERBATIM | MEAS3_7 |
| | 88 Refused | MEAS3_7 |
| | 99 Don't know | MEAS3_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?

| | | |
|----------------|--------------------------------------------|--------|
| MEAS3_7 | # Record 0 to 10 likelihood rating (_____) | CAFAC1 |
| | 88 Refused | CAFAC1 |
| | 99 Don't know | CAFAC1 |

Now, thinking about other facilities operated by your organization in the regions of California that are served by PG&E, SCE, SDG&E or Southern California Gas Company, are you aware of any additional energy efficiency measures implemented at these other facilities since your participation in the 2006-2008 program and before the end of 2008 that did not receive an incentive through a utility or government program?

| | | |
|---------------|---------------|----------|
| CAFAC1 | 1 Yes | CAFAC2_1 |
| | 2 No | C1 |
| | 88 Refused | C1 |
| | 99 Don't know | C1 |

CAFAC2_1 What was the first Measure that you implemented?

| | | |
|--|-------------------------|----------|
| | 77 Record FIRST MEASURE | CAFAC2_2 |
| | 88 Refused | CAFAC2_2 |
| | 99 Don't know | CAFAC2_2 |

CAFAC2_2 What was the second measure?

| | | |
|--|--------------------------|----------|
| | 1 No other measure | MSURE1_1 |
| | 77 Record SECOND MEASURE | CAFAC2_3 |
| | 88 Refused | CAFAC2_3 |
| | 99 Don't know | CAFAC2_3 |

CAFAC2_3 What was the third measure?

| | | |
|--|-------------------------|----------|
| | 1 No other measure | MSURE1_1 |
| | 77 Record THIRD MEASURE | MSURE1_1 |
| | 88 Refused | MSURE1_1 |
| | 99 Don't know | MSURE1_1 |

IF CAFAC1=1, THEN ASK, ELSE C1

I have a few questions about the FIRST MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program?

| | | |
|-----------------|---------------|----------|
| MSURE1_1 | 1 Yes | MSURE1_2 |
| | 2 No | MSURE1_2 |
| | 88 Refused | MSURE1_2 |
| | 99 Don't know | MSURE1_2 |

MSURE1_2 Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?

| | | |
|--|--------------------|----------|
| | 77 Record VERBATIM | MSURE1_3 |
| | 88 Refused | MSURE1_3 |
| | 99 Don't know | MSURE1_3 |

MSURE1_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|--|--------------------|----------|
| | 77 Record VERBATIM | MSURE1_4 |
| | 88 Refused | MSURE1_4 |
| | 99 Don't know | MSURE1_4 |

MSURE1_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

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| | | |
|----|------------|----------|
| 1 | Yes | MSURE1_5 |
| 2 | No | MSURE1_5 |
| 88 | Refused | MSURE1_5 |
| 99 | Don't know | MSURE1_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not

MSURE1_5 at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | MSURE1_6 |
| 88 | Refused | MSURE1_7 |
| 99 | Don't know | MSURE1_7 |

MSURE1_6 Why do you give it this rating?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE1_7 |
| 88 | Refused | MSURE1_7 |
| 99 | Don't know | MSURE1_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this

MSURE1_7 measure?

| | | |
|----|------------------------------------------|----------|
| # | Record 0 to 10 likelihood rating (_____) | MSURE2_1 |
| 88 | Refused | MSURE2_1 |
| 99 | Don't know | MEAS2_1 |

IF CAFAC2_2=1, THEN ASK, ELSE C1

I have a few questions about the SECOND MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or

MSURE2_1 government energy efficiency incentive Program?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE3_1 |
| 2 | No | MSURE2_2 |
| 88 | Refused | MSURE3_1 |
| 99 | Don't know | MSURE3_1 |

MSURE2_2 Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE2_3 |
| 88 | Refused | MSURE2_3 |
| 99 | Don't know | MSURE2_3 |

MSURE2_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE2_4 |
| 88 | Don't know | MSURE2_4 |
| 99 | Refused | MSURE2_4 |

MSURE2_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE2_5 |
| 2 | No | MSURE2_5 |
| 88 | Refused | MSURE2_5 |
| 99 | Don't know | MSURE2_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not

MSURE2_5 at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | MSURE2_6 |
| 88 | Refused | MSURE2_7 |
| 99 | Don't know | MSURE2_7 |

MSURE2_6 Why do you give it this rating?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE2_7 |
| 88 | Refused | MSURE2_7 |
| 99 | Don't know | MSURE2_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this

MSURE2_7 measure?

| | | |
|----|------------------------------------------|----------|
| # | Record 0 to 10 likelihood rating (_____) | MSURE3_1 |
| 88 | Refused | MSURE3_1 |
| 99 | Don't know | MSURE3_1 |

IF CAFAC2_3=1, THEN ASK, ELSE C1

I have a few questions about the THIRD MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or

MSURE3_1 government energy efficiency incentive Program?

| | | |
|----|------------|----------|
| 1 | Yes | C1 |
| 2 | No | MSURE3_2 |
| 88 | Refused | C1 |
| 99 | Don't know | C1 |

MSURE3_2 Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE3_3 |
| 88 | Refused | MSURE3_3 |
| 99 | Don't know | MSURE3_3 |

MSURE3_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE3_4 |
|----|-----------------|----------|

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| | | |
|----|------------|----------|
| 88 | Refused | MSURE3_4 |
| 99 | Don't know | MSURE3_4 |

MSURE3_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?

| | | |
|----|------------|----------|
| 1 | Yes | MSURE3_5 |
| 2 | No | MSURE3_5 |
| 88 | Refused | MSURE3_5 |
| 99 | Don't know | MSURE3_5 |

How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not

MSURE3_5 at all significant and 10 is extremely significant?

| | | |
|----|------------------------------|----------|
| # | Record 0 to 10 score (_____) | MSURE3_6 |
| 88 | Refused | MSURE3_7 |
| 99 | Don't know | MSURE3_7 |

MSURE3_6 Why do you give it this rating?

| | | |
|----|-----------------|----------|
| 77 | Record VERBATIM | MSURE3_7 |
| 88 | Refused | MSURE3_7 |
| 99 | Don't know | MSURE3_7 |

If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this

MSURE3_7 measure?

| | | |
|----|------------------------------------------|----|
| # | Record 0 to 10 likelihood rating (_____) | C1 |
| 88 | Refused | C1 |
| 99 | Don't know | C1 |

BUSINESS CHARACTERISTICS

And finally, I have a few questions about the characteristics of your business.

C1 Our records indicate that the primary business code for the facility that installed &MEASURE is &NAICS. Is that correct?

| | | |
|----|------------|----|
| 1 | Yes | C2 |
| 2 | No | C2 |
| 88 | Refused | C2 |
| 99 | Don't know | C2 |

C2 Please describe the type of work performed at this facility and/or the primary product made or main service provided.

| | | |
|----|-----------------|----|
| 77 | Record VERBATIM | C3 |
| 88 | Refused | C3 |
| 99 | Don't know | C3 |

C3 Please describe any changes made to this site since January 2006 that significantly impacted energy usage.

| | | |
|----|-----------------|----|
| 77 | Record VERBATIM | C4 |
| 88 | Refused | C4 |
| 99 | Don't know | C4 |

Please answer the following questions

C4 What kind of premise is this?:

| | | |
|----|----------------------------------|----|
| 1 | Part of a building | C5 |
| 2 | 1 building - single footprint | C5 |
| 3 | 1 building - multiple footprints | C5 |
| 4 | Small multi-building | C5 |
| 5 | Campus | C5 |
| 77 | Record VERBATIM | C5 |
| 88 | Refused | C5 |
| 99 | Don't know | C5 |

C5 What is the total occupied floor area of this premise (excluding enclosed parking garage area)?

| | | |
|----|-------------------|----|
| 77 | Record floor area | C6 |
|----|-------------------|----|

C6 How many buildings are part of this premise?

| | | |
|----|----------------------------|----|
| 77 | Record number of buildings | C7 |
|----|----------------------------|----|

C7 Is this premise owner-occupied (O) or leased (L)?

| | | |
|----|----------------|----|
| 1 | Owner-occupied | C8 |
| 2 | Leased | C8 |
| 3 | Both | C8 |
| 88 | Refused | C8 |
| 99 | Don't know | C8 |

C8 What year was this business established at this location?

| | | |
|----|-------------|----|
| 77 | Record year | C9 |
|----|-------------|----|

C9 How many full-time equivalent employees work at this premise?

| | | |
|----|----------------------------|--------|
| 77 | Record number of employees | HROPEN |
|----|----------------------------|--------|

OPERATING HOURS

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Ask Everyone

Now we'd like to talk about the hours that your locations are typically open.

HROPEN What time does your location typically open during the week?

| | | |
|----|--------------|---------|
| 1 | 1:00 AM | HRCLOSE |
| 2 | 1:30 AM | HRCLOSE |
| 3 | 2:00 AM | HRCLOSE |
| 4 | 2:30 AM | HRCLOSE |
| 5 | 3:00 AM | HRCLOSE |
| 6 | 3:30 AM | HRCLOSE |
| 7 | 4:00 AM | HRCLOSE |
| 8 | 4:30 AM | HRCLOSE |
| 9 | 5:00 AM | HRCLOSE |
| 10 | 5:30 AM | HRCLOSE |
| 11 | 6:00 AM | HRCLOSE |
| 12 | 6:30 AM | HRCLOSE |
| 13 | 7:00 AM | HRCLOSE |
| 14 | 7:30 AM | HRCLOSE |
| 15 | 8:00 AM | HRCLOSE |
| 16 | 8:30 AM | HRCLOSE |
| 17 | 9:00 AM | HRCLOSE |
| 18 | 9:30 AM | HRCLOSE |
| 19 | 10:00 AM | HRCLOSE |
| 20 | 10:30 AM | HRCLOSE |
| 21 | 11:00 AM | HRCLOSE |
| 22 | 11:30 AM | HRCLOSE |
| 23 | 12:00 NOON | HRCLOSE |
| 24 | 12:30 PM | HRCLOSE |
| 25 | 1:00 PM | HRCLOSE |
| 26 | 1:30 PM | HRCLOSE |
| 27 | 2:00 PM | HRCLOSE |
| 28 | 2:30 PM | HRCLOSE |
| 29 | 3:00 PM | HRCLOSE |
| 30 | 3:30 PM | HRCLOSE |
| 31 | 4:00 PM | HRCLOSE |
| 32 | 4:30 PM | HRCLOSE |
| 33 | 5:00 PM | HRCLOSE |
| 34 | 5:30 PM | HRCLOSE |
| 35 | 6:00 PM | HRCLOSE |
| 36 | 6:30 PM | HRCLOSE |
| 37 | 7:00 PM | HRCLOSE |
| 38 | 7:30 PM | HRCLOSE |
| 39 | 8:00 PM | HRCLOSE |
| 40 | 8:30 PM | HRCLOSE |
| 41 | 9:00 PM | HRCLOSE |
| 42 | 9:30 PM | HRCLOSE |
| 43 | 10:00 PM | HRCLOSE |
| 44 | 10:30 PM | HRCLOSE |
| 45 | 11:00 PM | HRCLOSE |
| 46 | 11:30 PM | HRCLOSE |
| 47 | 12:00:00 MID | HRCLOSE |
| 48 | 12:30 AM | HRCLOSE |
| 65 | Never Close | HRCLOSE |
| 66 | Open 24 Hrs | HRCLOSE |
| 88 | Refused | HRCLOSE |
| 99 | Don't know | HRCLOSE |

HRCLOSE What time does your location typically open during the week?

| | | |
|----|----------|---------|
| 1 | 1:00 AM | UR UTIL |
| 2 | 1:30 AM | UR UTIL |
| 3 | 2:00 AM | UR UTIL |
| 4 | 2:30 AM | UR UTIL |
| 5 | 3:00 AM | UR UTIL |
| 6 | 3:30 AM | UR UTIL |
| 7 | 4:00 AM | UR UTIL |
| 8 | 4:30 AM | UR UTIL |
| 9 | 5:00 AM | UR UTIL |
| 10 | 5:30 AM | UR UTIL |
| 11 | 6:00 AM | UR UTIL |
| 12 | 6:30 AM | UR UTIL |
| 13 | 7:00 AM | UR UTIL |
| 14 | 7:30 AM | UR UTIL |
| 15 | 8:00 AM | UR UTIL |
| 16 | 8:30 AM | UR UTIL |
| 17 | 9:00 AM | UR UTIL |
| 18 | 9:30 AM | UR UTIL |
| 19 | 10:00 AM | UR UTIL |
| 20 | 10:30 AM | UR UTIL |

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| | | |
|----|--------------|---------|
| 21 | 11:00 AM | UR_UTIL |
| 22 | 11:30 AM | UR_UTIL |
| 23 | 12:00 NOON | UR_UTIL |
| 24 | 12:30 PM | UR_UTIL |
| 25 | 1:00 PM | UR_UTIL |
| 26 | 1:30 PM | UR_UTIL |
| 27 | 2:00 PM | UR_UTIL |
| 28 | 2:30 PM | UR_UTIL |
| 29 | 3:00 PM | UR_UTIL |
| 30 | 3:30 PM | UR_UTIL |
| 31 | 4:00 PM | UR_UTIL |
| 32 | 4:30 PM | UR_UTIL |
| 33 | 5:00 PM | UR_UTIL |
| 34 | 5:30 PM | UR_UTIL |
| 35 | 6:00 PM | UR_UTIL |
| 36 | 6:30 PM | UR_UTIL |
| 37 | 7:00 PM | UR_UTIL |
| 38 | 7:30 PM | UR_UTIL |
| 39 | 8:00 PM | UR_UTIL |
| 40 | 8:30 PM | UR_UTIL |
| 41 | 9:00 PM | UR_UTIL |
| 42 | 9:30 PM | UR_UTIL |
| 43 | 10:00 PM | UR_UTIL |
| 44 | 10:30 PM | UR_UTIL |
| 45 | 11:00 PM | UR_UTIL |
| 46 | 11:30 PM | UR_UTIL |
| 47 | 12:00:00 MID | UR_UTIL |
| 48 | 12:30 AM | UR_UTIL |
| 65 | Never Close | UR_UTIL |
| 66 | Open 24 Hrs | UR_UTIL |
| 88 | Refused | UR_UTIL |
| 99 | Don't know | UR_UTIL |

UR_UTIL What is the name of the utility that provides your electricity?

| | | |
|----|-----------------|----------|
| 77 | Name of Utility | OS_NAME1 |
| 88 | Refused | OS_NAME1 |
| 99 | Don't know | OS_NAME1 |

SUB FOR ONSITE VISIT

Answering the following questions will avoid an additional onsite visit. Many of these questions may require you to go back to old records for your boilers and steam traps.

BOILERS

BOILOS1 Do you have natural gas boilers at your facility?

| | | |
|----|------------|---------|
| 1 | Yes | BOILOS3 |
| 2 | No | BOILOS2 |
| 77 | Other | BOILOS2 |
| 88 | Refused | BOILOS3 |
| 99 | Don't know | BOILOS3 |

BOILOS2 What is the source of steam for your facility?

| | | |
|----|------------------------|---------|
| 1 | Electric boiler | BOILOS3 |
| 2 | Cogeneration equipment | BOILOS3 |
| 77 | Other | BOILOS3 |
| 88 | Refused | BOILOS3 |
| 99 | Don't know | BOILOS3 |

BOILOS3 How many natural gas boilers do you have?

| | | |
|--|---------------|---------|
| | Record Number | BOILOS4 |
| | Refused | BOILOS4 |
| | Don't know | BOILOS4 |

BOILOS4 Can you provide me the make and model number of your boilers?

| | | |
|----|---------------------------------|---------|
| 77 | Record Verbatim for each boiler | BOILOS5 |
| 88 | Refused | BOILOS5 |
| 99 | Don't know | BOILOS5 |

BOILOS5 When was the last time your boilers were serviced?

| | | |
|----|------------------------------|---------|
| 77 | Record date (month and year) | BOILOS6 |
| 88 | Refused | BOILOS6 |
| 99 | Don't know | BOILOS6 |

BOILOS6 Do you have any records that show combustion efficiencies of your boilers? IF NEEDED...Can be obtained by the contractor who serviced the boiler or records submitted to AQMD.)

| | | |
|----|---------------------------------|---------|
| 77 | Record Verbatim for each boiler | BOILOS7 |
| 88 | Refused | BOILOS8 |
| 99 | Don't know | BOILOS8 |

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BOILOS7 What are the sources of the boiler efficiencies? In other words, where or from whom did you obtain this information?

| | | |
|----|-------------------------------------|---------|
| 1 | Contractor who serviced the boilers | BOILOS8 |
| 2 | Reports submitted to AQMD | BOILOS8 |
| 3 | Nameplate efficiency | BOILOS8 |
| 77 | Other | BOILOS8 |
| 88 | Refused | BOILOS8 |
| 99 | Don't know | BOILOS8 |

BOILOS8 Can you provide me with the size of the boilers (answer can be given in lb/hr, Btu, or HP)?

| | | |
|----|---------------------------------|---------|
| 77 | Record Verbatim for each boiler | BOILOS9 |
| 88 | Refused | BOILOS9 |
| 99 | Don't know | BOILOS9 |

BOILOS10 How old are your boilers (get ages for each if available)?

| | | |
|----|-----------------|----------|
| 77 | Record Verbatim | STEAMOS1 |
| 88 | Refused | STEAMOS1 |
| 99 | Don't know | STEAMOS1 |

STEAM TRAPS

NOTE: If there are less than 10 traps, ask for specific failure mode for each. If there are more than 10, ask for the distribution of failure model.

STEAMOS1 What led you to replace the steam traps? In other words, what type of failure occurred at each of your traps?

| | | |
|----|----------------------------------------------------------------------------------|----------|
| 1 | Needed to replace some old steam traps because system efficiency had diminished. | STEAMOS7 |
| 2 | Installed new steam traps to improve system efficiency. | STEAMOS7 |
| 3 | Wanted to save on our energy bill. | STEAMOS7 |
| 4 | Traps had failed | STEAMOS7 |
| 5 | Traps had failed open | STEAMOS7 |
| 6 | Traps were leaking | STEAMOS7 |
| 7 | Traps had failed shut/closed/blocked | STEAMOS7 |
| 8 | Regular maintenance | STEAMOS7 |
| 77 | Other (record verbatim) | STEAMOS7 |
| 88 | Refused | STEAMOS7 |
| 99 | Don't know | STEAMOS7 |

STEAMOS7 Was a survey of your steam traps completed prior to their replacement?

| | | |
|----|------------|----------|
| 1 | Yes | STEAMOS8 |
| 2 | No | STEAMOS2 |
| 77 | Other | STEAMOS2 |
| 88 | Refused | STEAMOS2 |
| 99 | Don't know | STEAMOS2 |

STEAMOS8 Can we obtain a copy of this survey?

| | | |
|----|------------|----------|
| 1 | Yes | STEAMOS2 |
| 2 | No | STEAMOS2 |
| 77 | Other | STEAMOS2 |
| 88 | Refused | STEAMOS2 |
| 99 | Don't know | STEAMOS2 |

STEAMOS2 What are the makes and model numbers of the steam traps you have in place now?

| | | |
|----|-------------------------------|----------|
| 77 | Record Verbatim for each trap | STEAMOS3 |
| 88 | Refused | STEAMOS3 |
| 99 | Don't know | STEAMOS3 |

STEAMOS3 Are the makes and model numbers of the new traps same as the failed traps?

| | | |
|----|------------|----------|
| 1 | Yes | STEAMOS5 |
| 2 | No | STEAMOS4 |
| 88 | Refused | STEAMOS5 |
| 99 | Don't know | STEAMOS5 |

STEAMOS4 What were the makes and model numbers of the failed steam traps?

| | | |
|----|-------------------------------|----------|
| 77 | Record Verbatim for each trap | STEAMOS5 |
| 88 | Refused | STEAMOS5 |
| 99 | Don't know | STEAMOS5 |

STEAMOS5 At what pressure does the steam traps operate?(in psig)

| | | |
|----|-------------------------------|----------|
| 77 | Record Verbatim for each trap | STEAMOS6 |
| 88 | Refused | STEAMOS6 |
| 99 | Don't know | STEAMOS6 |

STEAMOS6 How many hours are your traps exposed to pressure?

| | | |
|----|-------------------------------|----------|
| 77 | Record Verbatim for each trap | STEAMOS9 |
| 88 | Refused | STEAMOS9 |
| 99 | Don't know | STEAMOS9 |

STEAMOS9 Is the condensate recovered or captured for use?

| | | |
|---|-----|-----------|
| 1 | Yes | STEAMOS10 |
| 2 | No | END |

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| | | |
|----|------------|-----|
| 88 | Refused | END |
| 99 | Don't know | END |

STEAMOS10 If yes, what is the pressure of the condensate?

| | | |
|----|-----------------|-----|
| 77 | Record Verbatim | END |
| 88 | Refused | END |
| 99 | Don't know | END |

| | |
|-----------------------------------------------------------------------------------------------------------|---------------|
| END Those are all the questions I have for you. On behalf of the CPUC, thank you very much for your time. | END OF SURVEY |
|-----------------------------------------------------------------------------------------------------------|---------------|

Vendor NTG Survey Instrument
06-08 SoCal Industrial Contract Group
Steam Traps Only

This is %n calling on behalf of the CPUC [California Public Utilities Commission] from ITRON CONSULTING.
 THIS IS NOT A SALES CALL. I am calling about your firm's recent involvement in

AA1 ...<%CUSTOMER>'s...installation of ...<%MEASURE>... through ...<%PROGRAM> ... on approximately
 ...<%INSTALL_DATE>... Our records indicate that ...<%CONTACT>... would be the person most
 knowledgeable about this. Is he available?

| | | |
|-----------|------------|---------------------|
| 1 | Yes | AA4 |
| 2 | No | AA2 |
| 88 | Refused | Thank and Terminate |
| 99 | Don't know | Thank and Terminate |

recently completed energy efficiency project. This project involved the installation of ...<%MEASURE> ... on
AA2 approximately ...<%INSTALL_DATE>.

| | | |
|-----------|-------------|---------------------|
| 1 | Record name | AA3 |
| 88 | Refused | Thank and Terminate |
| 99 | Don't know | Thank and Terminate |

AA3 May I speak with him/her?

| | | |
|----------|---------------------------------------------------|------------------|
| 1 | Yes | AA4 |
| 2 | No (not available right now) SCHEDULE APPOINTMENT | Reschedule appt. |

Hello, my name is ... %n .and I am calling on behalf of the CPUC, [California Public Utilities Commission] from
 ITRON CONSULTING. THIS IS NOT A SALES CALL. I was told that you are the person most knowledgeable
 about your firm's involvement with...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately

AA4 ...<%INSTALL_DATE> through the <%PROGRAM>. Is this correct?

| | | |
|-----------|-----------------------------------------|---------------------|
| 1 | Yes | A1 |
| 2 | No, there is someone else (RECORD NAME) | AA5 |
| 3 | No and I don't know who to refer you to | Thank and Terminate |
| 88 | Refused | Thank and Terminate |
| 99 | Don't know | Thank and Terminate |

Am I speaking with ..<%CONTACT> ...the representative of your company that worked with
 ...<%CUSTOMER>... during the planning and installation of their recently completed energy efficiency project.

AA5 This project involved the installation of...<%MEASURE> ... on approximately ... <%INSTALL_DATE>?

| | | |
|-----------|-----------------------------------------------|---------------------|
| 1 | Yes | A1 |
| 2 | Yes, but we need to make an appointment. | Reschedule appt. |
| 3 | No but I will give you to the correct person. | AA4 |
| 88 | Refused | Thank and Terminate |
| 99 | Don't know | Thank and Terminate |

**Before we start, I would like to inform you that for quality control purposes, this call may be monitored
 by my supervisor. For the sake of expediency, we will be recording this interview.**

<%CUSTOMER>... has indicated that your firm was involved in the implementation of their installation of
A1 ...<%MEASURE> at their facility on approximately ...<%INSTALL_DATE>. Is this correct?...

| | | |
|-----------|------------|---------------------|
| 1 | Yes | A2 |
| 2 | No | Thank and Terminate |
| 88 | Refused | Thank and Terminate |
| 99 | Don't know | Thank and Terminate |

**[DO NOT READ: The following question will determine if we ask about influences on their
 recommendations. Please be sure to be thorough with this question. If they truly only installed this
 equipment, then a "No" is fine]**

A2 As <%CUSTOMER>'s vendor, did you recommend the installation of this measure?

Vendor NTG Survey Instrument
06-08 SoCal Industrial Contract Group
Steam Traps Only

| | | |
|----|------------|----|
| 1 | Yes | V2 |
| 2 | No | A3 |
| 88 | Refused | A3 |
| 99 | Don't know | A3 |

Can you please explain what was your firm's involvement with ...<%CUSTOMER>'s ... Implementation of this equipment? [IF NEEDED: were they just an order taker, were they just equipment suppliers, or were they instrumental in what equipment was selected?.....if they were instrumental, then you need to go back and correct

A3 the previous question.]

| | | |
|----|-----------------|---------------------|
| 77 | RECORD VERBATIM | Thank and Terminate |
| 88 | Refused | Thank and Terminate |
| 99 | Don't know | Thank and Terminate |

[READ] For the sake of expediency, during the balance of the interview, we will be referring to the <%PROGRAM> as the PROGRAM and we will be referring to the installation of ... <%MEASURE> as the MEASURE. I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.

I am going to ask you to rate the importance of the PROGRAM in influencing your decision to recommend this MEASURE to ...<%CUSTOMER>.and other customers. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.

Using this 0 to 10 scale where 0 is NOT AT ALL IMPORTANT and 10 is EXTREMELY IMPORTANT, how important was the PROGRAM, including incentives as well as program services and information, in influencing

V2 your decision to recommend that ...<%CUSTOMER>... install the energy efficiency MEASURE at this time?

| | | |
|----|------------------------------|----|
| # | Record 0 to 10 score (_____) | V3 |
| 88 | Refused | V3 |
| 99 | Don't know | V3 |

And using a 0 to10 likelihood scale where 0 is NOT AT ALL LIKELY and 10 is EXTREMELY LIKELY, if the PROGRAM, including incentives as well as program services and information, had not been available, what is

V3 the likelihood that you would have recommended this specific MEASURE to ...<%CUSTOMER>?

| | | |
|----|------------------------------|----|
| # | Record 0 to 10 score (_____) | V4 |
| 88 | Refused | V4 |
| 99 | Don't know | V4 |

Approximately, in what percent of sales situations did you recommend this MEASURE before you learned about

V4 the PROGRAM?

| | | |
|----|-------------------|----|
| % | Record PERCENTAGE | V5 |
| 88 | Don't know | V5 |
| 99 | Refused | V5 |

And **approximately** in what percent of sales situations do you recommend this MEASURE now that you have

V5 worked with the PROGRAM?

| | | |
|----|-------------------|-----|
| % | Record PERCENTAGE | V6a |
| 88 | Don't know | V6a |
| 99 | Refused | V6a |

V6a In what other ways has the PROGRAM influenced your recommendations regarding this MEASURE?

| | | |
|----|----------------------|------|
| 77 | Record FIRST mention | V6aa |
| 88 | Refused | V6b |
| 99 | Don't know | V6b |

V6aa Using a 0 to 10 scale, how important was this influence on this recommendation?

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| | | |
|----|------------------------------|-----|
| # | Record 0 to 10 score (_____) | V6b |
| 88 | Don't know | V6b |
| 99 | Refused | V6b |

V6b Was there another way the PROGRAM influenced your recommendations regarding this MEASURE?

| | | |
|----|-----------------------|------|
| 1 | No other way | V7a |
| 77 | Record SECOND mention | V6bb |
| 88 | Refused | V7a |
| 99 | Don't know | V7a |

V6bb Using a 0 to 10 scale, how important was this influence on this recommendation?

| | | |
|----|------------------------------|-----|
| # | Record 0 to 10 score (_____) | V7a |
| 88 | Don't know | V7a |
| 99 | Refused | V7a |

Using the same scale as before, how important was the TRAINING SEMINAR provided by <%UTILITY> in your **V7a** recommendation?

| | | |
|----|------------------------------|-----|
| # | Record 0 to 10 score (_____) | V7b |
| 88 | Don't know | V7b |
| 99 | Refused | V7b |

V7b And how important was the information provided by the <%UTILITY> website?

| | | |
|----|------------------------------|-----|
| # | Record 0 to 10 score (_____) | V7c |
| 88 | Don't know | V7c |
| 99 | Refused | V7c |

V7c And how important was your firm's past participation in a rebate or audit program sponsored by <%UTILITY>?

| | | |
|----|------------------------------|-----|
| # | Record 0 to 10 score (_____) | V10 |
| 88 | Don't know | V10 |
| 99 | Refused | V10 |

Of those installations of ...<%MEASURE>... in <%UTILITY>'s service territory, approximately what percentage **V10** do not receive the incentive?

| | | |
|----|-------------------|-----|
| % | Record PERCENTAGE | V11 |
| 88 | Don't know | V12 |
| 99 | Refused | V12 |

IF V10 >> 0;

V11 Why do you think they do not receive the incentive?

| | | |
|----|-----------------|-----|
| 77 | RECORD VERBATIM | V12 |
| 88 | Refused | V12 |
| 99 | Don't know | V12 |

Do you also sell ...<%MEASURE>.. in areas where customers do not have access to incentives for **V12** <%MEASURE>?

| | | |
|----|------------|-----|
| 1 | Yes | V13 |
| 2 | No | V14 |
| 88 | Refused | V14 |
| 99 | Don't know | V14 |

About what percent of your sales of ...<%MEASURE> ... are represented by these areas where incentives are **V13** not offered?

| | | |
|----|-------------------|-----|
| % | Record PERCENTAGE | V14 |
| 88 | Don't know | V14 |
| 99 | Refused | V14 |

Vendor NTG Survey Instrument
06-08 SoCal Industrial Contract Group
Steam Traps Only

V14 Have you changed your stocking practices as a result of the <%UTILITY> Program? \,

| | | |
|-----------|------------|-----|
| 1 | Yes | V15 |
| 2 | No | V15 |
| 88 | Refused | V15 |
| 99 | Don't know | V15 |

IF V12=1

V15 Do you promote <%MEASURE> equally in areas with and without incentives?

| | | |
|-----------|------------|-----|
| 1 | Yes | V16 |
| 2 | No | V16 |
| 88 | Refused | V16 |
| 99 | Don't know | V16 |

Do you know of any other vendors that worked with ...<%CUSTOMER>... during their implementation and/or
V16 installation of ...<%MEASURE> ...?

| | | |
|-----------|------------|------|
| 1 | Yes | V16a |
| 2 | No | V17 |
| 88 | Refused | V17 |
| 99 | Don't know | V17 |

V16a Do you have their business name?

| | | |
|-----------|-------------------------------------------------------------|-----|
| 77 | RECORD Business name and contact's name and phone number(s) | V17 |
| 88 | Refused | V17 |
| 99 | Don't know | V17 |

V17 And finally, for verification purposes only, may I please have your first name?

END

77 RECORD VERBATIM

END Those are all the questions I have for you today. Thank you very much for your time.

END OF SURVEY

Appendix B-2

Steam Trap Telephone Survey Response Frequencies

This appendix contains the steam trap telephone survey response frequencies from both CATI and non-CATI surveys completed for the analyses of these HIMs. The frequency tables included in this appendix are:

- Steam Trap Commercial Survey Response Frequencies
- Steam Trap Industrial Survey Response Frequencies

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) | |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------|---------|----------|------|
| CC1 | How many square feet of heated or cooled floor area is your facility? | | | | | |
| | Less than 1500 sq ft | 43.64 | 44.75 | 42.53 | 36.59 | |
| | Between 1500 and 5000 sq ft | 37.63 | 38.89 | 34.48 | 36.59 | |
| | Between 5000 and 10,000 sq ft | 1.30 | 1.24 | 1.15 | 2.44 | |
| | Between 10,000 and 25,000 sq ft | 1.15 | 1.24 | 0.58 | 2.44 | |
| | Between 25,000 and 50,000 sq ft | 0.71 | 0.62 | 1.15 | 0.00 | |
| | Between 75,000 and 100,000 sq ft | 0.21 | 0.31 | 0.00 | 0.00 | |
| | Over 100,000 sq ft (Ag area) | 0.72 | 0.00 | 2.87 | 0.00 | |
| | Not Applicable | 1.15 | 1.24 | 0.58 | 2.44 | |
| | Refused | 0.14 | 0.00 | 0.58 | 0.00 | |
| | Don't Know | 13.35 | 11.73 | 16.09 | 19.51 | |
| n | 539 | 324 | 174 | 41 | | |
| CC3 | Would you say that the heated or cooled floor area is ...? | | | | | |
| | Less than 1500 sq ft | 39.75 | 39.47 | 28.57 | 75.00 | |
| | Between 1500 and 5000 sq ft | 35.31 | 36.84 | 35.71 | 25.00 | |
| | Between 5000 and 10,000 sq ft | 4.72 | 7.89 | 0.00 | 0.00 | |
| | Between 10,000 and 25,000 sq ft | 1.08 | 0.00 | 3.57 | 0.00 | |
| | Between 50,000 and 75,000 sq ft | 1.08 | 0.00 | 3.57 | 0.00 | |
| | Don't Know | 18.06 | 15.79 | 28.57 | 0.00 | |
| | n | 74 | 38 | 28 | 8 | |
| CC3A | Is your space heated using electricity or gas? | | | | | |
| | Electricity | 2.17 | 1.85 | 2.30 | 4.88 | |
| | Gas | 33.53 | 34.88 | 31.03 | 29.27 | |
| | Both Gas and Electricity | 19.65 | 17.28 | 24.14 | 26.83 | |
| | Neither | 42.66 | 44.14 | 39.66 | 39.02 | |
| | Boiler | 0.63 | 0.93 | 0.00 | 0.00 | |
| | Not applicable/no heating | 0.56 | 0.62 | 0.58 | 0.00 | |
| | Other | 0.14 | 0.00 | 0.58 | 0.00 | |
| | Refused | 0.21 | 0.31 | 0.00 | 0.00 | |
| | Don't Know | 0.43 | 0.00 | 1.72 | 0.00 | |
| | n | 539 | 324 | 174 | 41 | |
| CC4 | Does your business own, lease or manage the facility? | | | | | |
| | Own | 22.75 | 22.53 | 23.56 | 21.95 | |
| | Lease/Rent | 75.46 | 75.93 | 74.14 | 75.61 | |
| | Manage | 1.21 | 0.93 | 2.30 | 0.00 | |
| | Don't Know | 0.59 | 0.62 | 0.00 | 2.44 | |
| | n | 539 | 324 | 174 | 41 | |
| CC5 | Does your organization pay the electric and/or gas utility bill? | | | | | |
| | Yes | 76.55 | 60.00 | 100.00 | 100.00 | |
| | No | 23.45 | 40.00 | 0.00 | 0.00 | |
| | n | 10 | 5 | 4 | 1 | |
| CC5A | Which of the following best describes how your business pays the electric and/or gas utility bill for your space at this facility? Would you say... | | | | | |
| | You pay Utility directly | 97.88 | 97.56 | 100.00 | 93.55 | |
| | You pay a fee to your landlord that varies according to the size of the total utility bill | 0.72 | 0.41 | 0.00 | 6.45 | |
| | You pay a fixed fee to your landlord | 0.28 | 0.41 | 0.00 | 0.00 | |
| | Pay part of bill to landlord, part to utilities directly | 0.28 | 0.41 | 0.00 | 0.00 | |
| | Don't Know | 0.84 | 1.22 | 0.00 | 0.00 | |
| | n | 406 | 246 | 129 | 31 | |
| CC8 | In what year was your facility built? | | | | | |
| | After 2000 | 4.25 | 4.94 | 2.87 | 2.44 | |
| | In the 1990's | 9.02 | 8.95 | 10.35 | 4.88 | |
| | 1980's | 11.56 | 11.73 | 10.92 | 12.20 | |
| | 1970's | 4.96 | 5.56 | 4.02 | 2.44 | |
| | 1960's | 4.99 | 4.94 | 5.17 | 4.88 | |
| | 1950's | 3.78 | 3.09 | 4.02 | 9.76 | |
| | Before 1950 | 4.60 | 4.01 | 7.47 | 0.00 | |
| | Don't Know | 56.84 | 56.79 | 55.17 | 63.41 | |
| | n | 539 | 324 | 174 | 41 | |
| | CC10 | Would you say your facility was built...? | | | | |
| | | After 2000 | 1.77 | 2.17 | 0.00 | 3.85 |
| In the 1990's | | 8.87 | 8.70 | 7.29 | 15.38 | |
| 1980's | | 19.18 | 19.02 | 20.83 | 15.38 | |
| 1970's | | 16.46 | 15.76 | 18.75 | 15.38 | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|-------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | 1960's | 9.40 | 9.78 | 5.21 | 19.23 |
| | 1950's | 9.84 | 8.70 | 12.50 | 11.54 |
| | Before 1950 | 9.81 | 10.33 | 11.46 | 0.00 |
| | Don't Know | 24.68 | 25.54 | 23.96 | 19.23 |
| | <i>n</i> | 306 | 184 | 96 | 26 |
| CC11 | In what year was this facility last remodeled? | | | | |
| | Between 2003 and present | 16.56 | 17.59 | 10.92 | 26.83 |
| | Between 2000 and 2002 | 8.42 | 7.41 | 11.49 | 7.32 |
| | During the 1990's | 7.27 | 7.41 | 6.90 | 7.32 |
| | Not Applicable | 43.83 | 43.52 | 45.98 | 39.02 |
| | Don't Know | 23.92 | 24.07 | 24.71 | 19.51 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| CC11A | Would you say the last remodeling was done | | | | |
| | Between 2003 and present | 7.78 | 7.69 | 6.98 | 12.50 |
| | Between 2000 and 2002 | 8.23 | 10.26 | 4.65 | 0.00 |
| | During the 1990's | 14.43 | 16.67 | 11.63 | 0.00 |
| | Before the 1990's | 16.66 | 15.38 | 20.93 | 12.50 |
| | Don't Know | 52.90 | 50.00 | 55.81 | 75.00 |
| | <i>n</i> | 129 | 78 | 43 | 8 |
| CC12 | In which month of &YR was the remodel complete? | | | | |
| | January | 3.14 | 3.28 | 4.55 | 0.00 |
| | February | 3.51 | 4.92 | 0.00 | 0.00 |
| | March | 3.56 | 1.64 | 13.64 | 0.00 |
| | April | 6.83 | 4.92 | 13.64 | 8.33 |
| | May | 1.73 | 0.00 | 4.55 | 8.33 |
| | June | 4.67 | 6.56 | 0.00 | 0.00 |
| | July | 5.47 | 6.56 | 4.55 | 0.00 |
| | August | 7.44 | 8.20 | 9.09 | 0.00 |
| | September | 0.93 | 0.00 | 0.00 | 8.33 |
| | October | 6.40 | 6.56 | 4.55 | 8.33 |
| | November | 6.16 | 4.92 | 4.55 | 16.67 |
| | December | 5.47 | 6.56 | 4.55 | 0.00 |
| | Fall | 1.97 | 1.64 | 4.55 | 0.00 |
| | Winter | 5.10 | 4.92 | 9.09 | 0.00 |
| | Spring | 8.50 | 8.20 | 4.55 | 16.67 |
| | Summer | 14.24 | 14.75 | 0.00 | 33.33 |
| | Don't Know | 14.88 | 16.39 | 18.18 | 0.00 |
| | <i>n</i> | 95 | 61 | 22 | 12 |
| CC12A | What year was this business established at this location? | | | | |
| | After 2000 | 17.70 | 19.44 | 13.79 | 14.63 |
| | In the 1990s | 20.87 | 24.38 | 14.37 | 9.76 |
| | In the 1980s | 16.71 | 18.52 | 14.37 | 7.32 |
| | In the 1970s | 4.87 | 5.25 | 5.17 | 0.00 |
| | In the 1960s | 5.34 | 5.86 | 4.02 | 4.88 |
| | In the 1950s | 2.76 | 2.78 | 3.45 | 0.00 |
| | Before 1950 | 18.32 | 11.11 | 27.59 | 56.10 |
| | Don't Know | 13.44 | 12.65 | 17.24 | 7.32 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| CC12B | Would you say business was established at this location...? | | | | |
| | After 2000 | 7.83 | 12.20 | 0.00 | 0.00 |
| | In the 1990s | 17.73 | 17.07 | 13.33 | 66.67 |
| | In the 1980s | 27.42 | 24.39 | 36.67 | 0.00 |
| | In the 1970s | 8.97 | 7.32 | 13.33 | 0.00 |
| | In the 1960s | 7.83 | 12.20 | 0.00 | 0.00 |
| | In the 1950s | 5.45 | 4.88 | 3.33 | 33.33 |
| | Before 1950 | 7.90 | 7.32 | 10.00 | 0.00 |
| | Don't Know | 16.88 | 14.63 | 23.33 | 0.00 |
| | <i>n</i> | 74 | 41 | 30 | 3 |
| BC090 | Has the square footage of the facility increased, decreased or remained the same since January 2006? | | | | |
| | Increase in square footage | 0.99 | 1.24 | 0.58 | 0.00 |
| | Decrease in square footage | 0.42 | 0.62 | 0.00 | 0.00 |
| | Stayed the same | 98.17 | 97.53 | 99.43 | 100.00 |
| | Don't Know | 0.42 | 0.62 | 0.00 | 0.00 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| BC100 | How many square feet were added? | | | | |
| | Less than 50 ft. | 72.85 | 66.67 | 100.00 | 0.00 |

* Values are shown as percent of survey participants.
 * *n* is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|--------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | 50-100 ft. | 27.15 | 33.33 | 0.00 | 0.00 |
| | n | 4 | 3 | 1 | 0 |
| BC110 | By how many square feet was the facility reduced? | | | | |
| | 1100 ft. | 50.00 | 50.00 | 0.00 | 0.00 |
| | 550 ft. | 50.00 | 50.00 | 0.00 | 0.00 |
| | n | 2 | 2 | 0 | 0 |
| BC120 | What year did this change in square feet occur? | | | | |
| | 2006 | 44.89 | 50.00 | 0.00 | 0.00 |
| | 2007 | 40.15 | 33.33 | 100.00 | 0.00 |
| | Don't Know | 14.96 | 16.67 | 0.00 | 0.00 |
| | n | 7 | 6 | 1 | 0 |
| BC120A | And can you recall which month this change in square feet occurred? | | | | |
| | March | 17.59 | 20.00 | 0.00 | 0.00 |
| | September | 12.03 | 0.00 | 100.00 | 0.00 |
| | October | 17.59 | 20.00 | 0.00 | 0.00 |
| | November | 17.59 | 20.00 | 0.00 | 0.00 |
| | December | 17.59 | 20.00 | 0.00 | 0.00 |
| | Winter | 17.59 | 20.00 | 0.00 | 0.00 |
| | n | 6 | 5 | 1 | 0 |
| FM050 | What is the main business ACTIVITY at your locations that participated in the &UTILITY &PROGRAM? | | | | |
| | Office | 0.35 | 0.31 | 0.58 | 0.00 |
| | Retail (non food) | 0.31 | 0.00 | 0.58 | 2.44 |
| | Restaurant | 0.21 | 0.31 | 0.00 | 0.00 |
| | Hotel/Motel | 0.29 | 0.00 | 1.15 | 0.00 |
| | Community | 0.35 | 0.31 | 0.58 | 0.00 |
| | Indust Proc/mfg | 0.71 | 0.62 | 1.15 | 0.00 |
| | Greenhouse | 0.72 | 0.00 | 2.87 | 0.00 |
| | Laundry/Cleaners | 95.94 | 98.15 | 90.81 | 92.68 |
| | Wholesale Distribution | 0.14 | 0.00 | 0.58 | 0.00 |
| | Other Service | 0.14 | 0.00 | 0.58 | 0.00 |
| | Research | 0.29 | 0.00 | 1.15 | 0.00 |
| | Other | 0.55 | 0.31 | 0.00 | 4.88 |
| | n | 539 | 324 | 174 | 41 |
| FM070 | How many people are currently working at the facility, including both full and part time? | | | | |
| | 1-9 | 82.33 | 82.72 | 80.46 | 85.37 |
| | 10-29 | 12.34 | 12.04 | 13.22 | 12.20 |
| | 30-69 | 2.21 | 2.16 | 2.30 | 2.44 |
| | 70-99 | 1.21 | 0.93 | 2.30 | 0.00 |
| | 100-199 | 0.21 | 0.31 | 0.00 | 0.00 |
| | More than 200 | 0.56 | 0.62 | 0.58 | 0.00 |
| | Refused | 0.78 | 0.93 | 0.58 | 0.00 |
| | Don't Know | 0.35 | 0.31 | 0.58 | 0.00 |
| | n | 539 | 324 | 174 | 41 |
| FM080 | Since January 2006 has the number of people working at this facility changed by more than 10%? | | | | |
| | Yes | 22.63 | 22.53 | 22.41 | 24.39 |
| | No | 75.58 | 75.93 | 75.29 | 73.17 |
| | Don't Know | 1.79 | 1.54 | 2.30 | 2.44 |
| | n | 539 | 324 | 174 | 41 |
| FM081 | Would these changes have increased or decreased number of employees? | | | | |
| | Increased number of employees | 20.84 | 19.18 | 25.64 | 20.00 |
| | Decreased number of employees | 79.16 | 80.82 | 74.36 | 80.00 |
| | n | 122 | 73 | 39 | 10 |
| FM100 | In 2005 approximately how many people were working at this facility, including both full- or part-time employees? | | | | |
| | 1-5 | 35.90 | 42.86 | 30.00 | 0.00 |
| | 6-10 | 25.16 | 14.29 | 30.00 | 100.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | 11-50 | 16.42 | 21.43 | 10.00 | 0.00 |
| | More than 51 | 7.51 | 7.14 | 10.00 | 0.00 |
| | Don't Know | 15.01 | 14.29 | 20.00 | 0.00 |
| | <i>n</i> | 26 | 14 | 10 | 2 |
| | | | | | |
| PC010 | Thinking back to 2005, were any changes made to the facility during 2005 that would change the energy consumption by more than 10%? | | | | |
| | Yes | 18.42 | 16.98 | 24.71 | 9.76 |
| | No | 63.92 | 64.51 | 59.77 | 73.17 |
| | Don't Know | 17.67 | 18.52 | 15.52 | 17.07 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| PC020 | Would these changes have increased or decreased consumption? | | | | |
| | Increased | 26.86 | 29.09 | 25.58 | 0.00 |
| | Decreased | 70.44 | 69.09 | 69.77 | 100.00 |
| | Don't Know | 2.70 | 1.82 | 4.65 | 0.00 |
| | <i>n</i> | 102 | 55 | 43 | 4 |
| | | | | | |
| PC030 | During what season did these changes take place? | | | | |
| | Fall | 8.83 | 9.09 | 9.30 | 0.00 |
| | Winter | 32.52 | 32.73 | 30.23 | 50.00 |
| | Spring | 8.83 | 9.09 | 9.30 | 0.00 |
| | Summer | 25.48 | 25.45 | 25.58 | 25.00 |
| | Refused | 1.14 | 1.82 | 0.00 | 0.00 |
| | Don't Know | 23.20 | 21.82 | 25.58 | 25.00 |
| | <i>n</i> | 102 | 55 | 43 | 4 |
| | | | | | |
| CA1 | How important is being environmentally conscious to your business? Would you say it is | | | | |
| | Essential to your business | 19.45 | 19.75 | 21.26 | 9.76 |
| | Very important | 64.23 | 66.98 | 56.32 | 65.85 |
| | Somewhat important | 12.33 | 9.88 | 18.39 | 14.63 |
| | Not at all important | 2.64 | 2.47 | 1.15 | 9.76 |
| | Don't Know | 1.35 | 0.93 | 2.87 | 0.00 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| | | | | | |
| CA2 | In marketing materials or in communications with customers, does your company highlight ways in which your business is environmentally conscious? | | | | |
| | Yes | 69.42 | 70.93 | 66.47 | 64.86 |
| | No | 24.18 | 22.68 | 27.55 | 27.03 |
| | Somewhat | 0.30 | 0.00 | 1.20 | 0.00 |
| | Don't Know | 6.10 | 6.39 | 4.79 | 8.11 |
| | <i>n</i> | 517 | 313 | 167 | 37 |
| | | | | | |
| CA4 | Prior to 2006, had your organization ever installed equipment that involved the receipt of rebates or incentives from an energy efficiency program? | | | | |
| | Yes | 16.05 | 16.67 | 16.09 | 9.76 |
| | No | 72.60 | 72.22 | 74.14 | 70.73 |
| | Don't Know | 11.35 | 11.11 | 9.77 | 19.51 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| | | | | | |
| CA6 | What type of equipment did you install through this (these) program(s)? | | | | |
| | Indoor Lighting | 45.35 | 37.04 | 57.14 | 75.00 |
| | Cooling Equipment | 2.33 | 1.85 | 3.57 | 0.00 |
| | Natural Gas equipment (water heater/furnace or appliances) | 22.09 | 20.37 | 25.00 | 25.00 |
| | Insulation or windows | 6.98 | 7.41 | 7.14 | 0.00 |
| | Refrigeration | 1.16 | 1.85 | 0.00 | 0.00 |
| | Industrial Process Equipment | 2.33 | 1.85 | 3.57 | 0.00 |
| | Greenhouse Heat Curtains | 2.33 | 0.00 | 7.14 | 0.00 |
| | Food Service Equipment | 0.00 | 0.00 | 0.00 | 0.00 |
| | Pipe insulation | 7.41 | 6.06 | 10.00 | 0.00 |
| | Steam Traps | 14.81 | 12.12 | 20.00 | 0.00 |
| | Motors | 3.70 | 6.06 | 0.00 | 0.00 |
| | Dry Cleaning Equipment | 12.96 | 21.21 | 0.00 | 0.00 |
| | Cogeneration System | 1.85 | 3.03 | 0.00 | 0.00 |
| | Heat equipment | 3.70 | 3.03 | 5.00 | 0.00 |
| | Other | 6.98 | 1.85 | 10.71 | 50.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 0.00 | 0.00 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* *n* is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | n | 86 | 54 | 28 | 4 |
| CA15 | Over the past 3 years, how would you characterize your organization's business outlook? Would you say it was ... | | | | |
| | Excellent | 14.44 | 14.20 | 14.37 | 17.07 |
| | Good | 37.49 | 37.35 | 36.78 | 41.46 |
| | Fair | 26.21 | 24.69 | 28.16 | 34.15 |
| | Adequate | 9.74 | 10.49 | 10.35 | 0.00 |
| | Poor | 11.23 | 12.65 | 9.77 | 2.44 |
| | Don't Know | 0.90 | 0.62 | 0.58 | 4.88 |
| | n | 539 | 324 | 174 | 41 |
| CA15A | Projecting over the NEXT 3 years, how would you characterize your business outlook? Would you say.... | | | | |
| | Excellent | 16.06 | 15.74 | 16.67 | 17.07 |
| | Good | 34.80 | 33.64 | 36.78 | 39.02 |
| | Fair | 20.16 | 19.75 | 20.12 | 24.39 |
| | Adequate | 9.28 | 9.26 | 9.20 | 9.76 |
| | Poor | 9.04 | 10.49 | 6.90 | 2.44 |
| | Going out of business | 1.13 | 1.24 | 1.15 | 0.00 |
| | Don't Know | 9.53 | 9.88 | 9.20 | 7.32 |
| | n | 539 | 324 | 174 | 41 |
| ST3 | Our records indicate that &NUM_STEAMTRAP steam traps were installed at your facility. Is this about right? | | | | |
| | Yes | 97.87 | 97.52 | 98.28 | 100.00 |
| | No | 0.99 | 1.24 | 0.58 | 0.00 |
| | Don't Know | 1.14 | 1.24 | 1.15 | 0.00 |
| | n | 535 | 323 | 174 | 38 |
| ST3X | Approximately how many steam traps were installed at your facility through the program? | | | | |
| | 0 | 19.90 | 25.00 | 0.00 | 0.00 |
| | 15 | 6.80 | 0.00 | 33.33 | 0.00 |
| | 17 | 9.95 | 12.50 | 0.00 | 0.00 |
| | 24 | 9.95 | 12.50 | 0.00 | 0.00 |
| | 28 | 6.80 | 0.00 | 33.33 | 0.00 |
| | Don't Know | 46.60 | 50.00 | 33.33 | 0.00 |
| | n | 11 | 8 | 3 | 0 |
| ST3Y | Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Were any of these &ST1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Did not install any steam traps at this facility | 50.00 | 50.00 | 0.00 | 0.00 |
| | Participated in Pipe Insulation rebate, not Steam Trap rebate | 50.00 | 50.00 | 0.00 | 0.00 |
| | n | 2 | 2 | 0 | 0 |
| ST3Z | Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Have no idea of why numbers differ | 100.00 | 100.00 | 0.00 | 0.00 |
| | n | 1 | 1 | 0 | 0 |
| ST1 | Approximately when were these steam traps installed? | | | | |
| | 2004 | 0.36 | 0.31 | 0.58 | 0.00 |
| | 2005 | 1.14 | 1.24 | 1.15 | 0.00 |
| | 2006 | 18.95 | 25.78 | 4.60 | 2.63 |
| | 2007 | 40.50 | 32.92 | 54.60 | 65.79 |
| | 2008 | 22.58 | 22.36 | 23.56 | 21.05 |
| | 2009 | 1.16 | 1.24 | 0.58 | 2.63 |
| | 2005-2006 | 0.21 | 0.31 | 0.00 | 0.00 |
| | 2006-2007 | 3.28 | 3.11 | 4.60 | 0.00 |
| | 2007-2008 | 3.11 | 3.42 | 1.72 | 5.26 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | 2008-2009 | 0.15 | 0.00 | 0.58 | 0.00 |
| | 2006-2008 | 0.21 | 0.31 | 0.00 | 0.00 |
| | Don't know | 8.35 | 9.01 | 8.05 | 2.63 |
| | <i>n</i> | 534 | 322 | 174 | 38 |
| P13 | Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your facility. Is this about right? | | | | |
| | Yes | 89.21 | 89.47 | 85.71 | 0.00 |
| | No | 2.47 | 1.58 | 14.29 | 0.00 |
| | Don't Know | 8.32 | 8.95 | 0.00 | 0.00 |
| | <i>n</i> | 211 | 190 | 21 | 0 |
| P13X | Approximately how many feet of pipe insulation was installed at your facility through the program? | | | | |
| | 0 | 6.20 | 0.00 | 66.67 | 0.00 |
| | 100 | 4.54 | 5.00 | 0.00 | 0.00 |
| | 166 | 4.54 | 5.00 | 0.00 | 0.00 |
| | Don't Know | 84.73 | 90.00 | 33.33 | 0.00 |
| | <i>n</i> | 23 | 20 | 3 | 0 |
| P13Y | Perhaps you could help us to understand the difference between our records and what has been installed...Do you have any suggestions as to why our numbers differ? Was any of this &PI1_UNIT put into storage, perhaps installed at another facility, or never received? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Have no idea of why numbers differ | 42.25 | 100.00 | 0.00 | 0.00 |
| | Did not receive all of the insulation | 28.88 | 0.00 | 50.00 | 0.00 |
| | OTHER | 28.88 | 0.00 | 50.00 | 0.00 |
| | <i>n</i> | 3 | 1 | 2 | 0 |
| P11 | Approximately when was this pipe insulation installed? | | | | |
| | 2004 | 0.50 | 0.54 | 0.00 | 0.00 |
| | 2005 | 1.00 | 1.08 | 0.00 | 0.00 |
| | 2006 | 7.52 | 8.11 | 0.00 | 0.00 |
| | 2007 | 19.25 | 20.00 | 9.52 | 0.00 |
| | 2008 | 44.93 | 43.24 | 66.67 | 0.00 |
| | 2009 | 2.35 | 2.16 | 4.76 | 0.00 |
| | 2006-2007 | 0.50 | 0.54 | 0.00 | 0.00 |
| | 2007-2008 | 4.36 | 4.32 | 4.76 | 0.00 |
| | Before 2004 | 2.01 | 2.16 | 0.00 | 0.00 |
| | Don't know | 17.58 | 17.84 | 14.29 | 0.00 |
| | <i>n</i> | 206 | 185 | 21 | 0 |
| V1 | Now I would like to find out, did you use a contractor to install the measures rebated through the 2006-08 &PROGRAM Program? | | | | |
| | Contractor | 80.76 | 82.41 | 77.01 | 78.05 |
| | In-house staff | 13.79 | 12.65 | 16.67 | 14.63 |
| | Don't Know | 5.45 | 4.94 | 6.32 | 7.32 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| V41 | Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously? | | | | |
| | Yes | 41.74 | 42.01 | 37.50 | 0.00 |
| | No | 50.28 | 50.30 | 50.00 | 0.00 |
| | Refused | 0.38 | 0.00 | 6.25 | 0.00 |
| | Don't Know | 7.61 | 7.69 | 6.25 | 0.00 |
| | <i>n</i> | 185 | 169 | 16 | 0 |
| AP9 | How did you FIRST learn about the &UTILITYs &PROGRAM? | | | | |
| | UTILITY advertising (radio,TV,newspaper,Billboard) | 1.16 | 1.32 | 0.89 | 0.00 |
| | UTILITY mailing (bill insert,newspaper) | 12.18 | 11.84 | 14.16 | 6.25 |
| | UTILITY website | 1.80 | 1.32 | 3.54 | 0.00 |
| | UTILITY email or UTILITY REF | 14.30 | 15.35 | 11.50 | 12.50 |
| | UTILITY OTHER | 1.90 | 1.75 | 2.66 | 0.00 |
| | LOCAL GOVT advertising (radio,TV,newspaper,billboard,trade journal) | 0.31 | 0.44 | 0.00 | 0.00 |
| | SCHOOL, CLASSES, ENERGY CENTERS | 0.22 | 0.00 | 0.89 | 0.00 |
| | OTHER MEETINGS (outside of Local Government) | 0.43 | 0.00 | 1.77 | 0.00 |
| | WORD OF MOUTH (Friends,Relatives,Neighbors,Coworkers) | 21.40 | 22.81 | 17.70 | 18.75 |
| | CONTRACTOR | 31.11 | 30.70 | 29.20 | 50.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | Dry Cleaners Association | 1.69 | 1.75 | 1.77 | 0.00 |
| | Supplier | 4.55 | 5.70 | 0.89 | 6.25 |
| | Phone Call | 1.69 | 1.75 | 1.77 | 0.00 |
| | Previous Experience | 0.84 | 0.88 | 0.89 | 0.00 |
| | Other | 2.23 | 1.32 | 5.31 | 0.00 |
| | Don't Know | 4.17 | 3.07 | 7.08 | 6.25 |
| | n | 357 | 228 | 113 | 16 |
| AP9_5 | What was that other utility source? | | | | |
| | Seminar | 100.00 | 100.00 | 100.00 | 0.00 |
| | n | 2 | 1 | 1 | 0 |
| AP9_9A | What was the name of the schools or training centers that you mentioned? | | | | |
| | It was a seminar put on by Edison | 100.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 1 | 0 |
| AP9_12A | What was the name of the other meetings you mentioned? | | | | |
| | Peninsula dry cleaning assoc. | 50.00 | 0.00 | 50.00 | 0.00 |
| | Korean dry cleaners assoc. | 50.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 2 | 0 |
| GS1 | Which of the following natural gas equipment is present at your facility?... | | | | |
| | Gas Water heater | 51.96 | 49.54 | 58.05 | 44.74 |
| | Gas Furnace | 14.21 | 13.62 | 17.24 | 5.26 |
| | Gas Boiler | 96.82 | 96.90 | 97.13 | 94.74 |
| | Gas Stove(s) | 2.99 | 1.86 | 5.17 | 2.63 |
| | Gas Clothes Dryer | 59.25 | 68.11 | 43.10 | 57.89 |
| | Don't Know | 0.19 | 0.00 | 0.58 | 0.00 |
| | n | 535 | 323 | 174 | 38 |
| GS9_1 | According to our records, your organization installed &GS1_QTY through the &UTILITY &PROGRAM. Is this correct? | | | | |
| | Correct as stated | 73.04 | 70.83 | 78.57 | 0.00 |
| | Gas equipment installed, but not as described | 14.89 | 20.83 | 0.00 | 0.00 |
| | No gas equipment installed through the program | 7.05 | 4.17 | 14.29 | 0.00 |
| | Don't Know | 5.02 | 4.17 | 7.14 | 0.00 |
| | n | 38 | 24 | 14 | 0 |
| GS9X_1 | Approximately how many &GS1_UNIT were installed under the &PROGRAM? | | | | |
| | 200 | 20.00 | 20.00 | 0.00 | 0.00 |
| | 1000 | 20.00 | 20.00 | 0.00 | 0.00 |
| | Don't Know | 60.00 | 60.00 | 0.00 | 0.00 |
| | n | 5 | 5 | 0 | 0 |
| GS9Z1_1 | Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | |
| | Have no idea of why numbers differ | 50.00 | 50.00 | 0.00 | 0.00 |
| | Your data must be wrong | 50.00 | 50.00 | 0.00 | 0.00 |
| | n | 2 | 2 | 0 | 0 |
| GS9A_1 | What type of equipment was removed and replaced when you installed the new &GS1_MEAS? | | | | |
| | Boilers | 11.41 | 9.09 | 18.18 | 0.00 |
| | Water Heaters | 5.70 | 4.55 | 9.09 | 0.00 |
| | Cleaning Equipment | 9.26 | 0.00 | 36.36 | 0.00 |
| | Insulation | 23.71 | 31.82 | 0.00 | 0.00 |
| | New equipment only | 44.21 | 50.00 | 27.27 | 0.00 |
| | Other | 5.70 | 4.55 | 9.09 | 0.00 |
| | n | 33 | 22 | 11 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| GS9D1_1 | Our records indicate that your company installed the natural gas equipment in &GS_INSTDT1 through the &PROGRAM, is this correct? | | | | |
| | Yes | 80.00 | 80.00 | 0.00 | 0.00 |
| | No | 10.00 | 10.00 | 0.00 | 0.00 |
| | Don't Know | 10.00 | 10.00 | 0.00 | 0.00 |
| | <i>n</i> | 20 | 20 | 0 | 0 |
| GS9F1_1 | In what year did you install &GS1_MEAS? | | | | |
| | 2005 | 8.38 | 0.00 | 11.11 | 0.00 |
| | 2006 | 33.54 | 0.00 | 44.44 | 0.00 |
| | 2007 | 49.69 | 100.00 | 33.33 | 0.00 |
| | Don't Know | 8.38 | 0.00 | 11.11 | 0.00 |
| | <i>n</i> | 11 | 2 | 9 | 0 |
| GS9F2_1 | And what month was &GS1_MEAS installed? | | | | |
| | January | 9.15 | 0.00 | 12.50 | 0.00 |
| | March | 18.30 | 0.00 | 25.00 | 0.00 |
| | July | 9.15 | 0.00 | 12.50 | 0.00 |
| | November | 13.39 | 50.00 | 0.00 | 0.00 |
| | Summer | 22.54 | 50.00 | 12.50 | 0.00 |
| | Don't Know | 27.46 | 0.00 | 37.50 | 0.00 |
| | <i>n</i> | 10 | 2 | 8 | 0 |
| GS_MSP 1 | Since January 2005 have you purchased and installed any natural gas equipment on your own without any assistance from the &Utility &Program or another utility program either at this facility or at other locations? | | | | |
| | Yes, only at this home facility | 17.27 | 19.88 | 11.56 | 12.20 |
| | Yes, only at other locations | 0.71 | 0.62 | 1.16 | 0.00 |
| | Yes, at this facility and other location | 0.88 | 0.62 | 1.16 | 2.44 |
| | No | 80.93 | 78.57 | 86.13 | 85.37 |
| | Don't Know | 0.21 | 0.31 | 0.00 | 0.00 |
| | <i>n</i> | 536 | 322 | 173 | 41 |
| GS8_1 | What types of gas equipment was installed? | | | | |
| | Boilers | 52.41 | 57.35 | 37.50 | 33.33 |
| | Water Heaters | 19.13 | 14.71 | 33.33 | 33.33 |
| | Furnaces | 1.89 | 1.47 | 4.17 | 0.00 |
| | Gas Booser for dishwasher | 1.12 | 1.47 | 0.00 | 0.00 |
| | Clothes dryer | 22.44 | 22.06 | 20.83 | 33.33 |
| | Dry Cleaning Machine | 2.24 | 2.94 | 0.00 | 0.00 |
| | Don't Know | 0.77 | 0.00 | 4.17 | 0.00 |
| | <i>n</i> | 98 | 68 | 24 | 6 |
| GS8A_1 | Is the &GAS_TECH1B a high efficiency or energy saving measure? | | | | |
| | Yes | 74.36 | 75.00 | 73.91 | 66.67 |
| | No | 5.29 | 5.88 | 4.35 | 0.00 |
| | Don't Know | 20.35 | 19.12 | 21.74 | 33.33 |
| | <i>n</i> | 97 | 68 | 23 | 6 |
| GS_MSP 2_1 | How many high efficiency gas measures did you buy on your own at this facility? | | | | |
| | 1 Measure | 88.45 | 87.76 | 88.24 | 100.00 |
| | 2 Measures | 8.91 | 10.20 | 5.88 | 0.00 |
| | 3 Measures | 1.57 | 2.04 | 0.00 | 0.00 |
| | 5 Measures | 1.07 | 0.00 | 5.88 | 0.00 |
| | <i>n</i> | 70 | 49 | 17 | 4 |
| GS_MSP 2B_1 | How many high efficiency gas measures did you buy on your own at another locations? | | | | |
| | 1 Measure | 86.76 | 100.00 | 50.00 | 100.00 |
| | 2 Measures | 13.24 | 0.00 | 50.00 | 0.00 |
| | <i>n</i> | 6 | 3 | 2 | 1 |

* Values are shown as percent of survey participants.
 * *n* is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| GS_MSP 4_1 | My experience with the 2006-2008 &Utility &Program influenced my decision to install GS_TECH1B on my own, outside the program. | | | | |
| | zero STRONGLY DISAGREE | 33.59 | 35.29 | 35.29 | 0.00 |
| | 1 | 7.37 | 3.92 | 17.65 | 25.00 |
| | 2 | 3.04 | 3.92 | 0.00 | 0.00 |
| | 3 | 1.52 | 1.96 | 0.00 | 0.00 |
| | 5 | 12.71 | 13.73 | 11.76 | 0.00 |
| | 6 | 2.08 | 0.00 | 11.76 | 0.00 |
| | 7 | 4.08 | 3.92 | 5.88 | 0.00 |
| | 8 | 20.31 | 23.53 | 11.76 | 0.00 |
| | 9 | 1.21 | 0.00 | 0.00 | 25.00 |
| | 10 STRONGLY AGREE | 9.54 | 7.84 | 5.88 | 50.00 |
| | Refused | 1.52 | 1.96 | 0.00 | 0.00 |
| | Don't Know | 3.04 | 3.92 | 0.00 | 0.00 |
| | n | 72 | 51 | 17 | 4 |
| GS_MSP 5_1 | Why did you purchase this equipment without the financial assistance available through &Utility program? | | | | |
| | Too much paperwork | 2.78 | 1.96 | 5.88 | 0.00 |
| | Takes too long to get approval | 2.78 | 1.96 | 5.88 | 0.00 |
| | No time to participate, needed equipment immediately | 31.94 | 31.37 | 29.41 | 50.00 |
| | Program had ended | 0.00 | 0.00 | 0.00 | 0.00 |
| | Equipment would not qualify | 9.72 | 9.80 | 11.76 | 0.00 |
| | Amount of rebate wasn't important enough | 1.39 | 1.96 | 0.00 | 0.00 |
| | Didn't know program was available | 40.28 | 41.18 | 41.18 | 25.00 |
| | No program available | 6.94 | 9.80 | 0.00 | 0.00 |
| | Other | 4.17 | 1.96 | 5.88 | 25.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 8.33 | 9.80 | 5.88 | 0.00 |
| | | n | 72 | 51 | 17 |
| GS10_1 | In what year did you install GAS_TECH1B? | | | | |
| | 2005 | 16.42 | 16.18 | 17.39 | 16.67 |
| | 2006 | 28.49 | 30.88 | 21.74 | 16.67 |
| | 2007 | 25.18 | 22.06 | 26.09 | 66.67 |
| | 2008 | 24.97 | 26.47 | 26.09 | 0.00 |
| | Don't Know | 4.93 | 4.41 | 8.70 | 0.00 |
| | n | 97 | 68 | 23 | 6 |
| GS11_1 | And can you recall which month you installed GAS_TECH1B? If you cannot get month, try to get season. | | | | |
| | January | 2.00 | 1.54 | 4.76 | 0.00 |
| | February | 3.19 | 3.08 | 4.76 | 0.00 |
| | March | 3.19 | 3.08 | 4.76 | 0.00 |
| | April | 2.81 | 1.54 | 9.52 | 0.00 |
| | May | 5.32 | 4.62 | 4.76 | 16.67 |
| | June | 10.21 | 10.77 | 0.00 | 33.33 |
| | July | 7.13 | 9.23 | 0.00 | 0.00 |
| | August | 7.94 | 9.23 | 4.76 | 0.00 |
| | September | 2.38 | 3.08 | 0.00 | 0.00 |
| | October | 3.32 | 3.08 | 0.00 | 16.67 |
| | November | 4.38 | 4.62 | 4.76 | 0.00 |
| | December | 2.38 | 3.08 | 0.00 | 0.00 |
| | Fall | 4.38 | 4.62 | 4.76 | 0.00 |
| | Winter | 8.38 | 7.69 | 14.29 | 0.00 |
| | Spring | 2.00 | 1.54 | 4.76 | 0.00 |
| | Summer | 9.46 | 7.69 | 9.52 | 33.33 |
| Don't Know | 21.52 | 21.54 | 28.57 | 0.00 | |
| | n | 92 | 65 | 21 | 6 |
| GS21_1 | What type of equipment was removed and replaced when you installed the new GAS_TECH1B? | | | | |
| | Boilers | 48.61 | 52.94 | 29.41 | 50.00 |
| | Water heaters | 13.60 | 11.76 | 23.53 | 0.00 |
| | Gas booster for dishwasher | 1.56 | 1.96 | 0.00 | 0.00 |
| | Clothes dryer | 17.70 | 19.61 | 11.76 | 0.00 |
| | Dry Cleaning Equipment | 3.11 | 3.92 | 0.00 | 0.00 |
| | New Equipment -nothing removed | 15.41 | 9.80 | 35.29 | 50.00 |
| | | n | 70 | 51 | 17 |
| GS21A_1 | What type of fuel did this equipment use? | | | | |
| | Natural Gas | 93.22 | 93.48 | 90.91 | 100.00 |
| | Propane | 3.68 | 4.35 | 0.00 | 0.00 |
| | Both | 1.26 | 0.00 | 9.09 | 0.00 |
| | Other | 1.84 | 2.17 | 0.00 | 0.00 |
| | | n | 58 | 46 | 11 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| GS9_2 | According to our records, your organization installed &GS2_QTY through the &UTILITY &PROGRAM. Is this correct? | | | | |
| | Gas equipment installed, but not as described | 100.00 | 100.00 | 0.00 | 0.00 |
| | n | 1 | 1 | 0 | 0 |
| GS9X_2 | Approximately how many &GS2_UNIT were installed under the &PROGRAM? | | | | |
| | Don't Know | 100.00 | 100.00 | 0.00 | 0.00 |
| | n | 1 | 1 | 0 | 0 |
| GS9A_2 | What type of equipment was removed and replaced when you installed the new &GS2_MEAS? | | | | |
| | New equipment only | 100.00 | 100.00 | 0.00 | 0.00 |
| | n | 1 | 1 | 0 | 0 |
| GS9D1_2 | Our records indicate that your company installed the natural gas equipment in &GS_INSTDT1 through the &PROGRAM, is this correct? | | | | |
| | Yes | 100.00 | 100.00 | 0.00 | 0.00 |
| | n | 1 | 1 | 0 | 0 |
| GS8_2 | What types of gas equipment was installed? | | | | |
| | Boilers | 4.58 | 2.94 | 13.04 | 0.00 |
| | Water Heaters | 3.03 | 2.94 | 4.35 | 0.00 |
| | Gas range (Stove) | 1.13 | 1.47 | 0.00 | 0.00 |
| | Clothes dryer | 5.29 | 5.88 | 4.35 | 0.00 |
| | Dry Cleaning Machine | 1.13 | 1.47 | 0.00 | 0.00 |
| | Other | 1.13 | 1.47 | 0.00 | 0.00 |
| | Nothing Else | 83.71 | 83.82 | 78.26 | 100.00 |
| | n | 97 | 68 | 23 | 6 |
| GS8A_2 | Is the &GAS_TECH2B a high efficiency or energy saving measure? | | | | |
| | Yes | 88.32 | 90.91 | 80.00 | 0.00 |
| | No | 4.74 | 0.00 | 20.00 | 0.00 |
| | Don't Know | 6.94 | 9.09 | 0.00 | 0.00 |
| | n | 16 | 11 | 5 | 0 |
| GS_MSP 2_2 | How many high efficiency gas measures did you buy on your own at this facility? | | | | |
| | 1 Measure | 92.15 | 90.00 | 100.00 | 0.00 |
| | 2 Measures | 7.85 | 10.00 | 0.00 | 0.00 |
| | n | 14 | 10 | 4 | 0 |
| GS_MSP 2_2B | How many high efficiency gas measures did you buy on your own at another locations? | | | | |
| | 0 | 100.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 1 | 0 |
| GS_MSP 4_2 | My experience with the 2006-2008 &Utility &Program influenced my decision to install GS_TECH2B on my own, outside the program. | | | | |
| | zero STRONGLY DISAGREE | 26.44 | 20.00 | 50.00 | 0.00 |
| | 1 | 15.71 | 20.00 | 0.00 | 0.00 |
| | 3 | 7.85 | 10.00 | 0.00 | 0.00 |
| | 5 | 5.37 | 0.00 | 25.00 | 0.00 |
| | 6 | 7.85 | 10.00 | 0.00 | 0.00 |
| | 8 | 21.07 | 20.00 | 25.00 | 0.00 |
| | 10 STRONGLY AGREE | 15.71 | 20.00 | 0.00 | 0.00 |
| | n | 14 | 10 | 4 | 0 |
| GS_MSP 5_2 | Why did you purchase this equipment without the financial assistance available through &Utility program? | | | | |
| | Too much paperwork | 0.00 | 0.00 | 0.00 | 0.00 |
| | Takes too long to get approval | 0.00 | 0.00 | 0.00 | 0.00 |
| | No time to participate, needed equipment immediately | 35.71 | 40.00 | 25.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------------|-----------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | Program had ended | 0.00 | 0.00 | 0.00 | 0.00 |
| | Equipment would not qualify | 7.14 | 0.00 | 25.00 | 0.00 |
| | Amount of rebate wasn't important enough | 7.14 | 10.00 | 0.00 | 0.00 |
| | Didn't know program was available | 50.00 | 50.00 | 50.00 | 0.00 |
| | No program available | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 0.00 | 0.00 | 0.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 0.00 | 0.00 | 0.00 | 0.00 |
| | <i>n</i> | 14 | 10 | 4 | 0 |
| GS10_2 | In what year did you install GAS_TECH2B? | | | | |
| | 2005 | 11.68 | 9.09 | 20.00 | 0.00 |
| | 2006 | 30.29 | 27.27 | 40.00 | 0.00 |
| | 2007 | 34.68 | 45.45 | 0.00 | 0.00 |
| | 2008 | 16.42 | 9.09 | 40.00 | 0.00 |
| | Don't Know | 6.94 | 9.09 | 0.00 | 0.00 |
| | <i>n</i> | 16 | 11 | 5 | 0 |
| GS11_2 | And can you recall which month you installed GAS_TECH2B? | | | | |
| | February | 5.09 | 0.00 | 20.00 | 0.00 |
| | March | 10.19 | 0.00 | 40.00 | 0.00 |
| | April | 7.45 | 10.00 | 0.00 | 0.00 |
| | May | 14.91 | 20.00 | 0.00 | 0.00 |
| | June | 7.45 | 10.00 | 0.00 | 0.00 |
| | December | 7.45 | 10.00 | 0.00 | 0.00 |
| | Winter | 14.91 | 20.00 | 0.00 | 0.00 |
| | Summer | 5.09 | 0.00 | 20.00 | 0.00 |
| | Don't Know | 27.45 | 30.00 | 20.00 | 0.00 |
| | <i>n</i> | 15 | 10 | 5 | 0 |
| GS21_2 | What type of equipment was removed and replaced when you installed the new GAS_TECH2B? | | | | |
| | Boilers | 28.69 | 22.22 | 50.00 | 0.00 |
| | Water heaters | 5.82 | 0.00 | 25.00 | 0.00 |
| | Clothes dryer | 39.91 | 44.44 | 25.00 | 0.00 |
| | Steam pressure reducing station | 8.52 | 11.11 | 0.00 | 0.00 |
| | Same equipment as before | 8.52 | 11.11 | 0.00 | 0.00 |
| | Other | 8.52 | 11.11 | 0.00 | 0.00 |
| | <i>n</i> | 13 | 9 | 4 | 0 |
| GS21A_2 | What type of fuel did this equipment use? | | | | |
| | Natural Gas | 82.96 | 77.78 | 100.00 | 0.00 |
| | Electricity | 17.04 | 22.22 | 0.00 | 0.00 |
| | <i>n</i> | 13 | 9 | 4 | 0 |
| GS_MSP 2_3 | How many high efficiency gas measures did you buy on your own at this facility? | | | | |
| | 1 Measure | 62.74 | 50.00 | 100.00 | 0.00 |
| | 2 Measures | 37.27 | 50.00 | 0.00 | 0.00 |
| | <i>n</i> | 3 | 2 | 1 | 0 |
| GS8_3 | What types of gas equipment was installed? | | | | |
| | Water Heaters | 6.94 | 9.09 | 0.00 | 0.00 |
| | Dry Cleaning Machine | 4.74 | 0.00 | 20.00 | 0.00 |
| | Other | 6.94 | 9.09 | 0.00 | 0.00 |
| | Nothing Else | 74.45 | 72.73 | 80.00 | 0.00 |
| | Don't Know | 6.94 | 9.09 | 0.00 | 0.00 |
| | <i>n</i> | 16 | 11 | 5 | 0 |
| GS8A_3 | Is the &GAS_TECH3B a high efficiency or energy saving measure? | | | | |
| | Yes | 100.00 | 100.00 | 100.00 | 0.00 |
| | <i>n</i> | 3 | 2 | 1 | 0 |
| GS_MSP 2_3B | How many high efficiency gas measures did you buy on your own at another locations? | | | | |

* Values are shown as percent of survey participants.

* *n* is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | 0 | 100.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 1 | 0 |
| GS_MSP 4_3 | My experience with the 2006-2008 &Utility &Program influenced my decision to install GS_TECH3B on my own, outside the program. | | | | |
| | zero STRONGLY DISAGREE | 25.47 | 0.00 | 100.00 | 0.00 |
| | 8 | 37.27 | 50.00 | 0.00 | 0.00 |
| | 10 STRONGLY AGREE | 37.27 | 50.00 | 0.00 | 0.00 |
| | n | 3 | 2 | 1 | 0 |
| GS_MSP 5_3 | Why did you purchase this equipment without the financial assistance available through &Utility program? | | | | |
| | Too much paperwork | 0.00 | 0.00 | 0.00 | 0.00 |
| | Takes too long to get approval | 0.00 | 0.00 | 0.00 | 0.00 |
| | No time to participate,needed equipment immediately | 33.33 | 50.00 | 0.00 | 0.00 |
| | Program had ended | 0.00 | 0.00 | 0.00 | 0.00 |
| | Equipment would not qualify | 33.33 | 0.00 | 100.00 | 0.00 |
| | Amount of rebate wasn't important enough | 0.00 | 0.00 | 0.00 | 0.00 |
| | Didn't know program was available | 0.00 | 0.00 | 0.00 | 0.00 |
| | No program available | 0.00 | 0.00 | 0.00 | 0.00 |
| | Did receive rebate | 33.33 | 50.00 | 0.00 | 0.00 |
| | Other | 0.00 | 0.00 | 0.00 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 0.00 | 0.00 | 0.00 | 0.00 |
| | n | 3 | 2 | 1 | 0 |
| GS10_3 | In what year did you install GAS_TECH3B? | | | | |
| | 2006 | 37.27 | 50.00 | 0.00 | 0.00 |
| | 2007 | 25.47 | 0.00 | 100.00 | 0.00 |
| | 2008 | 37.27 | 50.00 | 0.00 | 0.00 |
| | n | 3 | 2 | 1 | 0 |
| GS11_3 | And can you recall which month? | | | | |
| | January | 25.47 | 0.00 | 100.00 | 0.00 |
| | October | 37.27 | 50.00 | 0.00 | 0.00 |
| | Summer | 37.27 | 50.00 | 0.00 | 0.00 |
| | n | 3 | 2 | 1 | 0 |
| GS21_3 | What type of equipment was removed and replaced when you installed the new GAS_TECH3B? | | | | |
| | Water heaters | 37.27 | 50.00 | 0.00 | 0.00 |
| | Dry Cleaning Equipment | 25.47 | 0.00 | 100.00 | 0.00 |
| | Same equipment as before | 37.27 | 50.00 | 0.00 | 0.00 |
| | n | 3 | 2 | 1 | 0 |
| GS21A_3 | What type of fuel did this equipment use? | | | | |
| | Natural Gas | 74.53 | 100.00 | 0.00 | 0.00 |
| | Both | 25.47 | 0.00 | 100.00 | 0.00 |
| | n | 3 | 2 | 1 | 0 |
| GS22 | Since January 2005 have you purchased and installed any natural gas equipment on your own without any assistance from the &Utility &Program or another utility program either at this facility or at other locations? | | | | |
| | Yes, electric to gas | 1.28 | 1.26 | 1.63 | 0.00 |
| | Yes, gas to electric | 0.79 | 0.84 | 0.81 | 0.00 |
| | Yes, INCREASED Production | 2.29 | 1.26 | 5.69 | 0.00 |
| | Yes, DECREASED Production | 7.81 | 8.82 | 5.69 | 4.35 |
| | No changes | 74.83 | 75.63 | 75.61 | 60.87 |
| | Bought/Added new equipment | 3.70 | 2.52 | 4.07 | 17.39 |
| | replaced old equipment | 4.38 | 4.20 | 4.88 | 4.35 |
| | Eliminated equipment | 0.29 | 0.42 | 0.00 | 0.00 |
| | Added a co-generator | 0.29 | 0.42 | 0.00 | 0.00 |
| | Cleaned boiler | 0.47 | 0.00 | 0.00 | 8.70 |
| | Converted System | 0.29 | 0.42 | 0.00 | 0.00 |
| | Solar Panels | 0.20 | 0.00 | 0.81 | 0.00 |
| | Switched from gas to steam | 0.29 | 0.42 | 0.00 | 0.00 |
| | Insulate all machines | 0.29 | 0.42 | 0.00 | 0.00 |
| | Transferred production to another location | 0.23 | 0.00 | 0.00 | 4.35 |
| | Don't Know | 2.55 | 3.36 | 0.81 | 0.00 |
| | n | 384 | 238 | 123 | 23 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | ALL (%) | SCG (%) | PGE (%) | SDGE (%) | |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|----------|-------|
| ST3A | How many steam traps are located at your facility? | | | | |
| | 0-9 Traps | 7.73 | 8.10 | 8.05 | 2.63 |
| | 10-19 Traps | 46.53 | 46.73 | 43.10 | 57.89 |
| | 20-39 Traps | 32.38 | 31.46 | 35.06 | 31.58 |
| | 40-99 Traps | 7.01 | 6.54 | 8.05 | 7.89 |
| | More than 100 Traps | 0.79 | 0.31 | 2.30 | 0.00 |
| | Don't Know | 5.55 | 6.85 | 3.45 | 0.00 |
| | n | 533 | 321 | 174 | 38 |
| ST3B | What percentage of the steam traps at your facility were replaced through the program? | | | | |
| | 0-29% | 4.05 | 4.15 | 4.82 | 0.00 |
| | 30-59% | 1.62 | 1.92 | 1.21 | 0.00 |
| | 60-79% | 4.03 | 3.83 | 4.22 | 5.41 |
| | 80-89% | 5.06 | 5.11 | 4.82 | 5.41 |
| | 90-99% | 7.77 | 7.03 | 9.04 | 10.81 |
| | 100% | 77.47 | 77.96 | 75.90 | 78.38 |
| | n | 516 | 313 | 166 | 37 |
| ST4 | What led you to replace the steam traps? | | | | |
| | Needed to replace some old steam traps | 30.47 | 29.72 | 30.46 | 36.84 |
| | Installed new steam traps to improve system efficiency | 41.68 | 42.11 | 40.81 | 42.11 |
| | Wanted to save on our energy bill | 66.92 | 65.02 | 71.84 | 60.53 |
| | Traps had failed | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps had failed open | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps were leaking | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps had failed shut | 0.00 | 0.00 | 0.00 | 0.00 |
| | Regular maintenance | 0.00 | 0.00 | 0.00 | 0.00 |
| | Better for the Environment | 0.28 | 0.00 | 0.89 | 0.00 |
| | Rebate Influence | 5.60 | 5.70 | 6.20 | 0.00 |
| | Inspections | 0.00 | 0.00 | 0.00 | 0.00 |
| | Traps were old | 0.00 | 0.00 | 0.00 | 0.00 |
| | Wrong traps previously | 0.00 | 0.00 | 0.00 | 0.00 |
| | Contractor/Utility Influence | 1.68 | 2.63 | 0.00 | 0.00 |
| | Safety | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 3.74 | 3.41 | 2.30 | 13.16 |
| | Refused | 0.19 | 0.31 | 0.00 | 0.00 |
| | Don't Know | 2.80 | 2.17 | 4.02 | 2.63 |
| | n | 535 | 323 | 174 | 38 |
| ST5 | Whose idea was it to replace the steam traps? | | | | |
| | Contractor | 32.70 | 33.03 | 32.76 | 29.27 |
| | Utility company contact | 15.07 | 16.67 | 11.49 | 12.20 |
| | Other | 49.81 | 47.84 | 53.45 | 56.10 |
| | Don't know | 2.42 | 2.47 | 2.30 | 2.44 |
| | n | 539 | 324 | 174 | 41 |
| ST5A | Prior to the installation of the new steam traps, did you have a steam trap maintenance program? | | | | |
| | Yes | 30.27 | 29.64 | 33.33 | 25.00 |
| | No | 65.26 | 66.07 | 60.54 | 75.00 |
| | Don't Know | 4.47 | 4.29 | 6.12 | 0.00 |
| | n | 459 | 280 | 147 | 32 |
| ST5B | What percentage of your steam traps were NOT in good condition prior to replacement? | | | | |
| | 0-19% | 51.22 | 52.97 | 48.00 | 45.83 |
| | 20-59% | 27.99 | 25.41 | 30.00 | 45.83 |
| | 60-99% | 13.14 | 14.05 | 12.00 | 8.33 |
| | 100% | 7.65 | 7.57 | 10.00 | 0.00 |
| | n | 309 | 185 | 100 | 24 |
| ST6A | Prior to their replacement, how long had the steam traps been in fair or poor condition? If more than 1 answer, record the longest period of time. | | | | |
| | 1 to 2 months | 19.67 | 19.85 | 19.74 | 17.65 |
| | 3 to 4 months | 11.03 | 13.24 | 6.58 | 5.88 |
| | 5 to 6 months | 12.07 | 11.76 | 14.47 | 5.88 |
| | 7 to 8 months | 1.73 | 1.47 | 1.32 | 5.88 |
| | 11 to 12 months | 11.53 | 10.29 | 13.16 | 17.65 |
| | 13 months to 18 months | 2.32 | 2.94 | 1.32 | 0.00 |
| | 19 months to 24 months | 3.79 | 2.94 | 3.95 | 11.76 |
| | More than 24 months | 22.00 | 19.12 | 27.63 | 29.41 |
| | DON'T KNOW | 15.86 | 18.38 | 11.84 | 5.88 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|---------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | n | 229 | 136 | 76 | 17 |
| ST6B | Were any of the replaced traps in good condition? | | | | |
| | Yes | 64.75 | 68.38 | 55.26 | 64.71 |
| | No | 26.18 | 22.79 | 34.21 | 29.41 |
| | Don't Know | 9.07 | 8.82 | 10.53 | 5.88 |
| | n | 229 | 136 | 76 | 17 |
| ST6BPCT | What share of the replaced traps were in good condition prior to replacement? | | | | |
| | 0 | 0.52 | 0.00 | 2.38 | 0.00 |
| | 1-10% | 10.26 | 11.83 | 0.00 | 27.27 |
| | 11-20% | 12.19 | 11.83 | 14.29 | 9.09 |
| | 21-30% | 7.31 | 6.45 | 9.52 | 9.09 |
| | 31-40% | 4.11 | 4.30 | 4.76 | 0.00 |
| | 41-50% | 14.97 | 17.20 | 9.52 | 9.09 |
| | 51-60% | 3.52 | 3.23 | 0.00 | 18.18 |
| | 61-70% | 7.55 | 7.53 | 7.14 | 9.09 |
| | 71-80% | 12.43 | 12.90 | 11.90 | 9.09 |
| | 81-80% | 8.60 | 7.53 | 11.90 | 9.09 |
| | 91-99% | 2.82 | 3.23 | 2.38 | 0.00 |
| | 100% | 10.04 | 9.68 | 14.29 | 0.00 |
| | Don't Know | 5.69 | 4.30 | 11.90 | 0.00 |
| | n | 146 | 93 | 42 | 11 |
| ST6D | Why were traps replaced that were in good condition? | | | | |
| | Broken/Old Trap | 11.13 | 12.14 | 9.43 | 5.56 |
| | Contractor/Utility Rep Influence | 22.83 | 22.86 | 20.75 | 27.78 |
| | Convenient to replace all traps at once | 2.10 | 2.86 | 0.00 | 0.00 |
| | Could not tell condition | 12.39 | 12.14 | 9.43 | 22.22 |
| | Didn't have a choice | 0.53 | 0.71 | 0.00 | 0.00 |
| | New traps more efficient | 3.62 | 1.43 | 11.32 | 5.56 |
| | Program/Rebate Influence | 20.42 | 20.71 | 20.75 | 16.67 |
| | Save Energy | 19.01 | 19.29 | 18.87 | 16.67 |
| | Save Money | 7.46 | 7.14 | 9.43 | 5.56 |
| | Don't Know | 0.53 | 0.71 | 0.00 | 0.00 |
| | n | 211 | 140 | 53 | 18 |
| ST7 | What percentage of the steam trap cost would you estimate the &PROGRAM rebate covered? | | | | |
| | Rebate covered all of the cost | 70.74 | 71.83 | 64.37 | 84.21 |
| | Rebate covered most of the cost | 18.78 | 17.65 | 25.29 | 5.26 |
| | Rebate covered less than half of the cost | 3.94 | 4.03 | 4.02 | 2.63 |
| | Rebate covered half of the cost | 0.36 | 0.31 | 0.58 | 0.00 |
| | Other | 0.36 | 0.31 | 0.58 | 0.00 |
| | Refused | 0.21 | 0.31 | 0.00 | 0.00 |
| | Don't Know | 5.62 | 5.57 | 5.17 | 7.89 |
| | n | 535 | 323 | 174 | 38 |
| ST8 | How effective were the new steam traps in reducing your natural gas bill? | | | | |
| | Considerable gas savings | 22.11 | 24.15 | 15.52 | 26.32 |
| | Some gas savings | 47.44 | 45.20 | 52.87 | 50.00 |
| | No noticeable savings | 17.29 | 17.03 | 18.39 | 15.79 |
| | Have not noticed/checked | 0.64 | 0.93 | 0.00 | 0.00 |
| | Price increases make it difficult to tell | 0.36 | 0.31 | 0.58 | 0.00 |
| | 0-30% | 0.88 | 0.62 | 1.15 | 2.63 |
| | Very little | 0.15 | 0.00 | 0.58 | 0.00 |
| | Other | 1.56 | 1.86 | 1.15 | 0.00 |
| | Refused | 0.42 | 0.62 | 0.00 | 0.00 |
| | Don't Know | 9.15 | 9.29 | 9.77 | 5.26 |
| | n | 535 | 323 | 174 | 38 |
| ST8A | Have you noticed any problems with the steam traps since their installation? | | | | |
| | Yes | 12.83 | 13.60 | 10.62 | 12.50 |
| | No | 84.85 | 83.77 | 87.61 | 87.50 |
| | Refused | 0.31 | 0.44 | 0.00 | 0.00 |
| | Don't Know | 2.00 | 2.19 | 1.77 | 0.00 |
| | n | 357 | 228 | 113 | 16 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| ST9 | In your opinion, with the &Program rebate, was installing these team traps cost-effective? | | | | |
| | Yes | 76.01 | 76.78 | 71.84 | 84.21 |
| | No | 11.60 | 11.15 | 13.79 | 7.89 |
| | Somewhat | 4.37 | 4.03 | 5.75 | 2.63 |
| | Refused | 0.21 | 0.31 | 0.00 | 0.00 |
| | Don't Know | 7.80 | 7.74 | 8.62 | 5.26 |
| | n | 535 | 323 | 174 | 38 |
| ST10 | Without the &PROGRAM rebate, do you think you would have found installing the steam traps to be cost-effective? | | | | |
| | Yes | 41.46 | 43.90 | 37.33 | 31.43 |
| | No | 38.91 | 36.59 | 42.00 | 51.43 |
| | Somewhat | 9.33 | 9.41 | 9.33 | 8.57 |
| | Don't Know | 10.30 | 10.11 | 11.33 | 8.57 |
| | n | 472 | 287 | 150 | 35 |
| ST11 | What are the main uses of steam at your facility? | | | | |
| | Laundry presses | 94.69 | 95.98 | 92.53 | 89.47 |
| | Boilers | 0.50 | 0.31 | 1.15 | 0.00 |
| | Heat | 0.21 | 0.31 | 0.00 | 0.00 |
| | Domestic uses | 0.15 | 0.00 | 0.58 | 0.00 |
| | Process heating | 0.15 | 0.00 | 0.58 | 0.00 |
| | Other | 2.47 | 0.93 | 4.60 | 10.53 |
| | Don't Know | 0.64 | 0.93 | 0.00 | 0.00 |
| | n | 535 | 323 | 174 | 38 |
| ST12 | How many laundry presses do you have at your facility? | | | | |
| | 0 presses | 4.98 | 4.95 | 6.32 | 0.00 |
| | 1 press | 7.38 | 8.67 | 5.75 | 0.00 |
| | 2 presses | 17.98 | 19.20 | 17.24 | 7.89 |
| | 3 presses | 23.56 | 24.46 | 18.39 | 34.21 |
| | 4 presses | 13.95 | 12.38 | 18.39 | 13.16 |
| | 5 presses | 9.80 | 9.29 | 10.35 | 13.16 |
| | 6-11 presses | 15.59 | 15.17 | 16.67 | 15.79 |
| | 11-20 presses | 4.55 | 3.10 | 6.32 | 13.16 |
| | More than 21 presses | 0.59 | 0.62 | 0.00 | 2.63 |
| | Don't Know | 1.63 | 2.17 | 0.58 | 0.00 |
| | n | 535 | 323 | 174 | 38 |
| ST13 | Were there other changes at your site at the time or since the new steam traps were installed? | | | | |
| | Add equipment | 8.97 | 8.05 | 10.92 | 7.89 |
| | Decrease equipment | 2.43 | 3.41 | 1.15 | 0.00 |
| | Increase hours of operation | 2.43 | 2.17 | 1.72 | 7.89 |
| | Decrease hours of operation | 10.84 | 11.46 | 9.20 | 13.16 |
| | Increase number of employees | 1.12 | 0.31 | 2.30 | 2.63 |
| | Decrease number of employees | 7.29 | 8.05 | 5.17 | 10.53 |
| | Added controls | 0.56 | 0.00 | 1.15 | 2.44 |
| | Decreased controls | 0.19 | 0.31 | 0.00 | 0.00 |
| | Added pipe or tank insulation | 2.04 | 1.85 | 2.30 | 2.44 |
| | Decreased pipe or tank insulation | 0.00 | 0.00 | 0.00 | 0.00 |
| | Other | 2.06 | 1.55 | 3.45 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 1.87 | 1.55 | 2.87 | 0.00 |
| | n | 535 | 323 | 174 | 38 |
| ST14 | Since January 2006, has there been a period where there was a significant increase in production at this site? In other words, was there any period where your production was higher than usual? | | | | |
| | Yes | 14.77 | 14.91 | 12.32 | 22.58 |
| | No | 81.32 | 80.73 | 84.06 | 77.42 |
| | Don't Know | 3.91 | 4.36 | 3.62 | 0.00 |
| | n | 444 | 275 | 138 | 31 |
| ST14A | Can you recall when this increase in production occurred? | | | | |
| | 2006 | 9.31 | 4.88 | 29.41 | 0.00 |
| | 2007 | 21.45 | 26.83 | 5.88 | 14.29 |
| | 2008 | 12.15 | 9.76 | 5.88 | 42.86 |
| | 2009 | 6.52 | 7.32 | 0.00 | 14.29 |
| | Seasonal - Winter | 23.79 | 26.83 | 17.65 | 14.29 |
| | Seasonal - Summer | 1.17 | 0.00 | 5.88 | 0.00 |
| | Seasonal - Fall | 2.89 | 2.44 | 5.88 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | 2006-2007 | 8.05 | 9.76 | 5.88 | 0.00 |
| | 2007-2008 | 2.89 | 2.44 | 5.88 | 0.00 |
| | 2006-2008 | 1.37 | 0.00 | 0.00 | 14.29 |
| | Constantly | 2.35 | 0.00 | 11.76 | 0.00 |
| | Cycles with economy | 1.72 | 2.44 | 0.00 | 0.00 |
| | Don't know | 6.33 | 7.32 | 5.88 | 0.00 |
| | n | 65 | 41 | 17 | 7 |
| ST15 | Since January 2006, has there been a period where there was a significant decrease in production at this site? In other words, was there any period where your production was lower than usual? | | | | |
| | Yes | 56.80 | 57.82 | 54.35 | 54.84 |
| | No | 39.37 | 38.18 | 41.30 | 45.16 |
| | Refused | 0.25 | 0.36 | 0.00 | 0.00 |
| | Don't Know | 3.58 | 3.64 | 4.35 | 0.00 |
| | n | 444 | 275 | 138 | 31 |
| ST15A | Can you recall when this decrease in production occurred? | | | | |
| | 2004 | 0.31 | 0.00 | 1.33 | 0.00 |
| | 2005 | 0.89 | 1.26 | 0.00 | 0.00 |
| | 2006 | 7.93 | 6.29 | 12.00 | 11.76 |
| | 2007 | 13.65 | 13.84 | 12.00 | 17.65 |
| | 2008 | 34.56 | 37.11 | 28.00 | 29.41 |
| | 2009 | 14.63 | 15.72 | 12.00 | 11.76 |
| | Seasonal - Winter | 1.20 | 1.26 | 1.33 | 0.00 |
| | Seasonal - Summer | 4.99 | 5.66 | 2.67 | 5.88 |
| | Seasonal - Fall | 0.31 | 0.00 | 1.33 | 0.00 |
| | 2006-2007 | 0.75 | 0.63 | 1.33 | 0.00 |
| | 2007-2008 | 1.06 | 0.63 | 2.67 | 0.00 |
| | 2008-2009 | 5.85 | 5.66 | 8.00 | 0.00 |
| | 2007-2009 | 5.28 | 3.77 | 6.67 | 17.65 |
| | Constantly | 1.56 | 1.26 | 1.33 | 5.88 |
| | Cycles with economy | 2.70 | 2.52 | 4.00 | 0.00 |
| | Don't know | 4.35 | 4.40 | 5.33 | 0.00 |
| | n | 251 | 159 | 75 | 17 |
| PI3A | How much linear feet of pipe insulation is present at your facility? | | | | |
| | 0-99 ft. | 3.43 | 3.25 | 5.88 | 0.00 |
| | 100-199 ft. | 11.50 | 11.04 | 17.65 | 0.00 |
| | 200-399 ft. | 19.13 | 20.13 | 5.88 | 0.00 |
| | More than 400 ft. | 13.31 | 12.99 | 17.65 | 0.00 |
| | Refused | 0.41 | 0.00 | 5.88 | 0.00 |
| | Don't Know | 52.21 | 52.60 | 47.06 | 0.00 |
| | n | 171 | 154 | 17 | 0 |
| PI3B | Can you estimate what percent of the pipes present at your facility were insulated through the &PROGRAM? | | | | |
| | 0-24% | 3.66 | 2.70 | 16.67 | 0.00 |
| | 25-49% | 5.08 | 3.60 | 25.00 | 0.00 |
| | 50-74% | 10.11 | 9.01 | 25.00 | 0.00 |
| | 75-99% | 22.39 | 23.42 | 8.33 | 0.00 |
| | 100% | 39.47 | 40.54 | 25.00 | 0.00 |
| | Don't Know | 19.30 | 20.72 | 0.00 | 0.00 |
| | n | 123 | 111 | 12 | 0 |
| PI7 | Was the pipe insulation installed on new pipes or was it a retrofit of older pipes? | | | | |
| | ONLY New | 9.26 | 9.24 | 9.52 | 0.00 |
| | ONLY Older | 75.09 | 75.00 | 76.19 | 0.00 |
| | Both New and Older | 11.44 | 11.96 | 4.76 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 3.53 | 3.80 | 0.00 | 0.00 |
| | n | 205 | 184 | 21 | 0 |
| PI7A | What percentage of the pipe insulation was installed on new pipes? | | | | |
| | 0% | 2.50 | 2.63 | 0.00 | 0.00 |
| | 10% | 4.99 | 5.26 | 0.00 | 0.00 |
| | 15% | 2.50 | 2.63 | 0.00 | 0.00 |
| | 20% | 6.70 | 5.26 | 33.33 | 0.00 |
| | 40% | 9.99 | 10.53 | 0.00 | 0.00 |
| | 50% | 12.48 | 13.16 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|------|--------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | 90% | 2.50 | 2.63 | 0.00 | 0.00 |
| | 100% | 50.85 | 50.00 | 66.67 | 0.00 |
| | Don't Know | 7.49 | 7.89 | 0.00 | 0.00 |
| | n | 41 | 38 | 3 | 0 |
| PI7B | How old were the pipes receiving the pipe insulation? | | | | |
| | 1-9 years | 29.19 | 28.75 | 35.29 | 0.00 |
| | 10-19 years | 33.27 | 33.13 | 35.29 | 0.00 |
| | 20-29 years | 14.97 | 15.63 | 5.88 | 0.00 |
| | More than 30 years old | 22.57 | 22.50 | 23.53 | 0.00 |
| | n | 177 | 160 | 17 | 0 |
| PI8 | Was insulation already present on the pipes before the insulation was installed through the &PROGRAM program? | | | | |
| | Yes | 71.08 | 70.06 | 84.21 | 0.00 |
| | No | 25.76 | 26.95 | 10.53 | 0.00 |
| | Refused | 0.38 | 0.00 | 5.26 | 0.00 |
| | Don't Know | 2.78 | 2.99 | 0.00 | 0.00 |
| | n | 186 | 167 | 19 | 0 |
| PI21 | Was the existing insulation removed and replaced, or was additional insulation added to existing insulation? | | | | |
| | Old insulation removed and replaced | 84.08 | 83.76 | 87.50 | 0.00 |
| | Additional insulation added over existing insulation | 12.51 | 13.68 | 0.00 | 0.00 |
| | Refused | 0.53 | 0.00 | 6.25 | 0.00 |
| | Don't Know | 2.88 | 2.56 | 6.25 | 0.00 |
| | n | 133 | 117 | 16 | 0 |
| PI23 | What condition was your pipe insulation in at the time of the replacement? | | | | |
| | Good | 15.18 | 13.68 | 31.25 | 0.00 |
| | Fair | 32.62 | 33.33 | 25.00 | 0.00 |
| | Poor condition | 48.29 | 48.72 | 43.75 | 0.00 |
| | Don't Know | 3.91 | 4.27 | 0.00 | 0.00 |
| | n | 133 | 117 | 16 | 0 |
| PI25 | Are boilers present at your facility? | | | | |
| | Yes | 99.15 | 99.46 | 95.24 | 0.00 |
| | No | 0.85 | 0.54 | 4.76 | 0.00 |
| | n | 205 | 184 | 21 | 0 |
| PI27 | Since the pipe insulation was installed, have the boilers been repaired or replaced? | | | | |
| | Yes | 27.64 | 28.96 | 10.00 | 0.00 |
| | No | 68.61 | 67.76 | 80.00 | 0.00 |
| | Refused | 0.35 | 0.00 | 5.00 | 0.00 |
| | Don't Know | 3.40 | 3.28 | 5.00 | 0.00 |
| | n | 203 | 183 | 20 | 0 |
| PI29 | When was the most recent boiler repair or replacement? | | | | |
| | 1-6 months ago | 43.56 | 43.40 | 50.00 | 0.00 |
| | 7-12 months ago | 32.53 | 32.08 | 50.00 | 0.00 |
| | 13-18 months ago | 9.20 | 9.43 | 0.00 | 0.00 |
| | More than 19 months ago | 12.88 | 13.21 | 0.00 | 0.00 |
| | Don't Know | 1.84 | 1.89 | 0.00 | 0.00 |
| | n | 55 | 53 | 2 | 0 |
| PI31 | What led you to install the new pipe insulation? Was it... | | | | |
| | Needed to replace some old deteriorated | 28.29 | 27.72 | 33.33 | 0.00 |
| | Installed new insulation because there was no prior insulation | 21.95 | 22.83 | 14.29 | 0.00 |
| | Wanted to save on your energy bill? | 70.73 | 70.65 | 71.43 | 0.00 |
| | Program/Rebate Influence | 2.92 | 3.25 | 0.00 | 0.00 |
| | Other | 4.39 | 4.35 | 4.76 | 0.00 |
| | Refused | 0.49 | 0.00 | 4.76 | 0.00 |
| | Don't Know | 3.90 | 4.35 | 0.00 | 0.00 |
| | n | 205 | 184 | 21 | 0 |

* Values are shown as percent of survey participants.
 * n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|-------|--------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| PI33 | Whose idea was it to install new pipe insulation? | | | | |
| | Contractor | 16.42 | 22.84 | 3.45 | 0.00 |
| | Utility company contact | 4.91 | 6.79 | 1.15 | 0.00 |
| | Other | 76.77 | 67.59 | 95.40 | 100.00 |
| | Don't know | 1.89 | 2.78 | 0.00 | 0.00 |
| | <i>n</i> | 539 | 324 | 174 | 41 |
| PI35 | What percentage of the pipe insulation cost would you estimate the &Program rebate covered? | | | | |
| | Rebate covered all of the cost | 70.02 | 70.65 | 61.90 | 0.00 |
| | Rebate covered most of the cost | 14.49 | 14.13 | 19.05 | 0.00 |
| | Rebate covered less than half of the cost | 4.38 | 4.35 | 4.76 | 0.00 |
| | Other | 0.35 | 0.00 | 4.76 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 10.08 | 10.87 | 0.00 | 0.00 |
| | <i>n</i> | 205 | 184 | 21 | 0 |
| PI37 | How effective was the new pipe insulation in reducing your natural gas bill? Would you say you are seeing... | | | | |
| | Considerable gas savings | 27.25 | 28.26 | 14.29 | 0.00 |
| | Some gas savings | 52.00 | 52.72 | 42.86 | 0.00 |
| | No noticeable savings | 9.10 | 8.70 | 14.29 | 0.00 |
| | Difficult to Determine | 2.52 | 2.72 | 0.00 | 0.00 |
| | Little savings | 1.35 | 1.09 | 4.76 | 0.00 |
| | Other | 0.35 | 0.00 | 4.76 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 6.74 | 6.52 | 9.52 | 0.00 |
| | <i>n</i> | 205 | 184 | 21 | 0 |
| PI39 | Have you noticed any problems with the pipe insulation since the installation? | | | | |
| | Yes | 3.37 | 3.26 | 4.76 | 0.00 |
| | No | 95.09 | 96.20 | 80.95 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 0.85 | 0.54 | 4.76 | 0.00 |
| | <i>n</i> | 205 | 184 | 21 | 0 |
| PI40 | In your opinion, with the &Program rebate, was installing pipe insulation cost-effective? | | | | |
| | Yes | 81.64 | 82.07 | 76.19 | 0.00 |
| | No | 6.05 | 6.52 | 0.00 | 0.00 |
| | Somewhat | 5.23 | 4.89 | 9.52 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 6.39 | 6.52 | 4.76 | 0.00 |
| | <i>n</i> | 205 | 184 | 21 | 0 |
| PI42 | Without the &PROGRAM rebate, do you think you would have found installing the pipe insulation to be cost-effective? | | | | |
| | Yes | 54.45 | 55.81 | 38.10 | 0.00 |
| | No | 28.33 | 27.91 | 33.33 | 0.00 |
| | Somewhat | 7.54 | 6.98 | 14.29 | 0.00 |
| | Refused | 0.73 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 8.95 | 9.30 | 4.76 | 0.00 |
| | <i>n</i> | 193 | 172 | 21 | 0 |
| FRA_S | Did the vendor/contractor who sold you the Steam Trap tell you about the program? | | | | |
| | Yes | 70.77 | 70.18 | 70.80 | 81.25 |
| | No | 22.49 | 21.93 | 24.78 | 18.75 |
| | Refused | 0.31 | 0.44 | 0.00 | 0.00 |
| | Don't Know | 6.42 | 7.46 | 4.43 | 0.00 |
| | <i>n</i> | 357 | 228 | 113 | 16 |
| FRB_S | Did your vendor/contractor recommend purchasing the Steam Trap? | | | | |
| | Yes | 51.93 | 50.44 | 56.64 | 50.00 |

* Values are shown as percent of survey participants.

* *n* is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | No | 38.97 | 39.91 | 35.40 | 43.75 |
| | Refused | 0.63 | 0.88 | 0.00 | 0.00 |
| | Don't Know | 8.48 | 8.77 | 7.97 | 6.25 |
| | <i>n</i> | 357 | 228 | 113 | 16 |
| | | | | | |
| FRC_S | Using a 0 to 10 scale where 0 is not influential at all and 10 is extremely influential how influential was your vendor/contractor in your decision to purchase Steam Trap? | | | | |
| | ZERO NOT AT ALL INFLUENTIAL | 12.38 | 12.72 | 12.39 | 6.25 |
| | 1 | 1.79 | 2.19 | 0.89 | 0.00 |
| | 2 | 2.32 | 2.63 | 1.77 | 0.00 |
| | 3 | 3.16 | 3.51 | 2.66 | 0.00 |
| | 4 | 1.47 | 1.75 | 0.89 | 0.00 |
| | 5 | 12.05 | 13.16 | 9.74 | 6.25 |
| | 6 | 6.05 | 6.14 | 2.66 | 25.00 |
| | 7 | 10.41 | 8.77 | 15.93 | 6.25 |
| | 8 | 12.08 | 11.40 | 15.04 | 6.25 |
| | 9 | 6.89 | 5.26 | 9.74 | 18.75 |
| | 10 EXTREMELY INFLUENTIAL | 20.35 | 21.93 | 15.93 | 18.75 |
| | Refused | 0.84 | 0.88 | 0.89 | 0.00 |
| | Don't Know | 10.21 | 9.65 | 11.50 | 12.50 |
| | <i>n</i> | 357 | 228 | 113 | 16 |
| | | | | | |
| FRD_S | Did you purchase the Steam Trap your vendor/contractor recommended? | | | | |
| | Yes | 64.98 | 65.79 | 61.95 | 68.75 |
| | No | 10.94 | 10.97 | 10.62 | 12.50 |
| | They didn't make recommendation | 17.15 | 16.67 | 20.35 | 6.25 |
| | Refused | 0.53 | 0.44 | 0.89 | 0.00 |
| | Don't Know | 6.41 | 6.14 | 6.20 | 12.50 |
| | <i>n</i> | 357 | 228 | 113 | 16 |
| | | | | | |
| FR1_S | At the time that you first heard about the assistance from &Utility for this Steam Trap, had you... ? | | | | |
| | Already been thinking about purchasing steam traps | 22.84 | 22.91 | 22.41 | 23.68 |
| | Already begun collecting information about steam traps | 11.35 | 11.77 | 9.77 | 13.16 |
| | Already selected the steam traps you were going to get | 3.96 | 4.03 | 3.45 | 5.26 |
| | Already installed the steam traps | 4.91 | 4.95 | 4.02 | 7.89 |
| | Replace as they break/regularly | 2.99 | 3.10 | 3.45 | 0.00 |
| | Was not thinking about purchasing steam traps | 7.95 | 9.29 | 6.32 | 0.00 |
| | Only heard about it from someone | 0.21 | 0.31 | 0.00 | 0.00 |
| | None of these | 35.07 | 36.84 | 34.48 | 18.42 |
| | Other | 4.61 | 0.93 | 9.77 | 23.68 |
| | Refused | 0.42 | 0.62 | 0.00 | 0.00 |
| | Don't Know | 5.70 | 5.26 | 6.32 | 7.89 |
| | <i>n</i> | 535 | 323 | 174 | 38 |
| | | | | | |
| FR1A_S | So, the Steam Trap was installed before you learned about the assistance from &Utility? | | | | |
| | Yes | 92.41 | 93.33 | 85.71 | 100.00 |
| | No | 7.59 | 6.67 | 14.29 | 0.00 |
| | <i>n</i> | 25 | 15 | 7 | 3 |
| | | | | | |
| FR2A_S | Just to be sure I understand, did you have specific plans to install the Steam Trap before learning about the assistance available through the &Program? | | | | |
| | Yes | 27.09 | 28.80 | 21.43 | 31.43 |
| | No | 69.76 | 67.96 | 75.60 | 65.71 |
| | Don't Know | 3.15 | 3.24 | 2.98 | 2.86 |
| | <i>n</i> | 512 | 309 | 168 | 35 |
| | | | | | |
| FR3_S | Did you have to make any changes to your existing plans in installing the Steam Trap in order to receive this assistance through the &Program? | | | | |
| | Yes | 11.32 | 12.36 | 8.33 | 9.09 |
| | No | 85.02 | 84.27 | 88.89 | 81.82 |
| | Don't Know | 3.66 | 3.37 | 2.78 | 9.09 |
| | <i>n</i> | 136 | 89 | 36 | 11 |
| | | | | | |
| FR3A_S | What changes did you make to the installation the Steam Trap? | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|----------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | As needed | 28.89 | 36.36 | 0.00 | 0.00 |
| | Other | 71.11 | 63.64 | 100.00 | 100.00 |
| | n | 15 | 11 | 3 | 1 |
| FR4A_S | Without the program, would you have purchased the Steam Trap? | | | | |
| | Yes | 45.88 | 47.57 | 39.29 | 54.29 |
| | No | 50.71 | 48.54 | 57.74 | 45.71 |
| | Don't Know | 3.41 | 3.88 | 2.98 | 0.00 |
| | n | 512 | 309 | 168 | 35 |
| FR4B_S | Would you have purchased the Steam Trap at the same time as you did? | | | | |
| | Yes | 38.72 | 42.77 | 30.99 | 21.05 |
| | No | 55.25 | 50.94 | 61.97 | 78.95 |
| | Don't Know | 6.03 | 6.29 | 7.04 | 0.00 |
| | n | 249 | 159 | 71 | 19 |
| FR4B1_S | Would you have bought the Steam Trap earlier than you did, or later? | | | | |
| | Earlier | 2.55 | 2.20 | 2.04 | 6.67 |
| | Same time | 7.95 | 8.79 | 6.12 | 6.67 |
| | Later | 81.17 | 78.02 | 87.76 | 86.67 |
| | Don't Know | 8.33 | 10.99 | 4.08 | 0.00 |
| | n | 155 | 91 | 49 | 15 |
| FRB2_S | How much [earlier/later] would you have bought the Steam Trap? | | | | |
| | Within 6 months | 11.59 | 8.70 | 17.95 | 14.29 |
| | 6 months to a year later | 30.83 | 31.88 | 23.08 | 42.86 |
| | 1 to 2 years later | 21.00 | 20.29 | 25.64 | 14.29 |
| | 2 to 3 years later | 5.24 | 5.80 | 0.00 | 14.29 |
| | 3 to 4 years later | 3.20 | 0.00 | 12.82 | 0.00 |
| | 4 or more years later | 0.64 | 0.00 | 2.56 | 0.00 |
| | Buy as needed | 14.65 | 17.39 | 7.69 | 14.29 |
| | Don't know | 12.86 | 15.94 | 10.26 | 0.00 |
| | n | 122 | 69 | 39 | 14 |
| FR4C_S | Without the program, would the quantity of Steam Trap you purchased have been the same, less, or more? | | | | |
| | More | 2.45 | 2.23 | 3.65 | 0.00 |
| | Same | 32.90 | 33.83 | 32.12 | 25.00 |
| | Less | 56.86 | 56.13 | 55.47 | 71.43 |
| | Refused | 0.78 | 1.12 | 0.00 | 0.00 |
| | Don't Know | 7.01 | 6.69 | 8.76 | 3.57 |
| | n | 434 | 269 | 137 | 28 |
| FR4C1_S | How many [more/less] Steam Traps would you have bought? | | | | |
| | 0%-19% | 17.99 | 17.31 | 22.22 | 10.00 |
| | 20%-39% | 19.02 | 18.59 | 18.52 | 25.00 |
| | 40%-69% | 20.36 | 19.23 | 22.22 | 25.00 |
| | 70%-99% | 16.61 | 16.03 | 17.28 | 20.00 |
| | 100 % | 4.56 | 5.77 | 2.47 | 0.00 |
| | Don't Know | 7.52 | 8.33 | 7.41 | 0.00 |
| | As Needed | 12.84 | 14.10 | 8.64 | 15.00 |
| | Other | 1.09 | 0.64 | 1.23 | 5.00 |
| | n | 257 | 156 | 81 | 20 |
| FR4E_S | If the assistance had not been available, would you have done anything else differently regarding your Steam Traps? | | | | |
| | Nothing different | 79.65 | 80.67 | 78.68 | 71.43 |
| | Replace as needed | 7.62 | 8.55 | 5.88 | 3.57 |
| | Fixed/Repaired | 1.40 | 1.49 | 1.47 | 0.00 |
| | Bought Himself | 1.40 | 1.49 | 1.47 | 0.00 |
| | Installed Later | 1.48 | 1.86 | 0.74 | 0.00 |
| | Other | 3.06 | 1.12 | 5.15 | 17.86 |
| | Don't Know | 5.40 | 4.83 | 6.62 | 7.14 |
| | n | 433 | 269 | 136 | 28 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| FR5_S | On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely is it that you would have bought Steam Trap if you had not received any assistance from the program? | | | | |
| | ZERO NOT AT ALL LIKELY | 27.23 | 27.83 | 27.38 | 20.00 |
| | 1 | 7.18 | 6.15 | 8.93 | 11.43 |
| | 2 | 5.98 | 5.50 | 5.95 | 11.43 |
| | 3 | 6.76 | 5.83 | 9.52 | 5.71 |
| | 4 | 4.18 | 4.53 | 3.57 | 2.86 |
| | 5 | 12.61 | 13.27 | 12.50 | 5.71 |
| | 6 | 5.14 | 3.24 | 5.95 | 22.86 |
| | 7 | 5.32 | 6.15 | 2.98 | 5.71 |
| | 8 | 5.92 | 4.85 | 9.52 | 2.86 |
| | 9 | 2.98 | 3.88 | 0.60 | 2.86 |
| | 10 EXTREMELY LIKELY | 10.25 | 11.33 | 7.74 | 8.57 |
| | Refused | 0.44 | 0.65 | 0.00 | 0.00 |
| Don't Know | 6.01 | 6.80 | 5.36 | 0.00 | |
| n | 512 | 309 | 168 | 35 | |
| FR7_S | Our records indicate you received about &ST_REBATE from the &Utility &Program either directly or at the time of purchase to offset the cost of the Steam Trap that you installed. Does this sound about right? | | | | |
| | Yes | 65.59 | 66.87 | 62.07 | 65.79 |
| | No | 8.32 | 8.67 | 7.47 | 7.89 |
| | Don't Know | 26.09 | 24.46 | 30.46 | 26.32 |
| | n | 535 | 323 | 174 | 38 |
| FR8_S | What would you estimate to be the actual amount received for your Steam Trap rebate? | | | | |
| | No money received | 66.99 | 66.67 | 58.33 | 100.00 |
| | Contractor received rebate | 2.89 | 4.17 | 0.00 | 0.00 |
| | Less than \$1000 | 11.71 | 8.33 | 25.00 | 0.00 |
| | More than \$1000 | 7.76 | 8.33 | 8.33 | 0.00 |
| | Don't Know | 10.65 | 12.50 | 8.33 | 0.00 |
| n | 39 | 24 | 12 | 3 | |
| FR9_S | If I had not had any assistance from the program, I would have paid the full price to buy the Steam Trap on my own outside the program. | | | | |
| | ZERO DO NOT AT ALL AGREE | 29.39 | 31.39 | 25.60 | 22.86 |
| | 1 | 6.07 | 4.53 | 8.93 | 11.43 |
| | 2 | 3.71 | 1.29 | 8.33 | 11.43 |
| | 3 | 5.65 | 5.83 | 6.55 | 0.00 |
| | 4 | 2.50 | 2.91 | 0.60 | 5.71 |
| | 5 | 13.56 | 15.21 | 8.93 | 14.29 |
| | 6 | 2.15 | 1.29 | 3.57 | 5.71 |
| | 7 | 5.22 | 5.83 | 4.17 | 2.86 |
| | 8 | 4.65 | 3.88 | 7.14 | 2.86 |
| | 9 | 1.96 | 1.94 | 1.79 | 2.86 |
| | 10 AGREE COMPLETELY | 21.09 | 22.65 | 17.86 | 17.14 |
| | Refused | 0.22 | 0.32 | 0.00 | 0.00 |
| Don't Know | 3.83 | 2.91 | 6.55 | 2.86 | |
| n | 512 | 309 | 168 | 35 | |
| FR10_S | There may have been several reasons for my purchase decision, but the assistance from the &Utility &Program was a critical factor in my decision to purchase these Steam Trap. | | | | |
| | ZERO DO NOT AT ALL AGREE | 3.30 | 3.24 | 3.57 | 2.86 |
| | 1 | 0.59 | 0.65 | 0.60 | 0.00 |
| | 2 | 1.05 | 0.65 | 2.38 | 0.00 |
| | 3 | 1.71 | 1.62 | 2.38 | 0.00 |
| | 4 | 2.03 | 2.27 | 1.19 | 2.86 |
| | 5 | 7.66 | 7.77 | 7.14 | 8.57 |
| | 6 | 3.94 | 3.88 | 2.98 | 8.57 |
| | 7 | 4.27 | 4.21 | 4.76 | 2.86 |
| | 8 | 11.12 | 9.06 | 17.26 | 8.57 |
| | 9 | 6.29 | 5.50 | 7.14 | 11.43 |
| | 10 AGREE COMPLETELY | 51.32 | 52.43 | 47.62 | 54.29 |
| | Refused | 0.44 | 0.65 | 0.00 | 0.00 |
| Don't Know | 6.29 | 8.09 | 2.98 | 0.00 | |
| n | 512 | 309 | 168 | 35 | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| FR11_S | I would have bought the Steam Trap within 2 years of when I did even without the assistance from &Utility's Program. | | | | |
| | ZERO DO NOT AT ALL AGREE | 20.37 | 20.71 | 20.24 | 17.14 |
| | 1 | 5.47 | 4.53 | 6.55 | 11.43 |
| | 2 | 4.69 | 4.21 | 7.14 | 0.00 |
| | 3 | 5.75 | 4.53 | 8.33 | 8.57 |
| | 4 | 2.52 | 3.24 | 1.19 | 0.00 |
| | 5 | 16.29 | 17.48 | 14.29 | 11.43 |
| | 6 | 5.78 | 6.80 | 2.38 | 8.57 |
| | 7 | 6.65 | 6.47 | 5.95 | 11.43 |
| | 8 | 6.36 | 6.80 | 5.36 | 5.71 |
| | 9 | 1.22 | 0.65 | 2.38 | 2.86 |
| | 10 AGREE COMPLETELY | 18.78 | 19.42 | 16.07 | 22.86 |
| | Refused | 0.22 | 0.32 | 0.00 | 0.00 |
| | Don't Know | 5.89 | 4.85 | 10.12 | 0.00 |
| n | 512 | 309 | 168 | 35 | |
| C1A_S | Let me make sure I understand you. In your own words, could you please describe how the program influenced your decision to purchase and install your new Steam Trap at the time you did? | | | | |
| | It was free | 18.11 | 22.02 | 15.63 | 0.00 |
| | Saves Energy | 4.36 | 3.67 | 7.81 | 0.00 |
| | The program speed up the process | 10.63 | 12.84 | 9.38 | 0.00 |
| | No influenced | 1.98 | 1.84 | 3.13 | 0.00 |
| | Wouldn't have done it without the program | 7.26 | 10.09 | 3.13 | 0.00 |
| | Saves money | 12.82 | 13.76 | 15.63 | 0.00 |
| | High influence | 4.94 | 4.59 | 7.81 | 0.00 |
| | Program Convenience | 0.59 | 0.92 | 0.00 | 0.00 |
| | Because of the Rebate | 2.23 | 2.75 | 0.00 | 4.55 |
| | Recommended by Contractor | 0.59 | 0.92 | 0.00 | 0.00 |
| | Other | 30.71 | 20.18 | 32.81 | 90.91 |
| | Don't Know | 5.78 | 6.42 | 4.69 | 4.55 |
| | n | 195 | 109 | 64 | 22 |
| FRA_P | Did the vendor/contractor who sold you the Pipe Insulation tell you about the program? | | | | |
| | Yes | 68.69 | 68.48 | 71.43 | 0.00 |
| | No | 25.23 | 26.09 | 14.29 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 5.39 | 5.44 | 4.76 | 0.00 |
| | n | 205 | 184 | 21 | 0 |
| FRB_P | Did your vendor/contractor recommend purchasing the Pipe Insulation? | | | | |
| | Yes | 56.41 | 55.98 | 61.90 | 0.00 |
| | No | 37.52 | 38.59 | 23.81 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 5.39 | 5.44 | 4.76 | 0.00 |
| | n | 205 | 184 | 21 | 0 |
| FRC_P | Using a 0 to 10 scale where 0 is not influential at all and 10 is extremely influential how influential was your vendor/contractor in your decision to purchase Pipe Insulation? | | | | |
| | ZERO NOT AT ALL INFLUENTIAL | 13.11 | 14.13 | 0.00 | 0.00 |
| | 1 | 2.87 | 2.72 | 4.76 | 0.00 |
| | 2 | 1.86 | 1.63 | 4.76 | 0.00 |
| | 3 | 1.51 | 1.63 | 0.00 | 0.00 |
| | 4 | 2.02 | 2.17 | 0.00 | 0.00 |
| | 5 | 12.79 | 13.04 | 9.52 | 0.00 |
| | 6 | 3.87 | 3.80 | 4.76 | 0.00 |
| | 7 | 8.92 | 9.24 | 4.76 | 0.00 |
| | 8 | 14.97 | 15.76 | 4.76 | 0.00 |
| | 9 | 10.11 | 9.78 | 14.29 | 0.00 |
| | 10 EXTREMELY INFLUENTIAL | 19.39 | 17.94 | 38.10 | 0.00 |
| | Refused | 1.70 | 1.09 | 9.52 | 0.00 |
| | Don't Know | 6.90 | 7.07 | 4.76 | 0.00 |
| n | 205 | 184 | 21 | 0 | |
| FRD_P | Did you purchase the Pipe Insulation that your vendor/contractor recommended? | | | | |
| | Yes | 67.02 | 66.30 | 76.19 | 0.00 |
| | No | 9.58 | 10.33 | 0.00 | 0.00 |
| | They didn't make recommendation | 14.30 | 14.67 | 9.52 | 0.00 |
| | Refused | 1.70 | 1.09 | 9.52 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | Don't Know | 7.40 | 7.61 | 4.76 | 0.00 |
| | n | 205 | 184 | 21 | 0 |
| FR1_P | At the time that you first heard about the assistance from &Utility for this Pipe Insulation, had you...? | | | | |
| | Already been thinking about purchasing pipe insulation | 35.18 | 35.33 | 33.33 | 0.00 |
| | Already begun collecting information about pipe insulation | 9.76 | 9.78 | 9.52 | 0.00 |
| | Already selected the pipe insulation you were going to get | 1.35 | 1.09 | 4.76 | 0.00 |
| | Already installed the pipe insulation | 8.07 | 8.70 | 0.00 | 0.00 |
| | While installing | 0.50 | 0.54 | 0.00 | 0.00 |
| | None of these | 40.57 | 40.76 | 38.10 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 3.87 | 3.80 | 4.76 | 0.00 |
| | n | 205 | 184 | 21 | 0 |
| FR1A_P | So, the Pipe Insulation was installed before you learned about the assistance from &Utility? | | | | |
| | Yes | 100.00 | 100.00 | 0.00 | 0.00 |
| | n | 16 | 16 | 0 | 0 |
| FR2A_P | Just to be sure I understand, did you have specific plans to install the Pipe Insulation before learning about the assistance available through the &Program? | | | | |
| | Yes | 28.57 | 28.57 | 28.57 | 0.00 |
| | No | 67.56 | 68.45 | 57.14 | 0.00 |
| | Refused | 0.75 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 3.12 | 2.98 | 4.76 | 0.00 |
| | n | 189 | 168 | 21 | 0 |
| FR3_P | Did you have to make any changes to your existing plans in installing the Pipe Insulation in order to receive this assistance through the &Program? | | | | |
| | Yes | 11.52 | 12.50 | 0.00 | 0.00 |
| | No | 82.73 | 81.25 | 100.00 | 0.00 |
| | Don't Know | 5.76 | 6.25 | 0.00 | 0.00 |
| | n | 54 | 48 | 6 | 0 |
| FR3A_P | What changes did you make to the installation the Pipe Insulation? | | | | |
| | As needed | 33.33 | 33.33 | 0.00 | 0.00 |
| | Covered more pipes | 16.67 | 16.67 | 0.00 | 0.00 |
| | Other | 50.00 | 50.00 | 0.00 | 0.00 |
| | n | 6 | 6 | 0 | 0 |
| FR4A_P | Without the program would you still have purchased the Pipe Insulation? | | | | |
| | Yes | 44.13 | 44.64 | 38.10 | 0.00 |
| | No | 47.07 | 47.02 | 47.62 | 0.00 |
| | Refused | 0.75 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 8.05 | 8.33 | 4.76 | 0.00 |
| | n | 189 | 168 | 21 | 0 |
| FR4B_P | Would you have purchased the Pipe Insulation at the same time as you did? | | | | |
| | Yes | 25.95 | 25.84 | 27.27 | 0.00 |
| | No | 63.63 | 65.17 | 45.45 | 0.00 |
| | Refused | 1.42 | 0.00 | 18.18 | 0.00 |
| | Don't Know | 9.00 | 8.99 | 9.09 | 0.00 |
| | n | 100 | 89 | 11 | 0 |
| FR4B1_P | Would you have bought the Pipe Insulation earlier than you did, or later? | | | | |
| | Earlier | 1.40 | 1.52 | 0.00 | 0.00 |
| | Same time | 1.40 | 1.52 | 0.00 | 0.00 |
| | Later | 84.54 | 86.36 | 62.50 | 0.00 |
| | Refused | 1.91 | 0.00 | 25.00 | 0.00 |
| | Don't Know | 10.75 | 10.61 | 12.50 | 0.00 |
| | n | 74 | 66 | 8 | 0 |

* Values are shown as percent of survey participants.
 * n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| FRB2_P | How much [earlier/later] would you have bought the Pipe Insulation? | | | | |
| | Within 6 months | 22.28 | 22.41 | 20.00 | 0.00 |
| | 6 months to a year later | 16.88 | 15.52 | 40.00 | 0.00 |
| | 1 to 2 years later | 36.93 | 37.93 | 20.00 | 0.00 |
| | 2 to 3 years later | 9.25 | 8.62 | 20.00 | 0.00 |
| | 4 or more years later | 3.26 | 3.45 | 0.00 | 0.00 |
| | Buy as needed | 1.63 | 1.72 | 0.00 | 0.00 |
| | Don't know | 9.77 | 10.34 | 0.00 | 0.00 |
| | n | 63 | 58 | 5 | 0 |
| FR4C_P | Without the program, would the quantity of Pipe Insulation you purchased have been the same, less, or more? | | | | |
| | More | 4.14 | 4.49 | 0.00 | 0.00 |
| | Same | 68.81 | 70.79 | 45.45 | 0.00 |
| | Less | 17.67 | 16.85 | 27.27 | 0.00 |
| | Refused | 1.42 | 0.00 | 18.18 | 0.00 |
| | Don't Know | 7.96 | 7.87 | 9.09 | 0.00 |
| | n | 100 | 89 | 11 | 0 |
| FR4C1_P | How many [more/less] Pipe Insulation would you have bought? | | | | |
| | Less than 25% | 23.75 | 26.32 | 0.00 | 0.00 |
| | 25-50% | 23.75 | 26.32 | 0.00 | 0.00 |
| | 50% less | 11.24 | 5.26 | 66.67 | 0.00 |
| | 50-75% | 9.50 | 10.53 | 0.00 | 0.00 |
| | 75-100% | 14.25 | 15.79 | 0.00 | 0.00 |
| | Don't Know | 17.50 | 15.79 | 33.33 | 0.00 |
| | n | 22 | 19 | 3 | 0 |
| FR4E_P | If the assistance had not been available, would you have done anything else differently regarding your Pipe Insulation? | | | | |
| | Nothing different | 81.63 | 83.15 | 63.64 | 0.00 |
| | Replace as needed | 1.04 | 1.12 | 0.00 | 0.00 |
| | Fixed/Repaired | 1.04 | 1.12 | 0.00 | 0.00 |
| | Bought Himself | 2.07 | 2.25 | 0.00 | 0.00 |
| | Installed Later | 1.04 | 1.12 | 0.00 | 0.00 |
| | Other | 1.74 | 1.12 | 9.09 | 0.00 |
| | Refused | 1.42 | 0.00 | 18.18 | 0.00 |
| | Don't Know | 10.03 | 10.11 | 9.09 | 0.00 |
| | n | 100 | 89 | 11 | 0 |
| FR5_P | On a 0 to 10 scale, with 0 being not at all likely and 10 being very likely, how likely is it that you would have bought Pipe Insulation if you had not received any assistance from the program? | | | | |
| | ZERO NOT AT ALL LIKELY | 21.62 | 21.43 | 23.81 | 0.00 |
| | 1 | 5.48 | 5.95 | 0.00 | 0.00 |
| | 2 | 8.05 | 8.33 | 4.76 | 0.00 |
| | 3 | 5.31 | 5.36 | 4.76 | 0.00 |
| | 4 | 2.57 | 2.38 | 4.76 | 0.00 |
| | 5 | 14.81 | 16.07 | 0.00 | 0.00 |
| | 6 | 4.21 | 4.17 | 4.76 | 0.00 |
| | 7 | 5.14 | 4.76 | 9.52 | 0.00 |
| | 8 | 12.27 | 12.50 | 9.52 | 0.00 |
| | 9 | 4.04 | 3.57 | 9.52 | 0.00 |
| | 10 EXTREMELY LIKELY | 9.90 | 9.52 | 14.29 | 0.00 |
| | Refused | 0.75 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 5.86 | 5.95 | 4.76 | 0.00 |
| | n | 189 | 168 | 21 | 0 |
| FR7_P | Our records indicate you received about &ST_REBATE from the &Utility &Program either directly or at the time of purchase to offset the cost of the Pipe Insulation that you installed. Does this sound about right? | | | | |
| | Yes | 60.47 | 59.24 | 76.19 | 0.00 |
| | No | 8.57 | 9.24 | 0.00 | 0.00 |
| | Refused | 0.69 | 0.00 | 9.52 | 0.00 |
| | Don't Know | 30.28 | 31.52 | 14.29 | 0.00 |
| | n | 205 | 184 | 21 | 0 |
| FR8_P | What would you estimate to be the actual amount received for your Pipe Insulation rebate? | | | | |
| | No money received | 76.47 | 76.47 | 0.00 | 0.00 |

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* n is the number of respondents.

B-2. STEAM TRAP COMMERCIAL PARTICIPANTS SURVEYED

| | | ALL (%) | SCG (%) | PGE (%) | SDGE (%) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|
| | Contractor received rebate | 5.88 | 5.88 | 0.00 | 0.00 |
| | Less than \$1000 | 11.76 | 11.76 | 0.00 | 0.00 |
| | Don't Know | 5.88 | 5.88 | 0.00 | 0.00 |
| | <i>n</i> | 17 | 17 | 0 | 0 |
| | | | | | |
| FR9_P | If I had not had any assistance from the program, I would have paid the full price to buy the Pipe Insulation on my own outside the program. | | | | |
| | ZERO DO NOT AT ALL AGREE | 27.85 | 27.38 | 33.33 | 0.00 |
| | 1 | 4.04 | 3.57 | 9.52 | 0.00 |
| | 2 | 7.13 | 7.74 | 0.00 | 0.00 |
| | 3 | 4.76 | 4.76 | 4.76 | 0.00 |
| | 4 | 1.10 | 1.19 | 0.00 | 0.00 |
| | 5 | 12.09 | 11.91 | 14.29 | 0.00 |
| | 6 | 3.84 | 4.17 | 0.00 | 0.00 |
| | 7 | 7.13 | 7.74 | 0.00 | 0.00 |
| | 8 | 9.32 | 10.12 | 0.00 | 0.00 |
| | 9 | 2.40 | 1.79 | 9.52 | 0.00 |
| | 10 AGREE COMPLETELY | 13.74 | 13.69 | 14.29 | 0.00 |
| | Refused | 1.30 | 0.60 | 9.52 | 0.00 |
| | Don't Know | 5.31 | 5.36 | 4.76 | 0.00 |
| | <i>n</i> | 189 | 168 | 21 | 0 |
| | | | | | |
| FR10_P | There may have been several reasons for my purchase decision, but the assistance from the &Utility &Program was a critical factor in my decision to purchase these Pipe Insulation. | | | | |
| | ZERO DO NOT AT ALL AGREE | 1.10 | 1.19 | 0.00 | 0.00 |
| | 1 | 0.55 | 0.60 | 0.00 | 0.00 |
| | 2 | 0.55 | 0.60 | 0.00 | 0.00 |
| | 3 | 1.85 | 1.19 | 9.52 | 0.00 |
| | 4 | 0.38 | 0.00 | 4.76 | 0.00 |
| | 5 | 5.86 | 5.95 | 4.76 | 0.00 |
| | 6 | 3.12 | 2.98 | 4.76 | 0.00 |
| | 7 | 9.70 | 10.12 | 4.76 | 0.00 |
| | 8 | 16.65 | 17.26 | 9.52 | 0.00 |
| | 9 | 6.03 | 6.55 | 0.00 | 0.00 |
| | 10 AGREE COMPLETELY | 46.52 | 46.43 | 47.62 | 0.00 |
| | Refused | 1.30 | 0.60 | 9.52 | 0.00 |
| | Don't Know | 6.41 | 6.55 | 4.76 | 0.00 |
| | <i>n</i> | 189 | 168 | 21 | 0 |
| | | | | | |
| FR11_P | I would have bought the Pipe Insulation within 2 years of when I did even without the assistance from &Utility's Program. | | | | |
| | ZERO DO NOT AT ALL AGREE | 16.31 | 16.07 | 19.05 | 0.00 |
| | 1 | 3.84 | 4.17 | 0.00 | 0.00 |
| | 2 | 4.94 | 5.36 | 0.00 | 0.00 |
| | 3 | 5.31 | 5.36 | 4.76 | 0.00 |
| | 4 | 1.65 | 1.79 | 0.00 | 0.00 |
| | 5 | 12.47 | 11.91 | 19.05 | 0.00 |
| | 6 | 5.31 | 5.36 | 4.76 | 0.00 |
| | 7 | 10.62 | 10.71 | 9.52 | 0.00 |
| | 8 | 11.17 | 11.31 | 9.52 | 0.00 |
| | 9 | 2.74 | 2.98 | 0.00 | 0.00 |
| | 10 AGREE COMPLETELY | 16.48 | 16.67 | 14.29 | 0.00 |
| | Refused | 1.67 | 0.60 | 14.29 | 0.00 |
| | Don't Know | 7.50 | 7.74 | 4.76 | 0.00 |
| | <i>n</i> | 189 | 168 | 21 | 0 |
| | | | | | |
| C1A_P | Let me make sure I understand you. In your own words, could you please describe how the program influenced your decision to purchase and install your new Pipe Insulation at the time you did? | | | | |
| | It was free | 31.88 | 33.33 | 0.00 | 0.00 |
| | No influenced | 12.75 | 13.33 | 0.00 | 0.00 |
| | Saves money | 29.86 | 26.67 | 100.00 | 0.00 |
| | High influence | 12.75 | 13.33 | 0.00 | 0.00 |
| | Other | 6.38 | 6.67 | 0.00 | 0.00 |
| | Don't Know | 6.38 | 6.67 | 0.00 | 0.00 |
| | <i>n</i> | 16 | 15 | 1 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| FM050A | What is your position/title for &BUS_NAME? | | | | | |
| | Regional Manager | 7.39 | 0.00 | 0.00 | 8.57 | 0.00 |
| | Regional Facilities Manager | 13.59 | 0.00 | 6.25 | 15.24 | 0.00 |
| | Energy Manager | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | CEO/President/Owner | 15.68 | 0.00 | 0.00 | 14.29 | 71.12 |
| | Maintenance | 21.16 | 0.00 | 12.50 | 21.91 | 28.88 |
| | Head Engineer | 25.81 | 25.00 | 43.75 | 25.71 | 0.00 |
| | Utility manager | 4.10 | 0.00 | 0.00 | 4.76 | 0.00 |
| | Analyst | 1.28 | 0.00 | 6.25 | 0.95 | 0.00 |
| | Treasurer | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Project Manager | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | General Manager | 5.12 | 0.00 | 25.00 | 3.81 | 0.00 |
| | Energy Coordinator | 1.31 | 75.00 | 0.00 | 0.00 | 0.00 |
| | Mechanic | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | Scheduler | 0.46 | 0.00 | 6.25 | 0.00 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| FM050B | What region do your energy decisions affect? | | | | | |
| | Norther California | 32.48 | 75.00 | 0.00 | 38.89 | 0.00 |
| | Southern California | 53.67 | 25.00 | 100.00 | 50.00 | 59.40 |
| | Bay Area | 6.29 | 0.00 | 0.00 | 0.00 | 40.60 |
| | Central California | 7.56 | 0.00 | 0.00 | 11.11 | 0.00 |
| | n | 28 | 4 | 4 | 18 | 2 |
| FM050C | Are you aware of the energy decisions being made and/or energy policies for your company outside of California? | | | | | |
| | Yes, I make energy decisions in other states | 3.51 | 0.00 | 0.00 | 5.00 | 0.00 |
| | Yes, aware of energy decisions in other states but not the decision maker | 20.41 | 100.00 | 75.00 | 10.00 | 0.00 |
| | No, not aware of energy decisions in other states | 44.11 | 0.00 | 25.00 | 60.00 | 0.00 |
| | No locations outside of CALIFORNIA | 31.96 | 0.00 | 0.00 | 25.00 | 100.00 |
| | n | 30 | 4 | 4 | 20 | 2 |
| FM050D | Our records show that you had locations in the &OTHERUTILITY utility region as well. Are you the contact responsible for those decisions as well? | | | | | |
| | Yes | 40.60 | 25.00 | 100.00 | 0.00 | 0.00 |
| | No | 59.40 | 75.00 | 0.00 | 0.00 | 0.00 |
| | n | 5 | 4 | 1 | 0 | 0 |
| FM050 | What is the main business ACTIVITY at your locations that participated in the &UTILITY &PROGRAM? | | | | | |
| | Retail (non food) | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | College/University | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | School | 1.37 | 0.00 | 0.00 | 0.00 | 28.88 |
| | Grocery Store | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | Health care | 5.84 | 0.00 | 12.50 | 5.71 | 0.00 |
| | Hospital | 4.10 | 0.00 | 0.00 | 4.76 | 0.00 |
| | Hotel/Motel | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | Indust Proc/mfg | 58.28 | 25.00 | 50.00 | 62.86 | 0.00 |
| | Greenhouse | 3.01 | 0.00 | 0.00 | 1.91 | 28.88 |
| | Laundry/Cleaners | 13.49 | 0.00 | 0.00 | 13.33 | 42.25 |
| | Refinery | 4.07 | 75.00 | 37.50 | 0.00 | 0.00 |
| | Distribution | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Steam productions | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Other | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| CA4 | Prior to 2006, had your organization ever installed equipment that involved the receipt of rebates or incentives from an energy efficiency program? | | | | | |
| | Yes | 35.62 | 50.00 | 25.00 | 34.29 | 71.12 |
| | No | 36.57 | 25.00 | 37.50 | 37.14 | 28.88 |
| | Don't Know | 27.81 | 25.00 | 37.50 | 28.57 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| CA6 | What type of equipment did you install through this (these) program(s)? | | | | | |
| | Indoor Lighting | 42.00 | 0.00 | 11.11 | 55.56 | 0.00 |
| | Cooling Equipment | 16.00 | 0.00 | 11.11 | 19.44 | 0.00 |
| | Natural Gas equipment (water heater/furnace or appliances) | 20.00 | 0.00 | 0.00 | 27.78 | 0.00 |
| | Insulation or windows | 14.00 | 0.00 | 0.00 | 16.67 | 50.00 |
| | Refrigeration | 6.00 | 0.00 | 11.11 | 5.56 | 0.00 |
| | Industrial Process Equipment | 16.00 | 0.00 | 0.00 | 22.22 | 0.00 |
| | Greenhouse Heat Curtains | 4.00 | 0.00 | 0.00 | 2.78 | 50.00 |
| | Food Service Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Pipe insulation | 20.00 | 0.00 | 0.00 | 29.63 | 0.00 |
| | Steam Traps | 27.50 | 0.00 | 0.00 | 40.74 | 0.00 |
| | Motors | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Dry Cleaning Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Cogeneration System | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Heat equipment | 2.50 | 33.33 | 0.00 | 0.00 | 0.00 |
| | Other | 12.00 | 66.67 | 11.11 | 8.33 | 0.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 2.63 | 0.00 | 0.00 | 2.78 | 0.00 |
| | n | 50 | 3 | 9 | 36 | 2 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| CA6A | What year did you participate in this (these) program(s)? | | | | | |
| | Prior to 2004 | 43.13 | 0.00 | 50.00 | 48.15 | 0.00 |
| | 2004 | 6.39 | 50.00 | 25.00 | 3.70 | 0.00 |
| | 2005 | 19.95 | 50.00 | 0.00 | 22.22 | 0.00 |
| | Don't Know | 30.53 | 0.00 | 25.00 | 25.93 | 100.00 |
| | n | 34 | 2 | 4 | 27 | 1 |
| CA15 | Over the past 3 years, how would you characterize your organization's business outlook? Would you say it was ... | | | | | |
| | Excellent | 26.51 | 25.00 | 37.50 | 24.71 | 40.60 |
| | Good | 47.27 | 0.00 | 37.50 | 51.76 | 0.00 |
| | Fair | 12.07 | 25.00 | 6.25 | 12.94 | 0.00 |
| | Adequate | 4.64 | 25.00 | 12.50 | 3.53 | 0.00 |
| | Poor | 7.95 | 25.00 | 0.00 | 5.88 | 59.40 |
| | Don't Know | 1.56 | 0.00 | 6.25 | 1.18 | 0.00 |
| | n | 107 | 4 | 16 | 85 | 2 |
| CA15A | Projecting over the NEXT 3 years, how would you characterize your business outlook? Would you say.... | | | | | |
| | Excellent | 22.90 | 0.00 | 25.00 | 22.86 | 28.88 |
| | Good | 45.87 | 25.00 | 37.50 | 49.52 | 0.00 |
| | Fair | 20.70 | 0.00 | 12.50 | 19.05 | 71.12 |
| | Adequate | 6.74 | 25.00 | 18.75 | 5.71 | 0.00 |
| | Poor | 1.70 | 50.00 | 0.00 | 0.95 | 0.00 |
| | Don't Know | 2.10 | 0.00 | 6.25 | 1.90 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| ST3 | Our records indicate that &NUM_STEAMTRAP steam traps were installed at your facility. Is this about right? | | | | | |
| | Yes | 96.23 | 100.00 | 93.75 | 96.15 | 100.00 |
| | No | 3.77 | 0.00 | 6.25 | 3.85 | 0.00 |
| | n | 127 | 4 | 16 | 104 | 3 |
| ST3X | Approximately how many steam traps were installed at your facility through the program? | | | | | |
| | 3 traps | 21.93 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 20 traps | 21.93 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 30 traps | 21.93 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 55 traps | 21.93 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 573 traps | 12.27 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 5 | 0 | 1 | 4 | 0 |
| ST3Z | Perhaps you can help us to understand the difference between our records and what has been installed....Do you have any suggestions as to why our numbers differ? Did your facility participate multiple times in the program since 2006 and maybe we don't have these other records? Did you install additional equipment outside of the program that you are including in these numbers? It is okay if you don't know why there is a difference, but if you had any ideas of why our counts don't match, it would really help us to evaluate the program's record keeping. | | | | | |
| | Have no idea of why numbers differ | 28.09 | 0.00 | 0.00 | 33.33 | 0.00 |
| | Multiple participation | 28.09 | 0.00 | 0.00 | 33.33 | 0.00 |
| | Installed equipment outside of program | 28.09 | 0.00 | 0.00 | 33.33 | 0.00 |
| | Did not complete paperwork for all traps installed | 15.72 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 4 | 0 | 1 | 3 | 0 |
| ST_1G | Our records indicate that your organization received &ST_Rebate for Steam Traps during 2006-2008. Is this correct? | | | | | |
| | Yes | 79.23 | 0.00 | 100.00 | 80.00 | 40.60 |
| | No | 2.14 | 0.00 | 0.00 | 2.35 | 0.00 |
| | Don't Know | 18.63 | 0.00 | 0.00 | 17.65 | 59.40 |
| | n | 95 | 0 | 8 | 85 | 2 |
| ST_1GG | May I have the correct amount of the rebate for steam traps? | | | | | |
| | A few thousand dollars | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | We did not receive the rebate | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| ST1 | Approximately when were these steam traps installed? | | | | | |
| | 2006 | 17.189 | 0 | 8.3333 | 19.048 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | 2007 | 31.462 | 25 | 0 | 31.429 | 71.124 |
| | 2008 | 22.182 | 25 | 0 | 24.762 | 0 |
| | 2009 | 4.648 | 0 | 8.3333 | 4.762 | 0 |
| | 2006-2007 | 2.508 | 0 | 0 | 2.857 | 0 |
| | 2007-2008 | 4.28 | 0 | 16.667 | 3.81 | 0 |
| | 2008-2009 | 0.836 | 0 | 0 | 0.952 | 0 |
| | 2006-2008 | 3.164 | 0 | 16.667 | 0.952 | 28.876 |
| | Don't Know | 13.73 | 50.00 | 50.00 | 11.43 | 0.00 |
| | n | 124 | 4 | 12 | 105 | 3 |
| VEND_MA | Prior to installing steam traps under the program, did you have an existing maintenance contract with a vendor that involved servicing your steam traps? | | | | | |
| | Yes | 3.83 | 0.00 | 0.00 | 1.91 | 42.25 |
| | No | 95.31 | 100.00 | 100.00 | 97.14 | 57.75 |
| | Don't Know | 0.86 | 0.00 | 0.00 | 0.95 | 0.00 |
| | n | 117 | 1 | 8 | 105 | 3 |
| PI3 | Our records indicate that &NUM_INSULATION feet of pipe insulation was installed at your facility. Is this about right? | | | | | |
| | Yes | 100.00 | 0.00 | 100.00 | 100.00 | 100.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| PL_1G | Our records indicate that your organization received &PI_Rebate for Pipe Insulation during 2006-2008. Is this correct? | | | | | |
| | Yes | 84.21 | 0.00 | 100.00 | 81.48 | 100.00 |
| | No | 3.16 | 0.00 | 0.00 | 3.70 | 0.00 |
| | Don't Know | 12.63 | 0.00 | 0.00 | 14.81 | 0.00 |
| | n | 30 | 0 | 1 | 27 | 2 |
| PI_1GG | May I have the correct amount of the rebate for pipe insulation? | | | | | |
| | We never received the rebate | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 0 | 1 | 0 |
| JOINT | Your organization installed BOTH steam traps and pipe insulation. Can you tell me if this was a JOINT DECISION? In other words, was the decision to install the steam traps and the pipe insulation made by the same individuals and at the same time? | | | | | |
| | Yes | 93.79 | 0.00 | 100.00 | 92.59 | 100.00 |
| | No | 3.10 | 0.00 | 0.00 | 3.70 | 0.00 |
| | Don't Know | 3.10 | 0.00 | 0.00 | 3.70 | 0.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| V1 | Now I would like to find out, did you use a contractor to install the measures rebated through the 2006-08 &PROGRAM Program? | | | | | |
| | Contractor | 22.23 | 25.00 | 12.50 | 21.90 | 42.25 |
| | IN-house staff | 66.82 | 75.00 | 68.75 | 68.57 | 28.88 |
| | Both | 6.39 | 0.00 | 12.50 | 4.76 | 28.88 |
| | Steam in house, pipe contractor | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | DONT KNOW | 1.28 | 0.00 | 6.25 | 0.95 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| V41 | Did the contractor you worked with suggest that you install both steam traps and pipe insulation simultaneously? | | | | | |
| | Yes | 63.37 | 0.00 | 100.00 | 61.54 | 59.40 |
| | No | 31.14 | 0.00 | 0.00 | 30.77 | 40.60 |
| | Don't Know | 5.50 | 0.00 | 0.00 | 7.69 | 0.00 |
| | n | 17 | 0 | 1 | 13 | 2 |
| ST14 | Since January 2006, has there been a period where there was a significant increase in production at this site? In other words, was there any period where your production was higher than usual? | | | | | |
| | Yes | 40.51 | 0.00 | 42.86 | 42.35 | 0.00 |
| | No | 57.34 | 0.00 | 57.14 | 55.29 | 100.00 |
| | Don't Know | 2.15 | 0.00 | 0.00 | 2.35 | 0.00 |
| | n | 94 | 0 | 7 | 85 | 2 |
| st14a | When was this increase in demand? | | | | | |
| | 2006 | 10.616 | 0 | 0 | 11.111 | 0 |
| | 2007 | 14.755 | 0 | 33.333 | 13.889 | 0 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | 2008 | 5.308 | 0 | 0 | 5.5556 | 0 |
| | 2009 | 18.578 | 0 | 0 | 19.444 | 0 |
| | Seasonal - Winter | 2.654 | 0 | 0 | 2.7778 | 0 |
| | Seasonal - Summer | 2.654 | 0 | 0 | 2.7778 | 0 |
| | 2005-2006 | 2.654 | 0 | 0 | 2.7778 | 0 |
| | 2006-2007 | 2.654 | 0 | 0 | 2.7778 | 0 |
| | 2007-2008 | 2.654 | 0 | 0 | 2.7778 | 0 |
| | 2008-2009 | 5.308 | 0 | 0 | 5.5556 | 0 |
| | 2006-2008 | 7.962 | 0 | 0 | 8.3333 | 0 |
| | 2007-2009 | 2.654 | 0 | 0 | 2.7778 | 0 |
| | Constantly | 5.308 | 0 | 0 | 5.5556 | 0 |
| | Cycles with economy | 5.308 | 0 | 0 | 5.5556 | 0 |
| | Don't know | 10.933 | 0 | 66.667 | 8.3333 | 0 |
| | n | 39 | 0 | 3 | 36 | 0 |
| | Since January 2006, has there been a period where there was a significant decrease in production at this site? In other words, was there any period where your production was lower than usual? | | | | | |
| ST15 | Yes | 45.28 | 0.00 | 42.86 | 44.71 | 59.40 |
| | No | 53.65 | 0.00 | 57.14 | 54.12 | 40.60 |
| | Don't Know | 1.08 | 0.00 | 0.00 | 1.18 | 0.00 |
| | n | 94 | 0 | 7 | 85 | 2 |
| | When did this decrease occur? | | | | | |
| ST15A | 2005 | 2.3745 | 0 | 0 | 2.6316 | 0 |
| | 2006 | 4.749 | 0 | 0 | 5.2632 | 0 |
| | 2007 | 4.749 | 0 | 0 | 5.2632 | 0 |
| | 2008 | 30.857 | 0 | 33.333 | 26.316 | 100 |
| | 2009 | 35.617 | 0 | 0 | 39.474 | 0 |
| | Seasonal - Winter | 6.0779 | 0 | 33.333 | 5.2632 | 0 |
| | Seasonal - Fall | 2.3745 | 0 | 0 | 2.6316 | 0 |
| | 2007-2008 | 2.3745 | 0 | 0 | 2.6316 | 0 |
| | 2008-2009 | 7.1234 | 0 | 0 | 7.8947 | 0 |
| | Cycles with economy | 2.3745 | 0 | 0 | 2.6316 | 0 |
| | Don't know | 1.329 | 0 | 33.333 | 0 | 0 |
| | n | 42 | 0 | 3 | 38 | 1 |
| | Do you believe that the decrease in production is associated with the ongoing recession? | | | | | |
| ST15B | Yes | 82.05 | 0.00 | 66.67 | 81.58 | 100.00 |
| | No | 17.95 | 0.00 | 33.33 | 18.42 | 0.00 |
| | n | 42 | 0 | 3 | 38 | 1 |
| | When do you believe that your company will experience an increase in production? | | | | | |
| ST15C | 6 months | 17.36 | 0.00 | 0.00 | 19.35 | 0.00 |
| | In the next year | 24.77 | 0.00 | 50.00 | 25.81 | 0.00 |
| | One year or more | 17.36 | 0.00 | 0.00 | 19.35 | 0.00 |
| | Soon | 2.89 | 0.00 | 0.00 | 3.23 | 0.00 |
| | Production normal now | 2.89 | 0.00 | 0.00 | 3.23 | 0.00 |
| | When economy recovers | 8.68 | 0.00 | 0.00 | 9.68 | 0.00 |
| | Don't Know | 26.03 | 0.00 | 50.00 | 19.35 | 100.00 |
| | n | 34 | 0 | 2 | 31 | 1 |
| | Did the steam traps installed under the &Program represent the installation of new traps where there previously were no traps or were the steam traps used for the replacement of existing traps? | | | | | |
| ST1_1 | Replacement of existing steam traps | 70.54 | 100.00 | 68.75 | 72.38 | 28.88 |
| | New traps | 13.95 | 0.00 | 6.25 | 13.33 | 42.25 |
| | Both new and replacement | 15.51 | 0.00 | 25.00 | 14.29 | 28.88 |
| | n | 128 | 4 | 16 | 105 | 3 |
| | How many of the traps installed under the &Program were replacement traps? | | | | | |
| ST2 | 0-10 traps | 35.29 | 0.00 | 0.00 | 46.43 | 0.00 |
| | 11-19 traps | 21.72 | 0.00 | 0.00 | 28.57 | 0.00 |
| | 20-49 traps | 10.86 | 0.00 | 0.00 | 14.29 | 0.00 |
| | 50-99 traps | 15.74 | 0.00 | 55.56 | 10.71 | 0.00 |
| | More than 100 traps | 16.39 | 100.00 | 44.44 | 0.00 | 100.00 |
| | n | 42 | 4 | 9 | 28 | 1 |
| | How many steam traps are located at your facility? | | | | | |
| ST3A | 0-9 traps | 9.31 | 0.00 | 0.00 | 10.68 | 0.00 |
| | 10-19 traps | 11.85 | 0.00 | 0.00 | 13.59 | 0.00 |
| | 20-39 traps | 24.54 | 0.00 | 0.00 | 28.16 | 0.00 |
| | 40-99 traps | 21.15 | 0.00 | 6.25 | 21.36 | 59.40 |
| | More than 100 traps | 28.46 | 100.00 | 87.50 | 21.36 | 40.60 |
| | Don't Know | 4.70 | 0.00 | 6.25 | 4.85 | 0.00 |
| | n | 125 | 4 | 16 | 103 | 2 |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| ST3AA | Do you have high pressure traps at your facility? | | | | | |
| | Yes | 80.58 | 100.00 | 93.75 | 81.91 | 28.88 |
| | No | 10.85 | 0.00 | 6.25 | 10.48 | 28.88 |
| | Don't Know | 8.56 | 0.00 | 0.00 | 7.62 | 42.25 |
| | n | 128 | 4 | 16 | 105 | 3 |
| ST3AAA | How many of the traps at your facility are high pressure traps? | | | | | |
| | 0-19 traps | 30.21 | 0.00 | 0.00 | 32.56 | 100.00 |
| | 20-59 traps | 33.16 | 0.00 | 6.67 | 37.21 | 0.00 |
| | 60-149 traps | 14.95 | 0.00 | 20.00 | 15.12 | 0.00 |
| | 150-299 traps | 6.80 | 0.00 | 20.00 | 5.81 | 0.00 |
| | 300-999 traps | 5.34 | 0.00 | 26.67 | 3.49 | 0.00 |
| | More than 1000 traps | 9.54 | 100.00 | 26.67 | 5.81 | 0.00 |
| | n | 106 | 4 | 15 | 86 | 1 |
| ST30 | Can you provide a range of the possible number of high pressure traps at your facility? Would you say.... | | | | | |
| | 21 to 30 | 20.00 | 0.00 | 0.00 | 20.00 | 0.00 |
| | Don't Know | 80.00 | 0.00 | 0.00 | 80.00 | 0.00 |
| | n | 5 | 0 | 0 | 5 | 0 |
| ST3B | What percentage of the high pressure steam traps at your facility were replaced at this time? | | | | | |
| | 0-29% | 53.06 | 100.00 | 62.50 | 49.47 | 100.00 |
| | 30-59% | 20.62 | 0.00 | 6.25 | 23.16 | 0.00 |
| | 60-79% | 7.02 | 0.00 | 18.75 | 6.32 | 0.00 |
| | 80-89% | 1.83 | 0.00 | 0.00 | 2.11 | 0.00 |
| | 90-99% | 4.17 | 0.00 | 6.25 | 4.21 | 0.00 |
| | 100% | 13.31 | 0.00 | 6.25 | 14.74 | 0.00 |
| | n | 117 | 4 | 16 | 95 | 2 |
| ST3b_HP | Can you provide a range of the possible number of high pressure traps replaced at this time? | | | | | |
| | 0-9% | 23.09 | 25.00 | 26.67 | 21.18 | 100.00 |
| | 10-29% | 23.04 | 75.00 | 33.33 | 21.18 | 0.00 |
| | 30-49% | 13.50 | 0.00 | 13.33 | 14.12 | 0.00 |
| | 50-99% | 12.02 | 0.00 | 20.00 | 11.76 | 0.00 |
| | 100% | 25.27 | 0.00 | 6.67 | 28.24 | 0.00 |
| | Don't Know | 3.09 | 0.00 | 0.00 | 3.53 | 0.00 |
| | n | 105 | 4 | 15 | 85 | 1 |
| ST3BB | What are the average weekly hours of operation for your high pressure steam traps? | | | | | |
| | 0-49 hrs | 13.95 | 0.00 | 6.67 | 15.29 | 0.00 |
| | 50-99 hrs | 20.58 | 0.00 | 0.00 | 23.53 | 0.00 |
| | 100-149 hrs | 20.93 | 0.00 | 20.00 | 20.00 | 100.00 |
| | 150 hrs or more | 42.48 | 100.00 | 73.33 | 38.82 | 0.00 |
| | Don't Know | 2.06 | 0.00 | 0.00 | 2.35 | 0.00 |
| | n | 105 | 4 | 15 | 85 | 1 |
| ST3000 | Do you have low pressure traps at your facility? | | | | | |
| | Yes | 41.22 | 0.00 | 42.86 | 41.18 | 40.60 |
| | No | 49.10 | 0.00 | 57.14 | 48.24 | 59.40 |
| | Don't Know | 9.68 | 0.00 | 0.00 | 10.59 | 0.00 |
| | n | 94 | 0 | 7 | 85 | 2 |
| ST300 | How many of the traps at your facility are low pressure traps? | | | | | |
| | 0-9 traps | 39.35 | 100.00 | 60.00 | 38.30 | 0.00 |
| | 10-29 traps | 21.06 | 0.00 | 0.00 | 25.53 | 0.00 |
| | 30-99 traps | 15.20 | 0.00 | 0.00 | 14.89 | 50.00 |
| | 100-299 traps | 7.02 | 0.00 | 0.00 | 8.51 | 0.00 |
| | 300 or more traps | 11.13 | 0.00 | 30.00 | 6.38 | 50.00 |
| | Don't Know | 6.25 | 0.00 | 10.00 | 6.38 | 0.00 |
| | n | 61 | 2 | 10 | 47 | 2 |
| ST301 | Can you provide a range of the possible number of low pressure traps at your facility? Would you say.... | | | | | |
| | Less than 10 traps | 28.09 | 0.00 | 0.00 | 33.33 | 0.00 |
| | 21 to 30 traps | 28.09 | 0.00 | 0.00 | 33.33 | 0.00 |
| | 41 to 50 traps | 15.72 | 0.00 | 100.00 | 0.00 | 0.00 |
| | Don't Know | 28.09 | 0.00 | 0.00 | 33.33 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | n | 4 | 0 | 1 | 3 | 0 |
| ST3D | What percentage of the low pressure steam traps at your facility were replaced through the program? | | | | | |
| | 0-9% | 30.73 | 0.00 | 20.00 | 34.21 | 0.00 |
| | 10-29% | 22.17 | 0.00 | 40.00 | 18.42 | 50.00 |
| | 30-49% | 17.37 | 0.00 | 0.00 | 15.79 | 50.00 |
| | 50-99% | 6.80 | 0.00 | 0.00 | 7.89 | 0.00 |
| | 100% | 12.60 | 0.00 | 20.00 | 13.16 | 0.00 |
| | Don't Know | 10.33 | 0.00 | 20.00 | 10.53 | 0.00 |
| | n | 45 | 0 | 5 | 38 | 2 |
| ST3DD | How many hours a week on average do you operate your low pressure steam traps? | | | | | |
| | 0-49 hrs | 9.06 | 0.00 | 0.00 | 10.53 | 0.00 |
| | 50-99 hrs | 27.94 | 0.00 | 0.00 | 23.68 | 100.00 |
| | 100-149 hrs | 14.87 | 0.00 | 20.00 | 15.79 | 0.00 |
| | 150 hrs or more | 43.60 | 0.00 | 80.00 | 44.74 | 0.00 |
| | Don't Know | 4.53 | 0.00 | 0.00 | 5.26 | 0.00 |
| | n | 45 | 0 | 5 | 38 | 2 |
| ST4 | What led you to replace the steam traps? | | | | | |
| | Needed to replace some old steam traps | 15.18 | 0.00 | 33.33 | 13.19 | 0.00 |
| | Installed new steam traps to improve system efficiency | 17.86 | 0.00 | 33.33 | 16.48 | 0.00 |
| | Wanted to save on our energy bill | 8.93 | 0.00 | 33.33 | 5.49 | 0.00 |
| | Traps had failed | 45.54 | 50.00 | 73.33 | 39.56 | 100.00 |
| | Traps had failed open | 32.14 | 50.00 | 40.00 | 29.67 | 50.00 |
| | Traps were leaking | 36.61 | 75.00 | 40.00 | 34.07 | 50.00 |
| | Traps had failed shut | 20.54 | 25.00 | 26.67 | 19.78 | 0.00 |
| | Regular maintenance | 17.86 | 25.00 | 26.67 | 16.48 | 0.00 |
| | Better for the Environment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Rebate Influence | 15.18 | 25.00 | 13.33 | 15.38 | 0.00 |
| | Inspections | 0.89 | 0.00 | 0.00 | 1.10 | 0.00 |
| | Traps were old | 8.04 | 0.00 | 0.00 | 9.89 | 0.00 |
| | Wrong traps previously | 5.36 | 0.00 | 6.67 | 5.49 | 0.00 |
| | Contractor/Utility Influence | 2.68 | 0.00 | 0.00 | 3.30 | 0.00 |
| | Safety | 1.79 | 0.00 | 6.67 | 1.10 | 0.00 |
| | Other | 3.03 | 0.00 | 0.00 | 2.22 | 50.00 |
| | Refused | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | n | 112 | 4 | 15 | 91 | 2 |
| ST5 | Whose idea was it to replace the steam traps? | | | | | |
| | Contractor | 7.85 | 0.00 | 6.25 | 8.57 | 0.00 |
| | Utility company contact | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | Other | 89.69 | 100.00 | 93.75 | 88.57 | 100.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| ST6 | Do you regularly consult with a contractor concerning the steam traps for your location(s) in California? | | | | | |
| | Yes | 23.02 | 100.00 | 43.75 | 20.95 | 0.00 |
| | No | 76.98 | 0.00 | 56.25 | 79.05 | 100.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| ST7_N | Do you have a regular maintenance program for your steam traps at your locations in California? | | | | | |
| | Yes | 75.18 | 100.00 | 75.00 | 73.33 | 100.00 |
| | No | 22.72 | 0.00 | 18.75 | 24.76 | 0.00 |
| | Don't Know | 2.10 | 0.00 | 6.25 | 1.91 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| ST70A | What percentage of your traps do you survey during your regular maintenance program in California? | | | | | |
| | 0-10% | 3.33 | 0.00 | 0.00 | 3.95 | 0.00 |
| | 11-25% | 3.58 | 0.00 | 9.09 | 1.32 | 28.88 |
| | 26-50% | 8.39 | 0.00 | 9.09 | 9.21 | 0.00 |
| | 51-75% | 3.33 | 0.00 | 0.00 | 3.95 | 0.00 |
| | 75-99% | 9.02 | 0.00 | 18.18 | 9.21 | 0.00 |
| | 100% | 70.61 | 100.00 | 54.55 | 71.05 | 71.12 |
| | Don't Know | 1.73 | 0.00 | 9.09 | 1.32 | 0.00 |
| | n | 94 | 4 | 11 | 76 | 3 |
| ST_DIAG | Does your maintenance survey include diagnostic testing to determine if the steam traps needed replacement in California?? | | | | | |
| | Yes | 76.27 | 100.00 | 80.00 | 74.03 | 100.00 |
| | No | 20.78 | 0.00 | 0.00 | 23.38 | 0.00 |
| | Don't Know | 2.95 | 0.00 | 20.00 | 2.60 | 0.00 |
| | n | 87 | 2 | 5 | 77 | 3 |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| ST_DIAG2 | Who conducted this diagnostic testing for steam traps at this facility? | | | | | |
| | Utility | 3.03 | 0.00 | 0.00 | 3.51 | 0.00 |
| | A Vendor | 13.06 | 100.00 | 25.00 | 12.28 | 0.00 |
| | In-House | 83.07 | 0.00 | 50.00 | 84.21 | 100.00 |
| | Vendor and In-House | 0.85 | 0.00 | 25.00 | 0.00 | 0.00 |
| | n | 66 | 2 | 4 | 57 | 3 |
| ST70E | How often do you perform these maintenance surveys in California?? | | | | | |
| | At Least Every Week | 9.94 | 0.00 | 10.00 | 7.79 | 42.25 |
| | Monthly | 9.95 | 0.00 | 0.00 | 11.69 | 0.00 |
| | Quarterly | 10.81 | 0.00 | 20.00 | 9.09 | 28.88 |
| | Twice a Year | 20.15 | 0.00 | 40.00 | 20.78 | 0.00 |
| | Yearly | 36.37 | 100.00 | 20.00 | 36.36 | 28.88 |
| | Once Every Two Years or Longer | 3.93 | 0.00 | 10.00 | 3.90 | 0.00 |
| | Don't Perform | 1.11 | 0.00 | 0.00 | 1.30 | 0.00 |
| | Other | 5.53 | 0.00 | 0.00 | 6.49 | 0.00 |
| | Don't Know | 2.21 | 0.00 | 0.00 | 2.60 | 0.00 |
| | n | 94 | 4 | 10 | 77 | 3 |
| ST70EE | When was the survey of steam traps last completed at your locations in California? | | | | | |
| | 2009 | 70.34 | 25.00 | 60.00 | 70.13 | 100.00 |
| | 2008 | 16.26 | 75.00 | 20.00 | 15.58 | 0.00 |
| | 2007 | 5.66 | 0.00 | 20.00 | 5.19 | 0.00 |
| | 2004 | 1.11 | 0.00 | 0.00 | 1.30 | 0.00 |
| | Before 2000 | 1.11 | 0.00 | 0.00 | 1.30 | 0.00 |
| | Not Applicable | 1.11 | 0.00 | 0.00 | 1.30 | 0.00 |
| | Don't Know | 4.42 | 0.00 | 0.00 | 5.19 | 0.00 |
| | n | 94 | 4 | 10 | 77 | 3 |
| ST70C | During your regular maintenance cycles, what is the average percentage of traps that typically need to be replaced in California?? | | | | | |
| | 0-9% | 60.03 | 25.00 | 50.00 | 61.04 | 71.12 |
| | 10-19% | 22.57 | 0.00 | 25.00 | 24.68 | 0.00 |
| | 20-29% | 7.38 | 25.00 | 8.33 | 5.19 | 28.88 |
| | 30-39% | 1.16 | 50.00 | 0.00 | 0.00 | 0.00 |
| | 40-99% | 1.09 | 0.00 | 0.00 | 1.30 | 0.00 |
| | Don't Know | 7.77 | 0.00 | 16.67 | 7.79 | 0.00 |
| | n | 96 | 4 | 12 | 77 | 3 |
| ST70D | What percentage of the steam traps that were replaced under the &Program were identified as needing replacement during your maintenance in California?? | | | | | |
| | 0-9% | 28.86 | 0.00 | 0.00 | 31.17 | 42.25 |
| | 10-29% | 10.55 | 0.00 | 0.00 | 10.39 | 28.88 |
| | 30-49% | 6.07 | 0.00 | 8.33 | 6.49 | 0.00 |
| | 50-99% | 8.98 | 0.00 | 8.33 | 7.79 | 28.88 |
| | 100% | 41.66 | 100.00 | 75.00 | 40.26 | 0.00 |
| | Don't Know | 3.89 | 0.00 | 8.33 | 3.90 | 0.00 |
| | n | 96 | 4 | 12 | 77 | 3 |
| ST6A_N | Do you regularly consult with a contractor concerning the steam traps for your location(s) outside California? | | | | | |
| | YES | 17.63 | 25.00 | 50.00 | 0.00 | 0.00 |
| | NO | 82.37 | 75.00 | 50.00 | 100.00 | 0.00 |
| | n | 13 | 4 | 4 | 5 | 0 |
| ST7B | Do you have a regular maintenance program for your steam traps at your locations outside California? | | | | | |
| | Yes | 100.00 | 100.00 | 100.00 | 100.00 | 0.00 |
| | n | 5 | 3 | 1 | 1 | 0 |
| ST7A | What percentage of your traps do you survey during your regular maintenance program outside California? | | | | | |
| | 100% | 48.53 | 33.33 | 0.00 | 100.00 | 0.00 |
| | Other | 16.87 | 33.33 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 34.59 | 33.33 | 100.00 | 0.00 | 0.00 |
| | n | 5 | 3 | 1 | 1 | 0 |
| ST7E | How often do you perform these maintenance surveys for your locations OUTSIDE of California? | | | | | |
| | Annually | 65.41 | 66.67 | 0.00 | 100.00 | 0.00 |
| | Varies by location | 16.87 | 33.33 | 0.00 | 0.00 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | Don't Know | 17.72 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 5 | 3 | 1 | 1 | 0 |
| ST7EE | When did you last perform a replacement survey for your locations OUTSIDE California for repairs or retrofit? | | | | | |
| | January 2009 | 31.66 | 0.00 | 0.00 | 100.00 | 0.00 |
| | Varies by location | 16.87 | 33.33 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 51.47 | 66.67 | 100.00 | 0.00 | 0.00 |
| | n | 5 | 3 | 1 | 1 | 0 |
| ST7C | During your regular maintenance cycles, what is the average percentage of traps that typically need to be replaced outside California?? | | | | | |
| | 5% | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 0 | 1 | 0 |
| ST7C_N | Do you have a regular maintenance program for your steam traps at your locations outside California? | | | | | |
| | Yes | 74.07 | 100.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 25.93 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 4 | 3 | 1 | 0 | 0 |
| ST5B | What percentage of your steam traps were NOT in good condition prior to replacement? | | | | | |
| | 0-19% | 17.12 | 0.00 | 7.69 | 19.05 | 0.00 |
| | 20-59% | 16.29 | 25.00 | 7.69 | 15.48 | 50.00 |
| | 60-99% | 13.23 | 0.00 | 38.46 | 11.90 | 0.00 |
| | 100% | 51.30 | 75.00 | 46.15 | 51.19 | 50.00 |
| | Don't Know | 2.07 | 0.00 | 0.00 | 2.38 | 0.00 |
| | n | 103 | 4 | 13 | 84 | 2 |
| ST6A | Prior to their replacement, how long had the steam traps been in fair or poor condition? If more than 1 answer, record the longest period of time. (Push for best estimate) | | | | | |
| | 1 to 2 months | 21.81 | 0.00 | 0.00 | 25.30 | 0.00 |
| | 3 to 4 months | 12.00 | 0.00 | 7.14 | 13.25 | 0.00 |
| | 5 to 6 months | 11.09 | 0.00 | 21.43 | 10.84 | 0.00 |
| | 7 to 8 months | 0.55 | 25.00 | 0.00 | 0.00 | 0.00 |
| | 9 to 10 months | 0.58 | 0.00 | 7.14 | 0.00 | 0.00 |
| | 11 to 12 months | 12.56 | 25.00 | 7.14 | 13.25 | 0.00 |
| | 13 months to 18 months | 8.31 | 0.00 | 0.00 | 9.64 | 0.00 |
| | 19 months to 24 months | 3.81 | 0.00 | 0.00 | 2.41 | 50.00 |
| | More than 24 months | 15.48 | 0.00 | 28.57 | 13.25 | 50.00 |
| | Don't Know | 13.82 | 50.00 | 28.57 | 12.05 | 0.00 |
| | n | 103 | 4 | 14 | 83 | 2 |
| ST90AA | Given that you have a regular maintenance program for your steam traps, when would the traps that were in fair or poor condition have been replaced as part of your regular maintenance program if there were no Program? Would you say they would have been replaced... | | | | | |
| | Replaced earlier than they were | 9.33 | 0.00 | 0.00 | 10.94 | 0.00 |
| | Replace at the same time | 43.77 | 50.00 | 20.00 | 45.31 | 50.00 |
| | Replaced later than they were | 44.83 | 50.00 | 70.00 | 42.19 | 50.00 |
| | Don't Know | 2.08 | 0.00 | 10.00 | 1.56 | 0.00 |
| | n | 80 | 4 | 10 | 64 | 2 |
| ST11_N | How much later would they have been replaced under your regular maintenance program? | | | | | |
| | In 6 Months | 29.58 | 0.00 | 25.00 | 33.33 | 0.00 |
| | 6 Months to 1 Year | 16.25 | 0.00 | 12.50 | 18.52 | 0.00 |
| | More than 1 Year | 21.39 | 50.00 | 25.00 | 14.81 | 100.00 |
| | As Needed | 13.25 | 50.00 | 0.00 | 14.81 | 0.00 |
| | Not Replaced | 5.85 | 0.00 | 0.00 | 7.41 | 0.00 |
| | Other | 1.64 | 0.00 | 12.50 | 0.00 | 0.00 |
| | Don't Know | 12.04 | 0.00 | 25.00 | 11.11 | 0.00 |
| | n | 38 | 2 | 8 | 27 | 1 |
| ST12_N | How much earlier would they have been replaced under your regular maintenance program? | | | | | |
| | 2 Months | 14.29 | 0.00 | 0.00 | 14.29 | 0.00 |
| | 6 Months | 57.14 | 0.00 | 0.00 | 57.14 | 0.00 |
| | Based on Financial Availability | 14.29 | 0.00 | 0.00 | 14.29 | 0.00 |
| | Not Replaced | 14.29 | 0.00 | 0.00 | 14.29 | 0.00 |
| | n | 7 | 0 | 0 | 7 | 0 |
| ST6B | Were any of the replaced traps in good condition? | | | | | |
| | Yes | 16.75 | 0.00 | 6.67 | 18.68 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | No | 75.41 | 100.00 | 86.67 | 74.73 | 50.00 |
| | Some were | 3.40 | 0.00 | 6.67 | 3.30 | 0.00 |
| | Don't Know | 4.45 | 0.00 | 0.00 | 3.30 | 50.00 |
| | n | 112 | 4 | 15 | 91 | 2 |
| | What share of the replaced traps were in good condition prior to replacement? | | | | | |
| | 0 | 41.96 | 100.00 | 42.86 | 41.18 | 0.00 |
| | 1-10% | 13.50 | 0.00 | 14.29 | 14.71 | 0.00 |
| | 11-20% | 1.36 | 0.00 | 14.29 | 0.00 | 0.00 |
| | 21-30% | 4.86 | 0.00 | 0.00 | 5.88 | 0.00 |
| | 31-40% | 2.43 | 0.00 | 0.00 | 2.94 | 0.00 |
| | 41-50% | 15.93 | 0.00 | 14.29 | 17.65 | 0.00 |
| | 81-80% | 2.43 | 0.00 | 0.00 | 2.94 | 0.00 |
| | 91-99% | 5.40 | 0.00 | 14.29 | 0.00 | 100.00 |
| | 100% | 7.28 | 0.00 | 0.00 | 8.82 | 0.00 |
| | Don't Know | 4.86 | 0.00 | 0.00 | 5.88 | 0.00 |
| | n | 45 | 3 | 7 | 34 | 1 |
| ST6BPCT | What share of the replaced traps were in good condition prior to replacement? | | | | | |
| | 0 | 41.96 | 100.00 | 42.86 | 41.18 | 0.00 |
| | 1-10% | 13.50 | 0.00 | 14.29 | 14.71 | 0.00 |
| | 11-20% | 1.36 | 0.00 | 14.29 | 0.00 | 0.00 |
| | 21-30% | 4.86 | 0.00 | 0.00 | 5.88 | 0.00 |
| | 31-40% | 2.43 | 0.00 | 0.00 | 2.94 | 0.00 |
| | 41-50% | 15.93 | 0.00 | 14.29 | 17.65 | 0.00 |
| | 81-80% | 2.43 | 0.00 | 0.00 | 2.94 | 0.00 |
| | 91-99% | 5.40 | 0.00 | 14.29 | 0.00 | 100.00 |
| | 100% | 7.28 | 0.00 | 0.00 | 8.82 | 0.00 |
| | Don't Know | 4.86 | 0.00 | 0.00 | 5.88 | 0.00 |
| | n | 45 | 3 | 7 | 34 | 1 |
| | Did you receive an incentive for a previous installation of steam traps? If so, please describe the approximate timing and the name of the program that provided it. | | | | | |
| | Yes | 5.38 | 0.00 | 6.25 | 5.71 | 0.00 |
| | No | 80.83 | 100.00 | 62.50 | 80.95 | 100.00 |
| | Don't Know | 13.79 | 0.00 | 31.25 | 13.33 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| ST20 | Did you receive an incentive for a previous installation of steam traps? If so, please describe the approximate timing and the name of the program that provided it. | | | | | |
| | Yes | 5.38 | 0.00 | 6.25 | 5.71 | 0.00 |
| | No | 80.83 | 100.00 | 62.50 | 80.95 | 100.00 |
| | Don't Know | 13.79 | 0.00 | 31.25 | 13.33 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| | What was the name of the program that provided this incentive? | | | | | |
| | Don't Know | 35.97 | 0.00 | 0.00 | 40.00 | 0.00 |
| | PGE/Mass Market | 10.07 | 0.00 | 100.00 | 0.00 | 0.00 |
| | SoCal Gas/Express Efficiency | 53.96 | 0.00 | 0.00 | 60.00 | 0.00 |
| | n | 6 | 0 | 1 | 5 | 0 |
| ST20A | What was the name of the program that provided this incentive? | | | | | |
| | Don't Know | 35.97 | 0.00 | 0.00 | 40.00 | 0.00 |
| | PGE/Mass Market | 10.07 | 0.00 | 100.00 | 0.00 | 0.00 |
| | SoCal Gas/Express Efficiency | 53.96 | 0.00 | 0.00 | 60.00 | 0.00 |
| | n | 6 | 0 | 1 | 5 | 0 |
| | About when was this previous steam trap installation done? | | | | | |
| | 2007 | 17.99 | 0.00 | 0.00 | 20.00 | 0.00 |
| | 2008 | 35.97 | 0.00 | 0.00 | 40.00 | 0.00 |
| | Don't Know | 17.99 | 0.00 | 0.00 | 20.00 | 0.00 |
| | Every year | 17.99 | 0.00 | 0.00 | 20.00 | 0.00 |
| | Within the last 10 years | 10.07 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 6 | 0 | 1 | 5 | 0 |
| ST20B | About when was this previous steam trap installation done? | | | | | |
| | 2007 | 17.99 | 0.00 | 0.00 | 20.00 | 0.00 |
| | 2008 | 35.97 | 0.00 | 0.00 | 40.00 | 0.00 |
| | Don't Know | 17.99 | 0.00 | 0.00 | 20.00 | 0.00 |
| | Every year | 17.99 | 0.00 | 0.00 | 20.00 | 0.00 |
| | Within the last 10 years | 10.07 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 6 | 0 | 1 | 5 | 0 |
| | How much linear feet of pipe insulation is present at your facility? | | | | | |
| | 0-99 ft. | 12.09 | 0.00 | 100.00 | 4.55 | 40.60 |
| | 200-399 ft. | 16.64 | 0.00 | 0.00 | 9.09 | 59.40 |
| | 400 ft. or more | 41.26 | 0.00 | 0.00 | 50.00 | 0.00 |
| | Don't Know | 30.01 | 0.00 | 0.00 | 36.36 | 0.00 |
| | n | 25 | 0 | 1 | 22 | 2 |
| PI3A | How much linear feet of pipe insulation is present at your facility? | | | | | |
| | 0-99 ft. | 12.09 | 0.00 | 100.00 | 4.55 | 40.60 |
| | 200-399 ft. | 16.64 | 0.00 | 0.00 | 9.09 | 59.40 |
| | 400 ft. or more | 41.26 | 0.00 | 0.00 | 50.00 | 0.00 |
| | Don't Know | 30.01 | 0.00 | 0.00 | 36.36 | 0.00 |
| | n | 25 | 0 | 1 | 22 | 2 |
| | Can you estimate what percent of the pipes present at your facility were insulated through the &PROGRAM? | | | | | |
| | 0-24% | 36.83 | 0.00 | 0.00 | 27.27 | 100.00 |
| | 25-49% | 7.90 | 0.00 | 0.00 | 9.09 | 0.00 |
| | 50-74% | 15.79 | 0.00 | 0.00 | 18.18 | 0.00 |
| | 75-99% | 15.79 | 0.00 | 0.00 | 18.18 | 0.00 |
| | 100% | 15.79 | 0.00 | 0.00 | 18.18 | 0.00 |
| | Don't Know | 7.90 | 0.00 | 0.00 | 9.09 | 0.00 |
| | n | 12 | 0 | 0 | 11 | 1 |
| PI3B | Can you estimate what percent of the pipes present at your facility were insulated through the &PROGRAM? | | | | | |
| | 0-24% | 36.83 | 0.00 | 0.00 | 27.27 | 100.00 |
| | 25-49% | 7.90 | 0.00 | 0.00 | 9.09 | 0.00 |
| | 50-74% | 15.79 | 0.00 | 0.00 | 18.18 | 0.00 |
| | 75-99% | 15.79 | 0.00 | 0.00 | 18.18 | 0.00 |
| | 100% | 15.79 | 0.00 | 0.00 | 18.18 | 0.00 |
| | Don't Know | 7.90 | 0.00 | 0.00 | 9.09 | 0.00 |
| | n | 12 | 0 | 0 | 11 | 1 |
| | Was the pipe insulation installed on new pipes or was it a retrofit of older pipes? | | | | | |
| | ONLY New | 39.31 | 0.00 | 0.00 | 40.74 | 40.60 |
| | ONLY Older | 44.80 | 0.00 | 0.00 | 44.44 | 59.40 |
| | Both New and Older | 15.89 | 0.00 | 100.00 | 14.81 | 0.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| PI7 | Was the pipe insulation installed on new pipes or was it a retrofit of older pipes? | | | | | |
| | ONLY New | 39.31 | 0.00 | 0.00 | 40.74 | 40.60 |
| | ONLY Older | 44.80 | 0.00 | 0.00 | 44.44 | 59.40 |
| | Both New and Older | 15.89 | 0.00 | 100.00 | 14.81 | 0.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| | What percentage of the pipe insulation was installed on new pipes? | | | | | |
| | 25% | 5.62 | 0.00 | 0.00 | 6.67 | 0.00 |
| | 50% | 16.87 | 0.00 | 0.00 | 20.00 | 0.00 |
| | 90% | 3.15 | 0.00 | 50.00 | 0.00 | 0.00 |
| | 100% | 71.21 | 0.00 | 0.00 | 73.33 | 100.00 |
| | Don't Know | 3.15 | 0.00 | 50.00 | 0.00 | 0.00 |
| | n | 18 | 0 | 2 | 15 | 1 |
| PI7A | What percentage of the pipe insulation was installed on new pipes? | | | | | |
| | 25% | 5.62 | 0.00 | 0.00 | 6.67 | 0.00 |
| | 50% | 16.87 | 0.00 | 0.00 | 20.00 | 0.00 |
| | 90% | 3.15 | 0.00 | 50.00 | 0.00 | 0.00 |
| | 100% | 71.21 | 0.00 | 0.00 | 73.33 | 100.00 |
| | Don't Know | 3.15 | 0.00 | 50.00 | 0.00 | 0.00 |
| | n | 18 | 0 | 2 | 15 | 1 |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|------|--------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| PI7B | How old were the pipes receiving the pipe insulation? | | | | | |
| | 1-9 years old | 18.85 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 10-19 years old | 42.41 | 0.00 | 0.00 | 56.25 | 0.00 |
| | 20-29 years old | 7.35 | 0.00 | 50.00 | 6.25 | 0.00 |
| | More than 30 years old | 31.39 | 0.00 | 50.00 | 12.50 | 100.00 |
| | n | 20 | 0 | 2 | 16 | 2 |
| PI8 | Was insulation already present on the pipes before the insulation was installed through the &PROGRAM program? | | | | | |
| | Yes | 47.10 | 0.00 | 50.00 | 43.75 | 59.40 |
| | No | 48.18 | 0.00 | 50.00 | 50.00 | 40.60 |
| | 75% new; 25% replacement | 4.71 | 0.00 | 0.00 | 6.25 | 0.00 |
| | n | 20 | 0 | 2 | 16 | 2 |
| PI21 | Was the existing insulation removed and replaced, or was additional insulation added to existing insulation? | | | | | |
| | Old insulation removed and replaced | 100.00 | 0.00 | 100.00 | 100.00 | 100.00 |
| | n | 10 | 0 | 1 | 8 | 1 |
| PI23 | What condition was your pipe insulation in at the time of the replacement? | | | | | |
| | Fair | 45.43 | 0.00 | 100.00 | 25.00 | 100.00 |
| | Poor condition | 54.57 | 0.00 | 0.00 | 75.00 | 0.00 |
| | n | 10 | 0 | 1 | 8 | 1 |
| PI25 | Are boilers present at your facility? | | | | | |
| | Yes | 96.90 | 0.00 | 100.00 | 96.30 | 100.00 |
| | No | 3.10 | 0.00 | 0.00 | 3.70 | 0.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| PI27 | Since the pipe insulation was installed, have the boilers been repaired or replaced? | | | | | |
| | Yes | 28.14 | 0.00 | 100.00 | 23.08 | 40.60 |
| | No | 71.86 | 0.00 | 0.00 | 76.92 | 59.40 |
| | n | 30 | 0 | 2 | 26 | 2 |
| PI29 | When was the most recent boiler repair or replacement? | | | | | |
| | 1 year ago | 11.38 | 0.00 | 0.00 | 16.67 | 0.00 |
| | 2 years ago | 22.77 | 0.00 | 0.00 | 33.33 | 0.00 |
| | 3 years ago | 18.95 | 0.00 | 0.00 | 0.00 | 100.00 |
| | 6 years ago | 22.77 | 0.00 | 0.00 | 33.33 | 0.00 |
| | 9 years ago | 6.37 | 0.00 | 50.00 | 0.00 | 0.00 |
| | 12 years ago | 17.76 | 0.00 | 50.00 | 16.67 | 0.00 |
| | n | 9 | 0 | 2 | 6 | 1 |
| PI33 | Whose idea was it to install new pipe insulation? | | | | | |
| | Contractor | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | Other | 96.72 | 100.00 | 100.00 | 96.19 | 100.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| PI35 | What percentage of the pipe insulation cost would you estimate the &Program rebate covered? | | | | | |
| | Rebate covered all of the cost | 15.52 | 0.00 | 0.00 | 18.52 | 0.00 |
| | Rebate covered most of the cost | 28.30 | 0.00 | 100.00 | 29.63 | 0.00 |
| | Rebate covered less than half of the cost | 44.80 | 0.00 | 0.00 | 44.44 | 59.40 |
| | Half of the cost | 8.27 | 0.00 | 0.00 | 3.70 | 40.60 |
| | Don't Know | 3.10 | 0.00 | 0.00 | 3.70 | 0.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| PI37 | How effective was the new pipe insulation in reducing your natural gas bill? Would you say you are seeing... | | | | | |
| | Considerable gas savings | 24.83 | 0.00 | 0.00 | 29.63 | 0.00 |
| | Some gas savings | 41.04 | 0.00 | 50.00 | 40.74 | 40.60 |
| | No noticeable savings | 27.92 | 0.00 | 50.00 | 22.22 | 59.40 |
| | Don't Know | 6.21 | 0.00 | 0.00 | 7.41 | 0.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| PI39 | Have you noticed any problems with the pipe insulation since the installation? | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | Yes | 6.21 | 0.00 | 0.00 | 7.41 | 0.00 |
| | No | 93.79 | 0.00 | 100.00 | 92.59 | 100.00 |
| | n | 31 | 0 | 2 | 27 | 2 |
| A1B | Did your organization receive an AUDIT from <%UTILITY>? | | | | | |
| | Yes | 27.62 | 50.00 | 38.46 | 27.47 | 0.00 |
| | No | 59.41 | 50.00 | 53.85 | 58.24 | 100.00 |
| | Don't Know | 12.98 | 0.00 | 7.69 | 14.29 | 0.00 |
| | n | 110 | 4 | 13 | 91 | 2 |
| A1C | Did your organization receive any TECHNICAL ASSESSMENT to help identify the need to replace or retrofit existing measures from <%UTILITY>? | | | | | |
| | Yes | 33.64 | 25.00 | 31.25 | 34.29 | 28.88 |
| | No | 59.69 | 75.00 | 56.25 | 59.05 | 71.12 |
| | Don't Know | 6.66 | 0.00 | 12.50 | 6.67 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| A1D | Did your organization receive a FEASIBILITY STUDY to analyze the energy and cost savings of &measure from <%UTILITY>? | | | | | |
| | Yes | 27.54 | 0.00 | 6.25 | 31.43 | 0.00 |
| | No | 64.52 | 100.00 | 75.00 | 60.95 | 100.00 |
| | Don't Know | 7.94 | 0.00 | 18.75 | 7.62 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| A1E | Did your organization receive RETROCOMMISSIONING services from <%UTILITY>? | | | | | |
| | Yes | 3.74 | 0.00 | 6.25 | 3.81 | 0.00 |
| | No | 80.37 | 100.00 | 56.25 | 80.95 | 100.00 |
| | Don't Know | 15.89 | 0.00 | 37.50 | 15.24 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| A1F | Did your organization receive information from a <%UTILITY> seminar or training course? | | | | | |
| | Yes | 57.29 | 75.00 | 36.36 | 56.36 | 100.00 |
| | No | 38.87 | 25.00 | 54.55 | 40.00 | 0.00 |
| | Don't Know | 3.84 | 0.00 | 9.09 | 3.64 | 0.00 |
| | n | 72 | 4 | 11 | 55 | 2 |
| A1I | Did you also use a CONSULTING Engineer? | | | | | |
| | Yes | 22.90 | 0.00 | 18.75 | 25.00 | 0.00 |
| | No | 74.15 | 100.00 | 75.00 | 72.12 | 100.00 |
| | Don't Know | 2.95 | 0.00 | 6.25 | 2.89 | 0.00 |
| | n | 127 | 4 | 16 | 104 | 3 |
| AP9 | How did you FIRST learn about the &UTILITYs &PROGRAM? [DO NOT READ] | | | | | |
| | UTILITY advertising (radio,TV,newspaper,Billboard) | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | UTILITY mailing (bill insert,newspaper) | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | UTILITY website | 3.01 | 0.00 | 0.00 | 1.91 | 28.88 |
| | UTILITY email or UTILITY REF | 47.52 | 0.00 | 25.00 | 51.43 | 28.88 |
| | UTILITY OTHER | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | BUILDING AUDIT or ASSESSMENT | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | OTHER MEETINGS (outside of Local Government) | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | WORD OF MOUTH (Friends,Relatives,Neighbors,Coworkers) | 5.00 | 25.00 | 6.25 | 4.76 | 0.00 |
| | CONTRACTOR | 11.30 | 25.00 | 31.25 | 7.62 | 42.25 |
| | Dry Cleaners Association | 7.48 | 0.00 | 12.50 | 7.62 | 0.00 |
| | Supplier | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | Phone Call | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Account Rep | 13.38 | 50.00 | 25.00 | 12.38 | 0.00 |
| | Don't Know | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| AP9_12A | What was the name of the other meetings you mentioned? | | | | | |
| | A training for intro to thermal imaging at SOCAL GAS | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | Attended seminar at the gas company on boiler efficiency | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | Industry trade seminar | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | n | 3 | 0 | 0 | 3 | 0 |
| A2A | How did you first become aware that &MEASURE was rebated through &Program? | | | | | |
| | Program literature | 5.75 | 0.00 | 0.00 | 6.67 | 0.00 |
| | Utility Acct Rep | 50.08 | 0.00 | 37.50 | 53.33 | 28.88 |
| | Program provided vendor | 0.46 | 0.00 | 6.25 | 0.00 | 0.00 |
| | Program representative | 10.72 | 50.00 | 0.00 | 11.43 | 0.00 |
| | Website (utility or program) | 1.37 | 0.00 | 0.00 | 0.00 | 28.88 |
| | Conference | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Word of mouth | 4.92 | 0.00 | 0.00 | 5.71 | 0.00 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | Previous experience with program | 1.36 | 25.00 | 12.50 | 0.00 | 0.00 |
| | Experience at other locations | 2.10 | 0.00 | 6.25 | 1.91 | 0.00 |
| | Contractor | 10.84 | 25.00 | 25.00 | 7.62 | 42.25 |
| | Utility | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Supplier/Vendor | 9.95 | 0.00 | 12.50 | 10.48 | 0.00 |
| | Utility training | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| A2 | In your own words, can you tell me why you decided to implement this &MEASURE? | | | | | |
| | Improve efficiency | 35.58 | 0.00 | 33.33 | 38.46 | 0.00 |
| | Save money | 21.69 | 25.00 | 13.33 | 21.15 | 42.25 |
| | Replace Broken/Old traps | 24.91 | 50.00 | 26.67 | 24.04 | 28.88 |
| | It is the preferable way to install a boiler | 0.83 | 0.00 | 0.00 | 0.96 | 0.00 |
| | Large number of traps | 1.66 | 0.00 | 0.00 | 1.92 | 0.00 |
| | Maintenance | 6.26 | 25.00 | 0.00 | 6.73 | 0.00 |
| | Steam traps a major component of business | 2.13 | 0.00 | 6.67 | 1.92 | 0.00 |
| | Rebate influence | 6.94 | 0.00 | 20.00 | 4.81 | 28.88 |
| | n | 126 | 4 | 15 | 104 | 3 |
| N1_ST | When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about implementing Steam Trap? | | | | | |
| | Before | 54.54 | 0.00 | 31.25 | 59.05 | 28.88 |
| | After | 36.20 | 25.00 | 43.75 | 36.19 | 28.88 |
| | During | 5.97 | 75.00 | 25.00 | 0.95 | 42.25 |
| | Don't Know | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| N2_ST | Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the Steam Trap that was installed? | | | | | |
| | Before | 25.42 | 25.00 | 9.09 | 27.27 | 28.88 |
| | After | 56.83 | 25.00 | 54.55 | 56.82 | 71.12 |
| | During | 8.17 | 50.00 | 27.27 | 4.55 | 0.00 |
| | Don't Know | 9.58 | 0.00 | 9.09 | 11.36 | 0.00 |
| | n | 62 | 4 | 11 | 44 | 3 |
| N3A_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the age or condition of the old equipment in your decision to replace your steam traps through the rebate program. | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | 3 | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | 4 | 2.92 | 0.00 | 6.25 | 2.86 | 0.00 |
| | 5 | 8.31 | 0.00 | 12.50 | 8.57 | 0.00 |
| | 6 | 4.10 | 0.00 | 0.00 | 4.76 | 0.00 |
| | 7 | 6.66 | 0.00 | 12.50 | 6.67 | 0.00 |
| | 8 | 25.55 | 0.00 | 31.25 | 23.81 | 57.75 |
| | 9 | 8.74 | 25.00 | 12.50 | 8.57 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 38.80 | 75.00 | 25.00 | 39.05 | 42.25 |
| | Not Applicable | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| N3B_ST | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the availability of the PROGRAM rebate in your decision to replace your steam traps through the rebate program. | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 5.46 | 25.00 | 12.50 | 4.76 | 0.00 |
| | 1 | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | 2 | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 3 | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | 4 | 4.56 | 0.00 | 6.25 | 4.76 | 0.00 |
| | 5 | 13.41 | 0.00 | 18.75 | 12.38 | 28.88 |
| | 6 | 4.56 | 0.00 | 6.25 | 4.76 | 0.00 |
| | 7 | 10.36 | 50.00 | 6.25 | 10.48 | 0.00 |
| | 8 | 17.42 | 0.00 | 6.25 | 18.10 | 28.88 |
| | 9 | 5.00 | 25.00 | 6.25 | 4.76 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 33.48 | 0.00 | 37.50 | 33.33 | 42.25 |
| | n | 128 | 4 | 16 | 105 | 3 |
| N3BWHY_ | Why would you give the availability Program rebate this rating for steam traps? | | | | | |
| | Saves money | 54.83 | 100.00 | 22.22 | 61.02 | 0.00 |
| | Would have done it anyway | 6.00 | 0.00 | 22.22 | 5.08 | 0.00 |
| | Helped influence our decision | 21.06 | 0.00 | 55.56 | 16.95 | 40.60 |
| | Availability | 5.82 | 0.00 | 0.00 | 6.78 | 0.00 |
| | Makes it easier to apply for more rebate | 4.37 | 0.00 | 0.00 | 5.08 | 0.00 |
| | Good deal | 5.00 | 0.00 | 0.00 | 1.69 | 59.40 |
| | Improved our efficiency | 2.91 | 0.00 | 0.00 | 3.39 | 0.00 |
| | n | 71 | 1 | 9 | 59 | 2 |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| N3C_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the information provided through the Feasibility study or The Facility or System AUDIT in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 13.90 | 100.00 | 14.29 | 10.87 | 0.00 |
| | 1 | 3.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4 | 1.94 | 0.00 | 0.00 | 2.17 | 0.00 |
| | 5 | 10.79 | 0.00 | 14.29 | 10.87 | 0.00 |
| | 6 | 5.82 | 0.00 | 0.00 | 6.52 | 0.00 |
| | 7 | 8.85 | 0.00 | 14.29 | 8.70 | 0.00 |
| | 8 | 25.47 | 0.00 | 28.57 | 26.09 | 0.00 |
| | 9 | 5.82 | 0.00 | 0.00 | 6.52 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 23.53 | 0.00 | 28.57 | 23.91 | 0.00 |
| | Not Applicable | 3.88 | 0.00 | 0.00 | 4.35 | 0.00 |
| | n | 56 | 3 | 7 | 46 | 0 |
| N3CWHY | <p>Why would you give the Feasibility study or the Facility or System Audit this rating for steam traps?</p> | | | | | |
| | Provided Information | 44.48 | 0.00 | 25.00 | 46.15 | 0.00 |
| | Felt it needed attention | 3.54 | 0.00 | 0.00 | 3.85 | 0.00 |
| | Provided credibility | 10.62 | 0.00 | 0.00 | 11.54 | 0.00 |
| | Energy efficiency is important | 10.62 | 0.00 | 0.00 | 11.54 | 0.00 |
| | Availability | 3.54 | 0.00 | 0.00 | 3.85 | 0.00 |
| | Would have done it anyway | 3.54 | 0.00 | 0.00 | 3.85 | 0.00 |
| | Not everything was available | 3.54 | 0.00 | 0.00 | 3.85 | 0.00 |
| | Brought energy efficiency to our attention | 11.05 | 0.00 | 50.00 | 7.69 | 0.00 |
| | Saves Money | 3.54 | 0.00 | 0.00 | 3.85 | 0.00 |
| | Don't Know | 5.52 | 0.00 | 25.00 | 3.85 | 0.00 |
| | n | 30 | 0 | 4 | 26 | 0 |
| N3D_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the recommendation from an equipment vendor that sold you Steam Trap and/or installed them in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 13.73 | 25.00 | 13.33 | 14.29 | 0.00 |
| | 1 | 3.76 | 0.00 | 6.67 | 3.81 | 0.00 |
| | 2 | 3.74 | 25.00 | 0.00 | 3.81 | 0.00 |
| | 3 | 3.92 | 25.00 | 6.67 | 1.91 | 28.88 |
| | 4 | 5.02 | 25.00 | 6.67 | 4.76 | 0.00 |
| | 5 | 10.82 | 0.00 | 13.33 | 11.43 | 0.00 |
| | 6 | 3.30 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 7 | 7.52 | 0.00 | 13.33 | 7.62 | 0.00 |
| | 8 | 14.94 | 0.00 | 13.33 | 16.19 | 0.00 |
| | 9 | 3.76 | 0.00 | 6.67 | 3.81 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 14.47 | 0.00 | 13.33 | 13.33 | 42.25 |
| | Not Applicable | 13.38 | 0.00 | 6.67 | 13.33 | 28.88 |
| | Don't Know | 1.65 | 0.00 | 0.00 | 1.91 | 0.00 |
| | n | 127 | 4 | 15 | 105 | 3 |
| N3E_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of your previous experience with these Steam Traps in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 12.08 | 25.00 | 13.33 | 12.38 | 0.00 |
| | 1 | 1.65 | 0.00 | 0.00 | 1.91 | 0.00 |
| | 2 | 1.65 | 0.00 | 0.00 | 1.91 | 0.00 |
| | 3 | 0.46 | 0.00 | 6.67 | 0.00 | 0.00 |
| | 4 | 1.65 | 0.00 | 0.00 | 1.91 | 0.00 |
| | 5 | 14.74 | 25.00 | 20.00 | 13.33 | 28.88 |
| | 6 | 5.49 | 25.00 | 13.33 | 4.76 | 0.00 |
| | 7 | 7.88 | 0.00 | 6.67 | 8.57 | 0.00 |
| | 8 | 23.65 | 0.00 | 20.00 | 25.71 | 0.00 |
| | 9 | 2.47 | 0.00 | 0.00 | 2.86 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 16.93 | 25.00 | 6.67 | 16.19 | 42.25 |
| | Not Applicable | 9.07 | 0.00 | 0.00 | 10.48 | 0.00 |
| | Don't Know | 3.94 | 0.00 | 13.33 | 1.91 | 28.88 |
| | n | 127 | 4 | 15 | 105 | 3 |
| N3F_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of your previous experience with the utility & PROGRAM or a similar utility program in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 15.10 | 75.00 | 31.25 | 13.33 | 0.00 |
| | 1 | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | 2 | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | 3 | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 4 | 3.72 | 25.00 | 0.00 | 3.81 | 0.00 |
| | 5 | 10.13 | 0.00 | 18.75 | 8.57 | 28.88 |
| | 6 | 5.75 | 0.00 | 0.00 | 6.67 | 0.00 |
| | 7 | 4.92 | 0.00 | 0.00 | 5.71 | 0.00 |
| | 8 | 21.44 | 0.00 | 12.50 | 23.81 | 0.00 |
| | 9 | 4.10 | 0.00 | 0.00 | 4.76 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 9.03 | 0.00 | 0.00 | 10.48 | 0.00 |
| | Not Applicable | 15.41 | 0.00 | 18.75 | 12.38 | 71.12 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | Don't Know | 2.20 | 0.00 | 18.75 | 0.95 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| N3G_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the information from &PROGRAM or &UTILITY training course or marketing material in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 23.76 | 50.00 | 57.14 | 20.59 | 0.00 |
| | 1 | 4.61 | 0.00 | 0.00 | 5.88 | 0.00 |
| | 2 | 9.68 | 25.00 | 0.00 | 5.88 | 50.00 |
| | 3 | 6.92 | 0.00 | 0.00 | 8.82 | 0.00 |
| | 4 | 10.75 | 0.00 | 0.00 | 8.82 | 50.00 |
| | 5 | 8.14 | 25.00 | 0.00 | 8.82 | 0.00 |
| | 6 | 8.21 | 0.00 | 14.29 | 8.82 | 0.00 |
| | 7 | 13.83 | 0.00 | 0.00 | 17.65 | 0.00 |
| | 8 | 3.60 | 0.00 | 14.29 | 2.94 | 0.00 |
| | 9 | 4.61 | 0.00 | 0.00 | 5.88 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 2.31 | 0.00 | 0.00 | 2.94 | 0.00 |
| | Not Applicable | 3.60 | 0.00 | 14.29 | 2.94 | 0.00 |
| | Don't Know | 3.60 | 0.00 | 14.29 | 2.94 | 0.00 |
| | n | 47 | 4 | 7 | 34 | 2 |
| N3GWHY | <p>Why do you give the training course or marketing material this rating for steam traps?</p> | | | | | |
| | Provides information | 79.08 | 0.00 | 100.00 | 77.78 | 0.00 |
| | Familiarized with the program | 10.46 | 0.00 | 0.00 | 11.11 | 0.00 |
| | Good timing | 10.46 | 0.00 | 0.00 | 11.11 | 0.00 |
| | n | 10 | 0 | 1 | 9 | 0 |
| N3I_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of a recommendation from a consulting engineer in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 10.19 | 0.00 | 50.00 | 8.33 | 0.00 |
| | 1 | 3.98 | 0.00 | 0.00 | 4.17 | 0.00 |
| | 2 | 3.98 | 0.00 | 0.00 | 4.17 | 0.00 |
| | 3 | 11.94 | 0.00 | 0.00 | 12.50 | 0.00 |
| | 4 | 3.98 | 0.00 | 0.00 | 4.17 | 0.00 |
| | 5 | 31.85 | 0.00 | 0.00 | 33.33 | 0.00 |
| | 6 | 10.19 | 0.00 | 50.00 | 8.33 | 0.00 |
| | 7 | 10.19 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 8 | 23.89 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 9 | 2.6 | 0 | 2 | 24 | 0 |
| | 10 EXTREMELY IMPORTANT | 2.6 | 0 | 2 | 24 | 0 |
| | n | 26 | 0 | 2 | 24 | 0 |
| N3J_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the standard practice in your business/industry in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 6.18 | 25.00 | 0.00 | 6.67 | 0.00 |
| | 1 | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | 2 | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | 3 | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | 4 | 3.01 | 0.00 | 0.00 | 1.91 | 28.88 |
| | 5 | 14.03 | 25.00 | 6.25 | 15.24 | 0.00 |
| | 6 | 6.66 | 0.00 | 12.50 | 6.67 | 0.00 |
| | 7 | 7.48 | 0.00 | 12.50 | 7.62 | 0.00 |
| | 8 | 24.50 | 50.00 | 12.50 | 24.76 | 28.88 |
| | 9 | 7.94 | 0.00 | 18.75 | 7.62 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 23.99 | 0.00 | 31.25 | 22.86 | 42.25 |
| | Not Applicable | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Don't Know | 1.28 | 0.00 | 6.25 | 0.95 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| N3L_ST | <p>On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of an endorsement or recommendation by an ACCT REP in your decision to replace your steam traps through the rebate program.</p> | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 11.19 | 50.00 | 0.00 | 11.70 | 0.00 |
| | 1 | 0.49 | 25.00 | 0.00 | 0.00 | 0.00 |
| | 2 | 0.52 | 0.00 | 6.67 | 0.00 | 0.00 |
| | 3 | 1.97 | 0.00 | 13.33 | 1.06 | 0.00 |
| | 4 | 2.78 | 0.00 | 0.00 | 3.19 | 0.00 |
| | 5 | 13.82 | 0.00 | 26.67 | 11.70 | 50.00 |
| | 6 | 5.16 | 0.00 | 6.67 | 5.32 | 0.00 |
| | 7 | 10.20 | 0.00 | 0.00 | 11.70 | 0.00 |
| | 8 | 18.86 | 0.00 | 20.00 | 18.09 | 50.00 |
| | 9 | 8.84 | 25.00 | 0.00 | 9.57 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 19.69 | 0.00 | 26.67 | 20.21 | 0.00 |
| | Not Applicable | 3.71 | 0.00 | 0.00 | 4.26 | 0.00 |
| | Don't Know | 2.78 | 0.00 | 0.00 | 3.19 | 0.00 |
| | n | 115 | 4 | 15 | 94 | 2 |
| N3LWHY_S | <p>Why do you give the endorsement or recommendation of the account rep this rating for steam traps?</p> | | | | | |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | Account rep was very helpful | 70.11 | 0.00 | 71.43 | 68.89 | 100.00 |
| | Expert Opinion | 7.91 | 0.00 | 0.00 | 8.89 | 0.00 |
| | Provided helpful information | 5.06 | 0.00 | 14.29 | 4.44 | 0.00 |
| | I Don't Know who my account rep is/not a | 3.95 | 0.00 | 0.00 | 4.44 | 0.00 |
| | Money is available | 3.95 | 0.00 | 0.00 | 4.44 | 0.00 |
| | Work with other local businesses | 1.96 | 0.00 | 0.00 | 2.22 | 0.00 |
| | Rebate influence | 3.08 | 0.00 | 14.29 | 2.22 | 0.00 |
| | Don't Know | 3.95 | 0.00 | 0.00 | 4.44 | 0.00 |
| | n | 53 | 0 | 7 | 45 | 1 |
| | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of corporate policy or guidelines in your decision to replace your steam traps through the rebate program. | | | | | |
| N3M_ST | ZERO NOT AT ALL IMPORTANT | 20.23 | 25.00 | 12.50 | 21.91 | 0.00 |
| | 1 | 1.64 | 0.00 | 0.00 | 1.91 | 0.00 |
| | 2 | 4.92 | 0.00 | 0.00 | 5.71 | 0.00 |
| | 3 | 4.29 | 0.00 | 6.25 | 2.86 | 28.88 |
| | 4 | 4.56 | 0.00 | 6.25 | 4.76 | 0.00 |
| | 5 | 11.30 | 25.00 | 25.00 | 10.48 | 0.00 |
| | 6 | 1.74 | 0.00 | 12.50 | 0.95 | 0.00 |
| | 7 | 11.29 | 25.00 | 6.25 | 10.48 | 28.88 |
| | 8 | 16.05 | 0.00 | 6.25 | 18.10 | 0.00 |
| | 9 | 4.64 | 25.00 | 12.50 | 3.81 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 18.51 | 0.00 | 12.50 | 18.10 | 42.25 |
| | Not Applicable | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| | On a scale of 0-10, with 0 the least influential and 10 the most influential, please rate the influence of the payback on the investment in your decision to replace your steam traps through the rebate program. | | | | | |
| N3N_ST | ZERO NOT AT ALL IMPORTANT | 3.74 | 0.00 | 6.25 | 3.81 | 0.00 |
| | 2 | 2.08 | 25.00 | 0.00 | 1.91 | 0.00 |
| | 3 | 1.28 | 0.00 | 6.25 | 0.95 | 0.00 |
| | 4 | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | 5 | 9.67 | 0.00 | 12.50 | 8.57 | 28.88 |
| | 6 | 3.74 | 0.00 | 6.25 | 3.81 | 0.00 |
| | 7 | 10.38 | 25.00 | 12.50 | 10.48 | 0.00 |
| | 8 | 13.64 | 50.00 | 6.25 | 14.29 | 0.00 |
| | 9 | 12.95 | 0.00 | 12.50 | 12.38 | 28.88 |
| | 10 EXTREMELY IMPORTANT | 41.69 | 0.00 | 37.50 | 42.86 | 42.25 |
| | n | 128 | 4 | 16 | 105 | 3 |
| | Were there any other factors we haven't discussed that were influential in your decision to install the Steam Trap? | | | | | |
| N3O_ST | Nothing else influential | 89.11 | 75.00 | 80.00 | 89.52 | 100.00 |
| | Reduces and prevents pipe corrosion | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Damage due to malfunction/corrosion | 1.26 | 25.00 | 0.00 | 0.95 | 0.00 |
| | Safety | 2.47 | 0.00 | 0.00 | 2.86 | 0.00 |
| | Reliability of new traps | 2.57 | 0.00 | 13.33 | 1.91 | 0.00 |
| | System Efficiency | 1.65 | 0.00 | 0.00 | 1.91 | 0.00 |
| | Vendor Incentives | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Easy Paperwork | 0.82 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Individual Influence | 0.46 | 0.00 | 6.67 | 0.00 | 0.00 |
| | n | 127 | 4 | 15 | 105 | 3 |
| | Using the same zero to 10 scale, how would you rate the influence of this other factor for steam traps? | | | | | |
| N3O_STEN | 1 NOT AT ALL IMPORTANT | 4.24 | 0.00 | 33.33 | 0.00 | 0.00 |
| | 6 | 4.03 | 100.00 | 0.00 | 0.00 | 0.00 |
| | 8 | 42.08 | 0.00 | 33.33 | 45.45 | 0.00 |
| | 9 | 7.57 | 0.00 | 0.00 | 9.09 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 42.08 | 0.00 | 33.33 | 45.45 | 0.00 |
| | n | 15 | 1 | 3 | 11 | 0 |
| | I would like you to rate the importance of the PROGRAM in your decision to install these steam traps as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many of the ten points would you give to the importance of the PROGRAM in your decision? | | | | | |
| N41_ST | 0 | 6.20 | 0.00 | 6.25 | 6.67 | 0.00 |
| | 1 | 5.82 | 25.00 | 6.25 | 5.71 | 0.00 |
| | 2 | 5.38 | 0.00 | 6.25 | 5.71 | 0.00 |
| | 3 | 9.56 | 25.00 | 12.50 | 9.52 | 0.00 |
| | 4 | 18.32 | 25.00 | 12.50 | 18.10 | 28.88 |
| | 5 | 21.62 | 0.00 | 25.00 | 19.05 | 71.12 |
| | 6 | 10.31 | 0.00 | 6.25 | 11.43 | 0.00 |
| | 7 | 6.28 | 25.00 | 12.50 | 5.71 | 0.00 |
| | 8 | 8.67 | 0.00 | 6.25 | 9.52 | 0.00 |
| | 9 | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 10 | 4.56 | 0.00 | 6.25 | 4.76 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| N42_ST | I would like you to rate the importance of the PROGRAM in your decision to install these steam traps as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many points would you give to these other factors? | | | | | |
| | 0 | 4.56 | 0.00 | 6.25 | 4.76 | 0.00 |
| | 1 | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 2 | 8.67 | 0.00 | 6.25 | 9.52 | 0.00 |
| | 3 | 6.28 | 25.00 | 12.50 | 5.71 | 0.00 |
| | 4 | 10.31 | 0.00 | 6.25 | 11.43 | 0.00 |
| | 5 | 21.62 | 0.00 | 25.00 | 19.05 | 71.12 |
| | 6 | 18.32 | 25.00 | 12.50 | 18.10 | 28.88 |
| | 7 | 9.56 | 25.00 | 12.50 | 9.52 | 0.00 |
| | 8 | 5.38 | 0.00 | 6.25 | 5.71 | 0.00 |
| | 9 | 5.82 | 25.00 | 6.25 | 5.71 | 0.00 |
| | 10 | 6.20 | 0.00 | 6.25 | 6.67 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| N3B_RED | When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was not that important to you in your installation of steam traps. Can you tell me why the rebate was not that important? | | | | | |
| | Energy savings would exceed rebate | 64.12 | 0.00 | 0.00 | 100.00 | 0.00 |
| | Would do it anyways | 35.88 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 2 | 0 | 1 | 1 | 0 |
| N3G_RED | When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ..<%N3G> ... out of ten, indicating that the information from the program or utility training course was not that important to you in your installation of steam traps. Can you tell me why this information was not that important? | | | | | |
| | Provides information and incentive | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 0 | 1 | 0 |
| N3L_RED | When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you in your installation of steam traps. Can you tell me why this endorsement was not that important? | | | | | |
| | Would have done it anyways | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | Not familiar with out account rep | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3BB_RED | When asked about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was quite important to you in your installation of steam traps. Can you tell me why the rebate was that important? | | | | | |
| | Payback | 44.12 | 0.00 | 0.00 | 50.00 | 0.00 |
| | Large part of decision | 33.82 | 100.00 | 0.00 | 25.00 | 0.00 |
| | Helped efficiency | 22.06 | 0.00 | 0.00 | 25.00 | 0.00 |
| | n | 5 | 1 | 0 | 4 | 0 |
| N3GG_RE | When asked about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES or MARKETING MATERIAL, you gave a rating of ..<%N3G> ... out of ten, indicating that the information from the program or utility training course was quite important to you in your installation of steam traps. Can you tell me why this information was that important? | | | | | |
| | Provides information and incentive | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3LL_RED | When asked about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ..<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was quite important to you in your installation of steam traps. Can you tell me why this endorsement was that important? | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | Account rep introduced the program | 80.00 | 0.00 | 0.00 | 80.00 | 0.00 |
| | Account rep provide credibility | 20.00 | 0.00 | 0.00 | 20.00 | 0.00 |
| | n | 5 | 0 | 0 | 5 | 0 |
| | | | | | | |
| N5_ST | Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same steam traps? | | | | | |
| | ZERO NOT AT ALL LIKELY | 5.08 | 50.00 | 12.50 | 3.81 | 0.00 |
| | 1 | 3.28 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 2 | 5.02 | 0.00 | 12.50 | 4.76 | 0.00 |
| | 3 | 8.67 | 0.00 | 6.25 | 9.52 | 0.00 |
| | 4 | 5.38 | 0.00 | 6.25 | 5.71 | 0.00 |
| | 5 | 9.02 | 0.00 | 6.25 | 7.62 | 42.25 |
| | 6 | 5.38 | 0.00 | 6.25 | 5.71 | 0.00 |
| | 7 | 7.11 | 0.00 | 0.00 | 6.67 | 28.88 |
| | 8 | 7.85 | 0.00 | 6.25 | 8.57 | 0.00 |
| | 9 | 4.54 | 25.00 | 0.00 | 4.76 | 0.00 |
| | 10 EXTREMELY LIKELY | 38.67 | 25.00 | 43.75 | 39.05 | 28.88 |
| | n | 128 | 4 | 16 | 105 | 3 |
| | | | | | | |
| N5A_ST | When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same steam traps without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient steam traps? | | | | | |
| | Would have installed anyway | 25.00 | 0.00 | 0.00 | 25.00 | 0.00 |
| | Would have installed anyway, but the rebate was an incentive | 58.33 | 0.00 | 0.00 | 58.33 | 0.00 |
| | The rebate was the incentive | 8.33 | 0.00 | 0.00 | 8.33 | 0.00 |
| | Don't Know | 8.33 | 0.00 | 0.00 | 8.33 | 0.00 |
| | n | 24 | 0 | 0 | 24 | 0 |
| | | | | | | |
| N5AGAIN | Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same steam traps without the rebate which you gave a rating of <%N5> and/or we can change both if you wish? | | | | | |
| | No change | 66.67 | 0.00 | 0.00 | 66.67 | 0.00 |
| | 5 for rebate influence/10 for installing same equipment | 4.17 | 0.00 | 0.00 | 4.17 | 0.00 |
| | 6 for rebate influence/10 for other influences | 4.17 | 0.00 | 0.00 | 4.17 | 0.00 |
| | Change rebate score to 10 | 8.33 | 0.00 | 0.00 | 8.33 | 0.00 |
| | Change non-rebate to 8 | 8.33 | 0.00 | 0.00 | 8.33 | 0.00 |
| | Change rebate to 0 | 4.17 | 0.00 | 0.00 | 4.17 | 0.00 |
| | Don't Know | 4.17 | 0.00 | 0.00 | 4.17 | 0.00 |
| | n | 24 | 0 | 0 | 24 | 0 |
| | | | | | | |
| N5B_ST | In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install these Steam Traps. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy? | | | | | |
| | Much more important | 16.66 | 0.00 | 0.00 | 15.25 | 59.40 |
| | Somewhat more important | 11.01 | 0.00 | 12.50 | 11.86 | 0.00 |
| | Equally important | 36.09 | 50.00 | 50.00 | 37.29 | 0.00 |
| | Somewhat less important | 19.91 | 0.00 | 0.00 | 20.34 | 40.60 |
| | Much less important | 12.60 | 50.00 | 25.00 | 11.86 | 0.00 |
| | Don't Know | 3.73 | 0.00 | 12.50 | 3.39 | 0.00 |
| | n | 71 | 2 | 8 | 59 | 2 |
| | | | | | | |
| N9_ST | You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same steam traps if THE PROGRAM had not been available. When do you think you would have installed these steam traps? Please express your answer in months. | | | | | |
| | At the same time | 37.35 | 50.00 | 23.08 | 38.78 | 28.88 |
| | Within 6 months | 17.95 | 0.00 | 15.38 | 19.39 | 0.00 |
| | 6 months to 1 year | 16.27 | 0.00 | 30.77 | 16.33 | 0.00 |
| | 1 to 2 years | 15.25 | 0.00 | 0.00 | 13.27 | 71.12 |
| | 2 to 3 years | 4.46 | 0.00 | 0.00 | 5.10 | 0.00 |
| | 3 to 4 years | 2.87 | 50.00 | 23.08 | 1.02 | 0.00 |
| | 4 to 5 years | 1.78 | 0.00 | 0.00 | 2.04 | 0.00 |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | 5 years or more | 1.78 | 0.00 | 0.00 | 2.04 | 0.00 |
| | Would NOT have installed if | 0.89 | 0.00 | 0.00 | 1.02 | 0.00 |
| | Don't Know | 1.39 | 0.00 | 7.69 | 1.02 | 0.00 |
| | n | 116 | 2 | 13 | 98 | 3 |
| | | | | | | |
| N9B_ST | Why do you think it would have taken 4 or more years to install the same steam traps as were installed under the program? | | | | | |
| | Replaced when failed | 21.93 | 0.00 | 0.00 | 25.00 | 0.00 |
| | Rising energy costs | 43.86 | 0.00 | 0.00 | 50.00 | 0.00 |
| | It was a thought that I had at this time | 21.93 | 0.00 | 0.00 | 25.00 | 0.00 |
| | High cost of steam traps | 12.27 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 5 | 0 | 1 | 4 | 0 |
| | | | | | | |
| TD1_ST | So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same steam traps within 60 months, or 5 years, later if the program had not been available? | | | | | |
| | ZERO NOT AT ALL LIKELY | 1.87 | 0.00 | 0.00 | 2.13 | 0.00 |
| | 1 | 0.93 | 0.00 | 0.00 | 1.06 | 0.00 |
| | 2 | 0.93 | 0.00 | 0.00 | 1.06 | 0.00 |
| | 3 | 0.93 | 0.00 | 0.00 | 1.06 | 0.00 |
| | 4 | 2.39 | 0.00 | 8.33 | 2.13 | 0.00 |
| | 5 | 9.45 | 0.00 | 25.00 | 6.38 | 42.25 |
| | 6 | 3.74 | 0.00 | 0.00 | 4.26 | 0.00 |
| | 7 | 4.67 | 0.00 | 0.00 | 5.32 | 0.00 |
| | 8 | 8.62 | 0.00 | 8.33 | 7.45 | 28.88 |
| | 9 | 4.67 | 0.00 | 0.00 | 5.32 | 0.00 |
| | 10 EXTREMELY LIKELY | 60.85 | 100.00 | 58.33 | 62.77 | 28.88 |
| | Don't Know | 0.93 | 0.00 | 0.00 | 1.06 | 0.00 |
| | n | 110 | 1 | 12 | 94 | 3 |
| | | | | | | |
| TD2_ST | Again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what would you say is the likelihood that you would have installed the same steam traps within 120 months, or 10 years, later if the program had not been available? | | | | | |
| | ZERO NOT AT ALL LIKELY | 4.89 | 0.00 | 0.00 | 5.88 | 0.00 |
| | 1 | 4.07 | 0.00 | 0.00 | 0.00 | 40.60 |
| | 2 | 2.45 | 0.00 | 0.00 | 2.94 | 0.00 |
| | 3 | 2.45 | 0.00 | 0.00 | 2.94 | 0.00 |
| | 5 | 13.29 | 0.00 | 0.00 | 8.82 | 59.40 |
| | 6 | 3.81 | 0.00 | 20.00 | 2.94 | 0.00 |
| | 7 | 7.34 | 0.00 | 0.00 | 8.82 | 0.00 |
| | 8 | 19.85 | 0.00 | 40.00 | 20.59 | 0.00 |
| | 9 | 7.34 | 0.00 | 0.00 | 8.82 | 0.00 |
| | 10 EXTREMELY LIKELY | 34.52 | 0.00 | 40.00 | 38.24 | 0.00 |
| | n | 41 | 0 | 5 | 34 | 2 |
| | | | | | | |
| TD1A_ST | Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same steam traps within 120 months, or 10 years, later if the program had not been available? | | | | | |
| | 4 | 21.93 | 0.00 | 0.00 | 25.00 | 0.00 |
| | 5 | 43.86 | 0.00 | 0.00 | 50.00 | 0.00 |
| | 10 EXTREMELY LIKELY | 34.21 | 0.00 | 100.00 | 25.00 | 0.00 |
| | n | 5 | 0 | 1 | 4 | 0 |
| | | | | | | |
| N9BB_ST | Earlier when asked about the influence of the age/condition of the old steam traps on your decision to install these new steam traps, you gave me a rating of <N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could explain in your own words the role the age/condition of the existing steam traps played in your decision to install these new energy-efficient steam traps. | | | | | |
| | Steam traps wearing out and new traps are expensive | 100.00 | 0.00 | 100.00 | 100.00 | 0.00 |
| | n | 4 | 0 | 1 | 3 | 0 |
| | | | | | | |
| N6_ST | Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying steam traps which of the following alternatives would you have been MOST likely to do? | | | | | |
| | Installed fewer steam traps | 19.29 | 50.00 | 14.29 | 16.19 | 71.12 |
| | Repaired/or overhauled the existing equipment | 27.53 | 0.00 | 28.57 | 29.52 | 0.00 |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| Done nothing (kept the existing equipment as is) | 11.70 | 0.00 | 14.29 | 12.38 | 0.00 |
| Installed Later | 11.02 | 50.00 | 28.57 | 9.52 | 0.00 |
| No Change | 16.20 | 0.00 | 7.14 | 18.10 | 0.00 |
| Bought used traps | 0.83 | 0.00 | 0.00 | 0.95 | 0.00 |
| Replaced and repaired | 3.31 | 0.00 | 0.00 | 3.81 | 0.00 |
| Get different insulation | 7.18 | 0.00 | 0.00 | 6.67 | 28.88 |
| Always modernizing | 1.29 | 0.00 | 7.14 | 0.95 | 0.00 |
| Don't Know | 1.66 | 0.00 | 0.00 | 1.91 | 0.00 |
| n | 126 | 4 | 14 | 105 | 3 |
| How many fewer steam traps would you have installed if the program had not been available? | | | | | |
| Less than 50% | 36.19 | 100.00 | 0.00 | 43.75 | 0.00 |
| 50 percent less | 29.91 | 0.00 | 0.00 | 31.25 | 40.60 |
| More than 50% | 7.00 | 0.00 | 50.00 | 6.25 | 0.00 |
| Depends on budget/equipmen | 19.90 | 0.00 | 0.00 | 12.50 | 59.40 |
| Don't Know | 7.00 | 0.00 | 50.00 | 6.25 | 0.00 |
| n | 22 | 2 | 2 | 16 | 2 |
| How long do you think the repaired/rewound/refurbished steam traps would have lasted before requiring replacement? | | | | | |
| Within a year | 17.47 | 50.00 | 16.67 | 15.79 | 0.00 |
| 1-2 Years | 32.67 | 50.00 | 33.33 | 31.58 | 0.00 |
| 3-4 Years | 10.93 | 0.00 | 16.67 | 10.53 | 0.00 |
| More than 4 Years | 28.00 | 0.00 | 16.67 | 31.58 | 0.00 |
| Other | 6.66 | 0.00 | 16.67 | 5.26 | 0.00 |
| Don't Know | 4.27 | 0.00 | 0.00 | 5.26 | 0.00 |
| n | 27 | 2 | 6 | 19 | 0 |
| In regards to the pipe insulation, if the program had not been available. Supposing that you had not installed the program qualifying insulation, which of the following alternatives would you have been MOST likely to do? Would you have... | | | | | |
| Installed fewer linear feet of pipe insulation | 4.00 | 0.00 | 0.00 | 4.55 | 0.00 |
| Installed insulation with a lower R Value (thinner) | 8.00 | 0.00 | 0.00 | 9.09 | 0.00 |
| Install equipment more efficient than code but less efficient than what you installed through the program | 8.00 | 0.00 | 0.00 | 9.09 | 0.00 |
| Repaired/or overhauled the existing equipment | 33.75 | 0.00 | 0.00 | 27.27 | 100.00 |
| Installed Later | 16.00 | 0.00 | 0.00 | 18.18 | 0.00 |
| No Change | 22.24 | 0.00 | 100.00 | 22.73 | 0.00 |
| Get different insulation | 4.00 | 0.00 | 0.00 | 4.55 | 0.00 |
| Don't Know | 4.00 | 0.00 | 0.00 | 4.55 | 0.00 |
| n | 24 | 0 | 1 | 22 | 1 |
| How many fewer linear feet of insulation would you have installed? | | | | | |
| 2000 ft. | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| n | 1 | 0 | 0 | 1 | 0 |
| Can you tell me what R value or insulation thickness you would have installed without assistance from the program? | | | | | |
| Probably 3/4 inch | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| Probably the lowest R value | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| n | 2 | 0 | 0 | 2 | 0 |
| How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement? | | | | | |
| 2 to 5 years. | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| 2 years | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| n | 2 | 0 | 0 | 2 | 0 |
| When did you first learn about &PROGRAM? Was it BEFORE or AFTER you first began to think about installing Pipe Insulation? | | | | | |
| Before | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| Don't Know | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| n | 2 | 0 | 0 | 2 | 0 |
| Did you learn about &PROGRAM BEFORE or AFTER you decided to implement the Pipe Insulation that was installed? | | | | | |
| Before | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| n | 1 | 0 | 0 | 1 | 0 |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| N3A_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the age or condition of the old equipment in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | 1 NOT AT ALL IMPORTANT | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | 5 | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3B_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the availability of the PROGRAM rebate in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | 10 EXTREMELY IMPORTANT | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| | | | | | | |
| N3BWHY_ | Why would you give the availability of the program rebate this rating for pipe insulation? | | | | | |
| | Saves money | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | Made the store cooler | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3D_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the Recommendation from an equipment vendor that sold you Pipe Insulation and/or installed it in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | 3 | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | 8 | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3E_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of your previous experience with this Pipe Insulation in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | Not Applicable | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3F_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of your previous experience with the utility &PROGRAM or a similar utility program in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | Don't Know | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3J_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of standard practice in your business/industry in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | 2 | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3L_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the endorsement or recommendation by an ACCT REP in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | 5 | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | n | 1 | 0 | 0 | 1 | 0 |
| | | | | | | |
| N3M_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of corporate policy or guidelines in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | ZERO NOT AT ALL IMPORTANT | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | 10 EXTREMELY IMPORTANT | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| N3N_PI | On a 0-10 scale, where 0 is the least influential and 10 is the most influential, please rank the influence of the payback on the investment in your decision to replace the pipe insulation through the rebate program. | | | | | |
| | 10 EXTREMELY IMPORTANT | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | n | 2 | 0 | 0 | 2 | 0 |
| | | | | | | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL(%) | Strata 1(%) | Strata 2(%) | Strata 3(%) | Corporate(%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-------------|-------------|--------------|
| N3O_PI | <p>Were there any other factors we haven't discussed that were influential in your decision to install this Pipe Insulation?</p> <p>Nothing else influential 50.00 0.00 0.00 50.00 0.00</p> <p>Savings 50.00 0.00 0.00 50.00 0.00</p> <p>n 2 0 0 2 0</p> | | | | | |
| N3O_TEN | <p>Using the same zero to 10 scale, how would you rate the influence of this other factor in your decision to install pipe insulation?</p> <p>10 EXTREMELY IMPORTANT 100.00 0.00 0.00 100.00 0.00</p> <p>n 1 0 0 1 0</p> | | | | | |
| N41_PI | <p>I would like you to rate the importance of the PROGRAM in your decision to install this pipe insulation as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many of the ten points would you give to the importance of the PROGRAM in your decision?</p> <p>5 50.00 0.00 0.00 50.00 0.00</p> <p>Don't Know 50.00 0.00 0.00 50.00 0.00</p> <p>n 2 0 0 2 0</p> | | | | | |
| N42_PI | <p>I would like you to rate the importance of the PROGRAM in your decision to install this pipe insulation as opposed to other factors that may have influenced your decision. If you were given 10 points to award in total, how many points would you give to these other factors?</p> <p>5 50.00 0.00 0.00 50.00 0.00</p> <p>Don't Know 50.00 0.00 0.00 50.00 0.00</p> <p>n 2 0 0 2 0</p> | | | | | |
| N5_PI | <p>Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the PROGRAM had not been available, what is the likelihood that you would have installed exactly the same pipe insulation?</p> <p>1 NOT AT ALL LIKELY 50.00 0.00 0.00 50.00 0.00</p> <p>5 50.00 0.00 0.00 50.00 0.00</p> <p>n 2 0 0 2 0</p> | | | | | |
| N5B_PI | <p>In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install the Pipe Insulation. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy?</p> <p>Much more important 100.00 0.00 0.00 100.00 0.00</p> <p>n 1 0 0 1 0</p> | | | | | |
| N9_PI | <p>You indicated in your response to a previous question that there was a <N5> in 10 likelihood that you would have installed the same pipe insulation if THE PROGRAM had not been available. When do you think you would have installed this pipe insulation Please express your answer in months.</p> <p>2 to 3 years 100.00 0.00 0.00 100.00 0.00</p> <p>n 2 0 0 2 0</p> | | | | | |
| TD1_PI | <p>So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you would have installed the same pipe insulation within 60 months, or 5 years, later if the program had not been available?</p> <p>ZERO NOT AT ALL LIKELY 50.00 0.00 0.00 50.00 0.00</p> <p>3 50.00 0.00 0.00 50.00 0.00</p> <p>n 2 0 0 2 0</p> | | | | | |

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B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) | |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------|--------------|--------------|---------------|------|
| TD2_PI | And what would you say is the likelihood that you would have installed the same pipe insulation within 120 months, or 10 years, later if the program had not been available? | | | | | | |
| | | 2 | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | | 5 | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | | n | 2 | 0 | 0 | 2 | 0 |
| N6_PI | Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do? | | | | | | |
| | | Repaired existing insulation | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | | Done nothing | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| | | n | 2 | 0 | 0 | 2 | 0 |
| N6C_PI | How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement? | | | | | | |
| | | One year to one and one half year | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 |
| | | | n | 1 | 0 | 0 | 1 |
| P1 | What financial calculations does your company make before proceeding with installation of energy efficient equipment like steam traps? | | | | | | |
| | | No calculations | 57.64 | 33.33 | 75.00 | 0.00 | 0.00 |
| | | Ultrasonic device to estimate steam loss | 13.89 | 33.33 | 0.00 | 0.00 | 0.00 |
| | | Simple calculation | 14.58 | 0.00 | 25.00 | 0.00 | 0.00 |
| | | Database shows how much energy we lose | 13.89 | 33.33 | 0.00 | 0.00 | 0.00 |
| | | n | 7 | 3 | 4 | 0 | 0 |
| P2 | What is the payback cut-off point your company uses (in months) before deciding to proceed with an investment? | | | | | | |
| | | 0 to 6 months | 14.58 | 0.00 | 25.00 | 0.00 | 0.00 |
| | | 6 months to 1 year | 13.89 | 33.33 | 0.00 | 0.00 | 0.00 |
| | | Other | 13.89 | 33.33 | 0.00 | 0.00 | 0.00 |
| | | Don't Know | 57.64 | 33.33 | 75.00 | 0.00 | 0.00 |
| | | n | 7 | 3 | 4 | 0 | 0 |
| P3A | What was the payback calculation for this MEASURE (in months) with the rebate from the Program? | | | | | | |
| | | No calculation | 43.06 | 33.33 | 50.00 | 0.00 | 0.00 |
| | | 6 - 12 months | 13.89 | 33.33 | 0.00 | 0.00 | 0.00 |
| | | Energy loss valued at \$750 per year | 13.89 | 33.33 | 0.00 | 0.00 | 0.00 |
| | | Don't Know | 29.17 | 0.00 | 50.00 | 0.00 | 0.00 |
| | | n | 7 | 3 | 4 | 0 | 0 |
| P3B | And what was the payback calculation for this Measure (in months) without the rebate from the Program? | | | | | | |
| | | No calculation | 43.06 | 33.33 | 50.00 | 0.00 | 0.00 |
| | | 6 - 12 months | 13.89 | 33.33 | 0.00 | 0.00 | 0.00 |
| | | Don't Know | 43.06 | 33.33 | 50.00 | 0.00 | 0.00 |
| | | | n | 7 | 3 | 4 | 0 |
| P3C | Even without the rebate, this measure met your company's financial payback criteria. Would you have gone ahead with it even without the rebate? | | | | | | |
| | | yes, but installed fewer units | 33.87 | 0.00 | 50.00 | 0.00 | 0.00 |
| | | No | 33.87 | 0.00 | 50.00 | 0.00 | 0.00 |
| | | yes, but installed fewer units | 32.26 | 100.00 | 0.00 | 0.00 | 0.00 |
| | | | n | 3 | 1 | 2 | 0 |
| CP1 | Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be a "buy Green" or use sustainable approaches to business investments? And if yes, Can I obtain a copy of this policy? | | | | | | |
| | | Yes | 100.00 | 100.00 | 100.00 | 0.00 | 0.00 |
| | | | n | 4 | 2 | 2 | 0 |
| CP2 | What specific corporate policy influenced your decision to install these measures? | | | | | | |
| | | Improve energy efficiency | 51.22 | 0.00 | 100.00 | 0.00 | 0.00 |
| | | Below 10% trap failure rate | 24.39 | 50.00 | 0.00 | 0.00 | 0.00 |
| | | Below 5% trap failure rate | 24.39 | 50.00 | 0.00 | 0.00 | 0.00 |
| | | | n | 4 | 2 | 2 | 0 |
| CP3 | Had that policy caused you to retrofit or install steam traps at this facility before participating in the PROGRAM? | | | | | | |
| | | Yes | 25.61 | 0.00 | 50.00 | 0.00 | 0.00 |

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B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | No | 74.39 | 100.00 | 50.00 | 0.00 | 0.00 |
| | n | 4 | 2 | 2 | 0 | 0 |
| CP4 | Had that policy caused you to retrofit or install steam traps at other facilities before participating in the PROGRAM? | | | | | |
| | Yes | 25.61 | 0.00 | 50.00 | 0.00 | 0.00 |
| | No | 25.61 | 0.00 | 50.00 | 0.00 | 0.00 |
| | Don't Know | 48.78 | 100.00 | 0.00 | 0.00 | 0.00 |
| | n | 4 | 2 | 2 | 0 | 0 |
| CP5 | Did you receive an incentive for a previous installation of steam traps? If so, please describe the amount of incentive received, the approximate timing and the name of the program that provided it. | | | | | |
| | Did not receive a previous installation | 74.39 | 100.00 | 50.00 | 0.00 | 0.00 |
| | Cooling Equipment | 25.61 | 0.00 | 50.00 | 0.00 | 0.00 |
| | n | 4 | 2 | 2 | 0 | 0 |
| CP6 | If I understand you correctly, you said that your company's corporate policy has caused you to retrofit or install steam traps previously at this and/or other facilities. I want to make sure I fully understand how this corporate policy influenced your decision versus the PROGRAM. Can you please clarify that? | | | | | |
| | Steambusters program helps us save energy | 100.00 | 0.00 | 100.00 | 0.00 | 0.00 |
| | n | 1 | 0 | 1 | 0 | 0 |
| SP1A | Approximately how long have steam traps been a standard practice in your industry? | | | | | |
| | Always | 100.00 | 100.00 | 100.00 | 0.00 | 0.00 |
| | n | 5 | 1 | 4 | 0 | 0 |
| SP1B | Approximately how long has regular maintenance and retrofitting of STEAM TRAPS been a practice in your industry? | | | | | |
| | Always | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| | n | 2 | 2 | 0 | 0 | 0 |
| SP2 | Does your company ever deviate from the standard practice? IF so, Under what conditions does your company deviate? | | | | | |
| | Yes, should have replace steam traps before | 66.13 | 100.00 | 50.00 | 0.00 | 0.00 |
| | Yes, trying to make our program better than code | 16.94 | 0.00 | 25.00 | 0.00 | 0.00 |
| | Standardize/bulk installation of steam traps | 16.94 | 0.00 | 25.00 | 0.00 | 0.00 |
| | n | 6 | 2 | 4 | 0 | 0 |
| SP3 | How did this standard practice influence your decision to install these Steam traps? | | | | | |
| | No influence | 19.42 | 50.00 | 0.00 | 0.00 | 0.00 |
| | Replace traps as needed | 40.78 | 0.00 | 66.67 | 0.00 | 0.00 |
| | Don't Know | 39.81 | 50.00 | 33.33 | 0.00 | 0.00 |
| | n | 5 | 2 | 3 | 0 | 0 |
| SP3A | Could you please rate the importance of the program versus the standard industry practice in influencing your decision to install this measure. | | | | | |
| | Somewhat more important | 19.42 | 50.00 | 0.00 | 0.00 | 0.00 |
| | Equally important as industry practice | 20.39 | 0.00 | 33.33 | 0.00 | 0.00 |
| | Much less important than industry practice | 60.19 | 50.00 | 66.67 | 0.00 | 0.00 |
| | n | 5 | 2 | 3 | 0 | 0 |
| SP4 | What industry group or trade organization do you look to when establishing standard practice for your industry? | | | | | |
| | look at industry standards and fit them to our facility | 19.42 | 50.00 | 0.00 | 0.00 | 0.00 |
| | Other Refineries | 39.81 | 50.00 | 33.33 | 0.00 | 0.00 |
| | DONT KNOW | 40.78 | 0.00 | 66.67 | 0.00 | 0.00 |
| | n | 5 | 2 | 3 | 0 | 0 |
| SP5 | How do you and other firms in your industry receive information on updates in standard practices? | | | | | |
| | Other Refineries | 19.42 | 50.00 | 0.00 | 0.00 | 0.00 |
| | Industry studies | 20.39 | 0.00 | 33.33 | 0.00 | 0.00 |
| | Don't Know | 60.19 | 50.00 | 66.67 | 0.00 | 0.00 |

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B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | n | 5 | 2 | 3 | 0 | 0 |
| | | | | | | |
| OI1 | Who provided the most assistance in the choice to retrofit your Steam traps? | | | | | |
| | In-House Engineer/Maintenance Staff | 100.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| | n | 1 | 1 | 0 | 0 | 0 |
| | | | | | | |
| SPILL1 | Did you implement any additional energy efficiency measures at this facility since your participation in the 2006-2008 Program and before the end of 2008 that did not receive incentives through any utility or government program? | | | | | |
| | Yes | 34.26 | 50.00 | 25.00 | 34.29 | 42.25 |
| | No | 59.56 | 25.00 | 75.00 | 59.05 | 57.75 |
| | Don't Know | 6.18 | 25.00 | 0.00 | 6.67 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| | | | | | | |
| SPILL2_1 | What was the first Measure that you implemented? | | | | | |
| | Trap monitoring | 7.19 | 0.00 | 0.00 | 8.33 | 0.00 |
| | New traps | 4.79 | 0.00 | 0.00 | 5.56 | 0.00 |
| | Vacuum system | 2.40 | 0.00 | 0.00 | 2.78 | 0.00 |
| | Lighting | 10.92 | 0.00 | 25.00 | 11.11 | 0.00 |
| | Insulation | 20.51 | 0.00 | 25.00 | 22.22 | 0.00 |
| | New boiler/boiler controls | 10.86 | 50.00 | 0.00 | 11.11 | 0.00 |
| | Energy efficient motors | 4.79 | 0.00 | 0.00 | 5.56 | 0.00 |
| | Condensate recovery | 4.79 | 0.00 | 0.00 | 5.56 | 0.00 |
| | Thermal oxidizer | 2.40 | 0.00 | 0.00 | 2.78 | 0.00 |
| | Repaired air leaks | 2.40 | 0.00 | 0.00 | 2.78 | 0.00 |
| | Sky lights | 5.83 | 0.00 | 0.00 | 0.00 | 100.00 |
| | Computers | 1.34 | 0.00 | 25.00 | 0.00 | 0.00 |
| | Steam traps | 4.79 | 0.00 | 0.00 | 5.56 | 0.00 |
| | Joints | 2.40 | 0.00 | 0.00 | 2.78 | 0.00 |
| | Solar Power | 2.40 | 0.00 | 0.00 | 2.78 | 0.00 |
| | Cooling Equipment | 3.67 | 50.00 | 0.00 | 2.78 | 0.00 |
| | Don't Know | 8.53 | 0.00 | 25.00 | 8.33 | 0.00 |
| | n | 43 | 2 | 4 | 36 | 1 |
| | | | | | | |
| SPILL2_2 | What was the second measure? | | | | | |
| | No Other | 39.11 | 0.00 | 33.33 | 33.33 | 100.00 |
| | Condensate return | 7.11 | 0.00 | 0.00 | 8.33 | 0.00 |
| | Energy efficient motors | 7.11 | 0.00 | 0.00 | 8.33 | 0.00 |
| | General gas reductions | 3.56 | 0.00 | 0.00 | 4.17 | 0.00 |
| | Insulation | 10.67 | 0.00 | 0.00 | 12.50 | 0.00 |
| | Lighting | 7.11 | 0.00 | 0.00 | 8.33 | 0.00 |
| | Steam sensors | 3.56 | 0.00 | 0.00 | 4.17 | 0.00 |
| | Energy efficient equipment | 7.11 | 0.00 | 0.00 | 8.33 | 0.00 |
| | Installing venturis for air assist devices | 3.56 | 0.00 | 0.00 | 4.17 | 0.00 |
| | VFD | 3.56 | 0.00 | 0.00 | 4.17 | 0.00 |
| | Burners | 3.56 | 0.00 | 0.00 | 4.17 | 0.00 |
| | Don't Know | 3.98 | 0.00 | 66.67 | 0.00 | 0.00 |
| | n | 28 | 0 | 3 | 24 | 1 |
| | | | | | | |
| SPILL2_3 | What was the third measure? | | | | | |
| | No Other | 78.57 | 0.00 | 0.00 | 78.57 | 0.00 |
| | Lighting | 14.29 | 0.00 | 0.00 | 14.29 | 0.00 |
| | VFD | 7.14 | 0.00 | 0.00 | 7.14 | 0.00 |
| | n | 14 | 0 | 0 | 14 | 0 |
| | | | | | | |
| MEAS1_2 | I have a few questions about the FIRST Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | | | | | |
| | Didn't qualify | 14.35 | 0.00 | 25.00 | 15.15 | 0.00 |
| | Didn't apply | 7.74 | 0.00 | 0.00 | 9.09 | 0.00 |
| | Not aware of rebate at time | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Only minor installations | 5.16 | 0.00 | 0.00 | 6.06 | 0.00 |
| | Didn't know about the rebate | 23.15 | 50.00 | 0.00 | 18.18 | 100.00 |
| | Installed through new construction/after | 11.77 | 0.00 | 25.00 | 12.12 | 0.00 |
| | Lost utility rep | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | First plant to do it | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Trying to apply retroactively | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | District regulation | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Had done it through a program | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Difficult to apply | 5.16 | 0.00 | 0.00 | 6.06 | 0.00 |
| | Timing didn't work out | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Project was already in place | 1.38 | 50.00 | 0.00 | 0.00 | 0.00 |
| | Power purchase agreement | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Don't Know | 10.63 | 0.00 | 50.00 | 9.09 | 0.00 |
| | n | 40 | 2 | 4 | 33 | 1 |
| | | | | | | |
| MEAS1_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | | | | | |

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B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|
| | Skylights | 8.99 | 0.00 | 0.00 | 3.03 | 100.00 |
| | Installed Steam traps | 13.09 | 0.00 | 0.00 | 15.15 | 0.00 |
| | Installed Lighting | 6.70 | 0.00 | 25.00 | 6.06 | 0.00 |
| | New Motors | 5.23 | 0.00 | 0.00 | 6.06 | 0.00 |
| | New boiler | 5.23 | 0.00 | 0.00 | 6.06 | 0.00 |
| | Vanes | 1.46 | 0.00 | 25.00 | 0.00 | 0.00 |
| | Large measure | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Insulation repair/replacement | 18.32 | 0.00 | 0.00 | 21.21 | 0.00 |
| | High cost to savings ratio | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Water pumps | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Computers | 1.46 | 0.00 | 25.00 | 0.00 | 0.00 |
| | Joints | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Replaced condensate header | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Refused | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | Don't Know | 23.80 | 100.00 | 25.00 | 24.24 | 0.00 |
| | n | 39 | 1 | 4 | 33 | 1 |
| | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | | | | | |
| MEAS1_4 | Yes | 14.35 | 0.00 | 25.00 | 15.15 | 0.00 |
| | No | 81.62 | 100.00 | 50.00 | 81.82 | 100.00 |
| | Don't Know | 4.03 | 0.00 | 25.00 | 3.03 | 0.00 |
| | n | 40 | 2 | 4 | 33 | 1 |
| | How significant was your experience in the 2006–2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | | | | | |
| MEAS1_5 | ZERO -NOT AT ALL SIGNIFICANT | 46.69 | 50.00 | 50.00 | 42.42 | 100.00 |
| | 1 | 5.16 | 0.00 | 0.00 | 6.06 | 0.00 |
| | 2 | 6.61 | 0.00 | 25.00 | 6.06 | 0.00 |
| | 3 | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | 6 | 7.74 | 0.00 | 0.00 | 9.09 | 0.00 |
| | 7 | 6.54 | 50.00 | 0.00 | 6.06 | 0.00 |
| | 8 | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | 9 | 4.03 | 0.00 | 25.00 | 3.03 | 0.00 |
| | 10 EXTREMELY SIGNIFICANT | 15.49 | 0.00 | 0.00 | 18.18 | 0.00 |
| | Don't Know | 2.58 | 0.00 | 0.00 | 3.03 | 0.00 |
| | n | 40 | 2 | 4 | 33 | 1 |
| | Why do you give it this rating? | | | | | |
| MEAS1_6 | No influence on decision | 10.67 | 100.00 | 0.00 | 3.13 | 100.00 |
| | We would do it anyway | 32.25 | 0.00 | 0.00 | 37.50 | 0.00 |
| | Helped us become aware of Utility training, new rebates | 5.38 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Rebate influence | 14.94 | 0.00 | 25.00 | 15.63 | 0.00 |
| | Program made us aware of energy efficient products | 5.38 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Good program | 2.69 | 0.00 | 0.00 | 3.13 | 0.00 |
| | Unrelated project | 11.07 | 0.00 | 50.00 | 9.38 | 0.00 |
| | Saves energy | 2.69 | 0.00 | 0.00 | 3.13 | 0.00 |
| | Didn't know about the program | 2.69 | 0.00 | 0.00 | 3.13 | 0.00 |
| | Wasn't important until after the project was completed | 2.69 | 0.00 | 0.00 | 3.13 | 0.00 |
| | Triggered thinking about it | 2.69 | 0.00 | 0.00 | 3.13 | 0.00 |
| | Other | 2.69 | 0.00 | 0.00 | 3.13 | 0.00 |
| | Don't Know | 4.19 | 0.00 | 25.00 | 3.13 | 0.00 |
| | n | 38 | 1 | 4 | 32 | 1 |
| | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | | | | | |
| MEAS1_7 | ZERO -DEFINITELY WOULD NOT HAVE | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | 3 | 5.23 | 0.00 | 0.00 | 6.06 | 0.00 |
| | 5 | 6.70 | 0.00 | 25.00 | 6.06 | 0.00 |
| | 6 | 5.23 | 0.00 | 0.00 | 6.06 | 0.00 |
| | 7 | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | 8 | 10.47 | 0.00 | 0.00 | 12.12 | 0.00 |
| | 9 | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | 10 WOULD DEFINITELY IMPLEMENTED | 61.89 | 100.00 | 75.00 | 57.58 | 100.00 |
| | Don't Know | 2.62 | 0.00 | 0.00 | 3.03 | 0.00 |
| | n | 39 | 1 | 4 | 33 | 1 |
| | I have a few questions about the SECOND Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | | | | | |
| MEAS2_2 | Didn't qualify | 18.75 | 0.00 | 0.00 | 18.75 | 0.00 |
| | Didn't apply | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Only minor installations | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Didn't know about the rebate | 18.75 | 0.00 | 0.00 | 18.75 | 0.00 |
| | Best maintenance practice | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Did not want to wait for program | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Getting a rebate | 12.50 | 0.00 | 0.00 | 12.50 | 0.00 |
| | Purchased at auction | 12.50 | 0.00 | 0.00 | 12.50 | 0.00 |
| | Don't Know | 12.50 | 0.00 | 0.00 | 12.50 | 0.00 |
| | n | 16 | 0 | 0 | 16 | 0 |

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B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|---------------|
| MEAS2_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | | | | | |
| | Laundry Equipment | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Installed Steam traps | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Installed Lighting | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | New Motors | 12.50 | 0.00 | 0.00 | 12.50 | 0.00 |
| | Insulation repair/replacement | 12.50 | 0.00 | 0.00 | 12.50 | 0.00 |
| | Installed condensate return | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Installed p8 lighting | 12.50 | 0.00 | 0.00 | 12.50 | 0.00 |
| | Not Applicable | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | Don't Know | 31.25 | 0.00 | 0.00 | 31.25 | 0.00 |
| | n | 16 | 0 | 0 | 16 | 0 |
| MEAS2_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | | | | | |
| | Yes | 18.75 | 0.00 | 0.00 | 18.75 | 0.00 |
| | No | 81.25 | 0.00 | 0.00 | 81.25 | 0.00 |
| | n | 16 | 0 | 0 | 16 | 0 |
| MEAS2_5 | How significant was your experience in the 2006–2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | | | | | |
| | ZERO -NOT AT ALL SIGNIFICANT | 37.50 | 0.00 | 0.00 | 37.50 | 0.00 |
| | 1 | 18.75 | 0.00 | 0.00 | 18.75 | 0.00 |
| | 3 | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | 5 | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | 6 | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| | 10 EXTREMELY SIGNIFICANT | 18.75 | 0.00 | 0.00 | 18.75 | 0.00 |
| | Don't Know | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| n | 16 | 0 | 0 | 16 | 0 | |
| MEAS2_6 | Why do you give it this rating? | | | | | |
| | No influence on decision | 20.00 | 0.00 | 0.00 | 20.00 | 0.00 |
| | We would do it anyway | 13.33 | 0.00 | 0.00 | 13.33 | 0.00 |
| | Rebate influence | 13.33 | 0.00 | 0.00 | 13.33 | 0.00 |
| | Program made us aware of energy efficient | 20.00 | 0.00 | 0.00 | 20.00 | 0.00 |
| | Unrelated project | 13.33 | 0.00 | 0.00 | 13.33 | 0.00 |
| | Saves energy | 13.33 | 0.00 | 0.00 | 13.33 | 0.00 |
| | Didn't know about the program | 6.67 | 0.00 | 0.00 | 6.67 | 0.00 |
| | n | 15 | 0 | 0 | 15 | 0 |
| | MEAS2_7 | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | | | | |
| 4 | | 18.75 | 0.00 | 0.00 | 18.75 | 0.00 |
| 7 | | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| 8 | | 6.25 | 0.00 | 0.00 | 6.25 | 0.00 |
| 10 WOULD DEFINITELY IMPLEMENTED | | 68.75 | 0.00 | 0.00 | 68.75 | 0.00 |
| n | 16 | 0 | 0 | 16 | 0 | |
| MEAS3_2 | I have a few questions about the THIRD Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | | | | | |
| | Leftover ones not completed in rebate | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | Already purchased them | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | No funding available at the time | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| n | 3 | 0 | 0 | 3 | 0 | |
| MEAS3_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | | | | | |
| | pump motors | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | lighting fixtures | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | 50 ft of pipe insulation | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| n | 3 | 0 | 0 | 3 | 0 | |
| MEAS3_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | | | | | |
| | Yes | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | No | 66.67 | 0.00 | 0.00 | 66.67 | 0.00 |
| n | 3 | 0 | 0 | 3 | 0 | |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) | |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|------|
| MEAS3_5 | How significant was your experience in the 2006–2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | | | | | | |
| | ZERO-NOT AT ALL SIGNIFICANT | 66.67 | 0.00 | 0.00 | 66.67 | 0.00 | |
| | | 2 | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | n | 3 | 0 | 0 | 3 | 0 | |
| MEAS3_6 | Why do you give it this rating? | | | | | | |
| | Would have done it anyway | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 | |
| | Payback was already there | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 | |
| | n | 2 | 0 | 0 | 2 | 0 | |
| MEAS3_7 | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | | | | | | |
| | ZERO-DEFINITELY WOULD NOT HAVE | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 | |
| | | 8 | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 |
| | 10 WOULD DEFINITELY IMPLEMENTED | 33.33 | 0.00 | 0.00 | 33.33 | 0.00 | |
| n | 3 | 0 | 0 | 3 | 0 | | |
| CAFAC1 | Now, thinking about other facilities operated by your organization in the regions of California that are served by PG&E, SCE, SDG&E or Southern California Gas Company, are you aware of any additional energy efficiency measures implemented at these other facilities since your participation in the 2006-2008 program and before the end of 2008 that did not receive an incentive through a utility or government program? | | | | | | |
| | Yes | 3.68 | 25.00 | 6.25 | 3.13 | 0.00 | |
| | No | 84.54 | 50.00 | 87.50 | 84.38 | 100.00 | |
| | Don't Know | 11.78 | 25.00 | 6.25 | 12.50 | 0.00 | |
| n | 118 | 4 | 16 | 96 | 2 | | |
| CAFAC2.1 | What was the first Measure that you implemented? | | | | | | |
| | Steam traps | 24.43 | 0.00 | 0.00 | 33.33 | 0.00 | |
| | Bioqas recovery | 24.43 | 0.00 | 0.00 | 33.33 | 0.00 | |
| | Notified corporate of the program and they distributed info through the internet | 24.43 | 0.00 | 0.00 | 33.33 | 0.00 | |
| | Heat exchanger | 13.02 | 100.00 | 0.00 | 0.00 | 0.00 | |
| | Don't Know | 13.68 | 0.00 | 100.00 | 0.00 | 0.00 | |
| n | 5 | 1 | 1 | 3 | 0 | | |
| CAFAC2.2 | What was the second measure? | | | | | | |
| | No Other | 84.28 | 0.00 | 0.00 | 100.00 | 0.00 | |
| | Don't Know | 15.72 | 0.00 | 100.00 | 0.00 | 0.00 | |
| n | 4 | 0 | 1 | 3 | 0 | | |
| CAFAC2.3 | What was the third measure? | | | | | | |
| | No Other | 64.12 | 0.00 | 0.00 | 100.00 | 0.00 | |
| | Don't Know | 35.88 | 0.00 | 100.00 | 0.00 | 0.00 | |
| n | 2 | 0 | 1 | 1 | 0 | | |
| MSURE1_1 | I have a few questions about .the FIRST MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? | | | | | | |
| | Yes | 48.87 | 0.00 | 0.00 | 66.67 | 0.00 | |
| | No | 37.46 | 100.00 | 0.00 | 33.33 | 0.00 | |
| | Don't Know | 13.68 | 0.00 | 100.00 | 0.00 | 0.00 | |
| n | 5 | 1 | 1 | 3 | 0 | | |
| MSURE1_2 | Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | | | | | | |
| | Don't Know | 100.00 | 100.00 | 100.00 | 100.00 | 0.00 | |
| n | 3 | 1 | 1 | 1 | 0 | | |
| MSURE1_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | | | | | | |
| | Don't Know | 100.00 | 100.00 | 0.00 | 100.00 | 0.00 | |

* Values are shown as percent of survey participants.
* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) | |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|--------------|--------------|---------------|---|
| | | n | 2 | 1 | 0 | 1 | 0 |
| MSURE1_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | | | | | | |
| | No | 65.23 | 0.00 | 0.00 | 100.00 | 0.00 | |
| | Internal Company Audit | 34.77 | 100.00 | 0.00 | 0.00 | 0.00 | |
| | n | 2 | 1 | 0 | 1 | 0 | |
| MSURE1_5 | How significant was your experience in the 2006–2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | | | | | | |
| | 5 | 65.23 | 0.00 | 0.00 | 100.00 | 0.00 | |
| | Don't Know | 34.77 | 100.00 | 0.00 | 0.00 | 0.00 | |
| | n | 2 | 1 | 0 | 1 | 0 | |
| MSURE1_6 | Why do you give it this rating? | | | | | | |
| | Don't Know | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | |
| | n | 1 | 0 | 0 | 1 | 0 | |
| MSURE1_7 | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | | | | | | |
| | 5 | 65.23 | 0.00 | 0.00 | 100.00 | 0.00 | |
| | Don't Know | 34.77 | 100.00 | 0.00 | 0.00 | 0.00 | |
| | n | 2 | 1 | 0 | 1 | 0 | |
| MSURE2_1 | I have a few questions about the SECOND MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? | | | | | | |
| | Don't Know | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | |
| | n | 1 | 0 | 0 | 1 | 0 | |
| C1 | Our records indicate that the primary business code for the facility that installed &MEASURE is &NAICS. Is that correct? | | | | | | |
| | YES | 25.08 | 100.00 | 71.43 | 19.32 | 40.60 | |
| | NO | 26.73 | 0.00 | 7.14 | 27.27 | 59.40 | |
| | Don't Know | 48.20 | 0.00 | 21.43 | 53.41 | 0.00 | |
| | n | 106 | 2 | 14 | 88 | 2 | |
| C2 | Please describe the type of work performed at this facility and/or the primary product made or main service provided. | | | | | | |
| | Manufacturing (not food) | 35.58 | 0.00 | 54.55 | 36.78 | 0.00 | |
| | Manufacturing (food) | 25.72 | 0.00 | 9.09 | 28.74 | 0.00 | |
| | Dry Cleaning | 14.52 | 0.00 | 0.00 | 13.79 | 59.40 | |
| | University | 4.03 | 0.00 | 0.00 | 4.60 | 0.00 | |
| | Hospital | 10.06 | 0.00 | 0.00 | 11.49 | 0.00 | |
| | Service | 2.01 | 0.00 | 0.00 | 2.30 | 0.00 | |
| | Wastewater treatment plant | 1.01 | 0.00 | 0.00 | 1.15 | 0.00 | |
| | Refinery | 3.83 | 100.00 | 27.27 | 0.00 | 0.00 | |
| | Nursery | 2.68 | 0.00 | 0.00 | 1.15 | 40.60 | |
| | Correctional facility for men | 0.56 | 0.00 | 9.09 | 0.00 | 0.00 | |
| | n | 104 | 4 | 11 | 87 | 2 | |
| C3 | Please describe any changes made to this site since January 2006 that significantly impacted energy usage. | | | | | | |
| | No changes | 39.21 | 0.00 | 21.43 | 41.91 | 28.88 | |
| | Added energy efficient equipment | 18.15 | 100.00 | 14.29 | 16.19 | 28.88 | |
| | Reduced due to economy | 5.79 | 0.00 | 7.14 | 3.81 | 42.25 | |
| | Higher Production/Increased Production | 5.80 | 0.00 | 0.00 | 6.67 | 0.00 | |
| | Decreased Production | 6.63 | 0.00 | 0.00 | 7.62 | 0.00 | |
| | Added non-energy efficient equipment | 4.24 | 0.00 | 14.29 | 3.81 | 0.00 | |
| | Plant modifications/renovations | 10.87 | 0.00 | 14.29 | 11.43 | 0.00 | |
| | Processing Food | 1.66 | 0.00 | 0.00 | 1.91 | 0.00 | |
| | Plant expansion | 1.29 | 0.00 | 7.14 | 0.95 | 0.00 | |
| | Changed to energy efficient lighting | 2.95 | 0.00 | 7.14 | 2.86 | 0.00 | |
| | Other | 0.83 | 0.00 | 0.00 | 0.95 | 0.00 | |
| | Refused | 0.83 | 0.00 | 0.00 | 0.95 | 0.00 | |
| | Don't Know | 1.76 | 0.00 | 14.29 | 0.95 | 0.00 | |
| | n | 126 | 4 | 14 | 105 | 3 | |

* Values are shown as percent of survey participants.

* n is the number of respondents.

B-2. STEAM TRAP INDUSTRIAL PARTICIPANTS SURVEYED

| | | ALL (%) | Strata 1 (%) | Strata 2 (%) | Strata 3 (%) | Corporate (%) |
|------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------|--------------|--------------|---------------|
| C4 | What kind of premise is this? | | | | | |
| | Part of a bldg | 5.77 | 0.00 | 0.00 | 6.67 | 0.00 |
| | 1 bldg-single footprint | 28.21 | 0.00 | 13.33 | 27.62 | 71.12 |
| | 1 bldg-mult footprints | 17.87 | 0.00 | 20.00 | 19.05 | 0.00 |
| | Small multi-bldg | 9.53 | 0.00 | 6.67 | 10.48 | 0.00 |
| | Campus | 38.61 | 100.00 | 60.00 | 36.19 | 28.88 |
| | n | 127 | 4 | 15 | 105 | 3 |
| C5 | What is the total occupied floor area of this premise (excluding enclosed parking garage area)? | | | | | |
| | Less than 10,000 square feet | 7.92 | 0.00 | 8.33 | 6.06 | 42.25 |
| | 10,000-25,000 square feet | 10.18 | 0.00 | 8.33 | 11.11 | 0.00 |
| | 25,000-50,000 square feet | 4.40 | 0.00 | 0.00 | 5.05 | 0.00 |
| | 50,000-100,000 square feet | 12.91 | 0.00 | 0.00 | 13.13 | 28.88 |
| | 100,000-250,000 square feet | 18.20 | 0.00 | 25.00 | 19.19 | 0.00 |
| | 250,000-500,000 square feet | 14.08 | 0.00 | 0.00 | 16.16 | 0.00 |
| | 500,000-750,000 square feet | 4.89 | 0.00 | 8.33 | 5.05 | 0.00 |
| | 750,000-1,000,000 square feet | 2.64 | 0.00 | 0.00 | 3.03 | 0.00 |
| | 1 million - 2 million square feet | 7.15 | 0.00 | 16.67 | 7.07 | 0.00 |
| | 2 million - 3 million square feet | 1.37 | 0.00 | 8.33 | 1.01 | 0.00 |
| | 4 million - 5 million square feet | 0.49 | 0.00 | 8.33 | 0.00 | 0.00 |
| | 5 million - 6 million square feet | 0.49 | 0.00 | 8.33 | 0.00 | 0.00 |
| | 6 million - 7 million square feet | 1.76 | 0.00 | 0.00 | 2.02 | 0.00 |
| | 10 million - 20 million square feet | 0.47 | 25.00 | 0.00 | 0.00 | 0.00 |
| | 50 million - 60 million square feet | 0.47 | 25.00 | 0.00 | 0.00 | 0.00 |
| | 110 million - 120 million square feet | 0.47 | 25.00 | 0.00 | 0.00 | 0.00 |
| | Don't Know | 12.11 | 25.00 | 8.33 | 11.11 | 28.88 |
| | n | 118 | 4 | 12 | 99 | 3 |
| | C6 | How many buildings are part of this premise? | | | | |
| 1 building | | 40.91 | 0.00 | 30.00 | 42.65 | 50.00 |
| 2 buildings | | 11.38 | 0.00 | 0.00 | 13.24 | 0.00 |
| 3 buildings | | 10.83 | 0.00 | 10.00 | 11.76 | 0.00 |
| 4 buildings | | 5.73 | 25.00 | 0.00 | 5.88 | 0.00 |
| 5 buildings | | 3.24 | 0.00 | 10.00 | 2.94 | 0.00 |
| 6 buildings | | 3.20 | 25.00 | 0.00 | 2.94 | 0.00 |
| 7 buildings | | 2.53 | 0.00 | 0.00 | 2.94 | 0.00 |
| 8 buildings | | 2.53 | 0.00 | 0.00 | 2.94 | 0.00 |
| 10 buildings | | 4.50 | 0.00 | 10.00 | 4.41 | 0.00 |
| 11 buildings | | 1.26 | 0.00 | 0.00 | 1.47 | 0.00 |
| 12 buildings | | 2.53 | 0.00 | 0.00 | 2.94 | 0.00 |
| 14 buildings | | 1.26 | 0.00 | 0.00 | 1.47 | 0.00 |
| 15 buildings | | 1.42 | 0.00 | 20.00 | 0.00 | 0.00 |
| More than 15 buildings | | 1.26 | 0.00 | 0.00 | 1.47 | 0.00 |
| No buildings | | 1.26 | 0.00 | 0.00 | 1.47 | 0.00 |
| Don't Know | | 6.13 | 50.00 | 20.00 | 1.47 | 50.00 |
| n | | 84 | 4 | 10 | 68 | 2 |
| C7 | Is this premise owner occupied or leased? | | | | | |
| | Owner occupied | 82.21 | 100.00 | 81.25 | 80.95 | 100.00 |
| | Leased | 15.23 | 0.00 | 6.25 | 17.14 | 0.00 |
| | Both | 1.28 | 0.00 | 6.25 | 0.95 | 0.00 |
| | Don't Know | 1.28 | 0.00 | 6.25 | 0.95 | 0.00 |
| n | 128 | 4 | 16 | 105 | 3 | |
| CC12A | What year was this business established at this location? | | | | | |
| | After 2000 | 11.95 | 0.00 | 6.25 | 13.33 | 0.00 |
| | In the 1990s | 18.15 | 0.00 | 12.50 | 20.00 | 0.00 |
| | In the 1980s | 11.13 | 0.00 | 6.25 | 12.38 | 0.00 |
| | In the 1970s | 15.32 | 0.00 | 0.00 | 16.19 | 28.88 |
| | In the 1960s | 9.92 | 25.00 | 12.50 | 7.62 | 42.25 |
| | In the 1950s | 7.12 | 0.00 | 18.75 | 6.67 | 0.00 |
| | Before 1950 | 23.95 | 75.00 | 43.75 | 20.95 | 28.88 |
| | Don't Know | 2.46 | 0.00 | 0.00 | 2.86 | 0.00 |
| | n | 128 | 4 | 16 | 105 | 3 |
| c9 | How many full-time equivalent employees work at this premise? | | | | | |
| | Less than 50 | 24.23 | 0.00 | 23.08 | 23.81 | 42.25 |
| | 50-100 | 18.31 | 0.00 | 0.00 | 20.95 | 0.00 |
| | 100-250 | 22.38 | 0.00 | 7.69 | 21.91 | 57.75 |
| | 250-500 | 9.77 | 50.00 | 23.08 | 8.57 | 0.00 |
| | 500-750 | 2.60 | 0.00 | 15.38 | 1.91 | 0.00 |
| | 750-1000 | 3.89 | 0.00 | 23.08 | 2.86 | 0.00 |
| | 1000-1250 | 2.96 | 0.00 | 7.69 | 2.86 | 0.00 |
| | 1250-1500 | 3.33 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 1500-1750 | 1.72 | 50.00 | 0.00 | 0.95 | 0.00 |
| | 2000-3000 | 1.66 | 0.00 | 0.00 | 1.91 | 0.00 |
| | 3000-4000 | 3.33 | 0.00 | 0.00 | 3.81 | 0.00 |
| | 10000-200000 | 0.83 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Refused | 0.83 | 0.00 | 0.00 | 0.95 | 0.00 |
| | Don't Know | 4.16 | 0.00 | 0.00 | 4.76 | 0.00 |
| | n | 125 | 4 | 13 | 105 | 3 |

* Values are shown as percent of survey participants.

* n is the number of respondents.

Appendix B-3

Industrial Steam Trap On-Site Protocols and On-Site Survey Form

This appendix provides general as well as page-by-page, field-specific protocols for completing the on-site survey form followed by the on-site survey form used for the steam trap evaluation. These protocols are being used to support the engineering analysis being completed for the HIM Steam Traps Evaluation. It also provides background information about the purpose of each field on the survey form, and guidelines for estimating data values, where appropriate.

Portions of the forms will be pre-populated with data from the recruitment phone survey and the IOU tracking databases. However, the majority of the forms in the survey instrument will be filled out using a combination of (a) personal interview (also referred to as a “self-report”) with the site contact or other knowledgeable individuals, (b) direct observation of the survey area, and (c) review of site documents. Judgment should be used to determine which information source will provide the best source for any specific data field.

General Instructions

General instructions, i.e. those that are not specific to a single survey form and/or address a general survey approach issue, are provided for the following topics:

- Before the Site Visit: Understand the Measure!
- Documenting the Information
- Supplemental Information
- Surveyor Check list

Each of these topics is discussed in detail below.

Before the Site Visit: Understand the Measures!

Prior to visiting the site, the measure summary sheet and/or printed survey form should be reviewed, and the surveyor should clearly understand the measures that will be verified.

Documenting the Information

All responses and field entries will be entered into a database. Therefore, when recording responses or data values, please use the following guidelines:

- All time values should be recorded on a 24-hour basis. For example, 9 am will be recorded as 0900, 3 pm will be recorded as 1500 (12+3=15), 8:30 pm is 2030 (12+8=20).
- Write all zeroes with an overstrike (0) to differentiate them from the letter 'O'.
- Write the number seven and last letter of the alphabet as 7 and Z, respectively.
- Use decimals (1.25), instead of fractions (1¼) when recording values.
- **Please print legibly** so that the data entry personnel do not have to struggle to read the data.
- Check boxes are scattered throughout the form, so be sure to use them when appropriate.
- Data fields must have a discrete value, not comments. If a discrete value does not accurately capture the observed situation, enter your best guess for the discrete value required by the survey form, but then explain in comments what the actual situation is, and use as much detail as needed.

Supplemental Information

Many additional sources of information can supplement the interview and the walkthrough. For example, the following sources can be very useful:

- Records submitted to AQMD that has the boiler efficiency
- Steam trap audit associated with rebated measures

If possible, request copies of these or other materials. The Site ID number and the surveyor's initials should be written on copy of the documents, and they should be attached to the completed survey form when it is turned in.

Surveyor Checklist

The following items should be taken to all verification site visits:

- ID Badge
- Letter of Introduction on CPUC letterhead (1 laminated, several loose copies)
- Printed survey form with site-specifics
- Training manual/handbook
- Extra copies of blank survey forms
- Digital camera (know how to use zoom to get nameplate photos)
- Flashlight
- Brush to clean the steam trap

Scheduling

Itron will print and send the recruited survey forms to ASW on a weekly basis. ASW will call the site contact and schedule on-site visit.

Check with Itron contact and update the text. ASW should request the survey audit form and it should be send to Itron if available. Itron will then send the scanned copy to ASW.

Form Cover

This page provides the key evaluation study identifiers for the site, as well as site location information, and survey tracking data.

General Site Information

All of these fields will be populated with data from the participant phone survey. If any of this information is found to be incorrect upon visiting the site, corrections should be made in the fields provided.

- **Itron SiteID:** This is a unique alphanumeric identifier created by Itron that is assigned to every customer. The first few characters typically identify the utility.
- **Sample Strata:** This is the name of the sample strata with which the site is identified. When the survey is completed, the site will count towards the sample quota for this strata.
- **EEGA Program #:** This is the identifier used by the CPUC's Energy Efficiency Groupware Application (<http://eega2006.cpuc.ca.gov/>) to track every utility program.

- **Evaluation Phase:** This identifies the phase of the evaluation effort, and relates to how the site data will be used.
- **Corporate (Multi-Site) Name:** This field would be used to identify sites that are part of a chain, franchised, property management group, etc. The corporate name may or may not be the same as the actual business name.
- **Business Name (Tracking Data):** This is the business name as extracted from the IOU tracking data. Rather than the actual business name, it might be the owner's name, a corporate name, etc.
- **Actual Business Name:** This alternate business name will be obtained from a web search conducted by the Itron data manager, and it should reflect the name on the business store front (the DBA or "doing business as" name)
- **Service Address, City, ZIP Code:** This is the location of the site as obtained from the IOU tracking database, and confirmed by the phone survey.

Corrections to Site Information

The fields in this section should be used to correct any observed problems with the site information listed in the previous fields. The information above should be validated when the on-site survey is scheduled.

- **Revised Corp. (Multi-Site) Name.** Record the corrected corporate name if different than that from the IOU tracking data.
- **Revised Business Name.** If at least one of the names in the two Business Name fields above does not reflect the name observed on the signage in front of the business, record the correct business name here. If the Business Name is abbreviated, please spell it out completely in this field.
- **Revised Service Address.** Record the correct service address for the site.
- **Revised City.** Record the correct city for the site. If drastically different than the original, contact Itron immediately.
- **Revised Zip.** Record the correct zip code for the site.

Site Contact Information

This information will be used to document the contacts used to gain access to the site. It will also be used in the event that follow-up information is needed, or a copy of the survey form and associated materials is requested. Data blocks for both primary and back-up contact information are provided. If more than two contacts are used, record that information in others and note the function provided by each contact.

- **Phone Survey Completion Date.** This is the date the phone survey was completed.
- **Phone Survey Respondent.** For reference, the contact information for the person who completed the phone survey is also provided here.
- **OS Other.** If an additional site contact is needed for the on-site survey, record that information in this row.
- **Survey Contact [check-box].** Use the check boxes in this column to indicate the contact(s) that actually assisted with the on-site verification survey.
- **Scheduling Notes/Special Instructions for On-Site Visit.** Use this comment block to record any special instructions related to the site visits obtained during scheduling of the on-site visit.

Survey Tracking Information

The information in this section will be used to track the date and responsible person for each significant step in the survey process.

- **Survey Company.** This field will be populated as much as possible by Itron, but if blank, it should be filled in by the surveyor. There are two team teams performing the on-site verification surveys; Itron and ASW
- **Assigned Surveyor's Initials.** Record the surveyor's initials, usually 3 letters.
- **Survey Duration (24 hr clock) Start / End.** Record the start time and end time of the survey on a 24 hour clock basis (e.g. 7:25 am = hour 0725, 1:05 pm = 1305).
- **Total Time (On-site+QC+Travel).** Record the total time needed to complete the on-site survey, including the time to do the survey, the traveling time and the time spent on quality checks before leaving the site. This should not include time spent back in the office.

The next set of fields is used to track the progression of the survey form at the key stages of the process. This information will be used to provide periodic progress reports to Itron.

- **Field survey completed.** Record the date the survey was conducted and the surveyor's initials.
- **Survey received at Itron.** Record the date when the completed survey form is received by Itron, and the initials of the person who received it.
- **Itron QC completed.** Record the date when the survey form is QCed by Itron staff, and the person who performed the QC review.
- **Returned to Survey Company.** Record the date when the survey form is tagged as needing to be returned to the surveyor for QC or other issues.

- **Data entry completed.** Record the date when the data entry is complete, and the initials of the person who entered the data.

Measure Summary

This section provides measure summary information from the tracking database. This table provides a summary of all the measures installed at that facility by measure code and pay date. Itron will populate this table for all the survey forms.

General Facility Information

The purpose of the fields under this heading is to obtain a general idea about the facility. Surveyor should collect this information from site contact and populate the survey form. These are important fields and **cannot** be left blank.

Verification Activity Checklist

This is a checklist of items that the surveyors should try to obtain during the onsite survey, which includes copy of steam trap audit, records submitted to AQMD (that has boiler efficiency) and pictures of boilers and steam traps. Surveyor should also give description of photos on the photo log form.

Gather information about the type of industrial facility. If “others,” specify and mention in the comments section. Also, describe the primary or secondary work of the facility. Make a note of the year when the business was first established or the year, the facility started functioning.

Reduction in Site Operation

The surveyor should collect information about how much business has been affected by the current recession. This may include details about reduction in no of operating hours, reduction in workforce, beginning of the first cutback, etc

Business Hours

The business hours for the site are documented on this form. Surveyor should enter the actual business hours and number of holidays of the facility in this section. If the business hours vary significantly during the year, seasonal operation periods and seasonal business hours table should be populated. “Seasonal operation” is any significant period during the year where the business hours are substantially different from normal business hours.

- **Day Type.** Self-explanatory, all the days of the week, and business hours must be defined for every day of the week.

- **Business Hours (24hr clock).** The business hours are recorded on a 24 hour clock. Example if a business is open from 8 am to 5 pm on Monday then record 0008 to 1700 against Monday.
- **Closed All Day (checkbox)?** Check this box if the facility or the business is closed on a certain day.
- **Open 24 hrs (checkbox)?** Check this box if the facility or the business is open for 24 hours on a certain day.

Seasonal Operation Periods and Holidays

Seasonal Operation Periods

If the operation does not vary by season, check the Not Applicable box. If seasonal business hours are defined, then specify the monthly periods to which the seasonal schedule applies. Provide a brief description of the period (e.g., “spring break”, “winter break”, “summer break”, “extended holiday hours”), and list the beginning/ending months (1-12) and approximate days for up to three time periods.

Seasonal Business Hours

N/A check box. Mark this check box if the facility or business does not have a varying business operation according to seasons.

These business hours apply to the *Time Periods* specified under “Seasonal Operation Periods.” The data and format is the same as described for the corrected normal business hours above.

The purpose of the fields under this heading is to create monthly schedules, if seasonal business hours are defined. All the holidays when the facility is closed are to be checked and the total numbers of holidays is noted down.

Hourly Hours Boiler Operation

The schedules are used to indicate operation of the boilers associated with rebated steam traps. Specify as many schedules as are needed to characterize the boiler operation and cover an entire week (MTWTFSS) for each schedule.

- **Sched#.** Enter a numeric value. This number will be used to associate the schedule with the boiler.
- **SchdType (circle one).** Circle the correct option between - % On or °F or PSIG - depending on the information available from site contact.

- **Description.** Record an appropriate description for this schedule.
- **Applicable Day Types.** Circle the applicable days and define a complete week.
- **Percent (%) of Equipment On/Temperature °F/ Pressure PSIG.** Specify the % of equipment on or temperature in degrees F or Pressure in PSIG for all time periods, and capture transition periods if known.

Form Boilers

Boilers: Type and Configuration

Surveyor should enter information about the boiler in this section. Surveyor should print out extra blank copies of this form in case there are more than three boilers at the facility.

- **Boiler #.** Each column should have a distinct boiler number.
- **Boiler Schedule #.** Each boiler should be linked with appropriate schedule number on the operation schedule form (page 4).
- **Fuel Type.** Please note down the appropriate fuel type in this field. If the fuel is mixture of utility gas and fuel gas then please enter appropriate % of utility gas in the following column. These fields mainly apply for the oil refineries where they use mixture of natural gas from utility and refinery gas.
- **Make and Model #.** The make and model # of the boiler should be obtained either from the name plate or the site contact. If possible, get the shop order # and the vendor's information who installed the boiler. Also, please take clear pictures of the nameplate on the boiler for future reference.
- **Boiler's Efficiency.** Surveyor also needs to obtain the actual boiler efficiency and it can be obtained from:
 - **Customer Record.** Check with site contact if they have any information about their measured boiler efficiency. This information might be obtained from the contractor when their boiler was serviced.
 - **Air Quality Management.** All the boilers rated over 2 Million Btu/hr are required to meet air quality regulations. Please ask the site contact if they have any paperwork that shows actual boiler efficiency. If site contact does not have that information then it can be obtained from SCAQMD but that is an extensive process.
 - **Flue Gas Analysis.** Surveyor should perform flue gas analysis to calculate the actual boiler efficiency.

If the boiler was serviced by a contractor then the surveyor should get the contact details of that contractor. In some cases, actual boiler efficiency can be obtained from this contractor.

- **Boiler Configuration.** The input and output rating (Btuh/unit) of the boiler can be obtained from the nameplate or the site contact.

Form Steam Traps

Steam Traps (Industrial)

Surveyor will enter information about the steam traps in this survey form. This form has specific information about the steam traps. Surveyor should collect information from enough steam traps to represent all the rebated units. All the steam traps with same type, size and traps with same steam conditions and other parameters can be represented by a single steam trap.

If the steam source for the trap is from a single boiler then please note down that number in “Boiler #” field.

Surveyor should clearly note down the make and model of the steam traps. It is very important to clearly identify the make and model number as orifice size is obtained from this information and it is one of the key parameter for the engineering analysis.

- **Steam trap tag or ID number.** If a trap has a useable tag number or ID number assigned to it by the customer then enter that information here. If several traps are being grouped together as they all share common key characteristics (see number of traps section below) then only enter one representative trap ID.
- **Location description.** Is the trap on a certain load like kettle #2 or the main water heater or some other identifiable steam load? Enter that information here. If several traps are being grouped together as they all share common key characteristics (see number of traps section below) then only enter one representative trap.
- **Measure code.** Refer to the verification section of the form (already filled pre-filled out) for measure codes. Codes are based on if the trap supply pressure is above or below 15 PSI.
- **Is the steam source from a common header with multiple boilers?** Is steam to the trap from just one particular boiler or is it from a common source (header) supplied from several different boilers.
- **Boiler.** If steam to the trap is just from one particular boiler then what is boiler # or description (if numbering is not used). Is it the south boiler, upper boiler or so on.
- **Number of traps represented.** If a group of traps all share the same key parameters of supply pressure, exhaust pressure, hours of exposure to pressurized steam and model number then they may all be grouped together as sharing the same common

- information, as opposed to having to complete this section for every trap. The amount of traps sharing these key characteristics is entered here.
- **Steam applications.** This is grouped into one of four general fields. They are space heating for customer comfort, process heating for cooking, chemical, drying, mixing, or other industrial processes. Water heating also covers secondary steam production or washing water steam. Other is a use not already covered. This may commonly be steam used for cleaning, such as food processing devices washing.
 - **Steam Temperature in Degrees Fahrenheit.** This is the temperature of the steam entering the trap. Actual temperature from the supply based on a gauge reading is preferred but if not available, then pipe surface temperature under a close insulated point is acceptable. This is a key parameter
 - **Supply line.** For many applications, the pressure going into the application is equal or close to the pressure out unless the process drops steam pressure. Pressure is recorded as gauge Steam pressure in PSIG. This is the steam supply pressure to the trap. A nearby gauge pressure is preferred. Boiler pressure may be used if no pressure reduction valves exist between the trap and the boiler pressure only, not absolute. This is a key parameter.
 - **How many hours per boiler day operation is the trap exposed to steam?** This may be collected from the customer. This is the time (in hours) that the trap sees live steam from the load on those days that the boilers are in operation. For example, this may be the cooking time for a kettle or hours of chemical process heating for a chemical firm. It is hoped to obtain the amount of time that the trap is exposed to steam pressure and thus would have been leaking live steam. For most processes, this is the amount of time the process is hot. Even if the process supply valve closed, there is still live steam trapped in the process that can leak through the trap. This is a key parameter.
 - **Is the trap on the supply or return side?** Most traps tend to be on the exhaust or return side of a steam use. A trap may be used on the input side to collect and drain any condensate before the steam use to prevent it from entering the steam use.
 - **Steam load pressure drop.** If known from nameplate information on the steam load enter the steam pressure drop of the load in PSI. The pressure the trap actually sees is the supply pressure minus the steam load pressure drop. On low pressure (less than 15 PSIG systems) this is especially critical. If this cannot be established in the field write in don't know or "DK"
 - **What is the trap's condensate pressure?** If the condensate system is pressurized it is essential to obtain the condensate system pressure so that the trap differential pressure can be obtained. For atmospheric and vacuum systems, the trap exhaust

pressure is considered at or near 0 PSIG. Pressure is recorded as gauge pressure only, not absolute. This is a key parameter.

- **Baseline information.** If possible, try to gather information about the failed trap's make and model#. This helps in keeping a track if the old traps were replaced with the same or different type of traps.
- **Make, model #, and orifice size of the trap.** Orifice size is key parameter in the equation to calculate the savings from a steam trap. Make and model # of the trap allows us to identify the orifice size. Orifice size can be obtained later from the spec sheets.
- **Failure Mode.** Type of failure is a critical parameter in the savings calculation so the surveyor needs to get this information from the site contact. This information will be in the steam trap audit if it is available.

Any information on steam traps that is not covered by the above questionnaire should be noted down in the comments section. It is very important to write as much information as possible because this might hold some critical information. Please note down the item number for steam trap if the comments are not related to all the steam traps.

Surveyor should print out extra blank copies of this form in case there are more than two steam traps for which detailed information is collected.

Form Verification

Condensate Return Water System

This section has information about the condensate return water system and it can generally be obtained from the site contact.

- **Condensate recaptured/recovered for use.** Is the condensate recycled back to the steam generator/boiler or is exhausted to the exterior. Usually it is recycled. If it is not then there is no condensate tank question to answer. This applies to the majority of condensate. It is often possible that some steam in a system is exhausted after use and some is returned.
- **Condensate pipe insulated.** Is the majority of the condensate piping visible insulated? Even if unions, bends, and valves are uninsulated the piping is considered insulated.
- **Is live steam being emitted in condensate tank?** This is a judgment call. There is always steam coming out of a condensate tank. Does it appear to be bubbling like a boiling kettle or is rapid moving steam blowing into or out of the tank? If so, then it is probably live steam coming into the condensate tank. This means some traps are still leaking. Some bubbles or blowing steam that does not have a high velocity is usually just flash steam. This is not live steam. If in doubt write "don't know"

- **Is it a closed system?** If condensate is not recycled it is not a closed system. If it is, then is condensate collected in a tank before going back to the boiler? If that tank is at atmospheric pressure, then it is an open system (one running at atmospheric pressure). If not, then the system may be airtight and either under a vacuum or pressurized. You must enquire of the customer representative.
- **If it is a closed system, is it a vacuum or pressurized system?** You must enquire of the customer representative. We are concerned only with the pressure on the exhaust side of the trap. If it is a closed system, is the condensate kept under pressure from the trap all the way to the boiler or is it sucked back from the trap to the boiler in a vacuum system? If condensate goes into an atmospheric pressure tank and is then pumped back to the boiler, this is still considered an atmospheric system as the pressure the trap sees is atmospheric.
- **What is the pressure in PSIG?** You must enquire of the customer representative or observe this on local gauges. We are concerned only with the pressure on the exhaust side of the trap. A pressurized condensate return system at the trap can only occur in a closed system.
- **Steam Traps Verification.** Record the number of rebated units along with the measure code and measure description. Match the rebated units with the observed ones and explain if the units are equal, less or more than the observed ones.

Site Photo Log

Use this form to record information about the photos taken at the site. The photos will be used for many purposes including quality checking the survey form, evaluating the state of rebated equipment, documenting unusual situations, and improving the survey procedures. The descriptions recorded on this form will be linked to the photos by following this naming convention:

SiteID_Item#.jpg => For example PGE_0567891234_1.jpg,
PGE_0567891234_2.jpg

Enough photos should be taken to characterize the site, the inspected equipment, and each unique configuration of equipment. Extra photos can be taken for use in completing the survey form; for example, some surveyors will take a photo of the survey form cover page to act as a separator between set of photos for different sites. However, the final set of photos should be trimmed down to a small number that adequately characterizes the site and equipment and any unique situations. A typical set of photos should include the following.

- The business storefront and/or site clearly showing the business and type of building/site.

- At least one photo of each rebated measure, and the various configurations of that measure present at the site.
- Any other photos needed to complete the job and characterize the site and equipment.

General Comments

It is a good idea to summarize the important comments in this section that have huge impact on the savings calculation (like operation, failure mode etc.). Also, please enter any general comments that were not covered in any of the previous sections.

CPUC HIM Steam Trap On-Site Data Collection Form

Rev. 09/27/09

General Site Information (from phone survey & IOU tracking database)

| | | | |
|-------------------------------|--|------------------|--|
| Itron SiteID (Participant ID) | | EEGA Program # | |
| Sample Strata | | Evaluation Phase | |

| | | | |
|-------------------------------|--|----------|--|
| Corporate (Multi-Site) Name | | | |
| Business Name (Tracking Data) | | | |
| Actual Business Name | | | |
| Service Address | | | |
| City | | Zip Code | |

CORRECTIONS TO SITE INFORMATION

| | | | |
|---------------------------------|--|-------------|--|
| Revised Corp. (Multi-Site) Name | | | |
| Revised Business Name | | | |
| Revised Service Address | | | |
| Revised City | | Revised Zip | |

Site Contact Information

Phone Survey (PS) Completion Date: _____ Phone Survey Respondent: _____

| | Contact Name | Phone Number | Alternate Phone | Email Address | Contacted |
|------------|--------------|--------------|-----------------|---------------|--------------------------|
| OS Primary | | | | | <input type="checkbox"/> |
| OS Back-up | | | | | <input type="checkbox"/> |
| OS Other | | | | | <input type="checkbox"/> |

Note: Use the "Contacted" check box to indicate the actual contact(s) for the site visit.

Scheduling Notes/Special Instructions for On-site Visit:

Survey Tracking Information

| | | | |
|------------------------------------|--------------|-------------------------------|------------|
| Survey Company (Itron, ASW): | | Assigned Surveyor's Initials: | |
| Survey Duration Day 1(24 hr clock) | Start: _____ | Survey Duration (24 hr clock) | End: _____ |
| Survey Duration Day 2(24 hr clock) | Start: _____ | Survey Duration (24 hr clock) | End: _____ |
| Survey Duration Day 3(24 hr clock) | Start: _____ | Survey Duration (24 hr clock) | End: _____ |

| | Date: | Initials |
|-----------------------------|-----------------|----------|
| Field survey completed: | ___ / ___ / ___ | _____ |
| Survey received at Itron: | ___ / ___ / ___ | _____ |
| Itron QC completed: | ___ / ___ / ___ | _____ |
| Returned to Survey Company: | ___ / ___ / ___ | _____ |
| Data entry completed: | ___ / ___ / ___ | _____ |

Measure Summary:

| MeasureCode | Measure Name | Pay Date | Units Installed |
|-------------|--------------|----------|-----------------|
| | | | |
| | | | |
| | | | |

General Facility Information

| | |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Type of Industrial Facility: | Food Processing Agricultural Oil Refining Light Mfg Heavy Mfg Other _____ |
| Uniqueness: Briefly describe the type of work or primary activity, product, or service of this facility. | |
| What <u>year</u> was this business established at this location? | |

Reduction in site operation due to recession:

Please update this section if recession has affected the business

| | |
|------------------------------------------------------------------|--|
| What % of normal production is the business currently operating? | |
| Are the operating hours also reduced and if so, by what %? | |
| When (month/year) did these cut-backs first take place? | |

Verification Activity Checklist

If steam trap audit was done prior to replacing the steam traps, then get a copy of the report. For the industrial sites, get a copy of P&ID (Piping and Instrumentation Diagram) from the maintenance personnel if it is available.

| Action | Completed? |
|----------------------------------------------------------------------------|--------------------------|
| Obtain a copy of the steam trap audit associated with the rebated measures | <input type="checkbox"/> |
| Take pictures of boiler and steam traps | <input type="checkbox"/> |
| Ask if the old traps are available for inspection | <input type="checkbox"/> |

Primary Schedules and Operation

Business Hours

Define typical operation for all Day Types listed below and specify hours in military time (0 to 24).

| Day Type | Business Hours | Closed All Day? | Open 24 hrs? |
|-----------------------------------|-----------------|--------------------------|--------------------------|
| Monday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Tuesday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Wednesday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Thursday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Friday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Saturday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Sunday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Number of Holidays per year _____ | | | |

Seasonal Operation Periods

If the business hours vary significantly during the year, please complete the following tables.

| | |
|---------------------------------------------------------------------------------|-----|
| Do the business hours vary during the year from the days/hours specified above? | Y N |
|---------------------------------------------------------------------------------|-----|

If yes, list the beginning/ending months (1-12) for up to 3 time periods.

| TIME PERIOD 1 | | | TIME PERIOD 2 | | | TIME PERIOD 3 | | |
|-----------------|--|--|-----------------|--|--|-----------------|--|--|
| Begin Month/Day | | | Begin Month/Day | | | Begin Month/Day | | |
| End Month/Day | | | End Month/Day | | | End Month/Day | | |

N/A Seasonal Business Hours

| Day Type | Business Hours | Closed All Day? | Open 24 hrs? |
|-----------|-----------------|--------------------------|--------------------------|
| Sunday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Monday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Tuesday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Wednesday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Thursday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Friday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Saturday | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |
| Holidays | from ___ to ___ | <input type="checkbox"/> | <input type="checkbox"/> |

| |
|-----------------------------------|
| Comments: _____ _____ _____ |
|-----------------------------------|

Hourly Boiler Operation Schedules

Use this form to indicate boiler operation. Circle the applicable days and define a complete week. Specify the % of equipment on or temperature in °F or pressure in PSIG for all hours, and capture transition periods if known. Specify as many schedules as needed to capture equipment operation.

| Hour | 0-12 | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Hour | 12-24 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 |

Sched#: ____ SchdType (circle one): PctOn °F PSIG Description: _____

| Applicable DayTypes | | Percent (%) of Equipment On / Temperature °F or PSIG | | | | | | | | | | | |
|---------------------|-------|------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |

Sched#: ____ SchdType (circle one): PctOn °F PSIG Description: _____

| Applicable DayTypes | | Percent (%) of Equipment On / Temperature °F or PSIG | | | | | | | | | | | |
|---------------------|-------|------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |
| M T W T F S S | 0-12 | | | | | | | | | | | | |
| | 12-24 | | | | | | | | | | | | |

Comments: _____

☐ N/A Boilers: Type and Configuration

Obtain the boiler efficiency or performance data from maintenance records. Make a copy, or write down ALL OF THE FOLLOWING, if presented: BOILER EFFICIENCY, % EXCESS AIR, % O2, % CO2

| Boiler # | # _____ | # _____ | # _____ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|-------------------|
| Boiler Schedule # | | | |
| Output Pressure | PSIG | PSIG | PSIG |
| Primary fuel type: G = (Natural) Gas E = Electricity O = Other _____ | G E O | G E O | G E O |
| If other is it a mixture of utility gas and waste gas | Y N | Y N | Y N |
| If it's a mixture what is mixture percentage | % Utility gas | % Utility gas | % Utility gas |
| Manufacturer | | | |
| Model # | | | |
| Shop Order # | | | |
| Efficiency | | | |
| Boiler efficiency (%) | | | |
| Source of boiler gas/Eff. numbers CR =Customer record AQ = Air quality admin FG = Flue Gas Analysis NP = Name Plate OT = Other | CR AQ FG NP OT | CR AQ FG NP OT | CR AQ FG NP OT |
| Maintenance | | | |
| How many times a <u>year</u> is the boiler serviced? | /year | /year | /year |
| When was the last time boiler was serviced? | | | |
| Contractor who serviced the boiler? | | | |
| Contact Name | | | |
| Phone # | | | |
| Configuration | | | |
| Boiler age (years) | | | |
| Input rating (Btuh/unit or hp/unit) | | | |
| Boiler output (Btuh/unit or hp/unit)) | | | |
| High-efficiency condensing boiler? | Y N | Y N | Y N |
| Does boiler use superheat? | Y N | Y N | Y N |

Comments: _____

Steam Traps (Industrial)

| Physical Verification Data | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|
| Steam Trap Item # | # | # |
| Steam Trap Tag or ID Number (if any) | | |
| Location Description | | |
| Measure Code | | |
| Is the steam source from a common header with multiple boilers | Y N | Y N |
| Boiler # or description (If steam source is from one boiler only) | | |
| Number of Traps Represented (Number of same type and size steam traps with the same steam conditions and other parameters) | | |
| Steam Pressure, psig. (at trap) | PSIG | PSIG |
| Steam Temperature, Deg.F (at trap) | Deg F | Deg F |
| Steam Applications (circle all that apply): SH =Space Heating PR =Process WH = Water heating OT =Other (describe in comments) | SH PR WH OT | SH PR WH OT |
| How many hours is the trap exposed to pressure (annual) | hrs | hrs |
| Is the trap on supply or load return side (Circle one) | Supply Return | Supply Return |
| If trap is on the steam load's return side what is the loads pressure drop | PSIG | PSIG |
| What is the trap's condensate side pressure (Only for pressurized condensate systems) | PSIG | PSIG |
| Make/Manufacturer | | |
| Model # | | |
| Config/Type Code (ME=Mechanical, TS=Thermostatic, TD=Thermodyamic, FO=Fixed Orifice) | ME TS TD FO | ME TS TD FO |
| Baseline information : Failed Steam Trap Make/Manufacturer and Model # | | |
| Orifice Size (From spec sheet or invoice) | inches | inches |
| Pipe size | inches | |
| When was the steam trap replaced? | | |
| Was it replaced because it was failed? | Y N NA | Y N NA |
| Type of Failure (failed open or closed, leaking, blowing through, not installed, new) | | |
| Leak Factor | | |

Comments: _____

Condensate Return Water System

| | | | |
|------------------------------------------------------------------------------------------|------|---|----|
| Condensate Recaptured/Recovered for use? | Y | N | |
| Condensate Pipe Insulated (<i>only if "Y" above</i>)? | Y | N | |
| Live Steam being emitted from condensate tank? | Y | N | NA |
| Is it a closed system (If condensate is being recovered and condensate tank is not open) | Y | N | NA |
| If it is a closed system, Is it a Vacuum or Pressurized system | V | P | NA |
| what is the pressure in PSIG (Only for pressurized systems) | PSIG | | |

Steam Traps Verification

| Item | Measure Code | Measure Name | Rebated Units |
|------|--------------|--------------------------------------------|---------------|
| | | | |
| | | | |
| | | Total Rebated Units at the facility | |

| Item | 1 | 2 |
|-----------------------------------------------------------------------------------|----------|----------|
| Measure Description | | |
| Measure Code | | |
| Rebated Units | | |
| Observed versus Rebated # of units: E=Equal M=More L=Less OT (describe) | E M L OT | E M L OT |
| If Total # of units is MORE than Rebated # of units: | | |
| # that were obtained from other means (explain in comments) | | |
| If Total # of units is LESS than Rebated # of units: | | |
| # of rebated units, site contact explanation (describe in comments) | | |
| # of rebated units, unaccounted for | | |

Comments: _____

General Comments

| Item | Form | Comments |
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Site Photo Log

Record site photo information here including the PhotoID (i.e. digital file name) and a brief description of the photo where needed. Refer to the training manual for protocols on what photos to take and photo/file naming conventions.

| Item # | PhotoID | Description/Comments |
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Appendix B-4

Bibliography of Steam Trap Literature Search

An extensive literature review was undertaken to establish the appropriate approach for the evaluation of industrial steam trap savings. These reviews included an assessment of other steam trap measure evaluations, program workpaper-based methods, a review of education and outreach programs and the review of a paper describing a controlled lab test of the steam savings from retrofitting steam traps. The “literature review” also included extensive emails and telephone conversations with experts in steam systems referred to Itron by the Department of Energy and Enbridge (a Canadian gas utility).

The review provided Itron with a firm understanding of the different engineering algorithms commonly used to determine the steam savings and the algorithms recommended by the experts in the field. The literature helped Itron to clarify the necessary inputs for the engineering algorithm and how these inputs could be collected from the various parties including on-site data collection efforts, telephone conversations with site steam operators, and telephone conversations with vendors and manufacturers of steam traps. The experts and the literature solidified the team’s belief that the most uncertain input into the engineering algorithm was the trap failure type or orifice leak rate.

Many of the existing evaluations of steam trap savings relied on the assumption that the average leak rate for failed traps is 50% of the maximum flow value. Work at Enbridge, however, included steam trap surveys that rated traps as closed (0% flow), blowing through (100% flow) or leaking. These three buckets for failure type allow Enbridge to estimate steam savings with less uncertainty. Given the findings at Enbridge, Itron put considerable effort into the receipt of site specific steam trap surveys if they had been undertaken by the steam management.

A bibliography of the papers consulted in our analysis is provided.

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Appendix B-5

Small Commercial NTG Stability Analysis for Steam Traps

Stability Analysis for Small Commercial Net-to-Gross Ratio Estimation Results

This section reviews the results of the stability analysis performed for the small commercial net-to-gross ratio estimation methodology for steam trap installations. Table 1, Table 2, and Table 3 below summarize key stability statistics from the net-to-gross ratios for PG&E, SCG, and SDG&E small commercial respondents, respectively. Discussion and presentation of the components of these tables follow.

Table 1: PG&E Small Commercial Steam Traps Free Ridership Stability Indicators

| 4 Separate Free Ridership Measurements Possible – Number of Respondents Having___* | | Number and proportion of respondents where changes were made to the FR ratio due to inconsistent responses** | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Zero FR Measurements | 2 | Number | 11 |
| One FR Measurements | 43 | Proportion | 6.4% |
| Two FR Measurements | 11 | FR Ratio without those that had inconsistent responses corrected | |
| Three FR Measurements | 26 | N=161 | 22.0% |
| Four FR Measurements | 92 | Respondents answering they already had installed measure before they learned of the program** | |
| Proportion of respondents with an extreme FR ratio | | N=7 | 94.0% |
| Proportion with 0 - 0.1 FR ratio | 48.9% | | |
| Proportion with 0.9 - 1 FR ratio | 6.9% | | |
| * Some of the four separate free ridership measurements are from one survey question and others are from multiple responses. See the algorithm in the prior Appendix. | | ** These are included in the calculation of that respondent's free ridership and the overall weighted free ridership estimates as stipulated in the algorithm. | |

Table 2: SCG Small Commercial Steam Traps Free Ridership Stability Indicators

| 4 Separate Free Ridership Measurements Possible – Number of Respondents Having___* | | Number and proportion of respondents where changes were made to the FR ratio due to inconsistent responses** | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Zero FR Measurements | 15 | Number | 30 |
| One FR Measurements | 87 | Proportion | 9.7% |
| Two FR Measurements | 6 | FR Ratio without those that had inconsistent responses corrected | |
| Three FR Measurements | 38 | N=278 | 25.8% |
| Four FR Measurements | 178 | Respondents answering they already had installed measure before they learned of the program** | |
| Proportion of respondents with an extreme FR ratio | | N=16 | 96.9% |
| Proportion with 0 - 0.1 FR ratio | 47.7% | | |
| Proportion with 0.9 - 1 FR ratio | 10.8% | | |
| * Some of the four separate free ridership measurements are from one survey question and others are from multiple responses. See the algorithm in the prior Appendix. | | ** These are included in the calculation of that respondent's free ridership and the overall weighted free ridership estimates as stipulated in the algorithm. | |

Table 3: SDG&E Small Commercial Steam Traps Free Ridership Stability Indicators

| 4 Separate Free Ridership Measurements Possible – Number of Respondents Having___* | | Number and proportion of respondents where changes were made to the FR ratio due to inconsistent responses** | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Zero FR Measurements | 4 | Number | 3 |
| One FR Measurements | 8 | Proportion | 7.9% |
| Two FR Measurements | 0 | FR Ratio without those that had inconsistent responses corrected | |
| Three FR Measurements | 6 | N=35 | 26.8% |
| Four FR Measurements | 24 | Respondents answering they already had installed measure before they learned of the program** | |
| Proportion of respondents with an extreme FR ratio | | N=3 | 100% |
| Proportion with 0 - 0.1 FR ratio | 45.2% | | |
| Proportion with 0.9 - 1 FR ratio | 9.5% | | |
| * Some of the four separate free ridership measurements are from one survey question and others are from multiple responses. See the algorithm in the prior Appendix. | | ** These are included in the calculation of that respondent's free ridership and the overall weighted free ridership estimates as stipulated in the algorithm. | |

There are up to four component scores that contribute to the final estimated net-to-gross ratio for commercial participant respondents. Table 4 below shows the distribution of the number of component scores that contribute to the final ratios among the participant respondents for the three utilities. The response patterns show a distribution where the majority of respondents have either just one or all four of the net-to-gross components. Cases where respondents had none of the components were due to either a refusal or inability to answer key items in the survey.

Table 4: Number of Component Scores Contributing to Final NTGR (1-4)

| Number of Components | PG&E | SCG | SDG&E |
|----------------------|------|-----|-------|
| Zero | 2 | 15 | 4 |
| One | 43 | 87 | 8 |
| Two | 11 | 6 | 0 |
| Three | 26 | 38 | 6 |
| Four | 92 | 178 | 24 |
| (valid n) | 174 | 323 | 42 |

Table 5 below shows the percentage of respondents from each participant population that had either very high or very low free ridership scores. A high proportion of extreme scores is indicative of accurate results, as extreme values show that there is consistency in the responses to the four net-to-gross components.

Table 5: Proportion of Respondents with Extreme Free-Ridership Scores

| Proportion of Respondents with Extreme Free-Ridership Scores | PG&E | SCG | SDG&E |
|--------------------------------------------------------------|-------|-------|-------|
| proportion with 0-.1 free ridership | 48.9% | 47.7% | 45.2% |
| proportion with .9-1 free ridership | 6.9% | 10.8% | 9.5% |
| (valid n) | 172 | 308 | 38 |

Table 6 below shows the percentage of respondents that was unable or refused to respond to the question regarding whether they would have installed steam traps in the absence of the program. Levels of such respondents are relatively moderate, with only five and six respondents for PG&E and SCG, respectively, having either a refusal or inability to answer this key question. SDG&E had no respondents in either category.

Table 6: Respondents with Missing Values to Whether They Would Install in the Absence of the Program

| Proportion of respondents who did not report whether they would install in the absence of the program | PG&E | SCG | SDG&E |
|-------------------------------------------------------------------------------------------------------|------|------|-------|
| proportion responding "don't know" | 2.3% | 1.9% | 0.0% |
| proportion that "refused" | 0.6% | 0.0% | 0.0% |
| (valid n) | 5 | 6 | 0 |

Table 7 below shows the final free ridership score assigned to respondents that indicated they had already installed steam traps when they found out about the program. All of the free ridership values for these respondents were close to one.

Table 7: Respondents Who Installed the Measure Before Learning of the Program

| Respondents answering they already had installed measure before learning of the program. | PG&E | SCG | SDG&E |
|------------------------------------------------------------------------------------------|-------|-------|--------|
| final free ridership | 94.0% | 96.9% | 100.0% |
| (valid n) | 7 | 16 | 3 |

Table 8 below shows the final free ridership score and the percent of the responding participants that state that they would not have purchased steam traps without the program, but were assigned a free ridership rate greater than zero. There were no cases of this outcome for any of the utilities.

Table 8: Respondents Who Would Have Purchases Steam Traps Without the Program and Free Ridership Greater than 0

| Respondents stating they would not have purchased steam traps without the program and were assigned a free ridership rate greater than 0 | PG&E | SCG | SDG&E |
|------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-------|
| final free ridership | 0% | 0% | 0% |
| Proportion | 0% | 0% | 0% |
| (valid n) | 0 | 0 | 0 |

Table 9 below shows the final free ridership score and the percent of the responding participants that state that they *would have* purchased steam traps without the program, but

were assigned a free ridership score of less than one. Overall nearly one in ten respondents had this result, with the highest proportion coming from SCG. While the final free ridership scores for these respondents in PG&E and SCC were both over 0.7, SDG&E had a final score of nearly .36, though this was based on only three respondents.

Table 9: Would Have Purchased Without The Program and Free Ridership Less than 1

| Respondents stating they would definitely have purchased steam traps without the program and were assigned a free ridership rate less than 1 | PG&E | SCG | SDG&E |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|------------------|
| final free ridership | 72.2% | 71.3% | 35.6% |
| Proportion | 7.6% | 10.7% | 7.9% |
| (valid n) | 13 | 33 | 3 |

Table 10 shows the proportion of each respondent population that incurred a change to the original response pattern due to identification of inconsistent responses.

Table 10: Changes Made to Free Ridership Score Due to Inconsistency

| Proportion of respondents where changes were made to the free ridership due to inconsistent responses | PG&E | SCG | SDG&E |
|--------------------------------------------------------------------------------------------------------------|-----------------|------------|------------------|
| Proportion | 6.4% | 9.7% | 7.9% |
| (valid n) | 11 | 30 | 3 |

Table 11 shows the average of the final free ridership scores, and the proportion of the responding populations that indicate they would not have purchased without the program, but indicate otherwise in subsequent responses. More specifically they provide a positive probability or degree of agreement with one of the following:

- How likely is it that you would have installed in the absence of the program?
- If I had not had any assistance from the program, I would have paid the full price to buy the Steam Traps on my own outside the program.
- I would have bought the Steam Traps within 2 years of when I did even without the assistance from Utility's Program.

Or by indicating a less than complete agreement with the following:

- There may have been several reasons for my purchase decision, but the assistance from the Utility Program was a critical

Table 11: Inconsistent Responses for Would Not Have Purchased Without the Program and Would do so in Subsequent Responses

| Respondents that indicate they would not have purchased without the program, but indicate otherwise in subsequent responses* | PG&E | SCG | SDG&E |
|------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| final free ridership | 6.5% | 6.5% | 6.7% |
| Proportion | 52.9% | 50.0% | 42.1% |
| (valid n) | 91 | 154 | 16 |

Table 12 shows the average of the final free ridership scores, and the proportion of the responding populations that indicate they would have purchased without the program, but indicate otherwise in subsequent responses. More specifically they provided a non-confirming response to one of the following:

- How likely is it that you would have installed in the absence of the program?
- If I had not had any assistance from the program, I would have paid the full price to buy the Steam Traps on my own outside the program.
- I would have bought the Steam Traps within 2 years of when I did even without the assistance from Utility's Program.

Or they indicated complete agreement with the following:

- There may have been several reasons for my purchase decision, but the assistance from the Utility Program was a critical

Table 12: Respondents with Inconsistent Responses Indicating that they Would Have Purchased Without the Program, and Not in Subsequent Responses

| Respondents that indicate they would have purchased without the program, but indicate otherwise in subsequent responses* | PG&E | SCG | SDG&E |
|--------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| final free ridership | 47.0% | 48.6% | 32.6% |
| Proportion | 37.2% | 41.2% | 50.0% |
| (valid n) | 64 | 127 | 19 |

Table 13 below shows the correlation of the four component net-to-gross scores for the PG&E small commercial respondents. Correlation coefficients range from a low of .27 for the relationship between F_Fr5 and F_YN to .88 for F_YN and F_Fr9.

Table 13: PG&E Correlation across the four component scores contributing to the final estimated net-to-gross ratio

| Correlation and significant differences between the four NTG measurements | - | F_YN | F_Fr5 | F_Fr9 | F_Fr10 |
|----------------------------------------------------------------------------------|----------|-------------|--------------|--------------|---------------|
| Pearson Correlation | F_YN | 1 | 0.27388 | 0.87834 | 0.7591 |
| Sig. (2-tailed) | F_YN | NA | 0.0045 | <.00001 | <.00001 |
| Pearson Correlation | F_Fr5 | 0.27388 | 1 | 0.5234 | 0.42823 |
| Sig. (2-tailed) | F_Fr5 | 0.0045 | NA | <.00001 | <.00001 |
| Pearson Correlation | F_Fr9 | 0.87834 | 0.5234 | 1 | 0.67945 |
| Sig. (2-tailed) | F_Fr9 | <.00001 | <.00001 | NA | <.00001 |
| Pearson Correlation | F_Fr10 | 0.7591 | 0.42823 | 0.67945 | 1 |
| Sig. (2-tailed) | F_Fr10 | <.00001 | <.00001 | <.00001 | NA |

Table 14 below shows the correlation of the four component net-to-gross scores for the SCG small commercial respondents. Correlation coefficients range from a low of .44 for F_YN and F_Fr5 to a high of .87 for F_YN and F_Fr9.

Table 14: SCG Correlation across the four component scores contributing to the final estimated net-to-gross ratio

| Correlation and significant differences between the four NTG measurements | - | F_YN | F_Fr5 | F_Fr9 | F_Fr10 |
|----------------------------------------------------------------------------------|----------|-------------|--------------|--------------|---------------|
| Pearson Correlation | F_YN | 1 | 0.44367 | 0.87433 | 0.48852 |
| Sig. (2-tailed) | F_YN | NA | <.00001 | <.00001 | <.00001 |
| Pearson Correlation | F_Fr5 | 0.44367 | 1 | 0.51261 | 0.44603 |
| Sig. (2-tailed) | F_Fr5 | <.00001 | NA | <.00001 | <.00001 |
| Pearson Correlation | F_Fr9 | 0.87433 | 0.51261 | 1 | 0.56165 |
| Sig. (2-tailed) | F_Fr9 | <.00001 | 0 | NA | <.00001 |
| Pearson Correlation | F_Fr10 | 0.48852 | 0.44603 | 0.56165 | 1 |
| Sig. (2-tailed) | F_Fr10 | <.00001 | <.00001 | <.00001 | NA |

Table 14 shows the correlation of the four component net-to-gross scores for the SDG&E small commercial respondents. Correlation coefficients range from a low of .35 for F_YN and F_Fr5 to a high of .73 for F_YN and F_Fr10.

Table 15: SDG&E Correlation across the four component scores contributing to the final estimated net-to-gross ratio

| Correlation and significant differences between the four NTG measurements | - | F_YN | F_Fr5 | F_Fr9 | F_Fr10 |
|----------------------------------------------------------------------------------|----------|-------------|--------------|--------------|---------------|
| Pearson Correlation | F_YN | 1 | 0.35467 | 0.7329 | 0.73398 |
| Sig. (2-tailed) | F_YN | NA | 0.08903 | 0.00005 | 0.00004 |
| Pearson Correlation | F_Fr5 | 0.35467 | 1 | 0.32791 | 0.35559 |
| Sig. (2-tailed) | F_Fr5 | 0.08903 | NA | 0.07689 | 0.0538 |
| Pearson Correlation | F_Fr9 | 0.7329 | 0.32791 | NA | 0.30066 |
| Sig. (2-tailed) | F_Fr9 | 0.00005 | 0.07689 | NA | 0.10644 |
| Pearson Correlation | F_Fr10 | 0.73398 | 0.35559 | 0.30066 | 1 |
| Sig. (2-tailed) | F_Fr10 | 0.00004 | 0.0538 | 0.10644 | NA |

Appendix B-6

Nonresidential NTG Consistency Checks for Steam Traps and Pipe Insulation

The industrial net-to-gross battery of questions included inconsistency checks to determine if the respondent's answers to the series of questions were inconsistent and to provide the respondent with the opportunity to clarify or change their answer. In the industrial steam trap net-to-gross battery, 30 of the 125 sites that completed the telephone survey provided inconsistent answers to the questions.

There were three inconsistency checks in the telephone battery of questions. The first inconsistency check was triggered if the respondent gave the importance of the utility program a high rating (N41) while giving the individual attributes of the program (N3) a low rating. Alternatively, it was also inconsistent to give the individual attributes of the program a high rating while giving the importance of the utility program a low rating. The third inconsistency check compared the respondent's answer to the importance of the program rebate (N3b) to the likelihood that they would have installed the measure without the program (N5). If the respondent answered that it was very likely that they would have installed the measure without the program and they rated the program rebate as important, their answers flag an inconsistency check. This was the most commonly flagged inconsistency check for industrial steam traps.

Many of the inconsistent sites stated that they would have been very likely (8-10 out of 10) to install the measure without the rebate, yet they rated the rebate as very important (8-10 out of 10). The relatively high rate of inconsistency for this series of questions is likely due to the maintenance aspects of steam traps, the measures short EUL and the short payback period of steam traps even without the rebate.¹

Net-To-Gross Inconsistency Reviews and Adjustments

The following list of paragraphs compares explains the review and possible change of the site level net-to-gross ratios for those sites with inconsistent answers.

¹ The steam trap work papers state that the payback for an industrial trap without a rebate is 0.10 years to 0.30 years.

Steam Trap Only Sites

SCG 487882449, \$1,700 incentive, 17 rebated traps

This industrial process/manufacturing customer replaced almost all of the 20 steam traps located at the facility. According to the customer, steam traps had failed and therefore needed to be replaced to improve the efficiency of the company's operations. When the customer was asked to rank the importance of both program and non-program related factors in the decision to replace steam traps, virtually all were given a score of 8 or higher. The only factors that were not ranked were the technical assistance provided by the program and the recommendation provided by a consulting engineer because both of these factors were not applicable. Although this customer ranked the availability of the program rebate as a 10, previous experience with the program as an 8, and the endorsement or recommendation by a utility account representative as a 10, the relative program influence score given by the customer was only a 1 out of 10. This score is inconsistent with the scores given to the individual program attributes. Additionally, the customer indicated that there was only a 4 in 10 likelihood that the traps would have been replaced in absence of the program. The customer indicated that the program was more important than the industry standard practice and this factor was given 10 out of 10. Based on this evidence, the program influence score was revised upwards from a 1 to an 8 out of 10. This resulted in a revised NTG score 0.88 from an original score of 0.64.

NTG Ratio – 0.88, Program Influence – 8, Non-Program Score – 8, Timing and Selection – 10

PGE 5960115005, \$5,000 incentive, 25 rebated traps

This food industry process/manufacturing participant replaced approximately 1/4th of its 100 steam traps through the rebate program due to traps leaking. When asked about the various factors that had an influence on the decision to replace traps, the program-related influences were scored higher relative to the non-program factors. For example, the availability of the program rebate score given was 8 out of 10, technical assistance provided through the program scored a 10, and endorsement by an account representative was also given a 10. Though high scores were given to the program, the participant indicated that the steam traps would have been replaced with 100% certainty and at the same time in absence of the program. This indicates that the program is less important than the individual scores given to the various program factors. The participant was asked why a rating of 8 was given to the importance of the rebate and the answer indicated that even without the rebate, the traps would have been replaced. An explanation for the high score given to the account representative recommendation was also given; the respondent indicated that the representative helped the company decide which type of traps to install, not necessarily the

need to replace traps. Based on this evaluation, the timing and selection score was reduced to 7 from 10 and the resulting NTG ratio was reduced from 0.6 to 0.5.

NTG Ratio – 0.49, Program Influence – 5, Non-Program Score – 3, Timing and Selection – 7

SCG_354185700, \$600 incentive, 3 rebated traps

Replacement of steam traps by this participant occurred due to traps failing shut. A total of 3 traps were replaced out of a total of 15 at this location. This participant gave a score of 10 out of 10 for each of the program and non-program factors that could have influenced the decision to replace steam traps, with the exception of technical assistance provided by the program and recommendation by a consulting engineer which were not rated since they did not apply. Even though a score of 10 was given to the availability of the rebate, they indicated that the steam traps would have been installed even without the rebate. This suggests that the rebate is not as important as other factors. When the participant was asked to allocate a total of 10 points across the program and all other factors that affected the decision to replace steam traps, a score of 8 was given to the program and a 2 was given to all other factors. This allocation of points does not seem to take into account the scoring of 10 out of 10 given to the non-program influences of standard practice of the industry and the payback on the investment. Last, the participant stated that they learned about the program after they were thinking about replacing steam traps. Based upon this information, the program influence score was decreased from an 8 to a 6 and the timing and influence score was reduced from a 10 to a 5. The result was a decrease in the NTG ratio from 0.6 to 0.37.

NTG Ratio – 0.37, Program Influence – 6, Non-Program Score – 0, Timing and Selection – 5

SCG_438251863, \$6,200 incentive, 31 rebated steam traps

Thirty-one of this industrial process/manufacturing facility's 40 steam traps were replaced due to condensate return issues. This participant mentioned that they had been thinking about replacing their steam traps prior to learning about the program and when they heard about the program and the offer of rebates, it accelerated their timing on replacing traps. In fact, the participant said that within 6 months all of the traps would have been replaced even if the program rebate was not available. The participant gave every factor that could have affected the decision to replace traps a score of 10 out of 10 (unless a particular factor was not applicable, such as previous program experience, previous experience with steam traps, and recommendation from a consulting engineer). When the participant was asked to allocate a total of 10 points to the program and all other factors, the program was given a 4 and the remaining 6 points were allocated to the other factors that could influence the decision to replace traps. Given that the participant learned about the program after thinking about trap replacement and while deciding on the measures, the program influence score was revised from 4 to 2. Given that the rebate only made trap replacement easier but did not

affect the decision to replace traps and that the participant would have replaced some of its traps in two months and all in six months, the timing and selection score was reduced from 10 to 6. The score changes adjusted the NTG ratio from 0.47 to 0.27.

NTG Ratio – 0.27, Program Influence – 2, Non-Program Score – 2, Timing and Selection – 6

SCG 1047152000, \$1,400 incentive, 14 rebated traps

This hospital replaced 14 of its 180 traps due to trap failure and regular maintenance of the steam system. All program related factors that could have influenced the decision to replace steam traps were given scores of at least 8 out of 10 while the non-program related factors were generally scored lower (with the exception of the payback on the investment, which was scored a 10 out of 10). The availability of the rebate received a score of 9 and the respondent stated that it helped make the traps more affordable. When the participant was asked the likelihood of installing the steam traps without the program, they gave this a score of 10 out of 10 but indicated that the traps would have been replaced a year or two later. The program influence score given by the participant was 4 out of 10. None of the scores given by the participant were adjusted; therefore the NTG ratio calculated for this participant remains at 0.53.

NTG Ratio – 0.53, Program Influence – 4, Non-Program Score – 3, Timing and Selection – 9

SCG 690234400, \$1,800 incentive, 18 rebated traps

Traps had failed open at this college/university, leading it to replace 18 of its 200 steam traps. The customer's account representative was how the customer heard about the program. A score of 10 out of 10 was given to this factor as an influence on the decision to replace steam traps. The school had been considering a replacement of failing steam traps when it was informed of the program by the account representative. When the customer was asked if they would have replaced their traps if the program did not exist, they indicated that they would do so with 100% certainty due to the failure of traps in the system. This is consistent with the relative program influence score of 1 out of 10 given by the respondent. However the score given to the account representative as a factor in deciding to replace steam traps was lowered from 10 to 4, since it is clear that the replacement would have occurred anyway.

This consequently revised the NTG score from 0.37 to 0.17.

NTG Ratio – 0.17, Program Influence – 1, Non-Program Score – 0, Timing and Selection – 10

PGE_0246676167, \$539 incentive, 3 rebated traps

This industrial process/manufacturing facility of food related items was unsure of the number of steam traps located at its facility; it replaced three of its traps due to leaks and failure. The customer researched a variety of traps before making the replacement, at first did not know that a rebate program existed. Traps were replaced because the company was losing money due to steam losses. According to the customer, the rebate accelerated the timing of trap replacement but did not result in the decision to replace the traps since they had planned on purchasing traps regardless. In fact, the customer said they would have replaced the traps with 100% certainty within six months if the program did not exist. When asked about the factors that influenced the decision to replace the steam traps, high scores were given to the availability of the program rebate (8), technical assistance provided by the program (9), endorsement by the account representative (9), and payback on the investment (8). The information provided by the account representative was particularly useful to the customer since she made sure to answer all of their questions. While the program was deemed important by the customer, they had planned to replace the traps without the program; a relative program score of 5 out of 10 was given, which seems appropriate given the importance of both program and non-program influences. In the end, the timing and selection score was reduced from a 9 to a 7, thus reducing the NTG score from 0.47 to 0.4.

NTG Ratio – 0.4, Program Influence – 5, Non-Program Score – 0, Timing and Selection – 7

PGE_0418445005, \$1,946 incentive, 10 rebated traps

This industrial process/manufacturing facility replaced 10 out of a total of 50 traps at this location due to trap failure and leaks. Traps at this location had failed open and shut and according to the customer, replacing these traps would prevent money from “going down the drain.” The program was not instrumental in encouraging trap replacement, as the customer had learned about it after the decision to replace them was made. In addition, they indicated that the traps would have been replaced with 100% certainty at the same time in absence of the program. Factors that were deemed important include previous experience with steam traps (8), standard practice in the industry (8), and payback on the investment (8). The availability of the rebate was scored highly (8 out of 10) and the customer explained that this score was given because it helped to encourage the company change out the faulty traps. Aside from the rebate however, no other program related factors were scored highly. Taken together, this information led to a reduction in the timing and selection score from 8 to 4. This reduced the NTG ratio from 0.33 to 0.2.

NTG Ratio – 0.2, Program Influence – 2, Non-Program Score – 0, Timing and Selection – 4

PGE 2033032691, \$2,827 incentive, 43 rebated traps

All of this laundry's 43 traps were replaced, mostly due to trap failure according to the customer. Based on the scores given by the customer, specific program related factors had an important influence on the decision to replace steam traps. The customer noted that they learned about the program after thinking about replacing the faulty traps, but before making the actual replacement. The availability of the rebate and previous experience with the program both received scores of 10 out of 10. Receipt of the rebates allowed this laundry to replace its traps for free, which was pointed out by the customer. There were other non-program related factors that were also deemed important such as a recommendation from an equipment vendor (10) and payback on the investment (10). The customer did indicate that in absence of the program, the faulty traps would have been replaced with 10 and 10 likelihood and that the replacement would have been made at the same time. When the customer was asked about the relative importance of the program to other factors, a score of 6 was given to the program and 4 to the other factors. To account for the fact that the customer learned of the program after thinking of replacing the traps, the program influence score was reduced from a 6 to a 3. In addition, timing and selection was reduced to a 7 from an original score of 10. These changes resulted in a NTG score of 0.33. Originally, the NTG ratio was estimated to be 0.53.

NTG Ratio – 0.33, Program Influence – 3, Non-Program Score – 0, Timing and Selection – 7

PGE 5293418005, \$112,949 incentive, 547 rebated traps

Refineries check for failed and/or leaking traps at regularly scheduled times, making replacements as necessary. Most refineries go through an annual steam trap survey during which time each trap is thoroughly checked. Approximately 3,300 traps are located at this refinery, of which 547 leaking traps were replaced through the rebate program. The customer was informed of the rebate program as they were making the decision to replace a number of faulty traps. The factors that affected the decision to replace traps most include standard practice in the industry (8), availability of the program rebate (7), and payback on the investment (7). While they acknowledged that in absence of the program, traps would have been replaced with 90% likelihood, the replacements would have occurred over multiple years. In this way, the program accelerated the replacement of faulty traps at the refinery. The rebate was ranked relatively high because it helped to convince upper management that purchasing replacement steam traps is worthwhile. The rebate helps induce the company to focus on the problem of steam losses. If the value of the rebate is removed from the decision and focus on the other program attributes, the timing and selection score is reduced to 3 from 8.7. This reduces the original NTG score of 0.63 to 0.49. Note that this customer was not asked how likely they would have been to replace traps in absence of the program.

NTG Ratio – 0.49, Program Influence – 3, Non-Program Score – 9, Timing and Selection – 3

SCG 1320198500, \$14,639 incentive, 74 rebated traps

This industrial process/manufacturing location was looking to replace steam traps for a number of reasons including steam trap failure, wanting to save on their energy bill, and improper orifice size of existing traps. The decision to replace 74 of its 150 steam traps had been made prior to learning about the program, but learning of the rebate accelerated the timing of the purchase of replacement steam traps. According to the customer, the rebate “gave us an opportunity to replace traps that needed to be replaced for a discounted price earlier than we would have.” Scores given to individual factors that heavily influenced the decision to replace traps include the availability of the program rebate (10), technical assistance provided through the program (10), previous experience with steam traps (8), and payback on the investment (8). When they were asked what the likelihood of replacing traps was if there was no program, the customer indicated that they would have been replaced with 100% certainty within 6 months. Based on these data, the importance of the timing and selection score was reduced from 10 to 5. Note that this customer was not asked how likely they would have been to replace traps in absence of the program. The NTG score decreased from 0.45 to 0.28.

NTG Ratio – 0.28, Program Influence – 3.5, Non-Program Score – 0, Timing and Selection – 5

SCG 900015100, \$1,900 incentive, 19 rebated traps

Prior to learning about the rebate program, this laundry/dry cleaner facility had decided to replace 19 of its 25 steam traps due to diminished system efficiency, regular maintenance, and traps that had failed shut. The customer stated that these traps would have been replaced regardless of the program and the replacement would have occurred at the same time, however the rebate was a bonus. They stated, “because the expense of steam traps is so high,...having the rebate program helps to justify the expense.” When the customer was asked to allocate 10 points to the program and to all other factors that affected the decision to replace steam traps, 6 point were given to the program and 4 to all other factors. Based upon the collection of information the timing and selection score of 10 was reduced to 5 and as a result the NTG score fell from 0.43 to 0.27.

NTG Ratio – 0.27, Program Influence – 3, Non-Program Score – 0, Timing and Selection – 5

SCG 1786162400, \$3,200 incentive, 32 rebated traps

This laundry/cleaners participant replaced 32 of their 45 steam traps through the rebate program. The traps were replaced to take advantage of the rebate program and the payback on the investment. When asked about the importance of the rebate, on multiple occasions the

respondent said they would not have been able to install the new steam traps without the rebate. The availability of the program rebate scored a 10 out of 10 and the endorsement by the account representative was given a 9 out of 10. When asked to score the importance of the program compared to other influences, however, the respondent only gave 2 points of the 10 to the program. It is possible that the respondent was not thinking about the rebate as a part of the program when this score was given. Further clarification revealed that the program was the deciding factor in whether or not to install the steam traps, but other factors, such as payback, are also important. All other answers and information provided indicates that a score reflecting more importance should have been given to the program. Based on this evaluation, the program influence is increased from 3 to 5, and the non-program influence to 10. The final NTG ratio is increased from 0.76 to 0.83.

NTG Ratio – 0.83, Program Influence – 5, Non-Program Score – 10, Timing and Selection – 10

SCG 1425244100, \$1,000 incentive, 5 rebated traps

This industrial processing/manufacturing participant replaced approximately 1/5th of their steam traps through the rebate program due to traps failing. While the respondent rated the influence of the availability of the program rebate a 9 out of 10, they later responded that they would definitely install the same steam traps within six months if no program existed. The only other factors that ranked highly were corporate policy or guidelines, payback on the investment, and previous experience with steam traps, all of which received scores of 10 out of 10. The respondent described the rebate as a bonus rather than the driving force behind replacing the steam traps. Given this information, the timing and selection score was reduced to 4 and the NTG score to 0.3 from 0.47.

NTG Ratio – 0.3, Program Influence – 5, Non-Program Score – 0, Timing and Selection – 4

SDGE 2589924258, \$800 incentive, 4 rebated traps

This laundry/cleaners participant replaced 4 of their 10 steam traps. The motivation to replace the traps came from a desire to save energy and create a more efficient steam system. When the customer was asked to rank the importance of both program and non-program related factors in the decision to replace steam traps, virtually all were give a score of 8 or higher. The respondent also gave the program 6 out of 10 points when asked to rank it against other influences, and gave the other factors the remaining 4 points. The audit provided by SCG, which may have convinced them to replace the traps, was ranked 10. There was, however, a 10 in 10 likelihood that the steam traps would have been replaced at the same time in absence of the program. They considered the rebate secondary in their decision. Based on this evidence, the timing and selection score is reduced to a 4 leading to a decrease in the NTG ratio from 0.53 to 0.3.

NTG Ratio – 0.3, Program Influence – 6, Non-Program Score – 0, Timing and Selection – 4

SCG 1131118100, \$2,200 incentive, 11 rebated traps

This industrial processing/manufacturing participant replaced approximately 1/6th of their steam traps through the rebate program. A reason for replacement was not provided by the respondent. Nearly all program and non-program influencing factors were ranked above 7 out of 10. The availability of the program rebate and the endorsement of the account representative were scored 10, and previous experience with the program was scored 8. The customer found out about the rebate after they had begun thinking about the measure, but were not sure if it was before or after they had definitely decided to replace their steam traps. There was also an 8 in 10 chance that they would have installed the exact same steam traps even without the rebate program. Given this information, the program influence has been reduced from 6 to 3 and the original NTG ratio has been reduced to 0.57 from 0.68.

NTG Ratio – 0.57, Program Influence – 3, Non-Program Score – 4, Timing and Selection – 10

SCG 1950181700, \$2,012 incentive, 13 rebated traps

This industrial processing/manufacturing site replaced 13 of its 20 steam traps through the rebate program. The traps were replaced due to leaking, having failed open, and the rebate program. Of the factors that influenced the decision to replace steam traps, the participant scored the availability of the program rebate, previous experience with the program, the technical assistance provided through the program, and the endorsement of the account representative a 7 or 8 out of 10. When asked to allocate 10 points between program and other influences, however, the participant only gave 4 of the 10 points to the program. It was later revealed that the high program factor scores were a reflection of the improvement the program made to the payback period. Despite this, the NTG score stays the same due to the importance of the feasibility study conducted through the program. The participants also learned about the rebate program prior to beginning the process of replacing their steam traps. While the participant states that the steam traps would have been replaced anyway, it would have taken them six months to a year longer to complete the replacement in absence of the program. Given this assessment, the final NTG ratio remains unchanged at 0.49.

NTG Ratio – 0.49, Program Influence – 4, Non-Program Score – 3, Timing and Selection – 8

SCG 1845209275, \$4,524 incentive, 23 rebated traps

This industrial processing/manufacturing site replaced 23 of their 200 steam traps through the rebate program due to trap failure. The main motivation for trap replacement was to improve the efficiency of plant operations. A number of their answers were inconsistent, particularly regarding the importance of the program. The participants gave 1 point out of 10 to the

program's influence but later stated that there was only a 3 in 10 chance they would have been able to install the same equipment without the program. Given that they learned about the program after they had decided to install the new steam traps it is likely they would have installed the traps even in the absence of the program. The participant stated that they would have installed the same equipment within six months of when it was installed through the program. All program-related influences were given low scores. The only important program influence was the training course provided by SCG, which was influential because it made the participants aware of the need to be proactive about the maintenance and replacement of their steam traps. Given this information, the non-program score is reduced to 5 from 7 and the final NTG score reduced from 0.52 to 0.45.

NTG Ratio – 0.45, Program Influence – 5, Non-Program Score – 5, Timing and Selection – 8

SCG_11208888, \$1,400 incentive, 7 rebated traps

All of the steam traps were replaced at this industrial processing/manufacturing site through the rebate program. The traps were replaced to improve system efficiency and for regular maintenance, as well as the rebate availability. Of the NTG questions, the only questions given a high score were the availability of the program rebate, standard practice in the business or industry, and the payback on the investment with the rebate. All other influences received relatively low scores. There was also an 8 out of 10 chance that the participant would install the same equipment without the rebate program, although it would be within six months to a year of when the installation under the program. The steam traps would have been installed regardless of the program; however the rebate simply expedited the installation of new traps due to budget constraints. Given this assessment, the influence of the timing and selection score is reduced to 6 and the NTG ratio is reduced from 0.49 to 0.42.

NTG Ratio – 0.42, Program Influence – 4, Non-Program Score – 3, Timing and Selection – 6

SCG_1110202400, \$3,600 incentive, 36 rebated traps

This hospital installed 36 steam traps through the rebate program due to failing traps. Ten out of 10 points were awarded to the availability of the program rebate, previous experience with the program, and the endorsement of the account representative. When asked to disperse 10 points across the program influence and outside influences, 5 points were awarded to each. Later, however, the participant said that there was a 10 in 10 chance that the same equipment would be installed without the rebate, although it would be within six months to a year of the actual installation. The participant stated that rebate was considered important, but the steam traps would have to be replaced regardless. The rebate was more of a bonus than a deciding factor. The participant does not know when he learned about the program relative to the decision to replace the steam traps. Program influence is reduced to 2.5 since they don't know when they learned about the program. The timing and selection

score is reduced to 6 from 10 because the program was only an extra benefit. The NTG ratio is decreased from 0.52 to 0.3.

NTG Ratio – 0.3, Program Influence – 5, Non-Program Score – 1, Timing and Selection – 6

SCG 1971057900, \$80,297 incentive, 414 rebated traps

This refinery replaced 414 of its 4200 through the rebate program. The traps were replaced due to leaking and failing traps, as well as to improve system efficiency. In this company, traps are replaced when they are broken, and the company has its own internal maintenance program which keeps a stocked inventory of steam traps. The only program related influence to score above a 0 out of 10 is the endorsement of the account representative, David Duffy. His participation led Chevron to participate more fully in the rebate program; his endorsement was considered to be a strong influence in Chevron's decision to replace their traps through the rebate program. The participant would have installed the same equipment at the same time without the program. If the account representative is removed from the calculation for the timing and selection score it is reduced from 10 to 1. This leads to a much lower NTG ratio, 0.05 from 0.35.

NTG Ratio – 0.05, Program Influence – 0.5, Non-Program Score – 0, Timing and Selection – 1

SCG 1376343418, \$200 incentive, 2 rebated traps

This laundry/cleaners participant replaced 2 of its 22 steam traps through the rebate program due to leaking traps. This participant has a regular maintenance program that visually checks traps for leaks or failures. The program rebate was allotted 0 of 10 points for influencing their decision to replace steam traps. The only program related influence to score highly was the participation in a utility training course. The participant stated, however, that they would have installed the same equipment at the same time without the rebate. They do not remember when they learned about the program rebate in relation to when they decided to replace their steam traps. Given this information, the timing and selection score is reduced to 5 out of 10 for a new NTG ratio of 0.17 from 0.33.

NTG Ratio – 0.17, Program Influence – 0, Non-Program Score – 0, Timing and Selection – 5

SCG 1404174336, \$2,300 incentive, 23 rebated traps

This industrial processing/manufacturing participant replaced 23 of their 37 steam traps through the rebate program. The steam traps were replaced due to failure, leaking, regular maintenance, and a desire to improve system efficiency. Overall, the participant gave the program a low score, 3 out of 10, but several program related factors received fairly high ratings, 7 out of 10. The participant stated that he would have replaced the steam traps at the

same time, regardless of the program, but that the program was an added incentive. The participant learned about the rebate program prior to deciding to replace the steam traps, but they also have a regular maintenance program, under which the traps would be replaced anyways. Given this information, the timing and selection score is reduced to 4. The NTG ratio is reduced from a 0.33 to 0.23.

NTG Ratio – 0.23, Program Influence – 3, Non-Program Score – 0, Timing and Selection – 4

Steam Trap and Pipe Insulation Sites

SCG_1160009780, \$200 steam trap incentive, \$504 pipe insulation incentive, 1 rebated traps, 192 feet of rebated pipe insulation

This industrial process/manufacturing customer had a total of 30 steam traps, of which only 1 was replaced. The decision to replace steam traps was made in conjunction with the decision to install pipe insulation on new pipes in the facility, therefore the respondent was asked to consider both measures when answers were given for the NTG related questions. This customer ranked highly almost all factors that could have influenced the decision to replace steam traps and pipe insulation (at least 8 out of 10). Initially, the availability of the program rebate was given a score of 10 out of 10, but after further questioning, the customer reduced the scoring given to the rebate to a 6. The rebate score was lowered by the respondent after they were asked to consider how likely would have been to install the measures in absence of the program. They indicated that with 100% certainty that the measures would have been installed without the program. They also stated that the measures would have been installed at the same time. Given the answer to this question, the respondent reduced the score given to the availability of the rebate as a factor in the decision to replace steam traps and install pipe insulation to a 6. The effect was to reduce the NTG ratio from a 0.5 to 0.33.

NTG Ratio – 0.33, Program Influence – 5, Non-Program Score – 0, Timing and Selection - 6

SCG_1410096300, \$6,273 incentive for steam traps, \$2,036 incentive for pipe insulation, 32 rebated traps, 831 feet of rebated pipe insulation

This customer replaced all of the steam traps at its facility and installed 831 feet of pipe insulation through the program. The customer reports the presence of insulation prior to the retrofit. All program influence factors were scored 10 out of 10 by this customer as reasons the steam traps were replaced and pipe insulation was installed. However when asked if they would have replaced the traps and installed the pipe insulation in absence of the program, the customer said there was a 10 in 10 likelihood. This scoring seems inconsistent with the high scores given to importance of the rebate as well as other program influences, and when the customer was asked to explain, they stated that as the traps wear out, they would eventually be replaced regardless of the program existence but over a number of years. Since the rebate

was available, it did encourage the participant to replace traps at this time especially knowing that over time they would have to be replaced as they fail. Given this information, the relative program influence score was increased from a 5 to a 7 out of a total of 10. This resulted in a slightly higher NTG ratio of 0.89 (previously it was 0.83).

NTG Ratio – 0.89, Program Influence – 7, Non-Program Score – 10, Timing and Selection - 10

SCG 1799223100, \$6,000 incentive for steam traps, \$1,354 incentive for pipe insulation, 30 rebated traps, 510 feet of rebated pipe insulation

This industrial process/manufacturing participant replaced a small fraction of its 1,000 steam traps and installed 510 feet of pipe insulation. This site reported the presence of pipe insulation prior to this retrofit. The decision to replace traps and add pipe insulation was made by the same individuals at the same time, therefore the participant was asked to consider both measures when answering questions in the Basic Rigor NTG battery. According to the participant, energy and cost savings were major motivating factors in the decision to replace steam traps and install pipe insulation. The participant initially claimed that the availability of the program rebate was half of the reason why these measures were adopted. However, when the participant was asked to allocate a total of 10 points to the program and all other factors, a score of less than 5 out of 10 was given to the program. This indicates a lack of understanding that the rebate is actually a feature of the program. When the participant was asked how important the rebate was relative to the industry's standard practice, they said they were equally important. A score of 8 out of 10 was given to the standard practice in the industry as a factor in the decision to install pipe insulation and replace steam traps. Last, when the participant was asked the likelihood of making changes to these measures without the program, a score of 3 out of 10 was given clearly indicating that the program was important. Based on this evidence, the program influence score was increased for this participant from a 3 to a 7. Consequently, the NTG ratio was increased to 0.79 from 0.66.

NTG Ratio – 0.79, Program Influence – 7, Non-Program Score – 9, Timing and Selection – 8.7

SCG 1285185000, \$5,386 incentive for steam traps, \$14,384 incentive for pipe insulation, 28 rebated traps, 6,468 feet of rebated pipe insulation

The decision to replace traps and add pipe insulation was made by the same individuals at the same time, therefore the participant was asked to consider both measures when answering questions in the Basic Rigor NTG battery. This industrial process/manufacturing facility replaced approximately half of its 50 steam traps due to leaks and steam traps failing shut. The participant also installed 6,468 feet of pipe insulation; no pipe insulation was present at

this facility prior to this retrofit. In addition, the facility had its roof cave-in during 2005 therefore requiring a remodel of a portion of its production facility. Both program and non-program related factors that affected the decision to install pipe insulation and replace traps were scored highly by the participant, with the exception of a recommendation by an equipment vendor (scored a 1 out of 10), recommendation by a consulting engineer (0 out of 10), and technical assistance provided by the program (not applicable). Factors that were given 10 out of 10 by the participant include availability of the program rebate, previous experience with steam traps and pipe insulation, previous experience with the program, and endorsement by an account representative. A score of 10 given to the availability of the program rebate was given because the participant stated that it is important to “take advantage of” offers such as these. The participant indicated however, that without the program, there was an 8 in 10 likelihood that the traps would have been replaced and pipe insulation would have been installed. Last, the program influence score given by the participant was a 7. Based on the inconsistency of the answers regarding the importance of a number of non-program related factors and the fact that there was a high chance of installing new traps and insulation without the program, the program influence score for this participant was reduced to a 4 and the timing and selection score was reduced from a 10 to a 4. These changes reduced the NTG ratio from 0.63 to 0.33.

NTG Ratio – 0.33, Program Influence – 4, Non-Program Score – 2, Timing and Selection – 4

SCG 1622070500, \$1,566 incentive for steam traps, \$1,545 incentive for pipe insulation, 18 rebated steam traps, 515 feet of rebated pipe insulation

This hospital replaced 18 of its 500 steam traps and installed 515 feet of pipe insulation on older pipes that had not been insulated before. Pipe insulation was installed in order to meet OSHA regulations and to reduce steam costs while steam traps were replaced due to trap failure. When asked about factors that influenced the decision to install pipe insulation and replace steam traps, the only program related factor that scored highly was an endorsement by an account representative. Previous program experience was not applicable to this participant, technical assistance from the program was not rated, and the availability of the program rebate was given a score of 2 out of 10. Factors that were considered important were standard practice in the industry (10), corporate policy or guidelines (10), and previous experience with the measures installed (10). The participant indicated that they found out about the program after the installation of the equipment, further indicating that it was not an important factor in the decision to install equipment. When the participant was asked how likely they would be to install the rebated equipment in absence of the program, a score of 10 out of 10 was given. In addition, they said that the equipment would have been purchased at the same time. Taken together, all of the evidence led to a reduction of the timing and selection score from an 8 to a 5. This led to a reduction in the NTG ratio from 0.3 to 0.2.

NTG Ratio – 0.2, Program Influence – 1, Non-Program Score – 0, Timing and Selection – 5

SCG_1759136300, \$8,549 incentive for steam traps, \$126 incentive for pipe insulation, 43 rebated steam traps, 42 feet of pipe insulation

Forty-three out of 300 steam traps were failing and/or leaking and required replacement at this industrial process/manufacturing facility. In addition, the customer had installed new pipes to deliver steam and thought it best to take advantage of the rebate program and install insulation on them. These pipes had not been insulated before. Many of the program related factors that could have influenced the decision to install these measures were scored between a 6 and 8 out of 10 (i.e., availability of the program rebate scored 7, endorsement by an account representative received a score of 8, and technical assistance provided by the program scored 6). These scores are questionable since the customer did not learn of the program until after the traps and insulation were installed. It is clear that the program was not as important as these scores were slightly lower than those given to non-program related factors, which tended to range between 8 and 10 (i.e., recommendation from equipment vendors scored an 8, payback on the investment was scored a 10, and standard practice in the industry received a score of 9). When the customer was asked to allocate a total of 10 points between the program and all other factors that influenced the decision to install traps and insulation, they gave the program a score of 3. The customer was also asked how likely they would have been to install the same equipment if the program was not available. To this, a score of 7 out of 10 was given and the customer indicated that the equipment would have been installed between six months and a year later. No change was made to scores for this customer; therefore the estimated NTG ratio remains the same.

NTG Ratio – 0.43, Program Influence – 1.5, Non-Program Score – 4, Timing and Selection – 8

SCG_312280723, \$600 incentive for steam traps, \$3,006 incentive for pipe insulation, 6 rebated traps, 1,002 feet of rebated pipe insulation

Pipe insulation was installed on both older insulated pipe and new un-insulated pipes at this industrial process/manufacturing facility and 6 steam traps were replaced out of a total of 50. Of the pipe insulation, approximately 25% of what was installed had been installed on new pipes. The program was not considered a major factor in the decision to replace traps and purchase and install pipe insulation. The non-program related factors were scored much higher including the payback on the investment (8), corporate policy or guidelines (8), and standard practice in the industry (8). The availability of the rebate only received a score of 4 out of 10. The customer also indicated that in absence of the program, this equipment would have been purchased with 100% certainty at the same time. No change was made to any of the scores for this customer, thus leaving the NTG ratio the same at 0.33.

NTG Ratio – 0.33, Program Influence – 2, Non-Program Score – 0, Timing and Selection – 10

Appendix B-7

Industrial Steam Trap Sensitivity Analysis Variable Values and Alternative Scenario Charts

This evaluation took steps to increase both the validity and reliability of measurement for each of the parameters being estimated for both the commercial and industrial evaluations of steam trap retrofit therm savings. The evaluation worked to minimize response bias for survey based results and recruitment and undertook uncertainty analyses both before and after on-site visits were conducted. This appendix provides supplemental information used in the uncertainty analysis conducted for the industrial evaluation of savings using Crystal Ball. The variable values input to Crystal Ball are provided along with the charts showing how each variable contributed to the overall uncertainty of gross therm savings for the six scenarios. The six uncertainty scenarios are as follows:

| Uncertainty Analysis Scenarios |
|--------------------------------------------------------------|
| High Pressure, Minimum Uncertainty of all parameters |
| High Pressure, Maximum Uncertainty with known Loss Factor |
| High Pressure, Maximum Uncertainty, with unknown Loss Factor |
| Low Pressure, Minimum Uncertainty of all parameters |
| Low Pressure, Maximum Uncertainty with known Loss Factor |
| Low Pressure, Maximum Uncertainty, with unknown Loss Factor |

CRYSTAL BALL ERROR ANALYSIS FOR STEAM TRAPS

| VARIABLES | Mean Value | Variable Value | Standard Deviation | Min | Max | Distribution Type |
|----------------------------------------|------------|----------------|--------------------|-------|-------|-------------------|
| Boiler Efficiency - low uncertainty | 0.75 | 0.8 | 0.001 | | | Normal |
| Boiler Efficiency - high uncertainty | 0.75 | 0.8 | 0.03 | | | MinExtreme |
| Loss Factor - closed | 0 | 0 | 0 | 0.000 | 0.001 | Uniform |
| Loss Factor - open | 1 | 1 | 0 | 0.999 | 1.000 | Uniform |
| Loss Factor - partially open | 0.5 | 0.5 | 0.05 | | | Normal |
| Loss Factor - no info | 0.5 | 0.5 | | | | Custom |
| Number of Traps (Large) | 300 | 300 | 30 | | | Normal |
| Number of Traps (Small) | 25 | 25 | 0.025 | | | Normal |
| Orifice Diameter (in) | 0.15 | 0.15 | 0.001 | | | Normal |
| Inlet Pressure (PSIG) - high p, low u | 100 | 100 | 2 | | | Normal |
| Inlet Pressure (PSIG) - high p, high u | 100 | 100 | 5 | | | Normal |
| Inlet Pressure (PSIG) - low p, low u | 10 | 10 | 0.5 | | | Normal |
| Inlet Pressure (PSIG) - low p, high u | 10 | 10 | 2.5 | | | Normal |
| AnnualOperation (hrs) - 8460 | 8460 | 8460 | 300 | | | Normal |
| AnnualOperation (hrs) - 4200 | 4200 | 4200 | 1000 | | | Normal |
| AnnualOperation (hrs) - 2000 | 2000 | 2000 | 500 | | | Normal |

CRYSTAL BALL ERROR ANALYSIS FOR STEAM TRAPS

| VARIABLES | Mean Value | Variable Value | Standard Deviation | Min | Max | Distribution Type |
|----------------------------------------|------------|----------------|--------------------|-------|-------|-------------------|
| Boiler Efficiency - low uncertainty | 0.75 | 0.8 | 0.001 | | | Normal |
| Boiler Efficiency - high uncertainty | 0.75 | 0.8 | 0.03 | | | MinExtreme |
| Loss Factor - closed | 0 | 0 | 0 | 0.000 | 0.001 | Uniform |
| Loss Factor - open | 1 | 1 | 0 | 0.999 | 1.000 | Uniform |
| Loss Factor - partially open | 0.5 | 0.5 | 0.05 | | | Normal |
| Loss Factor - no info | 0.5 | 0.5 | | | | Custom |
| Number of Traps (Large) | 300 | 300 | 30 | | | Normal |
| Number of Traps (Small) | 25 | 25 | 0.025 | | | Normal |
| Orifice Diameter (in) | 0.15 | 0.15 | 0.001 | | | Normal |
| Inlet Pressure (PSIG) - high p, low u | 100 | 100 | 2 | | | Normal |
| Inlet Pressure (PSIG) - high p, high u | 100 | 100 | 5 | | | Normal |
| Inlet Pressure (PSIG) - low p, low u | 10 | 10 | 0.5 | | | Normal |
| Inlet Pressure (PSIG) - low p, high u | 10 | 10 | 2.5 | | | Normal |
| AnnualOperation (hrs) - 8460 | 8460 | 8460 | 300 | | | Normal |
| AnnualOperation (hrs) - 4200 | 4200 | 4200 | 1000 | | | Normal |
| AnnualOperation (hrs) - 2000 | 2000 | 2000 | 500 | | | Normal |

Appendix C

Pump Test Survey Instrument

| | | |
|---------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | SCREENER | |
| ask all | OUTCOME1 | This is _____ calling on behalf of Southern California Edison from Itron Consulting. THIS IS NOT A SALES CALL NOR A SERVICE CALL. According to our records, your organization participated in Edison's Pump Testing Program in [PUMP_TEST_DATE1]. May I speak with the person most knowledgeable about your organizations participation in this program?[CONTACT NAME1]...[CONTACT NAME2] |
| | 1 | Yes (or go to next screen) TCONNAME |
| ask all | TCONNAME | Who would be the person most familiar with your organizations participation in Edisons Pump Testing Program? |
| | 1 | Enter name MAY_I |
| ask all | MAY_I | May I speak with him/her? |
| | 1 | Yes INTRO3 |
| | 2 | No (not available right now, set CB) APPT |
| | 3 | No one knows about participation in this program END |
| ask all | INTRO3 | Hello, my name is _____ and i am calling on behalf of Southern California Edison from Itron Consulting. THIS IS NOT A SALES CALL. We are interested in speaking with the person most knowledgeable about your organizations participation in Edisons Pump Testing program? Through this program, Edison tested pumps located at ... [ADDR1, CITY1], [ADDR2, CITY2], [ADDR3, CITY3], [ADDR4, CITY4], [ADDR5, CITY5] I was told you are the person most knowledgeable about these pump tests. Is this correct? |
| | 1 | Yes Q1 |
| | 2 | No, there is someone else PERSON |
| | 3 | No and I don't know who to refer you to END |
| ask all | PERSON | According to our records, your organization participated in Edison's Pump Testing Program. Through this program, Edison tested pumps located at ... [ADDR1, CITY1], [ADDR2, CITY2], [ADDR3, CITY3], [ADDR4, CITY4], [ADDR5, CITY5] Are you the person most knowledgeable about your organizations participation in Edisons Pump Testing Program? |
| | 1 | Yes Q1 |
| | 2 | Yes, but I need to make an appt APPT |
| | 3 | No, there is someone else INTRO3 |
| | 4 | No and I don't know who to refer you to END |
| | PROGRAM PARTICIPATION AND PROGRAM AWARENESS | |
| ask all | Q1 | How did your company first learn of the benefits of pump testing? |
| | 77 | RECORD RESPONSE Q2 |
| | 88 | Refused Q2 |
| | 99 | Don't know Q2 |
| ask all | Q2 | How did your company first learn about the Pump Testing program? |
| | 77 | RECORD RESPONSE Q3 |
| | 88 | Refused Q3 |
| | 99 | Don't know Q3 |
| ask all | Q3 | How many years has your company been participating in Edison's Pump Testing program? |
| | # | years Q4 |
| | 88 | Refused Q4 |
| | 99 | Don't know Q4 |
| ask all | Q4 | Before participating in Edison's pump testing program, did your organization ever test the pumps at these addresses? |
| | 1 | Yes Q5 |
| | 2 | No Q5 |
| | 88 | Refused Q5 |
| | 99 | Don't know Q5 |
| ask all | Q5 | Did your company first consider having your pump(s) tested before or after learning of Edison's pump testing program? |
| | 1 | Before Q6_i |

| | | | | |
|--|---------------------------------|------------|--|------|
| | 2 | After | | Q6_i |
| | 88 | Refused | | Q6_i |
| | 99 | Don't know | | Q6_i |
| | GROSS IMPACT ASSUMPTIONS | | | |

FOR PUMPi = 1 TO N

Next, I would like to discuss a few specific pumps, beginning with [PUMPi] at [ADDRESSi, CITYi];

ask all **Q6_i** According to our records Edison completed a pump test for this pump on [PUMP TEST DATEi], is this correct?

| | | | | |
|--|----|------------|--|-------|
| | 1 | Yes | | Q64_i |
| | 2 | No | | PiC |
| | 88 | Refused | | PiC |
| | 99 | Don't know | | PiC |

ask all **PiC** Is there another person that would be familiar with this pump that we could contact? If so....may I have their name and phone number?

| | | | | |
|--|---|-----|--|-----|
| | 1 | Yes | | END |
|--|---|-----|--|-----|

ask all **Q64_i** How old is [PUMPi] at [ADDRESSi]?

| | | | | |
|--|----|------------|--|------|
| | # | years old | | Q7_i |
| | 88 | Refused | | Q7_i |
| | 99 | Don't know | | Q7_i |

ask all **Q7_i** Did the pump test results on [PUMP TEST DATEi] indicate that a repair would improve the efficiency of this pump?

| | | | | |
|--|----|------------|--|------|
| | 1 | Yes | | Q8_i |
| | 2 | No | | Q8_i |
| | 88 | Refused | | Q8_i |
| | 99 | Don't know | | Q8_i |

ask all **Q8_i** Did the vendor that tested [PUMPi] perform any additional services for the pump for an extra fee, such as an inspection or maintenance service?

| | | | | |
|--|----|------------|--|-------|
| | 1 | Yes | | Q9_i |
| | 2 | No | | Q10_i |
| | 88 | Refused | | Q10_i |
| | 99 | Don't know | | Q10_i |

ask all **Q9_i** In addition to the pump test, what other services did the vendor perform for [PUMPi]?

| | | | | |
|--|----|---------------------------------------------------|--|-------|
| | 1 | Motor and Pump Vibration Detection | | Q10_i |
| | 2 | Meg-Ohm Test | | Q10_i |
| | 3 | Electrical Panel Infrared Inspection and Cleaning | | Q10_i |
| | 4 | Industrial Services | | Q10_i |
| | 77 | RECORD RESPONSE | | Q10_i |
| | 88 | Refused | | Q10_i |
| | 99 | Don't know | | Q10_i |

if part_flag=1 **Q10_i** Our records show that in [PT_PROG_YEAR] your company participated in the Edison Pump repair rebate program at this location, is this correct?

| | | | | |
|--|----|------------|--|-------|
| | 1 | Yes | | Q11_i |
| | 2 | No | | Q14_i |
| | 88 | Refused | | Q14_i |
| | 99 | Don't know | | Q14_i |

if part_flag=1 **Q11_i** Was this rebate for work done on [PUMPi]?

| | | | | |
|--|----|------------|--|-------|
| | 1 | Yes | | Q12_i |
| | 2 | No | | Q14_i |
| | 88 | Refused | | Q14_i |
| | 99 | Don't know | | Q14_i |

if part_flag=1 **Q12_i** Was the rebate for work identified through the test of [PUMPi] on [PUMPTESTDATEi]?

| | | | | |
|--|----|------------|--|-------|
| | 1 | Yes | | Q14_i |
| | 2 | No | | Q13_i |
| | 88 | Refused | | Q14_i |
| | 99 | Don't know | | Q14_i |

if part_flag=1 **Q13_i** How did your company identify the need for the repairs that were rebated through the Pump repair rebate program?

| | | | | |
|--|----|-----------------|--|-------|
| | 77 | RECORD VERBATIM | | Q14_i |
|--|----|-----------------|--|-------|

| | | | |
|--|----|------------|-------|
| | 88 | Refused | Q14_i |
| | 99 | Don't know | Q14_i |

ask all

Q14_i Since the pump test on [PUMP TEST DATEi], has your company made any [other] changes or repairs to this pump? *add "other" if they paid for additional services, or received rebate

| | | | |
|-------------------|----|------------|-------|
| | 1 | Yes | Q15_i |
| | 2 | No | Q50_i |
| | 88 | Refused | Q28_i |
| | 99 | Don't know | Q28_i |
| NO REPAIRS | | | |

if Q7_i=1 (recom) + Q14_i=2 (not repaired)

Q50_i What are the primary reasons that your company has not taken action to repair the pump?

| | | | |
|--|----|--------------------------------------|-------|
| | 1 | It still works fine | Q51_i |
| | 2 | Pump is not being used | Q51_i |
| | 3 | Repair is too expensive | Q51_i |
| | 4 | Benefit of repair outweighs the cost | Q51_i |
| | 77 | RECORD RESPONSE | Q51_i |
| | 88 | Refused | Q51_i |
| | 99 | Don't know | Q51_i |

if Q7_i=1 (recom) + Q14_i=2 (not repaired)

Q51_i Does your company have any plans to repair the pump within the next year?

| | | | |
|--|----|------------|-------|
| | 1 | Yes | Q52_i |
| | 2 | No | Q28_i |
| | 88 | Refused | Q28_i |
| | 99 | Don't know | Q28_i |

if Q7_i=1 (recom) + Q14_i=2 (not repaired)

Q52_i Could you describe what the plans are within the next year?

| | | | |
|--|----|-----------------|-------|
| | 77 | RECORD RESPONSE | Q53_i |
| | 88 | Refused | Q53_i |
| | 99 | Don't know | Q53_i |

if Q7_i=1 (recom) + Q14_i=2 (not repaired)

Q53_i Do you think your company will do this work through the Edison pump repair program?

| | | | |
|--|----|------------|-------|
| | 1 | Yes | Q28_i |
| | 2 | No | Q28_i |
| | 88 | Refused | Q28_i |
| | 99 | Don't know | Q28_i |

if Q14_i=1 (repair)

Q15_i Please describe in detail the types of changes that were made to the pump equipment.

| | | | |
|--|----|--------------------------|-------|
| | 1 | Impeller replacement | Q16_i |
| | 2 | Impeller modification | Q16_i |
| | 3 | Bearing replacement | Q16_i |
| | 4 | EE motor | Q16_i |
| | 5 | VSD | Q16_i |
| | 6 | Adjust bowl and impeller | Q16_i |
| | 7 | Assembly pump overhaul | Q16_i |
| | 8 | Entire pump replacement | Q16_i |
| | 77 | RECORD RESPONSE | Q16_i |
| | 88 | Refused | Q16_i |
| | 99 | Don't know | Q16_i |

if Q14_i=1 (repair)

Q16YR_i In what year did you repair this pump?

| | | | |
|--|----|----------------|---------|
| | 1 | 2005 or before | REDO |
| | 2 | 2006 | Q16MO_i |
| | 3 | 2007 | Q16MO_i |
| | 4 | 2008 | Q16MO_i |
| | 5 | 2009 | Q16MO_i |
| | 88 | Refused | Q17_i |
| | 99 | Don't know | Q17_i |

if Q14_i=1 (repair)

Q16MO_i Can you tell me in which month of [Q16YR_i] these repairs were made?.... If you don't know the month, would you know the season?

| | | | |
|--|---|----------|-------|
| | 1 | January | Q18_i |
| | 2 | February | Q18_i |
| | 3 | March | Q18_i |

| | | |
|----|------------|-------|
| 4 | April | Q18_i |
| 5 | May | Q18_i |
| 6 | June | Q18_i |
| 7 | July | Q18_i |
| 8 | August | Q18_i |
| 9 | September | Q18_i |
| 10 | october | Q18_i |
| 11 | November | Q18_i |
| 12 | December | Q18_i |
| 13 | Spring | Q18_i |
| 14 | Summer | Q18_i |
| 15 | Fall | Q18_i |
| 16 | Winter | Q18_i |
| 88 | Refused | Q18_i |
| 99 | Don't know | Q18_i |

| | | | |
|--------------------------------|--------------|-----------------------------------------------------------|-------|
| if Q14_i=1 (repair) | Q17_i | Was the repair done before or after the pump test? | |
| | 1 | Before | Q18_i |
| | 2 | After | Q18_i |
| | 88 | Refused | Q18_i |
| | 99 | Don't know | Q18_i |

| | | | |
|--------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| if Q14_i=1 (repair) | Q18_i | Would you please provide us with [fax us a copy of] documentation of the work performed, such as a copy of the work order, an invoice, or a contractor's proposal? [RM: if yes, make flag to read how to send this info at end of survey] | |
| | 77 | RECORD RESPONSE | Q19_i |
| | 88 | Refused | Q19_i |
| | 99 | Don't know | Q19_i |

| | | | |
|------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------|-------|
| if Q14_i=1 (repair) + [part_flag=0 or Q10 =(2,88,99)] | Q19_i | Did your company receive a rebate for repairing this pump? | |
| | 1 | Yes | Q20_i |
| | 2 | No | Q24_i |
| | 88 | Refused | Q24_i |
| | 99 | Don't know | Q24_i |

| | | | |
|--------------------------------|--------------|-----------------------------------------------------------|-------|
| if Q14_i=1 (repair) | Q20_i | Was this rebate from Edison's pump repair program? | |
| | 1 | Yes | Q24_i |
| | 2 | No | Q21_i |
| | 88 | Refused | Q21_i |
| | 99 | Don't know | Q21_i |

| | | | |
|--------------------------------|--------------|--------------------------------------------|-------|
| if Q14_i=1 (repair) | Q21_i | What entity supplied the rebate(s)? | |
| | 77 | RECORD RESPONSE | Q22_i |
| | 88 | Refused | Q22_i |
| | 99 | Don't know | Q22_i |

| | | | |
|--------------------------------|--------------|---------------------------------------------|-------|
| if Q14_i=1 (repair) | Q22_i | What was the name of the program? | |
| | 1 | SPC (Standard Performance Contract) Program | Q23_i |
| | 77 | RECORD RESPONSE | Q23_i |
| | 88 | Refused | Q23_i |
| | 99 | Don't know | Q23_i |

| | | | |
|--------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| if Q14_i=1 (repair) | Q23_i | Would you please provide us with [fax us a copy of] documentation of the rebate(s) your company recieved, such as a copy of the rebate application? [RM: if they say yes, make flag to read how to send this info at end of survey] | |
| | 77 | RECORD RESPONSE | Q24_i |
| | 88 | Refused | Q24_i |
| | 99 | Don't know | Q24_i |
| | | NTG | |

| | | | |
|--------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------|-------|
| if Q14_i=1 (repair) | Q24_i | Did the pump test on [PUMPTESTDATEi] help identify the need for the repairs that were completed for this pump? | |
| | 1 | Yes | Q26_i |
| | 2 | No | Q25_i |
| | 88 | Refused | Q26_i |
| | 99 | Don't know | Q26_i |

| | | | |
|-------------------|--------------|----------------------------------------------------------------------------|--|
| if Q14_i=1 | Q25_i | How did you first identify the need for these repairs to this pump? | |
|-------------------|--------------|----------------------------------------------------------------------------|--|

| | | | |
|------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| (repair) | 77 | RECORD RESPONSE | Q26_i |
| | 88 | Refused | Q26_i |
| | 99 | Don't know | Q26_i |
| if Q14_i=1 (repair) | Q26_i | How likely is it that your company would have completed the repairs to [PUMPi] if it had not been tested? Please use the same 0 to 10 likelihood scale, where 0 is not at all likely and 10 is extremely likely. | |
| | # | 0-10 | Q27_i |
| | 88 | Refused | Q27_i |
| | 99 | Don't know | Q27_i |
| if Q14_i=1 (repair) | Q27_i | What were the primary reasons your company decided to have this pump repaired? | |
| | 1 | The pump test results | Q32_i |
| | 77 | RECORD RESPONSE | Q32_i |
| | 88 | Refused | Q32_i |
| | 99 | Don't know | Q32_i |
| | | INFLUENCE ON DECISION TO TEST PUMPS | |
| | | Now, using this 0 to 10 rating scale, where 0 means "Not at all important" and 10 means "Very important," please rate the importance of each of the following in your decision to have [PUMPi] tested at on [PUMPTESTDATEi]. [ROTATE PRESENTATION OF ITEMS. FOLLOW UP WITH "And is there anything else that I may have missed?" RECORD AS p. Other (SPECIFY)] | |
| | Q32_i | That the test was free (The offer of a free test through the Edison pump testing program) | ROTATE |
| | Q33_i | Information about the Pump Testing Program or Edison marketing materials? including website | ROTATE |
| | Q34_i | The endorsement or recommendation by [ACCT_REP] | ROTATE |
| if Q14_i=1 (repair) | Q35_i | The age or condition of your pumps | ROTATE |
| | Q36_i | Previous experience with the Pump Testing Program | ROTATE |
| | Q37_i | Previous experience with pump tests outside of the program | ROTATE |
| | Q38_i | A recommendation from a design or consulting engineer | ROTATE |
| | Q39_i | Thr standard practice of pump testing in your business or industry | ROTATE |
| | Q40_i | Following a regular pump testing schedule (The amount of time elapsed since last the testing of this pump) | ROTATE |
| | Q41_i | Corporate policy of pump testing | ROTATE |
| if Q14_i=1 (repair) | Q42_i | Other (SPECIFY FACTOR and RATING) [Was there something else that was more important to your decision to test the pumps?] | Q43_i |
| | 1 | Yes | Q41_i_OTH |
| | 2 | No | Q43_i |
| | 88 | Refused | Q43_i |
| | 99 | Don't know | Q43_i |
| if Q14_i=1 (repair) | Q42_i_OTH | What was this other factor? | |
| | 1 | Yes | Q41_i_PTS |
| | 2 | No | Q43_i |
| | 88 | Refused | Q43_i |
| | 99 | Don't know | Q43_i |
| if Q14_i=1 (repair) | Q42_i_PTS | Using the same 0 to 10 scale, how would you rate the importance of this factor? | |
| | # | 0-10 | Q43_i |
| | 88 | Refused | Q43_i |
| | 99 | Don't know | Q43_i |
| if Q14_i=1 (repair) | Q43P_i & Q43I_i | please rate the overall importance of the Edison Pump Test Program versus the most important of the other factors we just discussed in your decision to TEST your pumps. I'd like you to give me a 0 to 10 score for the Edison Pump Test Program's influence and a 0 to 10 score for the influence of the most important other factor so that the two scores total 10. | Q28_i |
| | #0-10 | a. _____ rating of the importance of Edison Pump Testing Program | |
| | #0-10 | b. _____ rating of the importance of Other Factors | |
| | | MORE NTG | |
| ask all | Q28_i | Now, thinking back to your company's decision to have [PUMPi] tested on [PUMPTESTDATEi]. What were the primary reasons your company decided to have [PUMPi] tested? | |
| | 1 | Pump was running poorly | Q29_i |

| | | |
|----|------------------------------------------------------------|-------|
| 2 | We test our pumps on a schedule (eg. every so many months) | Q29_i |
| 3 | Energy bills were high | Q29_i |
| 4 | SCE suggested it | Q29_i |
| 5 | It was free | Q29_i |
| 6 | It is a good idea | Q29_i |
| 7 | To determine the efficiency/ monitor efficiency | Q29_i |
| 77 | RECORD RESPONSE | Q29_i |
| 88 | Refused | Q29_i |
| 99 | Don't know | Q29_i |

ask all **Q29_i** If Edison's pump testing program did not exist, How likely is it that you would have had [PUMPi] tested? Please use a 0 to 10 likelihood scale, where 0 is not at all likely and 10 is extremely likely.

| | | |
|----|------------|-------|
| # | 0-10 | Q30_i |
| 88 | Refused | Q44 |
| 99 | Don't know | Q44 |

ask all, if Q29_i>5 **Q30_i** If the pump test program did not exist, would your company have had [PUMPi] tested at the same time or at a later date?

| | | |
|----|------------|-------|
| 1 | Same time | Q44 |
| 2 | Later date | Q31_i |
| 88 | Refused | Q44 |
| 99 | Don't know | Q44 |

ask all **Q31_i** If the Edison pump test program did not exist, how long would you have waited before having [PUMPi] tested? (Please answer in months)

| | | |
|----|------------|-----|
| # | months | Q44 |
| 88 | Refused | Q44 |
| 99 | Don't know | Q44 |

NEXT PUMPi
Now please think about [PUMPi] at [ADDRESSi, CITYi];
LOOP ABOVE QUESTIONS

AND MORE NTG

ask all **Q44** Does your company test its pump(s) on a regular schedule?

| | | |
|----|------------|-----|
| 1 | Yes | Q45 |
| 2 | No | Q46 |
| 88 | Refused | Q46 |
| 99 | Don't know | Q46 |

ask all **Q45** How often does your company have each pump tested? (Please answer in months)

| | | |
|----|------------------|-----|
| # | every ___ months | Q47 |
| 88 | Refused | Q46 |
| 99 | Don't know | Q46 |

ask all **Q46** How many times has your company had the pump(s) tested in the past 3 years?

| | | |
|----|------------|-----|
| # | times | Q47 |
| 88 | Refused | Q47 |
| 99 | Don't know | Q47 |

ask all, if Q4=1 or Q44=1 **Q47** Before participating in Edison's Pump Testing Program, how often did your company test the pumps at these addresses? (Please answer in months)

| | | |
|----|-----------------------|-----|
| 66 | Never | Q48 |
| # | every ___ months | Q48 |
| 77 | RECORD OTHER RESPONSE | Q48 |
| 88 | Refused | Q48 |
| 99 | Don't know | Q48 |

ask all **Q48** If you had to pay to test your pump(s) would your company test your pump(s) less often or the same?

| | | |
|----|------------|-----|
| 1 | Less often | Q49 |
| 2 | The same | Q54 |
| 88 | Refused | Q54 |
| 99 | Don't know | Q54 |

ask all **Q49** How often would you estimate that your company would get your pump(s) tested if the pump test program did not exist? (Please answer in months)

| | | |
|----|------------------|-----|
| 66 | Never | Q54 |
| # | every ___ months | Q54 |

| | | | |
|----------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| | 88 | Refused | Q54 |
| | 99 | Don't know | Q54 |
| | | SPILLOVER QUESTIONS | |
| ask all | Q54 | How many locations does your firm have? | |
| | # | locations | Q55 |
| | 88 | Refused | Q55 |
| | 99 | Don't know | Q55 |
| ask all | Q55 | How many pumps does your company have at all of its locations? | |
| | # | total # of pumps | Q56 |
| | 88 | Refused | Q56 |
| | 99 | Don't know | Q56 |
| ask all, if Q54>1 | Q56 | Has your company completed pump tests at any of your other locations? | |
| | 1 | Yes | Q57 |
| | 2 | No | Q57 |
| | 88 | Refused | Q57 |
| | 99 | Don't know | Q57 |
| ask all, if Q54>1 | Q57 | Does your company have pumps at facilities outside Edison service territory? | |
| | 1 | Yes | Q58 |
| | 2 | No | Q62_i |
| | 88 | Refused | Q62_i |
| | 99 | Don't know | Q62_i |
| ask all | Q58 | Does your company test those pumps? | |
| | 1 | Yes | Q59 |
| | 2 | No | Q62_i |
| | 88 | Refused | Q62_i |
| | 99 | Don't know | Q62_i |
| ask all | Q59 | Are those pump tests free also? | |
| | 1 | Yes | Q60 |
| | 2 | No | Q60 |
| | 88 | Refused | Q60 |
| | 99 | Don't know | Q60 |
| ask all | Q60 | How often are those pumps tested? (Please answer in months) | |
| | # | every ___ months | Q61 |
| | 88 | Refused | Q61 |
| | 99 | Don't know | Q61 |
| ask all | Q61 | How important was your experience with Edison pump testing program in your decision to have these pumps tested? Please use the same 0 to 10 importance scale, where 0 is not at all important and 10 is extremely important. | |
| | # | 0-10 | Q62_i |
| | 88 | Refused | Q62_i |
| | 99 | Don't know | Q62_i |
| | | CUSTOMER CHARACTERISTICS | |
| | | <i>FOR ADDRESS_i = 1 TO 5</i> | |
| ask all | Q62_i | Our records indicate that the primary business code at [ADDRESS_i] is [NAICS]. Is that correct? | |
| | 1 | Yes | Q65_i |
| | 2 | No | Q63_i |
| | 88 | Refused | Q63_i |
| | 99 | Don't know | Q63_i |
| ask all | Q63_i | Please describe the type of work performed at [ADDRESS_i] and/or the primary product made or main service provided. | |
| | 77 | RECORD RESPONSE | Q64_i |
| | 88 | Refused | Q64_i |
| | 99 | Don't know | Q64_i |
| ask all | Q65_i | What year was this business established at [ADDRESS_i]? | |
| | # | year | Q66_i |
| | 88 | Refused | Q66_i |
| | 99 | Don't know | Q66_i |
| ask all | Q66_i | How many full-time equivalent employees work at [ADDRESS_i]? | |

| | | |
|----|---------------------|-----|
| # | full-time employees | END |
| 88 | Refused | END |
| 99 | Don't know | END |

LOOP ABOVE QUESTIONS

END: Thanks...

Appendix D

SCE Industrial and Agricultural Measures

Appendix D-1

Nonresidential Net-to-Gross Methodology

**Methodological Framework for Using the Self-
Report Approach to Estimating Net-to-Gross
Ratios for Nonresidential Customers**

**Prepared for the Energy Division, California Public Utilities
Commission**

By

The Nonresidential Net-To-Gross Ratio Working Group

Final Version

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Acknowledgments

As part of the evaluation of the 2006-08 energy efficiency programs designed and implemented by the four investor-owned utilities (Pacific Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas and Electric Company) and third parties, the Energy Division of the California Public Utilities Commission (CPUC) formed a nonresidential net-to-gross ratio working group that was composed of experienced evaluation professionals. The main purpose of this group was to develop a standard methodological framework, including decision rules, for integrating in a systematic and consistent manner the findings from both quantitative and qualitative information in estimating net-to-gross ratios. The working group, listed alphabetically, was composed of the following evaluation professionals:

- Michael Baker, SBW Consulting
- Fred Coito, KEMA
- Kevin Cooney, Summit Blue Consulting
- Tim Drew, Energy Division, CPUC
- Jennifer Fagan, Itron, Inc.
- Miriam Goldberg, KEMA
- Nick Hall, TecMarket Works
- Kay Hardy, Energy Division, CPUC
- Ken Keating
- John Reed, Innovologie LLC
- Richard Ridge, Ridge & Associates
- Mike Rufo, Itron, Inc.
- Eric Swan, KEMA (formerly of RLW Analytics, Inc.)
- Christina Torok, Itron, Inc.
- Philippus Willems, PWP, Inc.

A public webinar was conducted to obtain feedback from the four investor-owned utilities and other interested stakeholders. The questionnaire was then pre-tested and, based on the pre-test results, finalized in November 2008.

1. OVERVIEW OF THE LARGE NONRESIDENTIAL FREE RIDERSHIP APPROACH

The methodology described in this section was developed to address the unique needs of Large Nonresidential customer projects developed through energy efficiency programs offered by the four California investor-owned utilities and third-parties. This method relies exclusively on the Self-Report Approach (SRA) to estimate project and program-level Net-to-Gross Ratios (NTGRs), since other available methods and research designs are generally not feasible for large nonresidential customer programs. This methodology provides a standard framework, including decision rules, for integrating findings from both quantitative and qualitative information in the calculation of the net-to-gross ratio in a systematic and consistent manner. This approach is designed to fully comply with the *California Energy Efficiency Evaluation: Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals* (Protocols) and the *Guidelines for Estimating Net-To-Gross Ratios Using the Self-Report Approaches* (Guidelines), as demonstrated in Appendix D.

This approach preserves the most important elements of the approaches previously used to estimate the NTGRs in large nonresidential customer programs¹. However, it also incorporates several enhancements that are designed to improve upon that approach, for example:

- The method introduces a 0 to 10 scoring system for key questions used to estimate the NTGR, rather than using fixed categories that were assigned weights (as was done previously).
- The method asks respondents to jointly consider and rate the importance of the many likely events or factors that may have influenced their energy efficiency decision making, rather than focusing narrowly on only their rating of the program's importance. This question structure more accurately reflects the complex nature of the real-world decision making and should help to ensure that all non-program influences are reflected in the NTGR assessment in addition to program influences.

It is important to note that the NTGR approach described in this document is a general framework, designed to address all large nonresidential programs. In order to implement this approach on a program-specific basis, it might need to be somewhat customized to reflect the unique nature of the individual programs.

¹ Such as, for example, the NTGR method used to evaluate NTGRs for the California Standard Performance Contracting Program.

2. BASIS FOR SRA IN SOCIAL SCIENCE LITERATURE

The social sciences literature provides strong support for use of the methods used in the SRA to assess program influence. As the *Guidelines* notes,

More specifically, the SRA is a mixed method approach that involves asking one or more key participant decision-makers a series of structured and open-ended questions about whether they would have installed the same EE equipment in the absence of the program as well as questions that attempt to rule out rival explanations for the installation (Weiss, 1972; Scriven, 1976; Shadish, 1991; Wholey et al., 1994; Yin, 1994; Mohr, 1995). In the simplest case (e.g., residential customers), the SRA is based primarily on quantitative data while in more complex cases the SRA is strengthened by the inclusion of additional quantitative and qualitative data which can include, among others, in-depth, open-ended interviews, direct observation, and review of program records. Many evaluators believe that additional qualitative data regarding the economics of the customer's decision and the decision process itself can be very useful in supporting or modifying quantitatively-based results (Britan, 1978; Weiss and Rein, 1972; Patton, 1987; Tashakkori and Teddlie, 1998).²

More details regarding the philosophical and methodological underpinnings of this approach are in Ridge, Willems and Fagan (2009), Ridge, Willems, Fagan and Randazzo (2009) and Megdal, Patil, Gregoire, Meissner, and Parlin (2009). In addition to these two articles, Appendix A provides an extensive listing of references in the social sciences literature regarding the methods employed in the SRA.

3. FREE RIDERSHIP ANALYSIS BY PROJECT TYPE

There are three levels of free-ridership analysis. The most detailed level of analysis, the **Standard – Very Large Project** NTGR, is applied to the largest and most complex projects (representing 10 to 20% of the total) with the greatest expected levels of gross savings.³ The **Standard** NTGR, involving a somewhat less detailed level of analysis, is applied to projects with moderately high levels of gross savings. The least detailed analysis, the **Basic** NTGR, is applied to all remaining projects. Evaluators must exercise their own discretion as to what the appropriate thresholds should be for each of these three levels.

4. SOURCES OF INFORMATION ON FREE RIDERSHIP

There are five sources of free-ridership information in this study. Each level of analysis relies on information from one or more of these sources. These sources are described below.

² *Guidelines for Estimating Net-To-Gross Ratios Using the Self-Report Approaches*, October 15, 2007, pg. 3.

³ Note that we do not refer to an Enhanced level of analysis, since this is defined by the Protocols to involve the application of two separate analysis approaches, such as billing analysis or discrete choice modeling.

1. **Program Files.** As described in previous sections of this report, programs often maintain a paper file for each paid application. These can contain various pieces of information which are relevant to the analysis of free-ridership, such as letters written by the utility's customer representatives that document what the customer had planned to do in the absence of the rebate and explain the customer's motivation for implementing the efficiency measure. Information on the measure payback with and without the rebate may also be available.

2. **Decision-Maker Surveys.** When a site is recruited, one must also determine who was involved in the decision-making process which led to the implementation of measures under the program. They are asked to complete a Decision Maker survey. This survey obtains highly structured responses concerning the probability that the customer would have implemented the same measure in the absence of the program. First, participants are asked about the timing of their program awareness relative to their decision to purchase or implement the energy efficiency measure. Next, they are asked to rate the importance of the program versus non-program influences in their decision making. Third, they are asked to rate the significance of various factors and events that may have led to their decision to implement the energy efficiency measure at the time that they did. These include:
 - the age or condition of the equipment,
 - information from a feasibility study or facility audit
 - the availability of an incentive or endorsement through the program
 - a recommendation from an equipment supplier, auditor or consulting engineer
 - their previous experience with the program or measure,
 - information from a program-sponsored training course or marketing materials provided by the program
 - the measure being included as part of a major remodeling project
 - a recommendation from program staff, a program vendor, or a utility representative
 - a standard business practice
 - an internal business procedure or policy
 - stated concerns about global warming or the environment
 - a stated desire to achieve energy independence.

In addition, the survey obtains a description of what the customer would have done in the absence of the program, beginning with whether the implementation was an early replacement action. If it was not, the decision maker is asked to provide a description of what equipment would have been implemented in the absence of the program, including both the efficiency level and quantities of these alternative measures. This is used to adjust the gross engineering savings estimate for partial free ridership, as discussed in Section 5.2.

This survey contains a core set of questions for **Basic** NTGR sites, and several supplemental questions for both **Standard** and **Standard – Very Large** NTGR

sites For example, if a Standard or Standard-Very Large respondent indicates that a financial calculation entered highly into their decision, they are asked additional questions about their *financial criteria* for investments and their rationale for the current project in light of them. Similarly, if they respond that a *corporate policy* was a primary consideration in their decision, they are asked a series of questions about the specific policy that led to their adoption of the installed measure. If they indicate the installation was a *standard practice*, there are supplemental questions to understand the origin and evolution of that standard practice within their organization. These questions are intended to provide a deeper understanding of the decision making process and the likely level of program influence versus these internal policies and procedures. Responses to these questions also serve as a basis for consistency checks to investigate conflicting answers regarding the relative importance of the program and other elements in influencing the decision. In addition, **Standard – Very Large** sites may receive additional detailed probing on various aspects of their installation decision based on industry- or technology-specific issues, as determined by review of other information sources. For Standard-Very Large sites all these data are used to construct an internally consistent “story” that supports the NTGR calculated based on the overall information given.

3. **Vendor Surveys.** A Vendor Survey is completed for all **Standard** and **Standard-Very Large** NTGR sites that utilized vendors, and for **Basic** NTGR sites that indicate a high level of vendor influence in the decision to implement the energy efficient measure. For those sites that indicate the vendor was very influential in decision making, the vendor survey results enter directly into the NTGR scoring. The vendor survey findings are also be used to corroborate Decision Maker findings, particularly with respect to the vendor’s specific role and degree of influence on the decision to implement the energy efficient measure. Vendors are queried on the program’s significance in their decision to recommend the energy efficient measures, and on their likelihood to have recommended the same measure in the absence of the program. Generally, the vendors contacted as part of this study are contractors, design engineers, distributors, and installers.
4. **Utility and Program Staff Interviews.** For the Standard and Standard-Very Large NTGR analyses, interviews with utility staff and program staff are also conducted. These interviews are designed to gather information on the historical background of the customer’s decision to install the efficient equipment, the role of the utility and program staff in this decision, and the name and contact information of vendors who were involved in the specification and installation of the equipment.
5. **Other information.** For **Standard – Very Large Project** NTGR sites, secondary research of other pertinent data sources is performed. For example, this could include a review of standard and best practices through industry associations, industry experts, and information from secondary sources (such as the U.S. Department of Energy's Industrial Technologies Program, Best Practices website URL, <http://www1.eere.energy.gov/industry/bestpractices/>). In addition, the Standard- Very Large NTGR analysis calls for interviews with other employees at the participant’s firm, sometimes in other states, and equipment vendor experts

from other states where the rebated equipment is being installed (some without rebates), to provide further input on standard practice within each company.

Table 1 below shows the data sources used in each of the three levels of free-ridership analysis. Although more than one level of analysis may share the same source, the amount of information that is utilized in the analysis may vary. For example, all three levels of analysis obtain core question data from the Decision Maker survey.

Table 1: Information Sources for Three Levels of NTGR Analysis

| | Program File | Decision Maker Survey Core Question | Vendor Surveys | Decision Maker Survey Supplemental Questions | Utility & Program Staff Interviews | Other Research Findings |
|-------------------------------------|--------------|-------------------------------------|----------------|----------------------------------------------|------------------------------------|-------------------------|
| Basic NTGR | √ | √ | √ ¹ | | √ ² | |
| Standard NTGR | √ | √ | √ ¹ | √ | √ | |
| Standard NTGR - Very Large Projects | √ | √ | √ ³ | √ | √ | √ |

¹Only performed for sites that indicate a vendor influence score (N3d) greater than maximum of the other program element scores (N3b, N3c, N3g, N3h, N3i).

²Only performed for sites that have a utility account representative

³Only performed if significant vendor influence reported or if secondary research indicates the installed measure may be becoming standard practice.

Appendix B provides the full battery of Decision Maker and Vendor survey questions along with notes, for each NTGR level, regarding which questions are asked (denoted by an “X”), and the intended uses of the information in the NTGR analysis. In the case of Basic sites, “TRIGGER” means that a vendor influence score greater than the maximum of other program element scores (N3b, N3c, N3g, N3h, N3i) triggers a vendor survey. In the case of Standard and Standard-Very Large NTGR sites, “TRIGGER” means that a score of 6 or greater triggers a further investigation. A copy of the complete survey forms (with lead-in text and skip patterns) are contained in *Final Large Nonresidential NTGR Survey Instruments.XLS* that is available upon request.

5. NTGR FRAMEWORK

The Self-Report-based Net-to-Gross analysis relies on responses to a series of survey questions that are designed to measure the influence of the program on the participant’s decision to implement program-eligible energy efficiency measure(s). Based on these

responses, a NTGR is derived based on responses to a set of “core” NTGR questions. The NTGR includes the effects of deferred free ridership (i.e., accelerated adoption).

5.1. NTGR Questions and Scoring Algorithm

A self-report NTGR is computed for all NTGR levels using the following approach. Adjustments may be made for **Standard – Very Large** NTGR sites, if the additional information that is collected is inconsistent with information provided through the Decision Maker survey.

The NTGR is calculated as an average of three scores. Each of these scores represents the highest response or the average of several responses given to one or more questions about the decision to install a program measure.

1. A **Timing and Selection** score that reflects the influence of the **most important** of various program and program-related elements in the customer’s decision to select the specific program measure at this time. Program influence through vendor recommendations is also incorporated in this score.
2. A **Program Influence** score that captures the perceived importance of the program (whether rebate, recommendation, training, or other program intervention) relative to non-program factors in the decision to implement the specific measure that was eventually adopted or installed. This score is determined by asking respondents to assign importance values to both the program and most important non-program influences so that the two total 10. The program influence score is adjusted (i.e., divided by 2) if respondents say they had already made their decision to install the specific program qualifying measure before they learned about the program.
3. A **No-Program** score that captures the likelihood of various actions the customer might have taken at this time and in the future if the program had not been available (the counterfactual). This score also accounts for deferred free ridership by incorporating the likelihood that the customer would have installed program-qualifying measures at a later date if the program had not been available.

When there are multiple questions that feed into the scoring algorithm, as is the case for both the **Timing and Selection** and **No-Program** scores, the maximum score is always used. The rationale for using the maximum value is to capture the most important element in the participant’s decision making. Thus, each score is always based on the strongest influence indicated by the respondent. However, high scores that are inconsistent with other previous responses trigger consistency checks and can lead to follow-up questions to clarify and resolve the discrepancy.

The calculation of each of the above scores is discussed below. For each score, the associated questions are presented and the computation of each score is described. For a detailed explanation of the scoring algorithm, including examples, see Appendix C.

5.1.1. Timing and Selection Score

For the Decision Maker, the questions asked are:

I'm going to ask you to rate the importance of the program as well as other factors that might influence your decision to implement [MEASURE.] Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.

Now, using this 0 to 10 rating scale, where 0 means “Not at all important” and 10 means “Very important,” please rate the importance of each of the following in your decision to implement this specific [MEASURE] at this time.

- Availability of the PROGRAM rebate
- Information provided through a recent feasibility study, energy audit or other types of technical assistance provided through PROGRAM
- Information from PROGRAM training course
- Information from other PROGRAM marketing materials
- Recommendation from a vendor/supplier (If a score of greater than 5 is given, a vendor interview is triggered)

For the Vendor, the questions asked (if the interview is triggered) are:

I'm going to ask you to rate the importance of the [PROGRAM] in influencing your decision to recommend [MEASURE] to [CUSTOMER] and other customers. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.

1. Using this 0 to 10 scale where 0 is “Not at all important” and 10 is “Very Important,” how important was the PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that CUSTOMER install the energy efficiency MEASURE at this time?
2. And using a 0 to 10 likelihood scale, where 0 denotes “not at all likely” and 10 denotes “very likely,” if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific energy efficiency MEASURE to CUSTOMER?
3. Now, using a 0 to 100 percent scale, in what percent of sales situations did you recommend MEASURE before you learned about the [PROGRAM]?
4. And using the same 0 to 100 percent scale, in what percent of sales situations do you recommend MEASURE now that you have worked with the [PROGRAM]?

5. And, using the same 0 to 10 scale where 0 is “Not at all important” and 10 is “Very important”, how important in your recommendation were:
 - a. Training seminars provided by UTILITY?
 - b. Information provided by the UTILITY website?
 - c. Your firm’s past participation in a rebate or audit program sponsored by UTILITY?

If the Vendor interview is triggered, a score is calculated that captures the highest degree of program influence on the vendor’s recommendation. This score (VMAX) is calculated as the MAXIMUM value of the following:

1. The response to question 1
2. 10 minus the response to question 2
3. The response to question 4 minus the response to question 3, divided by 10
4. The response to question 5a.
5. The response to question 5b.
6. The response to question 5c.

Note that vendors are asked an additional question regarding other ways that their recommendations regarding the measure might have been influenced. Their responses are not used in the direct calculation of the NTGR but are potentially useful in making adjustments to the core NTGR.

The Timing and Selection Score is calculated as:

The highest of the responses to the first four decision maker questions and, if the vendor interview has been triggered, the VMAX score multiplied by the score the decision makers assigned to the vendor recommendation.

5.1.2. Program Influence Score

The questions asked are:

1. Did you learn about PROGRAM BEFORE or AFTER you decided to implement the specific MEASURE that was eventually adopted or installed?
2. Now I'd like to ask you a last question about the importance of the program to your decision as opposed to other factors that may have influenced your decision. Again using the 0 to 10 rating scale we used earlier, where 0 means “Not at all important” and 10 means “Very important,” please rate the overall importance of PROGRAM versus the most important of the other factors we just discussed in your decision to implement the specific MEASURE that was adopted or installed. This time I would like to ask you to have the two importance ratings -- the program importance and the non-program importance -- total 10.

The Program Influence score is calculated as:

The importance of the program, on the 0 to 10 scale, to question 2. This score is reduced by half if the respondent learned about the program after the decision had been made.

5.1.3. No-Program Score

The questions asked are:

1. Regarding the installation of this equipment, if the PROGRAM had not been available, using a likelihood scale from 0 to 10, where 0 is “Not at all likely” and 10 is “Extremely likely” how likely is it that you would have installed exactly the same item/equipment, using a 0 to 10 scale, where 0 is not at all likely and 10 is extremely likely?

2. IF 1>0. You indicated that there was an “X” in 10 likelihood that you would have installed the same equipment if the PROGRAM had not been available. When do you think you would have installed this equipment? Please express your answer in months
 - a. _____ within 6 months? (Deferred NTG Value=0)
 - b. _____ 7 to 47 months later (Deferred NTG Value=(months-6)*.024)
 - c. _____ 48 or more months later (Deferred NTG Value =1)
 - d. _____ Never (Deferred NTG Value=1)

Note: The value 0.024 is 1 divided by 41 (41 is calculated as 47 – 6). This assumes that the deferred NTG value is a linear function beginning in month 7 through month 47, increasing 0.024 for each month of deferred installation.

The No-Program Score is calculated as:

10 minus (the likelihood of installing the same equipment multiplied by one minus the *deferred net-to-gross value* associated with the timing of that installation).

5.1.4. The Core NTGR

The self-reported core NTGR in most cases is simply the average of the Program Influence, Timing and Selection, and No-Program Scores, divided by 10. The one exception to this is when the respondent indicates a 10 in 10 probability of installing the same equipment at the same time in the absence of the program, in which case the NTGR is based on the average of the Program Influence and No-Program scores only.

5.2. Data Analysis and Integration

The calculation of the Core NTGR is fairly mechanical and is based on the answers to the closed-ended questions. However, the reliance of the Standard NTGR – Very Large on more information from so many different sources requires more of a case study level of effort. The SRA Guidelines point out that a case study is one method of assessing both quantitative and qualitative data in estimating a NTGR. A case study is an organized presentation of all these data available about a particular customer site with respect to all relevant aspects of the decision to install the efficient equipment. In such cases where multiple interviews are conducted eliciting both quantitative and qualitative data and a variety of program documentation has been collected, one will need to integrate all of this information into an internally consistent and coherent story that supports a specific NTGR.

The following data sources should be investigated and reviewed as appropriate to supplement the information collected through the decision maker interviews.

- Account Representative Interview
- Utility Program Manager/Staff Interview
- Utility Technical Contractor Interview
- Third party Program Manager Interview
- Evaluation Engineer Interview
- Gross Impact Site Plan/Analysis Review
- Corporate Green/Environmental Policy Review (if mentioned as important)
- Corporate Standard Practice Review (if mentioned as important)
- Industry Standard Practice Review (if mentioned as important)
- Corporate payback review (if mentioned as important)
- Review relevant codes and standards, including regulatory requirements
- Review industry publications, websites, reports such as the Commercial Energy Use Survey, historical purchase data of specific measures etc.

As detailed in the Self-Report NTGR Guidelines, when complementing the quantitative analysis of free-ridership with additional quantitative and qualitative data from multiple respondents and other sources, there are some basic concerns that one must keep in mind. Some of the other data – including interviews with third parties who were involved in the decision to install the energy efficient equipment – may reveal important influences on the customer’s decision to install the qualifying program measure. When one chooses to incorporate other data, one should keep the following principles in mind: 1) the method chosen should be balanced. That is, the method should allow for the possibility that the other influence can either increase or decrease the NTGR calculated from the decision maker survey responses, 2) the rules for deciding which customers will be examined for potential other influences should be balanced. In the case of Standard –Very Large interviews, all customers are subject to such a review, so that the pool of customers selected for such examination will not be biased towards ones for whom the evaluator believes the external influence will have the effect of influencing the NTGR in only one direction, 3) the plan for capturing other influences should be based on a well-conceived causal framework. The onus is on the evaluator to build a compelling case using a variety of quantitative and/or qualitative data for estimating a customer’s NTGR.

Establishing Rules for Data Integration

Before the analysis begins, the evaluation team should establish, to the extent feasible, rules for the integration of the quantitative and qualitative data. These rules should be as specific as possible and be strictly adhered to throughout the analysis. Such rules might include instructions regarding when the NTGR based on the quantitative data should be overridden based on qualitative data, how much qualitative data are needed to override the NTGR based on quantitative data, how to handle contradictory information provided by more than one person at a given site, how to handle situations when there is no

decision-maker interview, when there is no appropriate decision-maker interview, or when there is critical missing data on the questionnaire, and how to incorporate qualitative information on deferred free-ridership.

One must recognize that it is difficult to anticipate all the situations that one may encounter during the analysis. As a result, one may refine existing rules or even develop new ones during the initial phase of the analysis. One must also recognize that it is difficult to develop algorithms that effectively integrate the quantitative and qualitative data. It is therefore necessary to use judgment in deciding how much weight to give to the quantitative versus qualitative data and how to integrate the two. The methodology and estimates, however, must contain methods to support the validity of the integration methods through preponderance of evidence or other rules/procedures as discussed above.

For the **Standard-Very Large** cases in the large Nonresidential programs, the quantitative data used in the NTGR Calculator (which calculates the “core” NTGR), together with other information collected from the decision maker regarding the installation decision, form the initial basis for the NTG “story” for each site. Note that in most cases, supplemental data such as tracking data, program application files and results of interviews with program/IOU staff and vendors, will have been completed before the decision maker is contacted and will help guide the non-quantitative questioning in the interview. In practice, this means that most potential inconsistencies between decision maker responses and other sources of information should have been resolved before the interview is complete and data are entered into the NTGR Calculator. For example, if a company has an aggressive “green” policy widely promoted on its website that is not mentioned by the decision makers, the interviewer will ask the respondent to clarify the role of that policy in the decision. Conversely, if the decision maker attributes the decision to install the equipment to a new company wide initiative rather than the program, yet there is no evidence of such an initiative reported by program staff, vendors, or the company’s website, the decision maker will be asked to explain the discrepancy so that his or her responses can be changed if needed.

In some cases, however, it may be necessary to modify or override one of the scores contributing to the overall NTGR or the NTGR itself. Before this is done all quantitative and qualitative data will be systematically (and independently) analyzed by two experienced researchers who are familiar with the program, the individual site and the social science theory that underlies the decision maker survey instrument. Each will determine whether the additional information justifies modifying the previously calculated NTGR score, and will present any recommended modifications and their rationale in a well-organized manner, along with specific references to the supporting data. Again, it is important to note that the other influences can have the effect of either increasing or decreasing the NTGR calculated from the decision maker survey responses, and one should be skeptical about a consistent pattern of “corrections” in one direction or another.

Sometimes, *all* the quantitative and qualitative data will clearly point in the same direction while, in others, the *preponderance* of the data will point in the same direction. Other cases will be more ambiguous. In all cases, in order to maximize reliability, it is

essential that more than one person be involved in analyzing the data. Each person must analyze the data separately and then compare and discuss the results. Important insights can emerge from the different ways in which two analysts look at the same set of data. Ultimately, differences must be resolved and a case made for a particular NTGR. Careful training of analysts in the systematic use of rules is essential to insure inter-rater reliability⁴.

Once the individual analysts have completed their review, they meet to discuss their respective findings and present to the other the rationale for their recommended changes to the Calculator-derived NTGR. Key points of these arguments will be written down in summary form (e.g., Analyst 1 reviewed recent AQMD ruling and concluded that customer would have had to install the same measure within 2 years, not 3, thereby reducing NP score from 7.8 to 5.5) and also presented in greater detail in a workpaper so that an independent reviewer can understand and judge the data and the logic underlying each NTGR estimate. Equally important, the CPUC will have all the essential data to enable them to replicate the results, and if necessary, to derive their own estimates.

The outcome of the reconciliation by two analysts determines the final NTGR for a specific project. Again, the reasoning behind the “negotiated” final value must be thoroughly documented in a workpaper, while a more concise summary description of the rationale can be included in the NTGR Calculator workbook (e.g., Analyst 1 and Analyst 2 agreed that the NTGR score should have been higher than the calculated value of 0.45 because of extensive interaction between program technical staff and the customer, but they disagreed on whether this meant the NTGR should be .6 or .7. After discussion, they agreed on a NTGR of .65 as reflecting the extent of program influence on the decision).

In summary, it has been decided that supplemental data from non-core NTG questions collected through these surveys should be used in the following ways in the California Large Nonresidential evaluations:

- Vendor interview data will be used at times in the direct calculation of the NTGR. It will also be used to provide context and confirming/contradictory information for Standard-Very Large decision maker interviews.
- Qualitative and quantitative information from other sources (e.g., industry data, vendor estimates of sales in no-program areas, and other data as described above) may be used to alter core inputs only if contradictions are found with the core survey responses. Since judgments will have to be made in deciding which information is more compelling when there are contradictions, supplemental data are reviewed independently by two senior analysts, who then summarize their findings and recommendations and together reach a final NTGR value.

⁴ Inter-rater reliability is the extent to which two or more individuals (coders or raters) agree. Inter-rater reliability addresses the consistency of the implementation of a rating system.

- Responses will also be used to construct a NTGR “story” around the project; that is they will help to provide the context and rationale for the project. This is particularly valuable in helping to provide guidance to program design for future years. It may be, for example, that responses to the core questions yield a high NTGR for a project, but additional information sources strongly suggest that the program qualifying technology has since become standard practice for the firm or industry, so that free ridership rates in future years are likely to be higher if program rules are not changed.
- Findings from other non-core NTGR questions (e.g., Payback Battery, Corporate Policy Battery) are also be used to **cross-check the consistency** of responses to core NTGR questions. When an inconsistency is found, it is presented to the Decision Maker respondent who is then be asked to explain and resolve it if they can. If they are not able to do so, their responses to the core NTGR question with the inconsistency may be overridden by the findings from these supplemental probes. These situations are handled on a case-by-case basis; however consistency checks are programmed into the CATI survey instrument used for the Basic and Standard cases.

Finally, some analysis of additional information beyond the close-ended questions that are used to calculate the Core NTGR could be done for the **Standard NTGR**. For example information regarding the financial criteria used to make capital investments, corporate policy regarding the purchase of energy efficiency equipment or the influence of standard practice in the same industry as the participant could be taken into account and used to make adjustments to the Core NTGR in a manner similar what is done for the Standard – Very Large NTGR.

5.3. Accounting for Partial Free Ridership

Partial free-ridership can occur when, in the absence of the program, the participant would have installed something more efficient than the program-assumed baseline efficiency but not as efficient as the item actually installed as a result of the program.

In situations where there is partial free ridership, the assumed baseline condition is affected. Absent partial free ridership, the assumed baseline would normally be based on existing equipment (in early replacement cases), on code requirements (in normal replace on burnout cases), or on a level above current code (e.g., this could be a market average or value purposefully set above code minimum but below market average; in this case, the definition and requirement would typically be defined by a specific program’s baseline rules). In some cases, there may be a “dual” baseline (more specifically, a baseline that changes over the measure’s EUL) if the project involves early replacement plus partial free ridership. In such cases, the baseline basis for estimating savings is the existing equipment over the remaining useful life (RUL) of the equipment, and then a baseline of likely intermediate efficiency equipment (e.g., code or above) for the remainder of the analysis period (i.e., the period equal to the EUL-RUL). When there is partial free ridership, the baseline equipment that would have been installed absent the program is of an intermediate efficiency level (resulting in lower energy savings than that assumed by the program if the program took in situ equipment efficiency as the basis for

savings over the entire EUL). A related issue with respect to determination of the appropriate baseline is whether the adjustment made, if any, from the in situ or otherwise claimed baseline in the ex ante calculation, is whether the adjustment applies to the gross or net savings calculation.

Assignment of Partial Free Ridership Effects to Gross versus Net. In past evaluations, partial free ridership impacts have principally been incorporated into the net-to-gross ratio. This is because most partial free ridership is induced by market conditions, rather than by non-market factors. Market conditions refer primarily to standard adoption of a technology by a particular market segment or end user as a result of competitive market forces or other end user-specific factors. The key determining principle with respect to application of the adjustment to the net-to-gross ratio is whether there is a level of efficiency, below the efficiency of the measure for which savings are paid and claimed, but above what is required by code or minimum program baseline requirements that the end user would have implemented anyway without the program. Conditions that cause this adjustment to be made to gross savings rather than the net-to-gross ratio may include factors such as

- changing baseline equipment to meet changed business circumstances (such as increased production/throughput, changes in occupancy, etc.);
- compliance with environmental regulations, indoor air quality requirements, safety requirements; or
- the need to address an operational problem.

Each project should be examined separately for partial free ridership and a determination should be made based on the unique circumstances of each installation of whether an adjustment to gross savings or the net-to-gross ratio is warranted.

Data Collection Procedures. Information is gathered on partial free ridership using the following questions asked as part of the decision maker NTGR survey.

1. Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?
 - a. Install fewer units
 - b. Install standard efficiency equipment or whatever required by code
 - c. Install equipment more efficient than code but less efficient than what you installed through the program
 - d. repair/rewind or overhaul the existing equipment
 - e. do nothing (keep the existing equipment as is)
 - f. something else (specify what _____)
2. (IF FEWER UNITS) How many fewer units would you have installed? (It is okay to take an answer such as ...HALF...or 10 percent fewer ... etc.)

3. (IF MORE EFFICIENT THAN CODE) Can you tell me what model or efficiency level you were considering as an alternative? (It is okay to take an answer such as ... 10 percent more efficient than code or 10 percent less efficient than the program equipment)
4. (IF REPAIR/REWIND/OVERHAUL) How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement?

In addition, these same partial free ridership questions should be asked during the on-site audit for a given project. This latter interview will be conducted by the project engineers. The collected information helps the gross impact and NTG analysis teams gain a more complete understanding of the true project baseline and equipment selection decision. These decision maker questions are included in the Excel version of the CATI-based Standard and Basic decision maker survey instrument as well as in the Standard-Very Large instrument.

Data Analysis and Integration Procedures. In cases where partial free ridership is found and it is determined that the adjustment should be made to the net-to-gross ratio, the following procedure should be used:

On the net side, the adjustment is based on the intermediate baseline indicated by the decision maker for the time period in which the intermediate equipment would have been installed. The calculation of energy saved under this intermediate baseline is done, and then divided by the savings calculated under the in situ baseline. The resulting ratio is then multiplied by the initial NTGR which was previously calculated using only the 'core' scoring inputs. The effect of this adjustment is to reduce the NTGR further to reflect the effects of the revealed partial free ridership.

In all cases, the Gross Impacts and NTG analysis teams will need to carefully coordinate their calculations to ensure that they are not inadvertently adjusting the savings twice for the same partial free ridership, i.e., through adjustments both to the gross savings calculation and to the NTG ratio.

6. NTGR INTERVIEW PROCESS

The NTGR surveys are conducted via telephone interviews. Highly-trained professionals with experience levels that are commensurate with the interview requirements should perform these interviews. Basic and Standard level interviews should be conducted by senior interviewers, who are highly experienced conducting telephone interviews of this type. Standard - Very Large interviews should be completed by professional consulting staff due to the complex nature of these projects and related decision making processes. More than likely, these will involve interviews of several entities involved in the project including the primary decision maker, vendor representatives, utility account executives, program staff and other decision influencers, as well as a review of market data to help establish an appropriate baseline.

All but the Standard -Very Large interviews should be conducted using computer-aided telephone interview (CATI) software. Use of a CATI approach has several advantages: (1) the surveys can be customized to reflect the unique characteristics of each program, and associated program descriptions, response categories, and skip patterns; (2) it drastically reduces inaccuracies associated with the more traditional paper and pencil method; and (3) the process of checking for inconsistent answers can be automated, with follow up prompts triggered when inconsistencies are found.

7. COMPLIANCE WITH SELF-REPORT GUIDELINES

The proposed NTGR framework fully complies with all of the CPUC/ED and the MECT's Guidelines for Estimating Net-to-Gross Ratios Using the Self-Report Approach, as demonstrated in Appendix D.

Appendix B

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Appendix B

Net-to-Gross Questions and Uses of Data by Level of NTGR Analysis

Note: A more detailed version of this survey, with skip patterns and complete response categories, is available in Excel format from the NTG Working Group or at <http://www.energydataweb.com/cpuc/default.aspx>

DECISION MAKER SURVEY

| | Question Text | Basic | Standard and Standard – Very Large |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------|
| | Introduction Hello, my name is _____ from COMPANY NAME and I am calling about your recent participation in PROGRAM NAME. Are you the person who was most involved with the decision to participate in the PROGRAM NAME? [IF YES, CONTINUE]. We are interviewing firms that participated in the PROGRAM NAME in 2006 and 2007 to discuss the factors that may have influenced your decision to participate in the program. The interview will take about 20 minutes. The questions on this survey pertain to work completed by your company at this current address, excluding other locations. | | |
| | WARM-UP QUESTIONS | | |
| A1 | First, according to our records, you participated in PROGRAM NAME on (approximate date). [READ: Program Description. PROGRAM NAME promotes energy efficiency improvements in commercial/industrial facilities. The program offers (choose all that apply): energy audits to help identify applicable measures, feasibility studies to analyze the energy and cost savings of recommended measures, incentives to help cover a portion of the cost of implementing energy efficient measures, etc. Is that correct? | X | X |
| | Yes, No, DK, Refused | | |
| A2 | Next, I'd like to confirm the following information regarding the measures you implemented through the program: (READ: PROJECT DETAILS INCLUDING SERVICES RECEIVED, MEASURES INSTALLED, KEY DATES, PARTICIPATING VENDORS, ETC.) Does that sound right? | X | X |
| | Yes, No, DK, Refused | | |
| A3 | Why did you decide to implement MEASURE NAME? Were there any other reasons? | X | X |
| | a. Record VERBATIM | | |
| | b. DK/Refused | | |
| | NET-TO-GROSS BATTERY | | |
| N1 | When did you first learn about PROGRAM? Was it BEFORE or AFTER you first began to think about implementing MEASURE ? | X | X |
| | a. Before (Skip to N3) | | |
| | b. After | | |
| | c. DK/Refused | | |

| | | | |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| | | | |
| N2 | Did you learn about PROGRAM BEFORE or AFTER you decided to implement the specific MEASURE that was eventually adopted or installed? | X | X |
| | a. Before | | |
| | b. After | | |
| | c. DK/Refused | | |
| | <i>READ: Program Description: As I mentioned earlier, [PROGRAM NAME] promotes energy efficiency improvements in commercial/industrial facilities. The program offers (choose all that apply): energy audits to help identify applicable measures, feasibility studies to analyze the energy and cost savings of recommended measures, incentives to help cover a portion of the cost of implementing energy efficient measures, etc. I'm going to ask you to rate the importance of the program as well as other factors that might influence your decision to implement [MEASURE.] Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.</i> | | |
| N3 | Now, using this 0 to 10 rating scale, where 0 means "Not at all important" and 10 means "Very important," please rate the importance of each of the following in your decision to implement this specific [MEASURE] at this time. [CUSTOMIZE LIST OF FACTORS FOR PROGRAM BEFORE ASKING THEM TO SCORE THE FULL LIST. ROTATE PRESENTATION OF ITEMS. FOLLOW UP WITH "And is there anything else that I may have missed?" RECORD AS p. Other (SPECIFY)] | | |
| | a. The age or condition of the old equipment | X | X |
| | b. Availability of the PROGRAM rebate | X | X |
| | c. Information provided through a recent feasibility study, energy audit or other types of technical assistance provided through the PROGRAM (probe on when and by whom?) | X | X |
| | d. Recommendation from a vendor/supplier (If >5, Vendor interview may be triggered) | TRIGGER | TRIGGER |
| | e. Previous experience with PROGRAM? | X | X |
| | f. Previous experience with this MEASURE? | X | X |
| | g. Information from PROGRAM training course? | X | X |
| | h. Information from other PROGRAM marketing materials? | X | X |
| | i. A recommendation from an auditor or consulting engineer | X | X |
| | j. Standard practice in our business/industry (IF >5, ask standard practice battery) | X | TRIGGER |
| | k. Endorsement or recommendation by PROGRAM staff, PROGRAM vendor, or UTILITY representative | X | X |
| | l. Corporate policy or guidelines (If >5 ask Policy questions) | X | TRIGGER |
| | m. Payback on the investment (If >5 ask payback battery) | X | TRIGGER |
| | n. General concerns about the environment | X | X |
| | o. Specific concerns about global warming | X | X |
| | p. Specific concerns about achieving energy independence | X | X |
| | q. Other (SPECIFY) | X | X |
| N4 | Now I'd like to ask you a last question about the importance of the program to your decision. Again using the 0 to 10 rating scale we used earlier, where 0 means "Not at all important" and 10 means "Very important," please rate | X | X |

| | | | |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|
| | the overall importance of PROGRAM versus the other factors we just discussed in your decision to implement the specific MEASURE. I'd like you to give me a 0 to 10 score for the PROGRAM's influence and a 0 to 10 score for the influence of the most important other factor so that the two scores total 10. | | |
| | a. _____ rating of the importance of PROGRAM NAME | X | X |
| | b. _____ rating of the importance of Other Factors | X | X |
| | <i>Now I would like you to think about the action you would have taken with regard to the installation of this equipment PROGRAM had not been available.</i> | | |
| N5 | Regarding the installation of this equipment if the PROGRAM had not been available, how likely is it that you would have installed exactly the same item/equipment, using a 0 to 10 likelihood scale, where 0 is not at all likely and 10 is extremely likely? | X | X |
| N6 | <i>IF N5>0.</i> You indicated in your previous responses that there was a X in 10 likelihood that you would have installed the same equipment if the PROGRAM had not been available. | X | X |
| | When do you think you would have installed this equipment? (Please answer in months)_____ | | |
| | a. _____ ..within 6 months? NTGR = 0 | | |
| | b. _____ .. 6 – 47 months later (NTGR=(months-6)*.024) | | |
| | c. _____ ..4 or more years later (NTGR=1) | | |
| | g. _____ ..Never (NTGR=1) | | |
| | PARTIAL FREE RIDERSHIP BATTERY | GROSS IMPACT | GROSS IMPACT |
| | | | |
| | | | |
| P1 | Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do?: <ul style="list-style-type: none"> a. Install fewer high efficiency units (e.g., controls, VFDs, lights) b. Install standard efficiency equipment or whatever required by code c. Install equipment more efficient than code, but less efficient than we installed through the program d. Repair/rewind/refurbish the existing equipment e. do nothing (keep the existing equipment as is) f. Something else (specify) | | |
| P4 | If P1=a: How many units would you have installed? Record number of units or percentage of units actually installed | | |
| P5 | | | |
| P6 | If P1=c: Can you tell me what model or efficiency level you were considering as an alternative? (It is okay to take an answer such as ... 10 percent more efficient than code or 10 percent less efficient than the program equipment) | | |
| P7 | If P1=d: How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement? | | |
| P8 | | | |
| P9 | | | |
| | Additional Decision Maker Questions | | |

| | | | |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| | PAYBACK BATTERY (If payback importance >5) | | |
| N10 | What financial calculations does your company make before proceeding with installation of a MEASURE like this one? | | X |
| N11 | What is the cut-off point your company uses before deciding to proceed with the investment? | | X |
| N12 | What was the result of the calculation for MEASURE: a) with the rebate? b) without the rebate? | | X |
| | <i>INVESTIGATE INCONSISTENT RESPONSE</i> | | |
| N13 | What competing investments, if any, were considered for the funds that were allocated to the adoption of MEASURE? | | X |
| N14 | Why was MEASURE chosen over these other investments | | X |
| | CORPORATE POLICY BATTERY (If corporate policy importance >5) | | |
| N15 | Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be to "buy green" or use sustainable approaches to business investments. | | X |
| N16 | What specific corporate policy influenced your decision to adopt or install MEASURE? | | X |
| N17 | Had that policy caused you to adopt the MEASURE at this facility before participating in this program? | | X |
| N18 | Had that policy caused you to adopt the MEASURE at other facilities before participating in this program? When and where? | | X |
| N19 | Did you receive an incentive for a previous [MEASURE]? If so, please describe. | | X |
| | STANDARD PRACTICE BATTERY (If standard practice importance >5) | | |
| N20 | How long has MEASURE been standard practice in your industry? | | X |
| N21 | Does your company ever deviate from the standard practice? If yes, under what conditions? | | X |
| N22 | How did this standard practice influence your decision to install the energy efficiency equipment | | X |
| N23 | What industry group or trade organization do you look to establish standard practice for your industry? | | X |
| N24 | How do you and other firms/facilities receive information on updates in standard practice? | | X |
| | OTHER INFLUENCES BATTERY | | |
| N25 | Who provided the most assistance in the design or specification of MEASURE? Designer or Consultant, Equipment Distributor or Mfr Rep, Installer, Utility rep, or Internal staff | X | X |
| N26 | Please describe the type of assistance that they provided. | X | X |
| N27 | Please state, in your own words, any other factors that influenced your decision to go ahead on this energy efficient equipment/project. | X | X |

VENDOR SURVEY

| | Question Text | Basic | Standard and Standard Very Large |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------|
| | Warm Up | | |
| A1 | The CUSTOMER indicates that you recommended the installation of [EFFICIENT MEASURE] at their facility at [CUSTOMER LOCATION] on [DATE]. Do you recall making this recommendation? | X | X |
| | a. Yes | | |
| | b. No | | |
| | c. DK (-8) | | |
| | d. Refused (-9) | | |
| | <i>I'm going to ask you to rate the importance of the [PROGRAM] in influencing your decision to recommend [MEASURE] to [CUSTOMER] and other customers. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.</i> | | |
| V1 | Using this 0 to 10 scale where 0 is "Not at all important" and 10 is "Very Important", how important was PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that CUSTOMER install the energy efficiency MEASURE at this time? | X | X |
| V2 | And using a 0 to 10 likelihood scale, where 0 denotes "not at all likely" and 10 denotes "very likely," if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific energy efficiency MEASURE to CUSTOMER? | X | X |
| V3 | Now, using a 0 to 100 percent scale, in what percent of sales situations did you recommend MEASURE before you learned about the [PROGRAM]? | X | X |
| V4 | And using the same 0 to 100 percent scale, in what percent of sales situations do you recommend MEASURE now that you have worked with the [PROGRAM]? | X | X |
| V4a | In what other ways have your recommendations regarding MEASURE been influenced? [For each mention, ask: And using the same 0 to 10 scale, where 0 is "Not at all important" and 10 is "Very important", how important in influencing your recommendations. . . (INSERT FIRST MENTION, INSERT SECOND MENTION ETC.)] | X | X |
| V5 | And, using the same 0 to 10 scale where 0 is "Not at all important" and 10 is "Very important", how important in your recommendation were | | |
| | a. Training seminars provided by UTILITY? | X | X |
| | b. Information provided by the UTILITY website? | X | X |
| | c. Your firm's past participation in a rebate or audit program sponsored by UTILITY? | X | X |

| | Optional: | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| V6 | Approximately what percentage of your sales of MEASURE in UTILITY'S service territory are energy efficient models that qualify for incentives from the UTILITY program. | X | X |
| V7 | On a 0 percent to 100 percent scale, in what percent of sales situations do you encourage your customers in UTILITY territory to purchase program qualifying [MEASURES]? | X | X |
| V8. | (IF LESS THAN 100) In what situations do you NOT encourage your customers to purchase energy efficient models if they qualify for a rebate? Why is that? | X | X |
| V9 | Of those installations of EQUIPMENT in UTILITY service territory that qualify for incentives, approximately what percentage do not receive the incentive? | X | X |
| V10 | Why do they not receive the incentive (open end?) | X | X |
| V11 | Do you also sell MEASURE in areas where customers do not have access to incentives for energy efficient models? | X | X |
| V12 | About what percent of your sales of MEASURE are represented by these areas where incentives are not available? | X | X |
| V12a | IF AT LEAST 10%: And approximately what percentage of your sales of MEASURE in these areas are the energy efficient models that would qualify for incentives in UTILITY'S service territory? | X | X |
| V13 | Have you changed your stocking practices as a result of the UTILITY program? If yes, how? | X | X |
| V14 | Do you promote energy efficient models equally in areas with and without incentives? | X | X |

Appendix C

NTGR Scoring Algorithm and Example

The calculation of the self-report-based core NTGR is described below. The NTGR is calculated as an average of three scores representing responses to one or more questions about the decision to install a program measure.

1. A ***Timing and Selection*** score that captures the influence of the most important of various program and program-related elements in influencing the customer to select the specific program measure at this time. Program influence through vendor recommendations is also captured in this score.
2. An overall ***Program Influence*** score that captures the perceived importance of the program (whether rebate, recommendation, or other information) in the decision to implement the specific measure that that was eventually adopted or installed. The overall program influence score is reduced by half if the respondent says they learned about the program only after they decided to install the program qualifying measure.
3. A ***No-Program*** score that captures the likelihood of various actions the customer might have taken at this time and in the future if the program had not been available. This score accounts for deferred free ridership by capturing the likelihood that the customer would have installed program qualifying measures at a later date if the program had not been available.

Calculation of each of the above scores is discussed below. For each score, the questions contributing to the calculation are presented, the calculation is described, and an example is provided.

Timing and Selection Score

For the decision maker, the questions asked are:

Using a 0 to 10 rating scale, where 0 means not at all important and 10 means very important, please rate the importance of each of the following in your decision to implement this specific measure at this time:

- Availability of the PROGRAM rebate
- Information provided through a recent feasibility study, energy audit or other types of technical assistance provided through the PROGRAM
- Information from PROGRAM training course
- Information from other PROGRAM marketing materials
- Recommendation from a vendor/supplier (If >5, a vendor interview is triggered)

For the vendor, the questions asked if the interview is triggered are:

1. On a 0 to 10 scale where 0 is “Not at all important” and 10 is “Very important”, how important was PROGRAM, including incentives as well as program services and information, in influencing your decision to recommend that CUSTOMER install the energy efficiency MEASURE at this time?
2. And using a 0 to 10 likelihood scale, where 0 denotes “Not at all likely” and 10 denotes “Extremely Likely,” if the PROGRAM, including incentives as well as program services and information, had not been available, what is the likelihood that you would have recommended this specific energy efficiency MEASURE to CUSTOMER?
3. Now, using a 0 to 100 percent scale, in what percent of sales situations did you recommend this MEASURE before you learned about the PROGRAM?
4. And using the same 0 to 100 percent scale, in what percent of sales situations do you recommend this MEASURE now that you have worked with the PROGRAM?
5. And, using the same 0 to 10 scale where 0 is “Not at all important” and 10 is “Extremely Important”, how important in your recommendation were:
 - a. Training seminars provided by UTILITY?
 - b. Information provided by the UTILITY website?
 - c. Your firm’s past participation in a rebate or audit program sponsored by UTILITY?

If the vendor interview is triggered, a score is calculated that captures the highest degree of program influence on the vendor’s recommendation. This score (VMAX) is calculated as the MAXIMUM value of the following:

1. The response to question 1
2. 10 minus the response to question 2
3. The response to question 4 minus the response to question 3, divided by 10
4. The response to question 5 a.
5. The response to question 5b.
6. The response to question 5c.

The Timing and Selection Score is calculated as:

The highest of the responses to the first four decision maker questions and, if the vendor interview has been triggered, the VMAX score multiplied by the score the decision makers assigned to the vendor recommendation..

Example:

The decision maker provides responses of 5 for the importance of the rebate, 6 for an audit or feasibility study, 3 for training, 2 for other marketing materials, and 7 for the vendor recommendation, which means a vendor interview is triggered.

The vendor responses are 8 for the significance of the program, 5 for the likelihood of recommending the measure in the absence of the program, 40% for how often the measure was recommended before program awareness and 60% for how often it is recommended after program awareness, 3 for the importance of training, 2 for the importance of the website and 5

for the importance of previous participation. The VMAX score is the greatest of 8, (10-5), (60-40)/10, 3, 2 and 5. So VMAX is 8. This score is multiplied by the importance of the vendor recommendation, to which the decision maker assigned a 7, so the vendor score is 5.6.

The timing and selection score is the maximum of the four decision maker responses (5, 6, 3, and 2) and the vendor score (5.6). Even though the vendor interview was triggered, the vendor score is not as high as the 6 assigned to the importance of the audit or feasibility study, so the timing and selection score is 6.

Program Influence Score

The questions asked are:

1. Did you learn about PROGRAM BEFORE or AFTER you decided to implement the specific MEASURE that was eventually adopted or installed?
2. Again using the 0 to 10 rating scale we used earlier, where 0 means "Not at all important" and 10 means "Very important," please rate the overall importance of PROGRAM versus the most important of the other factors we just discussed in your decision to implement the specific MEASURE that was adopted or installed. This time I would like to ask you to have the two importance ratings -- the program importance and the non-program importance -- total 10.

The program influence score is calculated as:

The program importance response, on the 0 to 10 scale, to question 2. This score is reduced by half if the respondent became aware of the program only after having decided to adopt the program qualifying measure.

Example:

The decision maker says they became aware of the program before deciding to implement the measure, and provides a response of 7 to question 2, which becomes the program influence score.

No-Program Score

The questions asked are:

1. Regarding the installation of this equipment if the PROGRAM had not been available, how likely is it that you would have installed exactly the same item/equipment, using a 0 to 10 likelihood scale, where 0 is not at all likely and 10 is extremely likely?
2. IF 1>0. You indicated in your previous responses that there was an "X" in 10 likelihood that you would have installed the same equipment if the PROGRAM had not been available. When do you think you would have installed this equipment? Please express your answer in months
 - a. _____ Within 6 months? (Deferred NTG Value=0)
 - b. _____ 7 to 47 months later (Deferred NTG Value=(months-6)*.024)

- c. _____ 48 or more months later (Deferred NTG Value =1)
- d. _____ Never (Deferred NTG Value=1)

Note: The value 0.024 is 1 divided by 41 (41 is calculated as 47 – 6). This assumes that the deferred NTG value is a linear function beginning in month 7 through month 47, increasing 0.024 for each month of deferred installation.

The No-Program Score is calculated as:

10 minus (the likelihood of installing the same equipment multiplied by one minus the deferred net-to-gross value associated with the timing of that installation).

Example

The respondent says there is a 4 in 10 likelihood that they would have installed the same equipment. In response to question 5, the decision maker says they would have installed the qualifying equipment 18 months later, which has a NTGR value of $(18-6) \cdot 0.024$, or .29 associated with it.

The No-Program score is 10 minus $(4 \cdot (1 - .29))$, which is 10 minus $4 \cdot .71$ or 7.16.

Core NTG Ratio

The self-reported core NTGR in most cases is simply the average of the Program Influence, Timing and Selection, and No-Program Scores, divided by 10. The one exception to this is when the respondent indicates a 10 in 10 probability of installing the same equipment at the same time in the absence of the program, in which case the NTGR is based on the average of the Program Influence and No-Program scores only.

Example (Core NTGR)

The NTGR is the average of 6, 8 and 7.2, or 7.1 divided by 10 = .71. This figure is then applied to adjusted gross savings to yield net savings.

Appendix D

Demonstration of Compliance with the CPUC/ED and MEC's Guidelines for Estimating Net-to-Gross Ratios Using the Self-Report Approach

1. Timing of the interview

To minimize problems of recall, every effort should be made to conduct the NTGR interview as close to project completion as possible.

2. Identifying the correct respondent

The survey form includes some initial probing on the respondent's role in the completed project, to confirm their involvement in the decision to implement the energy efficiency measures. In addition, both the utility or third party representative and any trade allies involved should be asked to confirm they are the correct contact. If multiple decision makers are identified, each one should be interviewed and the results pooled.

In the unfortunate circumstance where the key decision maker has left the company, that sample point should be discarded and replaced with a respondent from within the same stratum in the backup sample.

3. Set-up questions

The survey includes a series of warm-up questions that serve to remind the respondent about the circumstances and motivations surrounding the project, the project scope (including installed measures), incentives paid, and the project schedule. This information also helps to build the "story" to substantiate the NTGR responses given.

4. Use of multiple questions

The NTGR scoring algorithm relies on responses from several questions to determine the final NTGR score. The scoring is a function of:

- The timing of their program awareness relative to their decision to implement the installed measure
- The importance of program versus non-program influences in their decision making
- The importance of specific influences in the participant's general decision to implement the measure and that led them to implement the specific measure at the time they did rather than an alternative
- Without the program, the probability of alternative actions to implementing the selected measure

5. Validity and reliability

The proposed NTGR method is designed to produce valid and reliable NTGR results, based on the use of:

- *"Tried and true" question wording.* Many of the core questions used in NTGR scoring are substantially the same as those that have been used extensively in previous large C&I program evaluations, such as the last several rounds of evaluation for the California Standard Performance Contracting Program. While the question construct is somewhat

different from in the past, the wording used is essentially the same as has been used previously.

- *Information from supplemental questions and multiple data sources to corroborate and triangulate on the NTGR “story”.* In addition to self-reported information, the NTGR findings for Standard and Standard – Very Large NTGR sites include responses to a number of supplemental questions surrounding the project (e.g., corporate policy, standard industry practice and payback), and the results from an interview with the vendor(s) involved in the project. These findings will be used to converge on a plausible estimate of the NTGR and to help tell the “story” behind the project and its context.
- *Multiple reviewers. Standard - Very Large customer projects are reviewed by two experienced analysts.* The two reviewers seek to develop a NTGR consensus on the project, and resolve any differences of opinion.
- *Identification and explicit consideration of alternate hypotheses.* Respondents are asked about the relative influence of a variety of program and non-program factors.

During the pre-test of the NTGR survey instrument, reliability tests should be conducted using the CATI software. Any problem areas detected should be corrected.

6. Consistency checks

Questions within the NTGR battery that are more likely to produce inconsistent responses have been flagged. These include questions regarding the program’s reported importance in the decision to implement the specified measure, alternative actions in the program’s absence, questions reporting the motivations for doing the project, as well as any closely related supplemental questions. The CATI software should be specifically programmed to flag any inconsistencies, and include follow-up prompts when they are found. Interviewers should be instructed how to administer these follow-up questions to resolve these inconsistencies. Interviewers should make every effort to resolve any inconsistencies before concluding the interview. Examples of the procedures for checking consistency of responses are provided in Section 3.

7. Making the Questions Measure-Specific

In general, most projects involve one type or class of measure. However, there are a few instances where the project consists of multiple types of measures, but usually, one measure predominates. In such cases, the interview should be conducted around the dominant measure with the greatest share of savings. If there are projects with multiple types of measures and no one measure class predominates, the NTGR sequence should be repeated for each significant measure class (e.g., once for lighting and once for process measures). At the beginning of each interview, there is a prompt with a description of the measure class that the questions pertain to so that it is clear in the minds of the respondent which measures they are being asked about.

8. Partial free-ridership

Questions P1-P9 are designed to collect the information necessary to adjust for any partial free-ridership. *However, this adjustment is be made to the **gross savings** estimates and not to the NTGR.*

9. Deferred free-ridership

Question N6 addresses deferred free ridership, and provides specific adjustment factors for each response category. The NTGR algorithm (See Section 5 and Appendix C) text fully explains the specifics of this adjustment.

10. Scoring algorithms

The methodology includes a specific algorithm for developing a NTGR based on responses received. The results of the 0 to 10 scoring are used to develop specific values for each question used to score the NTGR. A description of the scoring algorithm is provided in Section 5 and in Appendix C.

11. Handling unit and item non-response

Every effort should be made to discourage non-responses (i.e., refusals and terminates). For example, in California, the interviewer points out that the energy efficiency program requires the project to be evaluated as a condition of participation. Absent such a requirement, interviewers should stress such things as the importance of evaluation in improving program design and delivery. In some cases, incentives can be offered to respondents. In the event various strategies are not successful, the non-responding customer should be replaced by another customer within the same stratum. While efforts to minimize item non-response (“don’t knows” and “refusals”) should be made using a variety of available techniques, one should recognize that forcing a response can distort the respondent’s answer and introduce bias.

12. Weighting the NTGR

The mean NTGR for a given measure, end use or program should be weighted to take into account the size of the ex post gross impacts.

13. Ruling out rival hypotheses

The core NTGR questions, particularly question 4 of the Decision Maker survey, have been carefully constructed to try to rule out rival hypotheses. The method asks respondents to jointly consider and rate the importance of the many likely events or factors that may have influenced their energy efficiency decision making, rather than focusing narrowly on only their rating of the program’s importance. This question structure more accurately reflects the complex nature of the real-world decision making and should help to ensure that all non-program influences are reflected in the NTGR assessment in addition to program influences.

14. Precision of the NTGR

The calculation of the achieved relative precision of the NTGRs (for program-related measures and practices and non-program measures and practices) is expected to be straightforward. However, the inclusion of more complicated situations involving multiple participant and vendor

interviews as well as the inclusion of additional qualitative information means that the NTGR standard errors may underestimate the uncertainty surrounding the NTGR estimate.

15. Pre-testing the questionnaire

The NTGR survey should be carefully and extensively pre-tested and adjusted in response to pre-test findings before it is fielded.

16. Incorporation of additional qualitative and quantitative data in estimating the NTGR (data collection, rules for data integration, analysis)

Specific rules have been established for data integration and these are described in Section 3.

17. Qualified interviewers

The NTGR surveys should be fielded by highly experienced interviewers. High level professional interviewers should be used for the largest and most complex projects, while less experienced professional interviewers should be used for smaller, simpler projects. A CATI approach should be used for all but the very largest and most complex projects.

Appendix D-2

Nonresidential Net-to-Gross Survey Instruments

Standard Decision Maker NTG Survey Instrument Modified 06/22/09

Introduction

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| AA1 | <p>This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. May I please speak with <%CONTACT> ... the person most knowledgeable about your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>?,</p> <p>1 Yes 2 No</p> | AA7 AA2 |
| AA2 | <p>Who would be the person most knowledgeable about your firm's involvement with ...<%CUSTOMER>'s...project that involved the installation of ...<%MEASURE>... on approximately... <%INSTALL_DATE>?,</p> <p>1 Record name 88 Refused 99 Don't know</p> | AA3 Thank and Terminate Thank and Terminate |
| AA3 | <p>May I speak with him/her?</p> <p>1 Yes 2 No (not available right now) SCHEDULE APPOINTMENT</p> | AA4 Reschedule appt. |
| AA4 | <p>This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. I was told that you are the person most familiar with your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>? __Is this correct?</p> <p>1 Yes 2 No, there is someone else (RECORD NAME) 3 No and I don't know who to refer you to 88 Refused 99 Don't know</p> | AA7 AA5 Thank and Terminate Thank and Terminate Thank and Terminate |
| AA5 | <p>This is %n calling on behalf of the CPUC, [California Public Utilities Commission] from ITRON CONSULTING. THIS IS NOT A SALES CALL. Am I speaking with the person most familiar with your firm's involvement in ...<%CUSTOMER>'s... installation of ...<%MEASURE>..on approximately ...<%INSTALL_DATE>? __Is this correct?</p> <p>1 Yes. 2 Yes, but I need to make an appointment 3 No, but I will give you to the correct person 88 Refused 99 Don't know</p> | AA7 Reschedule appt. AA7 Thank and Terminate Thank and Terminate |
| AA7 | <p>We are interviewing firms that participated in <%PROGRAM> during 2006, 2007 and 2008 to discuss the factors that may have influenced their decision to participate in the program. By receiving a rebate of \$ <%INCENTIVE> through this program, your organization agreed to participate in this follow-up study on your experiences with this program.</p> <p>IF VISIT = 1 We <(VISIT == 1)/Have already visited/will also be visiting> your site to get information on the measures installed. One of our engineers has already visited your site to get information on the measures installed.</p> <p>1 .<%ENGINEER>... spoke to ...<%ONSITEREP> ... on ..<%ONSITEDATE>.;</p> | A1 |

Your input to this research is extremely important. We will not identify or attribute any of your comments or organization

Before we start, I would like to inform you that for quality control purposes, this call may be monitored by my supervisor. For the sake of expediency, we will be recording this interview.

[If INTERVEWEE requests a contact at their local utility, the following are the appropriate representatives for this evaluation, note

- PGE Rob Roffrey - (415) 973-1222
- SCE Ron Cobas - 626-633-3088
- SDGE Sandra Williams 858-636-5802
- CPUC Peter Lai 213-576-7087

| | | |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| A1 | <p>According to our records your organization participated in .. <%PROGRAM>... on ...<%INSTALL_DATE>... by installing ...<%MEASURE>. Does this sound right?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>A1b A1a A1a A1a</p> |
| A1a. | <p>What do you remember installing through this program?</p> <p>77 RECORD VERBATIM 88 Refused 99 Don't know</p> | <p>A1b A1b A1b</p> |
| IF AUDIT == 1; THEN ASK ELSE A1c | | |
| A1b | <p>According to our records, your organization also received an AUDIT from <%UTILITY>. Is this correct?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>A1c A1c A1c A1c</p> |
| IF TECH_ASSST == 1, THEN ASK, ELSE A1d | | |
| A1c | <p>According to our records, your organization also received TECHNICAL ASSISTANCE from <%UTILITY>. Is this correct?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>A1d A1d A1d A1d</p> |
| IF FEAS_STUDY == 1, THEN ASK, ELSE A1e | | |
| A1d | <p>According to our records, your organization also received a FEASIBILITY STUDY from <%UTILITY>. Is this correct?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>A1e A1e A1e A1e</p> |
| IF RCX == 1, THEN ASK, ELSE A1f | | |
| A1e. | <p>According to our records, your organization also received RETROCOMMISSIONING from <%UTILITY>. Is this correct?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>A1f A1f A1f A1f</p> |
| IF PTRAIN == 1, THEN ASK ELSE A1g | | |
| A1f. | <p>According to our records, your organization also received PROGRAM TRAINING from <%UTILITY>. Is this correct?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>A1g A1g A1g A1g</p> |
| A1g | <p>Our records show that your organization received \$ <%INCENTIVE> from ...<%PROGRAM>... for the installation of this equipment. Does this sound correct?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>A1h A1gg A1h A1h</p> |
| A1gg. | <p>What was the incentive amount that your organization received through the program?</p> <p>77 RECORD VERBATIM 88 Refused 99 Don't know</p> | <p>A1h A1h A1h</p> |

[READ] For the sake of expediency, during the balance of the interview, we will be referring to the <-%PROGRAM> as the PROGRAM and we will be referring to the installation of ... <-%MEASURE> as the MEASURE. I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program.

[READ] I would like to get some information on the VENDORS that may have helped you with the implementation of this equipment. As part of this study, we will be conducting a separate interview with the vendors that worked with you on the implementation of this equipment.

Revision

First let's talk about the EQUIPMENT SUPPLIER/INSTALLER Vendor. We show (READ NAME AND PHONE) ! as the EQUIPMENT VENDOR.[READ NAME AND PHONE NUMBER] Is that correct?

A1h ! VENDOR NAME... <-%VEND1NAME>
! VENDOR PHONE...<-%V1PHONE>

1 Yes A1h
2 No A1h1
88 Refused A1h
99 Don't know A1h

IF VENDOR1 =2 OR A1h=2, THEN ASK:
Can we have the VENDOR NAME_____, Their phone number, ___their CONTACT name _____,
A1h1 Their Cell phone number !___their EMAIL ADDRESS ?

77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A1i
88 Don't know A1i
99 Refused A1i

IF VENDOR2 = 1 OR 2, THEN ASK
Our records show you also used a DESIGN or CONSULTING Engineer. Did you use a DESIGN OR CONSULTING Engineer?

A1i [READ NAME AND PHONE NUMBER]
! VENDOR NAME... <-%VEND2NAME>
! VENDOR PHONE...<-%V2PHONE>

1 Yes A1j
2 No A1i1
88 Refused A1j
99 Don't know A1j

IF VENDOR2 =2 OR A1i=2, THEN ASK:
Can we have the VENDOR NAME_____, Their phone number, ___their CONTACT name _____,
A1i1 Their Cell phone number !___their EMAIL ADDRESS ?

77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A1j
88 Don't know A1j
99 Refused A1j

IF VENDOR3 == 1 OR 2, THEN ASK
Our records show you also used a PROGRAM PROVIDED Vendor. Did you use a PROGRAM PROVIDED Vendor? [READ NAME AND PHONE NUMBER]

A1j ! VENDOR NAME... <-%VEND3NAME>
! VENDOR PHONE...<-%V3PHONE>

1 Yes A2a
2 No A1j1
88 Refused A2a
99 Don't know A2a

IF VENDOR3 ==2, THEN ASK:
Can we have the VENDOR NAME_____, Their phone number, ___their CONTACT name _____,
A1j1 Their Cell phone number !___their EMAIL ADDRESS ?

77 RECORD VENDOR NAME, PHONE NUMBER AND CONTACT INFORMATION A2a
88 Don't know A2a
99 Refused A2a

Thanks for helping us with this vendor information. Below, I am going to ask some questions about the implementation of the measure that you installed through the program. Should you remember any vendor information later on, please feel free to volunteer this information at that time, I can record vendor information at any time.

WARM-UP QUESTIONS:

| | | | |
|-----|-------------------------------------------------------------------------------|----|----------|
| A2a | How did you first become aware of the &MEASURE? | | |
| | 1 Bill insert | A2 | |
| | 2 Program Literature | A2 | |
| | 3 Account representative | A2 | |
| | 4 Program provided vendor | A2 | |
| | 5 Program representative | A2 | |
| | 6 Utility or program website | A2 | |
| | 7 Trade publication | A2 | |
| | 8 Conference | A2 | |
| | 9 Newspaper article | A2 | |
| | 10 Word of mouth | A2 | |
| | 11 Previous experience with it | A2 | |
| | 12 Company used it at other locations | A2 | |
| | 13 Contractor | A2 | |
| | 14 Other (RECORD VERBATIM) | A2 | |
| | 88 Refused | A2 | |
| | 99 Don't know | A2 | |
| A2 | In your own words, can you tell me why you decided to implement this MEASURE? | | Revision |
| | 77 RECORD VERBATIM | N1 | |
| | 88 Don't know | N1 | |
| | 99 Refused | N1 | |

NET-TO-GROSS QUESTIONS:

| | | |
|----|---------------------------------------------------------------------------------------------------------------------------------------|----|
| N1 | When did you first learn about <%UTILITY>'s PROGRAM? Was it BEFORE or AFTER you first began to THINK about implementing this MEASURE? | |
| | 1 Before | N3 |
| | 2 After | N2 |
| | 88 Refused | N2 |
| | 99 Don't know | N2 |
| N2 | Did you learn about <%UTILITY>'s Program BEFORE or AFTER you DECIDED to implement the MEASURE that was installed? | |
| | 1 Before | N3 |
| | 2 After | N3 |
| | 88 Refused | N3 |
| | 99 Don't know | N3 |

[READ:&PROGRAMDESCR]. Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement &MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means very important, so that an importance rating of 8 shows twice as much influence as a rating of 4.

Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this MEASURE. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important, so that an importance rating of 8 shows twice as much influence as a rating of 4. Now using this scale please rate the importance of each of the following in your decision to implement the MEASURE at this time.

| | | |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| N3 | | |
| N3a. | The age or condition of the old equipment # Record 0 to 10 score (_____) 88 Refused 99 Don't know | N3a. N3b. N3b. N3b. |
| N3b. | Availability of the PROGRAM rebate # Record 0 to 10 score (_____) 88 Refused 99 Don't know | N3bb N3bb N3bb |
| | IF N3b > 7, THEN ASK. | |
| N3bb | Why do you give it this rating? 77 Record VERBATIM 88 Refused 99 Don't know | N3c. N3c. N3c. |
| | IF &FEAS_STUDY=1, &AUDIT=1, OR &TECH_ASSIST=1, THEN ASK, ELSE N3h Information provided through... !!__<(FEAS_STUDY == 1)/ The Feasibility study/> !__<(AUDIT == 1)/The Facility or System AUDIT/> | |
| N3c. | !__<(TECH_ASST == 1)/The Technical Assistance # Record 0 to 10 score (_____) 88 Refused 99 Don't know | N3c1. N3c2. N3c2. |
| | IF N3c > 7, THEN ASK. | |
| N3c1. | Why do you give it this rating? 77 Record VERBATIM 88 Refused 99 Don't know | N3c2. N3c2. N3c2. |
| | IF VENDOR1,NE.0,THEN ASK | |
| N3d. | Recommendation from an equipment vendor that sold you &MEASURE and/or installed it [VENDOR_1] # Record 0 to 10 score (_____) 88 Refused 99 Don't know | IF N3d > N3b, N3c, N3g, N3h, N3I then conduct ve N3e. N3e. N3e. |
| N3e. | Previous experience with this &MEASURE? # Record 0 to 10 score (_____) 88 Refused 99 Don't know | N3f. N3f. N3f. |
| N3f. | Previous experience with the utility &PROGRAM or a similar utility program (such as &SIM_PGM?) # Record 0 to 10 score (_____) 88 Don't know 99 Refused | N3g. N3g. N3g. |
| | IF &PGM_TRAIN=1 OR &UTIL_TRAIN=1 THEN ASK, ELSE N3h | |
| N3g. | Information from &PROGRAM or &UTILITY training course? # Record 0 to 10 score (_____) 88 Refused 99 Don't know | N3gg N3h N3h |
| | IF N3g >7, THEN ASK | |

Revision

| | | |
|-------|-------------------------------------------------------------------------------------------------------------------|-------|
| N3gg | Why do you give it this rating? | |
| | 77 Record VERBATIM | N3h. |
| | 88 Refused | N3h. |
| | 99 Don't know | N3h. |
| N3h. | Information from &PROGRAM or &UTILITY marketing materials? | |
| | # Record 0 to 10 score (_____) | N3hh. |
| | 88 Refused | N3i |
| | 99 Don't know | N3i |
| | IF N3h >7, THEN ASK | |
| N3hh | Why do you give it this rating? | |
| | 77 Record VERBATIM | N3i |
| | 88 Refused | N3i |
| | 99 Don't know | N3i |
| | IF VENDOR2,NE.0,THEN ASK | |
| N3i. | A recommendation from a design or consulting engineer [VENDOR_2] | |
| | # Record 0 to 10 score (_____) | N3j. |
| | 88 Refused | N3j. |
| | 99 Don't know | N3j. |
| N3j. | Standard practice in your business/industry | |
| | # Record 0 to 10 score (_____) | N3k. |
| | 88 Refused | N3k. |
| | 99 Don't know | N3k. |
| | IF VENDOR3,NE.0,THEN ASK | |
| N3k. | Endorsement or recommendation by [&PGM_VEND] [VENDOR_3] | |
| | # Record 0 to 10 score (_____) | N3k1 |
| | 88 Refused | N3k2 |
| | 99 Don't know | N3k2 |
| | IF N3k >7, THEN ASK | |
| N3k1 | Why do you give it this rating? | |
| | 77 Record VERBATIM | N3k2 |
| | 88 Refused | N3k2 |
| | 99 Don't know | N3k2 |
| N3l. | Endorsement or recommendation by &ACCT_REP | |
| | # Record 0 to 10 score (_____) | N3ll |
| | 88 Refused | N3m |
| | 99 Don't know | N3m |
| | IF N3l >7, THEN ASK | |
| N3ll | Why do you say that? | |
| | 77 Record VERBATIM | N3m |
| | 88 Refused | N3m |
| | 99 Don't know | N3m |
| N3m. | Corporate policy or guidelines | |
| | # Record 0 to 10 score (_____) | N3n. |
| | 88 Refused | N3n. |
| | 99 Don't know | N3n. |
| N3n. | Payback on the investment | |
| | # Record 0 to 10 score (_____) | N3o. |
| | 88 Refused | N3o. |
| | 99 Don't know | N3o. |
| N3o. | Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE? | |
| | 1 Nothing else influential | N33 |
| | 77 Record verbatim | N3oo |
| | 88 Refused | N33 |
| | 99 Don't know | N33 |
| N3oo. | Using the same zero to 10 scale, how would you rate the influence of this factor? | |
| | # Record 0 to 10 score (_____) | N33 |
| | 88 Refused | N33 |
| | 99 Don't know | N33 |

IF N3n.>5, THEN ASK, ELSE CP1

PAYBACK BATTERY (If payback importance >5)

| | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| P1 | What financial calculations does your company make before proceeding with installation of a MEASURE like this one? | |
| | 77 Record VERBATIM | P2 |
| | 88 Don't know | P2 |
| | 99 Refused | P2 |
| P2 | What is the payback cut-off point your company uses (in months) before deciding to proceed with an investment? | |
| | 1 0 to 6 months | P3a |
| | 2 6 months to 1 year | P3a |
| | 3 1 to 2 years | P3a |
| | 4 2 to 3 years | P3a |
| | 5 3 to 5 years | P3a |
| | 6 Over 5 years | P3a |
| | 88 Don't know | P3a |
| | 99 Refused | P3a |
| P3a | What was the payback calculation for &MEASURE:(in months) with the rebate from &PROGRAM? | |
| | # payback in months (___ months) with rebate | P3b. |
| | 88 Don't know | P3b. |
| | 99 Refused | P3b. |
| P3b | And what was the payback calculation for &MEASURE:(in months) without the rebate from &PROGRAM? | |
| | # payback in months (___ months) without rebate | P3c |
| | 88 Don't know | CP1 |
| | 99 Refused | CP1 |
| | IF P3b<P2, THEN ASK. | |
| | "Even without the rebate, the &MEASURE project met your company's financial criteria. Would you have gone ahead with it even without the rebate?" | |
| P3c | 77 Record VERBATIM | P3d |
| | 88 Don't know | P3d |
| | 99 Refused | P3d |
| | IF P3a<P2, AND N3b<5, THEN ASK. | |
| | "The rebate seemed to make the difference between meeting your financial criteria and not meeting them, but you are saying that the rebate didn't have much effect on your decision, why is that?" | |
| P3d | 77 Record VERBATIM | P3e |
| | 88 Don't know | P3e |
| | 99 Refused | P3e |
| | IF P3a>P2, AND N3b>7, THEN ASK. | |
| | "The rebate didn't cause this &MEASURE to meet your company's financial criteria, but you said that the rebate had an impact on the decision to install &MEASURE. Why did it have an impact?" | |
| P3e. | 77 Record VERBATIM | CP1 |
| | 88 Don't know | CP1 |
| | 99 Refused | CP1 |
| | IF N3m.>5, THEN ASK, ELSE SP1 | |

CORPORATE POLICY BATTERY (If corporate policy importance >5)

| | | |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| CP1 | Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be to "buy green" or use sustainable approaches to business investments. 1 Yes [CAN I OBTAIN A COPY OF THE POLICY?] 2 No 88 Don't know 99 Refused | CP2 SP1 SP1 SP1 |
| CP2 | What specific corporate policy influenced your decision to adopt or install the &MEASURE? 1 RECORD VERBATIM [IF NOT ALREADY ASKED IN CP1: CAN I OBTAIN A COPY OF THE POLICY?] 88 Don't know 99 Refused | CP3 CP3 CP3 |
| CP3 | Had that policy caused you to adopt the &MEASURE at this facility before participating in the &PROGRAM? 1 Yes 2 No 88 Don't know 99 Refused | CP4 CP4 CP4 CP4 |
| CP4 | Had that policy caused you to adopt the &MEASURE at other facilities before participating in the &PROGRAM? 1 Yes [RECORD Locations and Dates] 2 No 88 Don't know 99 Refused | CP5 CP5 CP5 CP5 |
| CP5 | Did you receive an incentive for a previous installation of &MEASURE? If so, please describe the amount of incentive received, the approximately timing, and the name of the program that provided it. 77 Record VERBATIM 88 Don't know 99 Refused | CP6 CP6 CP6 |
| CP6 | IF CP3=1 OR CP4=1, THEN ASK. If I understand you correctly, you said that your company's corporate policy has caused you to adopt &MEASURE previously at this and/or other facilities. I want to make sure I fully understand how this corporate policy influenced your decision versus the &PROGRAM. Can you please clarify that? 77 Record VERBATIM 88 Don't know 99 Refused | SP1 SP1 SP1 |

IF N3j.>5, THEN ASK, ELSE O1**STANDARD PRACTICE BATTERY (If standard practice importance >5)**

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| SP1 | Approximately, how long has &MEASURE been standard practice in your industry? # Record Number of Months or Years 88 Don't know 99 Refused | SP2 SP2 SP2 SP2 |
| SP2 | Does your company ever deviate from the standard practice? 1. Yes [Under what conditions does your company deviate?] RECORD VERBATIM: _____ 2 No 88 Don't know 99 Refused | SP3 SP3 SP3 SP3 |
| SP3 | How did this standard practice influence your decision to install the &MEASURE? 77 Record VERBATIM 88 Don't know 99 Refused | SP3a SP3a SP3a |

| | | |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| | Could you please rate the importance of the &PROGRAM, versus this standard industry practice in influencing your decision to install &MEASURE. Would you say the &PROGRAM was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice? | |
| SP3a | 1 Much more important | SP4 |
| | 2 Somewhat more important | SP4 |
| | 3 Equally important | SP4 |
| | 4 Somewhat less important | SP4 |
| | 5 Much less important | SP4 |
| | 88 Don't know | SP4 |
| | 99 Refused | SP4 |
| SP4 | What industry group or trade organization do you look to to establish standard practice for your industry? | |
| | 77 Record VERBATIM | SP5 |
| | 88 Don't know | SP5 |
| | 99 Refused | SP5 |
| SP5 | How do you and other firms in your industry receive information on updates in standard practice? | |
| | 77 Record VERBATIM | O11 |
| | 88 Don't know | O11 |
| | 99 Refused | O11 |

IF N3o.>5, THEN ASK, ELSE N33.

OTHER INFLUENCES BATTERY (If other influences importance >5)

| | | |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| | Who provided the most assistance in the design or specification of &MEASURE? [DO NOT READ: Was it: the Designer, the Consultant, the Equipment Distributor, the Mfr Rep, the Installer, the Utility rep, or Internal staff?] | |
| O11 | 1 Designer | O12 |
| | 2 Consultant | O12 |
| | 3 Equipment distributor | O12 |
| | 4 Installer | O12 |
| | 5 &UTILITY account representative | O12 |
| | 6 &PROGRAM staff | O12 |
| | 77 Other: (Record VERBATIM) | O12 |
| | 88 Don't know | O12 |
| | 99 Refused | O12 |
| O12 | Please describe the type of assistance that they provided. | O13 |
| | 77 Record VERBATIM | O13 |
| | 88 Don't know | O13 |
| | 99 Refused | O13 |
| O13 | Please state, in your own words, any other factors that influenced your decision to go ahead on this energy efficiency project? | |
| | 77 Record VERBATIM | N33. |
| | 88 Don't know | N33. |
| | 99 Refused | N33. |

NET-TO-GROSS QUESTIONS (CONTINUED)

IF ACCT_REP = 1, ACCTREPNAME:= 0, THEN ASK.

N33 We do not have the name of your ACCOUNT REP at <%UTILITY>. Can you give me his or her name?

!! ___ Do you have his/her email address?

! ___ Do you have a phone number for him/her?

! ___ Do you have a cell phone number for him/her? \,

77 RECORD NAME, Phone, Email ETC

88 Refused

99 Don't know

N41

N41

N41

Revision
Revision
Revision

!!! ___ For the sake of expediency, we are referring to the ... <%PROGRAM> ... as the PROGRAM and we are referring to the installation of ...<%MEASURE>... as the MEASURE.

!! ___ I will repeat this from time to time during the study as your organization may have installed more than one measure through more than one program. \;

Next, I would like you to rate the importance of the PROGRAM in your decision to implement this MEASURE as opposed to other factors that may have influenced your decision such as...(SCAN BELOW AND READ TO THEM THOSE ITEMS WHERE THEY GAVE A RATING OF 8 or higher)

! <%N3A> Age or condition of old equipment,

! <%N3D> Equipment Vendor recommendation

! <%N3E> Previous experience with this measure

! <%N3F> Previous experience with this program

! <%N3I> Recommendation from a design or consulting engineer

! <%N3J> Standard practice in your business/industry

! <%N3M> Corporate policy or guidelines

! <%N3N> Payback on investment.

If you were given 10 points to award in total, how many points would give to the importance of the program and how many points would you give to these other factors? \

N41 How many of the ten points would you give to the importance of the PROGRAM in your decision?

Record 0 to 10 score (_____)

88 Refused

99 Don't know

N42

N42

N42

N42 and how many points would you give to these other factors? \

Record 0 to 10 score (_____)

88 Refused

99 Don't know

N41a

N41a

N41a

___ We want these two sets of numbers to equal 10.

! <%N41> for Program influence and

! <%N42> for Non Program factors

CONSISTENCY CHECK ON PGM IMPORTANCE SCORE

IF N41 &PROGRAM>6 AND N3b, N3c, N3g, N3h, N3k AND N3l ALL<4, THEN ASK N41a. ELSE IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3l>6, THEN ASK N41b. OTHERWISE SKIP TO N5.

When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were not that important to you. Just to make sure I have recorded this properly, may I please take a second to review?

- N41a 77 Record VERBATIM N5
- 88 Don't know N5
- 99 Refused N5
- IF N3b<4, THEN ASK**

When I asked you about THE AVAILABILITY OF THE PROGRAM REBATE, you gave a rating of ...<%N3B> ... out of ten, indicating that the program rebate was not that important to you. Can you tell me why the rebate was not that important?

- N41aa 77 Record VERBATIM N41ab
- 88 Don't know N41ab
- 99 Refused N41ab

IF N3c<4, THEN ASK

When I asked you about THE INFORMATION PROVIDED THROUGH

!! __<(FEAS_STUDY == 1)/ The Feasibility study/>

! __<(AUDIT == 1)/The Facility or System AUDIT/>

! __<(TECH_ASST == 1)/The Technical Assistance/> !

you gave a rating of ...<%N3C> ... out of ten, indicating that the information provided was not that important to you. Can you tell me why the information provided was not that important?

- N41ab 77 Record VERBATIM N41ac
- 88 Don't know N41ac
- 99 Refused N41ac

| | | |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| N41ac | IF N3g<4, THEN ASK When I asked you about THE INFORMATION FROM THE PROGRAM or UTILITY TRAINING COURSES, you gave a rating of ...<%N3G> ... out of ten, indicating that the information from the program or utility training course was not that important to you. Can you tell me why this information was not that important? | |
| | 77 Record VERBATIM | N41ad |
| | 88 Don't know | N41ad |
| | 99 Refused | N41ad |
| | IF N3h<4, THEN ASK When I asked you about THE INFORMATION from the PROGRAM or UTILITY MARKETING MATERIALS, you gave a rating of ...<%N3H> ... out of ten, indicating that this information from the program or utility marketing materials was not that important to you. Can you tell me why this information was not that important? | |
| N41ad | 77 Record VERBATIM | N41ae |
| | 88 Don't know | N41ae |
| | 99 Refused | N41ae |
| | IF N3k<4, THEN ASK When I asked you about THE ENDORSEMENT or RECOMMENDATION by PROGRAM STAFF or PROGRAM VENDOR, you gave a rating of ...<%N3K> ... out of ten, indicating that this program endorsement was not that important to you. Can you tell me why this program endorsement was not that important? | |
| N41ae | 77 Record VERBATIM | N41af |
| | 88 Don't know | N41af |
| | 99 Refused | N41af |
| | IF N3l<4, THEN ASK When I asked you about THE ENDORSEMENT or RECOMMENDATION by YOUR ACCOUNT REP ...<%ACCT_REP_NAME>, you gave a rating of ...<%N3L> ... out of ten, indicating that this Account Rep endorsement was not that important to you. Can you tell me why this endorsement was not that important? | |
| N41af | 77 Record VERBATIM | N41b |
| | 88 Don't know | N41b |
| | 99 Refused | N41b |
| | IF N41 &PROGRAM<4 AND N3b OR N3c OR N3g OR N3h OR N3k OR N3l>6, THEN ASK N41b. OTHERWISE SKIP TO N5. When you scored the importance of the program as <%N41>, I would interpret that to mean that the program was not very important to your decision to install this equipment. Earlier, when I asked about the importance of individual elements of the program I recorded some answers that would imply that certain elements of the program were very important to you. Just to make sure I have recorded this properly, will you please state in your own words why you feel the program was not very important? | |
| N41b | 77 Record VERBATIM | N5 |
| | 88 Don't know | N5 |
| | 99 Refused | N5 |
| | Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the &PROGRAM had not been available. Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the &PROGRAM had not been available, what is the likelihood that you would have installed exactly the same equipment? | |
| N5 | # Record 0 to 10 score (_____) | N5a. |
| | 88 Refused | N6 |
| | 99 Don't know | N6 |

CONSISTENCY CHECKS

| | | |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| | IF N3b>7 and N5>7, THEN ASK. | |
| | When you answered ...<%N3B> ... for the question about the influence of the rebate, I would interpret that to mean that the rebate was quite important to your decision to install. Then, when you answered ..<%N5>... for how likely you would be to install the same equipment without the rebate, it sounds like the rebate was not very important in your installation decision. I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain in your own words, the role the rebate played in your decision to install this efficient equipment? | |
| N5a | 77 Record VERBATIM | N5aa |
| | 88 Don't know | N5aa |
| | 99 Refused | N5aa |
| | Would you like for me to change your score on the importance of the rebate that you gave a rating of <%N3B> and/or change your rating on the likelihood you would install the same equipment without the rebate which you gave a rating of <%N5> and/or we can change both if you wish? | |
| N5aa | 77 Record VERBATIM | SP3a |
| | 88 Don't know | SP3a |
| | 99 Refused | SP3a |

PROBE ON STANDARD PRACTICE if n3>7, ELSE ASK N9

| | | |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| | In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this MEASURE. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy? | |
| SP3a | 1 Much more important | N9 |
| | 2 Somewhat more important | N9 |
| | 3 Equally important | N9 |
| | 4 Somewhat less important | N9 |
| | 5 Much less important | N9 |
| | 88 Don't know | N9 |
| | 99 Refused | N9 |
| | IF N5>0, THEN ASK. | |
| | You indicated in your response to a previous question that there was a <%N5> in 10 likelihood that you would have installed the same equipment if THE PROGRAM had not been available. When do you think you would have installed this equipment? | |
| N9 | Please express your answer in months. | |
| | a. at the same time | TD1 |
| | b. within _____ .months | N9b |
| | c. Never | N6 |
| | 88 Refused | N6 |
| | 99 Don't know | N9a. |
| N9a. | If respondent is having difficulty specifying answer in months...would it have been.. | |
| | a. _____ ..within 6 months? | TD1 |
| | b. _____.. 6 months to 1 year later | TD1 |
| | c. _____.. 1 - 2 years later | TD1 |
| | d. _____ ..2 - 3 years later? | TD1 |
| | e. _____ ..3 - 4 years later? | TD1 |
| | f. _____ ..4 or more years later | N9b |
| | 88 Don't know | N6 |
| | 99 Refused | N6 |
| | IF N9>=48 months OR N9a=response f, THEN ASK N9b, ELSE ASK N6. | |
| N9b. | Why do you think it would have been 4 or more years later? | |
| | 77 Record VERBATIM | TD1 |
| | 88 Don't know | TD1 |
| | 99 Refused | TD1 |

DEFERRED FREE RIDERSHIP FOLLOW-UP

INTRO You said that there was an <N5> in 10 likelihood that you would have installed the same equipment about <&N9> months later
 FOR BOTH (OR at the same time) if the PROGRAM had not been available. I'd like to ask a couple of questions to help us estimate at what
 TD1 and point in the future you would definitely have installed new equipment. We understand that you can't know exactly when you
 TD1a would have done this, especially so far into the future. We're just trying to get a sense of how long you think the current
 equipment or process would have kept serving your company's needs before you had to or chose to replace it.

If N9 or N9a ≤ 60 months, ask TD1, ELSE TD1A

TD1 So, again using a 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you
 would have installed the same equipment within 60 months, or 5 years, later if the program had not been available?

Record 0 to 10 score (_____)

88 Refused

99 Don't know

IF <10 ASK TD2, ELSE GO TO N5a

TD2

TD1A

TD1A

TD2 And what would you say is the likelihood that you would have installed the same equipment within 120 months, or 10 years, later
 if the program had not been available?

Record 0 to 10 score (_____)

88 Refused

99 Don't know

TD1A

TD1A

TD1A

If N9 or N9a > 60 months, ask

TD1A Now, using the same 0 to 10 scale, where 0 means not at all likely and 10 means extremely likely, what is the likelihood that you
 would have installed the same equipment within 120 months, or 10 years, later if the program had not been available?

Record 0 to 10 score (_____)

88 Refused

99 Don't know

N9bb

N9bb

N9bb

CONSISTENCY CHECK ON AGE

IF N3a>6 AND N9>=48 months OR N9a=response f, THEN ASK. ELSE N6.

Earlier when asked about the influence of the age/condition of the old equipment on your decision to install this new equipment,
 you gave me a rating of <%N3A> out of ten. I would interpret this to mean that the age/condition was quite influential in your
 decision to install this new equipment when you did. Perhaps I have either recorded something incorrectly or maybe you could
 explain in your own words the role the age/condition of the existing equipment played in your decision to install this new energy-
 efficient equipment.

N9bb

77 Record VERBATIM

88 Don't know

99 Refused

N6

N6

N6

Revision

PARTIAL FREE RIDERSHIP

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| | Now I would like you to think one last time about what action you would have taken if the program had not been available. Supposing that you had not installed the program qualifying equipment, which of the following alternatives would you have been MOST likely to do? | |
| N6 | 1 Install fewer units | N6a |
| | 2 Install standard efficiency equipment or whatever required by code | SP1 |
| | 3 Install equipment more efficient than code but less efficient than what you installed through the program | N6b |
| | 4 repair/rewind or overhaul the existing equipment | N6c |
| | 5 do nothing (keep the existing equipment as is) | SP1 |
| | 6 something else (specify what _____) | SP1 |
| | 88 Don't know | SP1 |
| | 99 Refused | SP1 |
| N6a | How many fewer units would you have installed? (It is okay to take an answer such as ...HALF...or 10 percent fewer ... etc.) | |
| | 77 RECORD VERBATIM | SP1 |
| | 88 Refused | SP1 |
| | 99 Refused | SP1 |
| N6b | Can you tell me what model or efficiency level you were considering as an alternative? (It is okay to take an answer such as ... 10 percent more efficient than code or 10 percent less efficient than the program equipment) | |
| | 77 RECORD VERBATIM | SP1 |
| | 88 Don't know | SP1 |
| | 99 Refused | SP1 |
| N6c | How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement? | |
| | 77 RECORD VERBATIM | SP1 |
| | 88 Don't know | SP1 |
| | 99 Refused | SP1 |

SPILLOVER QUESTIONS

| | | | |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------|
| SP1 | Did you implement any additional energy efficiency measures at this facility since your participation in the 2006-2008 Program and before the end of 2008 that did not receive incentives through any utility or government program? | SP2 CAFAC1 CAFAC1 CAFAC1 | Revision |
| | 1 Yes | | |
| | 2 No | | |
| | 88 Refused | | |
| | 99 Don't know | | |
| SP2 | What was the first Measure that you implemented? | SP3 CAFAC1 CAFAC1 | |
| | 77 Record FIRST measure | | |
| | 88 Refused | | |
| | 99 Don't know | | |
| SP3 | What was the second measure? | SP4 SP4 SP4 | |
| | 77 Record SECOND measure | | |
| | 88 Refused | | |
| | 99 Don't know | | |
| SP4 | What was the third measure? | SP5 SP5 SP5 | |
| | 77 Record THIRD measure | | |
| | 88 Refused | | |
| | 99 Don't know | | |
| SP5 | I have a few questions about the FIRST Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program? | SP5b SP5b SP5b | |
| | 77 Record VERBATIM | | |
| | 88 Don't know | | |
| | 99 Refused | | |
| SP5b | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. | SP5c SP5c SP5c | |
| | 77 Record VERBATIM | | |
| | 88 Don't know | | |
| | 99 Refused | | |
| SP5c. | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? | SP5d SP5d SP5d SP5d | |
| | 1 Yes | | |
| | 2 No | | |
| | 88 Refused | | |
| | 99 Don't know | | |
| SP5d. | How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? | SP5dd SP5e SP5e | |
| | # Record 0 to 10 score (_____) | | |
| | 88 Refused | | |
| | 99 Don't know | | |
| SP5dd. | Why do you give it this rating? | SP5e SP5e SP5e | |
| | 77 Record VERBATIM | | |
| | 88 Don't know | | |
| | 99 Refused | | |
| SP5e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? | SP5f SP5f SP5f | |
| | # Record 0 to 10 likelihood rating (_____) | | |
| | 88 Refused | | |
| | 99 Don't know | | |

| | | |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| SP6 | <p>I have a few questions about the SECOND Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?</p> <p>77 Record VERBATIM 88 Don't know 99 Refused</p> | <p>SP6b SP6b SP6b</p> |
| SP6b | <p>Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.</p> <p>77 Record VERBATIM 88 Don't know 99 Refused</p> | <p>SP6c SP6c SP6c</p> |
| SP6c. | <p>Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>SP6d SP6d SP6d SP6d</p> |
| SP6d. | <p>How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?</p> <p># Record 0 to 10 score (_____)</p> <p>88 Refused 99 Don't know</p> | <p>SP6dd SP6e SP6e</p> |
| SP6dd. | <p>Why do you give it this rating?</p> <p>77 Record VERBATIM 88 Don't know 99 Refused</p> | <p>SP6e SP6e SP6e</p> |
| SP6e. | <p>If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?</p> <p># Record 0 to 10 likelihood rating (_____)</p> <p>88 Refused 99 Don't know</p> | <p>SP7 SP7 SP7</p> |
| SP7 | <p>I have a few questions about the THIRD Measure that you installed. Why are you not expecting a rebate for this measure? Why did you not install this measure through a Utility Program?</p> <p>77 Record VERBATIM 88 Don't know 99 Refused</p> | <p>SP7b SP7b SP7b</p> |
| SP7b | <p>Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.</p> <p>77 Record VERBATIM 88 Don't know 99 Refused</p> | <p>SP7c SP7c SP7c</p> |
| SP7c. | <p>Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?</p> <p>1 Yes 2 No 88 Refused 99 Don't know</p> | <p>SP7d SP7d SP7d SP7d</p> |
| SP7d. | <p>How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?</p> <p># Record 0 to 10 score (_____)</p> <p>88 Refused 99 Don't know</p> | <p>SP7dd SP7e SP7e</p> |

| | | |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| SP7dd. | Why do you give it this rating? 77 Record VERBATIM 88 Don't know 99 Refused | SP7e SP7e SP7e |
| SP7e. | If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure? # Record 0 to 10 likelihood rating (_____) 88 Refused 99 Don't know | CAFAC1 CAFAC1 CAFAC1 |
| CAFAC1 | Now, thinking about other facilities operated by your organization in the regions of California that are served by PG&E, SCE, SDG&E or Southern California Gas Company , are you aware of any additional energy efficiency measures implemented at these other facilities since your participation in the 2006-2008 program and before the end of 2008 that did not receive an incentive through a utility or government program? 1 Yes 2 No 88 Refused 99 Don't know | CAFAC2 C1 C1 C1 |
| CAFAC2 | What was the first Measure that you implemented? 77 Record FIRST MEASURE 88 Refused 99 Don't know | CAFAC3 CAFAC3 CAFAC3 |
| CAFAC3 | What was the second measure? 77 Record SECOND MEASURE 88 Refused 99 Don't know | CAFAC4 CAFAC4 CAFAC4 |
| CAFAC4 | What was the third measure? 77 Record THIRD MEASURE 88 Refused 99 Don't know IF CAFAC1=1, THEN ASK, ELSE C1 | MEAS1_1 MEAS1_1 MEAS1_1 |
| MEAS1_1 | I have a few questions about .the FIRST MEASURE that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program? 1 Yes 2 No 88 Refused 99 Don't know | MEAS2_1 MEAS1_2 MEAS2_1 MEAS2_1 |
| MEAS1_2 | Why did you not install this measure through a Utility Program? 77 Record VERBATIM 88 Don't know 99 Refused | MEAS1_3 MEAS1_3 MEAS1_3 |
| MEAS1_3 | Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure. 77 Record VERBATIM 88 Don't know 99 Refused | MEAS1_4 MEAS1_4 MEAS1_4 |
| MEAS1_4 | Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist? 1 Yes 2 No 88 Refused 99 Don't know | MEAS1_5 MEAS1_5 MEAS1_5 MEAS1_5 |

Revision

MEAS1_5 How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?
Record 0 to 10 score (_____) MEAS1_6
88 Refused MEAS1_7
99 Don't know MEAS1_7

MEAS1_6 Why do you give it this rating?
77 Record VERBATIM MEAS1_7
88 Don't know MEAS1_7
99 Refused MEAS1_7

MEAS1_7 If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?
Record 0 to 10 likelihood rating (_____) MEAS2_1
88 Refused MEAS2_1
99 Don't know MEAS2_1

IF CAFAC2=1, THEN ASK, ELSE C1
I have a few questions about .the SECOND MEASURE.that you installed. Was this measure part of a <%UTILITY> program or any other utility or government energy efficiency incentive Program?
MEAS2_1 1 Yes MEAS3_1
2 No MEAS2_2
88 Refused MEAS3_1
99 Don't know MEAS3_1

MEAS2_2 Why did you not install this measure through a Utility Program?
77 Record VERBATIM MEAS2_3
88 Don't know MEAS2_3
99 Refused MEAS2_3

MEAS2_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.
77 Record VERBATIM MEAS2_4
88 Don't know MEAS2_4
99 Refused MEAS2_4

MEAS2_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?
1 Yes MEAS2_5
2 No MEAS2_5
88 Refused MEAS2_5
99 Don't know MEAS2_5

MEAS2_5 How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?
Record 0 to 10 score (_____) MEAS2_6
88 Refused MEAS2_7
99 Don't know MEAS2_7

MEAS2_6 Why do you give it this rating?
77 Record VERBATIM MEAS2_7
88 Don't know MEAS2_7
99 Refused MEAS2_7

MEAS2_7 If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?
Record 0 to 10 likelihood rating (_____) MEAS3_1
88 Refused MEAS3_1
99 Don't know MEAS3_1

IF CAFAC3=1, THEN ASK, ELSE C1

I have a few questions about the THIRD MEASURE that you installed. Was this measure part of a <%UTILITY> program or any

- MEAS3_1 other utility or government energy efficiency incentive Program?
1 Yes C1
2 No MEAS3_2
88 Refused C1
99 Don't know C1
- MEAS3_2 Why did you not install this measure through a Utility Program?
77 Record VERBATIM MEAS3_3
88 Don't know MEAS3_3
99 Refused MEAS3_3
- MEAS3_3 Please describe the SIZE, The EFFICIENCY and QUANTITY of this measure.
77 Record VERBATIM MEAS3_4
88 Don't know MEAS3_4
99 Refused MEAS3_4
- MEAS3_4 Was this measure specifically recommended by a PROGRAM related audit, report or program technical specialist?
1 Yes MEAS3_5
2 No MEAS3_5
88 Refused MEAS3_5
99 Don't know MEAS3_5
- MEAS3_5 How significant was your experience in the 2006--2008 Program in your decision to implement this Measure, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant?
Record 0 to 10 score (_____) MEAS3_6
88 Refused MEAS3_7
99 Don't know MEAS3_7
- MEAS3_6 Why do you give it this rating?
77 Record VERBATIM MEAS3_7
88 Don't know MEAS3_7
99 Refused MEAS3_7
- MEAS3_7 If you had not participated in the 2006-2008 program, how likely is it that your organization would still have implemented this measure, using a 0 to 10 scale where 0 means you definitely WOULD NOT have implemented this measure and 10 means you definitely WOULD have implemented this measure?
Record 0 to 10 likelihood rating (_____) C1
88 Refused C1
99 Don't know C1
- And finally, I have a few questions about the characteristics of your business.**
- C1. Our records indicate that the primary business code for the facility that installed &MEASURE is &NAICS. Is that correct?
1 Yes C2
2 No C2
88 Don't know C2
99 Refused C2
- C2. Please describe the type of work performed at this facility and/or the primary product made or main service provided.
77 Record VERBATIM C3
88 Don't know C3
99 Refused C3
- C3. Please describe any changes made to this site since January 2006 that significantly impacted energy usage.
77 Record VERBATIM END
88 Don't know END
99 Refused END

Premise General Information

Please answer the following questions

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| C4. What kind of premise is this?: P = Part of a bldg B = 1 building, single footprint MF = 1 building w/multiple footprints SM = Small multi-building CM = Campus (multi-bldg) OT = Other | P B MF SM CM OT |
| C5. What is the total occupied floor area of this premise (excluding enclosed parking garage area)? | _____ ft ² |
| C5a. If the premise has an enclosed parking garage, approximately what is the floor area? | _____ ft ² |
| C6. How many buildings are part of this premise? | _____ |
| C7. Is this premise owner-occupied (O) or leased (L)? | O L |
| C8. What year was this business established at this location? | ---- |
| C9. How many full-time equivalent employees work at this premise? | _____ |

END Those are all the questions I have for you. On behalf of the CPUC, thank you very much for your time.

END OF SURVEY

Business/Building Type Codes

Appendix D-3

Detailed Site-Specific Net-to-Gross Results

Appendix D-3a

SCE 2509 Industrial

Appendix D-3a is not included as it contains confidential information.

Appendix D-3b

SCE 2510 Agricultural

Appendix D-3b is not included as it contains confidential information.

Appendix D-4

Onsite Data Collection Forms

Southern California Industrial and Agricultural Program Evaluation ON-SITE Data Collection Form

1.1 INTERVIEW INFORMATION

Company Name / App. No. : _____

Street Address: _____

Facility Representative(s): _____

Phone / Email: _____

SIC Code (if blank see SIC codes
in Lookup Tables) _____

Reported Building Type _____

Electric and Gas Account Information

Verify that all accounts at the site are listed in this table.

| Account Type | Account Number | Baseline Annual Energy | Post-Retrofit Annual Energy | Notes |
|--------------|----------------|------------------------|-----------------------------|-------|
| | | | | |

Projects Evaluated

| Evaluator | Date of Site Visit | IOU Application Number | Itron Assigned Project No. | Measure(s) Evaluated |
|-----------|--------------------|------------------------|----------------------------|----------------------|
| | | | | |

1.2 DESCRIPTION OF FACILITY

| | |
|-----------------------------------------|-------------------------|
| Primary Services or Products | |
| Total floor space of this facility | ft ² |
| Conditioned floor space (this facility) | ft ² |
| Year business established at site | |
| Obtain project invoices | Obtained / Not obtained |
| Customer requested copy of report | Yes / No |
| Customer requested copy of raw data | Yes / No |

(Reports and raw data can be provided to the customer after the project is completed in 2009.)

Site Characteristics

Business Hours

| Day Type | Pre-Retrofit Operating Hours | Closed All Day? | Open 24 hours? | Partial Occupancy % | Average # of Occupants? |
|----------|------------------------------|--------------------------|--------------------------|---------------------|-------------------------|
| Weekdays | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |
| Saturday | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |
| Sunday | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |
| Other | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |

| Day Type | Post-Retrofit Operating Hours | Closed All Day? | Open 24 hours? | Partial Occupancy % | Average # of Occupants? |
|----------|-------------------------------|--------------------------|--------------------------|---------------------|-------------------------|
| Weekdays | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |
| Saturday | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |
| Sunday | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |
| Other | From _____ to _____ | <input type="checkbox"/> | <input type="checkbox"/> | | |

| |
|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Seasonal variations in the level of occupancy or use: |
| Does evaluated measure(s) operate when facility is closed? |
| Are there any regularly scheduled plant shut downs when the measure does not operate? If so when does this occur, how many hours and how many days |

Closed Holidays: *Check all that apply below or => N/A*

| | |
|------------------------------------|-------|
| Number of Closed Holidays per year | _____ |
|------------------------------------|-------|

Enter "0" above if they never close. Do not read through the list below, just check the holidays that the site contact mentions or ask a general question about which holidays are closed days, and check that the number above is consistent.

| | | | |
|------------------------|--------------------------|------------------|--------------------------|
| New Year's Day | <input type="checkbox"/> | Labor Day | <input type="checkbox"/> |
| Martin Luther King Day | <input type="checkbox"/> | Columbus Day | <input type="checkbox"/> |
| Presidents Day | <input type="checkbox"/> | Veterans Day | <input type="checkbox"/> |
| Memorial Day | <input type="checkbox"/> | Thanksgiving Day | <input type="checkbox"/> |
| July 4 th | <input type="checkbox"/> | Christmas Day | <input type="checkbox"/> |

1.3 Interview Facility Representative

1) Early retirement under the SPC 04-05 Evaluation requires calculation of energy savings using the existing equipment as the baseline for energy use (verses the current standards), but only for the remaining useful life of the equipment. This can apply to all measures, particularly lighting and equipment replacement. If the measure is an early retirement measure:

- a) At the time the equipment was replaced, how many years were left in its useful life (without major repairs which may have led to replacement)? _____
- b) How old was the equipment that was removed and replaced? _____
- c) Was the existing equipment fully functional, fully functioning but with significant problems, or non-functional? _____
- d) How often was major non-scheduled maintenance required and of what type? _____
- e) How often had the equipment failed recently, and over what time period? _____
- f) How satisfactory was the performance of the old equipment? _____
- g) How long would the old equipment have met the technical and performance needs of the facility? _____

2) Determination of baseline condition:

a) Did you consider any alternatives to the [DESCRIBE MEASURE] installed/through the PROGRAM that you would have implemented in the same time frame if the program had not been available? By the same time frame I mean within 6 months of the time when you participated in the program. Which of the following describes the alternatives you considered? (check all that apply):

- i) I did not consider any alternatives (SKIP TO Q#3)
- ii) I considered fewer units of the measure
- iii) I considered a different model or efficiency level
- iv) I considered both fewer units and a different model
- v) Other (specify)

b) Did you evaluate any of these alternatives at the same time as you evaluated the MEASURE that you eventually installed through the PROGRAM?

NO: (IF NO skip to Q#2c)

YES: Which of the following best describes the most likely alternative that you evaluated?

- i) Fewer high efficiency units (e.g., controls, VFDs, lights). How many units would you have installed? _____
- ii) A standard efficiency version of the same equipment (or one that meets code or other regulatory requirements). What criteria, code or other requirement

would you have used to determine the efficiency of this equipment?

iii) Equipment more efficient than code, but less efficient than we installed through the program. Do you know the efficiency rating or model number of the equipment that you would have installed? If yes, record: _____ If not, ask: In percentage terms, about how much less efficient would this equipment have been compared to the program qualifying equipment you installed? _____

iv) Repair/rewind/refurbish the existing equipment. How long do you think the repaired/rewound/refurbished equipment would have lasted before requiring replacement? _____

v) Something else (specify)

c) In the absence of the rebate from the PROGRAM, is it more likely that you would have done nothing or is it more likely that you would have installed the alternative that you just described? (IF ALTERNATIVE MORE LIKELY: Can you provide any notes or other documentation regarding your exploration?)

3) Does the customer have any reason to believe that there will be any changes in the operation of the primary measure?

a) Changes in hours _____

b) Changes in load _____

c) Impact on annual kWh savings _____

d) Impact on kW savings _____

4) Any perceived non-energy benefits, e.g., increased production, increased comfort, new equipment, environmental branding, etc.? _____

5) Were there any drawbacks to the energy efficiency measure? _____

6) Was there a production increase when the new measure was installed? _____ If answer YES, then:

a) Was the production increase enabled by the new equipment? _____

b) Would you have increased your production if you had not installed the new equipment? _____

7) Record all measure specific contextual data. (see Measure Specific list in Lookup Tables)

1.4 MONITORING

IOU Application Number:

Itron Project ID:

Site Characteristics to be Verified (that could affect the measure impact or approach)

Data Collection Method Description

*

The following types of measurement equipment will be used in this evaluation including metering interval and duration for each instrument:

| Num. | Measurement Type | Equipment | Duration (weeks) | Interval (minutes) |
|-------------|-------------------------|------------------|-------------------------|---------------------------|
| | | | | |
| | | | | |
| | | | | |

Sensor Calibration and Quality Assurance

Questions to Ask on the Phone or On-Site

1.5 Lookup Tables

1.5.1 Two-Digit Agricultural & Manufacturing 1987 SICs

- 01 Agricultural production- crops
- 02 Agricultural production- livestock
- 07 Agricultural services
- 08 Forestry
- 09 Fishing, hunting, and trapping
- 20 Food and kindred products
- 21 Tobacco manufactures
- 22 Textile mill products
- 23 Apparel and other textile products
- 24 Lumber and wood products
- 25 Furniture and fixtures
- 26 Paper and allied products
- 27 Printing and publishing
- 28 Chemicals and allied products
- 29 Petroleum and coal products
- 30 Rubber and miscellaneous plastics products
- 31 Leather and leather products
- 32 Stone, clay, glass, and concrete products
- 33 Primary metal industries
- 34 Fabricated metal products
- 35 Industrial machinery and equipment
- 36 Electrical and electronic equipment
- 37 Transportation equipment
- 38 Instruments and related products
- 39 Miscellaneous manufacturing industries

1.5.2 Measure Specific Contextual Data

Heating System

- Winter occupied setpoint (F)
- Monitored heating system type (furnace, air/water/ground source heat pump, boiler)
- Monitored heating system year of installation

All Non-Residential Comfort Cooling Measures

- Summer occupied setpoint (F)
- Total non-backup capacity in tons associated with measure
- Monitored system type—type of coils in supply air fan (refrigerant, chilled water)
- Monitored system supply air flow control strategy (constant, variable volume, or cycling)
- Monitored system outside air strategy (none, fixed %, fixed cfm, economizer)
- Monitored compressor type (reciprocating, screw, centrifugal, scroll, other)
- Monitored packaged unit or chiller make & model number

Water-Side Measure on Chilled Water-Based Cooling System

- Chilled water temperature control strategy (constant, reset based on OAT, reset based on load, other)
- Condenser water temperature control strategy (constant, OATdb reset, OATwb reset, load reset, other)

Supply Air Fans

- Predominant summer supply air temperature setpoint for areas affected by measure (F)
- Supply air temperature control scheme for system affected by measure (constant, reset, manually adjusted, other)
- Supply air pressure reset control scheme for system affected by measure (constant, reset, manually adjusted, other)
- Monitored fan type (forward curved, back inclined, airfoil, vane axial, other)
- Monitored fan flow control (constant volume, cycle, VSD, inlet vane, outlet damper, variable pitch, other)
- Monitored motor nameplate hp, volts, amps, efficiency, and power factor

Pumps (Chilled Water and Condenser Water)

- Monitored pump flow control (constant volume, cycle, VSD, throttle, other)
- Monitored motor nameplate hp, volts, amps, efficiency, and power factor

Cooling Towers

- Condenser water temperature control strategy (constant, OATdb reset, OATwb reset, load reset, manual reset, other)
- Fan control strategy (single speed, two-speed, variable speed, multiple motors, combination)

Process Refrigeration - Heat Rejection Side Measures

- Condenser approach temperature (F)
- Minimum head pressure setpoint (psi)

Process Refrigeration - Evaporator Side Measures

- Defrost type (hot gas, resistance, timer, etc.)
- Load type (refrigerated storage, frozen storage, chilling product, freezing product)

Agricultural Pumping

- Acres under irrigation

Appendix D-5

Site Reports

Appendix D-5 is not included as it contains confidential information.

Appendix E

Response to Comments Received on Draft Report

Appendix E is not included as it contains confidential information.