Best Practices/Lessons Learned from Strategic Plan

2013-2015 Final Report

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Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

0. Introduction

Since 2010, San Diego Gas & Electric (SDG&E) has been working with local governments toward achieving the goals laid out in the California Long-term Energy Efficiency Strategic Plan. The following document highlights some of the best practices and lessons learned from the Strategic Plan projects completed to date. This document is organized by strategic plan completed task to assist any future work by leveraging prior experiences. This document will be updated as more tasks are completed and as additional lessons learned/best practices become available.

It should be noted that budget information contained within this document is based on estimates and often references portions of budgets ("part of $xxx,xxx budget"). While SDG&E and our Local Government Partners track budgets at the program component level, we do not track budgets according to Strategic Plan task level detail (i.e., several tasks can apply to the same program component).

0.1 California Long-term Energy Efficiency Strategic Plan (CEESP)

California's Long-term Energy Efficiency Strategic Plan ("Strategic Plan") was developed to set the long-term vision for Energy Efficiency throughout the state. The Strategic Plan was divided into sectors, including five goals for the public sector. D.09-09-047 directed the IOUs to develop a strategic plan menu of tasks for local governments to select from for Strategic Plan work. SDG&E and other IOUs worked with the Energy Division and local governments to develop this menu of tasks, which continues to be used by SDG&E's local government partners to report strategic plan project activity.

0.1.1 Strategic Plan Goals

The Strategic Plan set the following five goals for the public sector:

- **Strategic Plan Goal 1:** "Local governments lead adoption and implementation of "reach" codes stronger than Title 24, on both mandatory and voluntary bases."
- **Strategic Plan Goal 2:** "Strong support from local governments for energy code compliance enforcement."
- **Strategic Plan Goal 3**: "Local governments lead by example with their own facilities and energy usage practices."
- **Strategic Plan Goal 4**: "Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change."
- **Strategic Plan Goal 5:** "Local government energy efficiency expertise becomes widespread and typical."

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1. Strategic Plan Goal 1: Reach Codes

"Local governments lead adoption and implementation of "reach" codes stronger than Title 24 on both mandatory and voluntary bases."

1.1 Strategic Plan Task 1.1.2: Green Building Code

"Adopt a Green Building policy for municipal development, commercial development and/or residential development."

1.1.1 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Energy and Climate Services

Project Purpose: Adopt a Green Building policy for municipal development, commercial development and/or residential development.

Project Scope and Components: Development of a Form Based Code in one community that streamlines development and incorporates EE requirements.

Deliverables: Form-based Code for an unincorporated community in San Diego County

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: Part of $390,890 budget

Final Cost: $232,753

Local Match Contribution: N/A

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $158,137 under budget. Funds were never disbursed by SDG&E.

Best Practices
• Engage community early and throughout the process. • Assess existing conditions. • Define the Community's vision for its future.

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- Determine specific regulations and procedures to achieve the Community's vision.

Lessons Learned

- The Form Based Code identified methods for increasing energy efficiency and renewable energy within the Community of Valley Center.
- The development of the Form Based Code initiated a broader discussion within the Community that may facilitate new goals and policies through a Community Plan update.

Knowledge Transferred

- The Valley Center Form Based Codes provides the Valley Center Community with the tools and knowledge to help achieve its vision of a compact mixed-use rural southern California farm village.

Next Steps

- Leverage the knowledge gained and community input to incorporate additional energy efficiency measures into a Community Plan update.

Benefit to the State

- The Valley Center Form Based Code provides an example for other semi-rural villages in California to achieve a more efficient pattern of development that is connected, safe, and attractive.

Benefit to Local Government

- Provides a vision for the community that will result in new energy efficient development that is key to reducing GHG emissions.

Successes

- Completed the final draft of the Valley Center Form Based Code with a high level of community participation.

- Established standards on the design and form of structures in Valley Center that facilitate a more urban development pattern resulting in less energy needed to heat and cool, lower utility bills, and less irrigation water.

Challenges

- The development of the Form Based Code resulted in a desire from the community to comprehensively address the issues and topics related to GHG reductions and energy efficiency, which will potentially require a Community Plan update.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

1.2 Strategic Plan Task 1.1.4: IDSM Code Updates

"Change local codes to allow and encourage integration of energy efficiency, demand response, and on-site generation."

1.2.1 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Code Compliance Education and Training

Project Purpose: Change local codes to allow and encourage integration of energy efficiency, demand response, and on-site generation

Project Scope and Components: Develop and update codes that encourage integration of energy efficiency, demand response, and on-site generation.

Deliverables:

1. County code that encourages integration of energy efficiency, demand response, and/or on-site generation.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: $60,000

Final Cost: $60,000

Local Match Contribution: N/A

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Engage stakeholders such as the California Center for Sustainable Energy, California Solar Energy Industry Association, and the Building Industry Association. • Research and consider best practices and permit trends of other jurisdictions.

Lessons Learned
• Work closely with the solar and building industry to identify opportunities for greater integration of demand-side resources and to manage the increasing number of solar permits.

Knowledge Transferred
• The County's Solar and Electric Vehicle Readiness Ordinance and Permit Streamlining Ordinance provide models for other local governments to facilitate the integration of solar, electric vehicles, and energy efficiency.

Next Steps
• Continue to work closely with solar and building industry stakeholders to identify opportunities to adopt ordinances that advance IDSM in new construction.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to the State
• County code that encourages integration of energy efficiency, demand response, and/or on-site generation advances green building technologies helping the State achieve its emissions reductions goals.

Benefit to Local Government
• County code that encourages integration of energy efficiency, demand response, and/or on-site generation is a cost effective measure that local governments can pursue to advance green building technologies, reduce residents' energy bills, bolster the clean energy industry, and reduce GHG emissions.

Successes
• On April 8, 2015 the County Board of Supervisors approved an Ordinance amending County Building Code to Promote Photovoltaic and Electric Vehicle Charging Systems. The amendment to the Building Code requires new single family development to include 1.) a 200 amp or larger electric panel with space reserved to accommodate circuit breakers for PV and EV charging systems; 2.) installation of conduit to run from the electrical panel to a junction box nearby, and then through the wall to the attic for future use; 3.) installation of conduit to run from the electric panel, through the walls to a junction box located in the garage for future installation of an EV charging station; and 4.) reserve a minimum of 250 square feet of the structure's south-facing roof area to enable future installation of a roof-mount PV or solar water-heating system. • On October 14, 2015 the County Board of Supervisors approved an Ordinance related to the Expedited Processing of Small Residential Rooftop Solar Energy Permits. The ordinance requires jurisdictions to have an application completeness checklist and allow customers to submit applications electronically for small residential roof-mount solar energy system. The ordinance complies with the requirements of AB 2188 and the California Solar Permitting Guidebook. In addition, the County's streamlined permitting process was recognized with a San Diego Taxpayers Association Golden Award and the California State Association of Counties (CSAC) Challenge Award.

Challenges
• None identified.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

1.2.2 San Diego Unified Port District

Local Government Partnership: San Diego Unified Port District

Project Title: Sustainable Lease

Project Purpose: Develop a Sustainable Leasing Policy/Standard for District tenant leases to integrate energy efficiency, alternative energy generation, and other sustainability requirements at tenant facilities and advance achievement of the District's Climate Action Plan (CAP).

Project Scope and Components: The development of a Sustainable Leasing Policy/Standard is an innovative mechanism to facilitate increased energy efficiency and sustainable best practices on District tidelands. The District developed a cross-departmental team to evaluate current leasing policies and identify modifications and best practices that can be integrated into the leasing policy to facilitate increased energy efficiency and sustainability best practices. In addition to a Sustainable Leasing Policy/Standard, the development of a Utility Usage Reporting Ordinance requires tenant tracking, monitoring, and reporting of utility usage on District tidelands. The Utility Usage Reporting Ordinance was adopted by the Board of Port Commissioners (BPC) on December 8, 2015 requiring all utility account holders on District tidelands to monitor and report energy and water usage utilizing the Environmental Protection Agency ENERGY STAR® Portfolio Manager® (Portfolio Manager) online tool. Annually, the District will work with a third party data aggregator to pull data from Portfolio Manager. Aggregated reporting of utility usage will then be used to track and evaluate achievement of the District CAP greenhouse gas (GHG) reduction goals. Periodic updates of the process, research conducted, and stakeholder engagement feedback will be presented to the Board at iterations during the process.

Deliverables:

1. Identification of best-practices for sustainable leasing policies.

2. Development of a Utility Usage Reporting Ordinance.

3. Develop a Sustainable Leasing Policy. (drafted, anticipated for BPC consideration in 2016)

4. Develop a Sustainable Leasing Incentive Framework. (drafted, anticipated for BPC consideration in 2016)

Year Approved: 2013

Year Completed (est.): 2016

Year Completed (actual): Ongoing

Estimated Cost: $250,000

Final Cost: $246,362

Local Match Contribution: $125,000

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: No funds are unspent as identified in the 2016 Partnership Budget ($124,180). Additional funds however, will be utilized in the 2016-2020 LGP Agreement to complete development of the Sustainable Leasing Policy and to facilitate administration of the associated program.

Best Practices
• The *Sustainable Leasing Program Study* (completed in 2015) and *Energy Benchmarking and Transparency Study* identify national best practices suitable for the Utility Usage Reporting Ordinance (adopted December 2015) and Sustainable Incentives Best Practices (underway). • The Studies identified best practices appropriate to the District, and provided resources and recommendations for opportunities to integrate energy efficiency, energy management, and sustainability components into the work and personal activities of District staff responsible for developing the Utility Usage Reporting Ordinance and Sustainable Leasing Policy.

Lessons Learned
• Availability of resources and support for internal integration • Preparation of reports that look at national best practices should be considered from various perspectives, including how sustainable lease language is crafted, requirements

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for energy use disclosure, and the distribution of sustainable project incentives by a local government agency. These reports can at times take several months to over a year to develop, considering the complexity and number of stakeholders that are engaged during the process.

- Cross-departmental coordination is essential to the success of a program.
- Staff continuity on the cross-departmental team is recommended.

Knowledge Transferred

- A number of presentations and meetings have been held to inform and educate BPC and both internal and external stakeholders, including:
    - BPC Presentations – April, July, and December 2015
    - Real Estate Forum Presentations – September and November 2015
    - Community and tenant stakeholder meetings – Multiple engagements between summer and fall 2015
    - Internal stakeholder meetings – ongoing/bi-weekly

Next Steps

- District staff continues to coordinate on the refinement of the Sustainable Leasing Program. The Utility Usage Ordinance will be in the implementation phase starting 2016 and the Sustainable Leasing Policy will be brought to the Board in 2016. The key areas of recommendations for the Sustainable Leasing Policy which were presented to the BPC in April 2015 are still under discussion amongst internal stakeholders at the District include:
    1. Establish benchmarks for buildings by industry type through aggregated data from required energy reporting and periodic energy audits.
    2. Develop a Green Performance Standard to set standards for minimum performance and determine thresholds above minimum as the basis for an incentive program.
    3. Require tenant implementation of feasible actions identified in audits to meet minimum Green Performance Standards through the lease.
    4. Provide incentives to tenants for increased performance to encourage early, above compliance investment in sustainable measures.
    5. Provide education and outreach to better inform CAP progress, benchmarks, and performance thresholds.

Benefit to the State
• The development of the Sustainable Leasing Policy and Utility Usage Reporting Ordinance support the California Energy Efficiency Strategic Plan (CEESP) Goal 1 for local governments lead adoption and implementation of "reach" codes, Goal 2 promoting energy code compliance, and Goal 4 innovative programs for energy efficiency. It is anticipated that the Utility Usage Reporting Ordinance will drive additional energy efficiency reductions throughout District tidelands, as more tenants monitor energy use on a monthly basis. In addition, the Sustainable Leasing Policy is exploring provisions for facility benchmarking and regularly conducted energy assessments/audits to ensure ongoing above-compliance actions are performed on existing facilities. • A sustained, comprehensive effort to institutionalize municipal energy improvements will enable the state to achieve the CEESP Local Government Goal 3 and meet state energy and climate goals for 2030. This includes: o Benchmarking and performance monitoring to show District-wide energy use and upgrades for both energy savings and meeting local CAP goals. o Program's influence on energy savings programs for local governments and other member cities. o Standardized use of Portfolio Manager will ensure state and national standardization to energy reporting and benchmarking processes.

Benefit to Local Government
• The integration of energy efficiency and sustainability opportunities into leasing policies, practices, and programs will lower the carbon footprint of new and existing facilities, as well as, reduce overall GHG emissions and costs from operations and maintenance of existing facilities. • The adoption of both a Sustainable Leasing Policy and Utility Usage Reporting Ordinance support CAP GHG reduction goals, the Regional Energy Strategy, energy management, and influences local governments throughout the region. • The District is the first in the region to adopt a Utility Usage Reporting Ordinance. As such, the District serves as a local example that can provide guidance to other similar agencies in the region and around the state.

Successes
• Adoption of a Utility Usage Reporting Ordinance for all utility account holders on District tidelands.

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- Stronger relationship with external stakeholders.
- District tenant education and outreach campaigns.
- Application of energy efficiency project criteria into capital projects and major maintenance projects for District and tenant facilities.
- Accurate and reliable utility usage reporting for CAP tracking purposes.

Challenges

- Consistent communication and engagement with stakeholders, including the San Diego Port Tenants Association, is critical to the development of a program that directly affects tenant requirements.
- Available information on evolving state requirements, for example AB 802, and the impacts on the implementation of the District's Utility Usage Reporting Ordinance is difficult to gauge at this time.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

1.3 Strategic Plan Task 1.1.5: Energy Efficiency Codes & Programs

"Develop and adopt programs to encourage energy efficiency such as one-stop permitting, on-line permitting, separate Zero Net Energy (ZNE) permit processes, density bonuses, or a recognition program."

1.3.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Sustainable Communities Program

Project Purpose: To assist developers in increasing energy efficiency of planned communities by establishing modeling tools (based on LEED-ND) for local developers and contractors to use to evaluate energy efficiency opportunities through community and site planning alternatives.

Project Scope and Components: Select a contractor to create a tool usable by developers to evaluate how they can design energy efficient buildings at the development scale.

Deliverables:

1. EAPs/CAPs customized by additional programs/tools.

Year Approved: 2013

Year Completed (est.): 2014 **Year Completed (actual):** 2014

Estimated Cost: $63,000 **Final Cost:** $57,000

Local Match Contribution: All non-LGP funded City Staff (for example counter staff, planning staff, etc.) that participated.

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $6,000 under budget. Funds were never disbursed by SDG&E.

Best Practices
• The tool can help strengthen existing relationships with developers. • Tools need to use robust detailed data.

Lessons Learned
• Tools need to be easy to use for developers of all experience levels. • Developers with LEED certified staff are better able to take advantage of LEED focused tools.

Knowledge Transferred
• The City of Chula Vista is a founding member of the San Diego Climate Collaborative and Southbay Energy Action Collaborative both of which serve as a forum for sharing program information with other jurisdictions.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- City staff regularly participate in regional opportunities to share program information including the SEEC conference, the LGSEC, Green Cities CA, and respond to more specific requests when asked.

Next Steps

- Evaluate potential to update to assist future CAP implementation measures.

Benefit to the State

- Assisting developers to comply with reach codes that help achieve state energy and climate goals sooner than required.

Benefit to Local Government

- Helped developers comply with local reach codes and Air Quality Improvements Plans for Sectional Plan Areas, which assisted the City in building local political capital to passing those ordinances and future reach codes.

Successes

- There was robust workshop participation where developer and City staff gained familiarity with the tool and LEED-ND in general.

Challenges

- The fast pace of the code update cycle and the long tool development process means that the tool has a limited amount of time where it is applicable.
- Lack of detailed and relevant data that was needed for data inputs.
- Developer buy-in to incorporate the tool into their planning process.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

1.3.2 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Community Energy Conservation & Upgrade Outreach

Project Purpose: Create a competitive PACE marketplace to help residents and business implement energy efficiency upgrades.

Project Scope and Components: Evaluate PACE program options to determine if PACE is applicable to Chula Vista and if so what programs should be brought to the City. Work to create program guidelines for any Chula Vista programs and monitor the marketplace to evaluate future PACE programs.

Deliverables:

1. 4 PACE Programs.

Year Approved: 2013

Year Completed (est.): Ongoing

Year Completed (actual): Ongoing

Estimated Cost: Part of $778,340 budget

Final Cost: Part of $778,340 budget

Local Match Contribution: The main staff that worked on this program were 30% funded by general funds.

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• PACE guidelines allow local jurisdictions to exert more control of PACE programs in their communities. • We created a multi-stakeholder Technical Advisory Committee to provide outside guidance on creating a new PACE program. Due to the large number of jurisdictions with PACE programs this may not be as important for other jurisdictions now but because PACE was such a new program at the time it was very valuable in assuring City leaders that we were evaluating all options and information related to PACE. • Partnering with the PACE provider to add local elements to PACE marketing can increase participation.

Lessons Learned
• Administration of a local PACE program, as compared with one administered by a JPA, is a significant commitment of staff time and resources. • By leveraging the private sector, we were able to finance significantly more projects than we would have been able to if the program were funded with public funds.

Knowledge Transferred
• Staff has shared materials used to create our PACE programs with multiple other jurisdictions and spoke about our efforts on a webinar hosted by The Center for Sustainable Energy on 1/13/15. • The City of Chula Vista is also a part of the San Diego Climate Collaborative and a founding member of the Southbay Energy Action Collaborative both of which serve as a forum for sharing program information with other jurisdictions. • City staff regularly participate in regional opportunities to share program information including the SEEC conference, the LGSEC, Green Cities CA, and respond to more specific requests when asked.

Next Steps
• Convert our locally managed program to a JPA managed program to decrease City resources needed to manage and operate a program. • Determine the appropriate number of PACE programs for our community and respond to new PACE provides accordingly. • Work to leverage PACE with utility programs.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to the State
• By allowing building owners to overcome the high upfront cost of make energy upgrades the program helps communities reach the states climate and energy goals. • Also provides an option for financing water conservation upgrades to meet conservation measures related to the state's drought declaration.

Benefit to Local Government
• The local government sees multiple benefits from PACE programs including: reducing community's resource use which allows us to save on future infrastructure needs, assisting us in reaching our energy & GHG reduction and drought response goals, as well as boosting the local economy and creating local jobs. • Provide a financing option that can help building owners pay for potential required energy efficiency updates makes those requirements easier to consider.

Successes
• The program has been able to finance more than 850 energy efficiency, renewable energy or water efficiency projects for a total of more than19 million dollars.

Challenges
• Administering our own PACE program required significantly more staff time than the JPA administered programs. • Due to the utility energy efficiency application timelines and requirements many contractors and building owners did not want to take advantage of them. • Monitoring contractor, and non-contractor (i.e., lead generation firms) behavior to ensure that consumers were not being taken advantage of.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE		

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	quantitative measures to report on or assess.

1.3.3 San Diego Association of Governments (SANDAG)

Local Government Partnership (LGP): San Diego Association of Governments

Project Title: Roadmap Program for Member Agencies: Sub-Regional Implementation of City Energy Roadmaps

Project Purpose: Facilitate sub-regional Energy Roadmap implementation activities via the South Bay Energy Action Collaborative (SoBEAC) in coordination with the Chula Vista LGP; pilot a sub-regional Roadmap implementation initiative for local jurisdictions.

Project Scope and Components: Collaborate with the Chula Vista LGP to provide an additional avenue of support to up to three local governments in order to implement their Energy Roadmaps. In 2013-2014, Chula Vista piloted a "peer-to-peer" or "neighboring city-to-neighboring city" approach to Roadmap implementation. SANDAG coordinated with Chula Vista to assess outreach mechanisms and to avoid duplication of LGP efforts. SANDAG coordinated the introduction and/or involvement of additional energy and climate programs that could help SoBEAC cities implement their Energy Roadmaps, including the SDG&E Emerging Cities Program. In 2015, SANDAG continued to collaborate with Chula Vista on SoBEAC, and piloted a second sub-regional collaborative with five north coast cities.

Deliverables:

1. Comparison report of the methods to assist local governments in energy planning and programs, including recommendations for future assistance methods.

2. Quarterly table of implementation measures taken by SoBEAC collectively and each Roadmap city individually. Table to be shared with SoBEAC members, SDG&E, and other local governments.

3. Project fact-sheet for use by each city within the new sub-region. Collateral is to provide information on energy efficiency resources available for local business and residential constituents.

4. Four quarterly peer-to-peer meetings for the sub-regional cities, SDG&E, and SANDAG in order to share experiences, continue momentum on energy efficiency efforts, and further engage cities in Energy Roadmap implementation.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015 (ongoing)

Estimated Cost: $154,650

Final Cost: $154,650

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices

• Smaller groups made up of neighboring jurisdictions (4-5 of 19 in San Diego County) has empowered more local government staff to become active on energy efficiency and climate change.
  o Builds relationships on a relatively new and changing issue area.
  o Provides for consistent approaches to furthering energy efficiency and reducing GHG emissions.
  o Moves energy and climate policies and practices forward for the region.
• SANDAG collaborated with the City of Chula Vista on:
  o Library kits for 3 Roadmap cities in the South Bay of San Diego County. These kits included books and tools on energy efficiency and sustainability.
  o Educational kiosks for use near each city's permit desk were also installed.
• A similar program model was adopted in a different sub-region of San Diego County for another 5 Roadmap cities (North Coast Energy Action Collaborative (NCEAC)), allowing for more opportunities to advance best practices.
• Several SDG&E programs promoted through SoBEAC and NCEAC result in energy savings and energy efficiency.

Lessons Learned
• SANDAG has been partnering with the City of Chula Vista on the South Bay Energy Action Collaborative (SoBEAC), and this sub-regional model has since been adopted in other areas of the San Diego region (e.g., NCEAC) and will be expanding to the other regions in the county.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- The initial contractor for kiosk development was unresponsive to varying city needs based on space available and had to be replaced. With SDG&E, we learned better questions and subtasks to ensure kiosk completion.

Knowledge Transferred

- SANDAG participated in a number of activities to assist in the implementation of Energy Roadmaps in the cities in the South Bay.
    - Activities included: permit counter displays, brochure and website copy, evaluating streetlight retrofits and On-Bill Financing opportunities, sample language for incorporating energy policies into housing elements, and climate action plan implementation assistance.
    - SANDAG presented to approximately 58 government staff and 38 non-government staff.
- Supported local green business initiative, “Green Scene 2014,” that engaged 28 small to mid-sized businesses in SDG&E green business programs.
- Coordinated extensively with SDG&E in supporting Roadmap cities with participating Emerging Cities Program (ECP) projects that included the development of a PACE ordinance, implementation measures for CAPs, and green business support among other activities.

Next Steps

- SANDAG continues to collaborate with the City of Chula Vista on SoBEAC activities to the Roadmap cities of National City, Coronado, and Imperial Beach.
- SANDAG continues its work with the NCEAC for Roadmap cities of Oceanside, Carlsbad, Encinitas, Solana Beach and Del Mar.
- SANDAG plans to expand this sub-regional model to the other two sub-regions of Roadmap cities in the north county inland area and east county area of San Diego County.

Benefit to the State

- Communicating with local decision-makers and government staff helps to educate a broad audience regarding energy efficiency and the local programs that support that. Energy retrofits and other energy efficiency measures result in decreased GHG emissions.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- These efforts also address CEESP Goal 3 to lead by example and Goal 5 for statewide peer-to-peer learning and exchanges.

Benefit to Local Government

- Sub-regional format allows local jurisdictions to share lessons learned, establish local partnerships, and develop consistent approaches.
- The State's GHG reductions goals coincide with goals identified in SANDAG's Regional Energy Strategy and regional GHG inventory.
- SANDAG's role in education and outreach at a regional level builds capacity for local government staff to stay informed and provides clear information from a single source.

Successes

- The sub-regional neighbor-to-neighbor approach in NCEAC (also with SANDAG as a regionally consistent planning voice and SDG&E) has generated the most engaged and active local government planning staff. So much so that SANDAG is moving forward the launch of the final two sub-regional programs earlier than planned.
- SANDAG's Energy Roadmap program was recognized by the San Diego chapter of the American Planning Association.
- National City's Civic Center received EnergyStar designation.
- The Green Business program saved approximately $4,800 for the SoBEAC region.
- Outreach efforts through SoBEAC and NCEAC led to the successful applications of the cities of National City and Solana Beach to the BEACON Award program.

Challenges

- Constant communication with local government staff is required to move forward with program participation and keep momentum moving in this subject area.
- Staff must be up-to-date on program information, which is constantly changing.
- Staff time is very limited: the majority of staff in smaller cities are responsible for several subject areas and programs of which energy/climate is only one. Typically, their work on energy is unfunded.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

1.4 Strategic Plan Task 1.1.6: Educational Programs

"Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines and programs."

1.4.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Sustainable Communities Program

Project Purpose: To increase developer compliance with building energy codes and participation in utility rebate/incentive programs.

Project Scope and Components: Organize and participate in trainings to educate Development Services staff, developers, and contractors on the City's various energy efficiency and green building technologies and associated utility rebate programs.

Deliverables:

1. 18 trainings.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): Planned trainings were completed in 2015, but new trainings are ongoing.

Estimated Cost: Part of $352,404 budget

Final Cost: Part of $352,404 budget

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Local Match Contribution: All non-LGP funded City Staff (for example counter staff, planning staff, etc.) that participated.

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• City of Chula Vista presented group trainings for staff, contractors and developers to disseminate information about Energy Code and CALGreen Code requirements. The trainings provided strategies to meet basic compliance as well as achieve enhanced energy efficiency goals. • The community trainings provided an integrated meeting of staff, contractors and developers that was meant to encourage problem solving and a common knowledge of expectations.

Lessons Learned
• Interdivision interaction was effective in developing planning strategies to enhance compliance. • Community trainings were most effective when actual methods and materials were presented and discussed. Community trainings were less effective when policy was discussed.

Knowledge Transferred
• Staff trainings addressed energy and CALGreen codes' specific requirements as well as changes to the codes in the 2013 code cycle. • Community trainings introduced developers and permit applicants to City energy and resource efficiency ordinances. Attendees were also introduced to local utility sponsored energy efficiency rebate and incentive programs.

Next Steps
• Trainings will continue to be offered to enhance staff and community knowledge about energy efficiency as well as to provide information about energy and CALGreen code changes.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to the State
• Increasing developer ability to meet and exceed Title 24 CALGreen and other state sponsored building codes. • Assists state in reaching GHG and energy reduction goals.

Benefit to Local Government
• Educating local developers on building code requirements help alleviate developer concerns for local action to require building built above state minimum code. • Strengthen relationships with local developers. • Helps City and meet energy and climate reductions goals.

Successes
• Hosted 19 trainings with more than 280 attendees. • Received good feedback from attendees about the value of the trainings and increased opportunities for interdepartmental interactions focused of energy efficiency.

Challenges
• Aligning training schedule and staff availability was a challenge that required close coordination and flexible training scheduling. • Getting participation/attendance from other City staff. • Coordinating funding sources to provide non-energy training components. Many building owners and operators see conservation of water and energy as the same and want to learn about both.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

1.4.2 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Energy and Climate Services

Project Purpose: Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines and programs.

Project Scope and Components: Provide a community outreach program to promote local energy and efficiency /conservation programs (in cooperation with SANDAG in the incorporated areas of the County of San Diego). Generate qualified referrals to SDG&E efficiency/conservation programs.

Promotion of all available programs to area residents

- Home Upgrade California
- Low Income Programs (CARE, LIHEAP, etc.)
- Appliance rebates/recycling
- Demand Response

Deliverables: Metrics tracking to SDG&E (including the following information (but not limited to):

- Number of referrals to existing programs
- Customer name
- Customer address
- Copy of completed 'Low-cost; No-cost' energy assessment (if applicable)
- Any and all other information collected

Year Approved: 2014

Year Completed (est.): 2015 **Year Completed (actual):** 2015

Estimated Cost: Part of $390,890 budget **Final Cost:** $232,753

Local Match Contribution: N/A

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $158,137 under budget. Funds were never disbursed by SDG&E.

Best Practices
• Assess potential locations, organizations and key individuals for hard-to-reach residential outreach program • Engage all SDG&E customer programs for inclusion/support • Engage other County agencies for inclusion and participation along with County elected officials and aides to promote programs.

Lessons Learned
• County residents living in more rural, 'hard-to-reach' communities may be unaware of the SDG&E services available to help reduce energy consumption and utility costs. • As a public agency, the County has different departments that address the needs of hard-to-reach community sectors and can provide a meaningful link to SDG&E energy saving services. • Coordination with other County departments and elected officials can increase the reach of energy outreach and education programs. • Identify additional staff resources early in the process in order to conduct multiple events

Knowledge Transferred
• Through the County's outreach and education efforts, community residents identified as 'hard-to-reach' received information and were given the opportunity to sign up for an SDG&E's energy savings programs, including California Alternate Rates for Energy (CARE), Medical Baseline Allowance, and the Water and Energy-Savings Kit programs.

Next Steps
• Educate and inform other County departments (i.e. General Services, Environmental Health, Health and Human Services, Emergency Services) of local energy efficiency and conservation programs. • Work with other County departments to develop and promote community energy and water saving programs.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- Provide outreach to a targeted hard-to reach community to inform of SDG&E energy savings assistance programs.

Benefit to the State

- Through outreach and education, the County encourages residents to reduce energy and water consumption in accordance with State emissions reductions goals to achieve social, environmental, and economic benefits for Californians.

Benefit to Local Government

- Through outreach and education, the County encourages residents to reduce energy and water consumption and minimize greenhouse gas emissions for healthier and more sustainable communities.

Successes

- On October 18, 2015, PDS and SDG&E staff hosted a booth at the Grand Avenue Festival in Escondido. The outreach event provided an opportunity for San Diego residents to learn about and take advantage of SDG&E energy savings programs. An estimated 113 event participants visited the booth and learned about an SDG&E program; ten participants signed up for the California Alternate Rates for Energy (CARE) program; four participants signed up for the Medical Baseline Allowance program; and, sixty-six participants signed up to receive a complimentary Water and Energy-Savings Kit.

Challenges

- None identified.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

1.4.3 San Diego Association of Governments (SANDAG)

Local Government Partnership: San Diego Association of Governments

Project Title: Energy Roadmap Program for Member Agencies: Educational Programs on Energy Efficiency

Project Purpose: Grow institutional knowledge and engagement through targeted education and outreach for local government officials and staff. This project also implements CEESP goals 3 (lead by example) and 5 (increase energy expertise).

Project Scope and Components: Using its position as the local Council of Governments (COG) for the 19 jurisdictions of San Diego County, SANADG provides education to critical local government stakeholders (including elected officials, city managers, planning/community service directors, and public works directors) to build awareness and institutional knowledge on energy efficiency within local jurisdictions. In coordination with SDG&E, plans training to municipal staff on energy codes, reach codes, and other relevant energy topics identified by the local jurisdictions. Trainings increase their ability to implement clean energy policies and establish a foundation for institutional knowledge. Facilitate local government education and participation in energy upgrade finance options, such as SDG&E On-Bill Financing, California Energy Commission low-interest loans, and Property Assessed Clean Energy (PACE) programs.

Deliverables:

1. Provide energy efficiency and sustainability presentations and materials to SANDAG committees and/or working groups with local government representation.

2. Keep cities engaged on energy efficiency and sustainability through various outreach mechanisms, including e-blasts, peer network meetings, in person meetings at cities.

3. Collaborate with SDG&E to offer energy seminars and trainings in geographically diverse locations of San Diego County that could enable additional local government employees to participate.

4. Prepare outreach materials for local governments on finance options for their energy retrofit projects and user-friendly outreach materials for each city that highlights their Energy Roadmap efforts and the Program itself.

Year Approved: 2013

Year Completed (est.): 2015 **Year Completed (actual):** 2015 (ongoing)

Estimated Cost: $231,974 **Final Cost:** $231,974

Local Match Contribution: $33,031 (From non-LGP SANDAG program budget for "Energy and Climate Planning Program.")

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Continuous communications with your Client (Roadmap Cities) can keep momentum going on energy and climate planning and projects. • Education and outreach can help achieve desired GHG reduction goals while also increasing savings due to energy efficiency. • SDG&E's On-Bill Financing program is an effective means to address up-front capital costs for local governments and enable greater participation in rebate and incentive programs by local governments. • Sending out outreach materials via e-mail 'blasts' is an easy and low-cost way to engage staff on energy efficiency programs that help implement their Energy Roadmaps and/or Climate Action Plans (CAPs).

Lessons Learned
• Information-sharing on energy efficiency with local governments should be made directly relatable to local governments (i.e., not commercial customer examples and/or processes). • Addressing areas of influence or responsibility for local governments and providing actionable solutions is critical for most local governments that have very limited staff time to devote to energy efficiency. • Local government staff found sub-regional meetings helpful and more targeted. • SANDAG continues to use existing platforms (e.g. working groups) to present information to a broad range of elected officials and government staff.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Knowledge Transferred

- Numerous presentations given to decision-making groups, local elected officials, and city staff. These presentations are ongoing and the number of staff reached continues to increase.
    - SANDAG presented to over 370 government staff and 160 non-government staff.
- Energy Roadmap engineers met in person with all 16 Roadmap cities to discuss and provide technical assistance on energy efficiency measures and financing opportunities.
- SANDAG is a founding member of the San Diego Regional Climate Collaborative (SDRCC) and has used this venue to conduct additional outreach to local government staff on Energy Roadmap implementation.
- By informing and encouraging non-LGP local government staff to attend energy and climate conferences like the Statewide Energy Efficiency Collaborative (SEEC), those that attend have learned more on energy efficiency best practices.

Next Steps

- SANDAG continues to engage elected officials and local government staff through SANDAG committees, sub-regional peer networks, and in-person support at the cities.
    - Education and outreach is an ongoing task.
- SANDAG continues outreach tasks via sub-regional coordination, e-blasts, and one-on-one meetings with local government staff.

Benefit to the State

- Communicating with local decision-makers and government staff helps to educate a broad audience regarding energy efficiency and the local programs that support that.
- Energy retrofit projects that local decision-makers approved have resulted in actual energy savings and GHG reductions.

Benefit to Local Government

- The State's GHG reductions goals coincide with goals identified in SANDAG's Regional Energy Strategy and regional GHG inventory.
- SANDAG's regional role helps build capacity and confidence for local government staff to take action on their Energy Roadmaps and CAPs.
- SANDAG is known as a single source for energy and climate planning and information.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Successes
• SANDAG engaged with representatives from every local jurisdiction in the region. • SANDAG's Energy Roadmap program was recognized by the San Diego chapter of the American Planning Association. • SANDAG assisted local government staff in a number of cities with the development community outreach presentations on energy efficiency and climate change. • Local government staff appreciates the regional context that SANDAG provides.

Challenges
• Utility rebate/incentive programs get revised on a regular basis which makes it difficult to stay informed with the most current information. • Constant communication with local government staff is required to move forward with program participation.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

1.4.4 San Diego Unified Port District

Local Government Partnership: San Diego Unified Port District

Project Title: Education and Outreach

Project Purpose: Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines, and programs.

Grow institutional knowledge and engagement through targeted education and outreach for local government officials and staff. This project also addresses CEESP goals 3 (lead by example) and 5 (increase energy expertise).

Project Scope and Components: Capacity building on energy efficiency efforts to increase cross-departmental staff understanding (building operators, maintenance workers, engineers, planners, etc.) and stakeholder knowledge of energy efficiency principles and practices, is a vital component of the District's CAP implementation in order to facilitate energy efficiency integration into daily processes and projects. Using the District's multi-jurisdictional position and as a landlord to tenants, the District provides education to critical District stakeholders (including elected officials, the planning manager, planning/community service directors, and public works directors) to build awareness and institutional knowledge on energy efficiency within local jurisdictions. In coordination with SDG&E, the District provides training to staff on energy codes, reach codes, and other relevant energy topics identified by the local jurisdictions. Trainings increase the ability to implement clean energy policies and establish a foundation for institutional knowledge. District staff also facilities local government education and participation in energy upgrade finance options to District tenants and cross-departmental staff, such as SDG&E On-Bill Financing and Direct Install programs. Over the course of the 2013-2015 Partnership, the following training sessions occurred:

- Nine individual Port staff from four departments participated in 49 individual trainings by SDG&E, USGBC, the District, and others.
- One Port Commissioner was briefed on the partnership and Green Port program.
- Four Port staff from Environmental and Land Use Management (ELUM) and General Services participated in three trainings by SDG&E including Leadership in Energy and Environmental Design (LEED), Business Energy Savings Solutions and Building Operation Certification Courses.
- The Port held a Title 24 Workshop for 25 Port employees.
- One Environmental and Land Use Management (ELUM) staff member attended the AAPA Environment Committee Conference from April 6 - April 8, 2015.
- Two ELUM staff members attended the Statewide Energy Efficiency Forum on June 17-18, 2015. The forum featured breakout and working sessions on energy and climate strategic planning, zero-net-energy, energy efficiency, and communicating on climate change.

- In August 2015, one staff member from General Services completed the Building Operation Certification Couse and a staff member from ELUM attended trainings on Drought Response and Achieving Net Zero and Water Resiliency.
- During August 2015, two staff members from the Real Estate department attended a workshop on Sustainable Strategies for Businesses.
- In September 2015, three Port staff members attended the Electric Power Research Institute's Commercial and Industrial Electric Transportation Advisory Council conference.
- For Earth Week in April 2015, Port employees participated in multiple sustainability activities including an SDG&E Lunch and Learn, an E-Waste recycling event, and a sustainability scavenger hunt. At the SDG&E Lunch and Learn, fifteen employees learned about opportunities to reduce their energy use and obtain residential rebates and incentives available to homeowners.
- In September 2015, to celebrate Green Port Month, over 70 employees participated in a Lighting Fair sponsored by SDG&E and Techniart where they were able to purchase energy efficient lights for their homes. Sixteen employees also attended an SDG&E Lunch and Learn to about rate reform and upcoming changes to their electrical bills. Weekly tips throughout the month of September 2015 were distributed to all 500+ Port employees.
- One Real Estate department staff member attended the LEED for Neighborhood Development training at the SDG&E Energy Innovation Center on October 1, 2015 and one Engineering department staff member attended the LEED Green Associate Training at the SDG&E Energy Innovation Center on November 5, 2015.
- Beginning in December 2015, Port staff began briefings with three Port Commissioners on energy efficiency and Climate Action Plan Management initiatives.
- Two Port employees received the Port's annual employee environmental awards at the September 2015 Board of Port Commissioners Meeting. These employees demonstrated that sustainability and environmental awareness can be incorporated into daily business practices, contributing to the Port's mission and role as a leader of environmental stewardship in the region. One of the award recipients was instrumental in assisting Port staff with multiple energy efficiency retrofits.
- To end Green Port Month, the Port held its first ever Health, Wellness and Sustainability fair in October 2015. Over 250 employees attended the fair which promoted staff engagement with consultants and vendors offering a range of services, including electric

vehicles, energy efficiency, home energy upgrades, and alternative transportation. Employees learned about LED lighting rebates, energy efficiency upgrades, electric vehicle rebates, solar for residential homes, and water conservation.

Deliverables:

1. To date, the District has offered trainings to 1,021 District staff members. This includes the following: Seven Elected / Appointed Officials, Ten Department Directors / City Managers, and 1004 Other Local Government Staff.

Year Approved: 2013

Year Completed (est.): 2013

Year Completed (actual): Ongoing

Estimated Cost: $116,000

Final Cost: $116,000

Local Match Contribution: $58,000

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Continuous communications with District staff ensures momentum and awareness of energy efficiency needs and climate planning initiatives. • Education and outreach promotes achievement of desired GHG reduction goals while also increasing savings due to energy efficiency. • Distributing outreach materials via e-mail 'blasts' is an easy and low-cost way to engage District staff on energy efficiency programs. • District-wide events (including fairs that are coupled with other relevant educational topic areas) tend to draw larger crowds and often result in increased adoption and participation in energy efficiency initiatives.

Lessons Learned
• Information-sharing on energy efficiency with local governments, either offered through SDG&E or otherwise, should be made directly relatable to local governments (i.e., not commercial customer examples and/or processes) and local government staff. • Addressing areas of influence or responsibility for local governments and elected officials

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

is instrumental in providing actionable solutions where an agency may have limited staff time and resources devoted to energy efficiency.
- The District continues to use existing platforms (e.g., department meetings, internal working groups, and SDG&E training opportunities) to offer information to a broad range of staff on varying energy efficiency topics.

Knowledge Transferred

- Numerous presentations and trainings have been offered to District decision-makers, elected officials, and District staff. These presentations are ongoing and the number of staff reached continues to increase.
    - District presented to over 1,021 staff members.
- The District is a founding member of the SDRCC and has used this venue to obtain additional relevant information through the partnerships established by this group.
- By informing and encouraging District staff to attend energy efficiency and climate conferences, staff support for energy retrofits and advancements in energy efficiency best practices is growing.

Next Steps

- The District continues to engage elected officials and staff through Ad Hoc committees, peer networks, and in-person project coordination meetings.
    - Education and outreach is an ongoing task and educational activities for 2016 are underway.
- The District continues outreach tasks via District-wide events, e-blasts, and one-on-one meetings with staff to identify additional training needs. The District is exploring the development of a staff-wide survey to identify additional training opportunities.

Benefit to the State

- Communicating with District decision-makers and government staff helps to educate a broad audience regarding energy efficiency and the local/regional supporting programs.
- Energy retrofit projects and actions taken by District staff continue to drive energy savings for the State.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to Local Government
• The State's GHG reductions goals coincide with goals identified in the District's CAP and annual GHG inventorying process. • The District serves in a broader regional role to help build capacity and confidence for local government staff within the five member cities to take similar progressive actions on climate action planning and energy efficiency. • Energy retrofit projects that the District has implemented have resulted in actual energy savings and GHG reductions.

Successes
• The District is engaged with representatives from the majority of local jurisdictions in the region through participation in regional working groups, committees, and collaboratives focused on energy management and climate action planning in the region. • All District departments have participated in at least one energy efficiency and/or incentive training program. • The District's leadership in climate action planning and interest in energy efficiency was recognized by the California Energy Commission (CEC), which has since led to the District's participation in a Ports Collaborative working group with the CEC. • The District has assisted tenants with developing educational/outreach programs for staff involved in energy management and energy efficiency project development.

Challenges
• Utility rebate/incentive programs get revised on a regular basis which makes it difficult to stay informed with the most current information. • Constant communication with local government staff is required to move forward with program participation. • SDG&E staff turnover has an impact on relaying adequate information in a timely manner to District staff interested in key aspects of energy efficiency programs, including rebate and incentive programs.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements.		

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

	Given this is a non-resource program, there are no EE quantitative measures to report on or assess.

1.5 Strategic Plan Task 1.2.1: Stakeholder Engagement

"Implement any of the strategies in Section 1.1 through a process involving internal and external stakeholders, etc."

1.5.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Sustainable Communities Program

Project Purpose: Hold stakeholder workshops to share information and receive feedback on the development of energy efficiency modeling tool.

Project Scope and Components: Provide regular in-house trainings to Development Services staff and the development community on the City's approach to Zero Net Energy through "reach" codes, on the California Energy Code and on the California Green Building Code.

Deliverables:

1. 2 workshops.

Year Approved: 2013

Year Completed (est.): 2014

Year Completed (actual): 2014

Estimated Cost: $7,000

Final Cost: $7,000

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• City of Chula Vista presented group trainings for Staff on LEED-ND Neighborhood

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Development. The trainings reviewed the measures in the LEED-ND certification system and demonstrated how it can be utilized as a valuable planning tool to encourage energy efficient and sustainable development in Chula Vista.

Lessons Learned

- Because advanced planning involves numerous disciplines, communication amongst staff can facilitate an integrated approach to plan review that is based on a common knowledge and intent.

Knowledge Transferred

- The LEED-ND measures were reviewed to make clear the intents, benefits and strategies for compliance.

Next Steps

- City of Chula Vista intends to provide additional training for staff with the intent to review several additional neighborhood development tools.
- Trainings on LEED-ND and other neighborhood development tools including CALGreen code will also be offered to local developers.

Benefit to the State

- Assisting developers comply with reach codes that help reach state energy and climate goals sooner than required.

Benefit to Local Government

- Helped developers comply with local reach codes and Air Quality Improvements Plans for Sectional Plan Areas, which assisted the City in passing those ordinances and future reach codes.

Successes

- There was robust workshop participation where developer and City staff gained familiarity with the tool and LEED-ND in general.

Challenges
• The fast pace of the code update cycle and the long tool development process means that the tool was outdated very fast. • Lack of detailed and relevant data that was needed for data inputs. • Developer buy-in to incorporate the tool into their planning process.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

2. Strategic Plan Goal 2: Code Compliance

"Strong support from local governments for energy code compliance enforcement."

2.1 Strategic Plan Task 2.1.1: Code Compliance Workshop Attendance

"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."

2.1.1 City of San Diego

Local Government Partnership: City of San Diego Local Government Partnership

Project Title City: Code Compliance Training

Project Purpose: To educate, train and inform the City workforce on Energy Efficiency and related codes and standards.

Project Scope and Components: Provide staff training classes and venue for code compliance.

Deliverables:

1. (2013-2014) Ensure that no less than 10 staff will attend code compliance workshops offered by the CA Energy Commission and other appropriate training options.

2. (2015) Ensure that no less than 5 staff will attend code compliance workshops offered by the CA Energy Commission and other appropriate training options.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: Part of $300,000 budget

Final Cost: Part of $300,000 budget

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: **Y** / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Share lessons learned on implementation, compliance, and expedite permit process.

Lessons Learned
• Title 24 codes and standards changes posed a particular challenge to staff for implementation and interpretation.

Knowledge Transferred
• Staff changes, turn over and additional position creation, posed significant challenges.

Next Steps
• Code Coaching implementation, continued education, outreach, and training in codes and standards.

Benefit to the State
• Consistent message and support throughout the State to meet specified goals.

Benefit to Local Government
• Shared resources, support, collaboration, best practices.

Successes
• 30 Development Services Department staff attended 5 SDG&E workshops on Title 24, ZNE, CalGreen and updated Green Building Codes and standards. • Code coaching and training has been very helpful to the Development Services Department Staff.

Challenges
• Changes in codes have provided challenges with implementation and enforcement.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

2.1.2 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Code Compliance Education and Training

Project Purpose: 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.

Project Scope and Components: Train Staff on Updated codes

Deliverables:

1. Trained staff

Year Approved: 2013

Year Completed (est.): 2013

Year Completed (actual): 2015

Estimated Cost: Part of $60,000 budget

Final Cost: Part of $60,000 budget

Local Match Contribution: N/A

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Utilize regularly scheduled training hosted by SDG&E at the Energy Innovation Center • Assess the training needs of staff. • Work with training facilitator to target training around specific needs of Staff. • Work with training facilitator to accommodate staffs' busy schedule and workload.

Lessons Learned
• A training schedule needs to fit the needs of a fast paced Building Department with a heavy work load. • SDG&E can help accommodate on-site instruction for County staff.

Knowledge Transferred
• County staff has advanced their knowledge of energy standards for the purposes of plan check, field inspection, and increased their ability to provide guidance to customers on energy requirements and best practices to increase energy efficiency for

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

construction projects.
- County staff learned about regularly hosted training at SDG&E Energy Innovation Center for Plans Examiners and Building Inspectors.
- County staff has learned of opportunities for SDG&E to accommodate County staff training needs.

Next Steps

- Train 15 plans examiners and building inspectors on 2016 Building Energy Efficiency Standards.
- Train and certify at least 2 staff members with Certified Energy Manager (CEM).
- Train and certify at least 2 staff members with Zero Net Energy certification.
- Educate and inform other County departments (i.e. General Services, Environmental Health, Health and Human Services, Emergency Services) of local energy efficiency and conservation programs.
- Provide outreach to a targeted hard-to reach community to inform of SDG&E energy savings assistance programs.

Benefit to the State

- Technical training and resources aid the County of San Diego to effectively enforce California's Energy Efficiency Building Standards. A more informed County Staff plays a role in influencing energy attitudes and actions of local citizens and businesses.

Benefit to Local Government

- Technical training and resources aid the County of San Diego to effectively enforce California's Energy Efficiency Building Standards. The County coordinates with regional local government partners to share knowledge to better understand and enforce Energy Efficiency Standards and creating a more energy efficient regional building stock.

Successes
• In 2014, nine County building counter staff were trained on various aspects of the energy code. • Attended SDG&E hosted trainings on residential and non-residential energy standards and a training hosted by Energy Code Ace on small commercial HVAC change-outs. • Assembled nearly one hundred energy code and compliance binders, enabling study of the 2013 California Building Energy Efficiency Standards by plan check, inspection staff, and engineers. • Led trainings overview for information about code changes and how it will affect permit processing and inspections. • Participated in the webinar, 'Local Policies to Achieve ZNE Buildings.' • Advanced County staff knowledge of energy standards for the purposes of plan check, field inspection, and increased their ability to provide guidance to customers on energy requirements and best practices to increase energy efficiency for construction projects.

Challenges
• Coordinating staff schedules and regular workloads to accommodate training.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

2.2 Strategic Plan Task 2.1.2: Code Compliance and Enforcement

"Redesign enforcement, compliance, plan review processes; introduce new forms and templates."

2.2.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Sustainable Communities Program

Project Purpose: Perform secondary field audits and plan checks to confirm Title-24 compliance and identify opportunities to better educate and inform builders on standards.

Project Scope and Components: Contract with non-profit to continuously assess the current level of understanding of Title 24 and CALGreen among building inspectors; identify opportunities for learning and barriers to standards implementation and enforcement; Provide tailored, direct, hands on assistance and training to increase capacity for standards enforcement; and develop customized tools and resources (e.g., checklists, corrections lists, and web content) that directly address the needs of inspectors.

Deliverables:

1. 3 secondary audits and plan checks.
2. 182 “one-on-one” meetings with City developers.

Year Approved: 2013

Year Completed (est.): Ongoing

Year Completed (actual): Ongoing

Estimated Cost: Part of $352,404 budget

Final Cost: Part of $352,404 budget

Local Match Contribution: N/A

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• The energy code consultant spends time one-on-one and in small groups with plan checkers and building inspectors to preform secondary desktop reviews of submitted projects at the rate of 3-4 a week. • Several secondary field reviews have also occurred.

Lessons Learned
• The secondary field reviews were initially arranged to be accomplished by an offsite consultant as part of the consulting firm’s contract. Staff found that the inspections

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

were hard to arrange given the building inspectors' constantly changing itinerary and severe understaffing. The contract has been rewritten to increase the hours of the onsite energy consultant to accommodate the secondary field reviews.

Knowledge Transferred

- During secondary reviews staff knowledge of energy code was reinforced and expanded to include changes to the code, the numerous exceptions that can apply and common mistakes that applicants make.
- New modeling software and forms were reviewed and explained in depth.

Next Steps

- Staff trainings will continue to address interdepartmental solutions that can be used to enhance energy compliance.
- In the 2016 contract, more time was provided for on-site consultant staff to ensure that more on-site visits can occur.

Benefit to the State

- Increasing developer ability to meet and exceed Title 24 CALGreen and other state sponsored building codes.

Benefit to Local Government

- Educating local developers on building code requirements help alleviate developer concerns for local action to require building built above state minimum code.
- Strengthen relationships with local developers.
- Helps City meet energy and climate reductions goals.

Successes

- 3 secondary audits and 182 "one-on-one" meetings have been conducted with City and developers which allowed staff to provide information about energy efficiency related to ongoing projects.

Challenges
• Aligning consultant staff and City inspector staff to ensure that staff are available for short notice inspection appointments.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

2.2.2 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Code Compliance Education and Training

Project Purpose: Redesign enforcement, compliance, plan review processes; introduce new forms and templates.

Project Scope and Components: Update public forms and correction lists to provide information on new energy standards. Update County of San Diego web page to provide the public with access to information related to the new standards.

Deliverables:

1. Updated public forms, correction lists, and web page.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: Part of $60,000 budget

Final Cost: Part of $60,000 budget

Local Match Contribution: N/A

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Best Practices
• Regularly review and update public facing documents regarding California energy standards and best practices.

Lessons Learned
• Regularly review and update public facing documents regarding California energy standards and best practices.

Knowledge Transferred
• County staff prepared informational handouts and updated the County's website to make information related to energy standards for new single-family dwelling construction available to the Community.

Next Steps
• Continue to provide up-to-date and easily accessible information on energy standards to the Community.

Benefit to the State
• By ensuring that energy standards information is publicly available and up-to-date, the County is helping to inform and influence energy efficient practices in the Community and achieve State emissions reductions goals.

Benefit to Local Government
• By ensuring that energy standards information is publicly available and up-to-date, the County is helping to inform and influence energy efficient practices in the Community and among regional partners.

Successes
• Updated the County's website and forms related to the Solar and EV Ready Ordinance and the Solar Streamline Ordinance enabling easier public access to information on the integration of energy efficiency, demand response and on-site generation.

Challenges
• The California Energy Commission's decision to push back the effective date of the 2013 standards – from January 1, 2014, to July 1, 2014 – similarly delayed many of the County's direct implementation activities (e.g., updating web page, public forms, and correction lists) as the 2008 standards remained in effect.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

2.2.3 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Permit Streamlining for Energy Upgrade California® Home Upgrade Projects

Project Purpose: To streamline the permitting process for Home Upgrade projects.

Project Scope and Components: Questionnaires conducted with local building departments and working group meetings with Home Upgrade participating contractors.

Deliverables:

1. Report on permit streamlining strategies.

Year Approved: 2013

Year Completed (est.): 2014 **Year Completed (actual):** 2014

Estimated Cost: $20,000 **Final Cost:** $20,000

Local Match Contribution: Staff time to complete the surveys.

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Stakeholder input let to the development of the following best practices for streamlining electrical, plumbing and mechanical projects. o Provide clear information on codes and permits via web and permit counter staff. o Online, no-plan permitting for electrical, plumbing and mechanical projects. o Establish Home Upgrade quality control inspectors as "special inspectors" based on building department requirements. o Equip Home Upgrade participating contractors or inspectors with digital devices that allow city inspectors to perform virtual inspections. o Certify contractors to perform work and obtain permits after projects are completed, with building departments performing sample inspections.

Lessons Learned
• Local building departments have low awareness of Home Upgrade program. • Given the relatively low volume of projects participating in Home Upgrade, concepts like permit bundles and templates are not worth the required work for building departments to implement. Thus, developing a permit process specifically for Home Upgrade projects, which often include multiple measures, was determined to be an impractical goal.

Knowledge Transferred
• This research was shared with the Home Upgrade Statewide Working Group, a group of stakeholders convened by the PUC.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Next Steps
• The Home Upgrade Statewide Working Group established a Permit Streamlining Committee to further investigate the topic. • The SDREP program vendor leveraged this research for a California Energy Commission-funded project to identify best practices for streamlining the permit process for residential HVAC alterations.

Benefit to the State
• The SDREP program vendor leveraged this research for a California Energy Commission-funded project to identify best practices for streamlining the permit process for residential HVAC alterations. Streamlined permitting will help improve permit compliance rates, meaning more opportunities to enforce Title 24, Part 6 requirements and capture energy savings from equipment upgrades.

Benefit to Local Government
• Streamlined permitting will help improve permit compliance rates, meaning more opportunities to enforce Title 24, Part 6 as well as health and safety requirements. Streamlined permitting processes can also help reduce workload for building department staff.

Successes
• Stakeholder input led to the development of six best practices for streamlining electrical, plumbing and mechanical projects.

Challenges
• Local building departments have low awareness of Home Upgrade program. • Given the low volume of projects participating in Home Upgrade, concepts like permit bundles and templates are not worth the required work for building departments to implement.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3. Strategic Plan Goal 3: Lead by Example

"Local governments lead by example with their own facilities and energy usage practices."

3.1 Strategic Plan Task 3.1.1: Local Government Benchmarking Policies

"Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all local government facilities."

3.1.1 City of San Diego

Local Government Partnership: City of San Diego Local Government Partnership

Project Title: Energy Efficiency Improvements in Municipal Facilities and Operations

Project Purpose: To perform audits and benchmarking at City facilities.

Project Scope and Components. ASHRAE Level 2 facility audits will be performed at existing City facilities. Benchmarking of nearly 700 City locations and/or facilities using Energy Star Portfolio Manager.

Deliverables:

1. (2013-2014) - Benchmark, audit and/or retro-commission 20 facilities and provide associated reports and outcomes.

2. (2015) – Benchmark and audit 14 facilities and provide associated reports and outcomes.

Year Approved: 2013

Year Completed (est.): 2015 **Year Completed (actual):** 2015

Estimated Cost: $440,000 **Final Cost:** $440,000

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• ASHRAE Level 2 audits provide a benchmark for Energy Efficiency opportunities.

Lessons Learned
• ASHRAE Level 2 audits vary considerably. Low bid is not necessarily a good thing in this area. Desired outcomes have not been reached on some applications.

Knowledge Transferred
• Audits provide a documented method of information transfer for snapshot in time that can be passed on as staff changes.

Next Steps
• The City of San Diego intends to update the Energy Star Portfolio Manager as new facilities are added.

Benefit to the State
• Audits provide a tool to for energy project development and implementation.

Benefit to Local Government
• The City's energy data for 700 locations and/or facilities is now available in the Energy Star Portfolio Manager.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Successes
• The City's 700 locations and/or facilities have all been added to the Energy Star Portfolio Manager database.

Challenges
• City location and/or facility address database did not always correspond to the SDG&E account address.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.1.2 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Energy Star Benchmarking

Project Purpose: Add to portfolio of CoSD facilities benchmarked and tracked through Portfolio manager

Project Scope and Components: Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all local government facilities.

Deliverables: Benchmark 40 facilities

Year Approved: 2013

Year Completed (est.): August 2013

Year Completed (actual): August 2013 (ongoing)

Estimated Cost: $2,000

Final Cost: $2,000

Local Match Contribution: $0

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Benchmarking of energy use in facilities larger than 10,000 square feet helps to identify energy efficiency opportunities and to prioritize projects by performance. • Benchmarking can rank facility energy performance against national standards (Energy Star rating, National average EUI), or against similar facilities in a portfolio • Energy Star provides a very high-level view of energy performance, using generalized factors (e.g., annual energy consumption, operating hours, number of computers and occupants). A deeper dive, such as a whole building modeling or an energy audit, is required to understand the causes for good or poor performance. • Energy Star should also be used for tracking performance changes through time to understand how project implementation or external factors may affect performance and by what percentage.

Lessons Learned
• Benchmarking with a database such as Energy Star is very time consuming if manual monthly energy use updating is required to stay current. Automatic updating by "sharing" records and allowing the utility to automatically send data to Energy Star removes this burden. • Simple data logging mistakes will cause the entire record to read as "N/A." It is necessary to "scrub" all data in every record to insure there is not overlap or gap in data logged. • The utility has certain rules for naming of meters which permits automatic updating. A small mistake in the name will cause the record to not receive updates.

Knowledge Transferred
• CoSD has advised other local governments about lessons learned, benefits of benchmarking, and tips for navigating the Energy Star website. • Benchmarking has provided DGS with data to inform elected officials and County executives about EE opportunities and challenges.

Next Steps
• CoSD has continued to benchmark facilities past the original goal of 40 (the largest of the County's 1,000 campuses). In 2015 we achieved a total of 181 facilities entered into the database.

Benefit to the State
• CoSD facility benchmark data is available to the public. • Energy performance benchmarking and tracking over time yields improved energy performance. • Benchmarking results will be the baseline for establishing CoSD's ZNE Portfolio Plan to identify how the portfolio will achieve California's 2030 ZNE goals for existing buildings.

Benefit to Local Government
• Energy performance benchmarking and tracking over time yields improved energy performance, saves money, and helps evaluate efficacy of EE projects • Benchmarking results will be the baseline for establishing CoSD's ZNE Portfolio Plan to identify how the portfolio will achieve 2030 ZNE goals for existing buildings. This portfolio plan will guide EE decision making for the next 14 years.

Successes
• Benchmarking with Energy Star provides an aggregated portfolio view of energy use intensity (EUI), showing an overall decrease from 200 kBtu/sf/yr in baseline year 2006 to 168 kBtu/sf/yr in 2014, a reduction of 16%.

Challenges
• The County of San Diego has a large portfolio. Benchmarking reveals performance from a high level perspective, demonstrating the need to conduct further, costly analyses to get fine-grained performance data. Funding for such activities is not budgeted and sources are limited to special funding requests, grants, and a small Energy Trust Fund.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.1.3 San Diego Unified Port District

Local Government Partnership: San Diego Unified Port District

Project Title: Benchmarking

Project Purpose: The District to benchmark all eleven District-operated facilities through the use of Portfolio Manager. Use of Portfolio Manager will facilitate increased transparency of energy use throughout District tidelands to better identify energy efficiency opportunities. The District will also conduct a Smart Cities pilot study to identify appropriate applications for equipment sensors and data analytics tools to better track energy usage in District operated facilities.

Project Scope and Components: The District completed benchmarking of all eleven District-operated facilities through Portfolio Manager. Per the recently adopted Utility Usage Reporting Ordinance, all utility account holders on District tidelands are required to utilize Portfolio Manager to report energy and water usage annually. Tenant and subtenant utility usage will then be aggregated by a third party for the District's use in monitoring progress towards meeting the 2020 GHG emission goals. The use of Portfolio Manager will also facilitate businesses to better track their energy usage and benchmark their facilities in order to decrease energy consumption and increase employee awareness. District staff will conduct numerous in-person Portfolio Manager training sessions in 2016 and will offer additional electronic training opportunities and reverence materials.

In 2014 the District began working with a variety of technology companies (e.g., SDG&E, Black & Veatch, OSIsoft, Intel, and Dell) to pilot the implementation of a smart building energy management system. The District Administration Building was chosen to demonstrate a basic energy management and benchmarking system consisting of sensors, communication pathways, and cloud storage. Although the initial deployment project was small in scale, it was designed to demonstrate the application of technology to evaluate, display, and affect energy

usage patterns in the Administration Building. The project also included an Energy Dashboard that was installed during December 2014 in the lobby of the Administration Building to display information about the project and the environmental accomplishments that have been achieved as part of the District's CAP. This provided an opportunity to increase employee awareness of District environmental projects and progress.

The project also demonstrated the use of technology to identify operational anomalies within building equipment and modernize an older building. Results of the Smart Cities – Smart Port pilot project were presented during the April 2015 Board meeting. The goal of an end-to-end smart building energy management system for the District is one that facilitates accounting of energy use, provides visibility into the impact of operational changes, and helps to motivate the behaviors that maintain and enable further energy use reductions. The District is currently conducting a *Site Assessment and Report* to identify other priority facilities that would benefit from a smart building energy management system. A draft assessment was submitted during the fourth quarter of 2015 and is currently being reviewed by District staff. It is anticipated that the report will be completed in mid-2016.

Deliverables:

1. All eleven facilities benchmarked utilizing Portfolio Manager

Year Approved: 2013

Year Completed (est.): 2013 **Year Completed (actual):** 2016

Estimated Cost: $150,000 **Final Cost:** $ 150,000

Local Match Contribution: $75,000

Project Reimbursed for LG Staff Time: **Y** / N

Amount of Monies Unspent and to Where Returned:$0

Best Practices
• The use of Portfolio Manager is a national best practice for facility benchmarking. The tool is a simple and easy-to-understand online resource. In addition, Portfolio Manager offers several reporting features to facilitate energy performance monitoring and decision making processes. • The use of Portfolio Manager as a benchmarking tool provides consistent reporting

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

across the District and provides a comparative analysis to other similar facilities throughout the nation.

Lessons Learned

- With staff turnover at the District, it was identified that clear instruction on the Portfolio Manager account and property set-up is necessary during staff training and on-boarding.
- There is a significant learning curve to understand the numerous utility accounts and meters throughout the District and how that information is reported through Portfolio Manager. Without clear instruction of the facilities and associated properties defined in Portfolio Manager, it is difficult to utilize the reporting and tracking features of the tool in a meaningful way.

Knowledge Transferred

- Portfolio Manager serves as a comprehensive resource for the District's utility reporting. The tool continues to be used to educate and transfer knowledge to the tenants for use in complying with the Utility Usage Reporting Ordinance.

Next Steps

- The District is undergoing a competitive procurement for new energy engineering and planning services to provide technical support to the District and District tenants under this LGP. Energy retrofits have been identified for approximately 23 tenants and at numerous District facilities. The District will continue to seek more comprehensive energy assessments for District and tenant facilities to continue to identify energy efficiency retrofit projects.
- The District is awaiting receipt of the final Smart Cities Site Assessment and Report to identify additional energy management and monitoring technologies suitable for existing District operated facilities.

Benefit to the State

- A sustained, comprehensive effort to institutionalize energy improvements throughout the District tidelands will enable the state to achieve the CEESP Local Government Goal 3 and meet state energy and climate goals for 2030. This includes:

  - Providing technical resources to local governments that do not have their own energy and climate staff to provided continuing education and information on energy saving measures.
  - Benchmarking and performance monitoring to show municipal energy use and upgrades for both energy savings and meeting local climate action plan goals.
  - This program's influence in benchmarking has led to actual energy savings for District and tenant facilities.
- Support for energy benchmarking and management tools is a resource for the District in developing, implementing, and monitoring the District CAP, per the requirements of AB32.

Benefit to Local Government

- The use of Portfolio Manager to benchmark facilities provides District staff with accessible management tools to monitor energy usage.
- Benchmarking facilities has provided the District with tools to prioritize energy efficiency retrofits and target facility inefficiencies by looking at year-over-year trends in consumption.

Successes

- The benchmarking of facilities has provided an at-a-glance resource to District staff for energy management and reporting. In addition, the future reporting of energy usage by tenants through Portfolio Manager will provide the District with regular/annual reports of aggregated utility usage throughout the tidelands. Annual reports will provide the District with necessary data to strategically plan tenant engagement initiatives that are focused on energy efficiency. They will also assist the District in monitoring its GHG reduction targets.

Challenges

- Technical errors in Portfolio Manager and/or the SDG&E benchmarking uploads to the District's Portfolio Manager accounts have caused redundancies in the District's Portfolio Manager reporting. District staff is working with SDG&E to resolve the reporting issue.
- Portfolio Manager does not require Investor Owned Utilities (IOUs) to automatically report/benchmark monthly energy costs through the Portfolio Manager "sharing" tools.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

A requirement for IOUs to automatically benchmark monthly energy costs would assist local governments and businesses utilizing Portfolio Manager to better monitor energy usage when this data is also associated to monthly costs.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.2 Strategic Plan Task 3.1.2: Local Government 'Utility Manager' Program

"Set up a 'utility manager' computer program to track municipal usage. Identify need for sub-metering to plan, budget and manage bills."

3.2.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Municipal Energy Management

Project Purpose: Determine feasibility of establishing an energy management system to improve real-time management capacity.

Project Scope and Components: Search for a software application, through an RFP, which would help streamline energy management and facilitate the identification of future energy efficiency projects.

Deliverables:

1. Feasibility reports completed.
2. Ability for live Account monitoring of both water and energy meters.

Year Approved: 2013

Year Completed (est.): 2016

Year Completed (actual): Ongoing

Estimated Cost: Part of $186,483 budget

Final Cost: Part of $186,483 budget

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• City staff require an online digital tool to serve as a single access point to monitor all of the City's energy accounts. • By checking our energy account regularly, we are able to identify when buildings are not operating efficiently and are in need of energy efficiency upgrades.

Lessons Learned
• The original plan was to hire out an energy management service but there was a high cost associated with the programs (website or software) available thru several vendors (including a yearly fee for usage as well as licensing fees). • SDG&E offered a no-cost online energy management software which fulfills the City's energy management needs. This software is currently undergoing Beta tests and is off line until the end of March 2016. • We are also taking advantage of online applications such as the Department of Energy's Energy Star website, which are also at no cost.

Knowledge Transferred
• All data compiled has been shared with the Department of energy as part of the Better Building Challenge.

Next Steps
• Once the new C3 Enterprise tool goes back on line it will be the City of Chula Vistas primary energy management tool; supplemented by the Energy Star online website.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to the State
• Serve as an example of finding low cost ways to manage an organizations water and energy resources. • Assists in meeting the state's energy and GHG reductions goals.

Benefit to Local Government
• The benefits garnered thru money savings, which could be used to further fund energy saving projects. • Assists in meeting our energy and GHG reductions goals.

Successes
• The City of Chula vista has seen a benefit from using the Energy star website as well as the C3enterprise tool offered in their ease of use. • The cost savings. • Ease of training other staff, accessibility, and no extra cost for per-site license costs.

Challenges
• Cost of application, and potentially ongoing charges incurred thru the service provider. • The system provided by SDG&E will only track energy usage; we will still need to find a system to track water and other utilities.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.2.2 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Utility Manager Pro

Project Purpose: Produce reports on energy usage at facilities

Project Scope and Components: Set up a 'utility manager' computer program to track municipal usage. Identify need for sub-metering to plan, budget and manage bills.

Deliverables:
1. Energy reports

Year Approved: 2013

Year Completed (est.): Project implemented in 2013

Year Completed (actual): Reports are ongoing

Estimated Cost: N/A

Final Cost: N/A

Local Match Contribution: Staff time used to set up the program and run reports was provided by LGP. No other budget was needed from SDG&E Partnership Fund.

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Utility Manager program aggregates all utility bills in order to easily identified all usage and costs at a single site. Software also provides overall portfolio views and analyses, such as total kBtu.

Lessons Learned
• Utility Manager Pro is a database of monthly billing history, and does not provide shorter term incremental data for trending analyses, so cannot be used to analyze time of use demand or daily/weekly usage efficiencies. More detailed analysis of incremental usage is needed.

Knowledge Transferred
• Reports are output quarterly and posted on County website home page to demonstrate gains in energy efficiency, or as needed to provide data for specific facility EE projects

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- Staff have lead educational sessions at several local government-attended conferences to talk about the system and its benefits

Next Steps

- Daily/weekly usage data is highly desirable, so the County is looking at implementing a Dashboard system to aggregate portfolio-wide real-time energy data in a highly graphic format to spot opportunities and aid in identifying and implementing EE projects

Benefit to the State

- Aggregating energy use data in a versatile database greatly aids in identifying, planning for, and implementing energy use reduction activities to achieve an increasingly lower energy footprint of local government, in accordance with Strategic Plan goals.

Benefit to Local Government

- Aggregated billing history allows staff, who are responsible for financial tracking, to identify cost and usage trends.

Successes

- Greater visibility of an enormous amount of billing data increases the ability to detect patterns and anomalies
- Reporting capabilities of database software makes for easier reporting to internal and external stakeholders

Challenges

- Greater visibility of billing history with reporting ability is an improvement over no database, but the amount of data being stored is still great and requires staff time to design report formats and utilize or publicize the information.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.3 Strategic Plan Task 3.2.1: Local Government Energy Action Planning / Climate Action Planning

"Develop/adopt an energy chapter for City/ County climate or energy action plan."

3.3.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Municipal Energy Management

Project Purpose: Create an Energy Management Action Plan for municipal facilities to identify near-term and long-term priorities

Project Scope and Components: The City Operations Sustainability Plan provides a powerful policy framework for the City of Chula Vista to pursue external funding and to leverage existing municipal programs to effectively integrate sustainability throughout its operations and facilities.

Deliverables:

1. 1 new Local Government EAP/CAP developed.

Year Approved: 2013

Year Completed (est.): Ongoing

Year Completed (actual): Ongoing

Estimated Cost: Part of $186,483 budget

Final Cost: Part of $186,483 budget

Local Match Contribution: Participation of local government staff in the planning process.

Project Reimbursed for LG Staff Time: Y / N

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Participated in the REV Sustainability Circle, which is a business to business facilitated training focusing on sustainability, including energy efficiency. • The plan sets energy goals of: Energy Efficiency o New building should maximize passive cooling and heating. o New and renovated buildings (>4,500 sf) should be at least 20% more efficient than state code o Existing buildings should be retrofitted with more efficient technologies (as available). o Only purchase EPA ENERGY STAR qualified appliances and products. Renewable Energy o New and renovated buildings should incorporate onsite renewable energy. o Overall goal is to meet at least 20% of energy demand with onsite energy. o Up to 100% of purchased electricity should be renewable (if costs are equal or less than conventional electricity).

Lessons Learned
• By participating in the REV Sustainability Circle we were able to raise the priority of creating energy policy for municipal buildings and get a municipal plan adopted by City Council. • The original plan was to establish a revolving loan fund to pay for any energy efficiency projects. Unfortunately, due to the current economic constrains, the City's efforts to try to establish a revolving loan fund has been put on hold.

Knowledge Transferred
• The City of Chula Vista is an active participant of the Department of Energy's Better Building Challenge; the City shares its successes with other participating Cities and an implementation guide for the City Operations Sustainability Plan has been featured on the DOE website at http://betterbuildingssolutioncenter.energy.gov/implementation-models/sustainable-operations-plan. • City staff regularly talk about municipal energy upgrades at SoBEAC and San Diego Climate Collaborative.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- City staffs attend the DOE Better Building Challenge Summit to present about the City Operations Sustainability Plan.

Next Steps

- Regularly update City Council on the plan implementation.
- Study indoor LED retrofit pilot to evaluate whether all City facilities' indoor lighting can be upgraded with LED bulbs.
- Continue looking for funding opportunities to meet goals.
    - Funding Opportunities
        - Local Government Partnership with SDG&E and Public Utilities Commission
        - CA Energy Commission loans
        - CSCDA Sustainable Energy Bond program
        - Municipal Utility Reinvestment Fund (proposed)
- Transition to "Zero Net Energy" design for all new municipal facilities.
- Retro-Commission all Municipal buildings that are greater than 20,000 square feet and more than 10 years old to improve energy performance.

Benefit to the State

- By ensuring that our facilities are energy efferent and setting a clear, publicly reported, plan for increasing the energy, and other resource, efficiency of our facilities we are directly assisting the state in reaching its GHG, and other resource, reductions goals and providing an example for other building owners of steps they can take in their own buildings.

Benefit to Local Government

- Reduction in expenditures due to energy efficiency projects with short return on investment periods.
- Serve as an example to community that energy efficiency is a sustainable practice at any level.

Successes

- Due to the level of support provided by the LGP energy efficiency has been

institutionalized in the planning efforts of multiple departments.

- As a result of implementing our Sustainability Plan, the City has reduced energy usage of all buildings by 24% over our 2010 baseline.
- City Hall complex (consisting of three buildings) has been Energy Star certified.

Challenges
• Current economic conditions and difficulties with internal and outside funding sources. • Staff turnover.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.3.2 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Strategic Energy Plan

Project Purpose: Update of 3-year plan identifying specific goals and metrics for period 2013 - 2015

Project Scope and Components: Develop/adopt an energy chapter for City/ County climate or energy action plan.

Deliverables:

1. Board of Supervisors adopt plan for upcoming 3-year period

Year Approved: 2013

Year Completed (est.): Adopted by Board July 2013 **Year Completed (actual):** Same

Estimated Cost: N/A **Final Cost:** N/A

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Local Match Contribution: Staff time used prepare the Plan was provided by LGP. No other budget was needed from SDG&E Partnership Fund.

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• The Strategic Energy Plan contains energy reduction actions and targets based on GHG reduction targets outlined in the CoSD Climate Action Plan and embodied in all aspects of the Strategic Plan Local Government section goals • The plan was developed with multi-department participation and vetted through all levels of internal stakeholders before presenting to the Board for adoption. It passed unanimously.

Lessons Learned
• Target metrics should be based on a clear understanding of what can be achieved with available staff, funding, incentives, and regulatory requirements and then formalized into an Operational Plan. Staff must have a roadmap for achieving big bold goals.

Knowledge Transferred
• CoSD Strategic Energy Plan is posted on the County's public-facing website, along with concepts ad recommendations for citizens to achieve their own energy reduction goals.

Next Steps
• A renewed Strategic Energy Plan was presented to the board at the end of the planning term, and was adopted. The goals from this new document are contained in the most current CoSD-SDG&E LGP agreement.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to the State
• The Strategic Energy Plan provides a roadmap for actions to be taken by stakeholder departments in order to achieve the State's mandated energy and carbon reduction goals

Benefit to Local Government
• Strategic Energy Plan metrics encourage staff to investigate applicability of new technologies, to utilize incentive programs, and to seek out financing options to expedite energy efficiency project implementation and save taxpayer money through energy cost savings

Successes
• DGS dedicated two staff and several interns to achieving goals identified in the Strategic Energy Plan. Staff have identified and instigated EE projects that saved the County over 5 million kWh annually, exceeding the target energy savings goal by 50% • The Strategic Energy Plan identified innovative goals and CoSD has piloted programs that include energy auditing to reveal EE opportunities, Zero Net Energy Library design and construction, RCx at 4 of the County's largest energy consumers, LED lighting retrofits, On-Bill Financing utilization, and LEED Gold and Platinum achievement to name a few.

Challenges
• Lack of funding and staff for implementation of unplanned projects have caused undesirable time lags in project completion schedules • Some innovative ideas have met with resistance from untrained end users and operational staff who would fund and fix untested new technologies and processes

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

3.3.3 San Diego Association of Governments (SANDAG)

Local Government Partnership: San Diego Association of Governments

Project Title: Technical Support for Local Government Energy Roadmap Implementation

Project Purpose: SANDAG to assist local cities with completed Energy Roadmaps to implement their energy management plans, including performance monitoring, project management support for municipal retrofits, energy planning support, and assistance in local government outreach to their constituents on energy efficiency and sustainability programs offered in the SDG&E service territory.

Project Scope and Components: SANDAG to assist local cities that have already completed Energy Roadmaps with activities to implement their energy management plans. Assistance will include performance monitoring, project management support for municipal retrofits, energy planning support including climate action planning support, and assistance in local government outreach to their constituents on energy efficiency and sustainability programs offered in the SDG&E service territory. SANDAG to provide support to Roadmap Cities with reducing municipal energy use by coordinating the installation of energy efficient retrofit projects (such as HVAC, lighting, and VFDs) at city buildings, facilities, and related infrastructure by using energy assessment recommendations identified in their Energy Roadmap Reports.

Deliverables

1. Summary reports on the reductions in municipal energy use undertaken by at least 4 local governments that have completed Energy Roadmaps.

2. Outreach materials for local governments on finance options for their energy retrofit projects.

3. At least 6 Energy Roadmap Supplement reports, such as “Lost Opportunity Reports” that provide support to facility staff to act upon municipal retrofit measures in their Energy Roadmaps.

4. User-friendly outreach materials for cities that highlights their Energy Roadmap efforts.

Year Approved: 2013

Year Completed (est.): 2015 **Year Completed (actual):** 2015

Estimated Cost: $593,426 **Final Cost:** $579,936

Local Match Contribution: $38,797. Match from SANDAG's non-LGP program budget provided support for implementation of the clean transportation components of local government Energy Roadmap Reports. This included coordination with SANDAG's iCommute Program to develop and assess employee commute surveys, coordination with the San Diego Regional Clean Cities Coalition which provided the green fleet assessments, coordination and review of non-energy climate action plan components, and updated information on regional alternative fuel and infrastructure readiness planning .

Project Reimbursed for LG Staff Time: Y

Amount of Monies Unspent and to Where Returned: $13,490 under budget. Funds were never disbursed by SDG&E.

Best Practices

- The "Energy Report Card" document as a means to convey energy information and benchmarks in a simple and easy-to-understand way. It is one double-sided page dominated with graphics that assisted local governments in understanding the energy performance of their buildings and making decisions in support of energy efficiency. It would be simple to duplicate for other regions and/or for other hard-to-reach end-users in place of thick initial audit reports.
- SANDAG's Energy Roadmap Program required that all buildings receiving no-cost audits through this LGP would be benchmarked (if a benchmark for its type existed). We wrote it into our contracts with SDG&E and with our engineering subcontractor.
- When meeting with city staff who do not traditionally work on energy issues and have limited time, always begin meetings or communications with why or how the Roadmap will support them and/or their city.

Lessons Learned

- Providing large energy audit reports (Phase 1 or combined with Phase2) was too daunting for many of the local government staff new to energy efficiency to review and act upon. From this experience, we tried providing shorter, more visually impactful reporting methods, specifically the "Energy Report Card." This was an easy-to-understand, actionable report that yielded more positive results for our cities.
- Municipal energy projects take years to come to fruition. Several reasons include gaining approval from leadership for a "preventive" project (usually act when

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

something breaks); needing a competitive procurement and going through that process; staff changes at some point in the decision-making process; staff time must go to other, higher-priority tasks, etc.

Knowledge Transferred

- The Energy Report Cards and more simplified information from Level 2 audits well understood by facility staff and the Energy Roadmap Reports describing these technical efforts were well received by upper management as backing to take action on municipal retrofits.
- Information about SDG&E's Energy Waves and QuickView online building usage programs, as well as benchmarking, SDG&E rebates and incentives and the On-Bill Finance Program were described in detail to each participating city's facility staff.
- The final Energy Roadmap Reports included Technical Appendices, all of which were distributed in hard copy and electronically via thumb drives to each of the City Council members, their staff, department heads, and staff that contributed to the Roadmap Report's development.
- Summaries and updates on these audits and potential ECM savings were presented to SANDAG's Regional Energy Working Group at least twice each year, the Regional Planning Committee and Board of Directors at least annually.

Next Steps

- SANDAG is undergoing a competitive procurement for new energy engineering services to provide technical support to SANDAG and the 16 eligible cities under this LGP. Several cities are midway through acting on municipal energy retrofits with which the Roadmap Program will assist.
- Seeking more comprehensive energy assessments that include Zero Net Energy measures to offer local governments.

Benefit to the State

- A sustained, comprehensive effort to institutionalize municipal energy improvements will enable the state to achieve the CEESP Local Government Goal 3 and meet state energy and climate goals for 2030. This includes:
    - Providing technical resources to local governments that do not have their own energy and climate staff to provided continuing education and information on

energy saving measures.
    - Benchmarking and performance monitoring to show municipal energy use and upgrades for both energy savings and meeting local climate action plan goals.
    - This program's influence has led to actual energy savings for local governments.
- The Energy Roadmap Report is a resource for local governments as they develop and/or implement climate action plans (CAPs) which are encouraged in AB32.

Benefit to Local Government

- Registered each city to Energy Waves and/or QuickView (if they were not registered) so they could access their SDG&E utility bills online (rather than paper bills). Demonstrated how to use the web-based tool(s).
- Registered cities for EPA EnergyStar Portfolio Manager and benchmarked all eligible sites via Portfolio Manager and the CEUS.
- Demonstrated to local governments with low and no participation in energy programs how their buildings were performing and ways they could save energy and GHGs.
- Monetary savings from energy improvements and/or rate changes, along with on-bill financing were presented to the cities.
- Local governments received no-cost energy planning, program and engineering support from the regional agency.
- The resources provided consistent messages and information across jurisdictions which expanded the dialog on energy efficiency and climate change.
- Several local governments pursued energy saving retrofits and implemented projects.

Successes

- Over 36 Energy Report Cards were completed (total of 255 over 5-year program) and more than 46 Phase 2 energy audits (ASHRAE level 2 equivalent, total of 180 over 5-year program) were provided to Roadmap Cities.
- All 16 cities participated in at least one SDG&E energy efficiency rebate and/or incentive program, which was influenced by the Energy Roadmap Program.
- SANDAG's Energy Roadmap program was recognized by the San Diego chapter of the American Planning Association.
- Solana Beach and National City both received EnergyStar designation for their civic center/city hall.

Challenges
• Energy efficiency programs thus far have not offered enough programs to address energy-water issues with the ongoing state drought (or please identify other sources for programs). • Energy efficiency programs thus far have not offered enough programs to address distributed energy resources to meet ZNE goals (or please identify other sources for programs). • Communication with staff can be slow and inconsistent based more urgent tasks arising. • Delays sometimes added months to completing energy audits. • Changes in staff and/or elected officials can delay Roadmap completion and/or redirect some Roadmap report priorities for a city.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.3.4 San Diego Association of Governments (SANDAG)

Local Government Partnership: San Diego Association of Governments

Project Title: Energy Roadmap Reports for 7 Local Governments

Project Purpose: SANDAG to offer energy management plans, including municipal energy assessments, for the remaining seven cities that have yet to participate in the Energy Roadmap Program for local governments (Carlsbad, Del Mar, El Cajon, Lemon Grove, La Mesa, Poway, and Solana Beach). Energy management plans will be based on the successful Energy Roadmaps completed for 9 local governments in San Diego County during the 2010-2012 Program cycle (Coronado, Encinitas, Escondido, Imperial Beach, National City, Oceanside, San Marcos, Santee, and Vista).

Project Scope and Components: Energy engineering consultants performed preliminary energy assessments of municipal sites ("Energy Report Cards") for SANDAG and the sixteen eligible Roadmap cities to establish baseline energy information and building benchmarks. Consultants reviewed historical billing data for electricity and natural gas consumption at each site, and used two benchmark methods for all applicable sites: US EPA EnergyStar Portfolio Manager (energy) and the 2006 CA Commercial End User Survey (CEUS)(separates electricity and natural gas). Using the Energy Report Cards, a list of priority sites was developed with recommendations for phase 2 energy assessments. The list included justification for selecting sites for the priority list. Establish baseline energy data of municipal sites in order to track building performance and support energy efficiency improvements, also referred to as energy conservation measures (ECMs). Secondary purpose was to create electronic accounts for each city to view its utility data online, thereby reducing confusion in tracking energy use.

Deliverables:

1. Energy Report Cards (preliminary energy assessments) for each municipal site with an SDG&E utility account. Each Report Card includes a summary of historical electricity and natural gas consumption, baseline electricity and natural gas consumption, benchmarks using EPA Portfolio Manager and CA CEUS, and potential ECMs. (Number of Report Cards ranged from 4 to 31, depending on size of jurisdiction.)

2. Energy Assessment Reports for a subset of municipal sites identified to need more comprehensive analysis.

3. Energy Roadmap Report and Technical Appendices for each city.

Year Approved: 2013

Year Completed (est.): 2015 **Year Completed (actual):** 2015

Estimated Cost: $580,550 **Final Cost:** $579,936

Local Match Contribution: $90,526. Match from SANDAG's non-LGP program budget provided clean transportation components for each Energy Roadmap Report. This included a chapters on "greening the city fleet" and "employee commuter benefits" and a transportation section of the planning chapter that included alternative fuel readiness planning and transportation demand management (TDM) planning.

Project Reimbursed for LG Staff Time: Y/N

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Amount of Monies Unspent and to Where Returned: $644 under budget. Funds were never disbursed by SDG&E.

Best Practices
• The "Energy Report Card" document as a means to convey energy information and benchmarks in a simple and easy-to-understand way. It is one double-sided page dominated with graphics that assisted local governments in understanding the energy performance of their buildings and making decisions in support of energy efficiency. It would be simple to duplicate for other regions and/or for other hard-to-reach end-users in place of thick initial audit reports. • SANDAG's Energy Roadmap Program required that all buildings receiving no-cost audits through this LGP would be benchmarked (if a benchmark for its type existed). We wrote it into our contracts with SDG&E and with our engineering subcontractor. • When meeting with city staff who do not traditionally work on energy issues and have limited time, always begin meetings or communications with why or how the Roadmap will support them and/or their city. • The resources provided consistent messages and information across jurisdictions, which expanded the dialog on energy efficiency and climate change. • The final Energy Roadmap Reports can serve as a template for a user-friendly energy plan for other local governments. The Roadmap reports address CEESP vision and goals in every chapter divided in two sections: saving energy in city operations and saving energy in the community. • The Roadmap Report can serve as the basis and background for an energy chapter of a city's climate action plan. It describes the why a government should address energy usage and planning and how that helps them achieve local and state policies.

Lessons Learned
• Providing large energy audit reports (Phase 1 or combined with Phase2) was too daunting for many of the local government staff new to energy efficiency to review and act upon. From this experience, we tried providing shorter, more visually impactful reporting methods, specifically the "Energy Report Card." This was an easy-to-understand, actionable report that yielded more positive results for our cities. • Holding a cross-departmental kick-off meeting at each city was crucial for ensuring buy-in from facilities, planning, development services, city manager offices and other departments. When a Roadmap project was launched in a city with only one department, the cross-communication was lacking and development of those

Roadmap Reports took longer.

- Preparation of a Report that includes city input and direction through its development can take over one year.

Knowledge Transferred

- The Energy Report Cards and more simplified information from Level 2 audits well understood by facility staff and the Energy Roadmap Reports describing these technical efforts were well received by upper management as backing to take action on municipal retrofits.
- The final Energy Roadmap Reports included Technical Appendices, all of which were distributed in hard copy and electronically via thumb drives to each of the City Council members, their staff, department heads, and staff that contributed to the Roadmap Report's development.
- Summaries and updates on these audits and potential ECM savings were presented to SANDAG's Regional Energy Working Group at least twice each year, the Regional Planning Committee and Board of Directors at least annually.
- Summaries and updates the Roadmap Program, City Roadmaps, and associated audits were presented to SANDAG's Regional Energy Working Group at least twice each year, the Regional Planning Committee and Board of Directors at least annually and are available on the SANDAG energy website at www.sandag.org/energyroadmap.

Next Steps

- SANDAG is undergoing a competitive procurement for new energy engineering services to provide technical support to SANDAG and the 16 eligible cities under this LGP. Several cities are midway through acting on municipal energy retrofits with which the Roadmap Program will assist.
- Seeking more comprehensive energy assessments that include Zero Net Energy measures to offer local governments.

Benefit to the State

- A sustained, comprehensive effort to institutionalize municipal energy improvements will enable the state to achieve the CEESP Local Government Goal 3 and meet state energy and climate goals for 2030. This includes:

  - Providing technical resources to local governments that do not have their own energy and climate staff to provided continuing education and information on energy saving measures.
  - Benchmarking and performance monitoring to show municipal energy use and upgrades for both energy savings and meeting local climate action plan goals.
  - This program's influence has led to actual energy savings for local governments.
- The Energy Roadmap Report is a resource for local governments as they develop and/or implement climate action plans (CAPs) which are encouraged in AB32.

Benefit to Local Government

- Registered each city to Energy Waves and/or QuickView (if they were not registered) so they could access their SDG&E utility bills online (rather than paper bills). Demonstrated how to use the web-based tool(s).
- Registered cities for EPA EnergyStar Portfolio Manager and benchmarked all eligible sites via Portfolio Manager and the CEUS.
- Demonstrated to local governments with low and no participation in energy programs how their buildings were performing and ways they could save energy and GHGs.
- Monetary savings from energy improvements and/or rate changes, along with on-bill financing were presented to the cities.
- Local governments received no-cost energy planning, program and engineering support from the regional agency (SANDAG).
- Several local governments pursued energy saving retrofits and implemented projects.

Successes

- Over 36 Energy Report Cards were completed (total of 255 over 5-year program) were provided to Roadmap Cities.
- All 16 cities participated in at least one SDG&E energy efficiency rebate and/or incentive program, which was influenced by the Energy Roadmap Program.
- SANDAG's Energy Roadmap program was recognized by the San Diego chapter of the American Planning Association.

Challenges

- Communication with staff can be slow and inconsistent based more urgent tasks

arising.

- Delays sometimes added months to completing energy audits.
- Changes in staff and/or elected officials can delay Roadmap completion and/or redirect some Roadmap report priorities for a city.
- Energy efficiency programs thus far have not offered enough programs to address energy-water issues with the ongoing state drought (or please identify other sources for programs).
- Energy efficiency programs thus far have not offered enough programs to address distributed energy resources to meet ZNE goals (or please identify other sources for programs).

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.3.5 San Diego Association of Governments (SANDAG)

Local Government Partnership: San Diego Association of Governments

Project Title: SANDAG Energy Practices: Green Operations Manual

Project Purpose: Implementation of the SANDAG Green Operations Manual (Manual), which reviewed programs and projects that SANDAG oversees or influences, our office space, and internal operations, as well as actions that employees can take, to reduce greenhouse gas (GHG) emissions.

Project Scope and Components: Identify communication avenues to educate SANDAG staff on the Manual to help increase awareness of energy efficiency practices for the home and in the workplace through education and outreach to staff. Assist departments with implementation of new policies recommended in the Manual and increase the number of leads into SDG&E core programs.

Deliverables:

1. Establish SANDAG intranet presence for the Manual and/or its components.
2. Prioritize implementation of measures that generated interest from SANDAG management.
3. Develop presentations on the Manual for SANDAG Department and/or Section meetings.
4. Identify additional outreach mechanisms to communicate the Manual to SANDAG employees.
5. Quarterly dissemination of Manual highlights to all staff (approximately 250 staff) via SANDAG intranet site and SANDAG Yammer account (internal social media).
6. Implementation assessment for senior management on ways SANDAG could implement 3 to 5 Manual measures, and actions taken since the Manual's completion (e.g., methods Manual has been disseminated).
7. SDG&E program and educational collateral related to home efficiency options. Dissemination of Manual and/or energy efficiency collateral to approximately 100 SANDAG employees during the Annual SANDAG Employee Wellness Fairs (held at two business locations).

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015 (ongoing)

Estimated Cost: $96,656

Final Cost: $96,656

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• The Green Operations Manual identified agency best practices, and provided resources and recommendations for opportunities to integrate sustainability components into the work and personal activities of SANDAG staff. • Interactive, quarterly, employee focused activities to educate staff about sustainability

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

and energy efficiency.

Lessons Learned

- Buy-in and if possible participation from senior management throughout development and distribution of sustainability information helps validate what is a new process/manual for an agency. For instance, the Deputy Director of SANDAG participated in the scavenger hunt.
- Take advantage of any established educational opportunities, e.g., we got a booth at our annual wellness fair for employees since the fair gets high attendance.

Knowledge Transferred

- Established an intranet presence for the Manual and an awareness campaign for energy efficiency called “GoGreen@SANDAG.”
- A number of presentations have been made and activities conducted to inform and educate SANDAG staff and management.
    - SANDAG 411 (Oct. 2014) – 40 employees (lunch and learn)
    - Sustainability Scavenger Hunt (April 2015) – 25 employees
    - SANDAG Employee Wellness Fair (Sept. 2014 & 2015) – 300 employees/yr.
    - Executive Team Presentation (Mar. 2014 & Dec. 2015) – 25 management
- Used internal social media mechanisms (Yammer & SharePoint) to build awareness and engage employees on energy efficiency and sustainability (Intranet) (quarterly) – 300+ employees receive each message/blast.

Next Steps

- SANDAG continues to support SANDAG departmental energy efficiency and sustainability policy and program integration at the direction of the Executive Team.
    - Re-establish cross-departmental Green Team.
- Information dissemination to employees will continue via GoGreen@SANDAG through yammer and intranet blasts and campaigns.
- Employee outreach and education engagement activities will continue, including Wellness Fair participation and Employee Engagement Events, possible Lunch and Learn.

Benefit to the State
• Communicating and information sharing with SANDAG employees helps to educate and integrate energy efficiency and sustainability activities and programs into SANDAG practices and projects, which can result in reduced energy use, cost, and GHG emissions. • SANDAG employee campaigns and learning opportunities increase overall energy efficiency and sustainability education and influence behaviors both at home and in the community, furthering awareness of SDG&E Core EE Programs. • These efforts feed into CEESP Goal 3 for local governments leading by example and Goal 5 supporting local government energy efficiency expertise becoming widespread and typical.

Benefit to Local Government
• Integration of energy efficiency and sustainability opportunities into SANDAG policies, practices, and programs will lower the carbon footprint of new facilities, as well as, reduce overall GHG emissions and costs from operations and maintenance of existing facilities. • Support San Diego Forward: The Regional Plan EIR mitigation measures, Regional Energy Strategy, climate action, sustainability, energy management, and GHG reduction plans developed by SANDAG and local governments throughout the region. • SANDAG can serve as an example and provide guidance to our member agencies (local governments).

Successes
• Development of Green Operations Manual • Establishment of GoGreen@SANDAG brand • Availability of resources and support for internal integration • Employee education and outreach campaigns

Challenges
• Consistent communication and engagement with SANDAG employees is critical to coordinated and widespread integration of energy efficient and sustainable policies, practices, and programs. • Available utility programs change parameters, rebate/incentive amounts, and internet

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

links for information without us knowing.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

3.4 Strategic Plan Task 3.2.3: Revolving Energy Efficiency Fund

"Develop policy for a revolving energy efficiency fund for City/County facilities."

3.4.1 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Energy Trust Fund

Project Purpose: Funding source for initiatives to study savings potentials

Project Scope and Components: Develop policy for a revolving energy efficiency fund for City/County facilities

Deliverables:

1. Adopt policy, create fund

Year Approved: 2013

Year Completed (est.): 2013

Year Completed (actual): 2013

Estimated Cost: N/A

Final Cost: N/A

Local Match Contribution: Staff time used to develop policy and set up fund was provided by LGP. No other budget was needed from SDG&E Partnership Fund.

Project Reimbursed for LG Staff Time: (Y)/ N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• CoSD created an Energy Trust Fund that receives endowments from incentives from energy efficiency projects. This fund is available to support project development work that cannot be funded through other internal or external sources.

Lessons Learned
• Funding stream from incentives from EE projects is inconsistent and insufficient for the amount of potential work that it would support. This trust fund needs to find a more consistent and reliable endowment.

Knowledge Transferred
• Trust fund process and utilization particulars are shared with other local governments in our network

Next Steps
• Staff are investigating other methods for endowing the trust fund. A greater volume of project concept feasibility study is possible if consultants can be hired to augment staff efforts.

Benefit to the State
• Energy Trust Fund provides CoSD Energy and Sustainability staff with the capacity to conduct necessary EE project implementation due diligence, extending staff capabilities and increasing project implementation to meet energy reduction goals.

Benefit to Local Government
• The Energy Trust Fund provides DGS with an enhanced ability to prove return on investment of proposed energy projects.

Successes
• The Energy Trust Fund is a checking account that easily accepts deposits and debits

of all sorts and is interest bearing. It is used frequently to supplement project investigation costs when funding is not available from other sources.

Challenges
• The Energy Trust Fund does not have sufficient monies to support project implementation, only pre-project planning, so implementation funding must rely on On-Bill financing or other grants and loans, or be shelved until general fund monies are available.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4. Strategic Plan Goal 4: Community Leadership

"Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change."

4.1 Strategic Plan Task 4.1.1: Community Wide – Climate Action Plan Template

"Develop a regional template for Climate Action Plans (CAP) or Energy Action Plans (EAP)."

4.1.1 City of San Diego

Local Government Partnership: City of San Diego Local Government Partnership

Project Title: City of San Diego Climate Action Plan

Project Purpose: To include energy efficiency strategies in the Climate Action Plan

Project Scope and Components: Meet with stakeholders to develop strategies for energy efficiencies to be included in the City of San Diego Climate Action Plan.

Deliverables:

1. (2013-2014) Execute the stakeholder process for developing specific energy efficiency implementation actions related to the Climate Action Plan.

2. (2013-2014) Complete the Climate Action Plan mitigation measures and develop the implementation strategy with selected groups of community stakeholders.

3. (2015) Engage community stakeholders to develop the energy related components of the Climate Action Plan as per the implementation strategy approved by the City Council.

Year Approved: 2013

Year Completed (est.): 2014 **Year Completed (actual):** 2015

Estimated Cost: N/A **Final Cost:** N/A

Local Match Contribution: Staff time used to develop strategies was provided by LGP. No other budget was needed from SDG&E Partnership Fund.

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Create Citywide task force from all City Council Districts and community members to work on the development of the Climate Action Plan.

Lessons Learned
• The Climate Action Plan development process, revisions and final approval time line was longer than anticipated. Unforeseeable Mayor leadership changes also impacted the time-line.

Knowledge Transferred
• Documentation process has transpired between various Mayors and staff

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Next Steps
• Climate Action Plan implementation of Phase 1 milestones and working group development.

Benefit to the State
• The Climate Action Plan sets forth common-sense strategies to achieve attainable greenhouse gas reduction targets.

Benefit to Local Government
• The Climate Action Plan sets forth common-sense strategies to achieve attainable greenhouse gas reduction targets.

Successes
• The City of San Diego's Climate Action Plan was approved by City Council in December 2015.

Challenges
• Meeting goals outlined in milestone set forth in the plan

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

4.2 Strategic Plan Task 4.1.2: Customized EAP/CAP

"Customize CAP with energy efficiency language and data."

4.2.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Community Energy Conservation & Upgrade Outreach

Project Purpose: To identify and implement energy efficiency policies at the community level.

Project Scope and Components: Update the City's Climate Action Plan (Mitigation & Adaptation), through a community stakeholder process, to include new energy-saving policies and programs.

Deliverables:

1. EAPs/CAPs customized.

Year Approved: 2013

Year Completed (est.): 2014

Year Completed (actual): Ongoing

Estimated Cost: Part of $778,340 budget

Final Cost: Part of $778,340 budget

Local Match Contribution: All non-LGP funded City Staff (for example counter staff, planning staff, etc.) that participated.

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Utilized a stakeholder led process to evaluate GHG reductions measures. • Utilized 3rd party non-profit technical support to provide GHG quantification information about possible measures which can drive actions. • Focus first on measures that are achievable with the resources available, for example passing reach codes requires little City funds but can provide high energy savings.

Lessons Learned
• Bring in all stakeholders early in the process to produce a product with stronger community support. • Staff turnover can have significant impacts on the project timeline.

Knowledge Transferred
• The City of Chula Vista is a founding member of the San Diego Climate Collaborative and Southbay Energy Action Collaborative both of which serve as a forum for sharing program information with other jurisdictions. • City staff regularly participate in regional opportunities to share program information including the SEEC conference, the LGSEC, Green Cities CA, and respond to more specific requests when asked. • A local non-profit (EPIC from USD) assisted with our planning and they have used the information gained in our City to assist other jurisdictions in creating CAPs.

Next Steps
• Staff are working to update our CAP with the City Council approved CCWG recommendations.

Benefit to the State
• Ensure that City policies are helping to meet the states GHG and energy reduction goals. • Showcase energy and GHG reduction policies that other CA Cities can take.

Benefit to Local Government
• Assisted in reaching our GHG, energy, water and waste reduction goals. • Allow residents to see co-benefits of energy policy to further encourage action.

Successes
• Won an award from the San Diego Association of Environmental Professionals for Outstanding Public Engagement for the stakeholder led process (Climate Change

Working Group).
- Created a list of 12 recommendations, including energy efficiency focused measures, that will be the foundation of our CAP update.

Challenges
• Because we have passed 3 previous document related to addressing climate change (2 mitigation plans & 1 adaptation plan) tracking and monitoring measures over multiple years is a challenge. • Getting energy, program participation, and other necessary data sets to accurately estimate and track measures. • Ensuring that our CAP meets all state requirements.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.2.2 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Energy Efficiency and Community Outreach Program

Project Purpose: This co-funded program aims to inform and educate the County of San Diego, its residents, businesses and other entities within the County of San Diego to implement energy efficiency (EE) programs.

Project Scope and Components:

The Program and Education Manager (PEM) will provide education on EE to DPR's current programs, including but not limited to "flagship" events at park sites, outdoor adventure and education programs, community and teen center programs, sports facilities, health fairs, theme

based events and sponsorships. The PEM will display EE publications and literature at DPR parks and facilities.

The Special Events and Community Outreach Coordinator (SECOC) will work with decision leaders to successfully implement special event action plans including displaying EE literature at community outreach events to include but not limited to: groundbreakings, ribbon cuttings, community and teen center events, park events, and any other activities hosted by DPR. In addition, the SECOC will incorporate energy conservation in all of current outreach and special event efforts, including but not limited to the Green Business Kiosk program.

Deliverables:

1. Attend 70 events, including Spice of Life community events, groundbreakings, ribbon cuttings, community health fairs, safe Halloween festivals for children, seasonal camps for school-age children and the annual DPR Awards Ceremony.
2. Gather approximately 200 resident and small business referrals for follow up by SDG&E to help increase the number of potential enrollees in EE programs available to local residents and business owners
3. Inform businesses about green practices and SDG&E resources by using interactive kiosks located at:
    a. 5500 Overland Avenue, Suite 170, San Diego (DEH Permitting Lobby)
    b. Mobile unit (stored at address above) – The Special Events and Community Outreach Coordinator will be responsible for displaying the mobile unit at 6 community events described in objective 1.
4. Maintenance of Green Business kiosks and content updates for attendance of outreach events as specified above
5. Work with SDG&E to stay current on marketing materials for current Energy Efficiency programs including brochures; Obtain and distribute up to date collateral; collect customer referrals and report metrics on the number of events attended, estimated number of attendees, and communicate referrals through the use of appropriate lead management.
6. Play a loop video of the PowerPoint presentation during outreach events regarding the efforts of the Department of Parks and Recreation to become more energy efficient and how it ties into the strategic initiatives for the department
7. Create a curriculum regarding EE that can be taught at the REC Clubs (teen centers), community centers, and outdoor adventure programs and shared with other jurisdictions and interested LGP partners in order to make customers aware of the benefits and importance of being energy efficient.
8. Send 24 EE program announcements through the Department's newsletter and social media tools to customers and staff.
9. Stock all facilities, campgrounds, community centers with EE marketing materials which include brochures from SDG&E, energy saver tip list, and the "Go Green" teen activity awareness guide that will include special sections on EE and conservation.
10. Create a digital PSA about EE that will be aired at all of the County's Movies in the Park

series scheduled at 30 parks for the summer of 2015.

Year Approved: 2010-2012 cycle

Year Completed (est.): Ongoing

Year Completed (actual): Ongoing

Estimated Cost: $204,750

Final Cost: $185,006.71

Local Match Contribution: $250,000

Project Reimbursed for LG Staff Time: (Y)/ N

Amount of Monies Unspent and to Where Returned: $19,743.29 under budget. Funds were never disbursed by SDG&E.

Best Practices
• Analyzing DPR's energy usage annually allows for easy identification of energy intensive facilities, or "Top 10 consumers." • Annual energy analysis helps to identify anomalies in usage, usage trends and opportunities for area specific projects/target marketing and increased outreach.

Lessons Learned
• Standardized Dashboards for energy usage summaries are not helpful. • In order to better communicate meaningful information, dashboards need to be simplified as well as use universal terminology that is easily understood by individuals with varying backgrounds and degrees of experience.

Knowledge Transferred
• The County of San Diego identified and addressed the need for growing internal awareness through outreach and education in order to ensure that all employees: from field staff to fiscal administrators and executive management (decision makers) are not only informed but understand the nuances associated with energy efficiency programs regarding traditional means of measurement and financial planning.

Next Steps
• The Department of Parks and Recreation is working on creating a graphical interface that is user friendly that coincides with a system of data analytics that helps to quantify the resulting market impact DPR has through its outreach efforts. • The interface and analysis is designed to work in synergy in order to identify what criteria is most important when communicating information up the department's chain of command.

Benefit to the State
• The increased awareness of the need for using universal terminology helps to assist in local governments in making informed decisions, and basing financial investment decisions on life cycle versus traditional financial metrics, thus aligning local goals with state goals.

Benefit to Local Government
• Similar to the benefits at the state level, decision makers are better able to make informed financial decisions while benefiting the public through implementation of operational cost avoidance strategies, and increase goods and services (education programs and outreach) provided while simultaneously reducing the amount of tax payer dollars used.

Successes
• The County of San Diego Parks and Recreation Department has become comfortable with the information and data that is already accessible for analysis. This comprehensive understanding has led to increased strategic planning for future efforts moving into the extended 5-year cycle.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Challenges
• Timeliness of the availability of information was consistently a hurdle. Finding a productive way of reporting meaningful information to decision makers while respecting privacy, even internally, is still to be addressed. • The need for increased outreach and education programs is quickly surpassing the manpower that is currently available.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.2.3 San Diego Unified Port District

Local Government Partnership: San Diego Unified Port District

Project Title: Climate Plan

Project Purpose: Adopt Climate Plan in public process

Project Scope and Components: The Board of Port Commissioners (BPC) is heavily involved and engaged in the development of the CAP. Over the course of 2013, BPC workshops were held to discuss the CAP development, which had a significant focus on energy efficiency. These workshops were held on the following dates:

- May 31, 2013
- August 28, 2013
- November 12, 2013

Port staff also engaged the District's Environmental Advisory Committee and held a public meeting on September 25, 2013 to obtain public input on overarching policies and mitigation measure evaluation criteria.

A draft Plan was presented to the Board during the regular BPC meeting on December 10, 2013 and the CAP was unanimously adopted by the Board, and supported by stakeholders. The CAP includes a target to reduce greenhouse gas emissions along the tidelands by 10% by the year 2020 and 25% by 2035 based on emissions from a 2006 baseline.

Upon adoption of the CAP, District staff prepared a near-term Implementation Plan outlining specific measures to be implemented during fiscal year (FY) 2014-2015. The Implementation Plan was presented and approved with minor modifications by the District's Environmental Advisory Committee during the February 10, 2014 meeting. Subsequently, the Implementation Plan was approved by the Board during the March 4, 2014 Board meeting. Of the implementation measures identified in FY 2014-2015, 16 out of the 29 measures address energy efficiency and conservation. Work began in July 2014 on CAP measures approved for implementation in FY 2014-2105, including a Sustainable Leasing Program.

The Port held a BPC Workshop in September 2014 to discuss opportunities for a sustainable energy future. Similarly, at the Environmental Advisory Committee Meeting in October 2014, the committee received an update of the progress of the CAP implementation plan including a GHG savings update.

Multiple energy efficiency CAP Measures were implemented, including: an internal energy efficiency retrofit of District buildings and a three phase exterior lighting retrofit project. The second phase was completed in February 2015.

During the September 2015 BPC meeting, Port staff presented the completed CAP Implementation Measures and an update on the CAP goals. The CAP Implementation Measures continue to identify implementation measures focused on energy efficiency, including additional energy efficiency retrofits, the development of the Sustainable Leasing Policy and Utility Usage Reporting Ordinance, and additional exterior lighting retrofits.

The Port submitted energy efficiency retrofit plans to the Engineering Department in December 2015 to be considered for the FY 2016-2017 budget.

Deliverables:

1. Development of the final mitigation components of the District’s CAP to include an energy efficiency, sustainability, and climate change focused policy and implementation plan.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2016

Estimated Cost: $100,000

Final Cost: $96,530

Local Match Contribution: $46,530

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $3,470 under budget. Funds were never disbursed by SDG&E.

Best Practices

- The District's CAP was developed in a way that conveys complicated concepts in a simple and easy-to-understand manner. The intent of the selected graphics and organizational structure of the CAP are intended to emphasize the value of flexible implementation measures that provide enough detail to inform decision makers. The graphic and simple-to-read nature of the CAP serves as an easy to understand tool when engaging both internal and external stakeholders.
- When meeting with District staff who do not traditionally work on energy or climate planning issues and have limited time to understand the nature of the District's goals in these areas, meetings often begin with reference to and communication on our CAP goals and the associated implementation categories/measures (e.g., energy efficiency, alternative energy, transportation and land use, water conservation, and waste minimization).
- The CAP serves as a resource that provides consistent messaging and information across District tidelands, and continues to expand the dialog on energy efficiency and climate change.
- The final CAP can serve as a template for user-friendly climate action planning initiatives for other local governments. The CAP addresses the CEESP vision and goals within the energy efficiency implementation measures, and provides enough flexibility to evolve to changing state-wide regulations.
- The CAP serves as the District's roadmap for energy efficiency decision analysis and the prioritization of projects. The implementation process for the CAP, as adopted in BPC 750, describes the process for prioritizing implementation measures (and associated projects) to meet the CAP goals and ensure the efficient use of resources.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Lessons Learned
• Holding BPC workshops and stakeholder meetings was crucial to ensure buy-in on the adoption of the CAP. This initial outreach has served to streamline subsequent implementation tasks associated with the CAP. Regular BPC presentations, which are open to the public, also facilitate continued cross-department and stakeholder communication on progress implementing the CAP. • Preparation of an annual Year-in-Review Report that includes the District's progress implementing the CAP is necessary to ensure that the BPC and stakeholders have confidence that the District is making achievements towards the 2020 GHG reduction goals established by the CAP.

Knowledge Transferred
• The Year-in-Review annual report is a four-page report card that is easy to understand and interpret, no matter the audience. Technical efforts associated with the District's GHG inventory are presented using graphics which are consistent with the CAP. Both the CAP and the Year-in-Review have established a "branding" concept that has been used in other outreach and marketing efforts conducted by the District. The Year-in-Review report has been well received by upper management and stakeholders as a means to easily communicate the District's commitment to environmental stewardship and financial responsibility through the investment in innovative projects that promote resource reductions. • Summaries and updates are presented regularly to the BPC, Environmental Advisory Committee, other regional working groups, and stakeholders.

Next Steps
• The District is undergoing a competitive procurement for new energy planning and climate action planning services through two new contract solicitations to provide technical support to the District under this LGP. Several projects and policies are in development and design stages which, when implemented, will further advance the energy efficiency goals of the CAP. • The District will seek to develop more comprehensive energy management strategies for District-operated facilities, and is exploring other mechanisms to explore sustainable projects undertaken by the tenants to further promote energy efficiency and GHG reductions.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to the State
• A sustained, comprehensive effort to institutionalize District-wide energy improvements will enable the state to achieve the CEESP Local Government Goal 4 and meet state energy and climate / GHG reduction goals. This includes: o Serving as a local government leader and establishing innovative programs that stimulate energy efficiency and sustainable projects for District tenants. o Providing technical resources to District staff and tenants alike to promote energy efficiency education and information on potential saving measures. o Benchmarking and performance monitoring to show District energy use and upgrades for both energy savings and meeting District CAP goals. o The CAP has influenced actual energy savings for the District. • The CAP is a representative resource for unique local governments that are similar to the District as they develop and/or implement CAPs which are encouraged in AB32.

Benefit to Local Government
• Financial savings from energy improvements realized through the implementation of energy efficiency retrofits, as identified in the CAP's Implementation Plan. • The District received no-cost energy planning, program and engineering support from the Partnership, which has further promoted projects that may not have been prioritized without funding. • Several tenants have utilized no-cost resources offered through the Partnership to pursue energy saving retrofits and have implemented projects.

Successes
• The District has been recognized as one of the first ports to adopt a CAP. • The District has seen actual savings achieved through the implementation of CAP measures.

Challenges
• Staff changeover within the District has affected communication among departments that may have more urgent tasks arising. • Delays in receiving confirmation on specific retrofit products sometimes added months to completing energy retrofits.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- The Engineering department's typical planning calendar (fiscal year implementation) and the evolving changes to rebates and incentives (sporadic changes over a calendar year), coupled with Partnership funding (calendar year cycle) have resulted in a need to re-evaluate the District's implementation timeline for energy efficiency retrofits.
- Changes in staff and/or elected officials can delay CAP completion and/or redirect associated policies identified previously as priorities.
- Energy efficiency programs thus far have not offered enough programs to address energy-water issues with the ongoing state drought. There is interest in identifying other sources for funding for programs focused on the energy-water nexus.
- Energy efficiency programs thus far have not offered enough programs to address distributed energy resources to meet evolving energy goals for the state.
- Looking out to 2030 and 2050 planning years, the District may have to amend the CAP to ensure consistency with state goals and targets.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.3 Strategic Plan Task 4.1.3: Community-wide Planning for EE

"Update General Plan/Conservation Element with Climate policies. Provide energy efficiency framework and data for other people doing planning."

4.3.1 County of San Diego

Local Government Partnership: CoSD and SDG&E Energy Efficiency Partnership

Project Title: Energy and Climate Services

Project Purpose: Provide Energy Efficiency framework and data for other people doing planning.

Project Scope and Components: Develop a Climate Action Plan Implementation Plan that identifies steps to encourage energy efficiency

Deliverables: Climate Action Plan Implementation Plan

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): Ongoing

Estimated Cost: Part of $390,890 budget

Final Cost: $232,753

Local Match Contribution: N/A

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $158,137 under budget. Funds were never disbursed by SDG&E.

Best Practices
• Engage stakeholders early. • Include comprehensive and enforceable greenhouse gas (GHG) mitigation reduction measures. • Include detailed deadlines for achieving reductions.

Lessons Learned
• The CAP Implementation Plan identified GHG reduction measures that increase energy efficiency and have an impact on the unincorporated County.

Knowledge Transferred
• The CAP implementation plan outlined key GHG reduction measures and energy efficiency tools that will play a large role during future planning efforts.

Next Steps
• Utilize knowledge gained during the development of the plan to develop new strategies and expand existing strategies.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to the State
• California is experiencing social, economic, and environmental impacts as a result of climate change. The implementation plan describes the specific activities to reduce greenhouse gas emissions in compliance with State regulations and provides a foundation for future climate planning activities.

Benefit to Local Government
• Provides knowledge and data that will facilitate the development of new tools to reduce GHG emissions and increase energy efficiency.

Successes
• Collected CAP data from SDG&E, water districts, SANDAG and other sources, and inputted data into the CAP monitoring tool to identify progress toward achieving CAP goals. • Coordinated with other County Departments to capture Department activities that touch on CAP progress, energy efficiency and water conservation. • Initiated and attended monthly County Sustainability Team meetings to facilitate coordination on CAP efforts and information sharing among Departments to support shared goals. • Coordinated with regional partners on information sharing on energy efficiency best practices and regional efforts. • Identified opportunities for streamlining CAP monitoring and reporting. • Collected information on County achievements toward CAP goals.

Challenges
• Environmental climate planning is an evolving subject that is impacted by scientific discoveries, state, regional, and local regulations.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.3.2 San Diego Association of Governments (SANDAG)

Local Government Partnership: San Diego Association of Governments

Project Title: Regional Planning for Energy Efficiency

Project Purpose: Prepare and implement a technical update to the SANDAG Regional Energy Strategy (RES), a long-range vision for sustainability for the San Diego region.

Project Scope and Components: Update the existing RES, last adopted by the SANDAG Board in 2009, to ensure timely policies and goals are incorporated. Use the RES technical update as a resource to incorporate timely and regionally relevant energy efficiency policies into San Diego Forward: The Regional Plan, a combined update of the SANDAG Regional Comprehensive Plan, Regional Transportation Plan (RTP), and Sustainable Communities Strategy (SCS). Determine data needs and performance measures in order to monitor the region's progress toward RES goals.

Deliverables:

1. Energy-related needs assessment for a technical update, including energy forecasts to 2050 and review of existing energy goals. (2013)
2. Draft and final RES technical update. (2014)
3. Energy and GHG emissions metrics for consideration in the Regional Plan and its Annual Performance Monitoring Report. (2014)
4. The Regional Plan appendix or appendices related to the RES and energy efficiency. (2015)

Year Approved: 2013

Year Completed (est.): 2015 **Year Completed (actual):** 2015

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Estimated Cost: $193,312 **Final Cost:** $193,312

Local Match Contribution: $146,942 for transportation planning and other various non-energy efficiency sustainability components of the Regional Energy Strategy Technical Update and Regional Plan energy and climate components, including the Regional GHG Inventory and Analysis through other SANDAG sources.

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Regional Energy Strategy (RES) is used as a resource for local government energy and climate planning activities. • Establishing a regional strategy is a method to convey regional energy needs, guiding principles, and recommended actions that help both the state reach its energy and climate goals and local governments as many begin to address GHG reductions through energy policies and practices. • Developed summary progress reports on each RES goal as part of the technical update. Each report was in color, 1-page, and easy to understand. Reports included the goal, progress thus far and recommendations to achieve goals. • Regional energy and GHG metrics help track performance overtime as a result of both individual agency and collective action to reduce energy use and GHG emissions. • Incorporating energy and climate goals into the Regional Plan complement GHG reduction efforts from other sectors, including transportation and land use.

Lessons Learned
• RES Technical Update allowed for efficient use of resources rather than comprehensive update of the RES. • Taking the opportunity to update non-energy efficiency components of the RES in a comprehensive manner by adding non-LGP funds to the project enabled SANDAG to provide a more meaningful and relevant RES. • The Regional Energy Working Group (EWG) allowed for valuable stakeholder input as well as access to data sets.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Knowledge Transferred
• Knowledge was transferred through presentations and discussions on the RES goals at meetings with the EWG as well as Regional Planning Committee and Board of Directors, internal meetings across multiple departments, and Regional Plan public workshops and outreach events. • Staff also presented to external meetings, including the San Diego Regional Climate Collaborative and City of San Diego Sustainable Energy Advisory Board.

Next Steps
• SANDAG's Energy Roadmap Program and other efforts directly implement key actions in the RES. • After the Regional Plan was adopted in October 2015, monitoring of implementation is now underway across several sectors, including energy and climate. • Energy and climate measures also will be included in the next update of the Regional Plan (RTP/SCS) planned for adoption in 2019.

Benefit to the State
• The RES is developed to align with state goals for energy and climate change. Development and implementation of the RES helps to achieve these statewide goals. • Bringing the RES goals into the Regional Plan helps to coordinate several various regional planning efforts into one umbrella document. • The State is able to see progress in the San Diego region on energy and climate goals in a single document and through performance monitoring reports.

Benefit to Local Government
• The RES is used as a resource for local government energy and climate planning activities, including Energy Roadmap documents and climate action plans. • Local governments are able to work toward similar goals as they develop their own plans and policies, which build consistency across the region on energy policies and practices.

Successes
• Energy and climate measures were adopted in San Diego Forward: The Regional Plan

- These efforts have helped in institutionalize energy and climate policies and planning across local governments in the San Diego region.
- The RES has served as the recognized regional energy blueprint for the region since 1994 (RES versions date back to the late 1970s) and is used by regional non-profits and coalitions for their own goal-setting on energy issues.

Challenges
• The RES Technical Update was limited to assessing progress toward RES goals and identifying recommendations to continue progress. Data needed to be updated from a horizon year of 2030 to 2050 to align with the Regional Plan (RTP/SCS). • Looking out to 2050 planning years posed some challenges since many state goals and targets do not advance to 2050.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.3.3 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Demonstration Home Program

Project Purpose: To educate and motivate homeowners on energy efficiency upgrades by having them tour an upgraded home and talk to the homeowner and contractor that did the work.

Project Scope and Components: Demonstration homes were opened up for tours on Saturdays. Marketing was conducted via direct mail, canvassing, email, social media, press releases, community groups and neighborhood signs. Two-page case studies describing project measures and costs, as well as the benefits realized by the residents, were developed for each

home. Typically, each home was open for tours on three Saturdays spread over a three-month period; the homeowner received a "rental fee" ranging from $1,500 to $4,000 for opening up their home. The contractor that performed the work would send 1-3 staff members to conduct the tours; the homeowner was also on hand to talk about their experience with visitors. The call-to-action was for attendees to sign up with the contractor to receive a home energy assessment. The contractor was required to offer this at a special discounted price, usually between $49 and $149.

Deliverables:

1. 72 home tours at 23 homes.
2. Case studies for each home.

Year Approved: 2013

Year Completed (est.): 2014 **Year Completed (actual):** 2014

Estimated Cost: $325,908 **Final Cost:** $325,908

Local Match Contribution: Local staff marketed and promoted the tours in their jurisdiction.

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Having contractors conduct tours of their own projects helped them establish credibility with potential customers in a low-pressure environment. • Having homeowners talk directly with other homeowners who had completed energy upgrades was a compelling way to transfer knowledge.

Lessons Learned
• Demonstration homes are a highly credible method to educate the public on home energy upgrades. Visitors get to experience the benefits of upgrades for themselves (particularly when it's uncomfortably hot or cold outside, yet very comfortable indoors). Visitors also get to see and touch the contractor's work and hear directly from one of their satisfied customers – a rare opportunity for most people considering hiring a home

contractor.

- Conditions that make for a successful Demonstration Home include the following.
    - The location of Demo Homes should be easy to find and not be in an isolated area.
    - The homeowner should be engaged and enthusiastic about communicating the benefits of energy efficiency.
    - Contractors should be willing to market and promote the events through their networks and the neighborhood where they completed upgrade projects.
    - Contractors should be willing to send knowledgeable staff with good communication and customer-service skills to conduct the tours.
- Directional signs are a highly effective marketing tool, but are not allowed by all communities.
- Grassroots outreach efforts through relationships with community organizations are a cost-effective marketing tool.
- The program was oversubscribed when the rental fee matched the Home Upgrade rebate; $500 per event (which typically meant $1,500 per homeowner) was adequate compensation for those participants who were eager to share their story.
- Payment of the rental fee should be made after the final event, to ensure participants remained active in promoting events and talking with attendees.
- Contractors' role in reporting results following assessments and completed projects was often lacking. This impacted reporting of results for conversion of leads to assessments and to completed projects. Follow-up by contractors with those who signed up for energy assessments was often poor. This resulted in losing potential customers and possibly damaging the credibility of their business and the industry.

Knowledge Transferred

- Program design and lessons learned were shared with other energy efficiency program implementers through the Department of Energy's Better Buildings Residential Network.
- One local home performance contractor copied elements of the program by purchasing their own home to retrofit and open for public tours.

Next Steps

- Continue to share the best practices with contractors and residents to promote energy efficiency upgrades.

Benefit to the State
• Motivating homeowners to complete energy upgrades helps the state meet energy savings goals for the existing residential sector.

Benefit to Local Government
• Motivating homeowners to complete energy upgrades helps local jurisdictions meet climate action plan goals for the existing residential sector.

Successes
• 72 Saturday tours were held at 23 homes across San Diego County. • 1,750 people attended a tour; 469 gave their contact information to the contractor on-site to schedule an energy assessment; 155 completed their assessments and at least 32 completed home energy upgrades.

Challenges
• The program is labor intensive and some homes/neighborhoods attracted low attendance despite strong marketing and outreach efforts. • It is difficult to track how many Demonstration Home attendees go on to complete assessments or upgrades. We attempted to track conversion rates by asking contractors to provide updates on spreadsheets that included the names of all the referrals they received at these events, but they often returned the spreadsheets late or incomplete. We also tracked conversion rates by cross-checking attendees with Home Upgrade projects, but we know that a minority of energy upgrades actually end up going through the utility incentive program. Furthermore, we know that it often takes homeowners several months or even years to decide they are ready to take on a major home improvement project, so it is possible more upgrades were completed after the program (and its tracking activities) ended.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.3.4 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Home Energy Coach: Employee Program

Project Purpose: To educate and motivate residents to complete home energy upgrade; to coach them through the process.

Project Scope and Components: The Home Energy Coach: Employee Program (HECEP) reaches residents through their workplace by providing services as an employee benefit. Services included lunchtime workshops at the workplace explaining energy efficiency, solar and water conservation; the primary benefit was the Home Energy Tune-Up, during which a Home Energy Coach would spend a couple hours at each home identifying large and small potential energy upgrades. For simple changes, the Home Energy Coach provided devices such as LEDs, low-flow showerheads, smart power strips and faucet aerators. For more complex projects, the Home Energy Coach provided guidance and offered referrals to Home Upgrade participating contractors. Leveraged funding from the California Solar Initiative and The San Diego Foundation allowed us to incorporate messaging on solar and water.

Deliverables:

1. 301 program participants, 145 of whom completed Home Energy Tune-Ups

Year Approved: 2013

Year Completed (est.): 2015 **Year Completed (actual):** 2015

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Estimated Cost: $158,617 **Final Cost:** $158,617

Local Match Contribution: $72,600 event space to host workshops and help promoting the service to employees.

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• We believe the act of having the residents install the simple devices during the tune-ups yields two benefits. First, we know the tune-ups are resulting in *actual* energy savings, as opposed to giving away the devices without knowing for certain if they are installed. Second, the act of making upgrades engages residents in a way that gives them a greater sense of ownership over how their homes use energy. Survey results indicated that after their tune-up, 83% paid closer attention to their energy use and many participants made upgrades on their own.

Lessons Learned
• Integrating the topics of energy efficiency, solar adoption and water conservation worked very well. Some people would attend a workshop because they were very interested in one topic (e.g., solar or drought-tolerant landscaping) and we were able to use that opportunity to educate them on other topics (e.g., energy efficiency) and enroll them for a tune-up. • Having an internal champion at the workplace who is passionate about promoting the program is key to meeting participation goals. • Incandescent lightbulbs are still widely used, even among participants who think they've already done everything they can do to save energy. • Smart power strips are not particularly useful as used in this effort. Also, the staff time spent trying to measure vampire power with the watt meter was not worth it. Residents should be encouraged to check the energy usage on their own time. • Low-flow showerheads would be more widely adopted by participants if offered in both standard and handheld versions. Faucet aerators would be more widely adopted if they were less bulky. • Homeowners can take months or years to go through the decision-making process for a home performance project. More often than not, we never know about these long-term conversions; it is nearly impossible to get homeowners or contractors to give updates on their activities for such a long period.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Knowledge Transferred
• Reported program metrics to SDG&E and all jurisdictions.

Next Steps
• The program will continue in 2016-2017, leveraging additional funding from California Solar Initiative, Self-Generation Incentive Program and The San Diego Foundation. Messaging will incorporate energy efficiency, solar, energy storage and water conservation.

Benefit to the State
• Motivating homeowners to complete energy upgrades helps the state meet energy savings goals for the existing residential sector.

Benefit to Local Government
• Motivating residents to complete energy upgrades helps local jurisdictions meet climate action plan goals for the existing residential sector.

Successes
• 301 program participants, 145 of whom completed Home Energy Tune-Ups. • 97% of participants in 2015 would recommend the program to others. • 83% of survey respondents reported they were more conscious of their energy use three months after receiving their tune-up. • Participants reported conducting many additional energy and water upgrades after their tune-up, as a result of what they learned during the program. These upgrades included replacing additional light bulbs with LEDs, adjusting settings on irrigation controller, vacuuming refrigerator coils, installing rain barrels, removing lawns, replacing refrigerator with an ENERGY STAR model, performing air sealing, replacing HVAC filter, sealing ducts and more.

Challenges
• It is challenging to integrate information on different technologies and leverage multiple funding sources. However, this is worth the effort since it makes for a better user experience.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.3.5 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Home Energy Upgrade Potential Map

Project Purpose: To create a heat map indicating areas of San Diego County most likely to engage in home performance upgrades to help local governments, contractors and raters target their marketing and outreach efforts.

Project Scope and Components: The map was generated using a logistical predictive model to determine which variables were most closely associated with completed Home Upgrade projects between the program's launch in 2010 and April 2015. A measure for the likelihood of participation was calculated for each single-family parcel in San Diego County and these were aggregated to the census tract level.

Deliverables:

1. Online map, available at www.energycenter.org/remp-sd

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: $30,172

Final Cost: $30,172

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / N

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Update the map annually to incorporate fresh assessor data and Home Upgrade project data. • Conduct outreach to build awareness of the resource and help stakeholders understand how it can be used.

Lessons Learned

• The six variables most closely associated with completed Home Upgrade projects were as follows:
  o Presence of a solar PV system at the home
  o Owner-occupied home
  o Higher correlation of cooling degree days with electric consumption, as measured at the zip code level
  o Higher median household income of the census tract
  o Higher number of bedrooms in the home
  o Older homes
• Variables considered for the analysis, but determined not to be significant are as follows:
  o Presence of a solar PV system within 1/8 of a mile from the home
  o Total PV systems in the census tract
  o Whether the home had a swimming pool
  o Loan-to-value ratio of home
  o Proportion of Democrat vs. Republican registrations in the voting district
  o Average annual expenditures on electricity at the ZIP code level
  o Annual expenditure on natural gas at the ZIP code level
• A census tract's level of participation in the Clean Vehicle Rebate Project was determined to have a weak, negative correlation with Home Upgrade projects. A subsequent analysis with larger sample size of Home Upgrade project data would be useful to determine if this correlation holds.

Knowledge Transferred
• The map was presented to local governments, contractors and other stakeholders at two forums and through one email blast.

Next Steps
• Best practices from this effort will be incorporated into a similar statewide resource by the SDREP program consultant.

Benefit to the State
• Helps the market improve sales and conversion rates for energy efficiency upgrades in existing homes.

Benefit to Local Government
• Helps local governments identify neighborhoods to target for residential energy efficiency outreach efforts.

Successes
• The map was published in 2013 and updated in 2015.

Challenges
• Tracking use of the map to quantify the number of projects it assisted in creating. • Trying to highlight sub regional "hot spots" that have higher potential than surrounding areas but are relatively low compared to the region as a whole.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.3.6 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Home Energy Upgrade Workshops

Project Purpose: To educate San Diego County homeowners on energy efficiency upgrades, and to connect them with Home Upgrade participating contractors.

Project Scope and Components: Educational workshops were held around San Diego County at locations such as community centers and libraries. Marketing was conducted by direct mail, neighborhood signs, email, social media, press releases and through community groups and local jurisdictions. Topics included an introduction to home performance, how to prioritize home energy upgrades, how to ensure quality work and how to make projects more affordable. One or two Home Upgrade participating contractors attended each workshop; the call to action for attendees was to sign up with a contractor for a home energy assessment.

Deliverables:

1. 28 community workshops.
2. 519 attendees, 154 of whom gave their information to a contractor to schedule an assessment. At least 17 upgrades were reported.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: $155,304

Final Cost: $155,304

Local Match Contribution: $30,000 and local government marketing and promoting the events.

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Inviting 1-2 contractors to attend workshops on a rotating basis (with disclaimers made about no endorsements) was a successful method to introduce homeowners to companies they may want to hire; it also provides a forum for contractors to establish their credibility and knowledge to potential customers without creating a high-pressure sales environment.

Lessons Learned
• Attendees reported their top concerns about their homes to be high energy bills and hot/cold rooms. • Contractors prefer a site visit to a full Building Performance Institute (BPI) assessment as the first level of engagement. They are able to provide this service for free and are typically able to design a scope of work simply with a visual inspection and conversation with the homeowner. Diagnostic testing is often conducted after the scope of work is agreed upon, to meet the requirements of the Home Upgrade program. • Using local government communication channels to market workshops is more cost-effective than direct mail.

Knowledge Transferred
• Event metrics were shared with SDG&E and regional jurisdictions.

Next Steps
• N/A

Benefit to the State
• Motivating homeowners to complete energy upgrades helps the state meet energy savings goals for the existing residential sector.

Benefit to Local Government
• Motivating homeowners to complete energy upgrades helps local jurisdictions meet climate action plan goals for the existing residential sector.

Successes
• We integrated messaging around solar and water efficiency, since homeowners typically think of these topics holistically. • Attendees were asked before and after the presentation about their top priority for home improvements. There was a 78% increase in those who cited “insulation or air sealing” as a top priority, indicating that we were successful in explaining the loading order and the importance of the building envelope. • 98% of attendees rated the quality of the presentation as “excellent” or “good”.

Challenges
• It is difficult to track how many workshop attendees go on to complete assessments or upgrades. We attempted to track conversion rates by asking contractors to provide updates on spreadsheets that included the names of all the referrals they received at these events, but they often returned the spreadsheets late or incomplete. We also tracked conversion rates by cross-checking attendees with Home Upgrade projects, but we know that a minority of energy upgrades actually end up going through the utility incentive program. Furthermore, we know that it often takes homeowners several months or even years to decide they are ready to take on a major home improvement project, so it is possible more upgrades were completed after the program (and its tracking activities) ended.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.3.7 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Retrofit Advisory Council (RAC)

Project Purpose: To foster stakeholder communication and facilitate objective and collaborative information sharing that improves implementation of regional energy upgrade programs and efforts.

Project Scope and Components: Quarterly meetings of the full committee, which included contractors, lenders, program implementers, local governments, utility, real estate and workforce development stakeholders. Working groups were formed to work on specific objectives, many of which overlapped with other SDREP tasks.

Deliverables:

1. Quarterly meetings and minutes

Year Approved: 2013

Year Completed (est.): 2014

Year Completed (actual): 2014

Estimated Cost: $52,242

Final Cost: $52,242

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Working groups allowed stakeholders to dive deeper into specific topics and produce tangible outcomes.

Lessons Learned
• N/A

Knowledge Transferred
• The RAC was an information-sharing forum for building performance stakeholders across the San Diego region.

Next Steps
• N/A

Benefit to the State
• The RAC helped stakeholders coordinate regional efforts that support the state's energy savings goals for existing buildings.

Benefit to Local Government
• The RAC helped stakeholders coordinate regional efforts that support local governments' climate action plans. • Local government staff shared experiences on PACE programs, resident outreach and other topics.

Successes
• Average attendance at quarterly meetings was 24, an increase in attendance from 2012. • RAC working groups helped develop deliverables for the Green Real Estate, Energy Upgrade California® Permit Streamlining, and HERS Pilots tasks under SDREP. The financing working group was highly productive in educating the group on the rapidly evolving financing landscape for home energy upgrades, including PACE programs.

Challenges
• Ensuring attendance from a variety of stakeholders requires consistent and proactive outreach.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.4 Strategic Plan Task 4.1.4: Community-Wide EE Savings Analysis

"Conduct the energy efficiency savings analysis for an annual Greenhouse Gas inventory for the City/County."

4.4.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Community Energy Conservation & Upgrade Outreach

Project Purpose: To identify energy efficiency opportunities in our municipal operations.

Project Scope and Components: Conduct energy efficiency savings analysis as part of 2012 GHG emissions inventory.

Deliverables:

1. 1 analysis conducted.

Year Approved: 2013

Year Completed (est.): 2013

Year Completed (actual): 2012 inventory completed in 2013, but staff are still working on 2014 inventory.

Estimated Cost: Part of $778,340 budget

Final Cost: Part of $778,340 budget

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Utilize SEEC Clear Path resources. • Utilize ICLEI Local Government Operation Protocol & Community Protocol. • The GHG inventory for City operations was third party verified and publicly reported to the Climate Registry. • Utilize 3rd party created emission factors which are more responsive to utility actions than publically listed emission factors.

Lessons Learned
• Utilizing the SEEC ClearPath tool from the start and adding more information allows us to have a more transparent GHG inventory compared with using excel based tools. • There is a significant amount of GHG emissions from both municipal and community energy sector.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Knowledge Transferred
• City staff presented about our use of the SEEC Clear Path tool at the 2015 SEEC Conference. • The City of Chula Vista is a founding member of the San Diego Climate Collaborative and Southbay Energy Action Collaborative both of which serve as a forum for sharing program information with other jurisdictions. • City staff regularly participate in regional opportunities to share program information including the SEEC conference, the LGSEC, Green Cities CA, and respond to more specific requests when asked.

Next Steps
• We plan to conduct GHG inventories for community and City operations every other year and have completed our 2014 municipal inventory but are currently trying to complete our 2014 community inventory, see challenges below.

Benefit to the State
• Our GHG inventory is publicly reported on our website as well as in the Climate Registry's website as a way to demonstrate to others our commitment to track our emissions. • Assist the City in reaching energy and GHG reduction goals.

Benefit to Local Government
• Because of the City's 2012 GHG inventory, with a sector breakdown, we were able to determine that the energy sector is contributing to 50% of community GHG emissions and 35% of GHG emissions from City operations. Because of this we were able to incorporate energy reduction measures in our Climate Action Plan efforts as well as in the City's Sustainable Operations Plan.

Successes
• We were able to utilize new GHG emission protocols and tools and clearly convey the sources of our GHG emissions, including the energy sector. • The 2012 municipal GHG inventory was 3rd party certified and reported on The Climate Registry's website.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- Municipal GHG emissions have decreased 41% since 1990 and community per capita emissions have decreased 33% since 1990.

Challenges
• In trying to complete our 2014 GHG inventory SDG&E has not been able to provide us annual community energy data broken apart by sector. • As GHG methodologies evolve some comparisons to past inventories are challenging and we do not have access to necessary data to re-create past inventories. • Ensuring similar methodologies are used in other regional GHG inventories and addressing shared scope 3 emissions, such as air and port travel, that may overlap.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.4.1 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: HERS Pilots

Project Purpose: To stimulate demand for HERS whole house ratings by providing payments to raters; to explore the viability of Department of Energy's Home Energy Score as an alternate asset rating.

Project Scope and Components: The project included three parts:

1. HERS whole house ratings performed by participating raters; A $400 payment was issued to rater for the first rating on a home; $200 were offered for the second rating (presumably a test-out after an upgrade).
2. A pilot program in which one home inspector performed Home Energy Scores as part of his regular inspections. A payment of $150 was paid to the inspector and a survey was administered to the participating homeowners.

3. An analysis exploring the viability of using the Home Energy Score and/or its input measures to predict a HERS rating in existing single-family residences in SDG&E territory. The analysis applied linear regression models and machine learning techniques to a sample of 255 single-family residences in San Diego County.

Deliverables:

1. 678 payments issued for HERS whole house ratings.
2. 35 Home Energy Scores completed through the pilot program.
3. Analysis of using Home Energy Score as a proxy for HERS.

Year Approved: 2013

Year Completed (est.): 2014

Year Completed (actual): 2014

Estimated Cost: $453,361

Final Cost: $453,361 (includes $270,200 in payments to raters)

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Plan to provide technical assistance to raters or assessors conducting any asset ratings.

Lessons Learned
• Fourteen homeowners who received Home Energy Scores responded to our survey. Results include the following. o 11 respondents indicated that they would consider asking a home seller for past utility bills, but only seven indicated that they considered energy and water costs in the purchase of the new home. o Eight respondents indicated that they would not be willing to pay for an energy audit during a home inspection. o When asked if they would be willing to pay for Home Energy Score (not as part of a home inspection), seven respondents indicated yes, five respondents

indicated no, with one respondent indicating she would need to understand the value of the score before paying.
    - Eleven respondents indicated that they would prefer to hire a home inspector that provides the Home Energy Score with the usual inspection report.
    - Three respondents found the Home Energy Score recommendations very useful, five found the recommendations useful; two respondents indicated the recommendations were somewhat useful, and four indicated that the score recommendations were not useful at all. Of the four that indicated the score recommendations were not useful at all, two were buying homes that scored 10 out of 10 and did not trigger any recommendations.
    - When asked if the Home Energy Score made the buyer think about doing any energy efficiency upgrades, eight respondents indicated yes and four indicated no.
- 10 key features derived from Home Energy Score field measurements can be used to predict a HERS score within an accurate range of ±27 points. Thus, while the Home Energy Score does not replace the HERS rating, it could serve as a cost-effective proxy for HERS scores in the San Diego region. For instance, the Home Energy Score may be used to identify homes that warrant a more thorough evaluation with a HERS rating to plan energy efficiency improvements.

Knowledge Transferred

- The report on using Home Energy Score as a proxy for HERS ratings was distributed to local government partners.

Next Steps

- Integrate HERS and Home Energy Score findings in outreach to promote more residents getting these services.

Benefit to the State

- Asset ratings are a key strategy for informing homeowners of the energy performance of their home and potential ways to improve performance, potentially leading to retrofits and progress toward state energy savings goals.

Benefit to Local Government
• Asset ratings are a key strategy for informing homeowners of the energy performance of their home and potential ways to improve performance, potentially leading to retrofits and progress toward local climate action plan goals.

Successes
• 678 HERS whole house ratings and 35 Home Energy Scores were completed; 46 out of 58 survey respondents indicated they completed energy efficiency improvements after receiving their HERS rating (this included simple measures such as LEDs or low-flow showerheads).

Challenges
• Raters needed a lot of technical assistance to properly enter data into Energy Pro, the modeling software for the HERS ratings. • Several HERS whole house rating recipients reported negative experiences, including that the rater never followed up with the results of their rating, the rating did not give them information they were expecting, the results were not customized to their home, the recommended upgrades were too expensive or the Home Upgrade process was too cumbersome.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.4.2 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Green Real Estate

Project Purpose: To build knowledge of energy efficiency in the San Diego County residential real estate industry and to build support for adding energy and water efficiency fields to the local multiple listing service (MLS).

Project Scope and Components: Outreach to REALTORS®, REALTOR associations, Sandicor (MLS provider) and other real estate industry stakeholders to build support for adding energy and water efficiency fields to the MLS. In addition, a pilot program was run to provide real estate agents with home energy assessment vouchers they could provide as a special perk to their clients.

Deliverables:

1. Letter of support for adding 35 energy and water efficiency fields to MLS, signed by more than 100 REALTORS® and other real estate industry stakeholders.
2. Glossary of terms for 35 proposed fields.
3. Green real estate fact sheet.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: **$**120,732

Final Cost: $120,732

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Show REALTORS how making energy- and water-efficient features more visible during home transactions can lead to increased sale prices and less time on the market. • Show MLS provider and REALTOR associations how other MLSs have already incorporated energy and water efficiency fields.

Lessons Learned
• Overall, real estate industry stakeholders were receptive and support the concept of increasing transparency of green features during a home transaction. Most understand the importance of home energy efficiency and realize that it is a growing interest among San Diegans. • Members of the associations, especially the attorneys representing the REALTORS®, are concerned with the potential liability associated with REALTORS® incorrectly indicating an energy efficiency field in the MLS. This liability exists with every field currently in the MLS. The easiest way to avoid additional risk would be to not add fields to the MLS. • There are concerns with green features and labels implying energy savings when it might not always be the case. For example, an ENERGY STAR refrigerator may be 10 years old and not as efficient as newer models. • There is a clear need to educate the real estate industry about home energy efficiency and green labels/ratings. Many agents expressed interest in learning about these topics so they could better serve their clients. • The associations, particularly the risk reduction committees, may be more open to incorporating fields for home labels/ratings, because the labels come with a certificate issued by an independent third party. The MLS could be designed to require a REALTOR® to upload the certificate when checking the box for a home label/rating. • Auto-population of data into the MLS may be another strategy to overcome concerns about the risk associated with agents entering energy efficiency information about homes. • Online tools such as Zillow pose a competitive threat to MLSs, particularly if an MLS resists innovation. This is a compelling reason for the local MLS to add green fields. • According to NAR's Profile of Home Buyers and Sellers, energy-efficient appliances are important to 68% of buyers; heating and cooling costs are important to 86% of buyers. • California homes labeled or certified by ENERGY STAR, LEED for Homes or GreenPoint Rated sell for a 9% premium over comparable, nonlabeled homes.

Knowledge Transferred
• Lessons learned were shared among San Diego region jurisdictions and with BayREN's Green Real Estate Working Group.

Next Steps
• SDREP will continue outreach to the real estate community in 2016-2017.

Benefit to the State
• Making energy efficiency features more visible and searchable during home transactions will help homeowners recoup their investments, improving the value proposition for making home energy upgrades. This will help the state meet its energy savings goals for the existing residential sector.

Benefit to Local Government
• Making energy efficiency features more visible and searchable during home transactions will help homeowners recoup their investments, improving the value proposition for making home energy upgrades. This will help local jurisdictions meet climate action plan goals for the existing residential sector.

Successes
• Raised awareness of energy and water efficiency issues and technologies in the San Diego real estate community; recruited more than 100 stakeholders to sign letter of support for including more energy and water efficiency fields in the local MLS. • Trained 23 local agents to receive their Green Designation from National Association of REALTORS (NAR). • Presented on the value of the NAR Green Designation at a local brokerage; following the presentation, the brokerage sponsored the certification of 40 of its agents.

Challenges
• Members of the associations, especially the attorneys representing the REALTORS®, are concerned with the potential liability associated with REALTORS® incorrectly indicating an energy efficiency field in the MLS. • The relationship among the REALTOR associations and Sandicor, the MLS provider, is political and complex, making it difficult to build consensus behind a proposed change.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

4.4.3 San Diego Unified Port District

Local Government Partnership: San Diego Unified Port District

Project Title: GHG Inventory

Project Purpose: Complete an annual GHG inventory and savings analysis of District operations to identify energy usage and strategic planning initiatives for energy efficiency.

Project Scope and Components: The District completed the 2012 comprehensive jurisdiction-wide GHG inventory in August 2013. The jurisdiction-wide GHG inventory supports CAP reporting and strategic planning to meet the 2020 GHG reduction goals. The inventory and other energy efficiency and sustainability accomplishments were presented to the BPC in September 2013. As of late 2013, the document was downloaded 255 times. The data gathered during the inventory was also presented to the District's Environmental Advisory Committee and was released as a press release. The Port continued work on the savings analysis, which was completed in 2014. The cost savings analysis task was an in-depth analysis in partnership with SDG&E to refine the methodology for calculating energy usage for all source types within the Port's jurisdiction. Annually the District prepares GHG inventories for District-operated facilities. In 2014, the District completed the 2014 GHG inventory which included emissions from District operated facilities, including electricity, gas, and fleet fuel usage. Scope 1 emissions decreased 5% relative to 2013 and Scope 2 emissions decreased 1% relative to 2013. Compared to the 2006 baseline, the District has decreased its emissions by 24%. This is a key component in tracking our CAP progress. It is important to note that the annual inventory only included District operations and excluded Port tenant operations.

Deliverables:

1. Annual GHG inventory, comprehensive jurisdiction-wide GHG inventory, and savings analysis

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015

Estimated Cost: $80,000

Final Cost: $80,000

Local Match Contribution: $40,000

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices

- Greenhouse gas inventories are used to annually track the District's progress implementing energy and climate planning activities.
- Establishing a regional (and even state) strategy and guiding principles for GHG inventorying is necessary to ensure that a similar methodology is implemented in the monitoring of energy and climate goals. As local governments begin to address GHG reductions through energy policies and practices, standardized practices are needed to ensure an apples-to-apples comparison.
- Summary progress reports on GHG inventory analysis, as a supplement to technical updates, help to communicate information to less technical audiences in an easy to understand manner. Year-in-Review reports developed by the District have included the goal, progress to date, and recommendations to achieve the respective goals.
- Regional energy and GHG metrics help track performance overtime as a result of both individual agency and collective action to reduce energy use and GHG emissions.
- Incorporating energy and climate goals into a Regional Plan can complement local GHG reduction efforts from other sectors, including transportation and land use, which are dependent uses of the District (provided that the District operates very few roads/access corridors).

Lessons Learned

- Refinement of the District's GHG inventorying process overtime and the institutionalization of the evolving methodologies are necessary to ensure that the process for preparing the inventory is consistent year after year despite staff turnover. Technical documentation of the methodology also promotes the efficient use of resources.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

- Taking the opportunity to update non-energy efficiency components of the GHG inventory process in a comprehensive manner by adding non-LGP funds to the project, has enabled the District to focus limited resources in a more meaningful and relevant manner.
- The District's participation in regional collaborations, including the San Diego Regional Climate Collaborative (SDRCC), the Regional Energy Working Group (EWG), and the San Diego Regional Energy Partnership have allowed for valuable stakeholder engagement, as well as access to data sets.

Knowledge Transferred

- Knowledge was transferred through presentations and discussions on the CAP goals at meetings with the BPC, stakeholder meetings, public workshops, and regional collaboratives, including the SDRCC, the EWG, and the SDREP.
- Staff has presented at external meetings, including the San Diego Section of the American Planning Association.

Next Steps

- The District's CAP and other associated energy planning and Green Port Program efforts directly implement key actions of the CEESP.
- During the development of the scope of work for the 2016-2020 Partnership, the District identified additional implementation measures to further advance the goals of the CEESP. Implementation of these tasks is now underway across several sectors, including energy and climate.
- Increased support from the California Energy Commission, coupled by the support that the District receives through the Partnership, will continue to advance innovative energy project development in the coming years.

Benefit to the State

- The CAP is developed to align with state goals for energy and climate change. Development and implementation of the CAP helps to achieve these statewide goals.
- Through the regular development of GHG inventories, the State is able to track progress in the San Diego region on energy and climate goals through performance monitoring reports.

Benefit to Local Government
• The District's CAP is used as a resource by other local governments as a resource for energy and climate planning activities. • Local governments are able to work toward similar goals as they develop their own plans and policies, which builds consistency across the region on energy policies and practices.

Successes
• Energy and climate measures have since been institutionalized through the adoption of the District's CAP. • The adoption of the CAP helps to institutionalize energy and climate policies and planning across similar port agencies in the State. • GHG inventorying practices have been refined and a consistent methodology has been applied to the District's ongoing tracking of CAP implementation measures.

Challenges
• The annual GHG inventory update is limited to assessing District operated facilities. Due to the complexity and cost of conducting a comprehensive jurisdiction-wide inventory for the District, these GHG inventories are conducted every three years. The value of the District's next comprehensive inventory in 2017 will be significant due to the approaching 2020 GHG reduction goal. • Looking out to 2030 and 2050 planning years, the District may have to amend the CAP and associated GHG inventory timeline to ensure consistency with state goals and targets.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

5. Strategic Plan Goal 5: Local Government Energy Efficiency Expertise

"Local government energy efficiency expertise becomes widespread and typical."

5.1 Strategic Plan Task 5. EE Expertise

"Local government energy efficiency expertise becomes widespread and typical."

5.1.1 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: Community Energy Conservation & Upgrade Outreach

Project Purpose: Leverage the unique relationship that Local Governments have to promote energy efficiency upgrades and programs.

Project Scope and Components: Trained staff performs free on-site energy evaluations for Chula Vista businesses through the City's successful Free Resource & Energy Business Evaluation (FREBE) program. City staff will provide participants with an integrated energy evaluation an overview of applicable SDG&E direct install, incentive, and financing programs, and assistance completing incentive and/or On-Bill Financing applications. Through the Recreation Empower Hour program, the Chula Vista Recreation's facilities and services will be leveraged to educate children and teens on energy-saving behavior and concepts. Trained staff will also perform no cost free on-site energy evaluations for Chula Vista residents through the City's successful Home Upgrade, Carbon Downgrade program. City staff will help to identify home energy performance issues, suggest possible solutions, and provide assistance with completing incentive and financing applications. Through the Energy Lounge program, the Chula Vista Library's facilities and services will be leveraged to educate and enroll "hard to reach" residents (such as older and low-income community members) in special energy assistance programs to help lower their utility bills.

Deliverables:

1. 6,061 engaged residents and businesses.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): Planned actions were completed by 2015, but many of the actions are ongoing.

Estimated Cost: Part of $778,340 budget

Final Cost: Part of $778,340 budget

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices

Recreation

- Consistent set up of our sites; on time, neat, and an effective message
- Staff are trained to communicate effectively with parents and to work with children so we are a trusted community source for recreation activities
- All children consistently fill out Energy Efficiency surveys and are awarded for improvement to their scores. Our goal is to have scores to average 60% (EE), and the last year the children were averaging 90%

FREBE

- Develop energy and water evaluation reports for local businesses to generate and track immediate referrals for SDG&E core programs.

HUCD

- Provide information on multiple resources, i.e., water and waste reduction, because residents and businesses see conservation of all resources as linked or may have a higher desire to save water or waste and providing that information can open the door to information about energy efficiency.
- Conduct evaluations based on what staff see in the home (including with thermal IR camera) and conversations with homeowners (no testing required), to serve as a time efficiency referral point for other programs that can provide more detailed analysis.

Library

- Use library collection development standards to create an energy efficiency collection with breadth that works for readers of all levels, ages, residents, and professionals.
- Signage is paramount.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Lessons Learned

Recreation

- The most effective and most efficient way to advertise our programs is through the schools that are closest to the parks that we run our programs.
- Having movie nights sponsored by our program is another way to advertise to a large group. Whole families find out about EE practices through an SDG&E commercial that demonstrates what other families in the Chula Vista Community have done to practice EE.

FREBE

- It is mandatory for every business in the City of Chula Vista to go through an energy evaluation every five years, this makes the program successful.
- Businesses are taking advantage of the EE programs offered by SDG&E because of the interaction with City staff

HUCD

- Utilizing interns for relatively simple evaluations can help keep program costs lower.
- The database of home evaluations can be an important tool for future outreach efforts.
- Reaching the resident or business at the right time is a challenge but important, i.e., before they have selected a contractor or finalized plans.

Library

- Energy efficiency is often included in more general books on design and home improvement. Do not expect to create a collection holding only energy efficiency titles or there will not be enough books available in print to purchase. Buy multiple copies to keep shelves well stocked.
- Use the opportunity to inform casual library browsers on energy efficiency topic by providing glossy coffee table titles.
- Face- out display is more attractive to the public than tightly packed shelves.
- Comfortable seating in close proximity is a necessity to encourage browsing.
- Place the Energy Lounge in a highly visible area to attract casual browsers
- Energy tools (meters & monitors) are high theft items. Create a “dummy” case to place on shelves that guests take to the service counter to exchange for the actual item (stored behind the desk).
- Consider library use patterns. Adults visiting with young children do not want to bring them into adult areas because of potential noise and behavior issues. We created a family friendly corner with STEM books on energy in the children’s area and provided opportunities for all ages activities with an energy theme (manipulative toys, coloring

books). STEM books can be used by low performing adult readers.

- We used digital signs on the exterior of both buildings to promote the EE collection – otherwise the only people who will see the books and tools are the library users and not the people who do not visit libraries.
- Post seasonal reminders on the digital signs. We only use the color green for energy efficiency messages.
- Consider using highly visible signage inside the building too. Library users and first-time visitors want to easily locate the collection once inside.

Knowledge Transferred

Overall

- The City of Chula Vista is a founding member of the San Diego Climate Collaborative and Southbay Energy Action Collaborative both of which serve as a forum for sharing program information with other jurisdictions. City staff regularly participate in regional opportunities to share program information including the SEEC conference, the LGSEC, Green Cities CA, and respond to more specific requests when asked.

Recreation

- Through recreation activities, arts and crafts, and experiments, children are introduced to the benefits of Energy Efficiency and being environmentally conscience.

FREBE

- The FREBE program is very strong because it gives staff the ability to educate businesses about energy efficiency.

Library

- The Chula Vista Library attends a number of community events throughout the year. Library staff attended these events with energy monitoring tools and energy efficiency books to use to highlight what the library provides.
- The Chula Vista Library coded the Energy Lounge collection with its own "location code" in the library's database. This enables us to easily extract lending statistics for reporting use, as well as keep track of the number of items in the collection. As of January 2016 the collection had grown to 1,306 books and tools which have circulated over 8,081 times.
- Use the shelving to display non-book information on acrylic holders. Attractive flyers on energy efficiency and upcoming local events create interest.
- Chula Vista Library used the energy tools in pop-up programs, where staff demonstrated how the tools work. We posted these events on our library home page.

- In children's areas, use child friendly flyers and signage – they are the consumers of tomorrow.

Next Steps

Recreation

- Get more involved with PTA's at our local schools.
- Expand our current program to go to multiple parks in one day.

FREBE

- City of Chula Vista staff is going to conduct evaluations for the next five years in Chula Vista and National City.

HUCD

- Work to expand the number of homes visited by leveraging energy efficiency policies included in the Climate Action Plan update.
- Leverage the database of past homes to encourage more energy savings.

Library

- The library has embraced a "learn by doing" philosophy and is creating a learning lab with a local high tech company. We would like to expand this and develop opportunities for all ages to explore energy efficiency in an experimental learning environment. We see an opportunity to reach children and their parents at our summer reading programs, class visits, youth organizations (scouts, clubs).

Benefit to the State

Overall

- All outreach programs increase community knowledge of energy efficiency options and programs as well as send a message that energy efficiency is important.

Recreation

- The future EE practices and knowledge of the children in our program will hopefully carry over to when they are adults.

FREBE

- This program is successful because it lowers carbon emissions in the Southern California region

Library

- Reduced energy consumption by residents through education and making well-informed choices.

- Early adoption of energy efficiency practices by the younger generation when EE is seamlessly woven into the library experience.

Benefit to Local Government

Overall

- Energy efficiency outreach programs provide a tangible benefit to residents who are looking for resources to help them save energy in their homes and business.
- Assists us in meeting our GHG and energy reduction goals.

Recreation

- This program is a win/win for SDG&E and for local Government. SDG&E is benefited in that parents view them as giving back and trying to enhance our community while the children are introduced to Energy Efficiency, and because the city staff are executing this program and its free, the city is viewed as offering yet another positive community service that meets many of the city wide strategic goals including "Connected to the Community", "Strong and Secure Neighborhoods", and "Healthy Community".

FREBE

- FREBE raises awareness in the community and it is a great outreach program.

Library

- City of Chula Vista residents will know the avenues through which to become better informed as books and materials are made available and local events are promoted
- The City of Chula Vista and its commitment to energy efficiency and green practices is publicly promoted in the most democratic of institutions, the public library.

Successes

Recreation

- Sponsoring the licensing for movies in the park.
- Exceeded delivery of activities goal by 56%. Goal of 350 delivered 546
- Goal of 60% EE average actually ended fy at 92%

FREBE

- 80% of businesses recommended to Direct Install programs take advantage of the savings ($2,000 on average).

HUCD

- Since the start of the 2013 program we were able to evaluate 460 homes and provide

330 program referrals; based on surveys approximately 86% homes visited reported taking some energy saving action.

Library

- Energy efficiency items circulated 8,081 times
- 1,500 “Smart Savings” leaflets have been distributed at the library
- Over 1,300 books and materials acquired and available to borrow
- Over 50 different messages displayed on the exterior signs promoting the energy lounges and best practices.

Challenges

Recreation

- We have two parks that are in neighborhoods where it is difficult to get interest in the program; we are working on strategies to improve these parks.

FREBE

- We have had trouble getting utility energy efficiency program participation data that would allow us to better promote utility programs.

HUCD

- Due to liability concerns two interns are required to visit any home, this increase staff time required for home evaluations.
- Due to the number and complexity of utility programs continuing relationships that allow for direct referrals with the appropriate staff can be a challenge.

Library

- Finding new publications to replenish aging titles.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

5.1.2 City of Chula Vista

Local Government Partnership: City of Chula Vista Partnership

Project Title: South Bay Energy Action Collaborative (SoBEAC)

Project Purpose: Provide peer-to-peer support for South Bay cities to help facilitate municipal and community-wide energy efficiency retrofits.

Project Scope and Components: Chula Vista will assist South Bay jurisdictions in managing energy consumption and costs at their municipal facilities by sharing lessons learned and providing technical support, further integrating energy efficiency into development and planning processes and Chula Vista will help South Bay jurisdictions educate their local community members on energy efficiency opportunities.

Deliverables:

1. 12 initiatives completed including energy efficiency improvement proposals for municipal sites and energy-related policies and programs as part of Climate Action Plan, General Plan, or Energy Roadmap implementation.

Year Approved: 2012

Year Completed (est.): Ongoing

Year Completed (actual): Ongoing

Estimated Cost: Part of $778,340 budget

Final Cost: Part of $778,340 budget

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: (Y) / N

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Used sample policies from other cities. • Implemented programs and policies already successful in neighboring cities. • Chula Vista assisted South Bay jurisdictions in further integrating energy efficiency into development and planning processes.

Lessons Learned
• Integrating existing programs into the scope of work of other cities. • Being able to reach common goals by cooperating, communicating, and implementing together, South Bay jurisdictions accomplish more and learn from each other. • It is important to have the political support of City Council to be able to move forward with project implementation and policy adoption.

Knowledge Transferred
• Based on the example of the SoBEAC SANDAG has also set up a North Coast Energy Actions Collaborative.

Next Steps
• SoBEAC members will continue to meet monthly to review current collaboration efforts and identify new opportunities to save energy. • All South Bay jurisdictions are still working together in the implementation of city facilities energy retrofits. • Working on a Green Business program promoting energy efficiency among the South Bay businesses. • Work to transition ongoing programs to full member City control and management.

Benefit to the State
• Improving energy performance and serving as an example for other local governments by working together to save energy.

Benefit to Local Government
• Sharing the knowledge of programs and energy efficiency work. • Improved building performance for city facilities and businesses. • Increased awareness for the community about the collaboration of the four jurisdictions.

Successes
• The FREBE program is now being implemented in National City.

- FREBE in National City led to the lighting retrofit and other improvements to 90 business facilities.
- National City is retrofitting its municipal facilities.
- Created sample Library Energy Lounge Kits for Coronado libraries.
- Completed a streetlight inventory in Coronado to identify opportunities for upgrading to energy efficiency lights.
- Imperial Beach participated in a Green Business marketing push.
- SoBEAC staff have attended community events to provide energy efficiency education in each SoBEAC City.
- Hosted SDREP workshop focused on educating SoBEAC City staff about how they can save energy in their home.

Challenges

- For some jurisdictions the lack of political support slows down or limits what actions they are able to take.
- Because the majority of funds are designated for energy efficiency, there are others areas where SoBEAC members would like to collaborate but are not able to with current funding.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

5.1.3 San Diego Association of Governments (SANDAG)

Local Government Partnership: San Diego Association of Governments

Project Title: Energy Efficiency Expertise for SANDAG

Project Purpose: Provide staff trainings and address energy and green building codes and standards in SANDAG infrastructure planning and projects.

Project Scope and Components: SANDAG is responsible for the design and build of transit and bike infrastructure projects. As such, it is important that SANDAG design professionals and related staff are informed about green building practices in order to institutionalize green building in our design/build of regional infrastructure projects. Training opportunities on green building practices will be introduced to all SANDAG design and planning professionals and continuing education also will be provided where there direct application to planning and project development in the San Diego region. In addition to training, infrastructure design criteria will be developed for use by SANDAG, partnering public agencies and subcontractors on transportation and/or capital improvement projects.

Deliverables:

1. Develop energy and green building design criteria for inclusion in wider SANDAG design criteria project.
2. Twice yearly offer training opportunities to relevant SANDAG design and planning professionals on energy codes and standards and green building practices, such as LEED.
3. Energy code and/or LEED training opportunities to be offered to approximately 50 staff.
4. LEED Green Associate and/or higher LEED accreditation courses, registrations, and exam fees to be available for up to 6 staff.
5. Develop green building education and outreach presentations and/or learning opportunities for SANDAG partner agencies such as Metropolitan Transit System (MTS), North County Transit District (NCTD), and Caltrans District 11.

Year Approved: 2013

Year Completed (est.): 2015

Year Completed (actual): 2015 (ongoing)

Estimated Cost: $96,656

Final Cost: $96,656

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / N

Amount of Monies Unspent and to Where Returned: $0

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Best Practices
• Developed an Energy Section of the SANDAG General Design Criteria Manual (July 2014). • Include criteria in scoping and overall project planning meetings for design and construction projects whenever possible. • Use existing (standing) department meetings to engage design/build staff on reasons to integrate energy considerations in major infrastructure projects. • Regularly offer training (hosted by SDG&E) opportunities including LEED, Title 24 and Calgreen, and Certified Energy Manager (CEM) to staff to grow institutional knowledge.

Lessons Learned
• Without management direction and communication, the voluntary components of the Design Criteria Manual can be interpreted and applied differently by users. • Integrating new aspects to project design and development is time consuming and not always welcome (adapting to change). • Not all staff are familiar with the impact of policy and planning changes that come from the adoption of new Plans and environmental documents.

Knowledge Transferred
• The SANDAG General Design Criteria Manual, including the new energy section, is provided to over 40 SANDAG employees, as well as infrastructure project consultants. • The SANDAG General Design Criteria Manual has been shared as a reference tool for SANDAG's project partners such as Caltrans District 11, MTS, NCTD, and local governments throughout the region. • Several trainings: two staff in CEM training, 6 staff took LEED GA training, 2 staff took LEED EBOM training, and about 12 participated in home energy tune-up seminars.

Next Steps
• SANDAG cross-department coordination and collaboration will continue to help inform the project design and construction process. • Ongoing efforts to inform SANDAG project design and construction employees about the energy section of the Design Manual will take place, including potential division and/or department training opportunities for more a consistent application.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

  - The EIR for San Diego Forward: The Regional Plan (RTP/SCS) adopted in October 2015, requires SANDAG projects to address energy efficiency.
  - Roadmap staff will update the guidelines for design/build staff and increase awareness of recent changes in previously voluntary measures.
- Use of the Design Guidelines Manual, available SDG&E programs, including Savings by Design, and other opportunities to save energy and money, will be leveraged for the design and construction of the new SANDAG bus layover and office facility to anticipated to begin construction in 2017.
- Continue to offer trainings hosted by SDG&E.

Benefit to the State

- Communicating and information sharing with SANDAG employees and integration of energy efficiency and sustainability activities and programs into SANDAG design and construction practices and projects, which can result in energy use, cost, and GHG emissions reductions.
- These efforts feed into CEESP Goal 3 for local governments leading by example and Goal 5 supporting local government energy efficiency expertise becoming widespread and typical.

Benefit to Local Government

- Many local governments do not have adequate dedicated staff or resources to develop energy efficiency and sustainability policies for application to their own or community buildings. The development of the energy section of the Design Criteria Manual will serve as a resource to local government and public agencies throughout the region.
- These additional resources and methods provide staff with more justification to participate in trainings on building and zoning energy codes that could dramatically accelerate green, efficient buildings within their jurisdictions.
- Trainings provide tools and can instill confidence in non-energy staff to address energy and GHG measures even though many have limited capacity to work on these issues.

Successes

- The integration of an energy section into the SANDAG General Design Criteria Manual.
- Application of energy section design criteria into capital projects including Sabre

Springs Transit Station, Trolley facilities, and design stage transit facilities.

- Through trainings SANDAG now has 1 certified CEM, 6 LEED GAs and several employees making energy efficient changes at their homes.

Challenges
• Consistent application and overall awareness of the voluntary energy component Design Criteria Manual. • The voluntary nature of above code criteria and general expectation of staff to use the Design Criteria Manual. • Cross-department communication and information sharing. • Lack of knowledge about the benefits and purpose for integrating energy efficiency and sustainability design and construction components into projects.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

5.1.1 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: GETUP Energy Upgrade Career Training

Project Purpose: To train unemployed and underemployed individuals to perform quality home performance upgrades and to connect them with internships and job opportunities.

Project Scope and Components: Three-week classroom and hands-on training on heat and air movement, insulation, air sealing, moisture control, mechanical systems, construction practices, job-site safety, home energy assessments, energy efficiency upgrades, combustion safety and resume writing. Students were connected with Energy Upgrade California® Home Upgrade participating contractors for the opportunity to work under a 40-hour internship paid by SDREP.

Deliverables:

1. Four training cohorts with 49 graduates.

2. 26 internships and at least 12 being placed in home performance jobs.

Year Approved: 2013

Year Completed (est.): 2014 **Year Completed (actual):** 2014

Estimated Cost: $379,435 **Final Cost:** $379,435

Local Match Contribution: The City of Chula Vista bought a house and completed a full energy efficney retrofit using (non LGP/SDREP funds) to serve as an in field training facility.

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• The mix of classroom building science training, hands-on practice, resume-building classes and networking session with contractors was an effective way to help unemployed and underemployed people enter the home performance industry.

Lessons Learned
• The ideal class size is 10-15 students, to give each participant thorough hands-on training. • Resume instruction should start the second week of the course. The first two training courses revealed that the majority of students did not have a personal resume and did not know how to write one. To meet this need, resume instruction was moved up from the final week to the second week to provide students sufficient time to complete their resumes. • Contractors should be invited to engage with the class in the first week of the course. Trainers observed that increased contractor involvement during the training prompted contractors to become more committed to providing internships to the students. • When including high school-aged enrollees, such as Urban Corps students, the most effective ratio of community students to high school students was 2:1. High school-aged participants were less prepared to focus on classroom learning and somewhat lacked the

maturity required for the program. Older students helped create a classroom climate that was more disciplined and attentive.
- Partnerships with local organizations provide critical support. GETUP benefited from partnerships with local firms such as Community Housing Works and XL Staffing, which provided access to local homes and internship administration.

Knowledge Transferred

- Program stats were shared with SDG&E and jurisdictions.
- Knowledge provided in the program was taken back to the companies that participants worked for.

Next Steps

- N/A

Benefit to the State

- GETUP provided marketable skills to unemployed and underemployed constituents; it also bolstered the home performance workforce that will help meet state energy savings goals for the existing residential sector.

Benefit to Local Government

- Same as Benefits to the State response above.

Successes

- 51 people attended GETUP and 49 graduated; 26 of those went on to internships and at least 12 were placed in jobs in the home performance industry.
- 100% of students reported that they were “very satisfied” or “satisfied” with GETUP, 88% said they improved their understanding of building science principles and 92% said they improved their hands-on skills to perform an energy upgrade.

Challenges
• Recruiting students was challenging, even though the program was free. • Some candidates had trouble getting transportation to the training sites.

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		

5.1.2 San Diego Regional Energy Partnership

Local Government Partnership: San Diego Regional Energy Partnership

Project Title: Zero Net Energy Roadmap

Project Purpose: To develop a policy roadmap for local jurisdictions to drive and support the market to achieve the state's zero net energy (ZNE) goals.

Project Scope and Components: Roadmap report, webinars and case studies for local government staff.

Deliverables:

1. *Zero Net Energy Roadmap: How California's Local Jurisdictions Can Lead the Way.*
2. Infographic summarizing nine policy recommendations made in roadmap.
3. Two webinars featuring local government presenters who had already implemented one or more of the nine policy recommendations.
4. Five online case studies of jurisdictions that have implemented Roadmap-recommended policies.

Year Approved: 2013

Year Completed (est.): 2015 **Year Completed (actual):** 2015

Estimated Cost: $54,980 **Final Cost:** $54,980

Local Match Contribution: $0

Project Reimbursed for LG Staff Time: Y / (N)

Amount of Monies Unspent and to Where Returned: $0

Best Practices
• Peer-to-peer sharing of knowledge and strategies among local government staff is effective.

Lessons Learned
• Local government staff have widely variable baseline knowledge of the state's ZNE goals. • Webinars are an effective forum for reaching many jurisdictions at once.

Knowledge Transferred
• The policies recommended in the Roadmap were shared through the webinars and were also discussed at a San Diego Regional Climate Collaborative meeting and a ZNE workshop hosted by the New Buildings Institute in 2014, as well as a Residential ZNE Action Plan workshop, Statewide Energy Efficiency Collaborative conference and U.S. Green Building Council conference in 2015.

Next Steps
• In 2016-2017, SDREP will continue education for local government staff and the broader building community (architects, developers, contractors) on technologies and policies related to ZNE.

Benefit to the State
• This work helped local jurisdictions prepare their constituents to meet the state's zero net energy goals for residential and commercial buildings.

Budget detail provided in this report is based on estimates since SDG&E does not track budgets at the task level.

Benefit to Local Government
• This work helped local government staff understand the state's ZNE goals and the policies they can develop at the local level to move the market closer to achieving ZNE buildings.

Successes
• The Roadmap report was downloaded 175 times between May and December 2015 and 144 people, many representing local jurisdictions, attended the webinars. • After participating in the webinar, 70% reported that they felt better equipped to implement (or advocate for) ZNE-related goals or policies.

Challenges
• N/A

Assessment

Project Met Expectations	Yes	In Part	No
Explanation	This project met SDG&E expectations by completing the scope of work activities and expected invoicing and reporting requirements. Given this is a non-resource program, there are no EE quantitative measures to report on or assess.		