

STATEWIDE BUSINESS AND CONSUMER ELECTRONICS BASELINE

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Final Report

Volume II of II Data Collection Instruments

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1. END USER CHANNEL ASSESSMENT: IN-STORE ANALYSIS

1.1 Mystery Shopping

1.1.1 In-Store – Mystery Shopper Conversation Form (TVs)

Note to Researcher: The following questions are intended to get a sense of whether or not the salesperson on the floor actively promotes energy efficiency or has an understanding of energy efficiency for that product. You don't have to ask each question as it is written, but the topics of these questions should be covered in the conversation with the salesperson. Please note the total number of models shown to you, the number of models shown that were ENERGY STAR or BCE, and whether the salesperson explained the benefits of energy efficiency <u>without</u> you asking questions about it or only <u>after</u> you inquired. Remember, you are a MYSTERY shopper, so act like a regular customer!

You have been assigned to shop for a TV. For **each** type: LCD, Plasma, and Rear Projection, ask to be shown a **minimum** of 3 different TV models. Be prepared to provide a screen size.

Conversation Guide

"I'm looking for a new [screen size] TV. I would like to see at least three LCD, Plasma, and DLP TVs to compare them. Are you the right person to ask a few questions? Can you show me the TVs that you would recommend?"

- 1. What makes this a good TV? What features are most important when picking out my new TV?
- 2. If you were going to buy a [screen size] TV which one would you buy? Why?

*Note if salesperson brings up energy efficiency, ENERGY STAR, or the BCE Program logo or promotional items <u>without you asking</u>. (check all that they say)

3. Do you have any models on promotion?

*Note if salesperson shows you the promotional ENERGY STAR or the BCE Program logo (check all that they say)

[ASK IF energy efficiency is NOT mentioned]

- 4. Do you have any TVs like these that are energy efficient?
- 5. How are these (EE) TVs different from other standard TVs?
- 6. Can you tell me which models are energy efficient?

[ASK IF salesperson brings up ENERGY STAR]

7. What is ENERGY STAR?

8. Which of these models are ENERGY STAR compliant?

[ASK IF salesperson does NOT bring up ENERGY STAR]

- 9. I have been hearing a lot about ENERGY STAR. What is ENERGY STAR?
- 10. Which of these models are ENERGY STAR compliant?

[ASK ALL]

- 11. Does it cost more money to buy an energy efficient TV?
- 12. Do energy efficient TVs perform better or worse than standard TVs?

Thank you for your time. We'll think about it.

1.1.2 Mystery Shopper Questionnaire (TVs)

Please complete this section after the mystery shopping session.

1. Did you speak with: (circle your response below):

Stocker

Salesperson

Store Manager/Floor Manager

2. Please indicate how many models you saw for each category below. Write a zero "0" if you were shown NO models for each TV type.

Туре	Total Shown	Total ENERGY STAR (ES)	Total BCE	Total Energy Efficient TVs Shown (not BCE or ES)
LCD				
Plasma				
Projection				

3. How many of the models shown to you were described as energy efficient before you explicitly asked about energy efficiency (EE)?

Туре	Total Models		Check Models		
	Describe	ed as EE	as EE		
LCD					
Plasma					
Projection					

4. Did the salesperson bring up Energy Efficiency, ENERGY STAR, or the BCE Program logo or promotional items without you asking? (check all that they mention)

Energy Efficiency (not BCE or	s No	
ENERGY STAR:	Yes	No
BCE program logo:	Yes	No

5. Did the salesperson show you the ENERGY STAR or the BCE Program models after you asked about EE? (check all that they mention)



 Energy Efficiency (not BCE or Energy Star): Yes _____ No _____

 ENERGY STAR:
 Yes _____ No _____

 BCE program logo:
 Yes _____ No _____

6. Please indicate the salesperson's response to your question: What is ENERGY STAR?

7. Please list the reasons why the salesperson said it was a "good" TV and why they would "buy it."

- 8. _____
- b. ______ c. _____
- d. _____
- 8. Did the salesperson indicate which TVs they had on promotions? (Y/N) _____
- 9. Please list the TVs on promotion you were shown and how they were promoted:
 - a. _____b. _____
 - C. _____
 - d. _____
- 10. Please indicate the extent to which the salesperson could easily locate efficient TVs. Record your answers on a scale of 1 to 7 with one meaning "could not find energy efficient TVs" and seven being "could find energy efficient TVs very easily." ______
- 11. Please indicate the extent to which the salesperson mentioned energy efficiency as a *positive feature* in his or her discussion of models. Record your answers on a scale of 1 to 7, with one meaning "not at all positive" and seven meaning "very positive." _____
- 12. Please indicate the extent to which the salesperson was knowledgeable about ENERGY STAR. Record your answers on a scale of 1 to 7 with one meaning "did not know about ENERGY STAR" and seven being "very knowledgeable about ENERGY STAR." _____
- 13. Please indicate the extent to which the salesperson was knowledgeable about the BCE program. Record your answers on a scale of 1 to 7 with one meaning "did not know about the BCE program" and seven being "Very knowledgeable about the BCE program."
- 14. Did the salesperson indicate that it costs more money to buy an energy efficient TV? Please selection one of the options below:

__ Energy efficient models cost more money than non-energy efficient models

___ Energy efficient models cost the same amount of money than non-energy efficient models

- ___ Energy efficient models cost **less** money than non-energy efficient models
- 15. Did the salesperson indicate that an energy efficient TV performs (or works) better than non-energy efficient models? Please select one of the options below:
 - ___ Energy efficient models perform **better** than non-energy efficient models
 - ___ Energy efficient models perform the same as non-energy efficient models
 - ___ Energy efficient models perform **worse** than non-energy efficient models



¹ Note that salesperson is unlikely to discuss BCE program

- 16. If the salesperson discussed energy efficiency, the BCE program, or ENERGY STAR with respect to TVs, please indicate if the salesperson mentioned any of the following benefits:
 - ____Annual Operating Costs
 - ___Life cycle costs
 - Life cycle savings Lower utility bills
 - ___Lower utility bi
 - ____ Environmentally friendly
 - Other, specify below:

1.1.3 In-Store – Mystery Shopper Conversation Form (Computers)

Note to Researcher: The following questions are intended to get a sense of whether or not the salesperson on the floor actively promotes energy efficiency or has an understanding of energy efficiency for that product. You don't have to ask each question as it is written, but the topics of these questions should be covered in the conversation with the salesperson. Please note the total number of models shown to you, the number of models shown that were ENERGY STAR or BCE, and whether the salesperson explained the benefits of energy efficiency <u>without</u> you asking questions about it or only <u>after</u> you inquired. Remember, you are a MYSTERY shopper, so act like a regular customer!

You have been assigned to shop for a new computer. If the salesperson asks, you are looking for a computer for home use. For **each** type: Monitor, Desktop Tower, and Combined Unit, ask to be shown a minimum of 3 different models. Note that you will need to ask each of the below questions for Monitors and Desktop Towers separately, but not Combined Units. For the Combined Units, you will be asked to record:1) the total number of units shown to you, the number that were Energy Star, the number that were BCE, and that were energy efficient but not BCE or ES, and 2) the number of models that the salesperson described as energy efficient before you asked about it.

Conversation Guide

"I'm looking for a new desktop computer and monitor. I would like to see at least three different towers and monitors to compare them. Are you the right person to ask a few questions? Can you show me the computers that you would recommend?"

- 1. What makes this a good computer/monitor? What features are most important when picking out my new computer/monitor?
- 2. If you were going to buy a new computer/monitor, which one would you buy? Why?

*Note if salesperson brings up energy efficiency, ENERGY STAR, or the BCE Program logo or promotional items <u>without you asking</u>. (check all that they say)

3. Do you have any models on promotion?

*Note if salesperson shows you the promotional ENERGY STAR or the BCE Program logo (check all that they say)

[ASK IF energy efficiency is NOT mentioned]

- 4. Do you have any computers/monitors like these that are energy efficient?
- 5. How are these (EE) flat computers/monitors different from other standard computers/monitors?
- 6. Can you tell me which models are energy efficient?

[ASK IF salesperson brings up ENERGY STAR]

- 7. What is ENERGY STAR?
- 8. Which of these models are ENERGY STAR compliant?

[ASK IF salesperson does not bring up ENERGY STAR]

- 9. I have been hearing a lot about ENERGY STAR. What is ENERGY STAR?
- 10. Which of these models are ENERGY STAR compliant?
- 11. Does it cost more money to buy an energy efficient model?
- 12. Do energy efficient computers perform better or worse than standard computers?

Thank you for your time. We'll think about it.

1.1.4 Mystery Shopper Questionnaire (Desktop Computers, Monitors, Combo Units)

Please complete this section after the mystery shopping session.

GENERAL ENERGY EFFICIENCY INSIGHTS

1. Did you speak with: (circle your response below):

Salesperson Stocker Store Manager/Floor Manager

2. Please indicate how many models you saw for each category below. Add a zero "O" if you were shown NO models for each Computer type.

				Total Other Energy Efficient
Туре	Total Shown	Total ENERGY STAR (ES)	Total BCE	computers Shown (not BCE or ES)
Desktop Tower		- (- /		
Monitor				
Combo Unit				

3. How many of the total models shown to you did the salesperson describe as energy efficient **before** you explicitly asked about energy efficiency (EE)? Please enter a zero in the box if NO computers were described as energy efficient.

Туре	Total	Number	of	
	Models	Volunta	arily	
	Describe	bed as EE		
Desktop Tower				
Monitor				
Combo Unit				

4. Did the salesperson bring up Energy Efficiency, ENERGY STAR, or the BCE Program logo or promotional items <u>without you asking</u>? (check Yes or No to each category below)

Energy Efficiency (not BCE	es No	
ENERGY STAR:	Yes	No
BCE program logo:	Yes	No

5. Did the salesperson show you ENERGY STAR or the BCE Program models **after** you asked about EE? (check Yes or No to each category below)

Energy Efficiency (not BCE or Energy Star): Yes						
ENERGY STAR:	Yes	No				
BCE program logo:	Yes	No				

- 6. Please indicate the salesperson's response to your question: What is ENERGY STAR?
- 7. Please indicate the extent to which the salesperson was knowledgeable about ENERGY STAR. Record your answers on a scale of 1 to 7 with one meaning "did not know about ENERGY STAR" and seven being "very knowledgeable about ENERGY STAR." ______
- 8. Please indicate the extent to which the salesperson was knowledgeable about the BCE program. Record your answers on a scale of 1 to 7 with one meaning "did not know about the BCE program" and seven being "very knowledgeable about the BCE program."
- 9. Did the salesperson indicate that it costs more money to buy an energy efficient **desktop computers, monitors, or combo unit?** Please selection one of the options below:

___ Energy efficient models cost more money than non-energy efficient models

___ Energy efficient models cost the same amount of money than non-energy efficient models

- ___ Energy efficient models **cost less money** than non-energy efficient models
- 10. Did the salesperson indicate that an energy efficient **desktop computers, monitors, or combo unit** performs (or works) better than non-energy efficient models? Please select one of the options below:
 - ___ Energy efficient models perform **better** than non-energy efficient models
 - __ Energy efficient models perform the same as than non-energy efficient models
 - ___ Energy efficient models perform **worse** than non-energy efficient models



² Note that salesperson is unlikely to discuss BCE program

- 11. If the salesperson discussed energy efficiency, the BCE program, or ENERGY STAR with respect to **desktop computers**, **monitors**, **or combo units** please indicate if the salesperson mentioned any of the following benefits:
 - ____Annual Operating Costs
 - ____Life cycle costs
 - ____Life cycle savings
 - ____Lower utility bills

___Green

Environmentally friendly

Other, specify below:

12. Other notes about the salesperson and energy efficiency generally:

DESKTOP COMPUTERS

- 13. Please list the reasons why the salesperson said it was a "good" **desktop computer** and why they would "buy it."
 - a. _____
 - b. _____
 - c. ______d.
- 14. Did the salesperson indicate which desktop computers they had on promotion? (Y/N) _____
- 15. Please list the **desktop computers** on promotion you were shown and how they were promoted:
 - a. _____
 - b. _____
 - c. _______d.
- 16. Please indicate the extent to which the salesperson could easily identify energy efficient **desktop computers.** Record your answers on a scale of 1 to 7 with one meaning "could not find energy efficient computers" and seven being "could find energy efficient computers very easily."
- 17. Please indicate the extent to which the salesperson mentioned energy efficiency as a positive feature in his or her discussion of **computers**. Record your answers on a scale of 1 to 7, with one meaning "not at all positive" and seven meaning "very positive." _____

MONITORS

- - a. _____ b. _____

- c. ______
- 19. Did the salesperson indicate which monitors they had on promotion? (Y/N) _____

20. Please list the monitors on promotion you were shown and how they were promoted:

- a. ______ b. ______ c. _____ d. _____
- 21. Please indicate the extent to which the salesperson could easily identify energy efficient **monitors.** Record your answers on a scale of 1 to 7 with one meaning "could not find energy efficient monitors" and seven being "could find energy efficient monitors very easily."
- 22. Please indicate the extent to which the salesperson mentioned energy efficiency as a positive feature in his or her discussion of **monitors**. Record your answers on a scale of 1 to 7, with one meaning "not at all positive" and seven meaning "very positive." _____

COMBO UNITS

- 23. Please list the reasons why the salesperson said it was a "good" **combo** and why they would "buy it."
 - a. ______b. _____
 - C. _____
 - d. _____
- 24. Did the salesperson indicate which combo units they had on promotion? (Y/N) _____
- 25. Please list the combo units on promotion you were shown and how they were promoted:
 - a. ______ b. _____
 - C. _____
 - d. _____
- 26. Please indicate the extent to which the salesperson could easily identify energy efficient **combo units.** Record your answers on a scale of 1 to 7 with one meaning "could not find energy efficient monitors" and seven being "could find energy efficient monitors very easily."
- 27. Please indicate the extent to which the salesperson mentioned energy efficiency as a positive feature in his or her discussion of **combo units**. Record your answers on a scale of 1 to 7, with one meaning "not at all positive" and seven meaning "very positive."

1.2 **Point of Purchase Inventory**

1.2.1 BCE – POP and Product Observations (TVs)

Note to Researcher: The aim of this effort is to take inventory of all Energy Efficient LCD, Plasma, and DLP Rear Projection TVs. For each TV, please circle the type of promotions (both energy efficiency related or not) for each of the models listed below. If there are additional **models labeled as Energy Efficient that are not included in the list below,** please record their information in the "Additional Energy Efficient LCD, Plasma, and Rear Projection TVs" grid. **Models NOT labeled as Energy Efficient DO NOT need to be added.**

For all questions, please mark the appropriate responses. Include any additional observations or comments below the questions, in the margin, or on the back of the page.

Point of Purchase Inventory¹

Televisions (LCDs, Plasmas, and Rear Projection Only)										
How many total LCD, Plasma, and Projection TVs (number) are on display at the store? Please provide your answer in numbers, e.g. 59 total LCD, Plasma, and Rear Projection TVs								LCD	Plasma	Rear Projection
Of those TVs, how many are labeled as Energy Star compliant? <i>Please</i> provide your answer in numbers, e.g. 59 total LCD, Plasma, and Rear Projection TVs								LCD	Plasma	Rear Projection
Are there any messages playing on any televisions in the store related to energy efficiency or using less energy? <i>Please circle your</i> response							Yes		No	
Please fill out section below for each TV that is labeled as Energy Star compliant or as energy efficient. Circle applicable type/s of energy efficiency promotional materials for that TV.										
#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Prom as En Efficie	ergy I		pes of Promo Material/	
								Energy	Statewide BCF	Shelf Tags/

	If Yes, please				LN-	Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
1	answer questions at right	19	LCD	Samsung	19A330- J1DXZA	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO				JIDALA	Rebate Coupon	End Cap Display	EE Promotion on TV Box



¹ The pre-listed models in the point of purchase inventory varied from retailer to retailer based on the models found in the online inventory. The point of purchase list included in this document was used for only one of the retailers researched. The other point of purchase inventories are identical to this one except for the list of available models. Inventories also included a significant number of blank spaces so researchers could write in any ENERGY STAR models not already included.

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
---	------------------------	----------------------------	------	----------------	-----------------	-------------------------------------	------------------------------------

2	YES If Yes, please answer questions at right NO	19	LCD	Samsung	LN- 19A331- J1DXZA	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
3	YES If Yes, please answer questions at right	19	LCD	Sylvania	LC- 195SL9	Energy Star Logo Sticker on the Shelf Rebate	Statewide BCE Logo Sticker on TV Casing/Screen End Cap	Shelf Tags/ Talkers Brochure EE Promotion
4	 NO YES If Yes, please answer questions at right NO 	19	LCD	Sony	KDL- 19M4000	Coupon Energy Star Logo Sticker on the Shelf Rebate Coupon	Display Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	on TV Box Shelf Tags/ Talkers Brochure EE Promotion
5	YES If Yes, please answer questions at right NO	19	LCD	Toshiba	19AV- 500U	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	on TV Box Shelf Tags/ Talkers Brochure EE Promotion on TV Box
6	YES If Yes, please answer questions at right NO	19	LCD	Toshiba	19AV- 501U	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
7	YES If Yes, please answer questions at right NO	19	LCD	Toshiba	19LV505	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
---	------------------------	----------------------------	------	----------------	-----------------	-------------------------------------	------------------------------------

	□ YES					Energy Star	Statewide BCE Logo	Shelf Tags/ Talkers
8	lf Yes, please answer questions at right	19	LCD	Toshiba	19LV506	Logo Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
9	answer questions at right	20	LCD	Sharp	LC- 20D42U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
10	answer questions at right	22	LCD	Samsung	LN- 22A330- J1DXZA	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO				JIDAZA	Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
11	answer questions at right	22	LCD	Toshiba	22LV505	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
12	answer questions at right	22	LCD	Toshiba	22AV- 500U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
13	answer questions at right	26	LCD	Sony	KDL- 26M4000	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
---	------------------------	----------------------------	------	----------------	-----------------	-------------------------------------	------------------------------------

14	YES If Yes, please answer questions at right NO	26	LCD	Panasonic	TC- 26LX85	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
15	YES If Yes, please answer questions at right NO	26	LCD	Samsung	LN- 26A330- J1DXZA	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
16	☐ YES If Yes, please answer questions at right ☐ NO	26	LCD	Sharp	LC- 26D43U	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion
17	YES If Yes, please answer questions at right NO	32	LCD	Sony	KDL- 32M4000	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	on TV Box Shelf Tags/ Talkers Brochure EE Promotion on TV Box
18	YES If Yes, please answer questions at right NO	32	LCD	Sony	KDL- 32L4000	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
19	YES If Yes, please answer questions at right NO	32	LCD	Panasonic	TC- 32LX85	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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	□ YES					Energy Star	Statewide BCE	Shelf Tags/
20	If Yes, please answer questions at right	32	LCD	Panasonic	2072430	Logo Sticker on the Shelf	Logo Sticker on TV Casing/Screen	Talkers Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
21	answer questions at right	32	LCD	Sharp	LC- 32GP1U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
22	answer questions at right	32	LCD	JVC	LT32P67 9	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
23	answer questions at right	32	LCD	Sylvania	LC- 320SS9	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
24	answer questions at right	32	LCD	Vizio	VOJ- 320F1A	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
25	answer questions at right	32	LCD	Vizio	VW32- LHDTV- 10A	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
---	------------------------	----------------------------	------	----------------	-----------------	-------------------------------------	------------------------------------

26	YES If Yes, please answer questions at right	37	LCD	Panasonic	TC- 37LZ85	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
27	YES If Yes, please answer questions at right	37	LCD	Sony	KDL- 37L4000	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap	Shelf Tags/ Talkers Brochure EE Promotion
						Energy	Display	on TV Box
28	YES If Yes, please answer questions at right	37	LCD	Samsung	LN- 37A330-	Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on TV Casing/Screen	Shelf Tags/ Talkers Brochure
					J1DXZA	Rebate Coupon	End Cap Display	EE Promotion on TV Box
29	L YES If Yes, please answer questions at right	37	LCD	Vizio	VOJ- 370F1A	Energy Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on TV Casing/Screen	Shelf Tags/ Talkers Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
30	answer questions at right	37	LCD	Sylvania	LC- 370SS8	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	🗆 NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
31	answer questions at right	40	LCD	Sony	KDL- 40W4100	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box

	#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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32	☐ YES If Yes, please answer questions at right	40	LCD	Sony	KDL- 40XBR6	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
33	YES If Yes, please answer questions at right NO	40	LCD	Sony	KDL- 40S4100	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion
34	☐ YES If Yes, please answer questions at right	40	LCD	Sony	KDL- 40W3000	Energy Star Logo Sticker on the Shelf Rebate	Statewide BCE Logo Sticker on TV Casing/Screen End Cap	on TV Box Shelf Tags/ Talkers Brochure EE Promotion
35	 NO YES If Yes, please answer questions at right NO 	40	LCD	Sony	KDL- 40V4100	Coupon Energy Star Logo Sticker on the Shelf Rebate Coupon	Display Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	on TV Box Shelf Tags/ Talkers Brochure EE Promotion on TV Box
36	YES If Yes, please answer questions at right	40	LCD	Samsung	LNT- 4069F	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
37	YES If Yes, please answer questions at right NO	40	LCD	Samsung	LN- 40A650	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box

#	On Shelf or Display	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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	□ YES					Energy Star	Statewide BCE Logo	Shelf Tags/ Talkers
38	lf Yes, please answer questions at right	40	LCD	Samsung	LN- 40A530	Logo Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
						Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
39	answer questions at right	40	LCD	Samsung	LN- 40A630- M1FXZA	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
40	answer questions at right	40	LCD	Toshiba	40RV- 525U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please				0)/40	Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
41	answer questions at right	42	LCD	Vizio	GV42- LFHDTV1 0A	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	🗆 NO				ÖN	Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
42	answer questions at right	42	LCD	Vizio	SV420- XVT1A	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
43	answer questions at right	42	LCD	Sylvania	LC- 420SS8	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box

#	On Shelf or Display (inche	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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	YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
44	answer questions at right	42	LCD	Sharp	LC- 42D65U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
45	answer questions at right	46	LCD	Sony	KDL- 46W4100	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
46	answer questions at right	46	LCD	Sony	KDL- 46XBR6	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
47	answer questions at right	46	LCD	Sony	KDL- 46V4100	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
48	answer questions at right	46	LCD	Sony	KDL- 46XBR4	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
49	answer questions at right	46	LCD	Sony	KDL- 46W3000	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box

	#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
50	answer questions at right	46	LCD	Sony	KDL- 46V3000	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
51	answer questions at right	46	LCD	Sony	KDL- 46Z4100 B	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
52	answer questions at right	46	LCD	Sony	KDL- 46S4100	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
53	answer questions at right	46	LCD	Samsung	LN- 46A650	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
54	answer questions at right	46	LCD	Samsung	LN- 46A530	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
55	answer questions at right	46	LCD	Samsung	LN- 46A630- M1FXZA	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box

	#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
56	answer questions at right	46	LCD	Samsung	LN- 46A850- S1FXZA	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
57	answer questions at right	46	LCD	Sharp	LC- 46SB54U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
58	answer questions at right	46	LCD	Sharp	LC- 46D85U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	🗆 NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
59	answer questions at right	46	LCD	Sharp	LC- 46D65U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	🗆 NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
60	answer questions at right	46	LCD	Toshiba	46RV- 525U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	🗆 NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
61	answer questions at right	47	LCD	Vizio	GV47LF- HDTV-10A	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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	□ YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
62	answer questions at right	47	LCD	Vizio	SV470- XVT1A	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
63	answer questions at right	52	LCD	Sony	KDL- 52V4100	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
64	answer questions at right	52	LCD	Sony	KDL- 52XBR6	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
65	answer questions at right	52	LCD	Sony	KDL- 52W4100	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
66	answer questions at right	52	LCD	Samsung	LN- 52A850- S1FXZA	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	□ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
67	answer questions at right	52	LCD	Samsung	LN- 52A650	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box



	#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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68	YES If Yes, please answer questions at right	52	LCD	Sharp	LC- 52D85U	Energy Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on TV Casing/Screen	Shelf Tags/ Talkers Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
69	answer questions at right	65	LCD	Sharp	LC- 65D64U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
70	answer questions at right	42	Plasma	Panasonic	TH- 42PZ80U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
71	answer questions at right	42	Plasma	Panasonic	TH- 42PX80U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
	☐ YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
72	answer questions at right	46	Plasma	Panasonic	TH- 46PZ80U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box
						Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
73	lf Yes, please answer questions at right	50	Plasma	Panasonic	TH- 50PZ85U	Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on TV Box



#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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74	YES If Yes, please answer questions at right NO	50	Plasma	Panasonic	TH- 50PZ80U	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on TV Box
75	YES If Yes, please answer questions at right NO	50	Plasma	Panasonic	TH- 50PX80U	Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on TV Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion
76	If Yes, please answer questions at right	50	Plasma	Vizio	JV50- PHDTV- 10A	Energy Star Logo Sticker on the Shelf Rebate	Statewide BCE Logo Sticker on TV Casing/Screen End Cap	on TV Box Shelf Tags/ Talkers Brochure EE
	□ NO					Coupon	Display	Promotion on TV Box
77						Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on TV Casing/Screen	Shelf Tags/ Talkers Brochure EE
						Rebate Coupon	End Cap Display	Promotion on TV Box
						Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
78						Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
						Rebate Coupon	End Cap Display	EE Promotion on TV Box
						Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
79						Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
						Rebate Coupon	End Cap Display	EE Promotion on TV Box

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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				Shelf Rebate Coupon	Casing/Screen End Cap Display	EE Promotion on TV Box
85				Energy Star Logo Sticker on the	Statewide BCE Logo Sticker on TV	Shelf Tags/ Talkers Brochure
				Rebate Coupon	End Cap Display	EE Promotion on TV Box
84				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
				Rebate Coupon	End Cap Display	EE Promotion on TV Box
83				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
			_	Rebate Coupon	End Cap Display	EE Promotion on TV Box
82				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
				Rebate Coupon	End Cap Display	EE Promotion on TV Box
81				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
				Rebate Coupon	End Cap Display	EE Promotion on TV Box
80				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers

	#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
86				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Rebate Coupon	End Cap Display	EE Promotion on TV Box
				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
87				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Rebate Coupon	End Cap Display	EE Promotion on TV Box
				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
88				Sticker on the Shelf	Sticker on TV Casing/Screen	Brochure
				Rebate Coupon	End Cap Display	EE Promotion on TV Box

NOTES



1.2.2 BCE – POP and Product Observations (Computers and Monitors)

Note to Researcher: The aim of this effort is to take inventory of all Energy Efficient Computers, Monitors, Combination Units and Bundled Units. For each model, please circle the type of promotions (both energy efficiency related or not) for each of the models listed below. If there are additional **models labeled as Energy Efficient that are not included in the list below,** please record their information in the "Additional Energy Efficient Computers, Combo Units, Bundles, and Monitors" grids. If adding Bundled Units, please write in both the Desktop Tower model number and the Monitor model number. **Models NOT labeled as Energy Efficient DO NOT need to be added**.

For all questions, please mark the appropriate responses. Include any additional observations or comments below the questions, in the margin, or on the back of the page.

Point of Purchase Inventory

Des	ktop Comp	outers, Co	mbinatio	n Units, Bu	ndled Unit	s, and N	Ionitors			
	many total rgy efficient	•	s (not lapto	ops) are on	display at th	ne store	Desktops	Combos	Monitors	
Of those computers, how many are labeled as Energy Star compliant?										
	Please fill out section below for each computer that is labeled as Energy Star compliant or as energy efficient. Circle applicable type/s of energy efficiency promotional materials for that computer.									
				Comp	uter Tower	s				
#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promote as Ener Efficien	gy ly	Types of Promotional Material/s		
1	YES If Yes, please answer questions at right	n/a	Tower	HP	s3750t		Energy Star Logo Sticker on the Shelf Rebate	Statewide BCE Logo Sticker on Computer Casing/Screen End Cap	Shelf Tags/ Talkers Brochure EE Promotion	
2	NO VES If Yes, please answer questions at right	n/a	Tower	Dell	1530S- 108B		Coupon Energy Star Logo Sticker on the Shelf	Display Statewide BCE Logo Sticker on Computer Casing/Screen	on Box Shelf Tags/ Talkers Brochure	
	□ NO						Rebate Coupon	End Cap Display	EE Promotion on Box	

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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3	YES If Yes, please answer questions at right NO			Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Computer Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
4	YES If Yes, please answer questions at right NO			Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Computer Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
5	YES If Yes, please answer questions at right NO			Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Computer Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
6	YES If Yes, please answer questions at right NO			Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Computer Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
7	YES If Yes, please answer questions at right NO			Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Computer Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
8	☐ YES If Yes, please answer questions at right			Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Computer Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box

	Combination Units								
	Please fill out section below for each computer that is labeled as Energy Star compliant or as energy efficient. Circle applicable type/s of energy efficiency promotional materials for that computer.								
#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Ту	/pes of Promot Material/s	
1	YES If Yes, please answer questions at right NO	22	Combo	HP	IQ527		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
2	YES If Yes, please answer questions at right NO	25.5	Combo	HP	IQ826t		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
3	YES If Yes, please answer questions at right NO	22	Combo	HP	IQ526t		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
4	YES If Yes, please answer questions at right	20.1	Combo	Sony	VGC- JS160JB		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
5	<pre> YES If Yes, please answer questions at right NO </pre>						Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s
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	□ YES			Energy Star	Statewide BCE Logo	Shelf Tags/ Talkers
6	If Yes, please answer questions at right			Logo Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO			Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please			Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
7	answer questions at right			Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO			Rebate Coupon	End Cap Display	EE Promotion on Box
	YES If Yes, please			Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
8	answer questions at right			Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO			Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please			Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
9	answer questions at right			Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO			Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please			Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
10	answer questions at right			Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO			Rebate Coupon	End Cap Display	EE Promotion on Box
	YES If Yes, please			Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
11	answer questions at right			Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO			Rebate Coupon	End Cap Display	EE Promotion on Box

#On Shelf or DisplayScreen Size (inches)TypeMake/ BrandModel NumberPromote as Ener Efficien	I Iypes of Promotional Material/s
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12	YES If Yes, please answer questions at					Energy Star Logo Sticker on the	Statewide BCE Logo Sticker on Monitor	Shelf Tags/ Talkers Brochure
	right					Shelf Rebate Coupon	Casing/Screen End Cap Display	EE Promotion on Box
13	If Yes, please answer questions at right					Energy Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on Monitor Casing/Screen	Shelf Tags/ Talkers Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
14	answer questions at right	s at		Sticker on the Shelf Rebate Coupon	Sticker on Monitor Casing/Screen	Brochure		
	□ NO					Coupon	End Cap Display	EE Promotion on Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
15	answer questions at right				Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure	
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
16	answer questions at right	answer questions at			Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure	
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
17	answer questions at right					Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box

Computer Monitors

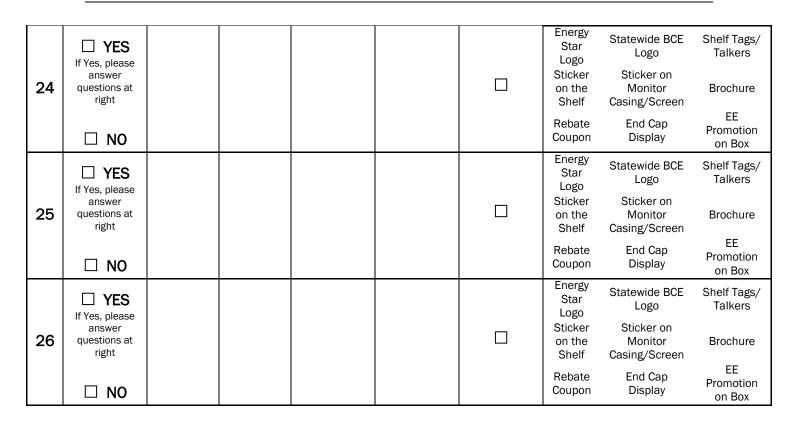
Please fill out section below for each monitor that is labeled as Energy Star compliant or as energy efficient. Circle applicable type/s of energy efficiency promotional materials for that monitor.

#	On Shelf or Display	Screen Size (inches)	Туре	Make/ Brand	Model Number	Promoted as Energy Efficient?	Types of Promotional Material/s		
1	YES If Yes, please answer questions at right NO	22	Monitor	Acer	X223wbd		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
2	YES If Yes, please answer questions at right NO	23	Monitor	Acer	H233H		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
3	YES If Yes, please answer questions at right NO	22	Monitor	AOC	2230Fh		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
4	YES If Yes, please answer questions at right NO	20	Monitor	AOC	2016SWA		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box
5	YES If Yes, please answer questions at right NO	17	Monitor	HannsG	HW- 173ABB		Energy Star Logo Sticker on the Shelf Rebate Coupon	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap Display	Shelf Tags/ Talkers Brochure EE Promotion on Box

						Energy		
6	L YES If Yes, please answer questions at right	19	Monitor	HannsG	JC- 199APB	Energy Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on Monitor Casing/Screen	Shelf Tags/ Talkers Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
7	answer questions at right	30	Monitor	Dell	3007wfp- HC	Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
8	answer questions at right	24	Monitor	Dell	S2409W	Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
9	answer questions at right	28	Monitor	HannsG	HG- 281DPB	Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
10	answer questions at right	26	Monitor	Westing- house	L2610NW -SP	Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
11	answer questions at right					Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box

12	YES If Yes, please answer questions at right NO				Energy Star Logo Sticker on the Shelf Rebate	Statewide BCE Logo Sticker on Monitor Casing/Screen End Cap	Shelf Tags/ Talkers Brochure EE Promotion
					Coupon	Display	on Box
13	YES If Yes, please answer questions at right				Energy Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on Monitor Casing/Screen	Shelf Tags/ Talkers Brochure
	□ NO				Rebate Coupon	End Cap Display	EE Promotion on Box
14	If Yes, please answer questions at right				Energy Star Logo Sticker on the Shelf	Statewide BCE Logo Sticker on Monitor Casing/Screen	Shelf Tags/ Talkers Brochure
	□ NO				Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
15	answer questions at right	questions at		Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure	
	□ NO				Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
16	answer questions at right				Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO				Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please				Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
17	answer questions at right				Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO				Rebate Coupon	End Cap Display	EE Promotion on Box

		1		1				
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
18	answer questions at right					Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
19	answer questions at right					Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
20	answer questions at right	er Insat Insat	Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure			
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	YES If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
21	answer questions at right	questions at			Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure	
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	If Yes, please					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
22	answer questions at right					Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
	□ NO					Rebate Coupon	End Cap Display	EE Promotion on Box
	□ YES					Energy Star Logo	Statewide BCE Logo	Shelf Tags/ Talkers
23	If Yes, please answer questions at right					Sticker on the Shelf	Sticker on Monitor Casing/Screen	Brochure
						Rebate Coupon	End Cap Display	EE Promotion on Box



NOTES

1.3 Store Manager Interviews

1.3.1 BCE Store Manager Interview Guide (TVs)

Note to Interviewer: The following questions aim to capture a baseline of the store manager's perspective on the following: (1) the prevalence and importance of energy efficient TVs; (2) promotions of these TVs; and (3) overall consumer demand for energy efficient TVs. Note that this is intended to be a 5-10 minute interview. Because this is a baseline assessment, please do not lead or prompt the respondent.

- 1. Which features for TVs do you currently promote to your customers? What are the top three?
- 2. When customers come to the store to purchase a TV, what are the top three features they are looking for?
- 3. Currently, does your store carry any energy efficient TVs?
- 4. IF NO TO Q3: Why do you think that is the case? [AFTER RESPONSE THANK AND END INTERVIEW]

[ASKQ5-11 IF YES TO Q3]

- 5. Why do you think that is the case?
- 6. How do you know these are energy efficient TVs?
- 7. Do you train your sales staff on Energy Efficiency? If so, how frequently?
- 8. Approximately how many energy efficient models of TVs do you carry? That is, of all the different models you carry, about what percent are energy efficient? What percent are NOT energy efficient?
- 9. How do you decide which models to promote in your stores over others? Are you offering anything "special" to the consumer?
- 10. Does your store specifically promote energy efficient TVs? If so, how?
- 11. What other features do you promote when trying to sell TVs?

[ASK Q12 IF NO TO Q10]

12. Why do you think that is the case? [AFTER RESPONSE THANK AND GO TO Q17]

[ASK Q13-18 IF YES TO Q10]

- 13. Were you given specific directives from your corporate offices to promote energy efficiency in your TVs? IF YES, describe.
- 14. About how frequently do you promote energy efficiency for your TVs?
- 15. When you promote energy efficient TVs, what advertising techniques, such as end

caps, special displays, etc, do you use? Is this different from other advertising techniques you typically use?

- 16. How do you communicate which products are energy efficient to customers?
- 17. Approximately what percent of your TVs sales are energy efficient models?
- 18. Do you have any observations or additional comments on your store's promotion of energy efficient TVs?

1.3.2 BCE Store Manager Interview Guide (Desktop Computers)

Note to Interviewer: The following questions aim to capture a baseline of the store manager's perspective on the following: (1) the prevalence and importance of energy efficient computers; (2) promotions of these computers; and (3) overall consumer demand for energy efficient computers. Note that this is intended to be a 5-10 minute interview. Because this is a baseline assessment, please do not lead or prompt the respondent.

- 1. Which features for desktop computers do you currently promote to your customers? What are the top three?
- 2. When customers come to the store to purchase a desktop computer, what are the top three features they are looking for?
- 3. Currently, does your store carry any energy efficient desktop computers?
- 4. IF NO TO Q3: Why do you think that is the case? [AFTER RESPONSE THANK AND END INTERVIEW]

[ASKQ5-11 IF YES TO Q3]

- 5. Why do you think that is the case?
- 6. How do you know these are energy efficient desktop computers?
- 7. Do you train your sales staff on Energy Efficiency? If so, how frequently?
- 8. Approximately how many energy efficient models of desktop computers do you carry? That is, of all the different models you carry, about what percent are energy efficient? What percent are NOT energy efficient?
- 9. How do you decide which models to promote in your stores over others? Are you offering anything "special" to the consumer?
- 10. Does your store specifically promote energy efficient desktop computers? If so, how?
- 11. What other features do you promote when trying to sell desktop computers?
- 12. IF NO TO Q10: Why do you think that is the case? [AFTER RESPONSE THANK AND GO TO Q17]

[ASK Q13-18 IF YES TO Q10]

- 13. Were you given specific directives from your corporate offices to promote energy efficiency in desktop computers? IF YES, describe.
- 14. About how frequently do you promote energy efficiency for your desktop computers?
- 15. When you promote energy efficient desktop computers, what advertising techniques, such as end caps, special displays, etc, do you use? Is this different from other advertising techniques you typically use?
- 16. How do you communicate which products are energy efficient to customers?
- 17. Approximately what percent of your desktop computer sales are energy efficient?
- 18. Do you have any observations or additional comments on your store's promotion of energy efficient desktop computers?

1.3.3 BCE Store Manager Interview Guide (Monitors)

Note to Interviewer: The following questions aim to capture a baseline of the store manager's perspective on the following: (1) the prevalence and importance of energy efficient monitors; (2) promotions of these monitors; and (3) overall consumer demand for energy efficient monitors. Note that this is intended to be a 5-10 minute interview. Because this is a baseline assessment, please do not lead or prompt the respondent.

- 1. Which features for monitors do you currently promote to your customers? What are the top three?
- 2. When customers come to the store to purchase a monitor, what are the top three features they are looking for?
- 3. Currently, does your store carry any energy efficient monitors?
- 4. IF NO TO Q3: Why do you think that is the case? [AFTER RESPONSE THANK AND END INTERVIEW]

[ASKQ5-11 IF YES TO Q3]

- 5. Why do you think that is the case?
- 6. How do you know these are energy efficient monitors?
- 7. Do you train your sales staff on Energy Efficiency? If so, how frequently?
- 8. Approximately how many energy efficient models of monitors do you carry? That is, of all the different models you carry, about what percent are energy efficient? What percent are NOT energy efficient?
- 9. How do you decide which models to promote in your stores over others? Are you offering anything "special" to the consumer?
- 10. Does your store specifically promote energy efficient monitors? If so, how?
- 11. What other features do you promote when trying to sell monitors?

[ASKQ12 IF NO TO Q10]

12. Why do you think that is the case? [AFTER RESPONSE THANK AND GO TO Q17]

[ASK Q13-18 IF YES TO Q10]

- 13. Were you given specific directives from your corporate offices to promote energy efficiency in monitors? IF YES, describe.
- 14. About how frequently do you promote energy efficiency for your monitors?
- 15. When you promote energy efficient monitors, what advertising techniques, such as end caps, special displays, etc, do you use? Is this different from other advertising techniques you typically use?
- 16. How do you communicate which products are energy efficient to customers?
- 17. Approximately what percent of your monitor sales are energy efficient?
- 18. Do you have any observations or additional comments on your store's promotion of energy efficient monitors?

1.3.4 BCE Store Manager Interview Guide (Combo Units)

Note to Interviewer: The following questions aim to capture a baseline of the store manager's perspective on the following: (1) the prevalence and importance of energy efficient computers; (2) promotions of these computers; and (3) overall consumer demand for energy efficient computers. Note that this is intended to be a 5-10 minute interview. Because this is a baseline assessment, please do not lead or prompt the respondent. Note we use the term "bundled" here because it is more commonly used by store staff.

- 1. Which features for bundled units do you currently promote to your customers? What are the top three?
- 2. When customers come to the store to purchase a bundled unit, what are the top three features they are looking for?
- 3. Currently, does your store carry any energy efficient bundled units?
- 4. IF NO TO Q3: Why do you think that is the case? [AFTER RESPONSE THANK AND END INTERVIEW]

[ASKQ5-11 IF YES TO Q3]

- 5. Why do you think that is the case?
- 6. How do you know these are energy efficient bundled units?
- 7. Do you train your sales staff on Energy Efficiency? If so, how frequently?
- 8. Approximately how many energy efficient models of bundled units do you carry? That is, of all the different models you carry, about what percent are energy efficient? What percent are NOT energy efficient?

- 9. How do you decide which models to promote in your stores over others? Are you offering anything "special" to the consumer?
- 10. Does your store specifically promote energy efficient bundled units? If so, how?
- 11. What other features do you promote when trying to sell bundled units?
- 12. IF NO TO Q10: Why do you think that is the case? [AFTER RESPONSE THANK AND GO TO Q17]

[ASK Q13-18 IF YES TO Q10]

- 13. Were you given specific directives from your corporate offices to promote energy efficiency in bundled units? IF YES, describe.
- 14. About how frequently do you promote energy efficiency for your bundled units?
- 15. When you promote energy efficient bundled units, what advertising techniques, such as end caps, special displays, etc, do you use? Is this different from other advertising techniques you typically use?
- 16. How do you communicate which products are energy efficient to customers?
- 17. Approximately what percent of your bundled units sales are energy efficient?
- 18. Do you have any observations or additional comments on your store's promotion of energy efficient bundled units?

1.3.5 Store Manager Questionnaire

Please fill out this questionnaire upon completion of the store manager interview.

Televisions

- 1. What are the top 3 features the store uses to promote TVs?
 - a. ______b. _____
 - C. _____
- 2. What are the top 3 features that customers look for in a TV? Check all that are cited:
 - __ Screen Size
 - ___Resolution (e.g. 1080p)
 - __ Casing/Style
 - __Green or Environmentally Friendly
 - __Energy Efficiency
 - Color Saturation
 - ___ Point of Sale Price
 - ___Operating Costs/Life Cycle Costs
 - ____ Technology Type (LCD or Plasma)
 - __Other.Describe_____

3.	Does the store	carry any energy efficient TVs? (Y/N)	
----	----------------	---------------------------------------	--

If No, why not?

If YES, why?

4. How does the manager know which TVs are energy efficient? Check all that apply: __Listed as ENERGY STAR

- ___Listed as BCE
- __Operating Costs
- __IOU Rebates
- __Other Rebates
- __Other.Specify_____
- 5. Describe the manager's knowledge of the energy efficient TVs in his/her store on a scale of 1 to 7, with 1 being "did not know about energy efficient TVs" and 7 being "extremely knowledgeable."
- 6. What percent of the store's TVs are energy efficient models?
- 7. Approximately what percent of the store's TVs are NOT energy efficient models?
- 8. Was the store given directives from their corporate offices to specifically promote energy efficient TVs? (Y/N) _____ Explain further if possible:
- 9. Does the store specifically promote energy efficient TVs? (Y/N) _____ If so, how? Please check all that apply:

__Promotions or Sales

- Listing in store circulars
- ___Mass media (TV or Radio) Commercials/Adverts
- ___Point of purchase materials, such as signs
- ___Salesperson training/promotion of energy efficient TVs
- _IOU Rebates

__Other Rebates __End Caps __Special Displays Other.Describe______

10. How frequently does the store promote energy efficiency for TVs? (circle one)WeeklyMonthlyQuarterlyOnce a YearRarelyNever

- 11. Does the store train its employees on energy efficiency for TVs? (Y/N)_____
- 12. How frequently does the store train its employees on energy efficiency TVs? (circle one)

Weekly Monthly Quarterly Once a Year Rarely Never

13. What other features does the store promote when trying to sell TVs?

- a. _____ b. _____
- C. _____
- d. _____
- e. _____
- f. _____
- 14. Does the store offer anything "special" to the consumer to get them to buy TVs? Explain:
- 15. How does the store communicate which products are energy efficient to the customer?
- 16. How are the advertising techniques used for the store's promotion of EE TVs different from the store's normal promotional techniques? Explain:

17. Approximately what percent of the store's TV sales are energy efficient models?

18. Additional observations and/or comments:

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Computers_____

For the first section "Energy Efficiency General," please respond for desktop computers, monitors, and combo units collectively. For the sections after that, please respond specifically for each product type, e.g. computers.

Energy Efficiency General

- 19. How does the manager know which desktop computers, monitors, or combo units are energy efficient? Check all that apply:
 - __Listed as ENERGY STAR
 - ___Listed as BCE
 - __Operating Costs
 - _IOU Rebates
 - _Other Rebates
 - __Other.Specify_____
- 20. Describe the manager's knowledge of the energy efficient desktop computers, monitors, or combo in his/her store on a scale of 1 to 7, with 1 being "did not know about energy efficient TVs" and 7 being "extremely knowledgeable."
- 21. Was the store given directives from their corporate offices to specifically promote energy efficient monitors, desktop computers, or combo units? (Y/N) ______ Explain further if possible:
- 22. Does the store train its employees on energy efficiency for desktop computers, monitors, or combo units? (Y/N)_____
- 23. How frequently does the store train its employees on energy efficiency for desktop computers, monitors, or combo units? (circle one)

	Weekly	Monthly	Quarterly	Once a Year	Rarely	Never
--	--------	---------	-----------	-------------	--------	-------

24. How does the store communicate which products are energy efficient to the customer?

Desktop Computers

- 25. What are the top 3 features the store uses to promote desktop computers?
 - a. _____
 - b. ______ c. _____
- 26. What are the top 3 features that customers look for in a **desktop computer**? Check all that are cited:
 - __ Speed
 - ___ Memory
 - ___ Casing/Style
 - __Green or Environmentally Friendly
 - ___ Energy Efficiency
 - ___ Point of Sale Price
 - __Operating Costs/Life Cycle Costs
 - __Other.Describe_____
- 27. Does the store carry any energy efficient desktop computers? (Y/N) _____

If No, why not?

If YES, why?

28. Approximately what percent of the store's desktop computers are energy efficient models? _____

- 29. Approximately what **percent** of the store's **desktop computers** are **NOT** energy efficient models?
- 30. Does the store specifically promote energy efficient **desktop computers**? (Y/N) ______ If so, how? Please check all that apply:
 - __Promotions or Sales
 - __Green or Environmentally Friendly
 - __Listing in store circulars
 - ___Mass media (TV or Radio) Commercials/Adverts
 - ___Point of purchase materials, such as signs
 - __Salesperson training/promotion of energy efficient TVs
 - __IOU Rebates

	Other Rebates End Caps Special Displays Other.Describe				
31.	How frequently does the store promote energy efficiency for desktop computers ?				
Weekly	(circle one)				
-	Monthly Quarterly Once a Year Rarely Never				
32.	How is this different than the store's normal promotional techniques? Explain:				
33.	What other features does the store promote when trying to sell desktop computers? d. e. f. g. h. i. 				
34.	Does the store offer anything "special" to the consumer to get them to buy desktop computers? Explain:				
	Approximately what percent of the store's desktop computer sales are energy efficient models?				
36.	Additional observations and/or comments:				

Monitors_____

37. What are the top 3 features the store uses to promote monitors?

С. _____

- a. _____
 - b. _____
- 38. What are the top 3 features that customers look for in a **monitor**? Check all that are cited:
 - ___ Screen Size
 - ___ Resolution
 - __ Casing/Style
 - __Green or Environmentally Friendly
 - __ Energy Efficiency
 - __ Color Saturation
 - Point of Sale Price
 - __Operating Costs
 - ____ Technology Type (LCD or other)
 - __Other.Describe_____
- 39. Does the store carry any energy efficient monitors? (Y/N) _____

If No, why not?

If YES, why?

- 40. Approximately what percent of the store's monitors are energy efficient models?
- 41. Approximately what **percent** of the store's **monitors** are **NOT** energy efficient models?
- Does the store specifically promote energy efficient monitors? (Y/N) ________
 If so, how? Please check all that apply:
 - ___Promotions or Sales
 - __Listing in store circulars
 - ___Mass media (TV or Radio) Commercials/Adverts
 - ___Point of purchase materials, such as signs
 - ___Salesperson training/promotion of energy efficient computers and monitors

__IOU Rebates __Other Rebates __Green or Environmentally Friendly __End Caps __Special Displays Other.Describe_____

43. How frequently does the store promote energy efficiency for **monitors**? (circle one) Weekly Monthly Quarterly Once a Year Rarely Never

44. How is this different than the store's normal promotional techniques? Explain:

45. What other features does the store promote when trying to sell monitors?

- a. _____
- b. _____ c. _____
- d. _____
- e. _____
- f. _____
- 46. Does the store offer anything "special" to the consumer to get them to buy monitors? Explain:
- 47. Approximately what **percent** of the store's **monitor** sales are energy efficient models?

Combo Units_

- 48. What are the top 3 features the store uses to promote **combo units**?
 - a. _____
 - b. _____ c. ______
- 49. What are the top 3 features that customers look for in **combo units**? Check all that are cited:

__ Speed

- ___ Memory
- __ Casing/Style
- __Green or Environmentally Friendly
- __ Energy Efficiency

	 Point of Sale Price Operating Costs Screen Size Resolution Color Saturation Point of Sale Price Technology Type (LCD or other) Other.Describe
50.	Does the store carry any energy efficient combo units ? (Y/N)
	If No, why not?
	If YES, why?
51.	Approximately what percent of the store's combo units are energy efficient models?
52.	Approximately what percent of the store's combo units are NOT energy efficient models?
53.	Does the store specifically promote energy efficient combo units ? (Y/N) If so, how? Please check all that apply: Promotions or Sales Green or Environmentally Friendly Listing in store circulars Mass media (TV or Radio) Commercials/Adverts Point of purchase materials, such as signs Salesperson training/promotion of energy efficient computers and monitors IOU Rebates Other Rebates End Caps Special Displays Other.Describe

54. How frequently does the store promote energy efficiency for **combo units**? (circle one)

Weekly Monthly Quarterly Once a Year Rarely Never

55. How is this different than the store's normal promotional techniques? Explain:

- 56. What other features does the store promote when trying to sell combo units?
 - a. _____
 - b. _____
 - C. _____
 - d. ______ e. _____
 - f. _____
- 57. Does the store offer anything "special" to the consumer to get them to buy combo units? Explain:
- 58. How does the store communicate which products are energy efficient to the customer?
- 59. Approximately what **percent** of the store's **combo unit** sales are energy efficient models?
- 60. Additional observations and/or comments:

2. DELPHI METHOD FOR MARKET FORECAST

2.1 Round I

2.1.1 High Efficiency Flat Panel TV Delphi Forecast

Dear Market Expert,

Thank you for lending your expertise to help us assess the future market for high efficiency flat panel televisions. This research is being conducted by the California investor-owned utility Pacific Gas & Electric (PG&E) to help document the possible effects of their statewide *Business and Consumer Electronics Program* (henceforth "BCE program").

The goal of our efforts is to create a meaningful forecast for high efficiency televisions through the use of market experts. Each expert will answer a questionnaire in two or more rounds. After each round, Opinion Dynamics Corp. (ODC) will provide an anonymous summary of the experts' answers from the previous round as well as the reasons they provided for their judgments. In each round, experts are encouraged to revise their earlier answers in light of the replies of other experts' participants. It is believed that during this process the range of the answers will decrease and the group will converge towards the "correct" answer. The process is complete after a pre-defined stop criterion (e.g. number of rounds, achievement of consensus, stability of results) and the information from the final round determines the results. For this effort, ODC is the facilitator. This Delphi effort will undergo two rounds of responses.

<u>Purpose of Forecast</u>: The aim of the forecast is to generate data to generate a projection of the future TV market. This projection will serve as a model to determine the market penetration of PG&E's qualifying products and ENERGY STAR's qualifying products that would have naturally occurred in the absence of the program's activities. The hypothesis is that the BCE program will cause market effects that will exceed the forecasted market penetration. This is a very difficult item to assess after the BCE program is in the field. This method of relying on market experts allows us to create a model, based on the best knowledge of today that may be used by future evaluators to help determine sales of high efficiency TVs that occur due to the BCE program's intervention.

Below we provide background information to help forecast market penetration of high efficiency consumer electronics through the Delphi method.

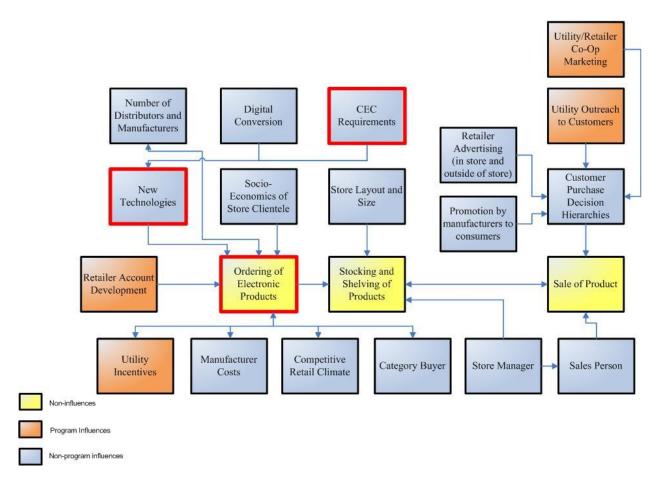
Note that we have put boxes around questions where we need your input, but we also welcome any additional comments outside of these areas. We have put all the questions into a single document, also included in this email.

Please provide us with your written response in the document titled "Delphi Comment Responses.doc" to Anne (adougherty@opiniondynamics.com). If you have any questions about this process, please feel free to call Anne Dougherty at 510-444-5050 x 102.

<u>Data used in Round One Forecast</u>: We created the data used as inputs to this first round forecast by identifying and outlining key influences on the TV market (shown graphically in Figure 1). For the purposes of our forecast, the data inputs account for the following influences on market: (1) product buying and shipments, (2) new technologies, and (3) ENERGY STAR standards.

Comment A. Are there other influences that you believe should be included in this forecast to make it a defendable forecast? Please provide us with the data sources on the influences you recommend for inclusion, if available.

Figure 1. TV Influences Diagram



TV INFLUENCES DIAGRAM

Forecast of Market Penetration of Flat Panel TVs Using Market Shipments

We used forecasted shipments from 2008-2012 to establish market penetration⁴ of LCD and Plasma TVs. The BCE program pays out incentives for LCD, Plasma, and DLP/Rear Projection TVs.

For this model, we have excluded DLP/Rear Projection TVs as studies indicate that these models comprise .5% of the TV market share.⁵ Further, due to their market share and increasing popularity, programs that focus on LCD and Plasma TV interventions have the most likelihood to effect change. Henceforth, we refer to our market projections for *Flat Panel* TVs, to indicate that this forecast excludes CRT and DLP/Rear Projection Television.

Comment B. Is it accurate to assume that DLP/Rear Projection TVs will continue to occupy between 0-1% of the total TV market share through 2012? Is it appropriate to exclude these TVs from our market projections? When possible, please provide us with the data inputs and/or sources that support your opinion.

In addition, our forecast is based on *shipments* which serve as a proxy for market penetration in *sales* of Flat Panel TVs.⁶ Although penetration is generally determined by sales, ENERY STAR program managers state their market penetration goals in terms of units shipped in a calendar year, so use of a proxy for our forecast works well with how ENERGY STAR sets their goals. Thus, all adjustments to the forecasts are based on market penetration defined as shipments of TVs.

Comment C. Do flat panel TV *shipments* serve as an accurate proxy for flat panel TV *sales*? When possible, please provide us with the data inputs and/or sources that support your opinion.

Table 1 shows the projected mass market shipments that serve as the basis of our forecast. For our purposes, mass market refers to the residential TV purchases. The data table below was derived by Energy Solutions for Pacific Gas and Electric in December 2006.⁷

The original data forecast did not have estimates for 2012. Instead, the 2012 estimates in the table below were calculated by applying the percent increase from 2010 to 2011, to the 2011 estimates.

Comment D. Is it appropriate to use the 2010-2011 growth rate of flat panel TVs for 2011-2012? When possible, please provide us with the data inputs and/or sources that support your opinion.

⁴ Market penetration is the depth of sales of a particular product in a given market. The deeper the penetration, the higher the volume of product sales.

⁵ Estimated TV Market Share, Pacific Gas and Electric Work Paper PGECOAPP104, Energy Efficient Televisions, 07/17/08.

⁶ Note the ODC team does not have access to actual sales figures. Once the BCE program is underway, our team may have access to historical sales data for major retailers and will use this data to adjust our figures. ⁷ Alex Chase, Ryan Ramos, and Ted Pope, Consumer Electronics: Market Trends, Energy Consumption, and Program Recommendations, PG&E Application Assessment Report #0513, Energy Solutions, December 2006.

Throughout, we use the data developed for the PG&E territory to obtain market share proportions of ENERGY STAR and BCE program's qualifying models (henceforth BCE-qualifying) to develop estimates for California *statewide* market share proportions, including the investor-owned utilities of Southern California Edison and San Diego Gas and Electric.

Comment E. Can PG&E market share proportions be used to estimate the *statewide* market share of ENERGY STAR and BCE-qualifying models? When possible, please provide us with the data inputs and/or sources that support your opinion.

We do not separate the two TV technologies (LCD and Plasma) in the forecast, because we assume that the differences in energy efficiency by technology are negligible when examined in aggregate. In addition, we assume that any error absorbed when combining these two technologies does not exceed the error inherent in the forecast.

Comment F. Is it appropriate to combine the two technologies (LCD and Plasma) in our forecast? When possible, please provide us with the data inputs and/or sources that support your opinion.

TV Units Shipped to PG&E's Territory to Mass Market (1,000s)						
	2008	2009	2010	2011	2012	
LCD	710	870	1030	1204	1407	
Plasma	220	240	260	307	362	
Total	930	1110	1290	1511	1769	
% Increase from previous year	-	19.4%	16.2%	17.1%	17.1%	

Table 1. Unadjusted Forecast of LCD and Plasma Shipments to PG&E Territory (1,000s)⁸

Comment G. If you have additional comments on the data inputs and assumptions Table 1, please feel free to provide them. We are planning to keep the data in Table 1 static for our forecast. When possible, please provide us with the data inputs and/or sources that support your opinion.

⁸ Bassill, Steve. QDI Strategies, "Strategic Options for Energy-Efficient Electronics in Pacific Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures," Emerging Technologies Program, Application Assessment Report #0702, (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program), April 10, 2008.

Forecast of Energy Efficient Flat Panel TVs

Energy Solutions detailed (in their 7/16/08 presentation to the California Energy Commission) the volume of currently available TVs that meet the ENERGY STAR specifications and the BCE program's more stringent ENERGY STAR plus 15% specifications. Using this information, we derived the percentages of flat panel TV shipments that were BCE-qualifying (14%) and ENERGY STAR qualifying (35%).⁹ These numbers were used to develop the market penetration of ENERGY STAR and BCE-qualifying TVs in 2008. At this point, BCE-qualify models are estimated to comprise 40% of the total ENERGY STAR models (i.e., 0.14/0.35).

Comment H. Are the market share proportions for ENERGY STAR and BCE-qualifying models accurate based on your knowledge? When possible, please provide us with the data inputs and/or sources that support your opinion.

We have no data to support changing the relationship between the ENERGY STAR and BCE qualifying. As such, we have kept this relationship in the current forecast of the market penetration of ENERGY STAR and BCE qualifying products through 2012.

Comment I. Do you agree with maintaining the relationship of ENERGY STAR to BCE qualifying from year to year? If not, what are the better percentages to use each year? When possible, please provide us with the data inputs and/or sources that support your opinion.

Adjustments to Forecast due to Emerging Technologies

To adjust for the continued emergence of more energy efficient flat panel TVs, the ODC team developed dummy data to increase market penetration of ENERGY STAR and BCE shipments year over year. To account for this trend, the ODC team increased the number of qualifying flat panel TVs in our forecast by 3% per year beginning in 2009. Since significant changes to flat panel TV technologies are continually underway, this figure is meant to demonstrate increased market penetration of qualifying models. However, we understand that this estimate is inaccurate and ask industry experts to comment and revise this growth rate per your knowledge of the flat panel TV market.

Comment J. Is there a more appropriate growth rate for energy efficient TVs in our forecast? Is there a percent that would improve this estimate? What insights and/or studies support this estimate? When possible, please provide us with the data inputs and/or sources that support your opinion.

Adjustment to Forecast due to ENERGY STAR Standards

Our forecast adjusts for ENERGY STAR standards taking into account the TV Product Cycle, shown in Figure 2. While TV models debut in stores during February of one calendar year, they are designed during the preceding year in anticipation of future codes and standards. Also, we know that some manufacturers update their specifications in advance of ENERGY



⁹ Chase, Alex, Energy Solutions, "Analysis of Standards Options for Televisions," (presented on behalf of Pacific Gas and Electric to the California Energy Commission), July 16, 2008.

STAR standards. Thus, we estimate that these standards will impact shipments somewhat before and definitely after it is in place.

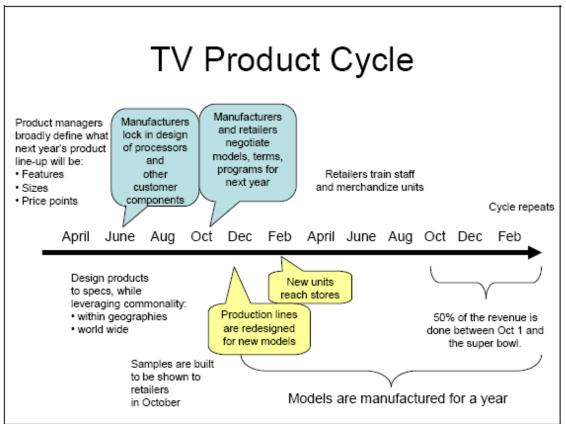


Figure 2. TV Product Cycle

Bassill, Steve, QDI Strategies, "Strategic Options for Energy-Efficient Electronics in Pacifica Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures," Emerging Technologies Program, Application Assessment Report #0702, (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program), April 10, 2008.

Table 2 provides a timeline of potential market effects that may impact the ENERGY STAR and PG&E qualifying product forecasts.

Input	Regulation	Effective Date	Description	Adjustment
1	Energy Star 3.0, Tier 1	November 1, 2008	New Energy Star Tier 1 specifications for high- definition TVs (i.e. >480 native vertical resolution) ¹⁰	
2	Digital TV Transition (FCC)	June 12, 2009	All full-power broadcast television stations in the United States will stop broadcasting on analog airwaves and begin broadcasting only in digital. ¹¹	We made no adjustment for this transition in our forecast. We assume instead that the original market projections of total shipments to the PG&E service territory account for this trend.
3	Energy Star 3.0, Tier 2	November 1, 2010	Estimated to be at 50% or below Title 20 specifications.	We adjusted our forecast of ENERGY STAR penetration in 2011 to 25%.
4	PG&E Title 20 standard (for active mode)	Proposed November 1, 2011	Title 20 is an active mode standard that will keep the power allowance equation consistent for all TVs, regardless of size. ¹² TVs, TV combination units, television monitors, and component TV Units shall not exceed the maximum On Mode power consumption (Pmax) found in these equations ¹³ .	We made no adjustment for this code as it is less stringent (i.e., less energy efficient) than the ENERGY STAR Tier 2 standard, which will already be in place.

¹¹ www.dtv.gov

¹² "Codes and Standards Enhancement (CASE) Initiative for PY2008: Title 20 Standards Development."
 Prepared for Pacific Gas and Electric by Alex Chase, Energy Solutions. April 2, 2008: p.7
 ¹³ Ibid 23-24.

¹⁰ "Codes and Standards Enhancement (CASE) Initiative for PY2008: Title 20 Standards Development." Prepared for Pacific Gas and Electric by Alex Chase, Energy Solutions. April 2, 2008: p.31

To adjust for the implementation of ENERGY STAR 3.0 Tier 2, we adjusted market penetration of qualifying products to equal the stated market penetration *goals* of 25% market penetration for ENERGY STAR. These adjustments are reflected in Table 4, year 2011.

Comment K. Are the adjustments appropriate in terms of percentages and timing? If not, please provide us with better percentages and timing by input number. When possible, please provide us with the data inputs and/or sources that support your opinion.

These first round adjustment percentages were used in conjunction with the forecasted flat screen TV totals in Table 1 to calculate Table 5 data, which was then plotted in Figure 3, Flat Panel TV Market Share forecasts.¹⁴ Data inputs for Table five are in the embedded Excel File below.

Object 1.



Comment L. Do you have any additional comments, suggestions, or insights for improving our market forecast? When possible, please provide us with the data inputs and/or sources that support your opinion.



¹⁴ Note this differs from standard market penetration, as we are not accounting for the entire TV market in this model. Thus, we refer to it as market share.

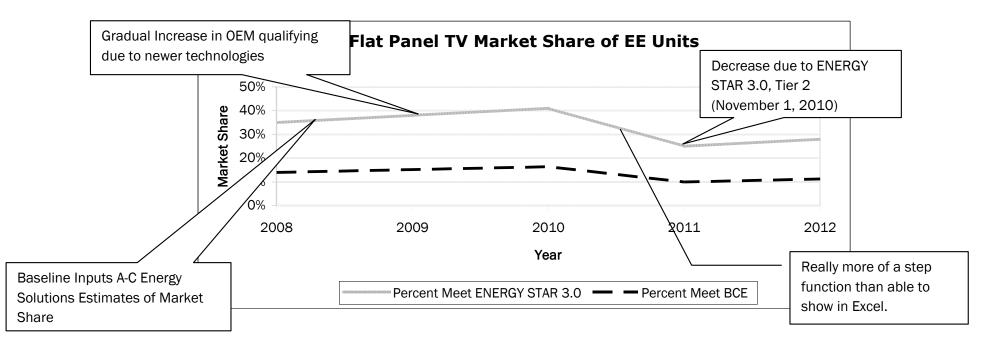


Figure 3. Flat Panel TV Market Share in PG&E Service Territory (%)

Appendix A: Qualifying ENERGY STAR and PG&E Source Data (Energy Solutions)

All the datasets are different; therefore, careful consideration during analysis is used to accommodate for different variables, including but not limited to: technologies represented (e.g., LCD, Plasma, rear projection, CRT), screen sizes, test procedure used, TV screen settings during test, TV manufacture date, and resolution type. All attempts are made to represent what is available on the market now and in the near future. The following provides a brief description for each dataset:

- ENERGY STAR data set: ENERGY STAR recently finalized an updated TV specification (Version 3.0) that becomes effective November 1, 2008.and includes active mode power levels ENERGY STAR used a TV dataset provided by the Consumer Electronics Association (CEA) to help inform its stakeholder revision process (ENERGY STAR, 2008).
- CEC PIER data set: Ecos Consulting and Imaging Science Foundation (ISF) tested numerous TVs as a part of ongoing research for the CEC's PIER Program.
- MTP data set: This data set was used by the Market Transformation Programme (MTP), which supports UK Government policy on sustainable products. It was used as the basis for a paper developed by Hans-Paul Siderius (SenterNovem) and Robert Harrison (MTP) titled "An Energy Efficiency Index for Televisions" (February 12, 2007). Analysis of Standards Options for Televisions: Revised Proposal PG&E CASE Page 7 Last Modified: July 3, 2008
- EICTA data set: This data set was used as the basis for a paper developed by Hans-Paul Siderius (SenterNovem) and Robert Harrison (MTP), titled "Televisions: the Impact of HD ready and Full HD on On-Mode Power" (March 4, 2008). The EICTA was formed in 1999 as the European Information & Communications Technology Industry Association by the consolidation of the two former European federations of the information and telecommunications industries.
- > CNET data set: CNET test results can be found at:

(http://reviews.cnet.com/4520-6475_7-6400401-3.html?tag=nav). CNET did not use the IEC 62087 test procedure; however, an industry contact familiar with the IEC test method estimates the CNET test procedure would be within 10% of the IEC test procedure for plasma TVs and 3% for LCDs. Thus, if the CNET test result was different, it would likely be higher.

2.1.2 High Efficiency Computer and Monitor Delphi Forecast

TO: [Market Expert]

FROM: Opinion Dynamics Evaluation Team

DATE: August 11, 2009

RE: Market Forecast, Round 1: ENERGY STAR Computers and Monitors

Thank you for lending your expertise to help us create a forecast for the high efficiency desktop computers and monitors markets. This research is being conducted by the California investor-owned utilities Pacific Gas & Electric (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E) to help document the possible effects of their statewide Business and Consumer Electronics Program (henceforth "BCE program," click <u>here</u> to see the program logic model and a short description of the program).

The goal of our efforts is to create a meaningful forecast for high efficiency computers and monitors through the use of market experts. Specifically, we want to be able to forecast what might have occurred in the absence of the BCE program. Each expert will answer two rounds of questions. After the first round, Opinion Dynamics Corp. (ODC) will provide an anonymous summary of all the market experts' answers from the previous round as well as any changes made to the information here based on your information. In the second round, we will encourage you to revise earlier answers in light of the replies of other experts.

Introduction to the Round 1 Forecast

The purpose this effort is to forecast the proportion of ENERGY STAR and BCE-qualifying models that would have been on the market *in the absence of the Business and Consumer Electronics Program.* This write-up provides our assumptions for a market forecast for your comment. We used the data we had at hand and did not make any adjustments for the current economic downturn/recession as we did not know the appropriate changes to make.

Note - the forecasts provided here aim to project the equipment market share of ENERGY STAR compliant and an energy efficiency level that is BCE-qualifying *in the absence of the program.* During this second and final round, we will incorporate your comments and provide you with another chance to weigh in to the forecast.

Directions for Round 1: In the section, "Round 1 Questions," we outline a series of questions for your comment. We ask that you:

- 1. Respond to the questions posed in this section and provide additional insights or comments as necessary. Please provide any references to studies or documents that may assist in developing this baseline forecast. Please note that the BCE program has already begun its market interventions¹⁵. Where possible, please indicate if you think the program has already had an effect and the type, magnitude, and scope of the effect to assist in adjusting our baseline projections to a create a projection without including the program.
- 2. Submit comments to Anne Dougherty, Project Manager at Opinion Dynamics, via email at <u>adougherty@opiniondynamics.com</u> by August 21st 2009.

Round 1 Questions

We have 11 questions for you. They are asked for both desktop computers and monitors as there may be differences in your response between these two items. However, as we have structured the document, you can provide comments under one category and simply state "same as the other" if your response is no different.



¹⁵ The BCE program began discussions with retail buyers in May 2008 and officially began the program in October 2008.

Q1. What are the influences that you believe should be included in this forecast to make it a defendable forecast? Click <u>here</u> to see what we think are influences on this market					
Equipment	Your Answer	Your sources, if available			
Desktop					
Computer					
Computer					
Monitor					

Q2. Data for shipments are more readily available while sales data is more difficult to obtain. Do					
shipments serve as an accurate proxy for sales?					
Equipment	Your Answer	Your sources, if available			
Desktop					
Computer					
Computer					
Monitor					

Q3. We do not have an estimated growth rate past 2011, but need to extend the forecast to 2012. Is it appropriate to use the 2010-2011 growth rate for 2011-2012?					
Equipment Your Answer Your sources, if available					
Desktop					
Computer					
Computer					
Monitor					

Q4. Can PG&E market share proportions be used to estimate the statewide market share of ENERGY STAR and BCE-qualifying models? Click <u>here</u> to read what types of equipment are BCE-qualifying.					
Equipment	Your Answer	Your sources, if available			
Desktop Computer					
Computer Monitor					

Q5.We have an estimates of shipments to PG&E territory. Click <u>here</u> to see these shipments for computers and the shipments for monitors that are the basis for our forecasts. Do you have additional comments on the data input and assumptions shown in these two tables?					
Equipment	Your Answer	Your sources, if available			
Desktop					
Computer					
Computer					
Monitor					

Q6. We are assuming different growth rates for residential and commercial markets (than are in addition to what shown in the tables from Q5) due to EPEAT and new technologies. We are assuming

a 10% growth rate for residential and a 15% growth rate for commercial year after year beginning in 2007. Is the assumption regarding a larger growth rate for commercial markets versus residential markets a correct one? Are there more appropriate growth rates for either of these sectors? If so, what are they?							
Equipment	Your Answer	Your sources, if available					
Desktop Computer							
Computer Monitor	Computer						

Q7. While new models come out every quarter, our forecast uses an annual growth rate. Do you agree with holding the growth rates for residential and commercial markets consistent across quarters?						
Equipment	Your Answer	Your sources, if available				
Desktop						
Computer	Computer					
Computer						
Monitor						

Q8. We adjusted the market estimates of ENERGY STAR and BCE-qualifying equipment based on certain information. Click <u>here</u> to see the computer information and <u>here</u> to see the monitor information. Are the adjustments appropriate in terms of percentages and timing? If not, what are						
better perce	ntages and timing values?					
Equipment	Your Answer	Your sources, if available				
Desktop						
Computer						
Computer						
Monitor						

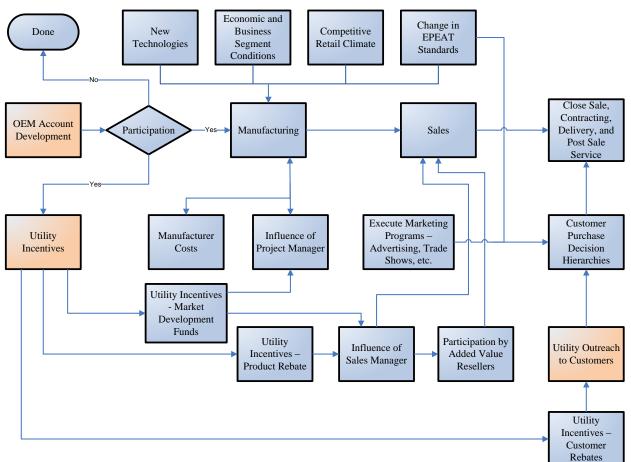
Q9. Are the monitor market share proportions for ENERGY STAR and BCE-qualifying models accurate based on your knowledge? Click <u>here</u> to see the proportions we have used in our current forecast.					
based on you	ur knowledge? Click <u>here</u> to see the proportions we have use	a in our current forecast.			
Equipment	Your Answer	Your sources, if available			
Desktop	NOT APPLICABLE FOR DESKTOP COMPUTERS				
Computer	NUT APPLICADLE FOR DESKTOP COMPUTERS				
Computer					
Monitor					

Q10. Do you agree with maintaining the proportions determined in Q9 between ENERGY STAR and BCE from year to year? If not, what are better percentages to use?				
Equipment	Your Answer	Your sources, if available		
Desktop Computer	NOT APPLICABLE FOR DESKTOP COMPUTERS			
Computer Monitor				

Q11. Taking into account all the information above, we have created a market share forecast. Click <u>here</u> for computers and <u>here</u> for monitors. Do you have any additional comments, suggestions, or insights for improving our market forecast?						
Equipment	Your Answer	Your sources, if available				
Desktop						
Computer	uter					
Computer						
Monitor						

Appendix A. Back Up Data for Our Assumptions

Figure 4. Computer and Monitors Influences Diagram



Computers/Monitors INFLUENCES DIAGRAM

Click <u>here</u> to go back to Q1.

BCE-Qualifying Equipment:

For desktop computers, BCE-qualifying equipment is any that are ENERGY STAR compliant. For computer monitors, BCE-qualifying equipment must use at least 15% less energy than ENERGY STAR compliant monitors.

Click <u>here</u> to go back to Q4.

Both the computer and monitor shipment data was estimated using this source: Bassill, Steve. QDI Strategies, "Strategic Options for Energy Efficient Electronics in Pacific Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures. Emerging Technologies Program, Application Assessment Report #0702." (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program). April 10, 2008.

Computer Units Shipped to PG&E's Territory to Mass Market (1,000s)						
	2007	2008	2009	2010	2011	2012
Residential	680	690	700	730	740	750
Commercial	1318	1386	1414	1442	1471	1501
Total	4005	4084	4123	4182	4222	4263

Table 1. Unadjusted Forecasts of Computer Shipments to PG&E Territory (1,000s)

Click here to go back to Q5.

Table 2. Unadjusted Forecasts of Monitor S	Shipments to PG&E Territory (1,000s)
--	--------------------------------------

Monitor Units Shipped to PG&Es Territory to Mass Market (1,000s)							
	2006	2007	2008	2009	2010	2011	2012
Residential	670	680	690	700	730	740	750
Commercial	1253	1318	1386	1414	1442	1471	1501
Total	3929	4005	4084	4123	4182	4222	4263

Click here to go back to Q5.

Market Adjustments

Table 3. Timeline of Relevant Energy Star Desktop Tower Codes and Standards

Input	Regulation Name	Effective Date	Description	Adjustment
1	Energy Star 4.0, Tier 2	Jan. 1, 2009 (however, ES website still lists Tier 1 in effect as of 3/6/09)	Intended to capture top 25% of units in energy efficiency Capability adder for sleep and standby modes: +0.7 W	We set the forecast of ENERGY STAR
2	Energy Star 5.0, Tier 1	July 1, 2009	Qualifying power supply: approximately 115 (\pm 1%) Volts AC, 60 Hz (\pm 1%) Typical Electricity Consumption: \leq 234.0 kWh, \leq 209 kWh, \leq 175.0 kWh, or	penetration in 2009 to 25%

 148.0 kWh depending on computer type, measured based on proportion and use of off, sleep, and idle modes 	
Sleep mode set to activate within 30 minutes of user inactivity	

Click <u>here</u> to go back to Q8.

Table 4. Timeline of Relevant Energy Star Monitors Codes and Standards

Input	Regulation Name	Effective Date	Description	Adjustment
	1 Energy Star 5.0, Tier 1		Maximum power use in On Mode based on diagonal screen size and screen resolution (e.g. 13.1 W for 1024x768 monitors less than 30 inches across)	We set the forecast of
1			Enter Sleep Mode using \leq 4W for computer monitors larger than 30" and using \leq 2W for monitors smaller than 30"	ENERGY STAR penetration in 2009 to 25%
			In Off Mode, uses < 2W for computer monitors over 30" and < 1W for monitors smaller than 30"	
2	Energy Star 5.0, Tier 2	Oct. 30, 2011	Maximum power use in On Mode TBD Uses \leq 1W in Off or Sleep modes for all monitor sizes	We set the forecast of ENERGY STAR penetration in 2011 to 25%
	PG&E Title		Must be 25% percent more efficient in On Mode than Energy Star 4.2. Sleep and Off modes the same.	We increased the
20		20ProposedstandardNovember 1,(active2009	Equation based on screen resolution:	forecast of Energy Star monitor
	•		If less than 1 megapixel, may be up to 17W. If greater than 1 megapixel, use equation Y=21X, where Y is energy in Watts and X is number of megapixels.	penetration in 2009 by 10%

Click <u>here</u> to go back to Q8.

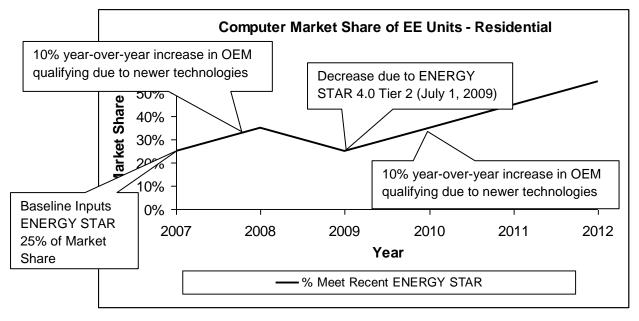
BCE to ENERGY STAR Proportions (Q9)

Percent of monitor sales already BCE qualifying in 2007	21%
Percent of sales ENERGY STAR (ES) compliant goal for 2007	25%
Percent of sales ES compliant for residential (See Q6, +10%)	35%
Percent of sales ES compliant for commercial (See Q6, +15%)	40%
Proportion BCE to Residential ES – 21%/35% = 0.60	

Proportion BCE to Commercial ES – 21% / 40% = 0.53

Click here to return to Q9

Figure 5: Residential Computer Market Share in PG&E Territory (%)



Click <u>here</u> to go back to Q11.

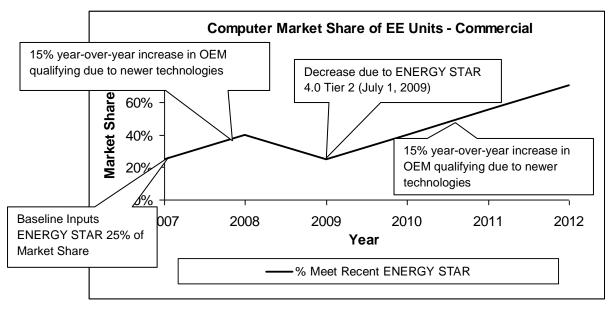
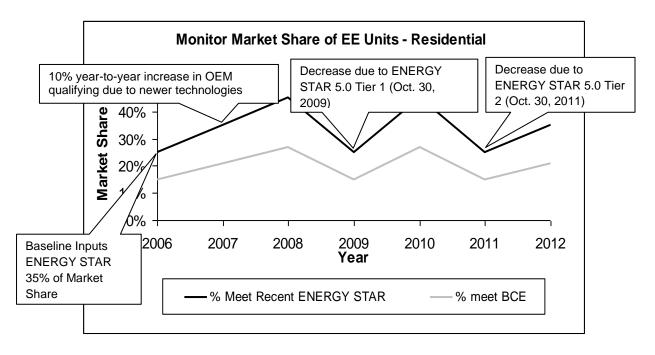


Figure 6: Commercial Computer Market Share in PG&E Territory (%)

Click <u>here</u> to go back to Q11.





Click <u>here</u> to go back to Q11.

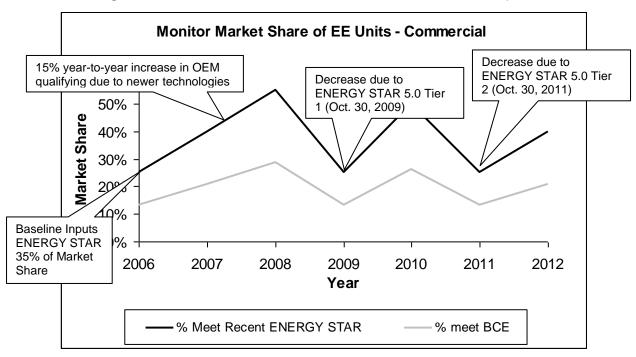


Figure 8: Commercial Monitor Market Share in PG&E Territory (%)

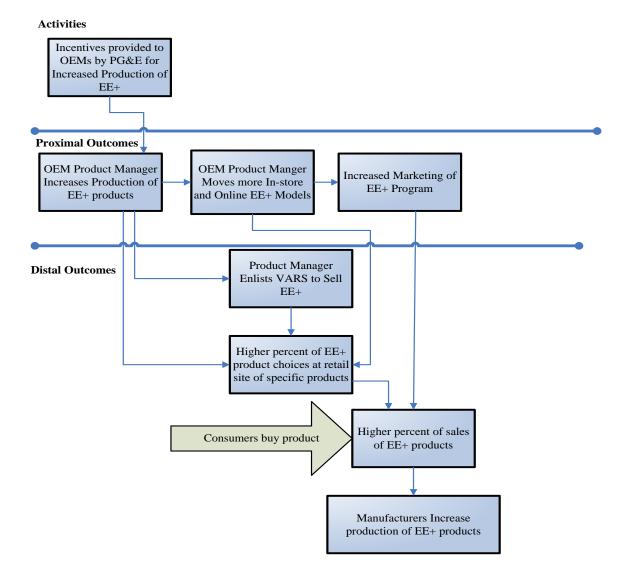
Click <u>here</u> to go back to Q11.

BCE Program

The BCE program is a statewide, upstream program that provides incentives to manufacturers and retailers to meet or exceed ENERGY STAR efficiency standards for Business and Consumer Electronics. The computer and monitor portion of the program focuses on original equipment manufacturers, such as Dell or Lenovo, to participate in the upstream incentive program. The program provides incentives to these companies in order to increase their manufacturing and marketing of high efficiency computers and monitors with the aim of generating greater market share of these particular models.

Click <u>here</u> to return to the Introduction.

Figure 9. BCE Program Logic Model



Computers/Monitors IMPACT LOGIC MODEL

Click <u>here</u> to return to the Introduction.

2.2 Round II

2.2.1 Forecast of Energy Efficient Flat Panel TVs

TO: [Market Expert]

FROM: Opinion Dynamics Evaluation Team

DATE: July 31, 2009

RE: Delphi Market Projections, Round 2: ENERGY STAR + 15% TVs

Thank you for lending your expertise to help us determine a baseline for the California Statewide Business and Consumer Electronics Program (henceforth "BCE program," see Appendix F for the program logic model) on behalf of Pacific Gas and Electric (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SCE). This research is being conducted to help document the possible effects of the Business and Consumer Electronics Program by developing a baseline estimate of the market prior to the program's intervention. With your feedback, we have completed the first round of our Delphi research and provided incentives for Round 1 and 2 to those able to accept. This document calls on your participation and feedback for *Round 2*.

Round 2 Delphi Forecast Instructions

The purpose of Round 2 is to forecast the proportion of ENERGY STAR and BCE-qualifying models that would have been on the market *in the absence of the Business and Consumer Electronics Program.* This write-up provides our assumptions and adjustments to the market forecast for your comment. We note that almost all feedback was incorporated and the forecast adjusted, namely to account for the following: (1) the economic downturn/recession; (2) the differences in market maturation and efficiency standard by technology type (LCD vs. Plasma); (3) the rapid uptick of ENERGY STAR 3.0; and (4) increases in efficiency over time as part of market maturation. An appendix is also provided that summarizes the feedback generated in Round I that has been considered and incorporated into the revised projection (Appendix C).

Note, the forecasts provided here project the market share of ENERGY STAR and BCEqualifying TVs *in the absence of the program*. Since the program began its effort in 2008 and program effects were most likely to occur beginning in the 2009 calendar year, we ask you to begin your estimates considering the market (and its projection) in 2008 (which will serve as the baseline). During this second and final round, we ask you once again to answer the ten questions listed on pages two and three (i.e., Assumption A through Assumption J). The back up data for these assumptions and our revised forecasts are provided in Appendix A.

Directions for Round 2: In the section, "Round 2 Questions," we outline a series of additional questions for your comment. We ask that you:

Respond to the questions posed in this section and provide additional insights or comments as necessary. Please provide any references to studies or documents that may assist in developing this baseline forecast. Please note that the BCE program has already begun its market interventions¹⁶. Where possible, please indicate if you think the program has already had an effect and the type, magnitude, and scope of the effect to assist in adjusting our baseline projections.

Comments may be provided in Word or Excel formats. Please clearly indicate which question you are responding to.

Submit comments to Anne Dougherty, Project Manager at Opinion Dynamics, via email at <u>adougherty@opiniondynamics.com</u> by August 21st 2009.

Round 2 Questions

In this section, we reiterate each assumption made in the adjusted forecast and request that each market expert participant provide additional, follow-up comments on these assumptions. Where possible, please provide your rational, suggested adjustments, and any secondary data references that may enhance the accuracy of this forecast. As a reminder, the forecasts provided here aim to project the market share of ENERGY STAR and BCE-qualifying TVs *in the absence of the BCE program*.

Overall Market Adjustments:

- 1. Assumption A: The economic downturn resulted in a decrease in total shipments in 2008 and 2009 from original forecasts (as implemented in Appendix A).
- 2. Assumption B: Growth in overall shipments would have leveled off in 2010 and began to rebound in 2011 and 2012 (as implemented Appendix A).
- 3. Assumption C: Market growth would have adjusted to near "normal" TV growth rates in 2011 and 2012 as the market transformed to DTV technologies, with average market growth close to 5% year over year.
- 4. Assumption D: Plasma growth would have ceased in 2010 and LCD TVs would have comprised the total increase in market growth in 2011 and 2012. As the market rebounded, LCD market share would exceed 95% of total shipments in 2011 and 2012.

Efficiency Market Share Assumptions of ENERGY STAR and ENERGY STAR+15% in the absence of the program:

- Assumption E: The BCE program's efficiency level, ENERGY STAR + 15%, would have been the efficiency level for the next tier of ENERGY STAR qualifying models (which, prior to program intervention would have gone into effect in November 1st, 2010, currently scheduled for May 1st, 2010).
- 6. **Assumption F:** The proportion of BCE-qualifying shipments would have trended towards the target market share of ENERGY STAR models (25% of total shipments);

¹⁶ The BCE program began discussions with retail buyers in May 2008 and officially began the program in October 2008.

with BCE-qualifying models reaching 25% of total shipments the year ENERGY STAR 3.0 Tier 2 was estimated to go in effect.

- 7. **Assumption G:** For each calendar year, the proportion of total shipments that meet ENERGY STAR standards would have increased by 10% each year.
- 8. Assumption H: ENERGY STAR 3.0 Tier 2 market share goals (25% of total shipments) would have been available to consumers one year following the increased standard (2011), when new models become available to the public (see Appendix B for TV Cycle Image).
- 9. Assumption I: BCE-qualifying shipments would have increased at the same 10% increase year-over-year until ENERGY STAR 3.0 Tier 2 goes into effect.
- 10.**Assumption J:** Once ENERGY STAR Tier 2 standards were in place, BCE-qualifying shipments would have comprised 25% of ENERGY STAR-qualifying shipments.

Appendix A: Back-Up Data for Our Assumptions

Adjustments to the Original Market Forecast for BCE-Qualifying Baseline in the Absence of the Program

The Opinion Dynamics team had adjusted the original forecast by drawing on your and other market experts' feedback from Round 1 of the Delphi forecast. Here, we provide our adjustments for your comment. Adjustments were made to the original forecasted shipment data provided in Table 1 below:

	(1,0003)						
	2008	2009	2010	2011	2012*		
LCD	710	870	1030	1204	1407		
Plasma	220	240	260	307	362		
Total	930	1110	1290	1511	1769		
% Increase from previous year	-	19.40%	16.20%	17.10%	17.10%		

Table 3. Original Baseline Shipments: TV Units Shipped to PG&E's Territory to Mass Market (1,000s) ¹⁷

*Note 2012 baseline was developed in Round I of the Delphi by Opinion Dynamics by applying the growth rate of sales from 2010-2011 to 2011-2012.

Opinion Dynamics used these figures as a base for the following adjustments. Based on feedback from Round 1, adjustments were made for each technology type (LCD and Plasma) to account for their differences in market share (with LCD TVs dominating the marketplace) and their respective differences in efficiency (with LCD TVs meeting high efficiency standards in greater volume). We call out our adjustments in two sections below: (1) adjusted total shipments by technology due to the economic downturn and DTV transition; and (2) adjusted total shipments of ENERGY STAR and BCE-qualifying models.

Adjusted Total Shipments Due to Economic Downturn and DTV Transition

This section outlines our adjustments to the total number of shipments (1,000s) to the PG&E territory based on two primary market influences: (1) the economic downturn; and (2) the DTV transition. Table 1 in the previous section provides the original baseline figures used in Round 1 of the Delphi. The Opinion Dynamics team adjusted these figures, originally estimated by PG&E,¹⁸ to incorporate Round 1 feedback on the effects of the economy on TV sales during the years 2008-2010. Table 2 below provides these adjustments. Summaries of the Round 1 expert feedback may be found in Appendix C.

¹⁷ Bassill, Steve. QDI Strategies, "Strategic Options for Energy-Efficient Electronics in Pacific Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures," Emerging Technologies Program, Application Assessment Report #0702, (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program), April 10, 2008. ¹⁸ Ibid.

Table 4. Adjusted Growth Rates by Technology Type due to Economic Downturn and DTV	
Transition: TV Units Shipped to PG&E's Territory to Mass Market (1,000s)	

		2008	2009	2010	2011	2012
Rationale	% Adjustment due to Economy	5% decrease in overall shipments from Table 1.	5% decrease in overall shipments from Table 1.	No increase in overall shipments in 2010	5% growth each year as the market adjusts and Plasma growth rates leve off. 5% growth represents LCD only growth and is closer to the normal, mature TV market growth (2-3%)	
<u>۳</u>	% Adjustment due to DTV Transition		2% increase to account for DTV Transition sales spike			
	Total Adjustment	5% decrease in shipments	3% decrease in shipments	Flat growth rate in 2010	5% growth rate	5% growth rate
Adjustments	Adjusted Increase from Table 1		16.4%	0.0%	5.0%	5.0%
	Adjusted Total Shipments	883.5	1028.4	1028.4	1079.8	1133.8

The revised growth rates by technology type were applied to the original Total Shipments to develop revised shipment figures to estimate the total number of ENERGY STAR and BCEqualifying models. These adjustments were made with four primary assumptions: (1) the economic downturn would have resulted in a decrease in total shipments in 2008 and 2009 from original estimates; (2) growth would have leveled off in 2010 and began to rebound in 2011 and 2012; (3) market growth would have adjusted to near "normal" TV growth rates in 2011 and 2012 as the market transformed to DTV technologies; and (4) Plasma growth would have leveled off in 2010 and LCD TVs would have comprised the total increase in market growth in 2011 and 2012 as the market rebounds.

Adjusted Shipments of ENERGY STAR and BCE-Qualifying Models

The BCE program began negotiations with key retail buyers as of May 2008 in anticipation of affecting the share of shipments to California for the 2009 calendar year. As a result of these discussions, the program has documented changes in ordering practices on the part of retail buyers, aiming to have a greater share of models in 2009 that meet the program's

advanced efficiency standards. Here, we aim to estimate the share of ENERGY STAR and ENERGY STAR + 15% shipments that would have been present in the market *prior* to the program's interventions. We begin by adjusting our baseline ENERGY STAR estimates for 2008. From this adjustment, and a series of assumptions outlined in this section, we provide a revised market forecast for comment.

Our Round 1 feedback indicated that the uptick in ENERGY STAR 3.0 would generate a larger share of ENERGY STAR and BCE-qualifying models in 2008 than initially anticipated by the ENERGY STAR program. Here, we set our ENERGY STAR market share (in shipments) in 2008 to 50%, representing an increase of 35%¹⁹ from our previously stated forecast. This figure was drawn based on Round 1 market expert feedback and Opinion Dynamics preliminary estimates of ENERGY STAR models on the shelf, collected in December 2008. Below we provide our forecasted proportion of ENERGY STAR-qualified shipments by technology type. For share by technology type, we estimate that LCD televisions would have comprised 90% or more of high-efficiency TV shipments (ENERGY STAR and BCE-Qualifying models) to equal and eventually exceed the technology's overall market share due to LCD's higher levels of efficiency as compared to Plasma TVs.

To determine the number of BCE-qualifying shipments relative to ENERGY STAR, we set the 2008 proportion of BCE-qualifying models to 35% of ENERGY STAR based on our original round 1 estimates.²⁰ However, to generate a *baseline of BCE-qualifying shipments in the market prior to the program's intervention,* we modeled the proportion of ENERGY STAR shipments that qualify for the BCE program using the following assumptions:

- 1. The BCE program's efficiency level, ENERGY STAR + 15%, would have been the target efficiency level for the next tier of ENERGY qualifying models (which, prior to program intervention would have gone into effect in November 1st, 2010).
- 2. The proportion of BCE-qualifying shipments would have trended towards the target market share of ENERGY STAR models (25% of total shipments); with BCE-qualifying models reaching 25% of total shipments the year ENERGY STAR 3.0 Tier 2 was estimated to go in effect.
- 3. For each calendar year, shipments that meet ENERGY STAR standards would have increased by 10%. ENERGY STAR market share goals (25% of total shipments) would have been reached the year following the increased standard (2011), when new models would have become available to the public (see Appendix B for TV Cycle Image).
- 4. BCE-qualifying shipments would have increased at the same 10% rate year-over-year until the new ENERGY STAR standards go into effect. Once these standards are in place, BCE-qualifying shipments would have comprised 25% of ENERGY STARqualifying shipments, and experience more rapid gains in efficiency (20% year-overyear) from 2011-2012 as the efficiency market matured.

Table 3 provides the adjusted shipments based on the aforementioned assumptions.

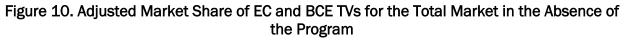


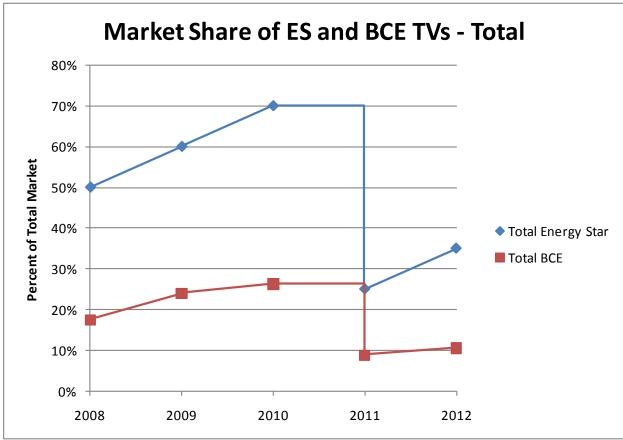
 ¹⁹ Chase, Alex, Energy Solutions, "Analysis of Standards Options for Televisions," (presented on behalf of Pacific Gas and Electric to the California Energy Commission), July 16, 2008.
 ²⁰ Ibid.

Table 5. Adjusted ENERGY STAR and BCE-Qualifying Shipments by Technology Type in the Absence of Program Interventions: TV Units Shipped to PG&E's Territory to Mass Market (1,000s)

	2008	% of Market	2009	% of Market	2010	% of Market	2011	% of Market	2012	% of Market
LCD Energy Star	397.6	53%	586.2	63%	683.9	67%	264.6	26%	388.9	36.0%
LCD BCE	139.2	19%	234.5	25%	239.5	23%	92.6	9%	116.7	10.8%
LCD Adjusted	751.0	71%	925.6	89%	925.6	90%	1025.8	35%	1079.8	100.0%
Plasma Energy Star	44.2	33%	30.9	30%	36.0	4%	5.4	10%	7.9	14.7%
Plasma BCE	15.5	12%	12.3	12%	13.5	1%	1.9	4%	2.4	4.4%
Plasma Adjusted	132.5	45%	102.8	42%	102.8	10%	54.0	14%	54.0	100.0%
Total Energy Star	441.8	50%	617.0	60%	719.9	70%	270.0	25%	396.8	35.0%
Total BCE	154.6	18%	246.8	24%	270.0	26%	94.5	9%	119.0	10.5%
Adjusted Total Shipments	883.5	68%	1028.4	84%	1028.4	100%	1079.8	34%	1133.8	100.0%

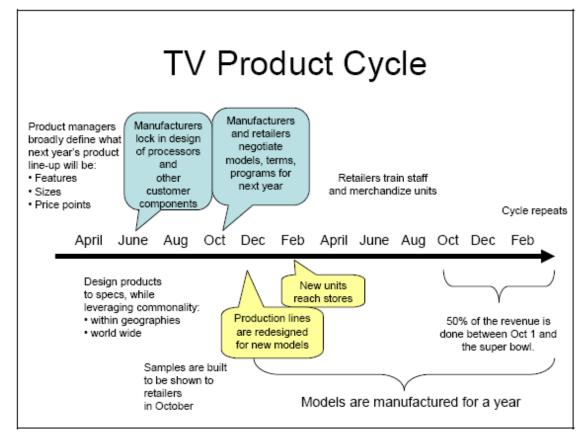
The following figure provides the final, adjusted curve for comment in the absence of the program:





Appendix B: TV Product Cycle

Figure 11. TV Product Cycle



Appendix C: Summary of Market Expert Comments from Round 1

Market Influences (Comment A)

Original
text and
commentWe created the data used as inputs to this first round forecast by identifying
and outlining key influences on the TV market. For the purposes of our
forecast, the data inputs account for the following influences on the market:
(1) product buying and shipments, (2) new technologies, and (3) ENERGY
STAR standards.

Round 1 Comment A: Are there other influences that you believe should be included in this forecast to make it a defendable forecast?

Summary of market expert responses: Other influences to include in the TV market forecast include: 1) current U.S. economic climate; 2) global energy efficiency standards in areas such as the European Union and Australia; 3) FTC labeling requirements; 4) incentive programs offered by OEMs to retail sales people to sell specific product; and, 5) energy efficiency and ES purchasing requirements set at the corporate level by a retailer.

Forecast of Market Penetration of Flat Panel TVs Using Market Shipments (Comment B)

Original We used forecasted shipments from 2008-2012 to establish market penetration²¹ of LCD and Plasma TVs. The BCE program pays out incentives for LCD, Plasma, and DLP/Rear Projection TVs. For this model, we have excluded DLP/Rear Projection TVs as studies indicate that these models comprise .5% of the TV market share.²² Further, due to their market share and increasing popularity, programs that focus on LCD and Plasma TV interventions have the most likelihood to effect change. Henceforth, we refer to our market projections for *Flat Panel* TVs, to indicate that this forecast excludes CRT and DLP/Rear Projection Television.

Original Comment B. Is it accurate to assume that DLP/Rear Projection TVs will continue to occupy between 0-1% of the total TV market share through 2012? Is it appropriate to exclude these TVs from our market projections?

Summary A few respondents suggested that the DLP/Rear Projection TV market occupies a larger share of the total TV market than 0.5% (was as high as 10% in 2006), however all agree that the share will decrease through 2012 and should either be excluded from this market projection or tracked and analyzed in a separate, future report.

²¹ Market penetration is the depth of sales of a particular product in a given market. The deeper the penetration, the higher the volume of product sales.

²² Estimated TV Market Share, Pacific Gas and Electric Work Paper PGECOAPP104, Energy Efficient Televisions, 07/17/08.

Using Shipments as a Proxy for Sales (Comment C)

Original In addition, our forecast is based on *shipments* which serve as a proxy for market penetration in *sales* of Flat Panel TVs.²³ Although penetration is generally determined by sales, ENERGY STAR program managers state their market penetration goals in terms of units shipped in a calendar year, so use of a proxy for our forecast works well with how ENERGY STAR sets their goals. Thus, all adjustments to the forecasts are based on market penetration defined as shipments of TVs.

Round 1 Comment C. Do flat panel TV *shipments* serve as an accurate proxy for flat panel TV *sales*?

Summary
of market
expertAll respondents agree that flat panel TV shipments are an accurate proxy for
flat panel TV sales.expert
responses:Flat panel TV sales.

Growth Rate for 2011-2012 (Comment D)

Original Table 1 (see page 9 below) shows the projected mass market shipments that serve as the basis of our forecast. For our purposes, mass market refers to the residential TV purchases. The data table below was derived by Energy Solutions for PG&E in December 2006.²⁴ The original data forecast did not have estimates for 2012. Instead, the 2012 estimates in the table below were calculated by applying the percent increase from 2010 to 2011, to the 2011 estimates.

Round 1 Comment D: Is it appropriate to use the 2010-2011 growth rate of flat panel TVs for 2011-2012?

Summary of market expert responses: Two issues will effect the growth rate of flat panel TV's through 2012 – the digital transition in 2009 and the current state of the US economy. The recent digital transition may lead to a spike in sales in 2009 and then a decrease in years after. Current economic conditions in the US will most likely lead to lower sales in 2008-2010 and then rebound in 2011-2012. Also impacting the growth rate is the maturation of the overall market, as CRTs become obsolete. One suggestion is that the overall growth is 2-3%, with Plasma TVs slowing to zero in 2009 and LCD managing a 5% growth rate through 2013.

²³ Note the ODC team does not have access to actual sales figures. Once the BCE program is underway, our team may have access to historical sales data for major retailers and will use this data to adjust our figures.
²⁴ Alex Chase, Ryan Ramos, and Ted Pope, Consumer Electronics: Market Trends, Energy Consumption, and Program Recommendations, PG&E Application Assessment Report #0513, Energy Solutions, December 2006.

Using PG&E Shipments as a Proxy for California Shipment Proportions (Comment E)

Original
text and
commentThroughout, we use the data developed for the PG&E territory to obtain
market share proportions of ENERGY STAR and BCE program's qualifying
models (henceforth BCE-qualifying) to develop estimates for California
statewide market share proportions, including the investor-owned utilities of
Southern California Edison and San Diego Gas and Electric.

Round 1 Comment E. Can PG&E market share proportions be used to estimate the *statewide* market share of ENERGY STAR and BCE-qualifying models?

Summary
of marketAll market experts who responded to this question believe it is appropriate to
use PG&E market share proportions to estimate statewide market shares for
ENERGY STAR and BCE-qualifying models.responses:

Separating Technology Types for Forecasts (Comment F)

Original
text and
commentWe do not separate the two TV technologies (LCD and Plasma) in the
forecast, because we assume that the differences in energy efficiency by
technology are negligible when examined in aggregate. In addition, we
assume that any error absorbed when combining these two technologies
does not exceed the error inherent in the forecast.

Round 1 Comment F. Is it appropriate to combine the two technologies (LCD and Plasma) in our forecast?

Summary of market expert responses: All market experts suggest separating LCD and Plasma technologies in the forecast due to differing energy usage and mark shares. Plasma TV's consume up to 50% more power than comparably sized LCD TVs. The market share for Plasma TVs is also expected to decline in future years (only available in 42" and larger, OEM's leaving market), while the LCD market share is expected to increase and perhaps double by 2012. Also impacting the growth rate is the maturation of the overall market, as CRTs become obsolete. One suggestion is that the overall growth is 2-3%, with Plasma TVs slowing to zero in 2009 and LCD managing a 5% growth rate through 2013.

Adjustments Necessary to Original Forecasts (Comment G)

Original text and comment Round 1: Table 6. Unadjusted Forecast of LCD and Plasma Shipments to PG&ETerritory (1,000s)25

TV Units Shipped to PG&E's Territory to Mass Market (1,000s)						
	2008	2009	2010	2011	2012	
LCD	710	870	1030	1204	1407	
Plasma	220	240	260	307	362	
Total	930	1110	1290	1511	1769	
% Increase from previous year	-	19.4%	16.2%	17.1%	17.1%	

Round 1 Comment G. If you have additional comments on the data inputs and assumptions Table 1, please feel free to provide them. We are planning to keep the data in Table 1 static for our forecast.

SummaryThree considerations were cited by market actors for the initial forecastof marketfigures:

expert responses: 1. Residential shipments may include TVs that end up purchased by commercial businesses.

2. Current US economy should lead to lower growth rates beyond 2009 than what is shown in the original table.

²⁵ Bassill, Steve. QDI Strategies, "Strategic Options for Energy-Efficient Electronics in Pacific Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures," Emerging Technologies Program, Application Assessment Report #0702, (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program), April 10, 2008.

Estimate Market Share of ENERGY STAR TVs (Comment H)

Original Energy Solutions detailed (in their 7/16/08 presentation to the California Energy Commission) the volume of currently available TVs that meet the ENERGY STAR specifications and the BCE program's more stringent ENERGY STAR plus 15% specifications. Using this information, we derived the percentages of flat panel TV shipments that were BCE-qualifying (14%) and ENERGY STAR qualifying (35%).²⁶ These numbers were used to develop the market penetration of ENERGY STAR and BCE-qualifying TVs in 2008. At this point, BCE-qualify models are estimated to comprise 40% of the total ENERGY STAR models (i.e., 0.14/0.35).

Round 2 Comment H. Are the market share proportions for ENERGY STAR and BCE-qualifying models accurate based on your knowledge?

Summary of market expert responses: All market experts who responded to this question believe the market shares for both ENERGY STAR and BCE-qualifying models to be low and out of date, namely due to a large percent (close to 70%) of TVs sold at retailers such as Wal-Mart and Best Buy meeting ENERGY STAR requirements. The rapid uptake of ES 3.0 means that the percent of ES qualifying flat panel TV shipments may be higher than 35%.One estimate is that over half of TV models sold meet ENERGY STAR 3.0 as well as BCE. Plasma sales are most likely well below 35% market share, while LCD is at 35% or higher. 100% of projection DTVs meet the ES specification.

The Relationship between ENERGY STAR and BCE-Qualifying Models (Comment I)

Original
text and
commentWe have no data to support changing the relationship between the ENERGY
STAR and BCE qualifying. As such, we have kept this relationship in the
current forecast of the market penetration of ENERGY STAR and BCE
qualifying products through 2012.

Round 1 Comment I. Do you agree with maintaining the relationship of ENERGY STAR to BCE qualifying from year to year? If not, what are the better percentages to use each year? When possible, please provide us with the data inputs and/or sources that support your opinion.

Summary of market expert responses: EPA is likely to establish an aggressive ENERGY STAR Tier 2 specification in May 2010 and a Tier 3 in 2012. The new ESTAR levels and the pending California Energy Commission standards will result in PGE revising its specifications for rebate eligibility. The ratio of BCE to ESTAR sales is highly dependent upon the stringency of each of these specs. If ESTAR sets a very stringent spec, BCE may simply adopt the same spec for their program. Therefore, the market penetration of ENERGY STAR qualifying products is going to fluctuate year-to-year and not remain constant.

²⁶ Chase, Alex, Energy Solutions, "Analysis of Standards Options for Televisions," (presented on behalf of Pacific Gas and Electric to the California Energy Commission), July 16, 2008.

Adjustments to Forecast due to Emerging Technologies (Comment J)

Original text and comment Round 1: To adjust for the continued emergence of more energy efficient flat panel TVs, the ODC team developed dummy data to increase market penetration of ENERGY STAR and BCE shipments year over year. To account for this trend, the ODC team increased the number of qualifying flat panel TVs in our forecast by 3% per year beginning in 2009. Since significant changes to flat panel TV technologies are continually underway, this figure is meant to demonstrate increased market penetration of qualifying models. However, we understand that this estimate is inaccurate and ask industry experts to comment and revise this growth rate per your knowledge of the flat panel TV market.

Round 1 Comment J. Is there a more appropriate growth rate for energy efficient TVs in our forecast? Is there a percent that would improve this estimate? What insights and/or studies support this estimate? When possible, please provide us with the data inputs and/or sources that support your opinion.

Summary Two possible growth rates were proposed by the market experts:

of market expert responses: 1. 10% growth rate for ENERGY STAR TVs in years when there has been no modification to the ENERGY STAR requirements. However, because the ENERGY STAR requirements are revised on a regular basis, and hence the percentage of qualifying models changes, the percentage growth of ENERGY STAR qualified units decreases in a year when new requirements are effective (i.e., 2010 for ENERGY STAR Tier 2).

2. Slow increase from year-to-year (3% to 4% to 5%) to reflect maturation of technologies and new production facilities.

Adjustment to Forecast due to ENERGY STAR Standards (Comment K)

Original Our forecast adjusts for ENERGY STAR standards taking into account the TV Product Cycle, shown in Figure 2. While TV models debut in stores during February of one calendar year, they are designed during the preceding year in anticipation of future codes and standards. Also, we know that some manufacturers update their specifications in advance of ENERGY STAR standards. Thus, we estimate that these standards will impact shipments somewhat before and definitely after it is in place. To adjust for the implementation of ENERGY STAR 3.0 Tier 2, we adjusted market penetration of qualifying products to equal the stated market penetration *goals* of 25% market penetration for ENERGY STAR. These adjustments are reflected in Table 4, year 2011.

Round 1 Comment K: Are the adjustments appropriate in terms of percentages and timing? If not, please provide us with better data and timing by input number.

Summary
of marketEPA has decided to accelerate the specification revision process. The
anticipated effective date for ENERGY STAR Tier 2 levels will be May 1, 2010
instead of November 1, 2010. It is reasonable to expect the market forecast
for ENERGY STAR qualified TVs will be approximately 25% of the market once
the Tier 2 requirements take effect.

Once Tier 2 is locked in by the CEC, many manufacturers may choose to target compliance with this standard before its effective date (note roughly 100 models already meet it). In addition some might try to market themselves as being x % better than the CEC Tier 2, the toughest standard in place anywhere in the world.

Additional Comments Provided on Original Forecast (Comment L)

Original
text and
commentThese first round adjustment percentages were used in conjunction with the
forecasted flat screen TV totals in Table 1 to calculate Table 5 data, which
was then plotted in Figure 3, Flat Panel TV Market Share forecasts.²⁷ Data
inputs for Table five are in the embedded Excel File below.

Round 1 Comment L. Do you have any additional comments, suggestions, or insights for improving our market forecast?

Summary It will be important to focus not only on where BCE is relative to ESTAR but also in relation to the soon to be finalized California Title 20 standards, in particular the tier 2 levels which will be considerably more stringent than today's ESTAR and BCE levels.



²⁷ Note this differs from standard market penetration, as we are not accounting for the entire TV market in this model. Thus, we refer to it as market share.

Appendix D: Original Delphi Forecast, Round 1

High Efficiency Flat Panel TV Delphi Forecast

Dear Market Expert,

Thank you for lending your expertise to help us assess the future market for high efficiency flat panel televisions. This research is being conducted by the California investor-owned utility Pacific Gas & Electric (PG&E) to help document the possible effects of their statewide *Business and Consumer Electronics Program* (henceforth "BCE program").

The goal of our efforts is to create a meaningful forecast for high efficiency televisions through the use of market experts. Each expert will answer a questionnaire in two or more rounds. After each round, Opinion Dynamics Corp. (ODC) will provide an anonymous summary of the experts' answers from the previous round as well as the reasons they provided for their judgments. In each round, experts are encouraged to revise their earlier answers in light of the replies of other experts' participants. It is believed that during this process the range of the answers will decrease and the group will converge towards the "correct" answer. The process is complete after a pre-defined stop criterion (e.g. number of rounds, achievement of consensus, stability of results) and the information from the final round determines the results. For this effort, ODC is the facilitator. This Delphi effort will undergo two rounds of responses.

<u>Purpose of Forecast</u>: The aim of the forecast is to generate data to generate a projection of the future TV market. This projection will serve as a model to determine the market penetration of PG&E's qualifying products and ENERGY STAR's qualifying products that would have naturally occurred in the absence of the program's activities. The hypothesis is that the BCE program will cause market effects that will exceed the forecasted market penetration. This is a very difficult item to assess after the BCE program is in the field. This method of relying on market experts allows us to create a model, based on the best knowledge of today that may be used by future evaluators to help determine sales of high efficiency TVs that occur due to the BCE program's intervention.

Below we provide background information to help forecast market penetration of high efficiency consumer electronics through the Delphi method.

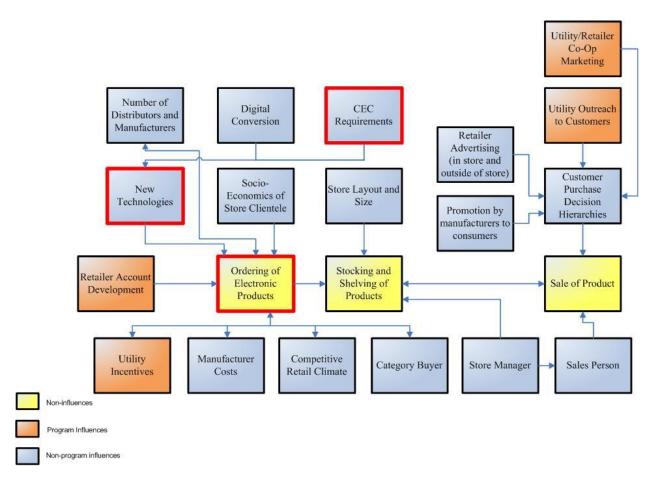
Note that we have put boxes around questions where we need your input, but we also welcome any additional comments outside of these areas. We have put all the questions into a single document, also included in this email.

Please provide us with your written response in the document titled "Delphi Comment Responses.doc" to Anne (adougherty@opiniondynamics.com). If you have any questions about this process, please feel free to call Anne Dougherty at 510-444-5050 x 102.

<u>Data used in Round One Forecast</u>: We created the data used as inputs to this first round forecast by identifying and outlining key influences on the TV market (shown graphically in Figure 1). For the purposes of our forecast, the data inputs account for the following influences on market: (1) product buying and shipments, (2) new technologies, and (3) ENERGY STAR standards.

Comment A. Are there other influences that you believe should be included in this forecast to make it a defendable forecast? Please provide us with the data sources on the influences you recommend for inclusion, if available.

Figure 12. TV Influences Diagram



TV INFLUENCES DIAGRAM

Forecast of Market Penetration of Flat Panel TVs Using Market Shipments

We used forecasted shipments from 2008-2012 to establish market penetration²⁸ of LCD and Plasma TVs. The BCE program pays out incentives for LCD, Plasma, and DLP/Rear Projection TVs.

For this model, we have excluded DLP/Rear Projection TVs as studies indicate that these models comprise .5% of the TV market share.²⁹ Further, due to their market share and increasing popularity, programs that focus on LCD and Plasma TV interventions have the most likelihood to effect change. Henceforth, we refer to our market projections for *Flat Panel* TVs, to indicate that this forecast excludes CRT and DLP/Rear Projection Television.

Comment B. Is it accurate to assume that DLP/Rear Projection TVs will continue to occupy between 0-1% of the total TV market share through 2012? Is it appropriate to exclude these TVs from our market projections? When possible, please provide us with the data inputs and/or sources that support your opinion.

In addition, our forecast is based on *shipments* which serve as a proxy for market penetration in *sales* of Flat Panel TVs.³⁰ Although penetration is generally determined by sales, ENERY STAR program managers state their market penetration goals in terms of units shipped in a calendar year, so use of a proxy for our forecast works well with how ENERGY STAR sets their goals. Thus, all adjustments to the forecasts are based on market penetration defined as shipments of TVs.

Comment C. Do flat panel TV *shipments* serve as an accurate proxy for flat panel TV *sales*? When possible, please provide us with the data inputs and/or sources that support your opinion.

Table 1 shows the projected mass market shipments that serve as the basis of our forecast. For our purposes, mass market refers to the residential TV purchases. The data table below was derived by Energy Solutions for Pacific Gas and Electric in December 2006.³¹

The original data forecast did not have estimates for 2012. Instead, the 2012 estimates in the table below were calculated by applying the percent increase from 2010 to 2011, to the 2011 estimates.

Comment D. Is it appropriate to use the 2010-2011 growth rate of flat panel TVs for 2011-2012? When possible, please provide us with the data inputs and/or sources that support your opinion.

²⁸ Market penetration is the depth of sales of a particular product in a given market. The deeper the penetration, the higher the volume of product sales.

²⁹ Estimated TV Market Share, Pacific Gas and Electric Work Paper PGECOAPP104, Energy Efficient Televisions, 07/17/08.

³⁰ Note the ODC team does not have access to actual sales figures. Once the BCE program is underway, our team may have access to historical sales data for major retailers and will use this data to adjust our figures. ³¹ Alex Chase, Ryan Ramos, and Ted Pope, Consumer Electronics: Market Trends, Energy Consumption, and Program Recommendations, PG&E Application Assessment Report #0513, Energy Solutions, December 2006.

Throughout, we use the data developed for the PG&E territory to obtain market share proportions of ENERGY STAR and BCE program's qualifying models (henceforth BCE-qualifying) to develop estimates for California *statewide* market share proportions, including the investor-owned utilities of Southern California Edison and San Diego Gas and Electric.

Comment E. Can PG&E market share proportions be used to estimate the *statewide* market share of ENERGY STAR and BCE-qualifying models? When possible, please provide us with the data inputs and/or sources that support your opinion.

We do not separate the two TV technologies (LCD and Plasma) in the forecast, because we assume that the differences in energy efficiency by technology are negligible when examined in aggregate. In addition, we assume that any error absorbed when combining these two technologies does not exceed the error inherent in the forecast.

Comment F. Is it appropriate to combine the two technologies (LCD and Plasma) in our forecast? When possible, please provide us with the data inputs and/or sources that support your opinion.

TV Units Shipped to PG&E's Territory to Mass Market (1,000s)						
	2008	2009	2010	2011	2012	
LCD	710	870	1030	1204	1407	
Plasma	220	240	260	307	362	
Total	930	1110	1290	1511	1769	
% Increase from previous year	-	19.4%	16.2%	17.1%	17.1%	

Table 7. Unadjusted Forecast of LCD and Plasma Shipments to PG&E Territory (1,000s)32

Comment G. If you have additional comments on the data inputs and assumptions Table 1, please feel free to provide them. We are planning to keep the data in Table 1 static for our forecast. When possible, please provide us with the data inputs and/or sources that support your opinion.

Forecast of Energy Efficient Flat Panel TVs

Energy Solutions detailed (in their 7/16/08 presentation to the California Energy Commission) the volume of currently available TVs that meet the ENERGY STAR specifications and the BCE program's more stringent ENERGY STAR plus 15% specifications. Using this information, we derived the percentages of flat panel TV shipments that were

³² Bassill, Steve. QDI Strategies, "Strategic Options for Energy-Efficient Electronics in Pacific Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures," Emerging Technologies Program, Application Assessment Report #0702, (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program), April 10, 2008.

BCE-qualifying (14%) and ENERGY STAR qualifying (35%).³³ These numbers were used to develop the market penetration of ENERGY STAR and BCE-qualifying TVs in 2008. At this point, BCE-qualify models are estimated to comprise 40% of the total ENERGY STAR models (i.e., 0.14/0.35).

Comment H. Are the market share proportions for ENERGY STAR and BCE-qualifying models accurate based on your knowledge? When possible, please provide us with the data inputs and/or sources that support your opinion.

We have no data to support changing the relationship between the ENERGY STAR and BCE qualifying. As such, we have kept this relationship in the current forecast of the market penetration of ENERGY STAR and BCE qualifying products through 2012.

Comment I. Do you agree with maintaining the relationship of ENERGY STAR to BCE qualifying from year to year? If not, what are the better percentages to use each year? When possible, please provide us with the data inputs and/or sources that support your opinion.

Adjustments to Forecast due to Emerging Technologies

To adjust for the continued emergence of more energy efficient flat panel TVs, the ODC team developed dummy data to increase market penetration of ENERGY STAR and BCE shipments year over year. To account for this trend, the ODC team increased the number of qualifying flat panel TVs in our forecast by 3% per year beginning in 2009. Since significant changes to flat panel TV technologies are continually underway, this figure is meant to demonstrate increased market penetration of qualifying models. However, we understand that this estimate is inaccurate and ask industry experts to comment and revise this growth rate per your knowledge of the flat panel TV market.

Comment J. Is there a more appropriate growth rate for energy efficient TVs in our forecast? Is there a percent that would improve this estimate? What insights and/or studies support this estimate? When possible, please provide us with the data inputs and/or sources that support your opinion.

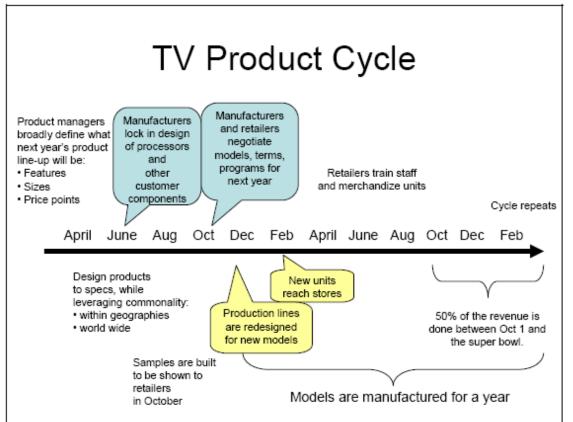
Adjustment to Forecast due to ENERGY STAR Standards

Our forecast adjusts for ENERGY STAR standards taking into account the TV Product Cycle, shown in Figure 2. While TV models debut in stores during February of one calendar year, they are designed during the preceding year in anticipation of future codes and standards. Also, we know that some manufacturers update their specifications in advance of ENERGY STAR standards. Thus, we estimate that these standards will impact shipments somewhat before and definitely after it is in place.



³³ Chase, Alex, Energy Solutions, "Analysis of Standards Options for Televisions," (presented on behalf of Pacific Gas and Electric to the California Energy Commission), July 16, 2008.





Bassill, Steve, QDI Strategies, "Strategic Options for Energy-Efficient Electronics in Pacifica Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures," Emerging Technologies Program, Application Assessment Report #0702, (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program), April 10, 2008.

Table 2 provides a timeline of potential market effects that may impact the ENERGY STAR and PG&E qualifying product forecasts.

Table 8. Timeline of Relevant TV 0	Codes and Standards
------------------------------------	---------------------

Input	Regulation	Effective Date	Description	Adjustment
1	Energy Star 3.0, Tier 1	November 1, 2008	New Energy Star Tier 1 specifications for high- definition TVs (i.e. >480 native vertical resolution) ³⁴	
2	Digital TV Transition (FCC)	June 12, 2009	All full-power broadcast television stations in the United States will stop broadcasting on analog airwaves and begin	We made no adjustment for this transition in our forecast. We assume instead

³⁴ "Codes and Standards Enhancement (CASE) Initiative for PY2008: Title 20 Standards Development." Prepared for Pacific Gas and Electric by Alex Chase, Energy Solutions. April 2, 2008: p.31

Input	Regulation	Effective Date	Description	Adjustment
			broadcasting only in digital. (Source:) ³⁵	that the original market projections of total shipments to the PG&E service territory account for this trend.
3	Energy Star 3.0, Tier 2	November 1, 2010	Estimated to be at 50% or below Title 20 specifications.	We adjusted our forecast of ENERGY STAR penetration in 2011 to 25%.
4	PG&E Title 20 standard (for active mode)	Proposed November 1, 2011	Title 20 is an active mode standard that will keep the power allowance equation consistent for all TVs, regardless of size. ³⁶ TVs, TV combination units, television monitors, and component TV Units shall not exceed the maximum On Mode power consumption (Pmax) found in these equations ³⁷ .	We made no adjustment for this code as it is less stringent (i.e., less energy efficient) than the ENERGY STAR Tier 2 standard, which will already be in place.

To adjust for the implementation of ENERGY STAR 3.0 Tier 2, we adjusted market penetration of qualifying products to equal the stated market penetration *goals* of 25% market penetration for ENERGY STAR. These adjustments are reflected in Table 4, year 2011.

Comment K. Are the adjustments appropriate in terms of percentages and timing? If not, please provide us with better percentages and timing by input number. When possible, please provide us with the data inputs and/or sources that support your opinion.

These first round adjustment percentages were used in conjunction with the forecasted flat screen TV totals in Table 1 to calculate Table 5 data, which was then plotted in Figure 3, Flat

³⁵ www.dtv.gov

 ³⁶ "Codes and Standards Enhancement (CASE) Initiative for PY2008: Title 20 Standards Development."
 Prepared for Pacific Gas and Electric by Alex Chase, Energy Solutions. April 2, 2008: p.7
 ³⁷ Ibid 23-24.

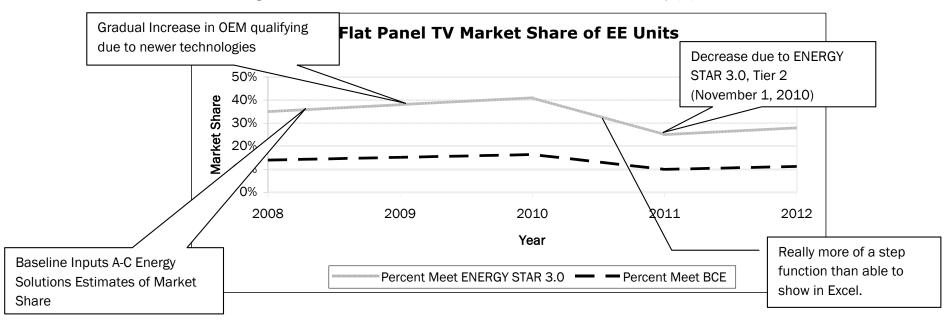
Panel TV Market Share forecasts.³⁸ Data inputs for Table five are in the embedded Excel File below.



Comment L. Do you have any additional comments, suggestions, or insights for improving our market forecast? When possible, please provide us with the data inputs and/or sources that support your opinion.



³⁸ Note this differs from standard market penetration, as we are not accounting for the entire TV market in this model. Thus, we refer to it as market share.





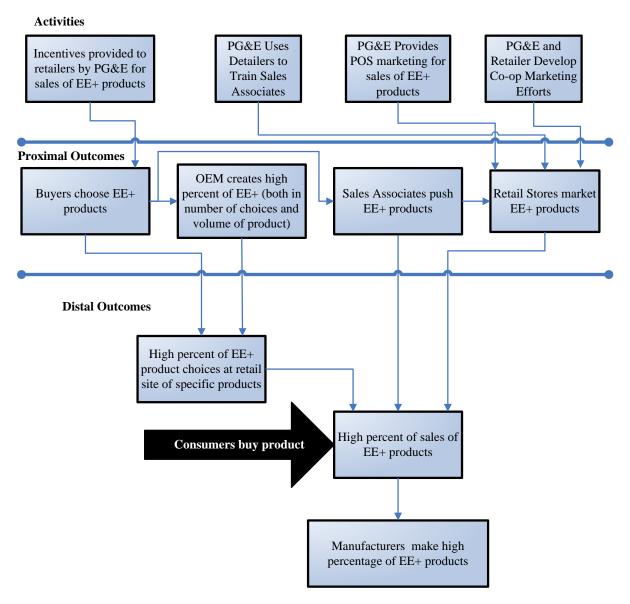
Appendix E: Qualifying ENERGY STAR and PG&E Source Data (Energy Solutions)

All the datasets are different; therefore, careful consideration during analysis is used to accommodate for different variables, including but not limited to: technologies represented (e.g., LCD, Plasma, rear projection, CRT), screen sizes, test procedure used, TV screen settings during test, TV manufacture date, and resolution type. All attempts are made to represent what is available on the market now and in the near future. The following provides a brief description for each dataset:

- ENERGY STAR data set: ENERGY STAR recently finalized an updated TV specification (Version 3.0) that becomes effective November 1, 2008.and includes active mode power levels ENERGY STAR used a TV dataset provided by the Consumer Electronics Association (CEA) to help inform its stakeholder revision process (ENERGY STAR, 2008).
- CEC PIER data set: Ecos Consulting and Imaging Science Foundation (ISF) tested numerous TVs as a part of ongoing research for the CEC's PIER Program.
- MTP data set: This data set was used by the Market Transformation Programme (MTP), which supports UK Government policy on sustainable products. It was used as the basis for a paper developed by Hans-Paul Siderius (SenterNovem) and Robert Harrison (MTP) titled "An Energy Efficiency Index for Televisions" (February 12, 2007). Analysis of Standards Options for Televisions: Revised Proposal PG&E CASE Page 7 Last Modified: July 3, 2008
- EICTA data set: This data set was used as the basis for a paper developed by Hans-Paul Siderius (SenterNovem) and Robert Harrison (MTP), titled "Televisions: the Impact of HD ready and Full HD on On-Mode Power" (March 4, 2008). The EICTA was formed in 1999 as the European Information & Communications Technology Industry Association by the consolidation of the two former European federations of the information and telecommunications industries.
- > CNET data set: CNET test results can be found at:

(http://reviews.cnet.com/4520-6475_7-6400401-3.html?tag=nav). CNET did not use the IEC 62087 test procedure; however, an industry contact familiar with the IEC test method estimates the CNET test procedure would be within 10% of the IEC test procedure for plasma TVs and 3% for LCDs. Thus, if the CNET test result was different, it would likely be higher.

Appendix F: Program Logic Models and Theory



2.2.2 Forecast of Energy Efficient Computers and Monitors

Memorandum

TO: Delphi Forecast Contributors

FROM: Opinion Dynamics Evaluation Team

DATE: September 15, 2009

RE: Market Forecast, Round 1: ENERGY STAR Computers and Monitors

Thank you for lending you expertise in Round 1 of the Delphi Forecast. For Round 2, we have synthesized the responses of all contributing experts and provide them, by question, for your consideration again. Please review the comments provided for each question posed and adjust your previous feedback (as appropriate) taking into consideration the comments of other experts.

As a reminder, the forecasts provided here aims to project the equipment market share of ENERGY STAR compliant shipments and the BCE-qualifying efficiency level *in the absence of the program.* This is focused on *Desktop PCs* (excluding notebooks) and *Monitors* only.

Directions for Round 2: In the section, "Round 2: Question Response Summaries for Comment," we reiterate our questions and provide you with a summary of expert responses.

Please review the responses carefully and comment. If you have additional references, please provide additional studies or documents that may assist in developing this baseline forecast or reconciling differing opinions among experts. Please note that the BCE program has already begun its market interventions³⁹. Where possible, please indicate if you think the program has already had an effect and the type, magnitude, and scope of the effect to assist in adjusting our baseline projections to a create a projection without including the program.

Submit comments to Anne Dougherty, Project Manager at Opinion Dynamics, via email at <u>adougherty@opiniondynamics.com</u> by September 21st 2009.

Round 2: Question Response Summaries for Comment

Here, we have resubmitted the original 11 questions and the feedback from market experts. Please review and consider revised or alternative comments based on the feedback of other market experts.



³⁹ The BCE program began discussions with retail buyers in May 2008 and officially began the program in October 2008.

	e the influences that you believe should be included in this forecast to make it a forecast? Click <u>here</u> to see what we think are influences on this market					
Equipment	Market Expert Answers from Round I					
Desktop	Multiple Factors should be considered, including:					
Computer	1. National and international efficiency standards					
	2. Voluntary programs such as ENERGY STAR					
	3. Impact of ENERGY STAR 5.0 (went into effect July 1)					
	4. The impact of convergence of TV and monitors (and the changes in the TV					
	market and requirement which will have a relational impact on displays)					
	5. Information from manufacturers on products near term enhanced					
	efficiency attributes.					
	Technology trends should capture power management trends					
	7. Equipment computer trend of moving to smaller form factors should					
	account for regulatory environment (both state, federal and international)					
	8. Market penetration of notebook architectures in desktop computers (Intel					
	Atom, Nvidia Ion platform). Such architectures are more energy-efficient					
	than baseline desktop platforms and less costly, trading performance for					
	these factors					
	9. Impact of new Thin Client product category in the Version 5.0 Computer					
	requirements. Thin clients are a small but emerging market segment, with sales focused almost completely on the commercial sector.					
Computer	1. Relevant new display technologies.					
Monitor	 Relative market share of desktops vs. notebooks; increased notebook 					
	market penetration will limit future sales of stand-alone displays.					
Additional C	Comments Based on Market Expert Responses					
Equipment	Your Revised Comments or Additions Additional Sources, if					
	Applicable					
Desktop						
Computer						
Computer						
Monitor						

Q2. Data for shipments are more readily available while sales data is more difficult to obtain. Do shipments serve as an accurate proxy for sales? Note: Market experts agreed that shipment shipments serve as an accurate proxy for sales. We request no additional feedback on this question.

Q3. We do not have an estimated growth rate past 2011, but need to extend the forecast to 2012. Is it appropriate to use the 2010-2011 growth rate for 2011-2012?					
Equipment Mar	Equipment Market Expert Answers from Round I				
Computer	We think BCE program needs to purchase more updated market forecasting as the data we have from the 2009 industry market reports forecast US shipments through 2013. Draft language in federal climate change legislation points to the				

	possibility of faster revisions to ENERGY STAR requirements, pushing the market at a faster pace. The bill is pending, but it should be considered as a possible variable in assessing growth rates in the 2010-11 timeframe.				
Computer Monitor	Comments for monitors aligned with Desktop Computer comments.				
Additional C	comments Based on Market Expert Responses				
Equipment	Your Revised Comments or Additions Additional Sources, if Applicable				
Desktop					
Computer					
Computer Monitor					

Q4. Can PG&E market share proportions be used to estimate the statewide marketSTAR and BCE-qualifying models? Click here to read what types of equipment are BEquipmentMarket Expert Answers from Round IDesktop1. We do not think this is appropriate to assume that PG&E a						
Equipment Market Expert Answers from Round I	CE-qualifying.					
Deskton 1 We do not think this is appropriate to assume that PC&F a						
\square	1. We do not think this is appropriate to assume that PG&E and State					
Computer markets are the same on account of the following: demogr	aphic					
differences between CA regions, possible differences in ind	centive					
programs within the state.						
2. Manufacturers participate at different rates so the same M	IP would mean					
that manufacturer market shares are exactly the same thr						
state.						
<i>Computer</i> 1. In referencing a +15% bar for BCE-qualifying equipment, b	e advised that					
	the requirements for monitors (displays) in ENERGY STAR will become					
more stringent in October.						
Additional Comments Based on Market Expert Responses						
Equipment Your Revised Comments or Additions Additiona						
Applicab	Applicable					
Desktop						
Computer						
Computer						
Monitor						

computers a	an estimates of shipments to PG&E territory. Click <u>here</u> to see these shipments for nd the shipments for monitors that are the basis for our forecasts. Do you have mments on the data input and assumptions shown in these two tables?		
Equipment	Market Expert Answers from Round I		
Equipment Market Expert Answers from Round I Desktop 1. Monitor and PC shipments should not be counted the same for the following reasons: a. Data shows that monitor sales are only half of PC sales now. b. Samsung has the highest market share of LCD displays worldwide and does not supply to the desktop bundled market. I would anticipate this leading to a slight sales lag between the sales for desktops and computer monitors.			

	 c. In developing savings estimates for the program, ENERGY STAR assumes a 4 year lifetime for desktop computers and a 4-5 year lifetime for monitors. This infers that a percentage of new desktops would be operating with existing monitors. 2. Data also shows a dip in 2009 sales due to the economy. 			
Computer Monitor	 Growth rate for computer monitors is negative. Monitor sales should not be the same as PC sales. Samsung has the highest market share of LCD displays worldwide and does not supply to the desktop bundled market. I would anticipate this leading to a slight sales lag between the sales for desktops and computer 			
	 monitors. 3. In developing savings estimates for the program, ENERGY STAR assumes a 4 year lifetime for desktop computers and a 4-5 year lifetime for monitors. This infers that a percentage of new desktops would be operating with existing monitors. 4. The percentage split between residential and commercial seems appropriate. DisplaySearch estimates roughly a 60% share in the commercial market, worldwide. Estimates in this document are slightly 			
Additional C	larger, but in a similar range. omments Based on Market Expert Responses			
Equipment	Your Revised Comments or Additions Additional Sources, if Applicable			
Desktop				
Computer				
Computer Monitor				

Q6. We are assuming different growth rates for residential and commercial markets (than are in addition to what shown in the tables from Q5) due to EPEAT and new technologies. We are assuming a 10% growth rate for residential and a 15% growth rate for commercial year after year beginning in 2007. Is the assumption regarding a larger growth rate for commercial markets versus residential markets a correct one? Are there more appropriate growth rates for either of these sectors? If so, what are they?

······					
Equipment	Market Expert Answers from Round I				
Desktop Computer	 Market Expert Answers from Round I 1. Yes, absolutely. Increased cost of the efficient internal power supplies i ENERGY STAR desktop computers has historically limited cost-effective models from reaching the residential market. The majority of ENERG STAR qualified (and therefore EPEAT qualified) desktops under the previous Version 4.0 were marketed to the commercial sector. a. Requirements for power supplies remain in effect and it is anticipate that volume desktops will remain primarily marketed to the commercial sector. b. LEED has point incentives for a building utilizing ENERGY STA equipment. This is an additional incentive in some sectors that woul push the growth rate higher for commercial. 2. No, our data shows an annual increase of 15% for home shipments an 				

	10% for commercial shipments. The home se increasing.	gment is the one that is
Computer Monitor	 Monitor sales are declining. Greater growth for commercial is supported by h commercial purchasing vis a vis residential. LEED has point incentives for a building utilizing l This is an additional incentive in some sectors th rate higher for commercial. 	ENERGY STAR equipment.
Additional C	Comments Based on Market Expert Responses	
Equipment	Your Revised Comments or Additions	Additional Sources, if Applicable
Desktop Computer		
Computer Monitor		

Q7. While new models come out every quarter, our forecast uses an annual growth rate. Do you
agree with holding the growth rates for residential and commercial markets consistent across
quarters?EquipmentMarket Expert Answers from Round IMarket Experts agreed that the yearly growth rates are sufficient for both categories.

Q8. We adjusted the market estimates of ENERGY STAR and BCE-qualifying equipment based on							
certain information. Click here to see the computer information and here to see the monitor							
information. Are the adjustments appropriate in terms of percentages and timing? If not, what are							
better percer	ntages and timing values?						
Equipment	Market Expert Answers from Round I						
Desktop	1. ENERGY STAR Computer tier 2 is actually V 5.0, there are not two separate						
Computer	specs (which is why as of March 4.0 was in effect).						
	2. While not yet public, ENERGY STAR will soon be releasing a report on						
	ENERGY STAR units shipped in 2008. It should be available in the next two						
	weeks at <u>www.energystar.gov/usd</u> . Information from this site may be						
	helpful in adjusting estimated baseline market percentages.						
Computer	1. ENERGY STAR sets its specifications so that approximately 25% of the						
Monitor	current market meets the specification requirements. The 2011 version						
	won't be very different from trends in the past with the active/standby						
	approach unless you are factoring in digital picture frames and						
	professional displays. If these products aren't included the 2005 MP for						
	LCDs was about 60% (with the new 2005 spec) and EPA is estimating						
	~60% for 2010 when the revised spec hits for an annual cycle. This						
	should be the proxy for 2011 (60%).						
	2. Requirements for large scale displays will go into effect on a staggered						
	timeline.						
	3. While not yet public, ENERGY STAR will soon be releasing a report on						
	ENERGY STAR units shipped in 2008. It should be available in the next two						

	weeks at www.energystar.gov/usd . Information from this site may be helpful in adjusting estimated baseline market percentages.				
Additional C	omments Based on Market Expert Responses				
Equipment	Your Revised Comments or Additions	Additional Sources, if Applicable			
Desktop					
Computer					
Computer Monitor					

09 Are the m	onitor market share proportions for ENERGY STAR and BCE	-qualifying models accurate			
based on your knowledge? Click here to see the proportions we have used in our current forecast.					
Equipment	Market Expert Answers from Round I				
Desktop Computer	NOT APPLICABLE FOR DESKTOP COMPUTERS				
Computer Monitor	 We think your data or assumptions are incorrect. Based on our data, the ENERGY STAR market shares for 2007 were over 90% for LCDs. We do not differentiate the residential vs. commercial ESTAR market shares as they are difficult to obtain. In terms of the BCE/ESTAR split, this is harder to determine. The data we recently collected (early 2008) showed over 50% that were more than 15% more efficient but that was two years into the spec version. If this was calculated from the product development data, the percentages of BCE to ESTAR are fine although the ESTAR percent needs to change. While not yet public, ENERGY STAR will soon be releasing a report on ENERGY STAR units shipped in 2008. It should be available in the next two weeks at www.energystar.gov/usd. Information from this site may be helpful in adjusting estimated baseline market percentages. 				
	omments Based on Market Expert Responses				
Equipment	Your Revised Comments or Additions Additional Sources, if Applicable				
Desktop Computer					
Computer Monitor					

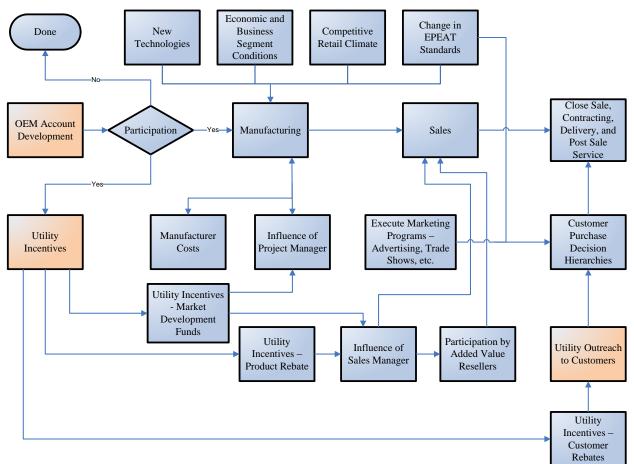
Q10. Do you agree with maintaining the proportions determined in Q9 between ENERGY STAR and BCE from year to year? If not, what are better percentages to use?					
Equipment	Equipment Market Expert Answers from Round I				
Desktop Computer					
Computer	1. BCE to ESTAR ratio will increase if past ESTAR trends are correct.				
Monitor	Trends can be calculated from past qualified product data.				
Additional Comments Based on Market Expert Responses					
Equipment	Your Revised Comments or Additions	Additional Sources, if Applicable			

Desktop Computer	NOT APPLICABLE FOR DESKTOP COMPUTERS
Computer Monitor	

011 Taking i	nto account all the information above, we have created a market share forecast. Click				
here for computers and here for monitors. Do you have any additional comments, suggestions, or					
insights for improving our market forecast?					
Equipment					
Desktop	1. ENERGY STAR Computer tier 2 is actually V 5.0, there are not two separate				
Computer	specs (which is why as of March 4.0 was in effect).				
	2. The data we recently collected (early 2008) showed over 50% that were				
	more than 15% more efficient but that was two years into the spec				
	version. If this was calculated from the product development data, the				
	percentages of BCE to ESTAR are fine although the ESTAR percent needs				
	to change.				
	3. Please note that it is not a gradual transition between spec as indicated				
	on the figures 4 &5. There are dramatic changes (in July 2009 we went				
	from over 90% MP to 25% overnight) and then gradually the market				
	penetration slowly escalates until the next revision.				
	4. I suggest setting the 2007 baseline based on the 2007 USD report from				
	the ENERGY STAR website. This report is public and available.				
	5. If model is intended to show resolution between years, this point should				
	be shifted to mid-2009 instead of the beginning of 2009.				
Computer	1. We expect a similar dramatic change in the market penetration of ENERGY				
Monitor	STAR qualified displays when the revision goes into effect in October				
	2009. Like Computers, it is not a gradual transition between spec as				
	indicated on the figures 4 &5. There are dramatic changes and then				
	gradually the market penetration slowly escalates until the next revision.				
	2. If model is intended to show resolution between years, the point of lowest				
	percentage for Tier 1 should be shifted toward the end of 2009 instead of				
	the beginning.				
Additional Comments Based on Market Expert Responses					
Equipment	Your Revised Comments or Additions Additional Sources, if Applicable				
Desktop					
Computer					
Computer					
Monitor					

Appendix A: Back Up Data for our Assumptions

Figure 15. Computer and Monitors Influences Diagram



Computers/Monitors INFLUENCES DIAGRAM

Click <u>here</u> to go back to Q1.

BCE-Qualifying Equipment:

For desktop computers, BCE-qualifying equipment is any that are ENERGY STAR compliant. For computer monitors, BCE-qualifying equipment must use at least 15% less energy than ENERGY STAR compliant monitors.

Click <u>here</u> to go back to Q4.

Both the computer and monitor shipment data was estimated using this source: Bassill, Steve. QDI Strategies, "Strategic Options for Energy Efficient Electronics in Pacific Gas and Electric Service Territory: Marketing Delivery Systems for Electronic Measures. Emerging Technologies Program, Application Assessment Report #0702." (submitted on behalf of Pacific Gas and Electric Company Emerging Technologies Program). April 10, 2008.

Computer Units Shipped to PG&E's Territory to Mass Market (1,000s)						
	2007	2008	2009	2010	2011	2012
Residential	680	690	700	730	740	750
Commercial	1318	1386	1414	1442	1471	1501
Total	4005	4084	4123	4182	4222	4263

Table 1. Unadjusted Forecasts of Computer Shipments to PG&E Territory (1,000s)

Click here to go back to Q5.

Monitor Units Shipped to PG&Es Territory to Mass Market (1,000s)									
	2006	2007	2008	2009	2010	2011	2012		
Residential	670	680	690	700	730	740	750		
Commercial	1253	1318	1386	1414	1442	1471	1501		
Total	3929	4005	4084	4123	4182	4222	4263		

Click here to go back to Q5.

Market Adjustments

Table 3. Timeline of Relevant Energy Star Desktop Tower Codes and Standards

Input	Regulation Name	Effective Date	Description	Adjustment
1	Energy Star 4.0, Tier 2	Jan. 1, 2009 (however, ES website still lists Tier 1 in effect as of 3/6/09)	Intended to capture top 25% of units in energy efficiency Capability adder for sleep and standby modes: +0.7 W	We set the forecast of ENERGY STAR
2	Energy Star 5.0, Tier 1	July 1, 2009	Qualifying power supply, approximately 115 (\pm 1%) Volts AC, 60 Hz (\pm 1%) Typical Electricity Consumption: \leq 234.0 kWh, \leq 209 kWh, \leq 175.0 kWh, or	penetration in 2009 to 25%

 148.0 kWh depending on computer type, measured based on proportion and use of off, sleep, and idle modes 	
Sleep mode set to activate within 30 minutes of user inactivity	

Click <u>here</u> to go back to Q8.

Table 3. Timeline of Relevant Energy Star Monitors Codes and Standards

Input	Regulation Name	Effective Date	Description	Adjustment
			Maximum power use in On Mode based on diagonal screen size and screen resolution (e.g. 13.1 W for 1024x768 monitors less than 30 inches across)	We set the forecast of
1	Energy Star 5.0, Tier 1	Oct. 30, 2009	Enter Sleep Mode using \leq 4W for computer monitors larger than 30" and using \leq 2W for monitors smaller than 30"	ENERGY STAR penetration in 2009 to 25%
			In Off Mode, uses < 2W for computer monitors over 30" and < 1W for monitors smaller than 30"	
2	Energy Star 5.0, Tier 2	Oct. 30, 2011	Maximum power use in On Mode TBD	We set the forecast of ENERGY STAR
	010, 1101 2		Uses Uses www.sessimation.com Uses Uses 	

Click <u>here</u> to go back to Q8.

BCE to ENERGY STAR Proportions (Q9)

Percent of monitor sales already BCE qualifying in 2007	21%
Percent of sales ENERGY STAR (ES) compliant goal for 2007	25%
Percent of sales ES compliant for residential (See Q6, +10%)	35%
Percent of sales ES compliant for commercial (See Q6, +15%)	40%
Proportion BCE to Residential ES – $21\%/35\% = 0.60$	
Proportion BCE to Commercial ES – 21% / 40% = 0.53	
Click <u>here</u> to return to Q9	

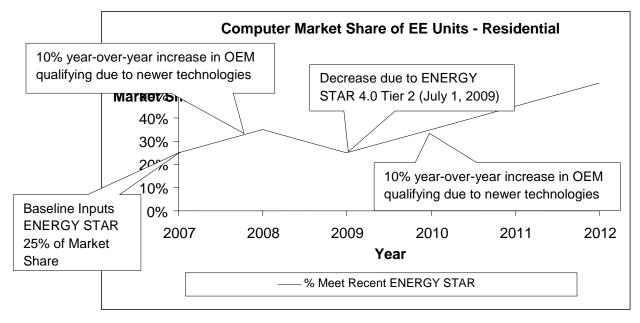
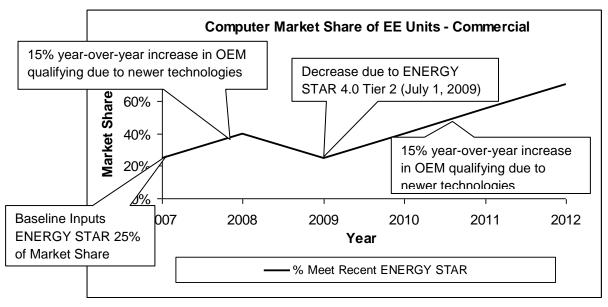


Figure 16. Residential Computer Market Share in PG&E Territory (%)

Click <u>here</u> to go back to Q11.





Click <u>here</u> to go back to Q11.

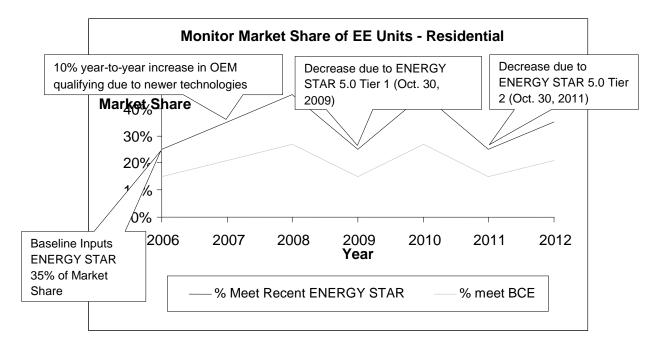
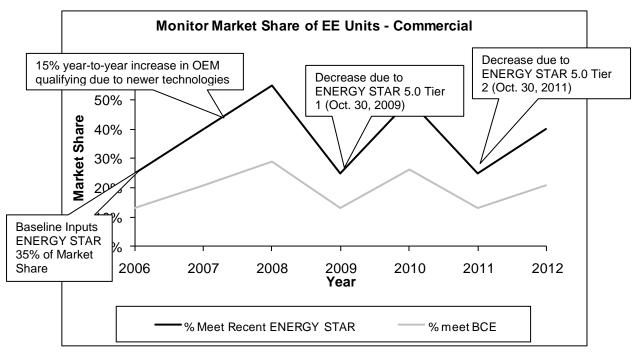


Figure 17. Residential Monitor Market Share in PG&E Territory (%)

Click <u>here</u> to go back to Q11.





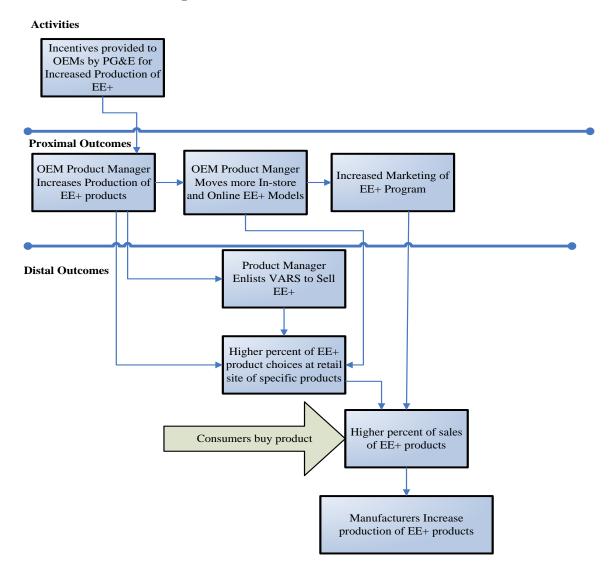
Click <u>here</u> to go back to Q11.

BCE Program

The BCE program is a statewide, upstream program that provides incentives to manufacturers and retailers to meet or exceed ENERGY STAR efficiency standards for Business and Consumer Electronics. The computer and monitor portion of the program focuses on original equipment manufacturers, such as Dell or Lenovo, to participate in the upstream incentive program. The program provides incentives to these companies in order to increase their manufacturing and marketing of high efficiency computers and monitors with the aim of generating greater market share of these particular models.

Click <u>here</u> to return to the Introduction.

Figure 19. BCE Program Logic Model



Computers/Monitors IMPACT LOGIC MODEL

Click <u>here</u> to return to the Introduction.

3. MIDSTREAM AND UPSTREAM INTERVIEWS

3.1 Retailer Depth Interviews

3.1.1 Television Retailer Interview Guide

[RETAILER] Television Energy Efficiency Practices Snapshot: Stocking and Sales

Metric Source Question	2007	7	2008-2	2009
Sells Energy Eff	icient Televisions			
	Sells TVs that are energy efficient?	□ Yes □ No □ DK	Sells TVs that are energy efficient?	? Yes No DK
			Sells TVs that are ENERGY STAR?	🗆 Yes 🛛 No 🔅 DK
	Sells TVs that are ENERGY STAR?	□ Yes □ No □ DK	Sells TVs that are BCE?	□ Yes □ No □ DK
Q7&8; 38&41	Date began selling ENERGY STAR TVs: (00/0000)	TVs: (00/0000) Date began	selling energy efficient TVs: (00/0	000) Date began selling BCE
Sells other Ener	gy Efficient Appliances			
	Sells appliances that are energy ef	ficient? Yes No DK	Sells appliances that are energy e	fficient? Yes No DK
Q14	Sells appliances that are ENERGY	STAR?	Sells appliances that are ENERGY	STAR?
Stocking and Sa	ales Estimates			
	Proportion of Models are EE:	Proportion of Sales are EE: %	Proportion of Models are EE:%	Proportion of Sales are EE:
00 10 % 40	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%
Q9, 10, & 40, 41			Proportion of Models BCE:%	Proportion of Sales BCE:%

 Δ in % Energy Efficiency models/sales: Supporting quote: "xxxxxxx," John Doe, title

Δ in % Models/sales ENERGY STAR: Supporting quote: "xxxxxx," John Doe, title

 Δ in % Models/sales BCE: Supporting quote: "xxxxxxx," John Doe, title

Metric Source Question	2007		200	08-2009
Ordering Practic	ces: Importance of Energy Efficienc	y		
Q4; Q32	Importance of energy efficiency when selecting models:Importance of energy efficiency		Importance of energy efficiency High (rank 1-3) Implication	when selecting models: n (rank 4-6)
in Energy effi	ciency rank: Supporting quote: "xxx	xxxx," John Doe, title		
Discussions wit	h OEMs on Energy Efficiency			
	Discussed energy efficiency?	□ Yes □ No □ DK	Discussed energy efficiency? Approximate date of first Discus	□ Yes □ No
	Approximate date of first Discus		Requested energy efficient mod	
	Deguasted aperal officient mod			
	Requested energy efficient mod	els?	Requested models to meet BCE Approximate date of first Discuss	
	Requested energy efficient mod OEM	Date of First Discussion		
Q16, 17, 18,			Approximate date of first Discus	sions: (00/0000)

[RETAILER] Television Energy Efficiency Practices Snapshot: B2C Marketing				
Metric Source Question	2007	2008-2009		
	·	-		
Consumer Demand for	Energy Efficiency			
	Importance of energy efficiency among other feature	Importance of energy efficiency among other feature		
	 □ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+) △ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, titl 	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)		
		e		
Q21, 52				
Energy Efficiency Promotions				
Q22, 54	Promoted energy efficiency specifically? Yes No DK	Promoted energy efficiency specifically? Yes No DK		
	Importance of energy efficiency among other features for	Importance of energy efficiency among other features for		
002 55	promotion:	promotion:		
Q23, 55	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+) Types of Promotions	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+) Types of Promotions		
	1.	1.		
	2.	2.		
Q22, 54,	3.	3.		
Energy Efficiency Trainii	ngs			
Q24, 58	Trains on energy efficiency specifically? Yes No DK	Trains on energy efficiency specifically? Yes No DK		
Δ in energy efficiency trainings: Supporting quote: "xxxxxxx," John Doe, title				
Δ in energy efficiency p	Δ in energy efficiency promotions: Supporting quote: "xxxxxxx," John Doe, title			

	[RETAILER] Television Energy Efficiency Practices	s Snapshot: Corporate Policies
Metric Source Question	2007	2008-2009
Energy Efficiency Corp	porate Policies	
	Has an energy efficiency corporate policy general? Yes No DK Supporting quote: "xxxxxxx," John Doe, title	Has an energy efficiency corporate policy general? Yes No Supporting quote: "xxxxxxx," John Doe, title
Q25, 26, 59, 60	porate Policy Standards for TVs	
	Has a specific energy efficiency specification or standards for TVs?	Has a specific energy efficiency specification or standards for TVs?
	Specifications or Standards	Specifications or Standards
	1.	1.
	2.	2.
	3.	3.
	4.	4.
	Supporting quote: "xxxxxxx," John Doe, title Δ in energy policies: Supporting quote: "xxxxxxx," John Doe, title	
Q25, 26, 61, 62, 63		

[RETAILER] Change	[RETAILER] Changes in Television Practices Due to Business and Consumer Electronics Program				
Sales and Stocking	Interactions with OEMs	B2C Marketing	Corporate Policies		
Changes in EE salesYesDate: (00/0000)Change in EE modelsYesDate: (00/0000)Ves	Changes in EE ordering Date: (00/0000) Change in EE discussions Date: (00/0000) Yes	Changes in EE promotions or marketing	Changes in EE corporate policies Yes Date: (00/0000)		
Selling EE TVs Supporting quote: "xxxxxx," John Doe, title	Importance of EE in ordering models Supporting quote: "xxxxxxx," John Doe, title	Importance of EE for consumers Supporting quote: "xxxxxx," John Doe, title	EE corporate polities Supporting quote: "xxxxxx," John Doe, title		
Proportion of EE Models Supporting quote: "xxxxxxx," John Doe, title	Importance of EE in Discussions with OEMs Supporting quote: "xxxxxx," John Doe, title	EE promotions Supporting quote: "xxxxxxx," John Doe, title	EE corporate policies specifications and standards Supporting quote: "xxxxxx," John Doe, title		
Proportion of EE Sales Supporting quote: "xxxxxxx," John Doe, title	Requests EE Models from OEMs Supporting quote: "xxxxxx," John Doe, title	EE marketing Supporting quote: "xxxxxx," John Doe, title			
	OEM preference based on EE Supporting quote: "xxxxxx," John Doe, title				

3.1.2 Computer Retailer Interview Guide

	[RETAILER] Computer Energy Efficiency Practices Snapshot: Stocking and Sales			
Metric Source Question	200	7	2008-2	2009
Sells Energy Effici	ient Computers			
			Sells computers that are energy effici	ent? 🗆 Yes 🗆 No 🗆 DK
	Sells computers that are energy effici	ent? 🗆 Yes 🗆 No 🗆 DK	Sells computers that are ENERGY ST	AR? 🗆 Yes 🗆 No 🗆 DK
	Sells computers that are ENERGY STA	NR? I Yes I No I DK	Sells computers that are BCE?	🗆 Yes 🛛 No 🗆 DK
Q7&8; 40	Date began selling ENERGY STAR mo (00/0000)	dels: (00/0000) Date began se	elling EE models: (00/0000) Date b	egan selling BCE models:
Sells other Energy Efficient Appliances				
	Sells appliances that are energy effici	ent? 🗆 Yes 🗆 No 🗆 DK	Sells appliances that are energy effic	ient? 🗆 Yes 🗆 No 🗆 DK
Q14	Sells appliances that are ENERGY STA	AR?	Sells appliances that are ENERGY ST	AR? 🗆 Yes 🗆 No 🗆 DK
Stocking and Sale	es Estimates			
	Proportion of Models are EE:%	Proportion of Sales are EE:%	Proportion of Models are EE:%	Proportion of Sales are EE:%
	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR: <u>%</u>	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%
Q9, 10, & 40, 41			Proportion of Models BCE:%	Proportion of Sales BCE:%
Δ in % Energy Effi	ciency models/sales: Supporting quote	e: "xxxxxxx," John Doe, title		
Δ in % Models/sa	iles ENERGY STAR: Supporting quote: "	xxxxxxx," John Doe, title		
Δ in % Models/sa	les BCE: Supporting quote: "xxxxxxx," J	ohn Doe, title		

Δ in Energy efficiency rank: Supporting quote: "xxxxxx," John Doe, title Discussions with OEMs on Energy Efficiency Discussed energy efficiency? □ Yes No □ Discussed energy efficiency? △ In Energy efficiency? □ Yes No □ Discussed energy efficiency? △ Approximate date of first Discussion: (00/0000)	models: Low (rank 6+)
Q4 □ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+) □ High (rank 1-3) □ Medium (rank 4-6) ∆ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, title Discussions with OEMs on Energy Efficiency Discussed energy efficiency? Yes No DK Discussed energy efficiency? Yes No DK Approximate date of first Discussion: (00/0000) □ Medium (rank 4-6) □	
Discussions with OEMs on Energy Efficiency Discussed energy efficiency? Yes No DK Discussed energy efficiency? O(0000) DK Discussed energy efficiency?	
Discussed energy efficiency? Yes No DK Discussed energy efficiency? Approximate date of first Discussion: (00/0000) Discussed energy efficiency? Approximate date of first Discussion: (00/0000)	
Discussed energy efficiency? Yes No DK Discussed energy efficiency? Approximate date of first Discussion: (00/0000) Discussed energy efficiency?	
Discussed energy efficiency? Yes No DK Discussed energy efficiency? Approximate date of first Discussion: (00/0000) Discussed energy efficiency? Approximate date of first Discussion: (00/0000)	
Approximate date of first Discussion: (00/0000)	
Approximate date of first Discussion: (00/0000) Approximate date of first Discussion: (00/0000)	
Requested energy efficient models? Yes No DK Requested energy efficient models? Requested models to meet BCE specifications?	
Approximate date of first Discussions: (00/0000	
	of First Discussion
(00/0000)	(00/0000)
	(00/0000)
Δ in Discussions with OEMs: Supporting quote: "xxxxxx," John Doe, title	
a in Discussions with Ocivis. Supporting quote. AAAAA, John Doe, the	

[RETAILER] Computer Energy Efficiency Practices Snapshot: B2C Marketing			
Metric Source Question	2007	2008-2009	
Consumer Demand for	Energy Efficiency		
	Importance of energy efficiency among other feature considerations:	Importance of energy efficiency among other feature considerations:	
	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	
Q21. 52	Δ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, tit		
Energy Efficiency Prome	otions		
Q22, 55	Promoted energy efficiency specifically? □ Yes □ No □ DK	Promoted energy efficiency specifically? Yes No DK	
	Importance of energy efficiency among other features for promotion:	Importance of energy efficiency among other features for promotion:	
Q22 iv.	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	
	Types of Promotions	Types of Promotions	
	1.	1.	
	2.	2.	
	3.	3.	
Q22, 54, 55	4.	4.	
	romotions: Supporting quote: "xxxxxx," John Doe, title		

[RETAILER] Computer Energy Efficiency Practices Snapshot: Corporate Policies			
Metric Source Question	2007	2008-2009	
Energy Efficiency Corpo	orate Policies		
	Has an energy efficiency corporate policy generally?	Has an energy efficiency corporate policy generally?	
Q23, 24, 58, 59	Supporting quote: "xxxxxxx," John Doe, title	Supporting quote: "xxxxxxx," John Doe, title	
Energy Efficiency Corporate Policy Standards for computers			
	Has a specific energy efficiency specification or standards for computers?	Has a specific energy efficiency specification or standards for computers?	
	Specifications or Standards	Specifications or Standards	
	1.	1.	
	2.	2.	
	3.	3.	
	4.	4.	
	Supporting quote: "xxxxxx," John Doe, title Δ in energy policies: Supporting quote: "xxxxxx," John Doe, title		
Q25, 26, 60, 61, 62			

[RETAILER] Change	[RETAILER] Changes in Computer Practices Due to Business and Consumer Electronics Program					
Sales and Stocking	Interactions with OEMs	B2C Marketing	Corporate Policies			
Changes in EE salesYesDate: (00/0000)Change in EE modelsYesDate: (00/0000)Ves	Changes in EE ordering Date: (00/0000) Change in EE discussions Date: (00/0000) Yes	Changes in EE promotions or marketing	Changes in EE corporate policies Yes Date: (00/0000)			
Selling EE computers Supporting quote: "xxxxxxx," John Doe, title	Importance of EE in ordering models Supporting quote: "xxxxxxx," John Doe, title	Importance of EE for consumers Supporting quote: "xxxxxx," John Doe, title	EE corporate polities Supporting quote: "xxxxxx," John Doe, title			
Proportion of EE Models Supporting quote: "xxxxxxx," John Doe, title	Importance of EE in Discussions with OEMs Supporting quote: "xxxxxxx," John Doe, title	EE promotions Supporting quote: "xxxxxx," John Doe, title	EE corporate policies specifications and standards Supporting quote: "xxxxxxx," John Doe, title			
Proportion of EE Sales Supporting quote: "xxxxxxx," John Doe, title	Requests EE Models from OEMs Supporting quote: "xxxxxxx," John Doe, title	EE marketing Supporting quote: "xxxxxx," John Doe, title				
	OEM preference based on EE Supporting quote: "xxxxxx," John Doe, title					

3.1.3 Monitor Retailer Interview Guide

[RETAILER] Monitor Energy Efficiency Practices Snapshot: Stocking and Sales					
Metric Source Question	200	7	2008-2	.009	
Sells Energy Effici	ient Monitors				
			Sells monitors that are energy efficier	nt? • Yes • No • DK	
	Sells monitors that are energy efficier	nt? • Yes • No • DK	Sells monitors that are ENERGY STAR	? 🗆 Yes 🗆 No 📄 DK	
	Sells monitors that are ENERGY STAR	? • Yes • No • DK	Sells monitors that are BCE?	□ Yes □ No □ DK	
	Date began selling ENERGY STAR mod	dels: (00/0000) Date began selli	l ng EE models: (00/0000) Date beg	an selling BCE models:	
Q7&8; 40	(00/0000)				
	y Efficient Appliances				
	Sells appliances that are energy effici	ent? 🗆 Yes 🗆 No 🔅 DK	Sells appliances that are energy effici	ent? 🗆 Yes 🔅 No 🔅 DK	
Q14	Sells appliances that are ENERGY STA	AR? 🗆 Yes 🗆 No 🛛 DK	Sells appliances that are ENERGY ST	AR? 🗆 Yes 🗆 No 🗆 DK	
Stocking and Sale					
	Proportion of Models are EE:%	Proportion of Sales are EE:%	Proportion of Models are EE:%	Proportion of Sales are EE:%	
	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%	
Q9, 10, & 40, 41			Proportion of Models BCE:%	Proportion of Sales BCE:%	
Δ in % Energy Effi	ciency models/sales: Supporting quote	e: "xxxxxxx," John Doe, title			
Δ in % Models/sa	les ENERGY STAR: Supporting quote: "	xxxxxxx," John Doe, title			
Δ in % Models/sa	les BCE: Supporting quote: "xxxxxxx," J	ohn Doe, title			

Ordering Practices: Importance of Energy Efficiency Importance of energy efficiency when selecting models:		
Importance of energy efficiency when selecting models:		
Q4 High (rank 1-3) Medium (rank 4-6) Low (rank 6+)	Importance of energy efficiency when selecting models:Importance of energy efficiency ef	
∆ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, title		
Discussions with OEMs on Energy Efficiency	Discussed energy efficiency?	
Discussed energy efficiency? Yes No D	Approximate date of first Discussion: (00/0000)	
Approximate date of first Discussion: (00/0000) Requested energy efficient models?	Requested energy efficient models?	
Requested energy efficient models? Yes No D	Requested models to meet BCE specifications? Approximate date of first Discussions: (00/0000)	
OEM Date of First Discussion	OEM Date of First Discussion	
Q16, 17, 18, (00/0000)	(00/0000)	
33, 34 (00/0000)	(00/0000)	

	[RETAILER] Monitor Energy Efficiency Practices Snapshot: B2C Marketing				
Metric Source Question	2007	2008-2009			
Consumer Demand for	Energy Efficiency				
	Importance of energy efficiency among other feature considerations:	Importance of energy efficiency among other feature considerations:			
	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)			
Q21. 52	∆ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, tit				
Energy Efficiency Prom	otions				
Q22, 55	Promoted energy efficiency specifically?	Promoted energy efficiency specifically? Yes No DK			
	Importance of energy efficiency among other features for promotion:	Importance of energy efficiency among other features for promotion:			
Q22 iv.	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)			
	Types of Promotions	Types of Promotions			
	1.	1.			
	2.	2.			
	3.	3.			
Q22, 54, 55	4.	4.			
	romotions: Supporting quote: "xxxxxx," John Doe, title				

	[RETAILER] Monitor Energy Efficiency Practices Snapshot: Corporate Policies				
Metric Source Question	2007	2008-2009			
		·			
Energy Efficiency Corpo	prate Policies				
	Has an energy efficiency corporate policy generally? Yes No	Has an energy efficiency corporate policy generally? Yes No			
	Supporting quote: "xxxxxxx," John Doe, title	Supporting quote: "xxxxxxx," John Doe, title			
Q23, 24, 58, 59					
Energy Emiciency Corpo	Energy Efficiency Corporate Policy Standards for monitors				
	Has a specific energy efficiency specification or standards for monitors?	Has a specific energy efficiency specification or standards for monitors?			
	Specifications or Standards	Specifications or Standards			
	1.	1.			
	2.	2.			
	3.	3.			
	4.	4.			
	Supporting quote: "xxxxxx," John Doe, title Δ in energy policies: Supporting quote: "xxxxxx," John Doe, title				
Q25, 26, 60, 61, 62					

[RETAILER] Changes in Monitor Practices Due to Business and Consumer Electronics Program					
Sales and Stocking	Interactions with OEMs	B2C Marketing	Corporate Policies		
Changes in EE salesYesDate: (00/0000)Change in EE modelsYesDate: (00/0000)Ves	Changes in EE ordering Date: (00/0000) Change in EE discussions Date: (00/0000) Yes	Changes in EE promotions or marketing	Changes in EE corporate policies Yes Date: (00/0000)		
Selling EE monitors Supporting quote: "xxxxxxx," John Doe, title	Importance of EE in ordering models Supporting quote: "xxxxxxx," John Doe, title	Importance of EE for consumers Supporting quote: "xxxxxx," John Doe, title	EE corporate polities Supporting quote: "xxxxxx," John Doe, title		
Proportion of EE Models Supporting quote: "xxxxxx," John Doe, title	Importance of EE in Discussions with OEMs Supporting quote: "xxxxxxx," John Doe, title	EE promotions Supporting quote: "xxxxxxx," John Doe, title	EE corporate policies specifications and standards Supporting quote: "xxxxxxx," John Doe, title		
Proportion of EE Sales Supporting quote: "xxxxxxx," John Doe, title	Requests EE Models from OEMs Supporting quote: "xxxxxxx," John Doe, title	EE marketing Supporting quote: "xxxxxxx," John Doe, title			
	OEM preference based on EE Supporting quote: "xxxxxxx," John Doe, title				

3.2 Original Equipment Manufacturer (OEM) Depth Interviews

3.2.1 Television OEM Interview Guide

[MANUFACTURER] Television Energy Efficiency Practices Snapshot: DESIGN					
Metric Source Question	200	7	2008-20	009	
Manufactures En	Manufactures Energy Efficient Televisions				
			Manufactures TVs that are energy effic	cient? 🗆 Yes 🗆 No 🗆 DK	
	Manufactures TVs that are energy eff	cient? • Yes • No • DK	Manufactures TVs that are ENERGY ST	TAR? 🗆 Yes 🗆 No 🗆 DK	
	Manufactures TVs that are ENERGY S	TAR? Yes No DK	Manufactures TVs that are BCE?	□Yes □No □DK	
Q7, 8, 41	Date began manufacturing ENERGY S Date began manufacturing BCE TVs: (Date began manufacturing energy effic	cient TVs: (00/0000)	
Manufactures oth	her Energy Efficient Appliances				
	Manufactures appliances that are end	ergy efficient? 🗆 Yes 🗆 No 🗆 DK	Manufactures appliances that are ene	rgy efficient? 🗆 Yes 🗆 No 🗆 DK	
Q14	Manufactures appliances that are ENERGY STAR? 🗆 Yes 🗆 No 🗆 DK 🛛 Manufactures appliances that are ENERGY STAR? 🗆 Yes 🗆 No 🗆 D			ERGY STAR? 🗆 Yes 🗆 No 🗆 DK	
Demand/Distribu	ution Estimates				
	Proportion of Models are EE:%	Proportion of Sales are EE:%	Proportion of Models are EE:%	Proportion of Sales are EE:%	
	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR: <u></u> %	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%	
Q9, 10, 45, 47, 48			Proportion of Models BCE:%	Proportion of Sales BCE:%	
Δ in % Energy Eff	iciency models/sales: Supporting quote	e: "xxxxxxx," John Doe, title			
Δ in % Models/sa	ales ENERGY STAR: Supporting quote: "	xxxxxxx," John Doe, title			

Metric Source Question	2007		2008-2009	
Ordering Practic	es: Importance of Energy Efficience	:y		
Q22, 60	Importance of energy efficiency	when selecting models: m (rank 4-6) 🗆 Low (rank 6+)	Importance of energy efficiency w High (rank 1-3) Medium	-
in Energy effic	iency rank: Supporting quote: "xx	xxxx," John Doe, title	-	
	.			
Discussions with	Retailers on Energy Efficiency		Discussed energy efficiency?	
	Discussed energy efficiency?		Approximate date of first Discussi	
	Approximate date of first Discussion: (00/0000) Requested energy efficient models?		Requested energy efficient model	
			Requested models to meet BCE s	pecifications? Yes No
			Approximate date of first Discussions: (00/0000)	
	Retailer/VARs	Date of First Discussion	Retailer/VARs	Date of First Discussion
Q23, 24, 25,		(00/0000)		(00/0000)
51, 62, 63		(00/0000)		(00/0000)
	with OEMs: Supporting quote: "x	xxxxxx," John Doe, title		

	[MANUFACTURER] Television Energy Efficiency Practices Snapshot: B2C Marketing				
Metric Source Question	2007	2008-2009			
Consumer Demand for	Energy Efficiency				
	Importance of energy efficiency among other feature	Importance of energy efficiency among other feature			
	considerations:	considerations:			
	High (rank 1-3) Medium (rank 4-6) Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)			
	Δ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, title				
Q28, 67					
	tione				
Energy Efficiency Promo	Promoted energy efficiency specifically?	Promoted energy efficiency specifically? Yes No DK			
Q29,09	Importance of energy efficiency among other features for	Importance of energy efficiency among other features for			
	promotion:	promotion:			
Q30, 70	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)			
	Types of Promotions	Types of Promotions			
	1.	1.			
	2.	2.			
Q29, 69	3.	3.			
Staff Training Practices					
Q31, 73	Trains on energy efficiency specifically? Yes No DK	Trains on energy efficiency specifically? Yes No DK			
Δ in energy efficiency tr	aining practices: Supporting quote: "xxxxxxx," John Doe, title				
Δ in energy efficiency p	romotions: Supporting quote: "xxxxxxx," John Doe, title				

Metric Source Question		2007	2008-2009		
Ordering Practice	es: Importance of Energy Efficie	ncy			
.6, 53		cy when selecting components: i um (rank 4-6) 🗆 Low (rank 6+)	Importance of energy efficiency when selecting components: High (rank 1-3) Medium (rank 4-6) Low (rank 6+)		
in Energy effici	ency rank: Supporting quote: ">	xxxxxx," John Doe, title			
Discussions with	Retailers on Energy Efficiency				
			Discussed energy efficiency?		
	Discussed energy efficiency?	□ Yes □ No □ DK	No Approximate date of first Discussion	. (00/0000)	
	Approximate date of first Disc		Requested energy efficient models?		
	Requested energy efficient co	omponents? Yes No	No		
	DK		Requested components to meet BCI	E specifications? 🗆 Yes	
			No		
	OEM	Date of First Discussion	Approximate date of first Discussion OEM	Date of First Discussion	
		(00/0000)	OEW	(00/0000)	
NAT 40 E4		(00/0000)		(00/0000)	
)17, 19, 54, 6		(00/0000)		(00/0000)	

	[RETAILER] Television Energy Efficiency Practices	Snapshot: Corporate Policies
Metric Source Question	2007	2008-2009
Energy Efficiency Corp	porate Policies	
	Has an energy efficiency corporate policy general? Yes No DK	Has an energy efficiency corporate policy general? Yes No DK
	Supporting quote: "xxxxxxx," John Doe, title	Supporting quote: "xxxxxx," John Doe, title
Q32, 74		
Energy Efficiency Corp	porate Policy Standards for TVs	
	Has a specific energy efficiency specification or standards for TVs?	Has a specific energy efficiency specification or standards for TVs?
	Specifications or Standards	Specifications or Standards
	1.	1.
	2.	2.
	3.	3.
	4.	4.
	Supporting quote: "xxxxxxx," John Doe, title	
	Δ in energy policies: Supporting quote: "xxxxxxx," John Doe, title	
Q33, 75, 76		

[MANUFACTUR	[MANUFACTURER] Changes in Television Practices Due to Business and Consumer Electronics Program					
Design	B2B Demand	B2C Demand/ Marketing	Demand on Component Manufacturers	Corporate Policies		
Changes in EE sales Date: (00/0000) Change in EE models Date: (00/0000) Yes	Changes in EE ordering Date: (00/0000) Change in EE discussions Date: (00/0000)	Changes in EE promotions or marketing	Changes in EE component manufacturing Date: (00/0000) Change in EE discussions Date: (00/0000)	Changes in EE corporate policies Yes Date: (00/0000)		
Selling EE TVs Supporting quote: "xxxxxxx," John Doe, title	Importance of EE in ordering models Supporting quote: "xxxxxx," John Doe, title	Importance of EE for consumers Supporting quote: "xxxxxx," John Doe, title	Importance of EE in manufacturing components Supporting quote: "xxxxxx," John Doe, title	EE corporate polities Supporting quote: "xxxxxx," John Doe, title		
Proportion of EE Models Supporting quote: "xxxxxx," John Doe, title	Importance of EE in Discussions with OEMs Supporting quote: "xxxxxx," John Doe, title	EE promotions Supporting quote: "xxxxxx," John Doe, title	Importance of EE in Discussions with component OEMs Supporting quote: "xxxxxx," John Doe, title	EE corporate policies specifications and standards Supporting quote: "xxxxxx," John Doe, title		
Proportion of EE Sales Supporting quote: "xxxxxx," John Doe, title	Requests EE Models from OEMs Supporting quote: "xxxxxxx," John Doe, title	EE marketing Supporting quote: "xxxxxx," John Doe, title				
	OEM preference based on EE Supporting quote: "xxxxxxx," John Doe, title					

3.2.2 Computer OEM Interview Guide

Metric Source Question	200	7	2008-	2009
Manufactures Er	nergy Efficient Computers			
			Manufactures computers that are en	nergy efficient? 🗆 Yes 🗆 No 🗆 DI
	Manufactures computers that are en	ergy efficient? Yes No DK	Manufactures computers that are El	NERGY STAR? 🗆 Yes 🗆 No 🗆 D
	Manufactures computers that are EN	ERGY STAR? Yes No DK	Manufactures computers that are B	CE? Yes No DK
	Date began manufacturing ENERGY S (00/0000)	STAR computers: (00/0000)	Date began manufacturing er	nergy efficient computers:
Q7, 8, 44	Date began manufacturing BCE comp	outers: (00/0000)		
Manufactures ot	her Energy Efficient Appliances			
	Manufactures appliances that are en	ergy efficient? Yes No DK	Manufactures appliances that are e	nergy efficient? 🗆 Yes 🗆 No 🗆 DK
Q14	Manufactures appliances that are EN	ERGY STAR? Yes No DK	Manufactures appliances that are E	NERGY STAR? 🗆 Yes 🗆 No 🗆 DH
Demand/Distrib	ution Estimates		1	1
	Proportion of Models are EE:%	Proportion of Sales are EE:%	Proportion of Models are EE:%	Proportion of Sales are EE:%
	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERG' STAR: <u>%</u>
Q9, 10, 47, 48, 50, 51			Proportion of Models BCE:%	Proportion of Sales BCE:%
Δ in % Energy Eff	ficiency models/sales: Supporting quot	e: "xxxxxxx," John Doe, title	1	
Δ in % Models/s	ales ENERGY STAR: Supporting quote: '	'xxxxxx," John Doe, title		

Metric Source Question		2007	2008-2009		
Ordering Practic	es: Importance of Energy Efficiency	/			
)22, 63	Importance of energy efficiency	Importance of energy efficiency wh	en selecting models: rank 4-6)		
in Energy effic	ciency rank: Supporting quote: "xxx	xxx," John Doe, title			
Discussions wit	h Retailers on Energy Efficiency				
			Discussed energy efficiency?		
	Discussed energy efficiency? Yes No DK Approximate date of first Discussion: (00/0000)		No Approximate date of first Discussio	n $(00/0000)$	
			Requested energy efficient models		
	Requested energy efficient mod	els?	No		
				ecifications? □ Yes	
				nc: (00 (0000)	
	Retailer/VARs	Date of First Discussion	Approximate date of first Discussio Retailer/VARs	Date of First Discussion	
		(00/0000)		(00/0000)	
000 04 05					
)23, 24, 25, 64, 65, 66		(00/0000)		(00/0000)	

	[MANUFACTURER] Computer Energy Efficiency Practices Snapshot: B2C Marketing					
Metric Source Question	2007	2008-2009				
Consumer Demand for	Energy Efficiency					
	Importance of energy efficiency among other feature	Importance of energy efficiency among other feature				
	considerations:	considerations:				
	High (rank 1-3) Medium (rank 4-6) Low (rank 6+)	☐ High (rank 1-3)				
	Δ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, tit	le				
Q28, 70						
Energy Efficiency Prome		Promoted energy efficiency specifically? Yes No DK				
Q29, 72	Promoted energy efficiency specifically? Yes No DK Importance of energy efficiency among other features for	Promoted energy efficiency specifically? Yes No DK Importance of energy efficiency among other features for				
	promotion:	promotion:				
Q30, 73	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)				
	Types of Promotions	Types of Promotions				
	1.	1.				
	2.	2.				
Q29, 72	3.	3.				
Staff Training Practices	·					
Q32, 75	Trains on energy efficiency specifically? Yes No DK	Trains on energy efficiency specifically? Yes No DK				
Δ in energy efficiency tr	aining practices: Supporting quote: "xxxxxxx," John Doe, title					
Δ in energy efficiency p	romotions: Supporting quote: "xxxxxx," John Doe, title					

Metric Source Question	2007		2008-2009	
Ordering Practic	ces: Importance of Energy Efficie	ncy		
L6, 56		cy when selecting components: i um (rank 4-6) 🗆 Low (rank 6+)	Importance of energy efficiency w High (rank 1-3) Medium	vhen selecting components: (rank 4-6) □ Low (rank 6+)
in Energy effic	ciency rank: Supporting quote: ">	xxxxxx," John Doe, title		
iscussions wit	h Retailers on Energy Efficiency			
	Discussed energy efficiency? Yes No DK Approximate date of first Discussion: (00/0000)		Discussed energy efficiency?	
			Approximate date of first Discussion: (00/0000) Requested energy efficient models?	
	Requested energy efficient co	Requested energy efficient components?		
				Requested components to meet BCE specifications? Second Net Approximate date of first Discussions: (00/0000)
	OEM	Date of First Discussion	OEM	Date of First Discussion
17 19 57		(00/0000)		(00/0000)
		(00/0000)		(00/0000)
Q17, 19, 57, 58, 59, Δ in Discussior		. , , ,		. , ,

	[RETAILER] Computer Energy Efficiency Practice	es Snapshot: Corporate Policies
Metric Source Question	2007	2008-2009
Energy Efficiency Corp	porate Policies	
	Has an energy efficiency corporate policy general? Yes No DK	Has an energy efficiency corporate policy general? Yes No DK
	Supporting quote: "xxxxxx," John Doe, title	Supporting quote: "xxxxxx," John Doe, title
Q32, 76		
Energy Efficiency Corp	porate Policy Standards for computers	
	Has a specific energy efficiency specification or standards for computers?	Has a specific energy efficiency specification or standards for computers?
	Specifications or Standards	Specifications or Standards
	1.	1.
	2.	2.
	3.	3.
	4.	4.
	Supporting quote: "xxxxxx," John Doe, title	
	Δ in energy policies: Supporting quote: "xxxxxxx," John Doe, title	
Q33, 78, 79		

[MANUFACTURER] Cha	nges in Computer Practice	es Due to Business an	d Consumer Electronics P	rogram
Design	B2B Demand	B2C Demand/ Marketing	Demand on Component Manufacturers	Corporate Policies
Changes in EE sales Date: (00/0000) Change in EE models Date: (00/0000) Yes	Changes in EE ordering Date: (00/0000) Change in EE discussions Date: (00/0000)	Changes in EE promotions or marketing	Changes in EE component manufacturing Date: (00/0000) Change in EE discussions Date: (00/0000)	Changes in EE corporate policies Yes Date: (00/0000)
Selling EE computers Supporting quote: "xxxxxx," John Doe, title Proportion of EE Models	Importance of EE in ordering models Supporting quote: "xxxxxx," John Doe, title	Importance of EE for consumers Supporting quote: "xxxxxx," John Doe, title	Importance of EE in manufacturing components Supporting quote: "xxxxxx," John Doe, title	EE corporate polities Supporting quote: "xxxxxx," John Doe, title
Supporting quote: "xxxxxxx," John Doe, title	Importance of EE in Discussions with OEMs Supporting quote: "xxxxxx," John Doe, title	EE promotions Supporting quote: "xxxxxx," John Doe, title	Importance of EE in Discussions with component OEMs Supporting quote: "xxxxxxx," John Doe, title	EE corporate policies specifications and standards Supporting quote: "xxxxxx," John Doe, title
Proportion of EE Sales Supporting quote: "xxxxxx," John Doe, title	Requests EE Models from OEMs Supporting quote: "xxxxxxx," John Doe, title	EE marketing Supporting quote: "xxxxxxx," John Doe, title		
	OEM preference based on EE Supporting quote: "xxxxxxx," John Doe, title			

3.2.3 Monitor OEM Interview Guide

	[MANUFACTURER]	Monitor Energy Efficience	y Practices Snapshot: DES	IGN
Metric Source Question	200	7	2008-:	2009
Manufactures En	ergy Efficient Monitors			
			Manufactures monitors that are ene	ergy efficient? 🗆 Yes 🗆 No 🗆 DK
	Manufactures monitors that are ener	gy efficient? 🗆 Yes 🗆 No 🗆 DK	Manufactures monitors that are ENE	ERGY STAR? 🛛 Yes 🗆 No 🗆 DK
	Manufactures monitors that are ENEI	RGY STAR? 🗆 Yes 🗆 No 📄 DK	Manufactures monitors that are BCE	? • Yes • No • DK
Q7, 8, 44	Date began manufacturing ENERGY S Date began manufacturing BCE moni		Date began manufacturing ene	ergy efficient monitors: (00/0000)
-	ner Energy Efficient Appliances			
	Manufactures appliances that are energy efficient? Yes No DK		Manufactures appliances that are energy efficient? Yes No DK	
Q14	Manufactures appliances that are EN	ERGY STAR? 🗆 Yes 🗆 No 🗆 DK	Manufactures appliances that are ENERGY STAR? Yes No DK	
Demand/Distribu	ition Estimates			
	Proportion of Models are EE:%	Proportion of Sales are EE:%	Proportion of Models are EE:%	Proportion of Sales are EE:%
	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%	Proportion of Models are ENERGY STAR:%	Proportion of Sales are ENERGY STAR:%
Q9, 10, 47, 48, 50, 51			Proportion of Models BCE:%	Proportion of Sales BCE:%
	iciency models/sales: Supporting quot	e: "xxxxxxx," John Doe, title	I	
Δ in % Models/sa	ales ENERGY STAR: Supporting quote: '	'xxxxxx," John Doe, title		
Δ in % Models/sa	ales BCE: Supporting quote: "xxxxxxx," .	lohn Doe, title		

Metric Source Question		2007	200	8-2009	
Ordering Practic	es: Importance of Energy Efficienc	y			
Q22, 63	Importance of energy efficiency	when selecting models: n (rank 4-6) □ Low (rank 6+)	Importance of energy efficiency w High (rank 1-3) Medium	-	
Δ in Energy efficient	ciency rank: Supporting quote: "xxx	xxxx," John Doe, title			
Discussions wit	h Datailara an Enargy Efficiency				
DISCUSSIONS WIL	h Retailers on Energy Efficiency	□ Yes □ No □ DK	Discussed energy efficiency?		
	Discussed energy efficiency? Approximate date of first Discus		Approximate date of first Discussion: (00/0000) Requested energy efficient models?		
		Requested energy efficient models? Yes No DK			
			Requested models to meet BCE specifications? Yes Approximate date of first Discussions: (00/0000)		
	Retailer/VARs	Date of First Discussion	Retailer/VARs	Date of First Discussion	
Q23, 24, 25,		(00/0000)		(00/0000)	
64, 65, 66		(00/0000)		(00/0000)	
	is with OEMs: Supporting quote: "x			(00/0000)	

[MANUFACTURER] Monitor Energy Efficiency Practices Snapshot: B2C Marketing					
Metric Source Question	2007	2008-2009			
Consumer Demand for	Energy Efficiency				
	Importance of energy efficiency among other feature	Importance of energy efficiency among other feature			
	considerations:	considerations:			
	High (rank 1-3) Medium (rank 4-6) Low (rank 6+)	High (rank 1-3) Medium (rank 4-6) Low (rank 6+)			
	Δ in Energy efficiency rank: Supporting quote: "xxxxxxx," John Doe, tit	e			
Q28, 70					
Energy Efficiency Promo	ations				
Q29, 72	Promoted energy efficiency specifically? Yes No DK	Promoted energy efficiency specifically? Yes No DK			
4 , · -	Importance of energy efficiency among other features for	Importance of energy efficiency among other features for			
	promotion:	promotion:			
Q30, 73	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)	□ High (rank 1-3) □ Medium (rank 4-6) □ Low (rank 6+)			
	Types of Promotions	Types of Promotions			
	1.	1.			
	2.	2.			
Q29, 72	3.	3.			
Staff Training Practices					
Q32, 75	Trains on energy efficiency specifically? Yes No DK	Trains on energy efficiency specifically? Yes No DK			
Δ in energy efficiency tr	aining practices: Supporting quote: "xxxxxxx," John Doe, title				
Δ in energy efficiency p	romotions: Supporting quote: "xxxxxxx," John Doe, title				

Metric Source Question		2007	2008-2009	
Ordering Practic	es: Importance of Energy Efficien	су		
16, 56	Importance of energy efficienc High (rank 1-3) Mediu	y when selecting components: m (rank 4-6) □ Low (rank 6+)	Importance of energy efficiency High (rank 1-3) Mediu	/ when selecting components: m (rank 4-6) □ Low (rank 6+)
in Energy effic	iency rank: Supporting quote: "xx	xxxxx," John Doe, title		
Discussions with	Retailers on Energy Efficiency			
	Discussed energy efficiency? Yes No DK		Discussed energy efficiency?	
	Approximate date of first Discu		Approximate date of first Discu Requested energy efficient mo	
	Requested energy efficient cor	nponents?	Requested components to mee Approximate date of first Discu	et BCE specifications? 🗆 Yes 🛛 🗆 No
	OEM	Date of First Discussion	OEM	Date of First Discussion
217, 19, 57,		(00/0000)		(00/0000)
58, 59,		(00/0000)		(00/0000)
	with OEMs: Supporting quote: "	xxxxxxx," John Doe, title		

	[RETAILER] Monitor Energy Efficiency Practices Snapshot: Corporate Policies					
Metric Source Question	2007	2008-2009				
	·	•				
Energy Efficiency Corpo	rate Policies					
	Has an energy efficiency corporate policy general?	Has an energy efficiency corporate policy general?				
	Supporting quote: "xxxxxxx," John Doe, title	Supporting quote: "xxxxxxx," John Doe, title				
Q32, 76						
Energy Efficiency Corpo	rate Policy Standards for Monitors					
	Has a specific energy efficiency specification or standards for monitors?	Has a specific energy efficiency specification or standards for monitors?				
	Yes No DK Specifications or Standards	Yes No DK Specifications or Standards				
		-				
	1.	1.				
	2. 3.	2.				
	3. 4.	3.				
	4. Supporting quote: "xxxxxxx," John Doe, title	4.				
	Δ in energy policies: Supporting quote: "xxxxxxx," John Doe, title					
Q33, 78, 79						

[MANUFACTURER] Cha	[MANUFACTURER] Changes in Monitor Practices Due to Business and Consumer Electronics Program						
Design	B2B Demand	B2C Demand/ Marketing	Demand on Component Manufacturers	Corporate Policies			
Changes in EE sales Date: (00/0000) Change in EE models Date: (00/0000) Yes	Changes in EE ordering Date: (00/0000) Change in EE discussions Date: (00/0000)	Changes in EE promotions or marketing	Changes in EE component manufacturing Date: (00/0000) Change in EE discussions Date: (00/0000)	Changes in EE corporate policies Yes Date: (00/0000)			
Selling EE monitors Supporting quote: "xxxxxx," John Doe, title	Importance of EE in ordering models Supporting quote: "xxxxxx," John Doe, title	Importance of EE for consumers Supporting quote: "xxxxxx," John Doe, title	Importance of EE in manufacturing components Supporting quote: "xxxxxxx," John Doe, title	EE corporate polities Supporting quote: "xxxxxx," John Doe, title			
Proportion of EE Models Supporting quote: "xxxxxx," John Doe, title	Importance of EE in Discussions with OEMs Supporting quote: "xxxxxx," John Doe, title	EE promotions Supporting quote: "xxxxxxx," John Doe, title	Importance of EE in Discussions with component OEMs Supporting quote: "xxxxxxx," John Doe, title	EE corporate policies specifications and standards Supporting quote: "xxxxxx," John Doe, title			
Proportion of EE Sales Supporting quote: "xxxxxx," John Doe, title	Requests EE Models from OEMs Supporting quote: "xxxxxx," John Doe, title	EE marketing Supporting quote: "xxxxxx," John Doe, title					
	OEM preference based on EE Supporting quote: "xxxxxxx," John Doe, title						