Process Evaluation of the Sierra Nevada Energy Watch Local Government Partnership Program

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1 Executive Summary

The Sierra Nevada Energy Watch Local Government Partnership (SNEW) is a partnership between Sierra Business Council (SBC) and Pacific Gas and Electric Company (PG&E) that began in 2010. SNEW serves 11 counties in California (Alpine, Amador, Calaveras, El Dorado, Lassen, Mariposa, Nevada, Placer, Plumas, Sierra and Tuolumne) and the cities within those counties, representing 856,326 residents or 2.2 percent of California's population.[1] SNEW also serves special districts in the 11 counties.[2] In addition to administering SNEW, SBC works throughout the region to consider community, the economy and the environment in its efforts to implement projects that create a sustainable region with a vibrant economy. The purpose of SNEW is to leverage the combined strengths of SBC and PG&E to identify and implement energy efficiency projects and activities.

SNEW is designed to improve energy efficiency within the area SNEW serves through a variety of activities, including:

- **Municipal Facility Retrofits** – includes SNEW's efforts to identify, finance and implement energy improvements at local government facilities.[3]
- **California Strategic Plan Support** – supporting efforts to meet the California Long Term Energy Efficiency Strategic Plan (Strategic Plan), including:
  - Helping local jurisdictions create Energy Action Plans (EAPs), which include benchmarking (or re-benchmarking) of facilities.
  - Expanding membership in the Sierra Climate Adaptation and Mitigation Partnership (Sierra CAMP), an organization that connects and educates local jurisdictions about state policies through quarterly meetings and monthly updates.
  - Offering leak loss detection courses for irrigation districts as part of its Water-Energy Nexus program.
- **Core Programs Coordination --** providing targeted outreach and technical assistance to businesses in the area SNEW serves to complement and promote PG&E energy efficiency programs to small and medium businesses. SNEW is

[1] Source: 2015 American Community Survey https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2015/

[2] A special district is a special-purpose governmental unit that exists separately from a general purpose local government. They may cover a specific resource such as water.

[3] In this report, we use the term 'local governments' or 'local government entities' to include the city and county governments, as well as the special districts, that SNEW serves.

unique in that it also acts as a Third Party Direct Install program implementer in order to perform retrofits in both local government and small business facilities.[4]

The 2013-2014 Energy Efficiency Program Implementation Plan (PIP) for PG&E[5] includes additional information on the 2015-2016 planned activities for SNEW. SNEW is classified as a resource program, meaning that the program directly claims energy savings.

The process evaluation formally covers the 2015 and 2016 program years. However, because this is the first evaluation since 2013, and because the objectives of this evaluation differ from the 2013 report, the evaluation also points out important activities from 2010 to 2014 that the evaluation team discussed with SNEW staff and identified in reviewing program documentation. For SNEW, Evergreen conducted three interviews: two interviews with SBC staff members and one interview with a PG&E staff member. These interviews took place in November and December of 2016.[6] In addition to these interviews, representatives from nine local governments[7] (both county and city level governments) responded to a web survey in early February and March of 2017.

Table 1 provides a summary of the process evaluation objectives along with an assessment of each objective.

[4] It is not within the scope of this research to evaluate SNEW's Direct Install activities, but in the course of our research, interviewees identified some relevant information, which is included in Appendix E.

[5] Pacific Gas and Electric Company. *2013-2014 Energy Efficiency Portfolio Local Program Implementation Plan Government Partnerships Master*. 2013.
The PG&E 2013-2014 Program Implementation Plan (PIP) is the most current applicable PIP available for SNEW.

[6] In the remainder of this document, 'SBC staff' refers to staff at SBC who work to support SNEW, and 'PG&E staff' refers to staff at PG&E who work to support SNEW. When other staff from either organization are referenced, their roles will be explicitly described in the text.

[7] One of the local governments that responded to our survey once worked with SNEW but now works under another LGP.

Table 1: Process Evaluation Objectives and Assessment

Objective	Assessment
1. Provide documentation of SNEW's suite of activities at the time of the evaluation.	Based on interviews with two SBC staff members and a PG&E staff member (all of whom work to support SNEW), web surveys with nine local government representatives, and review of program documentation, the evaluation identified and documented SNEW activities. (Sections 4 - 6)
2. Document how SNEW has adopted and implemented LGP-specific recommendations from the previous process evaluation, if any.	The evaluation team reviewed prior program evaluations and confirmed that there were no relevant recommendations for SNEW in prior reports.
3. Identify whether SNEW is currently being implemented according to its program logic model/change theory.	SNEW partners struggled to successfully implement the partnership in 2015-2016 according to the underlying program logic/change theory as described in the Program Implementation Plan. (Sections 4 - 6)
4. Document SNEW's successes and challenges.	The evaluation found that SNEW did not met all of its goals for the 2015-2016 program cycle for energy savings but had undertaken efforts to improve the program, including making progress on Strategic Plan Support activity area items. (Sections 4 - 6)
5. Assess partner satisfaction within SNEW.	The partners in SNEW (PG&E and SBC) were satisfied with each other's participation in SNEW; however, SBC was less satisfied with PG&E on the Lead by Example area of the Strategic Plan Support activity area due to data access challenges. (Sections 4 - 6)
6. Identify whether programs are on track to meet their California Public Utilities Commission (CPUC)-approved program objectives.	SNEW did not meet all of its 2015 or 2016 savings goals. (Sections 4 - 6)
7. Provide recommendations regarding design and/or implementation of SNEW.	The evaluation team identified key findings, successes and challenges, and developed actionable recommendations to improve the design and implementation of SNEW. (Section 8)

1.1 Key Findings

We summarize the key evaluation results below by activity area, and provide additional details on the findings and analysis methods in the main body of the report.

Municipal Building Retrofits Activities

- SNEW was able to complete 53 local government energy efficiency projects.

- SNEW has delivered four Title 24 trainings to educate local building staff, designers and contractors about the existing codes, as local governments are more focused on meeting current code requirements rather than pushing beyond them.

Strategic Plan Support Activities

SNEW participates in two of the four Strategic Plan Support activities: Lead by Example and Community Programs. For Lead by Example, SNEW helps local governments with benchmarking, greenhouse gas inventories and EAPs. Its Community Programs activities include:

- **Expanding Sierra CAMP membership.** PG&E is one of multiple funding sources used by Sierra CAMP, which is a program that connects and educates local governments about state policies through quarterly meetings and monthly updates. The current Sierra CAMP Steering Committee includes staff from Placer and Mariposa Counties, and the organization is seeking participation from additional counties within PG&E's service territory. This forum provides the opportunity for discussion about relevant legislation as well as regional climate and energy policy strategy. Funding from PG&E is focused on supporting public and member education and meetings.
- **Water-Energy Nexus Program.** SNEW has conducted a five-day course to train over 20 employees from the Nevada and El Dorado Irrigation Districts in leak loss detection using hands-on experience with equipment to survey water lines. SBC staff reported that this included testing on four times the length of pipeline compared to what is usually tested in Placer County.[8]

Additionally, since SNEW's inception, SBC successfully engaged with nine governments in Energy Action Planning activities: the cities and towns of Nevada City, Loomis, Plymouth, Jackson and Sutter Creek, as well Amador County, Mariposa County, Sierra County and Alpine County.

Key Challenges

- Interviewees reported that in the region served by SNEW, local governments do not place high priority on energy efficiency.
- SBC staff reported that they have difficulty retaining staff to work on SNEW due to the salary offered and the increased job mobility of staff after they are trained in the industry. Staffing at local governments is also limited due to their small sizes, leaving fewer staff resources to work towards achieving energy efficiency goals.

[8] The El Dorado Irrigation District serves El Dorado County, while the Nevada Irrigation District supplies water to almost 25,000 homes, businesses and farms in Placer and Nevada Counties.

- PG&E and SBC staff reported that working with local governments can be a slow process, given the lower priority of energy efficiency and the difficulty of finding the staff person who is best able to utilize their time and position to work on projects. Local government budgets are typically set on an annual basis, and it may take more than a year to begin the implementation phase of a project.
- SBC staff reported that the amount of time needed to travel between the counties in which they work makes it difficult to reach savings goals, as it takes more time to reach customers for outreach and implementation of retrofit projects.
- One SBC staff member reported having a difficult time accessing data from PG&E on local government facilities due to the amount of back and forth required if a meter number is not a correct match.

1.2 Recommendations

Based on the evaluation results, Evergreen Economics presents the following actionable recommendations for SNEW:

- We recommend that PG&E consider strategies for freezing measure eligibility and incentives (if it is authorized to do so) at the time of an energy assessment measure recommendation for a certain time period (possibly through the following fiscal year) for local government retrofit projects. This may be a good candidate to include in the development of the next Program Implementation Plan after the Public Sector Business Plan is approved.[9] This would avoid confusion about program changes that may invalidate a measure that was once approved.
- We recommend that the PG&E staff member that supports SNEW facilitate a discussion between SBC staff and the PG&E data staff lead, to discuss how to speed up the local government data delivery process such as including instructions on how to resolve issues identified by the PG&E data management staff. This will help the development of EAPs and will make it easier to update EAPs in the future.

This evaluation finds that while SNEW did not always meet its energy savings goals, it did make significant progress in other areas. SNEW met its goal of having an agency participate in a demonstration project related to its Water-Energy Nexus Program. SNEW staff also reported meeting their goal of adding two new EAPs and completing goals for implementation assistance for five of the earlier approved EAPs. SNEW has now helped to complete EAPs for a total of nine cities or counties which all have greenhouse gas inventories updated through 2010. Where SNEW was unable to meet its goals, it found

[9] The Public Sector Business Plan is a roadmap submitted to the CPUC explaining how PG&E plans to meet the objectives in the CPUC's Long Term Energy Efficiency Strategic Plan.

other ways to make progress: SNEW had a goal of having three local governments join Sierra CAMP. While one county is on the Steering Committee, it reports being in continued discussions with other local governments to increase their participation in Sierra CAMP.

2 Introduction

Across California, local government partnership (LGP) programs combine the strengths of both local governments and the California investor-owned utilities (IOUs) to leverage the unique opportunities and resources of local communities to implement energy efficiency projects. The Sierra Nevada Energy Watch Local Government Partnership (SNEW) is a partnership between Sierra Business Council (SBC) and Pacific Gas and Electric Company (PG&E) that began in 2010. SNEW serves 11 counties (Alpine, Amador, Calaveras, El Dorado, Lassen, Mariposa, Nevada, Placer, Plumas, Sierra and Tuolumne) and the cities within those counties, representing 856,326 residents or 2.2 percent of California's population.[10] SNEW also serves special districts in the 11 counties.[11] In addition to administering SNEW, SBC works throughout the region to consider community, economy and the environment in its efforts to implement projects that create a sustainable region with a vibrant economy. The purpose of SNEW is to leverage the combined strengths of SBC and PG&E to identify and implement energy efficiency projects and activities. SNEW is classified as a resource program, meaning that the program directly claims energy savings. [12]

The main program activities in the 2015-2016 program cycle included:

- **Municipal Facility Retrofits** – expanding SNEW's efforts to identify, finance and implement energy improvements at local government facilities.[13]
- **California Strategic Plan Support** – supporting the California Long Term Energy Efficiency Strategic Plan (Strategic Plan), including:
  - Helping local governments to create Energy Action Plans, which include benchmarking (or re-benchmarking) of facilities.
  - Expanding membership in the Sierra Climate Adaptation and Mitigation Partnership (Sierra CAMP), an organization that connects and educates local governments about state policies through quarterly meetings and monthly informational distributions. This forum discusses regional climate and energy policy strategy. Funding from PG&E is focused on supporting public/member education and meetings.

[10] Source: 2015 American Community Survey https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2015/

[11] A special district is a special-purpose governmental unit that exists separately from a general purpose local government. They may cover a specific resource such as water.

[12] California Public Utilities Commission. *Energy Efficiency Policy Manual*. R.09-11-014. 2013. http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/EEPolicyManualV5forPDF.pdf

[13] In this report, we use the term 'local governments' or 'local government entities' to include the city and county governments, as well as the special districts, that SNEW serves.

- Conducting leak loss detection courses for irrigation districts as part of its Water-Energy Nexus program.

- **Core Programs Coordination –** providing targeted outreach and technical assistance to businesses in the area SNEW serves to complement and promote PG&E energy efficiency programs to small and medium businesses. SNEW is unique in that it also acts as a Third Party Direct Install program implementer in order to perform retrofits in both local government and small business facilities.[14]

While SBC's Vice President generally spends five percent of his/her time working on SNEW, SBC's Program Director typically spends closer to 80 percent of their time on the partnership. There are also two SBC staff members based in Truckee that help to manage SNEW, as well as additional location-based assessors who assist with assessments and managing activities. At the time of our interview with SBC, there were three assessors, but in the past, there have been as many as five. The PG&E staff member who works on SNEW currently spends 50 percent of his/her time on SNEW-related activities.[15]

[14] It is not within the scope of this research to evaluate SNEW's Direct Install activities, but in the course of our research, interviewees identified some relevant information which is included in Appendix E.
[15] In the remainder of this document, 'SBC staff' refers to staff at SBC who work to support SNEW, and 'PG&E staff' refers to staff at PG&E who work to support SNEW. When other staff from either organization are referenced, their roles are explicitly described in the text.

3 Research Objectives and Methods

3.1 Research Objectives

The research objectives for this evaluation included the following:

1. Provide documentation of SNEW's suite of activities at the time of the evaluation;
2. Document how SNEW has adopted and implemented recommendations from previous process evaluations, if any;
3. Identify whether SNEW is currently being implemented according to its logic model/change theory;
4. Document SNEW's successes and challenges;
5. Assess partner satisfaction within SNEW;
6. Identify whether SNEW is on track to meet CPUC-approved program objectives; and
7. Provide recommendations regarding design and/or implementation of SNEW, to improve progress towards its filed objectives in the next program year.

Please note that the evaluation activities did not include the following:

- Recommendations on the IOU-specific program models under which SNEW operates;
- Comparative or best practice research between SNEW and other LGPs, since only a limited number of LGPs will be evaluated each year; or
- Feasibility assessment of activities SNEW is not already conducting.

3.2 Research Methods

This theory-based evaluation began with the development of a program logic model for each activity area that linked SNEW activities to immediate outputs and to longer outcomes that were consistent with the underlying program goals. Once the evaluation team identified outputs and outcomes that would provide evidence of SNEW's progress toward its goals, we developed a data collection plan to gather information from a variety of different sources.

A program logic model is a graphical representation of the program that reflects a program's *current* activities, the results (outputs) of those activities, and their relationship to short-term and long-term outcomes. Used as an evaluation tool, the logic model provides a program with feedback on whether the program is being implemented in a way that is consistent with the original underlying program theory. Recommendations for improvement are made when the evaluation findings identify areas where the observed program activities and results are not consistent with the program logic, as these areas of

inconsistency are indicators that the program may not be on track to achieve its long-term goals.

The SNEW logic models describe the activities and immediate outputs of SNEW in each activity area, as well as the expected outcomes of these activities and the pathways through which these will be achieved over time. The evaluation team used the logic models as guides to define specific outputs and outcomes to determine progress along the path from activities to outputs and then short-term and long-term outcomes. The evaluation team reviewed program and project documents, and held discussions with program management staff to develop program theory and construct the program logic models.

Using the logic model for each activity area as a guide, Evergreen completed the following research activities during the first round of process evaluations:

1. Reviews of Program Implementation Plans;
2. Reviews of existing LGP logic models where available (otherwise Evergreen developed new ones);
3. Reviews of program progress reporting (e.g., internal IOU dashboards, budget status reports to the CPUC);
4. Reviews of LGP marketing collateral;
5. Reviews of Quarterly Strategic Plan activity updates to the CPUC;
6. Comprehensive in-depth interviews with IOU program managers;
7. Comprehensive in-depth interviews with local government staff members and LGP implementers for multi-jurisdiction LGPs; and
8. Web-based surveys of local government staff members (where in-depth interviews were not feasible).

We include a logic model for each activity area in which SNEW engages in subsequent sections: Municipal Building Retrofits (Section 4), Strategic Plan Support Activities (Section 5) and Core Programs Coordination (Section 6). Note that the logic models provide a graphical summary of the main SNEW activities and outcomes, and we have omitted some less prominent activities to simplify the diagrams. Please also note that the primary focus of SNEW is municipal building retrofits, as well as Strategic Plan Support activities. SNEW also has a Direct Install program, which is utilized to complete local government retrofits. An assessment of the Direct Install program is not included in this evaluation except where it pertains to local government retrofit projects. Additional findings related to the Direct Install program can be found in Appendix E. These sections provide a detailed description of the SNEW activities shown in the logic models.

After Evergreen identified the data collection methods that would help assess progress towards goals, we worked with PG&E staff to identify the most appropriate personnel to

interview from PG&E and SBC. For SNEW, Evergreen conducted three interviews: two interviews with SBC staff members and one interview with a PG&E staff member. These interviews took place in November and December of 2016. In addition to these interviews, representatives from nine local governments[16] (both county and city level governments) responded to a web survey in early February and March of 2017.

[16] One of the local governments that responded to our survey once worked with SNEW but now works under another LGP.

4 Municipal Building Retrofits

The Municipal Building Retrofits activity area of SNEW is designed to provide assistance to local governments with:

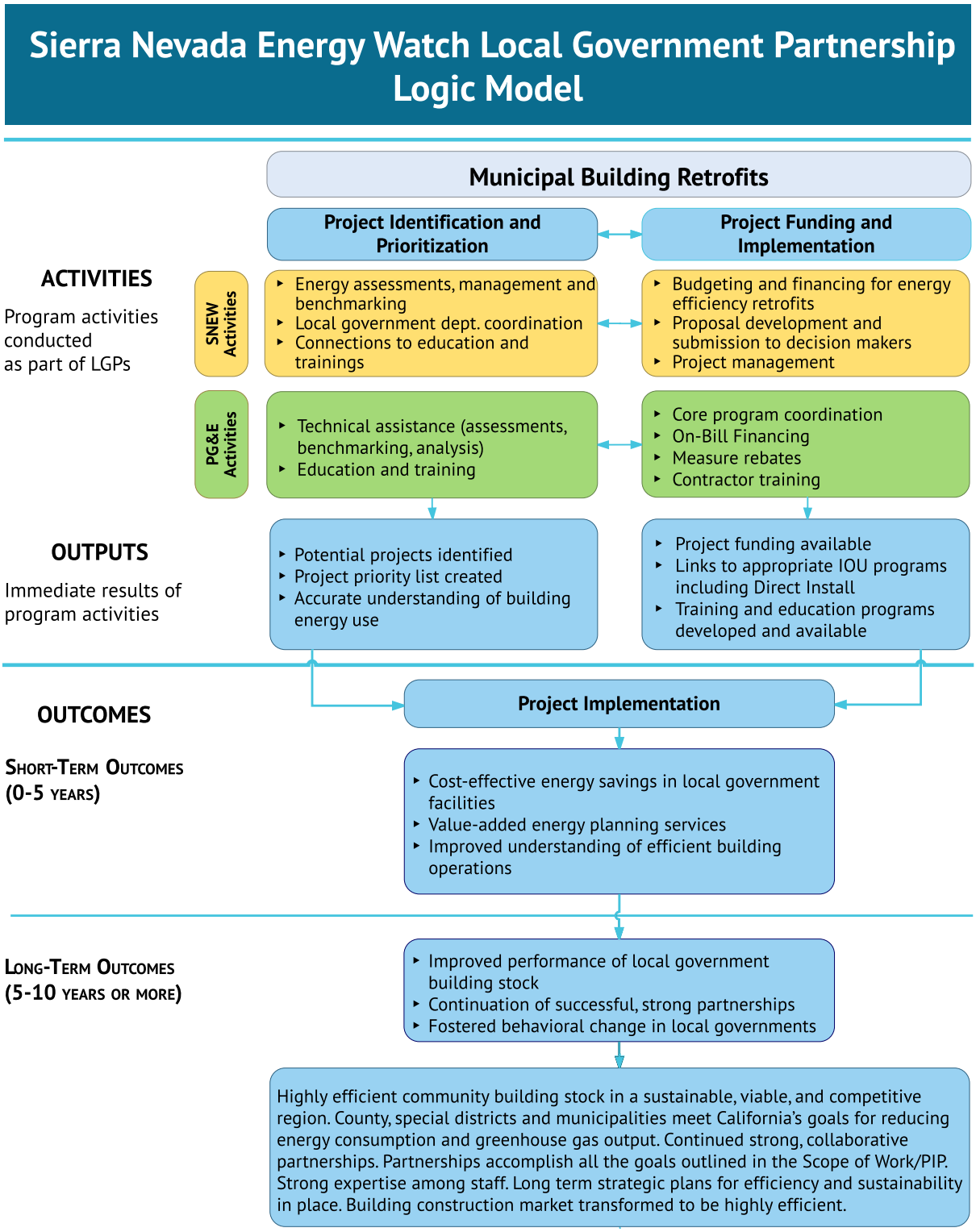
- Retrofitting local government facilities; and
- Providing technical assistance such as energy assessments and training.

As we discussed in Section 3.2, our evaluation of SNEW began with development of a program logic model for the activity area in which SNEW engages, to serve as a guide to define specific outputs and outcomes for evaluating each activity. We show the logic model of SNEW's Municipal Building Retrofits activities as Figure 1 on the following page.

The logic model presents a high level overview of SNEW's Municipal Building Retrofits activities, showing the pathways from activities to long-term outcomes, and should be read from top to bottom. Blue arrows indicate the pathways from activities to immediate outputs and then to short-term and long-term outcomes. The arrows also show relationships between the different activity pathways, which we represent as separate columns in the diagram.

Each program activity area contributes to the overall long-term program goals that we describe in the last row of the logic model. The SNEW Municipal Building Retrofits activities have generally been consistent with those shown in the logic model.

Figure 1: Municipal Building Retrofits Logic Model



To determine the success of the Municipal Building Retrofits activities, the evaluation team interviewed staff members from among the SNEW partners. The evaluation team spoke with two SBC staff members and one PG&E staff member who work on SNEW that had experience with the retrofit activities. Four of the nine survey respondents felt qualified to answer questions about local government retrofits.

In the remainder of this section, we report on each phase of the Municipal Building Retrofits activities, progress towards SNEW goals, and partner satisfaction and reported needs.

4.1 Municipal Building Retrofits Activities

4.1.1 Municipal Building Retrofits

SBC staff work to identify local government building retrofit opportunities county by county, utilizing greenhouse gas inventories and Energy Action Plans (EAPs) to share the energy and cost saving benefit opportunities with local government staff. In the past year, they have done retrofits in a few courthouses, but have not taken on any large projects; their local government building projects are often focused on lighting measures. SNEW has not worked on energy management systems or demand response related projects, and generally avoids custom projects due to the longer amount of time it takes to complete such projects.

SNEW has overarching goals that combine its savings targets for local government buildings with its small business Direct Install savings goals. This research does not focus on SNEW's Direct Install program except where it applies to local government retrofits.[17] In some cases, interviewees discussed Direct Install outside of local government retrofits, and we report on these discussions in Appendix E.

We asked the SNEW interviewees to discuss the process for identifying, budgeting and implementing energy efficiency projects. SNEW's local government Direct Install activities occur under the umbrella of its broader Direct Install efforts.[18]

Municipal Project Identification and Prioritization. SNEW utilizes greenhouse gas inventories to show local governments what they can achieve in their buildings. SNEW works with local governments to include greenhouse gas inventories in EAPs (further discussed in Section 5) if desired by local government staff. A member of the SBC staff

[17] The Direct Install efforts are being evaluated through a different study. Additional information can be found in the CPUC EM&V plan located at http://pda.energydataweb.com/.

[18] This report does not evaluate the Direct Install efforts of this program unless necessary to provide context for the way in which municipal retrofits get completed. SBC acts as a third party implementer for PG&E by running a Direct Install program in its region through SNEW.

described their process of developing EAPs as a "top down, bottom up" approach in which they simultaneously work with elected officials to encourage prioritizing energy efficiency along with planning level or building facilities staff to identify and prioritize specific projects. The majority of SBC staff effort is working with the facilities departments. SBC staff also reported that PG&E staff will sometimes give them leads and that local governments that are aware of their efforts also approach them.

The PG&E staff member and the SBC staff members we spoke with noted that messaging works best with local government staff if it focuses on energy efficiency and cost savings as opposed to focusing on climate change, given the more conservative political climate in the Sierras. Even with the altered messaging, one of the SBC staff members shared that "energy efficiency isn't something that they [local government staff] are all clamoring to do the first of the year."

Once SBC identifies the appropriate staff with whom to work, it will use an assessment to begin a discussion about the appropriate measures to implement. Either SBC staff or a contractor performs an assessment, depending on the level of expertise needed for a given project.

Municipal Project Budgeting: SNEW offers incentives for local government building retrofits. Funding to complete a project may also come from:

- Local governments' general funds;
- Community development block grants; and
- On-Bill Financing.[19]

Each of the above funding sources comes with a different barrier to utilization. General funds can take up to six months to dedicate towards local government building retrofits. The four local government staff participants who took the web survey and were able to comment on facilities retrofits (out of the nine local government staff members we interviewed) all said that the funds for energy efficiency projects would come out of the general fund. Community development block grants were utilized in 2011 to 2014 but have not been utilized as much in 2015 and 2016, and On-Bill Financing is believed by one of the SBC staff members to be "too much of a headache" for the local governments.[20]

Municipal Project Implementation: A SBC staff member will begin a local government retrofit project by meeting with a maintenance manager to discuss possible measures that

[19] The IOUs' On-Bill Financing program offers 0% financing for qualifying energy-efficient improvements that are paid through a non-residential customer's bill.
[20] This staff member did not provide further details on the basis for this opinion.

could be retrofitted. The PG&E staff member we interviewed reported that it works best to target the staff person most familiar with the energy bill, and this can vary greatly given that SNEW works with a number of local governments. Local governments may vary in how maintenance is handled, with either a central maintenance department or decentralized maintenance management; in some cases, an external contractor is used to handle building maintenance when necessary.

The four local government staff respondents who took the web survey and were able to comment on facilities retrofits reported that their roles included in local government building retrofits include: reviewing plans, identifying retrofit opportunities, managing projects and supporting building inspectors. None of these four local governments had energy efficiency projects implemented through SNEW during the 2015-2016 program cycle.[21] Three of the four local government staff members reported that there is a centralized maintenance and upgrades program, and one reported that different departments are responsible for maintenance and upgrades in their own buildings.

4.1.2 Demand Response and Emerging Technologies

SNEW staff reported that no work was done in the areas of demand response or emerging technologies with their local government projects.

4.1.3 Energy Efficiency Education and Training

SNEW worked to bring four Title 24 trainings to the region; connections to education and training are included in the activities conducted by SNEW in Figure 1. This has been valuable to the region, as Title 24 trainings are generally held in more populated areas such as San Francisco, Sacramento or Stockton, which are often distant from SNEW member jurisdictions. Regional Title 24 training is also important, as regional trainings may focus on measures specific to the climate in the area served by SNEW. One of the SBC interviewees reported that close to 25 percent of the jurisdictions they work with do not know about or have local ordinances for meeting Title 24 code, further exemplifying the need for additional trainings in this region. Two of the nine local government staff participants who took the web survey confirmed that Title 24 code trainings/workshops are happening in the region.

SBC is currently focused on working in the six counties in which a total of nine EAPs have been completed (the cities of Loomis, Nevada City, Jackson, Plymouth and Sutter Creek, as well as Amador, Mariposa, Alpine and Sierra Counties). SBC staff also reported that they would like to eventually enable local government staff to work with Energy Code Ace[22] to

[21] Data provided by SBC.
[22] Energy Code Ace is a program developed and provided by the California Statewide Codes and Standards Program that offers free energy code training, tools and resources.

schedule their own trainings so that they will no longer have to rely on SBC to do this facilitation.

4.2 Progress Towards Goals

In 2015 and 2016, SNEW reported completing a total of 53 local government projects. Table 2 shows the various types of facilities where local government retrofit projects were completed during that time. In 2015 and 2016 respectively, the most common facility type for completed projects was schools and buildings managed by city governments. The majority of the city projects occurred in Grass Valley at locations including parks, water treatment facilities and City Hall. Targets and savings from 2015 and 2016 are discussed in Appendix E, as they apply only to Direct Install efforts. The savings reported in Appendix E reflect both local government and small business project savings, whereas Table 2 includes only projects performed in local government facilities.

Table 2: Completed Local Government Projects Facility Type in 2015 and 2016

Facility Type	2015	2016	Total
City	1	17	18
Community Service District	1	2	3
County	4	7	11
Recreation District	3	0	3
School	11	3	14
Water District	4	0	4
Total	**24**	**29**	**53**

4.3 Key Successes

While SNEW only met some of its energy savings goals in 2015 and 2016, there have been a few notable successes including:

- Offering the first Title 24 workshops in the region;
- Identifying the correct staff to work with in Grass Valley (resulting in 15 projects);
- Leveraging messaging about energy efficiency and monetary savings from projects to encourage local governments to consider state-funded offerings from programs stemming from the Cap-and-Trade Program, which is administered by the California Air Resources Board;
- Beginning to offer On-Bill Financing; and

- Conducting projects in what SBC staff considers to be a historically underserved region.

These successes have led SNEW to continue to offer On-Bill Financing and to continue to use messaging that it has found to be useful for local governments in the region to encourage them to complete energy efficiency projects.

4.4 Challenges

Local Government Priorities

Four staff members from local governments who participated in the web survey were able to report on their local government retrofit efforts. We asked each of these four respondents to rate, on a 0-10 point scale, the importance of energy efficiency to their local government when planning local government building retrofits. All except one of the respondents gave a mid-range response (4, 5 or 6). One respondent noted that upfront cost is a barrier, and that funds are prioritized for measures that need replacement over measures that could strictly be changed to lower operating costs; this respondent added that energy efficiency is "not perceived as a spending priority" by their County's Board of Supervisors, Department Managers and employees. Another respondent noted that they tend to replace entire facilities rather than retrofit older buildings, and added that the "most efficient projects might not be the most politically favorable."

Staffing Challenges

SBC has had difficulty retaining staff to work on SNEW due to the rural nature of the area and the inability to give staff raises during the three-year program cycle. One of the SBC staff members reported that they spend resources on training staff to work for SNEW, but once these staff members have energy efficiency expertise, they often leave for other jobs where they can use the energy efficiency expertise they gained.

Staffing challenges also exist at the local government level. Limited staffing exists within building inspections departments (with some local governments having only one or a part time staff member), making it difficult to attend trainings. One of the SBC staff members suggested that it is helpful for trainings to offer a continuing education credit to motivate participation. While this is not a requirement of the local governments, this staff person believes it helps motivate individuals to participate.

Geographic Challenges

SBC staff reported that it is challenging to meet savings goals when so much time is needed to travel between the 11 counties in which they work. SNEW is part of a Hard to Reach Rural Working Group along with other LGPs which meets quarterly to discuss best practices for working within regions of California that are less densely populated. One of

the local government staff members who participated in the web survey reported that the geography (specifically "isolated, high elevation/snow load environments") leads to a short construction season and higher construction costs.

Local Government Timeline

PG&E and SBC staff both reported that the process of working with local governments can be slow, given the difficulty of finding the appropriate staff and working within their priorities to encourage energy efficiency projects. Local government budgets may be set on an annual basis, and it may take more than a year to begin the retrofit portion of a project. One of the interviewees suggested that it may help to make assessments valid within a certain time period. This would help to allow work to occur once approved, but would also avoid any confusion about program changes that may invalidate a measure that was once approved.

4.5 Satisfaction with Partner Efforts

Satisfaction with partner efforts was high from the perspectives of both PG&E and SBC. SBC staff members gave PG&E a score of 7 on a 0-10 point scale. They gave this score because they see PG&E staff as being responsive in helping with presentations and passing along necessary data when it is requested on behalf of local governments. The PG&E staff member that was interviewed gave SBC staff a score of 9, suggesting they are very satisfied with the work that SBC staff are doing on behalf of SNEW.

Only one local government staff member who participated in our web survey felt comfortable giving satisfaction ratings for SNEW on the same 0-10 point scale, rating their satisfaction with SNEW as a 6 because SNEW was able to help them organize utility data, which is otherwise difficult to reconcile.

4.6 Reported Assistance Needed and Implementation Recommendations

We asked SBC staff members to identify any areas where they need assistance from PG&E, in addition to their thoughts on suggestions for future implementation. SBC staff members did not offer any thoughts.

5 Strategic Plan Support Activities

The Strategic Plan Support area of the LGP program includes activities that support and advance the vision set forth in the California Long Term Energy Efficiency Strategic Plan. These activities include:

- **Reach Code Support** – efforts to implement and promote local building codes stronger than Title 24 including reach codes and green building codes.
- **Code Compliance** – efforts to improve adherence to codes and standards including government staff training and certification programs for inspectors and contractors.
- **Lead by Example** – efforts to improve the energy efficiency of municipal buildings beyond short-term retrofits.
- **Community Programs** – local efforts and programs to increase energy efficiency and address climate change.

Table 3 below shows the support areas where SNEW is active in each Strategic Plan Support area, using the menu categories from the Strategic Plan.

Table 3: Strategic Plan Support Activities

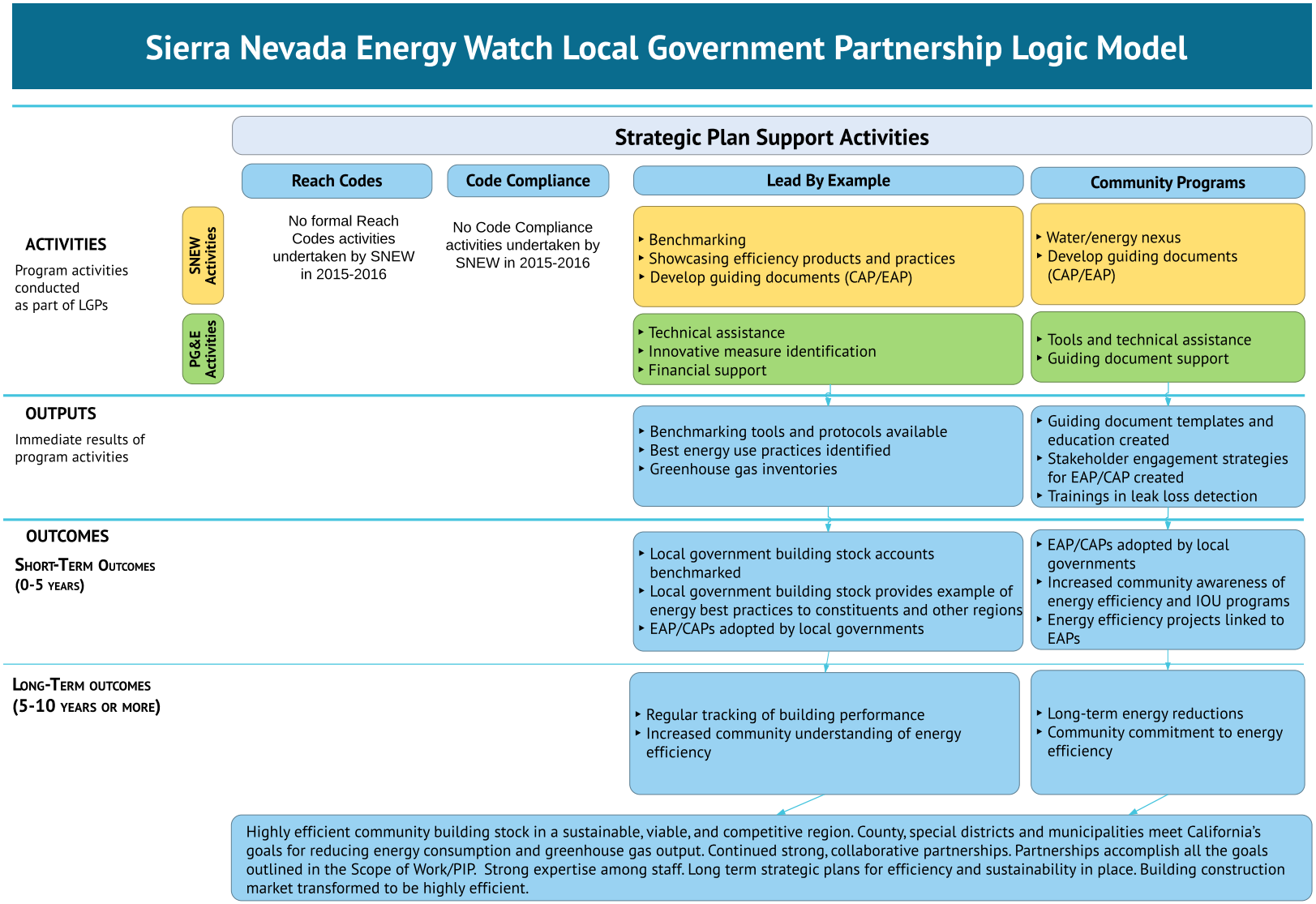
Goal	Menu Option - Abbreviated Title	Active
1 - Reach Code Support	1.1.1. Reach Codes	
	1.1.2. Green Building Code	
	1.1.3. Point of Sale Program	
	1.1.4. IDSM Code Updates	
	1.1.5. Energy Efficiency Codes & Programs	
	1.1.6. Educational Programs	
2 - Code Compliance	2.1.1. Code Compliance Workshop Attendance	
	2.1.2. Code Compliance and Enforcement	
3 - Lead by Example	3.1.1. Local Gov't Benchmarking Policies	I
	3.1.2. Local Gov't 'Utility Manager' Program	
	3.2.1. Local Gov't EAP/CAP	I
	3.2.2. Local Gov't Building Standard	
	3.2.3. Local Gov't Revolving Energy Efficiency Fund	
	3.2.4. Local Gov't Commissioning/Retro-Commissioning Policy	
4 - Community Programs	4.1.1. Community-Wide EAP/CAP Template	
	4.1.2. Customized EAP/CAP	
	4.1.3. Community-Wide Planning for EE	I
	4.1.4. Community-Wide EE Savings Analysis	I

As we discussed in Section 3.2, our evaluation of SNEW began with development of a program logic model for each activity area in which SNEW engages, to serve as a guide to

define specific outputs and outcomes to evaluate progress along the path from activities to outputs and then long-term outcomes. We show the logic model of SNEW's Strategic Plan Support activities in Figure 2 on the following page.

The SNEW Strategic Plan Support activities have generally been consistent with those shown in the logic model, although the most recent greenhouse gas inventory update occurred with data from 2010.

Figure 2: Strategic Plan Support Activities Logic Model



The evaluation team spoke with two SBC staff members and one PG&E staff member involved with Strategic Plan Support activities in addition to six local government staff who responded to the web survey. Most findings in this section came from one SBC staff member who was the most familiar with Strategic Plan Support activities. PG&E staff did not report on a few of the Strategic Plan Support activities, suggesting that they are more focused on working with SBC on their local government retrofit efforts.

5.1 Reach Code Support

Reach Code Support activities are designed to develop and promote local codes that exceed Title 24 requirements. Examples of Reach Code Support activities include working with local and state agencies to develop reach codes, and training local government staff regarding adoption and implementation of reach codes.

While this is not an active Strategic Plan Support activity for SNEW (Figure 2), the SBC staff member most familiar with Strategic Plan Support activities reported discussing the option to go beyond code with local governments. The same interviewee reported that many local governments are having difficulty with meeting current code requirements and thus focus on current code compliance instead, as discussed in Section 4.1. None of the local government staff members who participated in the web survey reported discussing activities beyond code.

5.2 Lead by Example

Lead by Example includes efforts to improve the energy efficiency of local government buildings beyond short-term retrofits, including benchmarking or other energy tracking, sub metering, an energy chapter in a broader energy or Climate Action Plan (CAP), or new building requirements like LEED or ENERGY STAR. Lead by Example is the area in which SNEW is most involved, of all the Strategic Plan Support options. SNEW performs benchmarking, creates baseline greenhouse gas inventories, and in some cases will integrate the greenhouse gas inventories into EAPs. Often, benchmarking and greenhouse gas inventories are done simultaneously. SBC staff see these activities as being important for encouraging local governments to participate in retrofits, in addition to leveraging other statewide efforts such as expediting solar permitting through AB 2188.[23]

5.2.1 Lead By Example Activities

SNEW is currently engaged in or has recently completed two Strategic Plan Support – Lead by Example menu item activities.

[23] The California state law passed in 2014 is also called the "Expedited Solar Permitting Act."

1. **Benchmarking for Local Governments.** SNEW has conducted benchmarking for multiple facilities in addition to re-inventories. SBC staff conduct benchmarking, although they enlist the aid of contractors in the region when additional skills are required. SBC considers benchmarking and greenhouse gas inventories as components of the same project, so often does these at the same time. Five of the nine local government staff members who responded to the web survey reported participating in some form of benchmarking, baseline calculations or greenhouse gas inventories or re-inventories.
2. **Energy Action Plans for Local Governments.** While the political will to complete CAPs is low, SNEW assists with EAPs, which integrate the benchmarking described above along with greenhouse gas inventories (using ENERGY STAR Portfolio Manager). The following local governments have completed EAPs: the cities of Loomis, Nevada City, Jackson, Plymouth and Sutter Creek, as well as Amador, Mariposa, Alpine and Sierra Counties. The EAPs document how facilities compare to each other and to national averages in terms of energy usage, and share options for energy projects or local renewable work. Six of the nine local government staff members who participated in the web survey reported working on an EAP.[24]

After SBC conducts initial benchmarking and greenhouse gas inventories, it may or may not leverage the results to create EAPs. After the inventories and benchmarking are completed, SBC will meet with local government staff to describe the process and data needed for the EAP and will hold a public workshop to get input from community stakeholders.

Additionally, SBC staff will review a local government's General Plan policies to understand if there are any existing policies that the EAP could help to support. This results in an EAP that presents strategies, actions and potential energy savings that are possible over a five to 10 year horizon.

5.2.2 Progress Towards Goals

SBC reports that it has assisted with the implementation of nine EAPs in the following local governments: the cities of Nevada City, Loomis, Plymouth, Jackson and Sutter Creek as well as Amador, Mariposa, Sierra and Alpine Counties, fulfilling SNEW's goal to add two new EAPs to the seven that were already in existence. SNEW has also helped to complete EAPs at a total of nine cities or counties which all have greenhouse gas inventories updated through 2010.

[24] One participant reported working on a CAP, which SBC reported was unpopular. This discrepancy in reporting may be due to the change in LGP status of the particular county in the LGP that reported doing a CAP. They are no longer operating under SNEW.

5.2.3 Key Successes

SBC sees the number of local governments it has been able to work with as its key success in the Lead by Example area. An SBC staff member also highlighted their efforts within the EAPs to comply with AB 2188 and streamline the Property Assessed Clean Energy (PACE) authorization process, which allows property owners to finance solar measures by tying them to their property tax bills.

5.2.4 Challenges

Both PG&E and SBC staff and three of the nine local government staff members who participated in the web survey agreed that the attitudes towards climate change in the region are a barrier to making progress on benchmarking buildings and completing or updating EAPs. An SBC staff member noted that there is also a level of skepticism regarding any state mandates for local governments. SBC staff address these issues by focusing on messaging about energy savings, cost reduction and pollution reduction.

An SBC staff member brought up the challenge of getting building usage data or building information from the local governments and from PG&E. This problem is magnified by the typically small sizes of the local governments, which results in facilities that are shared or staff that move to different facilities. As a result, SBC has a difficult time accessing data on energy usage for local government facilities due to challenges finding the best person to share information with them (such as square footage); SBC may have to speak with multiple local government staff members to receive those data. The same SBC staff member reported having a difficult time accessing data from PG&E on local government facilities due to the amount of back and forth required if SBC provides a meter number that is not a correct match with what PG&E has on record. Resolving this mismatch results in delays for SBC in receiving energy usage data for local government buildings. This staff person encouraged any activity that would help to speed up this process and suggested that notifications about change in data status include instructions as to how to resolve the specific issue.

5.2.5 Satisfaction with Partner Efforts

SBC gave PG&E a rating of 5 on a 0-10 point scale, because although PG&E provides the data and is responsive to SBC's requests, the process requires a good deal of follow-up communication to resolve data discrepancy issues.

Only three local government staff members who participated in our web survey felt comfortable giving satisfaction ratings regarding PG&E's work in this area on the same 0-10 point scale. Ratings were high (7, 9 and 9) across all three local government staff members who responded to the question. Two of these respondents explained that they value the funding provided by PG&E for these efforts, with one noting that "we would not have had this opportunity without PG&E's funding."

5.2.6 Reported Assistance Needed and Implementation Recommendations

An SBC staff member reported that a more streamlined data process would be the most important assistance that PG&E could offer them going forward. The other SBC interviewee did not report any needed assistance or have any recommendations for implementation.

5.3 Community Programs

5.3.1 Community Programs Activities

SNEW focuses on two Strategic Plan Support - Community Programs menu item activities:

1. **Expanding Sierra Climate Adaptation and Mitigation Partnership (CAMP) membership.** PG&E is one of multiple sources Sierra CAMP uses for funding. Sierra CAMP is a program that connects and educates local jurisdictions about state policies through quarterly meetings and monthly information distributions. This forum discusses state regulations related to climate as well as regional climate and energy policy strategy. Funding from PG&E is focused on supporting public/member education and meetings.
2. **Water-Energy Nexus Program.** SNEW has conducted a five-day course to train over 20 employees from the Nevada and El Dorado Irrigation Districts in leak loss detection using hands-on experience with equipment to survey water lines. SBC staff reported that this included testing on four times the length of pipeline compared to what is usually tested in Placer County.[25]

5.3.2 Progress Towards Goals

SNEW reached its goal of completing two leak loss detection training courses as part of its Water-Energy Nexus Program.

5.3.3 Key Successes

SBC sees the amount of pipeline testing that occurred through the Water-Energy Nexus Program as a major success.

5.3.4 Challenges

Neither SBC nor PG&E staff noted any major challenges with the Strategic Plan.

[25] The El Dorado Irrigation District serves El Dorado County, while the Nevada Irrigation District supplies water to almost 25,000 homes, businesses and farms in Placer and Nevada Counties.

5.3.5 Satisfaction with Partner Efforts

Interviewees did not share any information related to their satisfaction with their partners on these activities.

5.3.6 Reported Assistance Needed and Implementation Recommendations

Neither of the interviewees shared any needed assistance or had recommendations for implementation of these Strategic Plan Support – Community Programs activities.

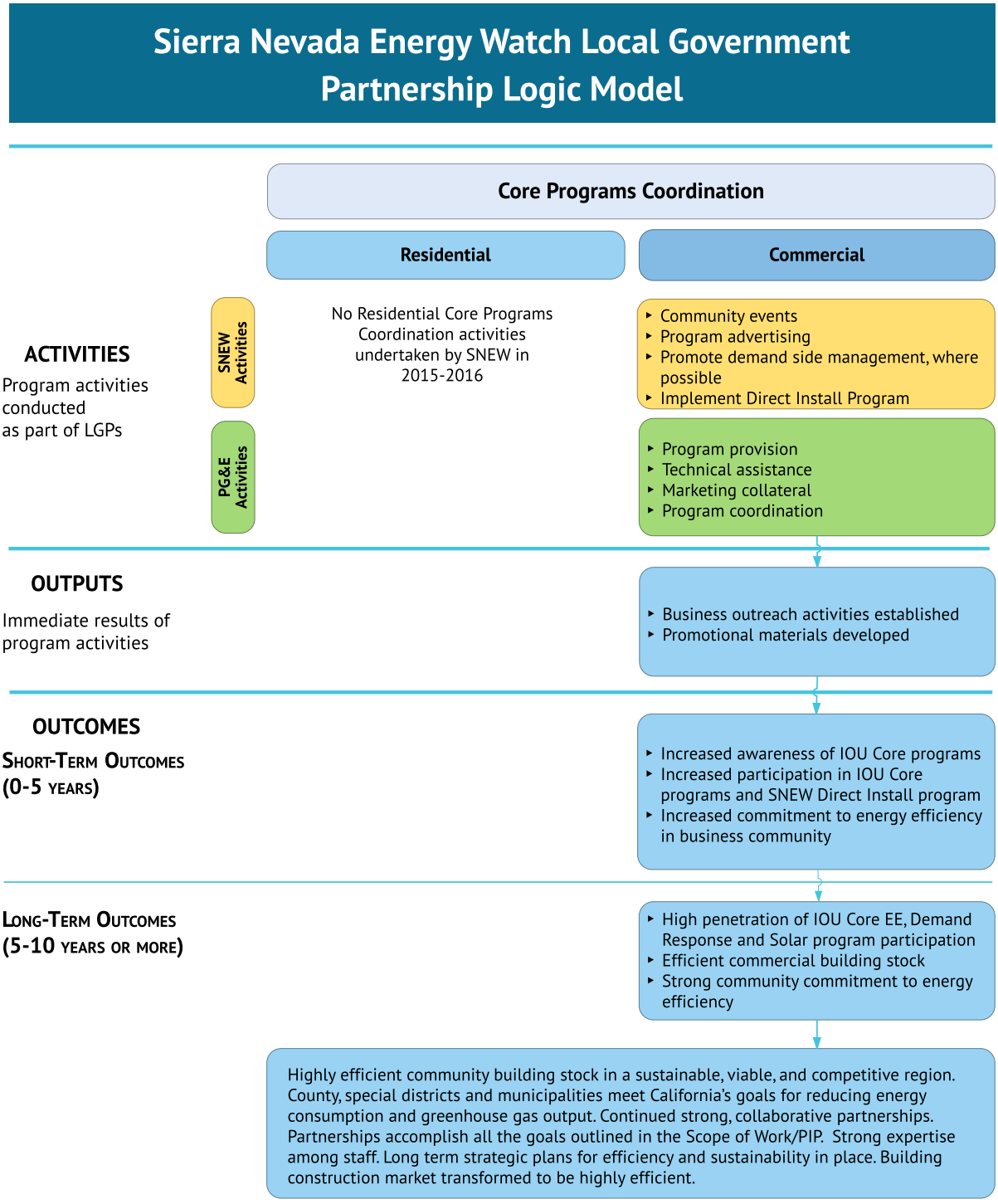
6 Core Programs Coordination

The Core Programs Coordination activity area aims to promote the IOU commercial energy efficiency programs in the area served by SNEW. This is accomplished by providing targeted outreach and technical assistance to the business sector.

As discussed previously, our evaluation of SNEW began with development of a program logic model for each activity area in which SNEW engages, to serve as a guide to define specific outputs and outcomes for evaluating each activity area. We show the logic model of SNEW's Core Programs Coordination activities as Figure 3 on the following page.[26]

[26] Residential activities were not mentioned in interviews and were explicitly not included in PG&E's master PIP. The SNEW-specific PIP, however, did include mention of local marketing to Whole House Upgrade Programs. Due to the outdated nature of the PIP, and based on the interview results, we did not include residential Core Programs Coordination activities in the logic model.

Figure 3: Core Programs Coordination Logic Model



SNEW has a small business Direct Install program that works with businesses to provide an energy assessment and install energy saving measures. When an assessment leads SBC to believe that the business would be a better fit for one of PG&E's Core Programs, it will refer that business to the appropriate person at PG&E. SBC reported that it makes these decisions based on the total predicted savings and how these predicted savings will affect the annual savings results for SNEW's Direct Install program.

The PG&E staff member we interviewed reported that outreach efforts from PG&E Business Energy Solutions (BES),[27] SNEW and installation contractors help to ensure that customers have multiple touches that encourage them to participate in energy efficiency programs. One SBC staff member reported that this presents more of a challenge than a benefit, as businesses are often confused about what each program does; the SBC staff member believes that this can hinder trust that programs have been working to build up. This issue is focused on the more populated areas that SNEW serves, where the SBC staff member believes that programs outside of their Direct Install work are more likely to focus.

Appendix E includes additional findings from our research related to small business Direct Install activities. (Direct Install efforts are excluded from the scope of this research.)

[27] BES helps business customers in PG&E's service territory with account management and works to connect them with opportunities to efficiently meet their energy needs.

7 Implementation of Past Evaluation Recommendations

Evergreen found no relevant past evaluation recommendations for SNEW.

8 Key Findings and Recommendations

8.1 Key Findings

This evaluation finds that while SNEW did not always meet its energy savings goals, it did make significant progress in other areas. SNEW met its goal of having an agency participate in a demonstration project related to its Water-Energy Nexus Program. SNEW staff also reported meeting their goal of adding two new Energy Action Plans (EAPs) and completing goals for implementation assistance for five of the earlier approved EAPs. SNEW has now helped to complete EAPs at a total of nine cities or counties which all have greenhouse gas inventories updated through 2010. Where SNEW was unable to meet its goals, it found other ways to make progress: SNEW had a goal to have three local governments join the Sierra Climate Adaptation and Mitigation Partnership (Sierra CAMP). While one county is on the Steering Committee, it reports being in continued discussions with other local governments to increase their participation in Sierra CAMP.

To identify key findings related to SNEW's performance, Evergreen reviewed progress towards the short-term and long-term outcomes for each LGP activity area detailed in the program activity area logic models (Sections 4, 5 and 6).

Municipal Building Retrofits Activities

- SNEW was able to complete 53 local government energy efficiency projects.
- SNEW has delivered four Title 24 trainings to educate local building staff, designers and contractors about the existing codes, as local governments are more focused on meeting current code requirements rather than pushing beyond them.

Strategic Plan Support Activities

SNEW participates in two of the four Strategic Plan Support activities: Lead by Example and Community Programs. For Lead by Example, SNEW helps local governments with benchmarking, greenhouse gas inventories and EAPs. Its Community Programs activities include:

- **Expanding Sierra CAMP membership**. PG&E is one of multiple funding sources used by Sierra CAMP, which is a program that connects and educates local governments about state policies through quarterly meetings and monthly updates. The current Sierra CAMP Steering Committee includes staff from Placer and Mariposa Counties, and the organization is seeking participation from additional counties within PG&E's service territory. This forum provides the opportunity for discussion about relevant legislation as well as regional climate and energy policy strategy. Funding from PG&E is focused on supporting public and member education and meetings.

- **Water-Energy Nexus Program.** SNEW has conducted a five-day course to train over 20 employees from the Nevada and El Dorado Irrigation Districts in leak loss detection using hands-on experience with equipment to survey water lines. SBC staff reported that this included testing on four times the length of pipeline compared to what is usually tested in Placer County.

Additionally, SBC successfully engaged with nine local governments in Energy Action Planning activities since SNEW's inception: the cities of Nevada City, Loomis, Plymouth, Jackson and Sutter Creek, as well as Amador, Mariposa, Sierra and Alpine Counties.

Key Challenges

- Interviewees reported that in the region served by SNEW, local governments do not place a high priority on energy efficiency.
- SBC staff reported that they have difficulty retaining staff to work on SNEW due to the salary offered and the increased job mobility of staff after they are trained in the industry. Staffing at local governments is also limited due to their small sizes, leaving fewer staff resources to work towards achieving energy efficiency goals.
- PG&E and SBC staff reported that working with local governments can be a slow process, given the lower priority of energy efficiency and the difficulty of finding the staff person who is best able to utilize their time and position to work on projects. Local government budgets are typically set on an annual basis, and it may take more than a year to begin the implementation phase of a project.
- SBC staff reported that the amount of time needed to travel between the counties in which they work makes it difficult to reach savings goals, as it takes more time to reach customers for outreach and implementation of retrofit projects.
- One SBC staff member reported having a difficult time accessing data from PG&E on local government facilities due to the amount of back and forth required if a meter number is not a correct match.

8.1.1 Innovative Approaches

One goal of this process evaluation was to identify innovative implementation practices that could be useful examples for the other LGPs, and we have highlighted several of these below.[28] Each LGP faces a unique set of challenges given the differences in program

[28] Note that this section is not meant to identify Best Practices. The difficulty of identifying LGP best practices is due primarily to the unique nature of each partnership and the settings in which they operate. The IOUs can partner with local governments, governmental associations or business associations, and each has strengths and weaknesses in administering LGPs. Evergreen's past research (*Program Assessment Study: LGP Programs* - CPUC Work Order 12, July 2013) developed identifying facilitating factors to understand if there was any correlation with superior performance. The contextual-dependency of these factors made it

implementation strategies, local government prioritization of energy efficiency, and customer characteristics. Because of these differences, not all innovative approaches will be useful to each LGP. This section allows other programs to review the innovative aspects that have been useful for SNEW and consider their value in the context of their own LGP.

For SNEW, our highlighted innovation areas include the following:

- SNEW is part of a Hard to Reach Rural Working Group along with other LGPs, which meets quarterly to discuss best practices for working within regions of California that are less densely populated.
- For its Water-Energy Nexus Program, SNEW has conducted a five-day course to train employees from the Nevada and El Dorado Irrigation Districts in leak loss detection. In these trainings, employees have hands-on experience with equipment to survey water lines.

8.2 Recommendations

Based on the evaluation results, Evergreen Economics provides the following actionable recommendations for SNEW:

- We recommend that PG&E consider strategies for freezing measure eligibility and incentives (if it is authorized to do so) at the time of an energy assessment measure recommendation for a certain time period (possibly through the following fiscal year) for local government retrofit projects. This may be a good candidate to be included in the development of the next Program Implementation Plan after the Public Sector Business Plan is approved.[29] This would avoid confusion about program changes that may invalidate a measure that was once approved.
- We recommend that the PG&E staff member that supports SNEW facilitate a discussion between SBC staff and the PG&E data staff lead, to discuss how to speed up the local government data delivery process such as including instructions on how to resolve issues identified by the PG&E data management staff. This will help the development of EAPs and will make it easier to update EAPs in the future.

impossible to develop any best practices recommendations that could be realistically applied to other LGPs. The same barriers exist in this study. Research Into Action also completed a separate study on LGPs (*Targeted Process Evaluation of the Local Government Partnership Program*, January 2017) and had the same difficulty in identifying best practices due to the considerable diversity in LGP/IOU approaches.

[29] The Business Plan is a roadmap submitted to the CPUC explaining how PG&E plans to meet the objectives in the CPUC's Energy Efficiency Strategic Plan.

Appendix A: LGP Program Process Evaluation Cycle

In order to conduct dedicated, comprehensive process evaluations for each LGP within a limited budget, the IOUs are staggering the LGP process evaluations across several years so that each LGP will be evaluated in turn. After all LGPs have been evaluated, at the end of a three to five year period, the cycle will begin again. This will allow evaluators to provide customized and specific recommendations to each LGP being evaluated.

There are over 50 LGPs in California, each of which will receive a process evaluation in the next three to five years. The number of process evaluations to be conducted in a particular year will be determined by the IOUs' annual evaluation budget and by the complexity of the LGPs being studied.

SNEW is one of nine LGPs in California which Evergreen Economics is evaluating as part of the first wave of comprehensive process evaluations of the 2015-2016 LGP programs.[30] The IOUs selected the following LGPs to be evaluated during this first wave of studies are:

PG&E:

- Association of Monterey Bay Area Governments (AMBAG)
- San Luis Obispo County (implemented with SoCalGas)
- San Mateo County
- Sierra Nevada
- Valley Innovative Energy Watch (VIEW, jointly implemented with SCE and SoCalGas)

SCE/SoCalGas:

- Los Angeles County
- Riverside County
- San Bernardino County

SDG&E:

- City of Chula Vista

[30] The comprehensive process evaluations of the 2015 Local Government Partnership (LGP) programs were commissioned by the four California investor-owned utilities (IOUs)—Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E)—under contract to SoCalGas and funded by the ratepayers of California.

Appendix B: LGP Program Staff Interview Guide

Process Evaluations of the 2015 Local Government Partnerships

Interview Guide for IOU LGP Managers and LGP Implementer Staff

FINAL: November 14, 2016

Interviewee Role

Before we start, we want to remind you that your detailed feedback will be kept confidential and that we never identify specific individuals or job titles in our study reports. Due to your role in the program, however, some report findings may be attributed back to you through inference.

If you have confidential information to share, please let me know so that we may treat it appropriately. We really appreciate your candid feedback, and the information you provide could be very useful to support any improvements the IOUs may make to their LGP programs.

(IF RECORDING CONSENT GRANTED DURING RECRUITMENT):

- I'll start recording our interview now.
- AFTER RECORDING STARTED: I am here with (INTERVIEWEE). Do I have your permission to record this interview for the sole purpose of evaluating the [LGP]?
- Thank you.

RLI1. First, can you briefly summarize your main roles related to [LGP]?

RLI2. About how long have you been involved with [LGP] in this capacity? [Probe for any prior involvement within the LGP in a different capacity]

RLI3. And about what percentage of your time do you spend working on [LGP]?

RLI4. What are your other responsibilities, other than LGP related work?

RLI5. Which utility and local government staff do you primarily work with in your role with the [LGP]?

a. Can you briefly describe the relationships?

NOTE: AT END, GET CONTACT INFO FOR POTENTIAL ADDITIONAL INTERVIEWS.

***NOTE: For any LGP activity below that the respondent cannot address, ask whom we should contact.**

"LG" denotes Local Government/Implementer staff

Municipal Building Retrofits

Let's talk about the LGP's efforts to retrofit local government buildings to be more energy efficient.

MU1. Are you the appropriate person to interview about municipal building retrofits for the LGP?

IF NOT SCHEDULE INTERVIEW WITH APPROPRIATE STAFF

MU2. (LG only): Do you work in a department that has oversight for the energy performance of municipal facilities?

MU3. What has your role been on these activities?

Please walk me through the process for identifying, budgeting, and carrying out municipal building retrofits through the LGP. Let's discuss this by stage:

MU4. [Project identification stage:] How does the LGP identify and prioritize retrofit projects?

Prompts if needed:

a. Do they get audits (gas/electric, by whom)?
    i. Do they do energy consumption benchmarking, from whom?
    ii. Do they use an energy management system, or EMS (how)?
b. Any notable successes?
    i. Challenges?
    ii. Do you have any suggestions for improving the project identification phase?

MU5. [Project identification stage:] Are there measures that have been identified as candidates for an energy efficiency retrofit that the local government decided not to undertake?

a. If yes: Which measures, and why were they not replaced?
b. FOLLOW UP: If a) the measure was a chiller or HVAC, and b) the reason was "we decided to repair it" ask: Has this measure ever been repaired in the past? How many times would you estimate?

MU6. [Budgeting stage:] How are energy efficiency retrofits typically funded?

Prompts if necessary:

a. Is there a line item in the [city/county] budget for energy efficiency retrofits?
b. Is there a centralized maintenance and upgrades program, or do different departments upgrade their own facilities?
c. What are the [city's/county's] current budget priorities and where does energy efficiency rank on the list?
d. Any notable successes?
e. Challenges?
f. Suggestions for improving the budgeting or financing process?

MU7. [Implementation stage:] Which contractors perform the retrofits, and how are they selected?

a. Any notable successes?
b. Challenges?
c. Any suggestions for improving contractor selection?

MU8. [Implementation stage:] How are energy savings calculated and verified?

a. (LG only) Who do you report these savings to (e.g., city council meetings)?
b. (LG only) What happens to energy cost savings that are realized; which local budgets do they appear in?
c. Any suggestions for improvement?

MU9. (LG only) What is the biggest organizational challenge you face when trying to get required approvals for energy efficiency retrofits?

MU10. Has the LGP been integrating any emerging technologies in its building retrofits?

a. What kinds of emerging technologies has the LGP installed since January 2015?
b. Any notable successes?
c. Challenges?
d. Suggestions for improvement?

MU11. (LG only) Do you perform any municipal retrofit activities that are not funded by the IOUs?

a. If YES: What are these activities, and how are they funded?

For the remainder of our discussion on municipal building retrofits, I would like you to only talk about IOU-funded activities, and not activities funded primarily through another source.

MU12. [IOU only] What does the local government partner do to facilitate building retrofits, and how does [IOU] help them?

MU13. [LG only] What does [IOU] do to facilitate building retrofits?

MU14. How often do you confer with [IOU/local partner] to do retrofit planning or discuss current issues?

MU15. What could be done to improve collaboration, if anything? (Probe on nature and frequency of information sharing)

As needed: In what areas would you like to be more informed?

MU16. What do you think are this LGP's most notable successes to date, and what are the main contributing factors to these successes?

MU17. Are there any documents we should get from you that describe any specific successes or challenges that could provide more details?

MU18. What, if anything, would you say is not going well and why? (Probe on energy use tracking, project identification, scoping, funding, implementation)

MU19. Do you recommend any changes to the way municipal retrofit projects are identified, approved, scoped, funded or implemented?

Get details on desired changes, and responsible entity.

MU20. How does the LGP track progress towards goals for municipal retrofits?

MU21. Do you track the specific types of measures that have been installed?

If YES:

a. Who could we get these data from?

MU22. What were your 2015 goals?

a. Did you meet them? Why or why not?

MU23. Are you on track to hit your 2016 goals?

a. Why or why not?

MU24. On a scale from 0 to 10, where 0 means "not at all satisfied" and 10 means "extremely satisfied", how would you rate your satisfaction with [local government's/IOU's] participation?

a. Why do you say that?

MU25. What is the most important retrofit assistance you need from [IOU/local partner] going forward?

MU26. How about retro-commissioning – is the LGP funding this activity for any municipal buildings?

If YES:

a. What is the biggest challenge of doing retro-commissioning projects?

MU27. Is the LGP funding any demand response activities at municipal buildings?

If YES:

a. Please tell me more about the demand response activities you've done since January of 2015.

b. On a scale from 0 to 10, where 0 means "not at all satisfied" and 10 means "extremely satisfied", how would you rate your satisfaction with [local government's/IOU's] participation?

i. Why do you say that?

MU28. (LGs only) Do you engage in any demand response activities that are not funded through the LGP?

If YES:

a. What percentage of your demand response activities would you say is not funded through the LGP?

MU29. This next question is not limited to LGP-funded activities: How about self-generation or "distributed generation" – Has the local government done this or is it planning to do this for any municipal buildings?

If YES:

a. What types of systems [have you installed/will you install] and what is the generation capacity?

Strategic Plan Support

Now let's talk about activities the LGP is doing in support of the California Strategic Plan.

NOTE: The question battery below will be asked for each high-level Strategic Plan activity except local government energy efficiency expertise and training (a separate battery follows, asked once).

These are the Strategic Plan topic introductions:

1 – Reach Codes: First, let's talk about efforts to implement and promote local building codes stronger than Title 24. This could include reach codes, green building codes, point of sale programs, and codes to integrate demand response, energy efficiency and renewables.

2 – Code Compliance: Now let's talk about energy code compliance. This could include redesigning local compliance activities or attending workshops, for example.

3 – Lead by Example: Now let's talk about efforts to improve the energy efficiency of local government buildings, beyond short-term retrofits. This could include building benchmarking or other energy tracking, sub metering, new retro-commissioning policies, an energy chapter in a broader energy or climate action plan, or new building requirements like LEED or ENERGY STAR.

4 – Community Programs: Now let's talk about other local efforts and programs to increase energy efficiency or address climate change. These could include a customized energy or climate action plan, other local General Plan policies, greenhouse gas inventories, or detailed energy savings analyses.

SP1. Has the LGP been working in this area since January 2015?

If YES, Continue – Else skip to next Strategic Plan topic

SP2. Are you directly involved in these activities for the LGP (IF LGP IS MULTI-JURISDICTIONAL – a specific local government, or both)?

If YES, Continue. GET OTHER STAFF CONTACTS INFO AS NEEDED

IF RESPONDENT IS INVOLVED AT MULTIPLE LEVELS: OK, let's discuss these activities first for the entire LGP, and then for your local government specifically.

NOTE TO INTERVIEWER: Cycle through the following questions twice for LG staffs that are also LGP leads/implementers.

SP3. What has your role been for these activities for the LGP/local government?

SP4. Can you please describe what the LGP/local government has been doing in this area since 2015? (Probe on process details)

SP5. And what would you say is the main objective of this Strategic Plan activity?

SP6. What is the current status of this activity?

a. If COMPLETED: Did you meet your objectives? Why, why not?

b. If NOT COMPLETED: Do you expect to meet your objectives? Why and by when? Why not?

SP7. What do you think are this LGP's/local government's most notable successes to date, and are there any lessons to be learned from this?

SP8. And what challenges has the LGP/local government had, if any?

a. How has this been addressed or resolved?

b. Are there any lessons to be learned?

SP9. What does the LGP/local government do to support this activity?

SP10. (IOU only) On a scale from 0 to 10, where 0 means "not at all satisfied" and 10 means "extremely satisfied", how would you rate your satisfaction with the local government's work on this activity?

a. Why do you say that? (Get details by different LGs where appropriate)

SP11. What does [IOU] do to support this activity?

SP12. (LG only) On a scale from 0 to 10, where 0 means "not at all satisfied" and 10 means "extremely satisfied", how would you rate your satisfaction with [IOU's] work on this activity?

a. Why do you say that?

SP13. (LG only) Are you knowledgeable about efforts by the Energy Division of the CPUC to support this activity?

SP14. (LG only if SP13 = YES) Using the same 0 to 10 scale, how would you rate your satisfaction with the Energy Division's work on this activity?

a. Why do you say that?

SP15. (LG only – if implementation firm/contractor used) On a scale from 0 to 10, where 0 means "not at all satisfied" and 10 means "extremely satisfied", how would you rate your satisfaction with your Partnership implementer's work on this activity?

a. Why do you say that?

SP16. For the Strategic Plan activities we've been discussing, what is the most important assistance you need from [IOU/local partner(s)] going forward?

RETURN TO NEXT STRATEGIC PLAN TOPIC ABOVE - PROCEED BELOW WHEN ALL STRATEGIC PLAN TOPICS ADDRESSED.

ONLY LG STAFF GET THE FOLLOWING EXPERTISE/TRAINING QUESTIONS:

Now we have a few questions about energy efficiency knowledge and training.

SP17. In which energy efficiency areas would you say you and your staff have high expertise?

SP18. In what areas do you and your staff need to strengthen your expertise?

SP19. In what areas do you prefer to use outside, third party assistance as subject matter experts, and which experts or organizations do you use?

SP20. How do you and other local government staff increase your knowledge about energy efficiency? For instance, do you get any formal training, attend LGP forums or get information from websites?

SP21. Are there any barriers to getting energy efficiency training?

SP22. (IF GETTING TRAINING) Have you been able to share any of the training or knowledge you've received with other LG staff, to increase their expertise?

SP23. Has the LGP developed any of its own trainings or best practice documents?

SP24. Is there any additional training you or other LGP staff want to receive?

SP25. Has the number of staff working on the LGP changed in the past few years?

SP26. Are there any local champions – politicians or business leaders – that are highly involved in promoting LGP activities?

a. IF YES: What do they do as a champion?

SP27. What, if anything, could be done to make energy efficiency more of a priority at your LG?

NOTE: IOU AND LG STAFF GET THE REMAINING QUESTIONS.

Core Programs Coordination

CR1. Are you the appropriate person to interview about [IOU] Core Program coordination activities for the LGP?

IF NOT, SCHEDULE INTERVIEW WITH APPROPRIATE STAFF

CR2. What has your role been on these activities?

CR3. What kinds of Core Program coordination do you do?

CR4. How do you decide on which Core Programs to engage with? Then please walk me through how the LGP carries out a Core Program coordination activity.

CR5. How does the LGP make households aware of [IOU's] Core Programs?

CR6. Which marketing modes seem to be most and least effective?

CR7. How does the LGP make businesses aware of [IOU's] Core Programs?

CR8. Which marketing modes seem to be most and least effective?

CR9. How do you track Core Programs participation resulting from LGP outreach?

CR10. Do you recommend any changes to how the utility programs are marketed to the local community?

CR11. [LG ONLY] How about the way the Core Programs are delivered or designed—are there unique needs or characteristics of this LGP's constituents that existing IOU residential or non-residential programs could better serve?

CR12. [IOU only] What does the local government partner do to facilitate Core Programs participation, and how does [IOU] help them?

CR13. [LG only] What does [IOU] do to facilitate Core Programs participation?

CR14. How often do you confer with [IOU/local partner] to plan Core Programs coordination or discuss current issues?

CR15. How are potential or approved IOU Core Program changes communicated between [IOU] and the local partners, and how well is this process working?

CR16. What could be done to improve collaboration, if anything? (Probe on nature and frequency of information sharing)

a. As needed: In what area or areas would you like to be more informed?

CR17. What do you think are this LGP's most notable successes to date, and what are the main contributing factors to these successes?

CR18. What, if anything, would you say is not going well and why?

CR19. Are there any documents we should get from you that describe any specific successes or challenges that could provide more details?

CR20. What were your 2015 goals for energy savings or participation?

a. Did you meet them? Why or why not?

CR21. Are you on track to hit your 2016 goals?

a. Why or why not?

CR22. On a scale of 0 to 10 where 0 is "not at all satisfied" and 10 is "extremely satisfied", how would you rate your satisfaction with [IOU's/local partner's] support in promoting [IOU's] Core Programs?

CR23. Why do you say that? (If needed: What specifically could [IOU/local government] be doing better? Probe on unfulfilled responsibilities.)

CR24. What is the most important assistance you need from [IOU/local partner] going forward?

Other Activities

O1. Are there any other LGP activities being funded through [IOU] that we have not yet discussed?

a. If YES: What are they? Please give me a brief description of when it started, what the objective is, and the status of the activity towards meeting its objectives.

Closing

We have just a few more questions and then we're done.

CL1. Are there any upcoming LGP events this fall or winter that might be useful for Evergreen staff to attend, to observe some LGP activities first hand?

CL2. Are there any planned LGP implementation changes we should be aware of that we didn't discuss?

For LGs only:

CL3. All things considered, on a scale of 0 to 10 where 0 is "not at all satisfied" and 10 is "extremely satisfied", please rate your overall satisfaction with this local government program as it is offered by [IOU].

a. Why do you say that?

NOTE TO INTERVIEWER: For jointly offered LGPs, ask about each IOU that offers it.

CL4. On a scale of 0 to 10 where 0 is "not at all engaged" and 10 is "extremely engaged", how engaged would you say your agency or organization is when it comes to following the CPUC Energy Division's activities, such as rulemaking, stakeholder committees, workshops and seminars?

For both IOUs and LGs:

CL5. Is there anything else you would like us to include in our report about this LGP?

We've gone through all the questions we planned to cover today - thank you very much for your time and the good information you provided.

If you would like to give the IOUs any feedback about our interview today, please contact Loan Nguyen at SoCalGas using the contact information we provided when we scheduled this interview. If you need it again we can email it to you.

Appendix C: Recommendations Resulting from Evaluation Research

Study ID	Study Type	Study Title	Study Manager
SCG 0218.08	Process Evaluation	Process Evaluation of the LGP Program	SoCalGas

Recommendation	Program or Database	Summary of Findings	Additional Supporting Information	Best Practice / Recommendation	Recommendation Recipient
1	Local Government Partnerships Program	Local government budgets are typically set on an annual basis, and it may take more than a year to begin the implementation phase of a project.		Evergreen recommends that PG&E consider strategies for freezing measure eligibility and incentives (if it is authorized to do so) at the time of an energy assessment measure recommendation for a certain time period (possibly through the following fiscal year) for local government retrofit projects. This may be a good candidate to include in the development of the next Program Implementation Plan after the Public Sector Business Plan is approved.[31] This would avoid confusion about program changes that may invalidate a measure that was once approved.	PG&E
2	Local Government Partnerships Program	One SBC staff member reported having a difficult time accessing data from PG&E on local government facilities due to the amount of back and forth required if a meter number is not a correct match.		We recommend that the PG&E staff member that supports SNEW facilitate a discussion between SBC staff and the PG&E data staff lead, to discuss how to speed up the local government data delivery process such as including instructions on how to resolve issues identified by the PG&E data management staff. This will help the development of EAPs and will make it easier to update EAPs in the future.	SBC, PG&E

[31] The Public Sector Business Plan is a roadmap submitted to the CPUC explaining how PG&E plans to meet the objectives in the CPUC's Long Term Energy Efficiency Strategic Plan.

Appendix D: Strategic Plan Option Descriptions

Goal	Strategy	Menu Option - Abbreviated Title	Menu Option- Full Text
1 - Local governments lead adoption and implementation of "reach" codes stronger than Title 24 on both mandatory and voluntary bases.	1.1 - Adopt codes, ordinances, standards, guidelines or programs that encourage or require building performance that exceeds state requirements. The focus should be on using existing models, or if there is something new and unique that it be replicable.	1.1.1. Reach Codes	1.1.1 – Adopt building energy codes more stringent than Title 24's requirements, using cost-effectiveness studies by Climate Zone done by the utilities; adopt one or two additional tiers of increasing stringency.
		1.1.2. Green Building Code	1.1.2 – Adopt a Green Building policy for municipal development, commercial development and/or residential development.
		1.1.3. Point of Sale Program	1.1.3 – Develop/adopt point of sale programs such as a Residential or Commercial Energy Conservation Ordinance. Focus on whole building performance.
		1.1.4. IDSM Code Updates	1.1.4 – Change local codes to allow and encourage integration of energy efficiency, demand response, and on-site generation.
		1.1.5. Energy Efficiency Codes & Programs	1.1.5 – Develop and adopt programs to encourage energy efficiency such as one-stop permitting, on-line permitting, separate Zero Net Energy permit processes, density bonuses, or a recognition program.
		1.1.6. Educational Programs	1.1.6 – Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines and programs.
	1.2 - Implement codes, ordinances, standards, guidelines or programs that encourage building performance that exceeds state standards.	1.2.1. Stakeholder Engagement	1.2.1 – Implement any of the strategies in section 1.1 through a process involving internal and external stakeholders, etc.

Goal	Strategy	Menu Option - Abbreviated Title	Menu Option- Full Text
2 - Strong support from local governments for energy code compliance enforcement.	2.1 - Improve processes resulting in increased code compliance through education, training, and enforcement practices.	2.1.1. Code Compliance Workshop Attendance	2.1.1 – Local government staff and contract staff attend code compliance workshops offered by the California Energy Commission, utility codes & standards staff, or other local governments with strong compliance records.
		2.1.2. Code Compliance and Enforcement	2.1.2 – Redesign enforcement, compliance, plan review processes; introduce new forms and templates.
3 - Local governments lead by example with their own facilities and energy usage practices.	3.1 - Develop a program to track municipal energy usage, such as through energy management software and benchmarking of municipal facilities.	3.1.1. Local Gov't Benchmarking Policies	3.1.1 – Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all local government facilities.
		3.1.2. Local Gov't 'Utility Manager' Program	3.1.2 – Set up a 'utility manager' computer program to track municipal usage. Identify need for sub-metering to plan, budget and manage bills.
	3.2 - Adopt an Energy or Climate Action Plan for municipal operations. The plan could include setting energy efficiency standards for new and existing facilities, developing a revolving loan fund for energy efficiency projects, and so on.	3.2.1. Local Gov't EAP/CAP	3.2.1 – Develop/adopt an energy chapter for City/ County climate or energy action plan.
		3.2.2. Local Gov't Building Standard	3.2.2 – Adopt a policy to require LEED, Energy Star Ratings, or other program standard for municipal facilities.
		3.2.3. Local Gov't Revolving Energy Efficiency Fund	3.2.3 – Develop policy for a revolving energy efficiency fund for City/County facilities.
		3.2.4. Local Gov't Commissioning/Retro-Commissioning Policy	3.2.4 – Develop commissioning/retro-commissioning policies for municipal facilities.
4 - Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change.	4.1 - Adopt a Climate Action Plan (CAP), Energy Action Plan (EAP) or adopt energy efficiency language into another policy document, such as a General Plan, to reduce community greenhouse gas emissions with a focus on energy efficiency.	4.1.1. Community-Wide EAP/CAP Template	4.1.1 – Develop a regional template for Climate Action Plans (CAP) or Energy Action Plans (EAP).
		4.1.2. Customized EAP/CAP	4.1.2 – Customize CAP with energy efficiency language and data.
		4.1.3. Community-Wide Planning for EE	4.1.3 – Update General Plan/Conservation Element with Climate policies. Provide energy efficiency framework and data for other people doing planning.
		4.1.4. Community-Wide EE Savings Analysis	4.1.4 – Conduct the energy efficiency savings analysis for an annual Greenhouse Gas inventory for the City/ County.
5 - Local government energy efficiency expertise becomes widespread and typical.		5. EE Expertise	5 - Local government energy efficiency expertise becomes widespread and typical.

Appendix E: Findings Relevant to Direct Install Activities

SNEW is unique in that it also acts as a Third Party Direct Install program implementer in order to perform retrofits in both local government and small business facilities. It is not within the scope of this research to evaluate its Direct Install activities, however, but in the course of our research, interviewees identified some key challenges that are useful to document. We have included these findings below, along with information regarding Direct Install savings.

SNEW did not reach all set savings goals in 2015 and 2016. Goals are currently combined across its local government, small business, and special district efforts through their Direct Install work.

Table 4: Direct Install Savings Goals[32]

Goal Description	Target	Achieved
kWh Goal (2015)	2,437,076	3,307,854
kWh Goal (2015)	267	521
Therms Goal (2015)	6,128	-12,098
kWh Goal (2016)	2,709,171	1,209,245
kWh Goal (2016)	313	227
Therms Goal (2016)	-11,825	-7,123

SNEW did not meet all of its program savings goals in 2015 and 2016 due to two main reasons. First, implementation contractors had discretion over measure offerings, without significant input from SBC staff. (PG&E and SBC are addressing this issue by improving communication with contractors and providing education on measure offerings and energy savings goals.) The past year has been a period of transition, as both PG&E and SBC staff acknowledged that there was a need to change the way they interacted with contractors. The past contractor-driven nature of the Direct Install work left SNEW with projects that did not deliver the savings levels desired, as measures with lower savings were prioritized by contractors over measures with higher savings.

[32] Savings achieved and targets are pulled from http://eestats.cpuc.ca.gov/.

Second, SNEW had to adjust to a reduction in measure incentive options. Programmatic changes in 2016 that required all deemed measures to use deemed savings values (rather than using the custom process), and a more contractor-driven (rather than SNEW-driven) approach to identifying and completing projects was one of the challenges to reaching savings goals.

Contractor Challenges

PG&E and SBC staff all emphasized their efforts to shift SNEW's Direct Install work from being contractor-driven to being driven by SNEW. This need was revealed in 2016 when contractors pushed through a high amount of lighting measure projects that spent a good portion of SNEW's budget and provided lower than expected savings. While these measures were removed from the program, SNEW honored all applications submitted before a certain date, allowing contractors to push through work that did not achieve the expected savings.

The PG&E staff member we interviewed reported that SNEW is considering annual trainings for contractors along with the possibility of having contractors participate in a competitive bid process in the future. This would help SNEW take more of a lead in the contractor process. SNEW could utilize these annual trainings to update contractors on the available measures and any program changes that may be occurring.

One of the SBC staff members reported that contractors who do assessments are not guaranteed to receive work if it gets completed at a later date. This is a frustration for contractors who work with SNEW on its Direct Install work (either local government facilities or small business facilities).

Monetary Constraint Challenges

The PG&E staff member reported that getting the budget to complete a project is a challenge with the local governments served by SNEW. SNEW has also had difficulty working with some contractors who are unable to wait the necessary amount of time to receive payment from working with PG&E. An SBC staff member reported that at times, it can take between 45 to 50 days to get reimbursed by PG&E, and noted that this has resulted in some contractors declining to work with SNEW.

PG&E Sales Representative Structural Changes

Staff from both PG&E and SBC reported difficulties stemming from changes in how PG&E assigns business representatives to customers. The interviewees at PG&E and SBC reported that PG&E has moved away from the location-based way of assigning business representatives, causing representatives to have less time for customers due to increased travel times.