



# **Process Evaluation of the Chula Vista Local Government Partnership Program**

Prepared by:

Evergreen Economics

Project Sponsors:

Pacific Gas and Electric Company

Southern California Edison Company

Southern California Gas Company

San Diego Gas & Electric Company

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## I Executive Summary

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The City of Chula Vista Local Government Partnership (the Chula Vista LGP) a partnership between the City of Chula Vista (Chula Vista) and San Diego Gas & Electric Company (SDG&E), began in 2006. The purpose of the Chula Vista LGP is to leverage the combined strengths of both Chula Vista and SDG&E to identify and implement energy efficiency projects. The Chula Vista LGP serves Chula Vista, a city with a long history of leadership in energy efficiency and conservation. Historically, the Chula Vista LGP has been highly successful, with the previous evaluation noting that it has a history of being a “well-structured and well-run cooperative organizational effort between the City of Chula Vista and SDG&E.”<sup>1</sup> The Chula Vista LGP is a non-resource LGP program, meaning that while the partnership generates energy savings, it does not claim savings directly, but rather funnels projects to Core Programs that claim energy savings.<sup>2</sup>

The Chula Vista LGP is designed to improve energy efficiency within the City of Chula Vista through a variety of activities, including:

- **Municipal Facility Retrofit and Retro-Commissioning** – expanding Chula Vista’s efforts to identify, finance and implement energy improvements at municipal facilities, including integrated demand side management activities.
- **California Strategic Plan Support** – supporting the California Long Term Energy Efficiency Strategic Plan (Strategic Plan), including:
  - Sustainable building codes, enforcement and training – enhancing Chula Vista staff<sup>3</sup> expertise in energy conservation and green building principles, to infuse sustainable practices into planning, permitting and inspection processes.
  - Regional and sub-regional collaboration – offering ongoing, comprehensive peer support for neighboring jurisdictions.
- **Core Programs Coordination** – providing targeted outreach and technical assistance to Chula Vista residents and businesses to complement and promote SDG&E energy efficiency programs.

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<sup>1</sup> PA Consulting Group. *San Diego Gas & Electric Company Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs*. Prepared for San Diego Gas & Electric Company, 2009.

<sup>2</sup> Core Programs refer to primary energy efficiency programs in SDG&E’s program portfolio, including residential and commercial programs, and third party programs.

<sup>3</sup> In the remainder of this document, ‘Chula Vista staff’ refers to staff at the City of Chula Vista that work to support the Chula Vista LGP, and ‘SDG&E staff’ refers to staff at SDG&E that work to support the Chula Vista LGP. When other staff from either organization are referenced, their roles are explicitly described in the text.

The remainder of this report presents the results of the Chula Vista LGP process evaluation, and Evergreen Economics focused this evaluation on program activities completed in 2015 and 2016. As this is the first evaluation conducted on the Chula Vista LGP since 2009, we also highlight additional activities from the 2010-2014 period as needed to provide additional program context.

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

**Table 1: Process Evaluation Objectives and Assessment**

<b>Objective</b>	<b>Assessment</b>
1. Provide documentation of the Chula Vista LGP's suite of activities at the time of the evaluation.	Based on interviews with Chula Vista LGP staff and review of program documentation, the evaluation identified and documented Chula Vista LGP activities. (Sections 4 - 6)
2. Document how the Chula Vista LGP has adopted and implemented LGP-specific recommendations from the previous process evaluation.	The evaluation team reviewed the previous program evaluation and confirmed the Chula Vista LGP has adopted and implemented a previous process evaluation recommendation. (Section 7)
3. Identify whether the Chula Vista LGP is currently being implemented according to its logic model/change theory.	The Chula Vista LGP partners are successfully implementing the partnership according to the underlying program logic/change theory as described in the Program Implementation Plan.
4. Document the Chula Vista LGP's successes and challenges.	The evaluation finds that the Chula Vista LGP has been very successful, consistently meeting its goals. (Sections 4 - 6)
5. Assess partner satisfaction within the Chula Vista LGP.	Chula Vista LGP partners are highly satisfied with their partners in the Chula Vista LGP across all activities. (Sections 4 - 6)
6. Identify whether the Chula Vista LGP is on track to meet CPUC-approved program objectives.	The Chula Vista LGP met its 2015 and 2016 objectives. (Sections 4 - 6)
7. Provide recommendations regarding design and/or implementation of the Chula Vista LGP.	The evaluation team identified key findings, successes and challenges, and developed actionable recommendations to improve the design and implementation of the Chula Vista LGP. (Section 8)

## 1.1 Key Findings

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

### *Municipal Building Retrofit Activities*

- Chula Vista has committed to completing municipal building energy efficiency retrofits that have led to substantial increases in municipal building stock efficiency. Chula Vista has engaged in LED lighting retrofits in municipal buildings, conversion of city street lights to LED technology, and energy efficiency upgrades to municipal facilities. More than 50 municipal facilities have made energy upgrade improvements over the past six years (through the end of 2016), resulting in a reported reduction in energy consumption of over 29 percent compared with 2010 consumption levels. This exceeds the goal of a 20 percent reduction by 2020 from 2010 levels as set in the Chula Vista Climate Action Plan (CAP), known as the City Operations and Sustainability Plan (COSP).
- By offering training and education and engaging in widespread outreach activities, the Chula Vista LGP has continued to improve understanding of energy efficiency and commitment to energy conservation among Chula Vista staff and the broader community.
- The strategy and goals of the City Operations and Sustainability Plan are widely adopted across Chula Vista, and guide energy efficiency and energy conservation activities and policy development.

### *Strategic Plan Support Activities – Reach Codes*

- The Chula Vista LGP has helped Chula Vista design and implement a range of energy efficiency and other reach codes that have pushed building stock in Chula Vista beyond state code and helped advance stronger state codes.
- The reach code development process engaged a broad range of stakeholders including developers, realtors and government officials, which helped advance ongoing stakeholder commitment to adopting and meeting energy efficiency codes.
- The Chula Vista LGP has developed and implemented code training efforts and produced resources such as the Code Coach to implement industry best practices in permitting, tracking and building inspection.

### *Strategic Plan Support Activities – Code Compliance*

- The Chula Vista LGP has helped Chula Vista build energy efficiency knowledge and capacity among its staff, including permitting staff and building inspectors, through comprehensive code enforcement training.
- Chula Vista's code compliance activities and training have had a positive impact on code compliance. Chula Vista staff stated that these activities have led to increased compliance with staff ensuring contractors and homeowners apply for energy

efficiency permits and other code requirements. Chula Vista staff highlighted the “Code Coach” program<sup>4</sup> as particularly successful. This expert assists developers in complying with energy code, and in 2015 and 2016 conducted more than 280 one-on-one meetings related to energy code issues and more than 15 secondary field audits.

- Code compliance activities have helped build relationships and trust across the city of Chula Vista’s municipal departments, with one Chula Vista staff member reporting that city building inspection staff now see the Chula Vista LGP and Chula Vista’s Office of Sustainability as important resources.

### *Strategic Plan Support Activities – Lead By Example*

- The Chula Vista LGP demonstrates important leadership in the region, as well as nationwide, developing and enacting energy best practices related to municipal building stock and community outreach. Chula Vista staff engage extensively with other communities to share its expertise, both locally through the South Bay Energy Action Collaborative (SoBEAC), San Diego Regional Energy Partnership (SDREP), and San Diego Association of Governments (SANDAG) partnerships, and nationally and internationally through participation in conferences and energy efficiency competitions.

### *Strategic Plan Support Activities – Community Programs*

- Chula Vista developed and successfully enacted a comprehensive CAP in 2014 known as the City Operations Sustainability Plan. This document has become a key policy driver for the city, leading to better understanding of and increased commitment to energy conservation and efficiency citywide.
- The Chula Vista LGP continues to improve a multitude of existing community engagement programs to promote energy efficiency by working with local organizations and other government agencies.

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<sup>4</sup> The Code Coach is a staff member who is a code expert. This individual staffs a public-facing Sustainability Desk one and a half days per week to provide guidance to permit applicants and building department staff on California’s Building Energy Efficiency Standards (Title 24, Part 6) and the Green Building Standards (Title 24, Part 11; CalGreen).



### *Core Programs Coordination*

- Through its community programs and Home Check-Up Evaluation service,<sup>5</sup> the Chula Vista LGP effectively promotes SDG&E residential Core Programs to its residents, leading to several hundred referrals to the programs in 2015 and 2016.
- Based on 2016 post-participation surveys done by Chula Vista, close to 100 percent of participating homeowners reported that they implemented at least one of the energy-saving recommendations from their audit.
- Through the Free Resource & Energy Business Evaluation (FREBE) Program and the Chula Vista CLEAN Business Program, the city promotes participation in SDG&E commercial Core Programs, successfully engaging a substantial number of Chula Vista businesses (over 1,500 in 2015-2016).<sup>6</sup> These businesses reported high participation in SDG&E Core Programs after interaction with the Chula Vista LGP. The Chula Vista LGP reported over 750 direct referrals to the SDG&E Business Energy Solutions Program.

### *Key Challenges*

- Chula Vista staff noted that there have been instances when the SDG&E process for communicating Core Programs changes to Chula Vista staff was not timely, leading to some confusion among Chula Vista staff and SDG&E customers about program eligibility and referrals for ineligible products or customers. This issue is particularly challenging given the amount of time it takes to get project approval for municipal retrofits.
- Chula Vista staff explained that SDG&E currently does not provide them with Core Program uptake data. As a result, Chula Vista staff are unable to track SDG&E program uptake among businesses referred by the Chula Vista LGP's community engagement activities, and therefore cannot estimate the full impact of the programs. SDG&E and Chula Vista have signed a Non-Disclosure Agreement, and there are efforts underway for SDG&E to provide data to Chula Vista.
- Chula Vista extensively utilizes outside financing for Municipal Building Retrofit activities. A primary funding source is On-Bill Financing.<sup>7</sup> Chula Vista staff noted that recently, the requirement for On-Bill Financing to be tied to a rebate program

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<sup>5</sup> The Home Check-Up Evaluation service is a free, high-level home energy audit performed by Chula Vista staff upon request by city residents.

<sup>6</sup> The FREBE Program requires all Chula Vista commercial and industrial businesses to participate in a free on-site resource and energy audit of their facilities. The CLEAN Business Program recognizes businesses that are leaders in efficiency, conservation and sustainability.

<sup>7</sup> The California investor-owned utilities' (IOUs') On-Bill Financing program offers 0% financing for qualifying energy-efficient improvements that are paid through a non-residential customer's SDG&E bill.

has led to Chula Vista to put lighting projects on hold, as some lighting measures are no longer eligible for rebates.

## 1.2 Recommendations

Based on the evaluation results, we present the following recommendations for the Chula Vista LGP:

- **Communicate changes to Core Programs quickly.** We recommend that SDG&E program staff take action to proactively communicate program changes to Chula Vista staff. Possible solutions include adding Chula Vista staff to the notifications that SDG&E sends to contractors, incorporating a formal update process during meetings between both Chula Vista and SDG&E staff, and/or developing a web portal with up to date program information.
- **Create a project tracking database.** We recommend that Chula Vista and SDG&E implement a tracking system that reports details of projects that the Chula Vista LGP refers to Core or third party programs. This will aid future evaluations and help the Chula Vista LGP fully understand the impacts of its efforts.
- **Provide on-location training on code compliance.** We recommend that SDG&E and Chula Vista continue to work to provide on-location training to code permitting and enforcement staff at their workplaces.

The 2013-2014 Energy Efficiency Program Implementation Plan (PIP) for SDG&E<sup>8</sup> includes additional information on the 2015-2016 planned activities for the Chula Vista LGP.

Evidence collected in this evaluation strongly indicates that the Chula Vista LGP continues to be a highly advanced and very successful program. We characterize the Chula Vista LGP as advanced because it is very active across all program activity areas, and continues to look for innovative ways to advance energy efficiency in the City of Chula Vista. The Chula Vista LGP has demonstrated its success by meeting energy and non-energy related goals in 2015 and 2016, continuing successful efforts from previous years.

The Chula Vista LGP is characterized by very strong collaboration and open communication between Chula Vista and SDG&E, as all of the Chula Vista LGP partners expressed very high satisfaction with their partners across all program activities. The result of this collaborative partnership is continued evolution and success of the Chula Vista LGP. Interview subjects' opinions and statements about energy savings suggest the

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<sup>8</sup> San Diego Gas & Electric Company. *2013-2014 Program Implementation Plan – Local Government Partnerships Program*. 2013.

The 2013-2014 Program Implementation Plans (PIPs) are the most current applicable PIPs available for the local government partnerships.



Chula Vista LGP has increased the efficiency of municipal building stock and has encouraged Chula Vista's residents and businesses to integrate energy efficiency and conservation into a multitude of activities. These efforts continue to help Chula Vista meet California's ambitious goals for reducing energy consumption and greenhouse gas output, and help make Chula Vista a sustainable and viable city.

## 2 Introduction

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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. In 2006, the City of Chula Vista Local Government Partnership (the Chula Vista LGP) was created as a partnership between the City of Chula Vista (Chula Vista) and San Diego Gas & Electric Company (SDG&E). The purpose of the Chula Vista LGP is to leverage the combined strengths of both Chula Vista and SDG&E to identify and implement energy efficiency projects and activities.

Chula Vista has a long history of energy efficiency and conservation leadership going back to the 1990s. The Chula Vista LGP serves Chula Vista, the second largest city in San Diego County with approximately 250,000 residents and 13,000 businesses. Since its inception, the Chula Vista LGP has been a successful partnership according to the previous program evaluation, which noted that the collaboration has a history of being a “well-structured and well-run cooperative organizational effort between the City of Chula Vista and SDG&E.”<sup>9</sup> The broad goal of the Chula Vista LGP in the most recent program cycle is to continue this success by supporting progress towards meeting energy efficiency goals and facilitating energy efficiency activities in the municipal, residential and business sectors. The Chula Vista LGP is a non-resource program, meaning that the partnership does not claim savings directly, but rather funnels projects to Core Programs that claim energy savings.<sup>10</sup>

- The main program activities in the 2015-2016 program cycle included: **Municipal Facility Retrofit and Retro-Commissioning** – The Chula Vista LGP seeks to identify, finance and implement retrofit and retro-commissioning projects at municipal facilities. Specific activities include designing and managing retrofit and retro-commissioning projects, integrating demand response measures with energy efficiency projects, providing technical assistance such as energy audits and training, and offering On-Bill Financing for municipal projects.
- **California Strategic Plan Support** – Activities in four areas are designed to support and advance the California long-term Strategic Plan. *Reach Code Support* includes efforts to implement and promote local building codes stronger than Title 24 including reach codes and green building codes. *Code Compliance* activities improve

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<sup>9</sup> PA Consulting Group. *San Diego Gas & Electric Company Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs*. Prepared for San Diego Gas & Electric Company, 2009.

<sup>10</sup> Core Programs refer to large energy efficiency programs in SDG&E’s program portfolio, including residential, commercial and third party programs.

adherence to codes and standards and include government staff training and certification programs for inspectors and contractors. *Lead by Example* encourages activities that promote energy efficiency to the local community by incorporating energy efficiency practices in day-to-day operations. *Community Programs* include local efforts and programs to increase energy efficiency or address climate change in the community. The Chula Vista LGP has activities across all four Strategic Plan Support areas, and some highly successful initiatives, including a Property Assessed Clean Energy (PACE) marketplace development program, and adoption of a Climate Action Plan (CAP).

- **Core Programs Coordination** – The Chula Vista LGP promotes SDG&E’s residential and commercial energy efficiency programs by providing targeted outreach and technical assistance to Chula Vista residents and businesses. Activities include energy efficiency education and program promotion to the community, energy audits of residences through the Home Check-Up Program, and providing mandatory energy audits of businesses through the Free Resource & Energy Business Evaluation (FREBE) Program.<sup>11</sup>

Chula Vista staff estimate that the Chula Vista LGP funds the equivalent of approximately five full time positions at Chula Vista. This funding, combined with general fund dollars, funds five positions within the Office of Sustainability in the Public Works Department, and one full time contractor who acts as the Code Coach.<sup>12</sup> Of the five staff members within the Office of Sustainability, four spend over 90 percent of their time on Chula Vista LGP-related activities. The fifth staff member oversees the Office of Sustainability and spends half of their time working on Chula Vista LGP-related activities. The Code Coach spends 100 percent of their time on LGP-related activities. In addition to these core staff members, four paid interns work 90 percent of their time on LGP activities and 15 part time Recreation Department staff members assist with LGP events, taking between 10 and 15 percent of their time.

SDG&E has one Program Manager who provides support for the Chula Vista LGP. Two administrative staff members at SDG&E support the Program Manager. The Program Manager has other responsibilities including management of three other LGPs. According to SDG&E staff, the Chula Vista LGP requires approximately the equivalent of 0.25 full time employees.

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<sup>11</sup> The FREBE Program requires all Chula Vista commercial and industrial businesses to participate in a free on-site resource and energy audit of their facilities. The CLEAN Business Program recognizes businesses that are leaders in efficiency, conservation and sustainability.

<sup>12</sup> The Code Coach is a staff member who is a code expert. This individual staffs a public-facing Sustainability Desk one and a half days per week to provide guidance to permit applicants and building department staff on California’s Building Energy Efficiency Standards (Title 24, Part 6) and the Green Building Standards (Title 24, Part 11; CalGreen).

## 3 Research Objectives and Methods

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### 3.1 Research Objectives

The research objectives for this evaluation included the following:

1. Provide documentation of the Chula Vista LGP's suite of activities at the time of the evaluation;
2. Document how the Chula Vista LGP has adopted and implemented recommendations from the previous process evaluation;
3. Identify whether the Chula Vista LGP is currently being implemented according to its logic model/change theory;
4. Document the Chula Vista LGP's successes and challenges;
5. Assess partner satisfaction with the Chula Vista LGP;
6. Identify whether the Chula Vista LGP is on track to meet CPUC-approved program objectives; and
7. Provide recommendations regarding design and/or implementation of the Chula Vista LGP, 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 the Chula Vista LGP operates;
- Comparative or best practice research between the Chula Vista LGP and other LGPs, since only a limited number of LGPs will be evaluated each year; or
- Feasibility assessment of activities the Chula Vista LGP is not already conducting.

### 3.2 Research Methods

This theory-based evaluation began with the development of a program logic model that linked the Chula Vista LGP 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 the Chula Vista LGP'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 primary use of the logic model is to guide the evaluation of program effects. At a high level, the logic model describes the activities and immediate outputs of the Chula Vista LGP, 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 model as a guide to define specific outputs and outcomes to measure 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 model.

Using the logic model 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 the Chula Vista LGP engages in subsequent sections: Municipal Building Retrofits (Section 4), Strategic Plan Support Activities (Section 5), and Core Programs Coordination (Section 6). These sections provide a detailed description of Chula Vista LGP activities shown in the logic models. Note that the logic model provides a graphical summary of the main Chula Vista LGP activities and outcomes, and we have omitted some less prominent activities to simplify the diagrams.

After Evergreen identified the data collection methods that would help us assess progress towards goals, we worked with SDG&E and Chula Vista staff to identify the most

appropriate personnel to interview. For the Chula Vista LGP, Evergreen conducted four interviews with a total of five Chula Vista staff members, and one interview with an SDG&E staff member. These interviews took place in November and December of 2016.<sup>13</sup>

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<sup>13</sup> In the remainder of this document, 'Chula Vista staff' refers to staff at the City of Chula Vista that work to support the Chula Vista LGP, and 'SDG&E staff' refers to staff at SDG&E that work to support the Chula Vista LGP. When other staff from either organization are referenced, their roles are explicitly described in the text.



## 4 Municipal Building Retrofits

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

- Retrofitting or retro-commissioning local government facilities;
- Integrating demand response with energy efficiency projects, including providing technical assistance such as energy audits and training; and
- Financing municipal projects through On-Bill Financing.

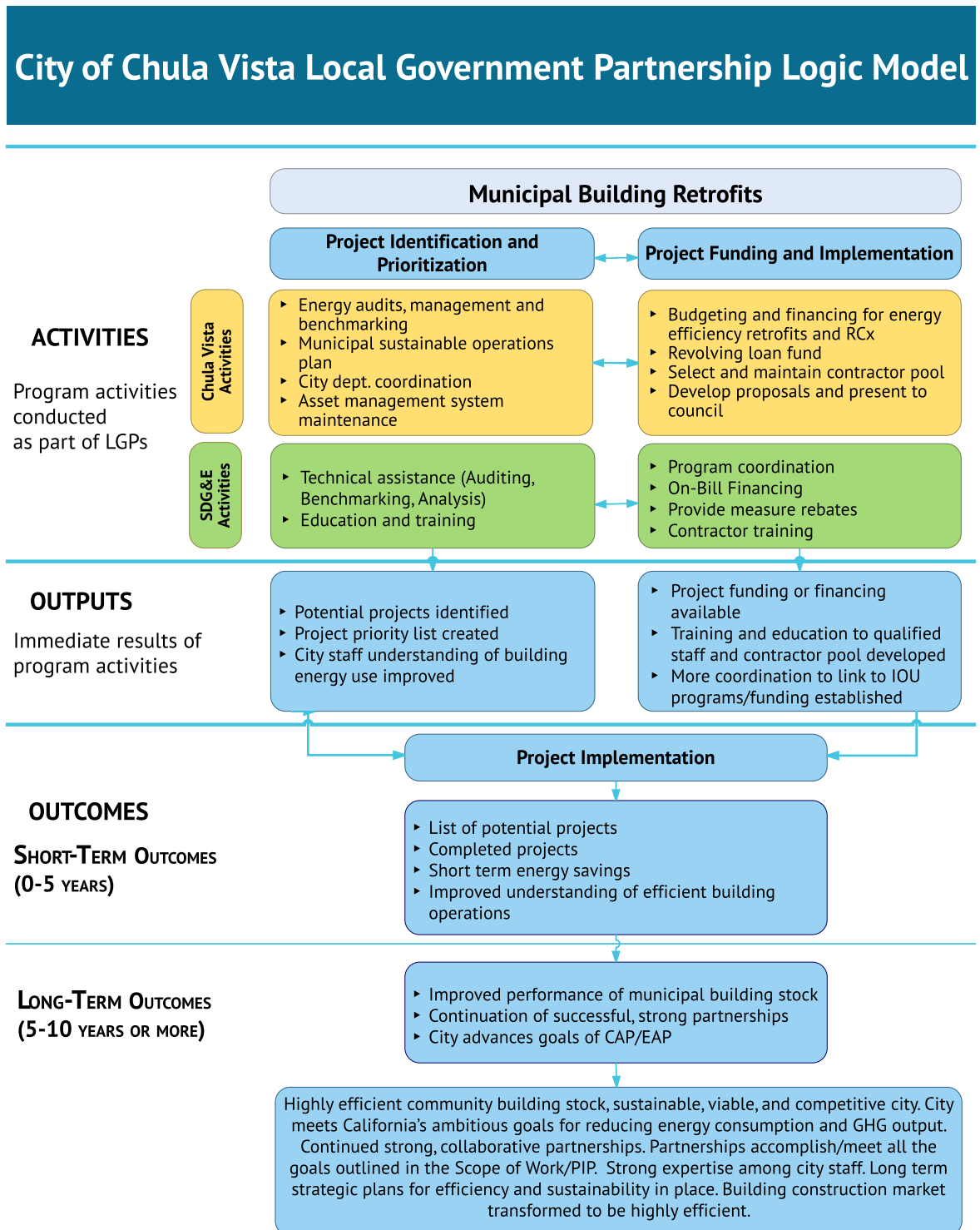
Through these activities, the goal of the Chula Vista LGP is for SDG&E and Chula Vista staff to work together to facilitate local government facilities' energy savings and to place energy efficiency projects in the context of sustainability and climate change initiatives. Ultimately, through these activities and a collaborative relationship between SDG&E and Chula Vista, the Chula Vista LGP aims to improve energy efficiency in the municipal building stock, enabling Chula Vista to become an energy champion in the community, and to help Chula Vista meet California's ambitious goals for reducing energy consumption and greenhouse gas emissions.

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

The logic model presents a high level overview of the Chula Vista LGP'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 described in the last row of the model. Note that the logic model provides a graphical summary of the main Chula Vista LGP Municipal Building Retrofits activities and outcomes, and we have omitted some less prominent activities to simplify the diagram. The Chula Vista LGP 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 spoke with three Chula Vista staff members and one SDG&E staff member who had experience with the retrofit and retro-commissioning activities. Overall, the interviewees from both organizations characterized this Chula Vista LGP activity area as being mutually beneficial with useful collaboration. The partners meet regularly, with two formal quarterly meetings and specific project meetings as needed.

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

## 4.1 Municipal Building Retrofits Activities

### 4.1.1 Municipal Building Retrofits and Retro-Commissioning

Chula Vista owns and operates a variety of public facilities including over 90 buildings, 8,000 street lights and 13 sewage and irrigation pump stations. With assistance from SDG&E through the Chula Vista LGP, Chula Vista engages in efforts to identify, finance and implement retrofit and retro-commissioning projects at these facilities, with a focus on an integrated demand side management approach that pairs energy efficiency with renewable energy and demand response opportunities. Below, we describe the process for these efforts as described by Chula Vista and SDG&E staff.

**Municipal Project Identification and Prioritization.** Chula Vista's Public Works Department developed a public asset management database that contains a detailed description of every city asset and an inventory of energy consuming equipment including energy efficiency ratings. The asset management database came online in 2016 and took two and a half years to develop. Chula Vista staff use this tool as their foundation to review assets and prioritize projects. Chula Vista also has a long history of benchmarking facilities' energy consumption using ENERGY STAR Portfolio Manager,<sup>14</sup> and recently began using benchmarking software provided by SDG&E as well.<sup>15</sup> Once Chula Vista makes a first pass at identifying projects using the asset management system and benchmarking data, Chula Vista staff, with technical assistance from SDG&E and contractors, conduct energy audits to further identify and prioritize projects with high potential for electric or gas savings. At this stage, the SDG&E LGP Program Manager and Account Executive meet with Chula Vista staff to identify any applicable incentive programs. We show these project identification and prioritization activities and outputs in Figure 1.

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<sup>14</sup> ENERGY STAR Portfolio Manager is a free EPA-developed online tool that allows users to measure and track energy and water consumption.

<sup>15</sup> 100 percent of Chula Vista municipal facilities have undergone energy consumption benchmarking.

**Municipal Project Budgeting:** Because of their experience with the Chula Vista LGP and with energy efficiency in general, Chula Vista staff and SDG&E staff reported that they have a strong understanding of the financing and budgeting options needed to successfully implement projects. We show financing and budgeting as activities in the Project Funding and Implementation column in Figure 1. Chula Vista historically has accessed a wide range of funding sources to finance energy efficiency projects; in addition to SDG&E rebate and incentive programs, these sources include federal and state loans and grants, On-Bill Financing (see Section 4.1.3), and energy efficiency bonds. The city's Office of Sustainability directs and budgets all Chula Vista projects, requesting approval for project financing from the Chula Vista City Council directly. According to Chula Vista staff, the city highly prioritizes energy efficiency efforts and is very receptive to energy efficiency projects for which there is evidence of reduced energy costs and reasonable payback periods that can have a positive impact on Chula Vista's financial position.

**Municipal Project Implementation:** Once Chula Vista staff and administrators approve projects, Chula Vista staff select contractors from a pool of approved vendors via a competitive bidding process. All vendors are registered on the Planet Bid website; Chula Vista posts requests for bids through this platform. Following completion of a project, SDG&E and Chula Vista calculate energy savings by energy consumption analysis of facilities before and after a project, engineering analysis of replaced or refurbished equipment, or some combination of these methods depending on the type of project. Chula Vista staff communicate energy savings to the City Council as part of the City Operations Sustainability Plan reporting, and to SDG&E and the CPUC through quarterly and annual reports. At present, realized energy cost savings appear in the general fund budget and go directly to improving Chula Vista's financial position and building the cash reserves that Chula Vista lost during the 2008 financial crisis. There is active discussion of creating a revolving fund that would draw on energy cost savings realized by energy efficiency projects once Chula Vista's reserves meet their targets.

As part of the Municipal Building Retrofits activities, Chula Vista actively looks for opportunities to adopt emerging technologies in building retrofit projects. Emerging technologies that projects have integrated or tested include:

- Thermal storage technology for demand response applications;
- Adaptive street lighting controls; and
- Advanced energy management systems.

Beyond energy efficiency, Chula Vista also engages in other conservation efforts not funded by the Chula Vista LGP, including water conservation, renewable energy and self-generation projects. Chula Vista currently has 1.7 MW of installed solar power resources and is considering incorporating small scale wind generation resources and energy storage technologies. Chula Vista has also recently taken over management of the Olympic

training center in the city, and Chula Vista staff are hopeful that this will present opportunities for major projects including the potential for a micro-grid serving the Olympic training center.<sup>16</sup> Lastly, Chula Vista has installed solar street lighting and park lighting in several locations.

#### **4.1.2 Training and Technical Assistance**

An integral component of the Chula Vista LGP is the technical assistance and training services provided by SDG&E, as shown in Figure 1. As noted above, SDG&E staff plan for and provide technical assistance to help identify, develop and complete energy efficiency projects. Technical assistance includes integrated engineering audits of municipal facilities, equipment specifications and recommendations, cost-effectiveness calculations, field inspections of projects, and equipment testing and analysis. Chula Vista staff characterized this technical assistance as “invaluable”, stating that SDG&E is very involved and provides key assistance particularly with energy audits.

SDG&E also provides training to improve Chula Vista staff knowledge of and expertise in energy management and resource conservation. These activities include training in benchmarking software including the ENERGY STAR Portfolio Manager tool and facilitating Building Operator Certification, Certified Energy Management certification, and LEED accreditation. SDG&E and Chula Vista staff have focused on providing LEED accreditation training in 2015 and 2016, with more than eight training sessions on LEED Existing Building Operations and Maintenance (EBOM) certification for 10 city staff members from multiple departments. Chula Vista staff explained that these trainings have resulted in successful registration of the City Hall campus for LEED certification and that Chula Vista aims to certify more municipal facilities in the near future.

#### **4.1.3 On-Bill Financing For Municipal Projects**

On-Bill Financing allows Chula Vista to finance eligible projects at zero percent interest over five years and to repay the loan as part of the city's utility bill. We show On-Bill Financing as an SDG&E activity under Project Funding and Implementation in Figure 1. Chula Vista staff explained that this program has been very important, with almost all eligible municipal building projects financed through this method. Because many jurisdictions are cautious about taking on any form of debt, we asked Chula Vista staff members if there was any hesitancy from Chula Vista leadership about On-Bill Financing. The interviewees explained that Chula Vista leadership is motivated to use On-Bill

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<sup>16</sup> The Olympic training center, also known as the Chula Vista Elite Athlete Training Center, is a 155 acre athletic and accommodation facility that provides training facilities for a range of sports including cycling, field hockey, rowing, soccer, tennis, track and field, and cross training abilities for various winter sports.

Financing because conservation staff over the years have been able to make a good case for the long-term cost benefits of energy efficiency.

Additionally, there are three other important activities that impact municipal building efficiency:

- Development of the *City Operations Sustainability Plan*;
- Feasibility assessment of establishing an energy management system to improve real-time management capacity; and
- Development of a Municipal Utility Reinvestment Fund (MURF) to support energy efficiency and renewable energy upgrades at municipal facilities.

These activities are discussed in more detail in the Strategic Plan Support section (Section 5).

## 4.2 Progress Towards Goals

The Chula Vista LGP does not formally claim energy savings and does not have explicit savings goals for Municipal Building Retrofits activities. Consequently, Chula Vista sets their own internal energy savings goals, and has committed to reducing energy consumption of all buildings by 20 percent by 2020 through its Municipal Sustainable Operations Plan. Chula Vista reached this goal in 2016. As noted, Chula Vista continues to undergo regular audits and upgrades of its municipal building stock including a planned indoor LED retrofit in 2017, which is estimated to save 1,244,465 kWh.

The Chula Vista LGP has set several non-energy related goals for Municipal Building Retrofits activities as detailed in Table 2. 'Ys' in the table reflect that the Chula Vista LGP met its goals, as reported by staff we interviewed.

**Table 2: Municipal Building Retrofits Activity Goals**

<b>Goal Description</b>	<b>Target</b>	<b>2015 Goal Met</b>	<b>2016 Goal Met</b>
LEED-EBOM* training for staff	2 staff per year (total of 10 staff)	Y	Y
LEED-EBOM building certification	1 building within 5 years	N/A	Y
Best practices identified	2 within 5 years	N/A	Y
Energy efficiency specification sheet for capital project	1 within 5 years	N/A	Y

\*Existing Building Operations and Maintenance

### 4.3 Key Successes

Chula Vista and SDG&E staff identified many notable Chula Vista LGP successes – both project-related and more general successes – in engaging and promoting energy efficiency and conservation in Chula Vista. Interviewees reported the following key successes:

- In 2015, the Chula Vista LGP completed a pilot program to convert nearly 200 linear fluorescent fixtures to LED bulbs in a library and an office building. Based on the success of this project, Chula Vista is upgrading all municipal facilities with LED lights.
- Between 2012 and 2014, there were over 7,000 street lights (close to 90 percent of city street lights) converted to LED technology, resulting in a more than 50 percent reduction in energy consumption.
- Chula Vista staff reported that over 50 municipal facilities have had energy upgrade improvements over the past six years (through the end of 2016), resulting in a reduction in energy consumption of over 29 percent based on 2010 consumption levels.
- Chula Vista installed a supervisory control and data acquisition (SCADA) energy management system for pumps and sewer systems that the city may expand to more facilities in coming years.
- Chula Vista has displayed ongoing commitment to prioritizing energy conservation and green projects and has made consideration of energy efficiency an explicit criterion in city planning. One Chula Vista staff member related the following:

*“When we hear you ask how we identify projects, we think, well, there are projects and we just do them. We have worked hard to hammer home that energy efficiency is something that has to be considered in all projects. A great example is [that] our economic development director came to us recently and said ‘we are going to be doing some work on a city proposition and we want to develop a sustainability checklist to ensure that the projects are checking off all the sustainability goals’. That type of engagement is something we have been working on for a long time, and now departments know that energy efficiency will be part of any new project, so they will include it proactively as something that needs to be addressed.”*

### 4.4 Challenges

Both Chula Vista and SDG&E staff noted that the Municipal Building Retrofits activity area of the Chula Vista LGP is working very well and that there are few challenges. Chula Vista staff noted that aside from the inevitable budgeting challenges that arise with new projects, the only challenges at present relate to On-Bill Financing and LED lighting rebates.

As noted above, Chula Vista is planning to replace interior lighting with efficient LEDs citywide. The city had planned on using On-Bill Financing to fund the project; however, during the project planning phase, which took considerable time, the LED lighting rebate

program was scaled back and the rebates were no longer available. The On-Bill Financing program is only available for projects covered under an SDG&E rebate program, and as a result, while Chula Vista was willing to continue the project without the rebates, On-Bill Financing was no longer available. This development has stalled the project while SDG&E and Chula Vista discuss how to proceed. This challenge highlights a common barrier that local governments can face; public agencies typically require more time to plan and approve energy projects than the private sector, making them more susceptible to program changes that can lead to missed opportunities.

#### 4.5 Satisfaction with Partner Efforts

Staff from both Chula Vista and SDG&E expressed very high satisfaction with the efforts of their partners. Both organizations characterized the Chula Vista LGP as very positive with useful collaboration. We asked each of the four interview subjects (three Chula Vista staff members and one SDG&E staff member) to rate their satisfaction with the partner organizations' participation in the Municipal Building Retrofits activity area of the program. All three Chula Vista interview subjects rated their satisfaction in this element as a 10, with one subject stating that if possible, he would have rated their satisfaction as an 11. These Chula Vista staff members reported that they have been very satisfied with the assistance SDG&E provides, they have very open and good communication with SDG&E, and the relationship is “very positive and straightforward and working with SDG&E works very well.” The SDG&E staff member also rated their satisfaction as a 10, stating that the collaboration is going very well. They explained that Chula Vista is “very committed to their work, very inclusive and always asking for SDG&E input and always willing to help”, and that the Chula Vista LGP is “as strong as it has ever been”.

#### 4.6 Reported Assistance Needed and Implementation Recommendations

While interview subjects rated their level of satisfaction as very high, Chula Vista staff reported one area in which further assistance was needed, and also recommended two changes for program implementation.

- **Provide information on Core Program savings calculations.** Chula Vista staff explained that while they report estimates of savings from municipal buildings to the CPUC, they do not have insight into how the SDG&E Core Programs calculate energy savings. Chula Vista would like to receive information about the SDG&E Core Programs savings from municipal projects so they can ensure that their reporting is accurate. SDG&E and Chula Vista staff are working to create a non-disclosure agreement that will allow them to share this information.
- **Calculate savings based on existing equipment.** Chula Vista staff recommended that the SDG&E programs should base energy savings for replaced equipment with the existing equipment conditions being the baseline, rather than on current code



requirements. The CPUC is currently refining the rules for baseline conditions under various scenarios in compliance with AB 802, which the legislature introduced to encourage the expansion of baseline conditions in some situations to include existing conditions. Chula Vista staff made this recommendation because they believe there is value in modeling the existing conditions where appropriate at city facilities, as local governments are very cost conscious and will often keep old equipment running for as long as possible.

- **Expand eligible projects for On-Bill Financing.** Chula Vista staff noted that the requirement for On-Bill Financing to be tied to a rebate program could lead to missed opportunities for non-incentivized energy efficiency projects. As noted above, the citywide interior LED lighting project being planned by Chula Vista is no longer eligible for rebates and therefore is unable to be considered for On-Bill Financing. Chula Vista staff recommended that the requirement for On-Bill Financing be untied from rebate program eligibility for LGPs.

## 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 California's 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.

The Chula Vista LGP is unique in that it is active in all four activity areas and takes part in a total of 14 Strategic Plan Support activities. Table 3 below shows the support areas where the Chula Vista LGP is active in each Strategic Plan Support area, using the menu categories from the Strategic Plan.

**Table 3: Strategic Plan Support Activities**

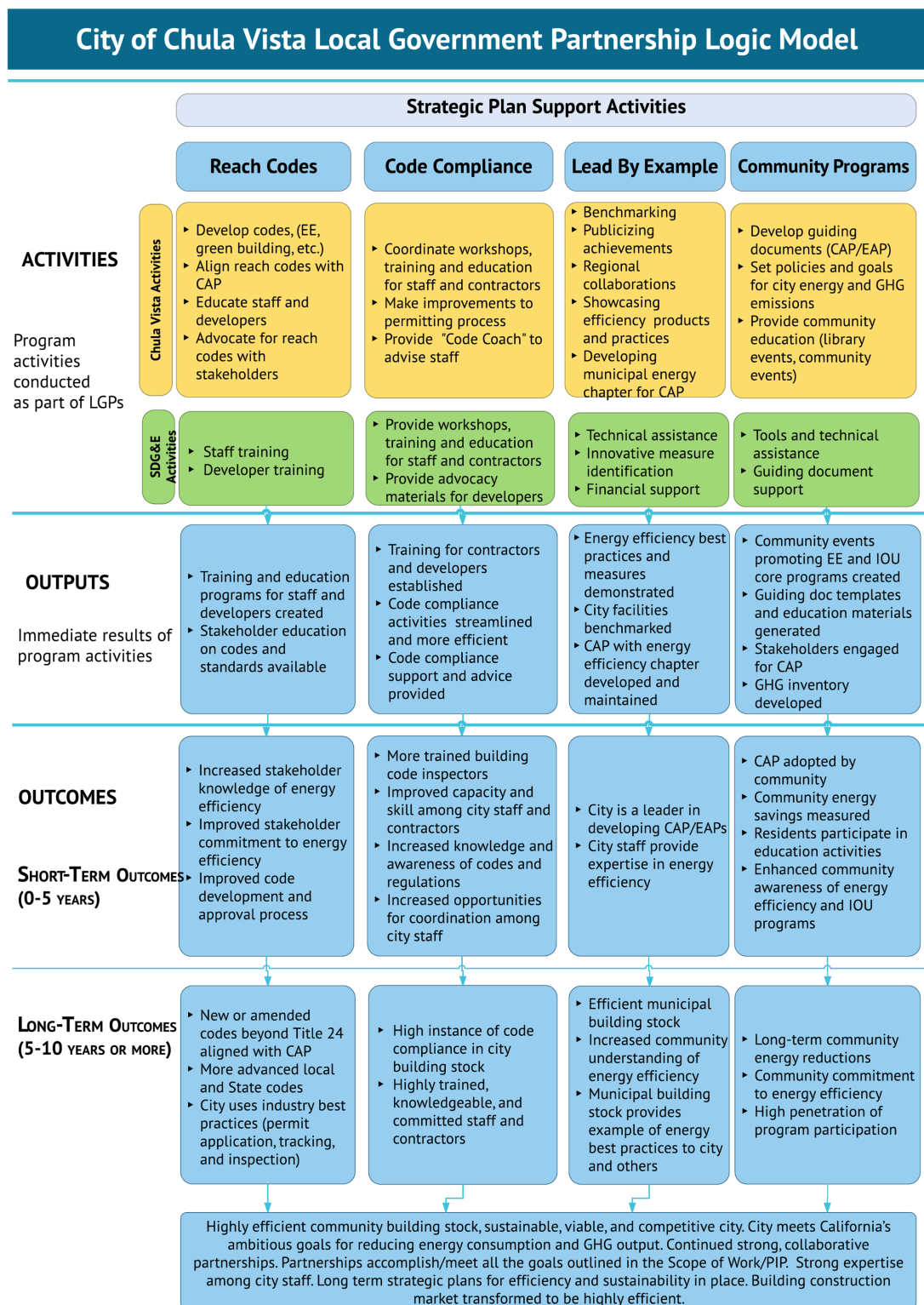
Goal	Menu Option - Abbreviated Title	# of Activities
<b>1 - Reach Code Support</b>	1.1.1. Reach Codes	1
	1.1.2. Green Building Code	1
	1.1.3. Point of Sale Program	
	1.1.4. IDSM Code Updates	
	1.1.5. Energy Efficiency Codes & Programs	1
	1.1.6. Educational Programs	
<b>2 - Code Compliance</b>	2.1.1.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

As we discussed in Section 3.2, our evaluation of the Chula Vista LGP began with development of a program logic model for each activity area in which the Chula Vista LGP engages, to serve as a guide to define specific outputs and outcomes for evaluating each section. We include the logic model of the Chula Vista LGP's Strategic Plan Support activities as Figure 2 on the following page.

The logic model presents a high level overview of the Chula Vista LGP's Strategic Plan Support 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.

Each program activity area contributes to the overall long-term program goals that we described in the last row of the model. Note that the logic model provides a graphical summary of the main Chula Vista LGP Strategic Plan Support activities and outcomes, and we have omitted some less prominent activities to simplify the diagram. The Chula Vista LGP Strategic Plan Support activities have generally been consistent with those shown in the logic model.

Figure 2: Strategic Plan Support Activities Logic Model



The evaluation team spoke with three Chula Vista staff members and one SDG&E staff member involved with Strategic Plan Support activities. Overall, the interviewees from both organizations characterized the Chula Vista LGP's efforts in the Strategic Plan Support activity area as being very collaborative.

## 5.1 Reach Code Support

Reach Code Support activities, which we show in the left column of Figure 2, are designed to develop and promote local codes that exceed Title 24 requirements. Reach Code Support is designed so that each Reach Code Support activity will be coordinated with the SDG&E Codes and Standards program. 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.

### 5.1.1 Reach Code Support Activities

Chula Vista, with assistance from the Chula Vista LGP, has implemented a broad range of reach codes in energy efficiency and other code areas. Chula Vista staff explained that the main policy driver of reach codes historically has been the Chula Vista CAP. According to Chula Vista staff, through reach codes, Chula Vista has been able to realize substantial energy savings at a relatively low cost. The CAP includes energy efficiency goals and reach code activities, which has formalized Chula Vista's commitment to code development.

Chula Vista staff emphasized the importance of education and training in tandem with any reach code development, because – while there is relatively little cost to Chula Vista – there is a burden on stakeholders and developers when new reach codes are created. Training can help to relieve that burden by making stakeholders and developers more comfortable with the reach codes. Education and training also helps avoid the possibility of confusion about codes for individuals or organizations that operate in different jurisdictions. Additionally, Chula Vista staff explained that training and education offerings that the Chula Vista LGP provides to Chula Vista city staff are helpful in ensuring that reach codes are rolled out effectively and in reducing the perceived risk of future reach code changes.

A recent history of Chula Vista reach codes includes the following:

- **2012:** Chula Vista passed what Chula Vista staff described as the “quintessential reach code” requiring an additional 15-20 percent of energy savings over 2008 Title 24 requirements for new construction and some remodels. This has since been superseded by State code, but Chula Vista was able to increase new construction efficiency levels and realize substantial savings.
- **2012:** Chula Vista passed an ordinance mandating Tier 2 cool roof standards for new residential buildings in Climate Zone 10 as part of Chula Vista's Green

Building Standards.<sup>17</sup> This has since been superseded by State code, but Chula Vista is investigating widening the mandate to cover all climate zones in which the city lies.

- **2014:** Chula Vista passed a zero net energy (ZNE) reach code requiring solar photovoltaics (PV) on all ZNE homes.

In addition to the above energy efficiency related codes, Chula Vista has also passed reach codes for solar pre-wiring (2012), and pre-plumbing for gray water use in landscaping (2012).

Chula Vista has two Strategic Plan Support – Reach Code Support menu items that are currently active.

- 1. Sustainable Communities – Reach Codes:** This involves continuing to work with stakeholders to explore potential for reach codes for the 2016 Energy Code. The Chula Vista LGP engaged with stakeholders, held several scoping meetings with city staff and consultants, and participated in the Local Government Codes and Standards team. However, they were unable to implement a reach code in 2016 due to challenges with a pending State code update. The Chula Vista LGP is continuing to explore potential for a reach code in 2017.
- 2. Sustainable Communities – Green Building Codes:** This activity is designed to pass new cool roof building codes that reduce the heat island effect and reduce energy/AC use. Chula Vista and SDG&E staff have held several meetings and reviewed cost-effectiveness research. There are plans to implement a citywide cool roof requirement in 2017.

Lastly, the Chula Vista LGP launched an activity in 2014, under Strategic Plan Support menu item 1.1.5. Energy Efficiency Codes & Programs, to support creation of a Property Assessed Clean Energy (PACE) financing program in Chula Vista to help commercial and residential constituents implement energy efficient upgrades. The Chula Vista LGP supported development of the PACE programs through \$46,000 in funding from SDG&E to provide administration and marketing support. The PACE program currently has four providers, and to date, the PACE program providers have financed \$32 million in energy efficiency, renewables and water efficiency measures with the majority of projects being energy efficiency related. According to Chula Vista staff, the PACE program is very successful and robust, with four PACE providers and greater uptake than previous financing program efforts undertaken by Chula Vista. Previously, Chula Vista had a zero

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<sup>17</sup> California Climate Zone 10 includes non-coastal areas in the San Diego region. Climate Zone 10 is characterized by very hot weather in the summer extreme and colder winters than the coastal climates to its west. Cooling and heating is necessary to maintain thermal comfort.

percent loan program that ultimately financed less than \$200,000 worth of projects and experienced administrative difficulties, according to Chula Vista staff.

### **5.1.2 Progress Towards Goals**

The Chula Vista LGP has met its goals in the Reach Code Support activity area since 2012, including passing reach codes and providing education and training to developers and constituents. Going forward, the goal of the Chula Vista LGP is to continue to research and develop reach codes and green building codes. While current codes have not been superseded as of yet, the Chula Vista LGP has engaged with numerous stakeholders and conducted research for future code changes.

### **5.1.3 Key Successes**

Chula Vista and SDG&E staff identified passing the 2012 reach code (the Increased Energy Efficiency Ordinance that required an additional 15 to 20 percent of energy savings over 2008 Title 24 for new construction and some remodels), passing the cool roof code, and providing subsequent training and education to developers and other stakeholders as notable successes. Chula Vista staff were particularly happy with the success of the reach codes in terms of developer adoption. Chula Vista staff noted that they did not receive a significant amount of complaints and believed that the education and training helped developers adapt to the reach code which in turn prepared them for the next State code cycle. The interviewees attributed this success to long-term engagement with a broad range of stakeholders including realtors and developers, who are often not amenable to reach codes. Through this long-term engagement, the stakeholders understand that Chula Vista is committed to energy conservation and know that eventually, Chula Vista will enact reach codes. Stakeholders understand it is better to be involved in developing the codes, where they have a voice, rather than fight against the codes.

Chula Vista staff reported that a key lesson they learned was an understanding of the high level of influence that stakeholders, including government staff and officials, developers and other agencies, play in code development, and that it is important to engage with these stakeholders early and often. The interviewees noted that if there is a problem, they eventually are going to hear about it at city council meetings, and that it is better to instead hear the complaints earlier through outreach activities such as workshops.

### **5.1.4 Challenges**

The primary challenge in developing and enacting the 2012 round of reach codes was building political capital among stakeholders to have broad acceptance of the codes. Chula Vista staff noted that it was difficult to put in the effort to develop and enact reach codes and then have that work negated by overriding state code updates. One Chula Vista staff member we interviewed explained that while they had the political capital to enact the first round of reach codes, it has been a challenge to rebuild that capital for a second round of reach codes, particularly with another round of State codes looming. This staff member

thought it would be beneficial to build in mechanisms in the reach codes to automatically go beyond any new State code levels. For example, the reach codes could state that City code will remain a set percentage above State code, including when the State code is strengthened, until a specific goal is met, such as achieving ZNE.

### **5.1.5 Satisfaction with Partner Efforts**

Chula Vista and SDG&E engaged in significant collaboration to enact the 2012 round of reach codes and have been collaborating to some extent on exploring the potential for a further round of reach codes and green building codes. The role of Chula Vista staff has been to develop the reach codes in collaboration with other Chula Vista city staff, align the codes with Chula Vista's strategy documents like the CAP, educate Chula Vista city staff and stakeholders and advocate for the reach codes. SDG&E staff provided support through LGP funding of the efforts by participating in the CAP working process, conducting cost effectiveness tests to justify reach codes and providing training and training assistance to Chula Vista staff.

Both SDG&E staff and Chula Vista staff were highly satisfied with each other's contributions to the Chula Vista LGP in the Reach Code Support activity area. We asked each of the four interview subjects (three Chula Vista staff members and one SDG&E staff member) to rate their satisfaction with their partner's participation in the Strategic Plan Support – Reach Code Support activity area of the program. All three Chula Vista interview subjects rated their satisfaction in this element with a score of 10 out of 10. These staff members explained that they have been very satisfied with the assistance SDG&E has provided, and they could not think of anything that SDG&E could be doing differently or better. Similarly, the SDG&E staff member provided a rating of 10 out of 10, explaining that Chula Vista staff has been highly knowledgeable and motivated to develop reach codes.

### **5.1.6 Reported Assistance Needed and Implementation Recommendations**

As mentioned previously, Chula Vista has experienced some challenges in gaining the political capital necessary to develop and enact a new round of reach codes. Chula Vista staff suggested that future energy efficiency reach codes could incorporate structural changes to be ongoing and have built in mechanisms to go beyond code cycles, such as setting percentage increases over code and applying them to State codes as they are enacted.

## **5.2 Code Compliance**

A goal of the Code Compliance activity area (shown as the second column in Figure 2) under Strategic Plan Support is to develop Chula Vista staff expertise in energy conservation and green building principles, with the goal of infusing sustainable practices into the planning, permitting and inspection process. Specific activities to meet this goal



include training for Chula Vista city staff, including for permit counter technicians and building inspectors, on code compliance, advanced energy technologies, and field audits to ensure compliance with Chula Vista's building standards during the permit and construction approval process.

### 5.2.1 Code Compliance Activities

The Chula Vista LGP is engaged in a wide range of activities to train city staff and build their capacity to understand and appropriately enforce Chula Vista's building codes and standards. Specifically, the Chula Vista LGP is currently engaged in or has recently completed four Strategic Plan Support - Code Compliance menu item activities:

1. **Sustainable Communities - Staff Green Building Training** involves organizing and encouraging participation in training provided by SDG&E staff, contractors or Chula Vista staff to educate Development Services employees, including building inspectors, developers and contractors, on Chula Vista's various energy efficiency and green building technologies and associated utility rebate programs. The goal of the trainings is to improve general knowledge and awareness of energy efficiency and green building measures, utility programs, financing and strategies. Trainings have covered topics such as ZNE, online permitting, utility incentives and rebates. Chula Vista provides facilities to host trainings and covers staff time for employees to attend.
2. **Sustainable Communities - Staff Code Compliance Training** involves organizing, recruiting and delivering of training to educate Development Services employees, developers and contractors on Chula Vista's energy efficiency and green building codes and how to comply with them. Trainings focus on understanding, implementing and enforcing residential and non-residential energy code. SDG&E staff or contractors provide trainings. Chula Vista provides facilities to host trainings and covers staff time for employees to attend.
3. **Sustainable Communities - Secondary Audits** involves performing secondary reviews of building inspections to support Title 24 compliance, and educating and informing contractors and building inspection staff. The goal of the secondary (follow-up) audits is to improve implementation, enforcement and effectiveness of energy efficiency codes and regulations. Secondary inspections have been taking place at a rate of one per week since January of 2016.
4. **Sustainable Communities - Code Coach** involves providing a Code Coach to advise city staff, permit applicants and the development community on energy efficiency compliance in addition to identifying opportunities to enhance sustainability during plan reviews. The goal of the activity is to help improve understanding of and increase opportunities for application of energy efficiency codes and regulations. The Code Coach works in the Development Services office and is available to answer energy efficiency questions from staff and customers one and a half days per week.

In 2015, Chula Vista hosted biweekly Energy Code and CalGreen trainings under activities 1 and 2 above for Chula Vista city staff and hosted similar trainings for community members, builders and contractors to help improve compliance and energy savings. In 2015, Chula Vista staff also manned a Sustainability Desk, a precursor to the Code Coach, which assisted city staff and developers. Chula Vista staff engaged in more than 180 one-on-one meetings related to energy code issues.

In 2016, Chula Vista held numerous trainings for city staff, developers and contractors on a range of topics including common Energy Code, permits and ZNE. The Code Coach also assisted Development Services staff with over 100 one-on-one meetings to help staff and developers better understand the energy code, and provided more than 10 in-field secondary inspections by the third quarter of 2016.

In interviews, Chula Vista staff stated that the staff training has helped improve compliance with codes by teaching building inspectors and planners to check plans effectively and know what to ask for from builders and developers. In addition, the onsite secondary field reviews have been valuable in helping contractors and developers understand code requirements. Chula Vista staff noted that a key factor in the success of the training is the use of Chula Vista LGP funds to bring the training to city staff rather than having city staff travel to training locations. This was reported to be invaluable as building inspection and permitting staff are very busy, making travel to other parts of San Diego impractical.

### 5.2.2 Progress Towards Goals

The Chula Vista LGP has made significant progress towards its goals for 2015 and 2016, as summarized in Table 4. 'Ys' in the table reflect that the Chula Vista LGP met its goals, as reported by staff we interviewed.

**Table 4: Code Compliance Activity Progress Toward Goals**

<b>Goal Description</b>	<b>Target</b>	<b>2015 Goal Met</b>	<b>2016 Goal Met</b>
Educational Material for Code Compliance	2 per year	Y	Y
Green Building Training	2 per year	Y	Y
Code Compliance Training	2 per year	Y	Y
One-on-one meetings with developers or contractors	25 per year	Y	Y
Staffing of Sustainability Desk or Code Coach	50 days per year	Y	Y
Secondary Audits Performed	10 per year	Y	Y

### 5.2.3 Key Successes

Aside from meeting all program goals to date, the major success highlighted by Chula Vista staff was the ability to bring code training and materials to Chula Vista employees at their offices rather than having them travel to other parts of San Diego County. This was noted by Chula Vista staff as a key factor in the success of the training.

In addition, one Chula Vista staff member reported that building inspection staff now see the Chula Vista LGP and the Office of Sustainability as resources. The Chula Vista staff member reported that this has led to improved relationships and more timely communication.

Lastly, a different Chula Vista staff member explained that a lot of jurisdictions in San Diego County do not check for energy efficiency permits over the counter or do not ask for forms in the field. They reported that their city is well known for asking a lot of questions, which helps insure that all projects are built to code.

### 5.2.4 Challenges

The primary challenge in developing and delivering staff training is coordinating with Chula Vista permitting staff. As noted above, permitting staff and building inspectors are very busy, and it is important to make sure the trainings are accessible to them. Chula Vista staff explained that they have had a very good working relationship with SDG&E staff, who have been very willing to arrange staff trainings at Chula Vista facilities.

### 5.2.5 Satisfaction with Partner Efforts

Similar to the Reach Codes activity area, the Chula Vista LGP partners collaborated significantly to develop and deliver the Code Compliance training. We asked each of the four interview subjects (three Chula Vista staff members and one SDG&E staff member) to rate their satisfaction with their partner organization's participation in the Code Compliance element of the program. All three Chula Vista interview subjects rated their satisfaction in this element with a score of 9 out of 10. These staff explained that they have been very satisfied with the assistance SDG&E provides; however, they did not give a 10 because assistance was unavailable for renewable energy codes to date. Similarly, the SDG&E staff member provided a rating of 10, explaining that Chula Vista staff were proactive and motivated to develop the code compliance training.

### 5.2.6 Reported Assistance Needed and Implementation Recommendations

Chula Vista staff encouraged SDG&E to continue their existing efforts related to local trainings. As mentioned above, SDG&E assists with code compliance and green building trainings. SDG&E staff did not identify any needed assistance or implementation recommendations.

## 5.3 Lead by Example

Lead by Example includes efforts to improve the energy efficiency of municipal buildings beyond short-term retrofits, including 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. In coordination with the San Diego Association of Governments (SANDAG) and the South Bay Energy Action Cooperative (SOBEAC), the Chula Vista LGP offers ongoing peer support for neighboring jurisdictions. The goal of this Strategic Plan Support activity area is to enable Chula Vista to become a regional energy champion that can help other participating jurisdictions implement energy efficiency priorities identified in their recently-completed Energy Roadmaps and help build internal energy capacity and expertise. An additional goal is to enable Chula Vista to become a local energy champion that can provide an example of energy efficiency in action to its constituents. We show Lead by Example activities, outputs and outcomes in the third column of Figure 2.

### 5.3.1 Lead By Example Activities

The Chula Vista LGP is currently engaged in or has recently completed four Strategic Plan Support – Lead by Example menu item activities:

- 1. Municipal Energy Management – Energy Management System.** SDG&E has assisted Chula Vista with installing and testing a SCADA Energy Management System (EMS) for pumps and sewer systems that may be expanded to more facilities in coming years. The activity aims to continue to evaluate the technology landscape to determine the feasibility of establishing an EMS to improve real-time management capacity, better enabling Chula Vista to track energy use without the need for an outside consultant.
- 2. Municipal Energy Management – Energy Management Action.** This involves continued implementation of Chula Vista’s energy management action plan – the City Operations Sustainability Plan (COSP) – for municipal facilities to identify and take advantage of near-term and long-term energy saving opportunities.
- 3. Municipal Energy Management – Municipal Utility Reinvestment Fund (MURF).** This involves the creation and management of a revolving loan fund to support energy efficiency and renewable energy upgrades at Chula Vista facilities. A draft Revolving Loan Fund policy is in review with city staff; however, implementation cannot begin until Chula Vista rebuilds city budget reserves.
- 4. South Bay Energy Action Collaborative (SoBEAC).** The goal of working with SoBEAC is to engage with and provide peer-to-peer support for South Bay cities to help facilitate municipal and community-wide energy efficiency retrofits, and audits of business premises.

In addition to the formal activities above, Chula Vista staff noted the following areas where they showcase their leadership in energy conservation and in the Lead by Example activity area:

- Tracking building progress in ENERGY STAR Portfolio Manager and posting energy consumption graphs in all municipal buildings so visitors can see what actions Chula Vista is taking and the impact of those actions;
- Aggressively applying for outside funding through California Energy Commission grants, On-Bill Financing, etc.;
- Procuring LEED certification for city buildings;
- Speaking at regional, national and international events such as the SEEK energy forum and the Paris Climate Conference; and
- Participating in the Georgetown University Energy Prize which Chula Vista uses as a public relations and engagement tool for local community outreach.

### 5.3.2 Progress Towards Goals

Table 5 shows the progress towards goals for the Chula Vista LGP in 2015 and 2016. 'Ys' in the table reflect that the Chula Vista LGP met its goals, as reported by staff we interviewed.

**Table 5: Lead by Example Activity Progress Toward Goals\***

<b>Goal Description</b>	<b>Target</b>	<b>2015 Goal Met</b>	<b>2016 Goal Met</b>
SoBEAC Municipal Site Proposals Developed	4 per year	Y	Y
In-House Training or Technical Review Sessions Provided	6 per year	Y	Y
Policies or Programs Developed for SoBEAC City	1 per year	Y	Y
SoBEAC Events	4 per year	Y	Y
Direct Referrals from SoBEAC to SDG&E Core Programs	40 per year	Y**	Y

\* Information gathered through in-depth interviews and review of Strategic Plan documents and annual reports is available on eestats.com

\*\* The collaboration with SoBEAC has resulted in audits of 500 business premises in 2015 and 2016, leading to over 250 referrals to SDG&E Core Programs.

### 5.3.3 Key Successes

The Chula Vista LGP has exceeded the program goals for the Lead by Example activity area, and Chula Vista staff highlighted numerous successes:

- The SoBEAC collaboration, led by Chula Vista, has provided technical and program support to neighboring cities. This resulted in almost 500 business energy audits in National City in 2015 and 2016, which led to over 250 referrals to the SDG&E Business Energy Solutions program.
- A Chula Vista staff member serves as a steering committee member for the San Diego Regional Climate Collaborative (SDRCC) and the San Diego Regional Energy Partnership (SDREP), both of which organize quarterly trainings, energy efficiency assistance programs and information sharing for public agencies across the region.
- Development and implementation of the City Operations Sustainability Plan (initiated in 2014) has driven greater energy savings, and Chula Vista is exceeding the initial goals set in the plan.

### **5.3.4 Challenges**

Neither Chula Vista staff nor SDG&E staff noted any significant challenges with this Strategic Plan Support element.

### **5.3.5 Satisfaction with Partner Efforts**

Both SDG&E staff and Chula Vista staff were highly satisfied with their partners in the Chula Vista LGP. We asked each of the four interview subjects (three Chula Vista staff members and one SDG&E staff member) to rate their satisfaction with their partner organization's participation in the Lead by Example activity area. All three Chula Vista interview subjects rated their satisfaction in this element with a score of 10 out of 10. Similarly, the SDG&E staff member provided a satisfaction rating of 10.

### **5.3.6 Reported Assistance Needed and Implementation Recommendations**

Neither Chula Vista staff nor SDG&E staff noted any assistance needs or implementation recommendations with this Strategic Plan element.

## **5.4 Community Programs**

The Community Programs activity area of Strategic Plan Support involves two broad activities: guiding document support and community financing programs. Coordination with SDG&E Core Programs is also covered under this category; however, Core Programs Coordination is addressed separately in Section 6 of this report. Guiding document support in general includes activities that can help governments and businesses complete greenhouse gas emissions inventories and Climate Action Plans (CAPs). This area also includes assistance to governments in exploring financing opportunities. We show Community Programs activities, outputs and outcomes in the fourth column of Figure 2.

### 5.4.1 Community Programs Activities

The Chula Vista LGP is currently engaged or has recently completed three Strategic Plan Support – Community Programs menu item activities:

- 1. Community Energy Conservation & Upgrade Outreach – CAP.** The goal of this activity is to continually update Chula Vista's CAP to include new energy-saving policies and programs. This is accomplished through a community stakeholder process that was initiated in 2014. Chula Vista staff has continued to implement existing CAP initiatives while preparing the CAP update that will go to the Chula Vista City Council for a full update in 2017.
- 2. Community Energy Conservation & Upgrade Outreach – Greenhouse Gas Emissions.** This activity involves conducting energy efficiency savings analysis as part of the greenhouse gas emissions inventory. The 2014 greenhouse gas inventory (which actually began in 2015) has been completed and showcases the importance of energy efficiency in helping reach municipal greenhouse gas reductions. Buildings and external lighting sectors saw the largest percentage of reductions since the previous inventory, but as buildings still represent 25 percent of municipal emissions, Chula Vista will be focusing on projects to address this including its citywide indoor LED retrofit.
- 3. Community Energy Conservation & Upgrade Outreach – Property Assessed Clean Energy (PACE) Financing.** This activity involves creation of a competitive PACE program to help residents and businesses implement energy efficiency upgrades. The Chula Vista LGP allocated \$46,000 to provide marketing and administrative support to the PACE program. Chula Vista currently has four PACE providers that serve residents and businesses. Chula Vista successfully transitioned from a joint powers authority administered program to the PACE program. Since its inception, PACE has financed more than \$32 million in energy efficiency, renewable energy and water efficiency upgrades to existing residential and commercial buildings.

In addition to the three activities above, the Chula Vista LGP also engages in community outreach and education activities to promote energy efficiency and refer projects to SDG&E Core Programs. These activities are discussed in Section 6.

### 5.4.2 Progress Towards Goals

Aside from the PACE activity, this activity area does not have any formal goals. However, Chula Vista and SDG&E staff noted that both the CAP and greenhouse gas emission inventories have been adopted by Chula Vista and integrated into other strategic plans including the broad City Strategic Plan and the Healthy Chula Vista Initiative Action plan.

The Chula Vista LGP set a formal goal for the PACE program of at least \$1 million in financing issued for residential and commercial projects per year through the four PACE

providers active in Chula Vista. The PACE program exceeded this goal in both 2015 and 2016, with approximately \$32 million in PACE provider funding to energy efficiency, renewables and water efficiency projects since August of 2014. Table 6 shows the type of projects funded by two PACE providers which represent over 75 percent of the PACE projects in Chula Vista.

**Table 6: PACE Funding Project Type**

PACE Provider	Time Period	Number of Projects Financed	Percentage of Projects in Category		
			Energy Efficiency	Renewable Energy	Water Efficiency
Ygrene Energy Fund	2015	592	48%	39%	13%
HERO	December of 2015 through the end of 2016	615	59%	23%	18%

### 5.4.3 Key Successes

The Chula Vista LGP has exceeded the program goals for the Strategic Plan Support - Community Programs activity area. Chula Vista staff highlighted the following successes:

- The Chula Vista City Operations and Sustainability Plan, which incorporates the CAP, has become a major driver of city policies and activities including reach code development and energy efficiency integration in municipal buildings;
- Chula Vista has developed and regularly updates its greenhouse gas emissions inventories; and
- The PACE program that started in August of 2014 has to date financed approximately \$32 million in energy efficiency, renewables and water efficiency projects, most of which were energy efficiency projects, followed by renewables and water. The majority of these projects were conducted in 2015 and 2016.

### 5.4.4 Challenges

Neither Chula Vista staff nor SDG&E staff noted any major challenges with this Strategic Plan Support activity area.

### 5.4.5 Satisfaction with Partner Efforts

Both SDG&E staff and Chula Vista staff were highly satisfied with their partner's efforts in the Chula Vista LGP. We asked each of the four interview subjects (three Chula Vista staff members and one SDG&E staff member) to rate their satisfaction with their partner organization's participation in the Community Programs activity area of Strategic Plan



Support. All three Chula Vista interview subjects rated their satisfaction in this activity area with a score of 10 out of 10. Similarly, the SDG&E staff member rated their level of satisfaction as a 10.

#### **5.4.6 Reported Assistance Needed and Implementation Recommendations**

Neither Chula Vista staff nor SDG&E staff noted any assistance needs or implementation recommendations with this Strategic Plan Support activity area.

## 6 Core Programs Coordination

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The Chula Vista LGP Core Programs Coordination activity area aims to promote SDG&E's residential and commercial energy efficiency programs in the Chula Vista community by providing targeted outreach and technical assistance to the residential and business sectors. Example activities include:

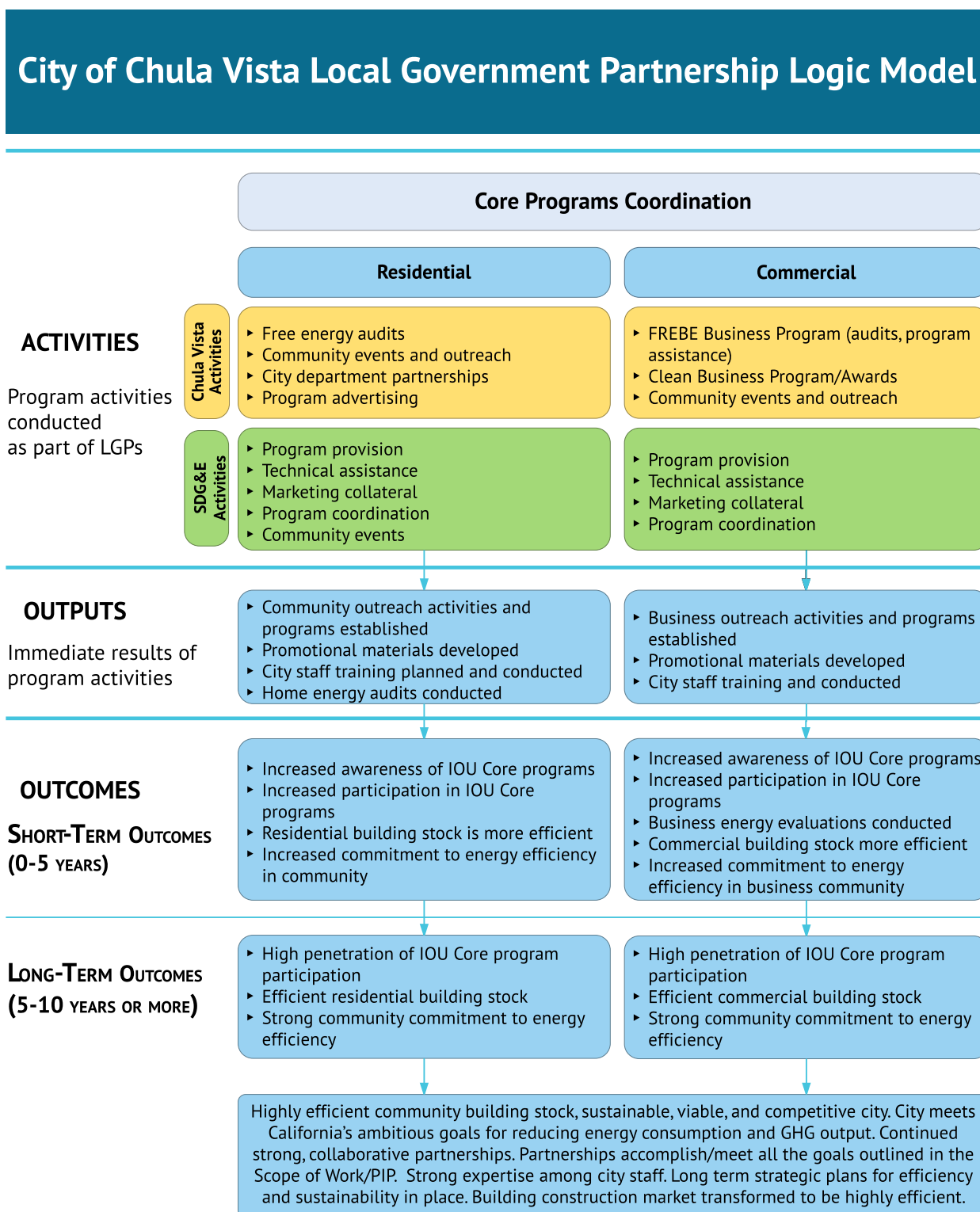
- Energy efficiency education and program promotion to the community through Energy Lounges at Chula Vista's two main public libraries;
- Targeted outreach and energy audit of residences through the Home Check-Up Program; and
- Providing mandatory energy audits of businesses through the Free Resource & Energy Business Evaluation (FREBE) Program to encourage enrollment in Direct Install, Summer Saver and other SDG&E offerings.

As we discussed in Section 3.2, our evaluation of the Chula Vista LGP began with development of a program logic model for each activity area in which the Chula Vista LGP engages, to serve as a guide to define specific outputs and outcomes for evaluating each section. We show the logic model of the Chula Vista LGP's Core Programs Coordination activities as Figure 3 on the following page.

The logic model presents a high level overview of the Chula Vista LGP's Core Programs Coordination 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.

Each program activity area contributes to the overall long-term program goals that we described in the last row of the model. Note that the logic model provides a graphical summary of the main Chula Vista LGP Core Programs Coordination activities and outcomes, and we have omitted some less prominent activities to simplify the diagram. The Chula Vista LGP Core Programs Coordination activities have generally been consistent with those shown in the logic model.

Figure 3: Core Programs Coordination Logic Model



The evaluation team spoke with two staff members at Chula Vista and one staff member at SDG&E regarding these activities, and the results of these interviews are discussed in the following sections.

## 6.1 Residential Core Programs Coordination Activities

The residential Core Programs Coordination activities include:

- A free home energy audit program;
- Community outreach through media and events; and
- Coordinated events and activities with local government institutions and agencies.

The Home Check-Up Program provides a free residential energy audit to those customers that request one. This service is provided separately from the SDG&E online audit service, although Chula Vista staff do refer customers to SDG&E's online audit portal. This outreach and education program is overseen by a Chula Vista staff lead, and an intern typically carries out the audits. The audit involves a basic visual inspection of the residence that includes identifying any energy consuming measures. In addition, the inspector uses a thermal camera to look at insulation coverage. Staff conducting audits clearly indicate that agreeing to an audit does not obligate residents to purchase upgrades, and that they are not selling any equipment. Chula Vista staff members emphasize that they are providing information only.

Following the inspection, the staff member provides the resident with passive referrals such as flyers, and marketing and outreach materials that are provided by SDG&E (as shown in the SDG&E activities row in the logic model, included as Figure 3). Once the inspection is complete, Chula Vista staff develop a report for the homeowner that has the top three recommendations for the home based on the basic audit analysis, then a full report of the upgrades or programs that Chula Vista staff recommends along with links to appropriate SDG&E programs. Chula Vista staff explained that because they are viewed as a trusted source of information, they have good uptake results and generally exceed their goals each year. Annual and quarterly reports indicate that the program exceeded its home check-up goal in 2015 and is on track to meet the goal in 2016, but fell short in 2014 by 15 homes (Table 7).

**Table 7: Home Energy Check-Ups and Referrals**

<b>Year</b>	<b>Home Check-Ups Completed (Goal = 150 per year)</b>	<b>Referrals to SDG&amp;E Programs* (Goal = N/A)</b>
2014	135	435
2015	164	414
2016 (through Q3)	88	176

\* Referrals exceed inspections because referrals are counts of measures referred.

Source: Quarterly and Annual Narrative Reports. Data on referrals to other programs were not available for 2013-2015.

In addition to the Home Check-Up Program, the Chula Vista LGP engages in the following activities:

- Maintaining a presence at community events including city-funded movie nights at local parks and recreation centers;
- Collaborating with the library system to conduct energy outreach and education including Energy Lounge zones where people can engage with energy-focused groups, pick up SDG&E program information and equipment lent out by the library system including LED light bulbs, and borrow energy efficiency devices or monitoring devices such as an infrared thermal guns to detect insulation;
- Collaborating with the Chula Vista Recreation Department to conduct outreach to children and parents. In particular, Chula Vista has developed a program with the Recreation Department called the EmPower Hour, which is a combination of education and recreational programming to educate younger kids and families about energy efficiency;
- Reaching out through bill inserts in city utility bills, social media platforms and a citywide newsletter; and
- Messaging through Chula Vista’s Nixle platform that is typically used to send out emergency alerts to citizens via text message. The Office of Sustainability has been granted access to the Nixle platform to send messages about upcoming events in Chula Vista.

According to Chula Vista staff, in-person marketing and outreach activities are the most effective. They listed the Home Energy Check-Up Program as the most effective outreach activity, stating that the face-to-face contact is the best way to answer questions and influence behavior. They reported the next most successful form of outreach is having a presence at community events, and that outreach through the local libraries or Recreation Department are the next most effective. Lastly, mail and social media efforts are the least effective outreach channels, according to Chula Vista staff.

### *Program Tracking*

Chula Vista staff track direct referrals from the Home Check-Up Program in a database they maintain. While it is relatively easy to track Home Check-Up Program referrals, Chula Vista staff are unable to track other outreach efforts such as at community events or outreach done through the library. On occasion, Chula Vista staff will notify SDG&E of a particularly large event or outreach effort to see if there is a correlation between the event and program uptake in the short term. Chula Vista staff noted tracking as a particular challenge that the program faces, with one interviewee stating that “we really struggle to track and attribute savings to outreach we have done because it is a complex path”. This is something they are constantly working with SDG&E to improve, but they have not been able to resolve the issue to date.

## **6.2 Commercial Core Programs Coordination Activities**

Commercial Core Programs Coordination activities center around two main programs, the Free Resource & Energy Business Evaluation (FREBE) Program and the Chula Vista CLEAN Business Program. The Chula Vista LGP also engages in a variety of outreach activities to encourage businesses to engage with SDG&E rebate programs. Chula Vista LGP staff are responsible for design and delivery of the FREBE and CLEAN Programs and outreach activities. SDG&E staff provide assistance by making rebate and incentive programs available, providing technical assistance and marketing collateral for Core Programs and coordinating work under the programs with implementers. One Chula Vista employee is the staff lead, and four interns assist with commercial program coordination activities. The remainder of this section describes these activities (which are reflected in the logic model included as Figure 3) and how the partners coordinate these activities.

In 2009, a city ordinance established the FREBE Program, which continues to be an outstanding success according to both Chula Vista and SDG&E staff. The FREBE Program requires all Chula Vista commercial and industrial businesses to participate in a free on-site resource and energy audit of their facilities.<sup>18</sup> The energy audit, performed by Chula Vista staff, helps businesses identify energy and water efficiency and conservation opportunities that could potentially reduce their utility costs and corresponding greenhouse gas emissions.

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<sup>18</sup> Chula Vista Municipal Code Chapter 20.04 (CVMC 20.04).  
<http://www.codepublishing.com/CA/ChulaVista/html/ChulaVista20/ChulaVista2004.html>

Chula Vista mandates through its municipal code that businesses of all sizes undergo an audit through the FREBE Program every five years or when a new business is started.<sup>19</sup> Chula Vista staff explained that the time period was deliberately selected to match the program cycle and eligibility requirements of SDG&E’s Direct Install Program. After completing the audit, Chula Vista staff provide a report to the business that includes information about historical energy and water consumption, any conservation and efficiency opportunities they find, potential utility cost savings and an estimate of the corresponding greenhouse gas emission reductions. Chula Vista staff also provides information and assistance with federal, state and local rebate programs for efficiency retrofits and low-cost financing options to help facilitate participation by businesses.

During the interviews for this audit, Chula Vista staff described the logistics of FREBE Program delivery. To make efficient use of Chula Vista staff time, the program divides Chula Vista into five contiguous geographic areas. Each year, Chula Vista staff canvas one of the five areas, going street to street conducting audits with businesses as they are available. Chula Vista staff cycle through the areas year by year. In addition, any new businesses are also contacted for audit the following year. In theory, all businesses are required to undergo an audit; however, the capacity of Chula Vista staff limits the number of businesses that can undergo an audit in practice. Through this method, Chula Vista staff have exceeded the program goal of 500 audits and 50 referrals to SDG&E Core Programs annually (Table 8).

**Table 8: FREBE Program Audits and Referrals**

<b>Year</b>	<b>Businesses Evaluated (Goal = 500 per year)</b>	<b>Referrals to DI Program (Goal = 50)</b>
2013	680	306
2014	1000	260
2015	840	482
2016	624	305 (330 to other programs)*

\*Source: Quarterly and Annual Narrative Reports. Data on referrals to other programs were not available for 2013-2015.

According to Chula Vista staff, the FREBE Program is “a very popular program” with “businesses calling back frequently to see what other things they may be eligible for.” One Chula Vista staff member noted that the types of businesses in Chula Vista (small and medium-sized businesses) typically have small budgets for capital improvements or

<sup>19</sup> Chula Vista Municipal Code Chapter 20.04.

<http://www.codepublishing.com/CA/ChulaVista/html/ChulaVista20/ChulaVista2004.html> While the municipal code requires a FREBE audit, there are no penalties for failing to obtain an audit.

maintenance and often struggle to run their businesses day-to-day, making it difficult for them to adopt energy efficient measures. The FREBE Program makes the Core Programs “accessible to our constituents that would normally find the programs inaccessible, and they do it (participate in the program) a lot, and they are willing to open their doors and let us in to go through the programs with them, which helps build relationships and trust between Chula Vista and businesses.”

Businesses that have successfully incorporated energy efficiency and other sustainability strategies throughout their operations, through the FREBE Program or independently, may be publicly recognized through the Chula Vista CLEAN Business Program. The CLEAN Business Program recognizes businesses that are leaders in efficiency, conservation and sustainability. Businesses wanting to enroll in the program complete an online sustainability scorecard that evaluates businesses based on best practice adoption in energy efficiency, pollution prevention, water conservation and waste reduction. Chula Vista and the Chamber of Commerce recognize businesses that qualify at an annual event; these businesses can access training and assistance in marketing and advertising, energy audits, technical resources and access to further rebates and incentives.

### *Marketing and Outreach*

In addition to these two main programs, the Chula Vista LGP also engages in a broad range of other marketing and outreach activities to drive businesses to SDG&E Core Programs. These include:

- Collaborating with the Chamber of Commerce to promote programs to businesses and arrange community events;
- Planning events for in-person promotion including awards ceremonies for CLEAN businesses and a monthly business mixer with the Chamber of Commerce;
- Participating in community events;
- Messaging and promotion through social media platforms;
- Messaging and promotion through a newsletter for CLEAN businesses; and
- Advertising in local newspapers.

According to Chula Vista staff the FREBE Program audit activities are the most effective. This is followed followed by in-person events arranged by Chula Vista and the Chamber of Commerce. Less effective (but still important) are community events, social media outreach and print media.

### *Program Tracking*

The Chula Vista LGP has thorough tracking systems to capture participation in the city’s programs; however, there is very limited information about business participation in Core Programs Coordination available for Chula Vista staff and the SDG&E Program Manager. Chula Vista staff track other program participation in a variety of ways. For the FREBE



Program, Chula Vista staff developed a dedicated tracking system that captures business participation in the FREBE Program and all information from the business audits, as well as any energy efficiency and program recommendations. For the CLEAN Business Program, Chula Vista staff track completion of the online sustainability score sheet and maintain a register of CLEAN businesses. Chula Vista staff also track participation in events organized by the Chula Vista LGP and materials delivered to constituents to track progress toward goals. Lastly, Chula Vista staff conduct an ongoing survey with businesses that participate in the FREBE Program to track satisfaction and information about program participation.

### **6.3 Progress Towards Goals**

The Chula Vista LGP has made significant progress toward its goals in 2015 and 2016, as summarized in Table 9. 'Ys' and 'Ns' in the table reflect that the Chula Vista LGP met or did not meet its goals, as reported by staff we interviewed.

**Table 9: Core Programs Coordination Activity Progress Toward Goals**

<b>Goal Description</b>	<b>Target</b>	<b>2015 Goal Met</b>	<b>2016 Goal Met</b>
<b>Residential</b>			
Community Events Attended	50 per year	Y	Y
Campaigns or Events Organized	5 per year	Y	Y
Low Cost Energy Devices Distributed at Events	100 per year	Y	Y
Recreation Activities Organized	4 per year	Y	Y
Movie Nights Organized or Attended	40 per year	Y	Y
Home Check-Ups Completed	150 per year	Y <sup>1</sup>	N <sup>1</sup>
Respondents Implementing At Least One Of The City Audit's Recommendations	50%	Y	Y
<b>Commercial</b>			
Onsite Business Audits Completed	500 per year	Y	Y
Referrals from Business Audits to Core Programs	50 per year	Y <sup>2</sup>	Y <sup>2</sup>
Campaigns or Events Organized	4 per year	Y	Y
Businesses Recognized by CLEAN Awards	4 per year	Y	Y
Businesses Participating in CLEAN Business Program	50 per year	Y	Y
Respondents Implementing At Least One Of The City Evaluations' Recommendations	50%	Y	Y

<sup>1</sup> 164 Home Check-Ups were completed in 2015 and 88 were completed in 2016.

<sup>2</sup> There were 482 referrals from business audits to Core Programs in 2015 and 305 in 2016 (330 to other programs). Source: Quarterly and Annual Narrative Reports. Data on referrals to other programs were not available for 2013-2015.

## 6.4 Key Successes

In addition to meeting the program goals, Chula Vista staff and SDG&E staff highlighted the following successes for residential program coordination:

- Chula Vista staff completed more than 250 Home Energy Check-Up audits, which generated 590 referrals (direct and non-direct) for SDG&E Core and third-party residential energy efficiency programs.
- Based on 2016 post-evaluation surveys, close to 100 percent of participating homeowners reported that they implemented at least one of the energy-saving recommendations from their Home Check-Up audit.

- Chula Vista staff participated in over 100 community events and engaged with more than 5,000 residents.

Chula Vista staff highlighted the ongoing success of the FREBE and CLEAN Business Programs as their most notable partnership achievements for commercial Core Programs Coordination. They explained that the Chula Vista LGP has consistently met its goals year after year and the programs have high uptake and very high satisfaction among Chula Vista businesses. They attributed these successes to a combination of factors including:

- Chula Vista’s commitment to the programs;
- The Chula Vista city ordinance requiring businesses to participate in the FREBE Program; and
- The very high quality of the SDG&E programs, in particular the Direct Install Business Energy Solutions (BES) program, which they described as “fantastic.”

In addition to these programs, interviewees also highlighted the ongoing collaboration with the Chamber of Commerce and other community organizations as a notable success that has helped drive participation in SDG&E programs.

SDG&E staff also highlighted the FREBE Program and ongoing outreach efforts by Chula Vista staff as notable successes.

## 6.5 Challenges

Chula Vista staff noted challenges they face in facilitating residential Core Programs Coordination efforts:

- Chula Vista staff stated that in general, SDG&E could be more proactive about updating Chula Vista staff about changes to the Core Programs. According to the interviewees, the programs seem to change suddenly and arbitrarily based on IOU and CPUC decisions.
- Lack of program uptake data makes tracking Chula Vista LGP achievements difficult. Once Chula Vista staff refer residents to a program, they are unable to track what measures are installed, and therefore are unable to track energy savings for the program.

Chula Vista staff noted two challenges facing the commercial Core Programs Coordination efforts:

- The first challenge is the inability to track SDG&E program uptake among businesses, with one interviewee stating that “once businesses are referred to the SDG&E programs, all businesses fall into a black hole and we don't know what happened.” Chula Vista and SDG&E have recently signed a Non-Disclosure

Agreement so Chula Vista staff can request participation data; Chula Vista staff are hopeful that this will help them gain better insights into the success of outreach efforts.

- The second challenge mentioned by Chula Vista staff was obtaining timely information about SDG&E program changes. Chula Vista staff have, in the past, been unaware of changes in programs which has led to recommendations to businesses that were no longer covered under the SDG&E programs.

## **6.6 Satisfaction with Partner Efforts**

Collaboration between SDG&E and Chula Vista is very strong for residential and business Core Programs Coordination. Aside from the challenges noted above, both SDG&E staff and Chula Vista staff were very satisfied and felt that they had effective collaboration. We asked each of the three interview subjects (two Chula Vista staff members and one SDG&E staff member) to rate their satisfaction with their partner organization's participation in the Core Programs Coordination activity area of the program. Both Chula Vista interview subjects rated their satisfaction in this area with a score of 8 out of 10, stating that they would like to have given a 10 but feel that SDG&E is not as proactive as it could be in updating Chula Vista on program changes. SDG&E staff scored their satisfaction as a 10.

## **6.7 Reported Assistance Needed and Implementation Recommendations**

Neither Chula Vista staff nor SDG&E staff noted any assistance needs or implementation recommendations with this Strategic Plan Support activity area, aside from those previously noted in Section 6.5.

## 7 Implementation of Past Evaluation Recommendations

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A prior process evaluation identified a recommendation for the Chula Vista LGP. In this section, we review the prior Chula Vista specific evaluation and assess the extent to which the Chula Vista LGP has taken action to implement the recommendation.

*San Diego Gas & Electric Company Final Summary Report: Process Evaluation of the 2006–2008 Local Government and Institutional Partnership Programs. PA Consulting Group, 2009.*

**Recommendation:** In 2009, the Chula Vista staff consisted of only one full time city staff member (the partnership manager), who was supported by a team of interns. The 2009 evaluation recommended that the Chula Vista LGP try to negotiate an exception to the city hiring freeze and recruit more full time staff to Chula Vista LGP roles.

**Implementation:** Between 2009 and 2014, Chula Vista used LGP and general fund dollars to recruit an additional four staff members to Chula Vista LGP roles. Chula Vista continues to make use of interns, but there is now adequate staffing to complete Chula Vista LGP activities.

## 8 Key Findings and Recommendations

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The results of our evaluation research strongly indicate that the Chula Vista LGP continues to be a highly advanced and very successful program, one that is characterized by collaboration and open communication between Chula Vista and SDG&E. The result of this partnership is continued evolution and success of the Chula Vista LGP, which has increased the efficiency of municipal building stock and has encouraged Chula Vista and its community of residents and businesses to integrate energy efficiency into a multitude of activities. These efforts continue to help Chula Vista meet California's ambitious goals for reducing energy consumption and greenhouse gas output, and help make Chula Vista a sustainable city.

### 8.1 Key Findings

The overarching conclusion of this evaluation is that the Chula Vista LGP continues to be highly successful. To identify key findings related to the Chula Vista LGP's performance, Evergreen reviewed progress towards the short-term and long-term outcomes for each LGP activity area detailed in the program logic models (Sections, 4, 5 and 6).

#### *Municipal Building Retrofits Activities*

- Chula Vista has committed to completing municipal building energy efficiency retrofits that have led to substantial increases in municipal building stock efficiency. Chula Vista has engaged in LED lighting retrofits in municipal buildings, conversion of city street lights to LED technology, and energy efficiency upgrades to municipal facilities. More than 50 municipal facilities have made energy upgrade improvements over the past six years (through the end of 2016) resulting in a reported reduction in energy consumption of over 29 percent compared with 2010 consumption levels. This exceeds the goal of a 20 percent reduction by 2020 from 2010 levels as set in the Chula Vista Climate Action Plan (CAP), known as the City Operations and Sustainability Plan.
- By offering training and education and engaging in widespread outreach activities, the Chula Vista LGP has continued to improve understanding of energy efficiency and commitment to energy conservation among Chula Vista staff and the broader community.
- The strategy and goals of the City Operations and Sustainability Plan are widely adopted across Chula Vista, and guide energy efficiency and energy conservation activities and policy development.

#### *Strategic Plan Support Activities – Reach Codes*

- The Chula Vista LGP has helped Chula Vista design and implement a range of energy efficiency and other reach codes that have pushed building stock in Chula Vista beyond state code and helped advance stronger state codes.

- The reach code development process engaged a broad range of stakeholders including developers, realtors and government officials, which helped advance ongoing stakeholder commitment to adopting and meeting energy efficiency codes.
- The Chula Vista LGP has developed and implemented code training efforts and produced resources such as the Code Coach to implement industry best practices in permitting, tracking and building inspection.

### *Strategic Plan Support Activities – Code Compliance*

- The Chula Vista LGP has helped Chula Vista build energy efficiency knowledge and capacity among its staff, including permitting staff and building inspectors, through comprehensive code enforcement training.
- Chula Vista’s code compliance activities and training have had a positive impact on code compliance. Chula Vista staff stated that these activities have led to increased compliance with staff ensuring contractors and homeowners apply for energy efficiency permits and other code requirements. Chula Vista staff highlighted the “Code Coach” program<sup>20</sup> as particularly successful. This expert assists developers in complying with energy code, and in 2015 and 2016 conducted more than 280 one-on-one meetings related to energy code issues and more than 15 secondary field audits.
- Code compliance activities have helped build relationships and trust across the city of Chula Vista's municipal departments, with one Chula Vista staff member reporting that city building inspection staff now see the Chula Vista LGP and Chula Vista's Office of Sustainability as important resources.

### *Strategic Plan Support Activities – Lead By Example*

- The Chula Vista LGP demonstrates important leadership in the region, as well as nationwide, developing and enacting energy best practices related to municipal building stock and community outreach. Chula Vista staff engage extensively with other communities to share its expertise, both locally through the SoBEAC, SDREP, and SANDAG partnerships, and nationally and internationally through participation in conferences and energy efficiency competitions.

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<sup>20</sup> The Code Coach is a staff member who is a code expert. This individual staffs a public-facing Sustainability Desk one and a half days per week to provide guidance to permit applicants and building department staff on California’s Building Energy Efficiency Standards (Title 24, Part 6) and the Green Building Standards (Title 24, Part 11; CalGreen).

### *Strategic Plan Support Activities – Community Programs*

- Chula Vista developed and successfully enacted a comprehensive CAP in 2014 known as the City Operations Sustainability Plan. This document has become a key policy driver for the city, leading to better understanding of and increased commitment to energy conservation and efficiency citywide.
- The Chula Vista LGP continues to improve a multitude of existing community engagement programs to promote energy efficiency by working with local organizations and other government agencies.

### *Core Programs Coordination*

- Through its community programs and Home Check-Up Evaluation service,<sup>21</sup> Chula Vista effectively promotes SDG&E residential Core Programs to its residents, leading to several hundred referrals to the programs in 2015 and 2016.
- Based on 2016 post-participation surveys done by Chula Vista, close to 100 percent of participating homeowners reported that they implemented at least one of the energy-saving recommendations from their Home Check-Up audit.
- Through the Free Resource & Energy Business Evaluation (FREBE) Program and the Chula Vista CLEAN Business Program, the city promotes participation in SDG&E commercial Core Programs, successfully engaging a substantial number of Chula Vista businesses (over 1,500 in 2015-2016).<sup>22</sup> These businesses reported high participation in SDG&E Core Programs after interaction with the Chula Vista LGP. The Chula Vista LGP reported over 750 direct referrals to the SDG&E Business Energy Solutions Program.

### *Key Challenges*

- Chula Vista staff noted that there have been instances when the SDG&E process for communicating Core Programs changes to Chula Vista staff was not timely, leading to some confusion among Chula Vista staff and SDG&E customers about program eligibility and referrals for ineligible products or customers. This issue is particularly challenging given the amount of time it takes to get project approval for municipal retrofits.
- Chula Vista staff explained that SDG&E currently does not provide them with Core Program uptake data. As a result, Chula Vista staff are unable to track SDG&E

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<sup>21</sup> The Home Check-Up Evaluation service is a free, high-level home energy audit performed by Chula Vista staff upon request by city residents.

<sup>22</sup> The FREBE Program requires all Chula Vista commercial and industrial businesses to participate in a free on-site resource and energy audit of their facilities. The CLEAN Business Program recognizes businesses that are leaders in efficiency, conservation and sustainability.



program uptake among businesses referred by the Chula Vista LGP's community engagement activities, and therefore cannot estimate the full impact of the programs. SDG&E and Chula Vista have signed a Non-Disclosure Agreement, and there are efforts underway for SDG&E to provide data to Chula Vista.

- Chula Vista utilizes outside financing extensively for Municipal Building Retrofits activities. A primary funding source is On-Bill Financing.<sup>23</sup> Chula Vista staff noted that recently, the requirement for On-Bill Financing to be tied to a rebate program has led to Chula Vista to put lighting projects on hold, as some lighting measures are no longer eligible for rebates.

### 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.<sup>24</sup> Each LGP faces a unique set of challenges given the differences in program 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 provides other LGPs examples of innovative aspects that have been effective for the Chula Vista LGP, the potential value of which they may consider in the context of their own LGP.

Some key examples of the Chula Vista LGP's innovative practices are:

- Chula Vista mandates, through its municipal code, that businesses of all sizes undergo an audit through the FREBE Program every five years or when a new business is started. The FREBE Program is a free business energy audit program conducted by Chula Vista staff that refers business customers to SDG&E Core Programs. This helps to create a system by which business owners can consider the options they have to increase the energy efficiency of the buildings they occupy.

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<sup>23</sup> The IOUs' On-Bill Financing program offers 0% financing for qualifying energy-efficient improvements that are paid through a non-residential customer's bill.

<sup>24</sup> 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 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.

- The Chula Vista LGP has engaged with a broad range of stakeholders including developers, realtors and government officials to encourage stakeholder commitment to complying with energy efficiency codes. Stakeholder inclusion has improved code compliance and has led to improved relationships across Chula Vista municipal departments. The improved trust and relationships are an important foundation that the Chula Vista LGP can use to increase engagement with stakeholders and work together to increase building efficiency.
- The Chula Vista LGP created a Code Coach position that makes a building code expert available to the public one and a half days per week. The Code Coach provides guidance to permit applicants and building department staff on California's Building Energy Efficiency Standards and Green Building Standards. By creating a staff position, the Chula Vista LGP is able to refer building professionals to a consistent resource for any questions about permitting, tracking and building inspections. This staff person can also serve as a resource to the Chula Vista LGP for obtaining feedback from the building community on their needs and concerns.
- Chula Vista staff have developed a program with the Recreation Department called the EmPower Hour, which is a combination of education and recreational programming to educate young children and families about energy efficiency.

## 8.2 Recommendations

Based on the evaluation findings, the evaluation team presents the following recommendations for the Chula Vista LGP:

- **Communicate changes to Core Programs quickly.** We recommend that SDG&E program staff take action to proactively communicate program changes to Chula Vista staff. Possible solutions include adding Chula Vista staff to the notifications that SDG&E sends to contractors, incorporating a formal update process during meetings between both Chula Vista and SDG&E staff, and/or developing a web portal with up to date program information.
- **Create a project tracking database.** We recommend that Chula Vista and SDG&E implement a tracking system that reports details of projects that the Chula Vista LGP refers to Core or third party programs along with a record of any program participation that may have subsequently occurred. This will aid future evaluations and help the Chula Vista LGP fully understand the impacts of its efforts.
- **Provide on-location training on code compliance.** We recommend that SDG&E and Chula Vista continue to work to provide on-location training to code permitting and enforcement staff at their workplaces.

## Appendix A: LGP Program Process Evaluation Cycle

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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.

The Chula Vista LGP 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.<sup>25</sup> The IOUs selected the following LGPs to be evaluated during this first wave of studies:

Pacific Gas and Electric Company (PG&E):

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

SCE/SoCalGas:

- Los Angeles County
- Riverside County
- San Bernardino County

SDG&E:

- City of Chula Vista

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<sup>25</sup> The comprehensive process evaluations of the 2015 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

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### 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 municipal 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?
- How has this been addressed or resolved?
  - 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?
- 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?
- 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?
- 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?
- 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?
- 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].

- 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		
SCG0218.01	Process Evaluation	Process Evaluation of the Local Government Partnership Program	SoCalGas		
Recommendation	Program or Database	Summary of Findings	Additional Supporting Information	Best Practice / Recommendation	Recommendation Recipient
1	Local Government Partnerships Program	Chula Vista staff noted that there have been instances when SDG&E's process for communicating Core Program changes did not provide information in a timely manner.		<b>Communicate changes to Core Programs quickly.</b> We recommend that SDG&E program staff take action to proactively communicate program changes to Chula Vista staff. Possible solutions include adding Chula Vista staff to the notifications that SDG&E sends to contractors, incorporating a formal update process during meetings between both Chula Vista and SDG&E staff, and/or developing a web portal with up to date program information quickly.	SDG&E
2	Local Government Partnerships Program	Chula Vista staff members explained that they are not able to accurately track participation in the SDG&E residential and commercial Core Programs that may be attributable to their community engagement and municipal retrofit activities. SDG&E and Chula Vista		<b>Create a project tracking database.</b> We recommend that Chula Vista and SDG&E implement a tracking system that reports details of projects that the Chula Vista LGP refers to Core or third party programs. This will aid future evaluations and help the Chula Vista	The City of Chula Vista, SDG&E

		have signed a Non-Disclosure Agreement, and there are efforts underway for SDG&E to provide data to Chula Vista.		LGP fully understand the impacts of its efforts.	
3	Local Government Partnerships Program	An important success in reach code development and compliance was delivery of training to Chula Vista staff members at their work locations.		<b>Provide on-location training on code compliance.</b> We recommend that SDG&E and Chula Vista continue to work to provide on-location training to code permitting and enforcement staff at their workplaces.	The City of Chula Vista, SDG&E



## **Appendix D: Strategic Plan Support 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.