Partnerships Programs

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2013-2014 PIP Addendum

Program Name	Local Institutional Partnership	**Date Submitted**	
Subprogram Name	California Community Colleges Partnership (CCC), *Sub-Program IV*	**Utility Name**	San Diego Gas & Electric
Program ID		**IOU Program Contact**	
		Program Cycle	2013-2014

This form is to be used to document any required changes to the Program Implementation Plans (PIPs). The following are triggers that will require a PIP change:

1. Changes to eligibiity rules
2. Changes affecting incentive levels (indicate advice letter approval below if required)
3. Fund shifts (indicate advice letter approval below if required)
4. Portfolio Budget and Other Commission–Directed Changes
5. Changes to Program Theory/Logic Models
6. Addition or elimination of programs and/or sub-programs (indicate advice letter approval below)
7. Changes in program targets
8. Change in sub-program approach - unless the IOUs submit logic models for the sub-programs (to be defined) with IOUs
9. Changes in incented measures
10. Changes in adopted PPMs/MTIs (indicate advice letter approval below if required)

Identify Specific Trigger (above) requiring the PIP change

4. Portfolio Budget and Other Commission-Directed Changes

Driver of Change:

Updates program for 2013-2014 Transition Period.

Description of Change (if advice letter approval required, indicate Commission resolution or approval and provide hyperlink to advice letter):

See Redline

PIP Section and/or Wording to be Changed or replaced:

See Redline

Replacement Language or Information

See Redline

Revised Energy Savings (If Any):

See Redline

Other PIP Changes Required:

See Redline

Revision Date: 05/11/2012

1) Program Name: Local Institutional Partnerships
Program ID number:
SDG&E Program Type:

SDG&E Master Program Implementation Plan, Statewide Institutional Partnerships, referencing the below programs:

ID#	Program	Sub-Program
	California Community Colleges Partnership (CCC)	*Sub-Program IV**
	California Dept. of Corrections and Rehabilitation Partnership (CDCR)	*Sub-Program I**
	State of California Partnership (State of CA)	*Sub-Program II**
	UC/CSU Partnership (UC/CSU)	*Sub-Program III**
	San Diego County Water Authority Partnership	*Sub-Program V**
	University of San Diego Partnership	*Sub-Program VI**

** Each Sub-Program PIP is referenced in this document by designated Roman numeral.*

2) Projected Program Budget Table

Table 1[1]

Program Code	Program Name	Administrative Amount	Marketing Amount	Direct Install Amount	Incentive Amount	Total Budget Amount
	Local Institutional Partnerships					
3266	LInstP-CA Department of Corrections Partnership	$111,297	$3,442	$178,638	$0	$293,377
3267	LInstP-California Community College Partnership	$151,843	$60,237	$498,374	$0	$710,454
3268	LInstP-UC/CSU/IOU Partnership	$468,363	$99,692	$836,097	$0	$1,404,152
3269	LInstP-State of California /IOU	$85,170	$9,508	$257,184	$0	$351,862
3270	LInstP-University of San Diego Partnership	$71,222	$45,800	$410,354	$0	$527,376
3271	LInstP-San Diego County Water Authority Partnersh	$178,426	$48,266	$695,953	$0	$922,645
	TOTAL:	$1,066,322	$266,947	$2,876,598	$0	$4,209,867

[1] Definition of Table 1 Column Headings: Total Budget is the sum of all other columns presented here
Total Administrative Cost includes all Managerial and Clerical Labor, Human Resource Support and Development, Travel and
Conference Fees, and General and Administrative Overhead (labor and materials).
Total Direct Implementation – includes all financial incentives used to promote participation in a program and the cost of all direct labor, installation and service labor, hardware and materials, and rebate processing and inspection used to promote participation in a program.
Total Marketing & Outreach includes all media buy costs and labor associated with marketing production.
Integrated Budget Allocated to Other Programs includes budget utilized to coordinate with other EE, DR, or DG programs. Total Budget is the sum of all other columns presented here
Definition of Sub-Program: A "sub-program" of a program has a specific title; targets; budget; uses a unique delivery or marketing
approach not used across the entire program; and for resource programs, has specific estimated savings and demand impacts.

3) Projected Program Gross Impacts Table

Table 2

Program #	SDG&E Local Institutional Partnerships	2013-2014 Two-Year EE Program Gross kWh Savings	2013-2014 Two-Year EE Program Gross kW Savings	2013-2014 Two-Year EE Program Gross Therm Savings
Market Sector Program - Local Government				
	L-InstP01 - CA Depart of Corrections Partnership	0	0	0
	L-InstP02 - CA Community College Partnership	0	0	0
	L-InstP03 - UC/CSU/IOU Partnership	0	0	0
	L-InstP04 - State of California /IOU Partnership	0	0	0
	L-InstP05 - University of San Diego Partnership	0	0	0
	L-InstP06 - San Diego Cnty Water Auth Partnership	0	0	0
	TOTAL:	**0**	**0**	**0**

Note: Partnerships are considered non-resource programs and serve as a delivery mechanism for IOU programs.

4) Program Element Description and Implementation Plan

Institutional Partnerships are designed to create dynamic and symbiotic working relationships between Investor-Owned Utilities (IOU), state or local governments and agencies or educational institutions. The objective is to reduce energy usage through facility and equipment improvements, share best practices, and provide education and training to key personnel. San Diego Gas and Electric Company's (SDG&E) 2013-2014 statewide partnership portfolio will focus strongly on supporting the key California Energy Efficiency Strategic Plan (CEESP) goal of Demand Side Management (DSM) integration and coordination, which includes establishing integration procedures, piloting DSM integration programs, and improving regulatory coordination. The 2013 - 2014Institutional Partnerships will also concentrate on innovative delivery channels and funding mechanisms to meet current economic conditions and achieve program integration and savings.

In the 2006-08 program cycle, SDG&E successfully implemented four statewide institutional partnership programs; California Community Colleges (CCC), University of California and California State University (UC/CSU), California Department of Corrections and Rehabilitation (CDCR), and the State of California Energy Efficiency Partnership, as well as two local institutional partnership programs; University of San Diego (USD) and San Diego County Water Authority (SDCWA). Each statewide program was managed in conjunction with the other IOUs in the State of California. The 2013 - 2014 Institutional Partnerships will leverage off the past successes of the 2006-2008 Energy Efficiency portfolio and also strive to enhance offerings to meet the unique challenges of our institutional partners.

SDG&E has developed a strong history of working closely with a variety of institutional customers to improve energy efficiency. These partnerships enable customers to focus on; conservation, demand response, load shifting, and renewable energy within their facilities. In doing so, the partnerships assist institutional agencies comply with the state's CEESP and specific mandates enforced by the Governor. Additionally, the partnerships enable the institutional agencies to learn about and utilize innovative

programs. They help the partners integrate efficiency into their overall plan and budget. By their very nature the partnerships facilitate collaboration between utilities, institutional agencies, and technical experts.

The cooperative nature of the partnerships, as well as the enhanced awareness they place on energy efficiency, has enabled many large projects at institutional facilities to be implemented that otherwise would have failed had they not been championed by partnership teams. In prior years, many partnerships achieved several million kWh of savings that might have otherwise been lost or installed with less-efficient equipment resulting in lower savings achieved. Institutional partnerships help to provide a streamlined and comprehensive approach to the customer, eliminating competition and confusion between IOU offerings.

Institutional Partnerships have evolved over the years to not only deliver energy savings but to include well established management teams. These management teams are comprised of IOU staff and representatives from institutional partners for each statewide partnership. The primary focus of the management teams is to present a consolidated approach to project management. The management team also assists the partner in identifying facilities that can be thoroughly audited; utilizing a comprehensive building approach to maximize the energy efficient potential. The management team reviews potential projects and develops working documents to illustrate payback and return on investments. This approach allows for projects to be prioritized and evaluated for potential implementation.

In addition, the partnerships have demonstrated that the three pillars of the Strategic Plan—Innovation, Integration, and Collaboration—are indeed the key to achieving the next generation of cost-effective, energy efficiency programs and the resulting reduction in greenhouse gas (GHG) emissions. Institutional partnerships capitalize on the vast opportunities for efficiency improvements and utilize the resources and expertise of IOU staff to ensure successful and cost-effective programs that meets all objectives of the California Public Utilities Commission (CPUC or Commission).

With the rising costs of energy and the current economic situation, partnerships will be vital in helping to offset project costs for customers and allowing continued advancement in the area of energy efficiency. Each Statewide program has developed strategies to allow for new opportunities as partnerships are forged and projects are implemented.

The four sub-programs proposed are listed and described below. Individual Program Implementation Plans (PIPs) for each are provided later in the document

Program Elements for Institutional Partnerships

The adoption and coordination of the 3 core elements (Institutional Facilities, Strategic Plan and Core Program Coordination) are represented below and have been agreed upon through discussions with IOUs and CPUC. Below is a list of core and sub-program elements that will be pursued by all partnerships. Elements that are unique to a single or a few partnerships will be described separately in sub-program PIPs.

Core Program Elements	Sub-Program Elements	Type of Program Element
1 – Government and Institutional Facilities	Energy Efficiency Retrofits	Resource
	Retro-Commissioning (RCx) & Monitoring Based Commissioning (MBCx)	Resource
	Demand Response New Construction	Demand Response Resource
	Program Administrative Management and Engineering Support	Non-Resource (technical assistance for project management, training, audits, etc.)
	On-Bill Financing	Non-Resource
2 – Strategic Plan Support	Code Compliance Support	Non-Resource
	Reach Code Support	Non-Resource
	Guiding Document(s) Support	Non-Resource
	Funding Sources	Non-Resource
	Peer-to-Peer Support	Non-Resource
3 – Core Program Coordination	Outreach & Education	Non-Resource
	New Construction and Demand Response	Resource – Demand Response
	Third Party Program Coordination	Non-Resource
	Emerging Technologies	Non-Resource
	Technical assistance for program management, training, audits, etc.	Non-Resource

Energy Efficiency Retrofits

This energy efficiency element could include: 1) lighting retrofit projects such as complete internal and external lighting retrofits (T5 technology, LED applications, newer 28 watt T8's, and in some cases replacing magnetic ballasts and T12 lamps), building-wide lighting controls, and boiler replacements, 2) Replacement of motors, variable frequency drives, energy management system upgrades, and HVAC upgrades/replacements including; chiller replacements and central plant upgrades. The partnerships will investigate opportunities to include energy efficiency measures in all major new construction and renovation projects, special repair projects, and standard scheduled maintenance operations.
To reduce peak demand and create energy savings in the existing facilities of the institutional partners, the partnerships will work with the facilities staff of the various customers to identify facilities and develop a pool of retrofit projects for implementation. Partnerships will also utilize benchmarking to identify retrofit candidates. The scope of the projects will be contingent on the availability of funds; however, the partnerships will work to ensure that projects are lined up in the event that additional funding is secured. Note: Benchmarking will be done consistent with Commission direction.

Each of the partnerships will have methodologies for identifying projects that work within their respective organizational structures. The identification strategy will involve the partnership teams preparing lists of potential projects matching the institutional customers with available budgets and existing modernization plans. Identification of potential sites includes utilities providing lists of service

accounts with their annual consumption and peak demand values and consultants visiting probable sites to evaluate the efficiency upgrade potential of those sites. SDG&E will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

In some cases and where applicable, institutional partners will use of the U.S. Department of Energy's Portfolio Manager to identify eligible candidates for energy efficiency projects. High-scoring buildings (above 75) typically meet the requirements of Executive Order S-20-04 in their optimization of energy use. Lower-scoring buildings are identified as candidates for potential energy efficiency programs. This process allows the IOUs and the institutional partners to make the best cost-effective choice in installing energy efficient measures.

Retro-Commissioning and Monitoring-Based Commissioning

Each partnership will work to implement retro-commissioning (RCx) and/or monitoring-based commissioning (MCBx) projects. Some partnerships have already implemented such programs in some of their facilities, and they will continue to expand the number of facilities benefiting from these services. Others will work to implement them for the first time in a smaller number of facilities.

The RCx and MBCx projects will serve as opportunities to demonstrate a cost-effective approach to optimizing facility operations, saving both electric and gas energy, reducing operating costs while improving occupancy comfort, and improving environmental quality and reducing greenhouse gas emissions. The outcome of the projects will serve as an example to other internal departments within each customer organization, to other government agencies, and to private sector entities to encourage them to retro-commission their facilities.

Activities for this element may include but are not limited to the following:

Selecting candidate buildings for RCx or MBCx based on results of benchmarking efforts or participation in the SDG&E retro-commissioning program.

Developing RCx/MBCx plans for each candidate building.

Investigating opportunities through technical assessments of major building systems (lighting, HVAC, etc.).

Conducting pre-functional tests of building systems.

Identifying and correcting minor no-cost/low-cost deficiencies as well as capital improvement measures for future planning that may further improve system operation.

Utilizing modeling/simulation software to model building operation and determine scenarios for optimum performance.

Conducting functional performance tests to ensure proper operation of the optimized systems.

Developing training manuals and monitoring capabilities (if applicable) to ensure persistence of energy savings.

Developing plans to comply with the governor's executive order and/or local government directives for future benchmarking and RCx activities.

New Construction and Design Assistance

The partnerships will strive to achieve energy efficiency within all new buildings constructed by the partner institutions. Although the partner institutions have overarching directives that strive for laudable energy efficiency goals, these goals are not always implemented in practice. Budget and other constraints, as well as lack of concern, awareness, or knowledge, inhibit the realization of these goals in many new construction projects.

The ability of the partnership management teams to even be aware of all new construction projects varies significantly between the partnerships. The ability of the partnerships, or even the institutional representatives on the partnership teams, to actually control the implementation of energy efficiency in these new construction projects is even more limited. Therefore, education about energy efficiency and increasing both awareness of and concern about the subject among key decision-makers is a vital role of the partnerships, both for retrofits and new construction. The success of the partnerships in reaching all (or most) of the new construction projects is dependent upon their ability to bring various agencies, departments, and managers together under the energy efficiency umbrella.

For new construction projects, the partnerships' initial goal is be to become aware of the various ongoing and planned projects within their institutions. This will be an easier task for the more centralized partners and more difficult for partners with distributed control.

Once the partnership teams are aware of new construction projects, they will work with the key decision makers to make sure they are on board with the importance of energy efficiency. The partnerships will also work closely with the utilities' Commercial New Construction Programs to provide assistance to the design teams for the new facilities. Because new construction energy efficiency is more effective when brought on board in the early design stages, the partnerships will strive to be pro-active in this manner, reaching out to newly planned projects as soon as they become known.

Funding Sources

Federal grants, state financing, local bonds, IOU incentives, O&M budgets, and on-bill financing are potential funding sources. The partnership team and participating institutional partners may explore additional financing alternatives

such as rebates, on-bill credit, CEC funding, and independent financing to maximize the state's investment in energy efficiency.

Often the strengths of the customer organizations are leveraged in order to provide various in-kind contributions that benefit the entire program. These contributions include but are not limited to project management, facility personnel, marketing, site location venues and administrative time.

On-Bill Financing

On-Bill Financing offering will provide zero to low interest financing for qualifying energy efficiency installations of lighting, refrigeration, and air conditioning measures for SDG&E's Market Segments, such as the Commercial and Industrial Market Segments and for government and institutional partnership programs.

Option Features

Interest-free, unsecured loans

Institutional customers[2]: Loans offered per meter from $5,000-$1,000,000, with a maximum loan term of ten years or useful life of measure(s) (whichever is shorter)

Monthly payment on a term loan is billed on the participating customer's utility bill.

No penalty for early repayment

Eligible Customers:

Must be in good credit standing as determined by the Utility

The length of the loan will also be capped at the length of measure life.

Maximum amount for government and institutions may vary by partnership and customer segments and will be subject to further research.

Many of the government and institutions are unable to incorporate energy efficiency designs or retrofits due to the lack of capital funds and complex procurement and funding procedures after the initial budget has been approved. The OBF element can be an effective tool that will increase participation and minimize lost opportunities

Demand Response

Demand response programs provide tariff-based benefits to customers implementing demand response activities. For demand response initiatives involving the purchase and installation of equipment by SDG&E business customers, a plan will be developed to provide a financial incentive for energy savings resulting from the equipment supplied through the partnership program.

[2] Tax-payer funded government institutions such as counties, cities, etc.

Partnerships will look for opportunities to integrate demand response and other DSM services into the program implementation plan. Resources will be leveraged to improve implementation efficiency and reduce transactional impacts on partnership staff. IOU energy efficiency and demand response program staff will collaborate with partners to conduct comprehensive audits and identify energy efficiency measures and demand response opportunities. The approach will reduce technical resources by combining EE/DR audits to avoid duplication and collaborate on incentive offerings which will all minimize customer interruptions.

The partners will venture to identify facilities or an aggregation of facilities under a service account in order to establish opportunities for demand response participation.

Statewide Programs	Description	Sources of Funding & Assistance
California Dept. of Corrections and Rehabilitation Partnership	The CDCR/IOU partnership is a customized statewide energy efficiency partnership program that accomplishes immediate, long-term peak energy demand savings and establishes a permanent framework for sustainable, long-term comprehensive energy management programs at CDCR institutions served by California's four large IOU's.	Federal grants (specifically for new construction and modernization), state financing, IOU incentives and on-bill financing opportunities in accordance with CEESP objectives.
State of California Partnership	State of California/Investor-Owned Utilities (IOU) are collaborating to assist the state's 36 agencies to reduce the amount of energy they purchase by 20 percent by 2015, as required by the governor's Executive Order S-20-04 (i.e. Green Building Initiative (GBI)). Like all Executive Orders, the GBI is an unfunded mandate that requires State agencies to support the governor's environmental agenda.	Federal grants (potential), state financing, IOU incentives, comprehensive technical assistance and on-bill financing opportunities in accordance with CEESP objectives.
UC/CSU/IOU Partnership	The University of California, California State University (UC/CSU), Southern California Edison (SCE) and the IOUs are collaborating to continue the this Partnership to share energy efficiency best practices and implement energy efficiency projects for immediate and long-term energy savings and peak demand reduction.	State financing, local bonds, IOU incentives, comprehensive technical assistance and on-bill financing opportunities in accordance with CEESP objectives.
California Community Colleges Partnership	The CCC/IOU Energy Efficiency Partnership has been a successful collaboration between the California Community Colleges (CCC) and the four Investor-Owned Utilities (IOUs). The CCC is a two-year public institution of higher education that is composed of 109 colleges statewide and organized into 72 self-governing Districts.	Federal grants, state financing, local bonds, IOU incentives, comprehensive technical assistance and on-bill financing opportunities in accordance with CEESP objectives.

University of San Diego (USD) Partnership	The University of San Diego Partnership is a continuation of the existing, successful program since the 2010-2010 program cycle. The 2013-2014 transition period will build on the lessons learned and will continue to focus on identifying energy efficiency and commissioning activities, campus and community outreach, education and training, and reducing the campus footprint by	Grants, state financing, bonds, IOU incentives and on-bill financing opportunities in accordance with CEESP objectives.
San Diego County Water Authority (SDCWA) Partnership	The San Diego County Water Authority Partnership allows for the maximizing of energy efficiency in existing construction through Water Authority member agency retrofits, rapidly upgrading and expanding energy efficiency training and information through education and outreach, and offering financial incentives for adopting energy efficiency measures.	Grants, state financing, IOU incentives, comprehensive technical assistance and on-bill financing opportunities in accordance with CEESP objectives when applicable.

a) List measures (technologies and corresponding incentive levels) to be provided in program and as used to develop the program's measure groupings described in Appendix A. May be included as an appendix to this PIP.

The energy efficiency measures identified by all partnerships include both electric and gas measures.

Measure Categories	Technologies
Lighting	Includes indoor and outdoor fluorescent, HID, LED replacements, lighting controls, and other lighting projects.
Controls and other Equipment	Includes fans, motors, VFDs, air compressors, EMS systems and other equipment not covered under the lighting or HVAC categories.
Air Conditioning and Refrigeration	Air conditioning and refrigeration- Includes system and major subsystem replacements such as central plants, chiller/boiler retrofits, whole building, and any other energy efficiency components in major infrastructure projects;
Other	New Construction, RCx, MBCx

All program delivery mechanisms such as third parties and other innovative delivery techniques are provided at designated program incentive rates.

Incentives will be paid on projects based on a cents per kWh saved. These rates are an average of $ .24/kwh saved (for UC/CSU/CCC/CDCR), except for the State of California Program which is based on a tiered structure, and will be detailed in the sub program for the specific partnership. Incentives are paid by the utility to the agency upon completion of the project. They are based upon the agreed- upon energy savings determined as part of the project evaluation, subject to changes made during the project's implementation. All gas savings will be at $1.00 per therm.

Incentive levels are referenced for each specific partnership in Sub-Program PIP I, II, III, IV, Section 6, iii.

b) List non-incentive customer services

The Institutional and Government Partnerships may include non-energy activities such as presentations at industry and association events, attendance at conferences, meetings, and community/outreach fairs. Distribution of marketing materials will be included at each event. Additional services include:

- Quality Assurance and Evaluation
- Training and education
- Design assistance
- Due diligence / project review
- Strategic Plan Support
- Core Program Coordination
- Funding Sources
- Program Administration and Management Support
- Support of State Assembly Bills, Senate Bills, and Executive Orders

1) Program Rationale and Expected Outcome[3]

SDG&E and the other IOUs face the challenge of implementing cost effective energy efficiency programs that will result in immediate, long-term peak energy and demand savings in their service territories. The institutional partnerships consume vast quantities of energy and make up a significant portion of the both the electric and natural gas load in the State of California. These entities are large, complex organizations with a broad set of goals, stakeholders, processes and constituencies. They are diverse from a geographic, climate, and operational needs standpoint. But with this size and diversity also comes a considerable opportunity to save energy use and cost on a scale that is meaningful to the IOUs and to California. Institutional partners also frequently struggle to fund and implement energy efficiency activities because of budgetary and resource issues. The Institutional Energy Efficiency Partnership Program is designed to meet these challenges.

Partnerships help provide a streamlined approach to institutional customers. Each utility dedicates a specific management team to support a portfolio approach, provide additional resources, and introduce innovative ideas to meeting the dynamics of institutional customers. Utility incentives and funding mechanisms help make energy efficient projects more cost effective and viable for institutional customers during the current economic times.

The expected outcomes for the 2013 - 2014 partnership programs include:

Lead and coordinate all energy efficiency, demand response, and solar initiatives by being the main point of contact for DSM offerings coordinating all projects, including Energy Efficiency (EE), Demand Response (DR), California Solar Initiative (CSI), Self-Generation Incentive (SGIP) Programs as applicable to the partner.

Leverage Partners' communications and outreach infrastructure to reach customers and/or internal departments more effectively,

Provide co-marketing and technical support services dependent upon the customer's specific needs,

Serve a key and growing role in creating and maintaining goodwill between the utilities and public sector customers. Institutional Partnerships build strong relationships statewide with the other IOUs and statewide customers, as well as with cities and counties.

Continue to successfully develop new partnerships enhanced by the following improvements:

- Direct a stronger focus on helping partners lead by example through addressing energy efficiency opportunities in their own facilities. Specifically, the partnerships will provide (1) technical assistance in identifying energy efficiency retrofit and retro-commissioning (RCx) projects, (2) financial assistance to help overcome barriers to implementation of these projects, and (3) combination EE/DR audits.
- The partnership will seek opportunities to facilitate enhanced compliance with codes and standards. (AB 32, LEED, Exceeding Title 24 standards, etc.)

Help to integrate the offering of demand-side management (DSM) programs and design strategies that will assist with the California Energy Efficiency Strategic Plan (CEESP).

- Energy efficiency and demand response audits will be integrated and the partnership management team will actively coordinate all DSM services. SDG&E will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.
- Simplify and standardize state policies and codes guiding local building design and zoning codes.
- Building the capability to lead by example in energy-related technologies
- Maximize energy efficiency in new and existing construction and/or statewide policy
- Rapidly upgrade and expand energy efficiency training and information for energy managers and maintenance personnel.

Align energy efficiency program opportunities closely with Green Rating opportunities, and increase program participation by ensuring that green rating systems reflect or parallel program offerings.

[3] To be provided for each program and sub-program in PIP.

Expected Outcomes

The partnerships will deliver energy savings and peak demand reduction in the facilities of the partner customers and other government agencies. These energy savings will be accomplished by evaluating the energy efficiency potential of existing buildings and then implementing retrofits and/or retro commissioning in some of those buildings. Additional savings will be achieved by working in the early stages of new construction projects to assure the most energy-efficient design acceptable to the customer (and to increase the desire to make highly energy-efficient designs –acceptable‖).

Other program results will include:

Showing that, with upper management support for energy efficiency, the customers can create opportunities to save energy, reduce operating costs, and improve occupancy comfort.

Demonstrating that the partnership programs can be extremely cost-effective in the implementation of energy projects by supplementing the customers' project funding with incentives offered by the utilities.

Evaluating the value of energy efficiency activities and the benefits associated with retro-commissioning.

Exhibiting the potential for future public/private partnership efforts.

Conducting a comprehensive survey of the potential for energy projects at customer facilities, identifying the best candidates for retro-commissioning or retrofitting, and constructing a long-term plan for the implementation of these projects. These energy project plans will be important to ensure that the customers continue to plan and implement energy efficiency projects beyond the term of the partnership so that the reduction in energy consumption occurs by the 2015 deadline.

Developing opportunities for various government agencies to share best practices and lessons learned from partnership activities, especially in the areas of benchmarking, energy efficiency, retrofits, retro-commissioning, and emerging technology.

Increasing awareness of energy efficiency among elected leaders, agency managers, operating staff, and the general public.

Publicizing the benefits of utility incentive programs within various government agencies.

Providing specific information to the constituents of the institutional partners regarding the partners' achievements in energy efficiency as well as environmental improvements such as reducing greenhouse gases.

Provide new and innovative ways to fund and implement energy efficient projects.

1 Quantitative Baseline and Market Transformation Information

Market Transformation (MT) metrics proposed in Tables 3 and 4 are preliminary. The proposed metrics are meant to initiate a collaborative effort to elaborate meaningful metrics that will provide overall indicators of how markets as a whole are evolving. MT metrics should neither be used for short-term analyses nor for specific program analyses; rather, should focus on broad market segments.

Market transformation is embraced as an ideal end state resulting from the collective efforts of the energy efficiency field, but differing understandings of both the MT process and the successful end state have not yet converged. The CPUC defines the end state of MT as "Long-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where further publicly-funded intervention is no longer appropriate in that specific market."[4] The Strategic Plan recognizes that process of transformation is harder to define than its end state, and that new programs are needed to support the continuous transformation of markets around successive generations of new technologies[5].

Market transformation programs differ from resource acquisition programs on 1) objectives, 2) geographical and 3) temporal dimensions, 4) baselines, 5) performance metrics, 6) program delivery mechanisms, 7) target populations, 8) attribution of causal relationships, and 9) market structures[6]. Markets are social institutions[7], and transformation requires the coordinated effort of many stakeholders at the national level, directed to not immediate energy savings but rather to intermediary steps such as changing behavior, attitudes, and market supply chains[8] as well as changes to codes and standards. Resource acquisition programs rely upon the use of financial incentives, but concerns have been raised that these incentives distort true market price signals and may directly counter market transformation progress[9]. According to York[10], "Market transformation is not likely to be achieved without significant, permanent increases in energy prices. From an economic perspective, there are 3 ways to achieve market transformation: (1) fundamental changes in behavior, (2) provide proper price signals, and (3) permanent subsidy."

[4] California Public Utilities Commission Decision, D.98-04-063, Appendix A.
[5] California Public Utilities Commission (2008) *California Long Term Energy Efficiency Strategic Plan,* p. 5. Available at http://www.californiaenergyefficiency.com/docs/EEStrategicPlan.pdf
[6] Peloza, J., and York, D. (1999). "Market Transformation: A Guide for Program Developers." Energy Center of Wisconsin. Available at: http://www.ecw.org/ecwresults/189-1.pdf
[7] Blumstein, C., Goldstone, S., & Lutzenhiser, L. (2001) "From technology transfer to market transformation". Proceedings of the European Council for an Energy Efficient Economy Summer Study. Available at http://www.eceee.org/conference_proceedings/eceee/2001/Panel_2/p2_7/Paper/
[8] Sebold, F. D., Fields, A., Skumatz, L., Feldman, S., Goldberg, M., Keating, K., Peters, J. (2001) *A Framework for Planning and Assessing Publicly Funded Energy Efficiency*. p. 6-4. Available at www.calmac.org.
[9] Gibbs, M., and Townsend, J. (2000). The Role of Rebates in Market Transformation: Friend or Foe. In *Proceedings from 2000 Summer Study on Energy Efficiency in Buildings.*
[10] York, D., (1999). "A Discussion and Critique of Market Transformation", Energy Center of Wisconsin. Available at http://www.ecw.org/ecwresults/186-1.pdf.

The question of what constitutes successful transformation is controversial because of a Catch-22: Market transformation is deemed successful when the changed market is self-sustaining, but that determination cannot be made until after program interventions are ended. Often, however, the need for immediate energy and demand savings or immediate carbon-emissions reductions will mean that program interventions may need to continue, which would interfere with the evaluation of whether MT is self-sustaining. Market transformation success has also been defined in terms of higher sales of efficient measures than would have otherwise occurred against a baseline absent of program interventions. The real world, however, provides no such control condition. Evaluators must estimate these baselines from quantitative factors such as past market sales that may be sparse and/or inaccurate - particularly for new products. Evaluations must also defer to expert judgments on what these baselines may have been as well as on the degree of successful market transformation[11]. Due to the subjective nature of these judgments, it is imperative that baselines as well as milestone MT targets be determined and agreed upon through collaborative discussion by all stakeholders, and these targets may need periodic revision as deemed necessary by changing context.

Market transformation draws heavily upon diffusion of innovation theory[12], with the state of a market usually characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades[13]. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects[14]. The ability to make causal connections between these market transformation effects and any particular program's activities fades with time, as markets continually change and other influences come into play.

These challenges mentioned above are in reference to programs that were specifically designed to achieve market transformation; and these challenges are only compounded for programs that were primarily designed to achieve energy and demand savings. However, since the inception of market transformation programs almost two decades ago, many lessons have been learned about what the characteristics of successful MT programs are. First and foremost, they need to be designed specifically to address market transformation. "The main reason that (most) programs do not accomplish lasting market effects is because they are not designed specifically to address this goal (often because of regulatory policy directions given to program designers.)"[15] The Strategic Plan recognizes that regulatory policies are not yet in place to support the success of market transformation efforts[16], but also reflects the CPUC's directive to design energy efficiency programs that can lay the groundwork for either market transformation success or for codes and standards changes.

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[11] Nadel, S., Thorne, J., Sachs, H., Prindle, B., and Elliot, R.N. (2003). "Market Transformation: Substantial Progress from a Decade of Work." American Council for an Energy-Efficient Economy, Report Number A036. Available at: http://www.aceee.org/pubs/a036full.pdf

[12] Rogers (1995) Diffusion of Innovations, 5th Ed.

[13] Example in bottom chart of this graphic from NYTimes: http://www.nytimes.com/imagepages/2008/02/10/opinion/10op.graphic.ready.html

[14] Sebold et al (2001) p. 6-5,

[15] Peters, J.S., Mast,B., Ignelzi, P., Megdal, L.M. (1998). *Market Effects Summary Study Final Report: Volume 1."* Available at http://calmac.org/publications/19981215CAD0001ME.PDF.

[16] CPUC (2008) Strategic Plan, p. 5.

Above all else, the hallmark of a successful market transformation program is in the coordination of efforts across many stakeholders. The most successful MT programs have involved multiple organizations, providing overlapping market interventions[17]. The Strategic Plan calls for coordination and collaboration throughout, and in that spirit the utilities look forward to working with the CPUC and all stakeholders to help achieve market transformation while meeting all the immediate energy, demand, and environmental needs. Drawing upon lessons learned from past MT efforts, the Energy Center of Wisconsin's guide for MT program developers[18] suggests that the first step is not to set end-point definitions, progress metrics or goals. Rather, the first steps include forming a collaborative of key participants. As the Strategic Plan suggests, these may include municipal utilities, local governments, industry and business leaders, and consumers. Then, with the collective expertise of the collaborative, we can define markets, characterize markets, measure baselines with better access to historical data, and define objectives, design strategies and tactics, implement and then evaluate programs. The collaborative will also provide insights that will set our collective expectations for the size of market effects we can expect, relative to the amount of resources we can devote to MT. No one organization in the collaborative will have all the requisite information and expertise for this huge effort. This truly needs to be a collaborative approach from the start.

The metrics and baselines described below in Tables 3 and 4 are presented for the purposes of starting the much-needed discussion between all key participants. These are suggestions, intended to allow key participants to pilot-test processes for establishing baseline metrics, tracking market transformation progress, and for refining evaluation tools. Early trial of these evaluation metrics will reveal any gaps in data tracking so that we may refine our processes before full-scale market transformation evaluations take place.

The set of metrics we selected is intentionally a small set, for several reasons. First, as mentioned, the full set of metrics and baselines need to be selected by key participants. Second, we anticipate that market share data for many mid- and low-impact measures will be too sparse to show MT effects and not cost-effective to analyze. Third, we selected core measures and metrics that would both be indicative of overall portfolio efforts. These measures are also likely to be offered on a broad level by other utilities, providing a greater base of sales and customer data that could be analyzed for far-reaching MT effects.

Therefore, for the Institutional Partnerships, the utilities recommend development of a baseline, and tracking the number of cities, counties and government institutions that have plans for written energy efficiency provisions. Such a metric relates directly to the Strategic Plan (Goal 12.3.4) in terms of measuring progress towards 50% plans for sustainability.

[17] Nadel, Thorne, Saches, Prindle & Elliot (2003).
[18] Peloza & York, (1999).

With this discussion in mind, IOUs propose the following metrics for this sector:

Table 3

	Baseline Metric
	Metric A
Energy Efficiency Action Plans	Baseline inventory of cities, counties and government institutions within the IOU territory that have adopted such energy planning documents as Energy Action Plans, Climate Action Plans and Sustainability Plans, and General Plans with energy or climate elements.

2) Market Transformation Information

As stated above, market transformation draws heavily upon diffusion of innovation theory, with the state of a market characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects. Therefore it is problematic, if not impractical, to offer internal annual milestones towards market transformation sectors and specific program activities.

As a consequence, it is not appropriate to offer more than broad and general projections. Any targets provided in the following table are nothing more than best guesstimates, and are subject to the effects of many factors and market forces outside the control of program implementers.

Table 4

Market Sector and Segment	2013	2014
Baseline inventory of cities, counties and government institutions within the IOU territory that have adopted such energy planning documents as Energy Action Plans, Climate Action Plans and Sustainability Plans, and General Plans with energy or climate elements.	Improvement over baseline, over time	Improvement over baseline, over time

1) Program Design to Overcome Barriers: Describe priority barriers that the program will overcome and how program is designed -- through marketing, delivery mechanisms, incentive levels, or other means -- to overcome these barriers.

The existing partnerships have worked diligently to overcome barriers, though many still exist. The effort to resolve barriers is on-going, and significant progress has been made in each of the various partner customers. At the heart of the evolving success are the partnership teams made up of customer staff, utility staff, and consulting professionals. These teams enable the partnerships to overcome these barriers through a number of important and innovative mechanisms. The chart below outlines overarching barriers applicable to all partnerships. Specific barriers will be discussed in each sub-program PIPs below.

Primary Barriers	**Strategies to Overcome Barriers**
Funding: Project Funding Constraints. Energy efficiency is costly and budgets are limited. The decision-makers approving the details of a project often choose not to implement the high-costing more-efficient systems, equipment, or technologies.	Incentives help relieve budgetary constraints and assist the economic evaluations of the customers by making energy efficiency more cost-effective. In addition to their purely economic role, the incentives play an important part in promoting the importance and visibility of energy efficiency.
The Energy $Mart Loan Program: This State program has taken a hit with the current economy and currently only carries one preferred lender.	The Energy $Mart Loan program has been created to finance energy projects through the Department of General Services. CEC loans may be able to fulfill the gap in funding.
The IOUs On-Bill Financing: Not all utility OBF programs are ready for implementation.	The IOUs On-Bill Financing Programs are either being implemented or developed as a way of financing smaller retrofit and modernization upgrades
Internal Policy for Incentives: Incentive dollars are most often allocated to the general fund which makes for an inability to ensure incentives	Internal Policy for Incentives Assist customer with identifying ways of authorizing funding departments to recapture dollars received from incentives to

Primary Barriers	Strategies to Overcome Barriers
are allocated toward the participating department budget.	reinvest in future energy projects.
Knowledge Barrier. Economic decisions are often short-sighted, with capital limitations taking precedence over long-term savings, even when accurate economic analysis would select the higher initial cost of higher-efficiency choices.	Education and training brings energy efficiency awareness to decision-makers at all levels. Many of the partnerships have specific plans to incorporate education and training for a variety of people including elected officials, key department managers, facilities staff, personnel from other local governments (such as cities and school districts within the counties), and, in the case of the college partnerships, training within the general population.
Technology itself is rapidly developing, and even the best-informed energy professionals have difficulty distinguishing between sales propaganda and truly valid technical advancements.	Integration allows the partnership management team to be the single source of contact that enables the institutional customers to take advantage of all energy programs offered by the IOUs. This integration will break down many customer barriers to participation in multiple programs. Integration is innovatively being collaborated with internal utility departments in order to fulfill this strategy. Future strategic plans are being developed to include new construction, emerging technologies, education and training, demand response, California Solar Initiative (CSI), self-generation, on-bill financing, and other utility programs within the scope of partnership activities.
Staffing. Staff time is at a premium, with most facility personnel. Attention to proper energy efficiency is time consuming and may get shelved as staff members work on more immediate problems.	Professional assistance from utility staff and partnership consultants allows potential projects to be identified and evaluated. Many institutional and government customers do not have the time to methodically evaluate their buildings and identify the most salient energy efficiency projects. Furthermore, facility personnel often lack the technical expertise to evaluate those projects and determine the best energy efficiency improvements. The partnership team is able to prepare comprehensive lists of projects, evaluate their energy savings potential, and bring them to the team for review. The customer can then use this information to accelerate the timing of some projects, modify the scope of others, and rely on strategic energy planning, rather than simple maintenance schedules, for energy efficiency enhancements.
Information Dissemination: Some of the agencies lack the technical expertise to develop or manage projects.	The management team is currently developing an information tool for some agencies that will help reveal the savings potential of implementing energy efficiency measures in like size facilities. This is meant to appeal to the facilities managers or decision makers and allow the IOU to perform detailed energy audits that eventually lends itself to a project proposal.

We anticipate that each of the partnerships will continue to work through the various obstacles that inhibit the full implementation of energy efficiency within their customer institutions. This is a gradual and evolving process, and some of the partnerships have more significant barriers than others. Nonetheless, the partnership model is effective for all of them and leads to considerable energy savings and demand reduction, both in new construction and in existing buildings. For many of the institutional customers, budget requirements are becoming even tighter. The continuation of the partnerships will help assure that barriers do not become even more significant as budgets are reduced. Institutional Partnerships are designed to overcome barriers to participation and are designed to eliminate these barriers through:

Customer Contributions

Often the strengths of the customer organizations are leveraged in order to provide various in-kind contributions that benefit the entire program. These contributions include but are not limited to project management, facility personnel, marketing, site location venues and administrative time.

The customer-partners provide major support to the partnerships and the energy-efficiency projects sponsored by the partnerships. The equipment and installation of the retrofit, new construction, and RCx/MBCx projects is paid for by the customers. The projects are managed by them or by a project manager paid for by customer funds.

Key personnel from the institutional partners also attend the routine partnership team meetings and provide additional work directing overall partnership activities and managing various energy efficiency projects. In some cases these are full-time positions paid for by the customer. Customer managers and various facilities and technical staff also provide assistance on an as-needed basis to the utility staff and/or partnership consultants for their various duties. This assistance includes such things as researching and locating building plans and providing access for and assisting with site surveys and monitoring activities.

New Partnership Program Startups

As the awareness and success of the institutional partnerships grow, more government agencies may wish to form partnerships. We propose reserving an extra budget for these partnerships should they materialize during the course of the two-year transition cycle.

In order to create a new partnership, the government agency would develop an abstract similar to those used in the initial program planning for this transition cycle. This would be submitted to the partnership program manager, either directly or through the customer's account executive. The program managers would then review the abstract and ascertain its viability and cost-effectiveness, as well as the availability of remaining funds. If the proposed partnership appears viable and there are sufficient funds remaining, the program manager will work with the potential partner to develop a program implementation plan.

Should additional partnerships not be created, the reserve funds could be used for additional projects within the existing partnerships based upon the utilities determination of need and optimal cost-effectiveness.

Single Point of Contact

The partner customer would like a single point contact for energy programs that can help them make the most logical, effective energy decisions, and not have to sort out competing IOU offerings. The partnerships have taken a proactive approach to the integration of program communication. One strategy is to assemble a package of offerings that covers all the energy bases and is not just confined to the direct offerings from the partnership. These offering packages are presented one-on-one by the partnership team to various other personnel within the institution. The partnership teams are committed to using the most appropriate programs and will make sure that the right people for each IOU program are brought in at the right time for their implementation.

2) *Quantitative Program Targets: Provide estimated quantitative information on number of projects, companies, non-incentive customer services and/or incentives that program aims to deliver and/or complete in 2013 - 2014 timeframe. Provide references where available.*

Program Name	Program Target by 2013	Program Target by 2014
EE/DR Audits	Ensure 100% of all audits are coordinated EE/DR efforts if applicable	Ensure 100% of all audits are coordinated EE/DR efforts if applicable
Lighting and HVAC Retrofits	Identify potential for Retrofits	Identify potential for Retrofits
RCx and MBCx	Benchmark facilities to determine potential	Benchmark facilities to determine potential
New Construction	Communicate Integration Strategy between internal departments and offerings and incentive structure.	Develop project agreement plan to ensure penetration of all existing and future potential projects.
Education and Outreach	TBD # of Partner Presentations	TBD # of Partner Presentations
Financial Solutions Program: On-Bill Financing Element	Development documentation package and project agreement for partners.	Determine which partners will use OBF, establish a model for how OBF can be used with Institutional and Government customers.
CSI	Establish communication plan for ensuring partners have been educated regarding solar potential	Develop project agreement plan and determine necessary stakeholders.

Table 5:[e.g. Target #1: 20,000 refrigerators recycled by 2011; or Partnerships with 5 of the 10 top homebuilders by 2010]

3) *Advancing Strategic Plan goals and objectives: Describe how program aggressively advances the goals, strategies and objectives of the California Long Term Energy Efficiency Strategic Plan. Reference and describe how program advances specific 2013 - 2014 near term action steps toward Strategies outlined in plan.*

The California Long-Term Energy Efficiency Strategic Plan (Strategic Plan) sets forth a statewide roadmap to maximized achievement of cost–effective energy efficiency in California's electricity and natural gas sectors between 2009 and 2020, and beyond. Institutional and Government partnerships are a natural fit with the goals, objectives, and strategies articulated in the California Long Term Energy Efficiency Strategic Plan (Strategic Plan). The partnerships have demonstrated that three objectives —Innovation, Integration, and Collaboration—are indeed the key to achieving the next generation of cost-effective, energy efficiency programs and the resulting reduction in greenhouse gas (GHG) emissions by applying both Commercial and Local Government sector strategies to the Statewide IOU partnerships as follows:

Commercial Sector – Section 2	
2-1: Lead by Example: State/local governments and major corporations commit to achieve energy efficiency, EE, (or green) targets in existing buildings.	Where the budget allows, customer owned buildings are benchmarked and retro-commissioned.
2-5: Develop tools and strategies to use information and behavioral strategies, commissioning, and training to reduce energy consumption in commercial buildings	Implement monitor based commissioning and provide training for energy managers to continuously monitor and optimize building operational performance.
2-6: Develop effective financial tools for EE improvement to existing buildings.	Develop financial solutions that are compatible with the state legal requirements. Exploring avenues that may work around lease terms to address perceived tenant/owner "split incentives" issue.
2-8: Improve utilization of plug load technologies within the commercial sector.	Leverage PC network software and vending machine controls to reduce commercial building plug loads.
Commercial Sector – Section 3	
3-1: Drive continual advances in lighting technology through research programs and design competitions.	Work with PIER to pilot lighting products on state-owned facilities where available.
3-2: Create demand for improved lighting products through demonstration projects, marketing efforts, and utility programs.	Piloting emerging technologies in lighting collaboration with building owners.
DSM Integration and Coordination - Section 8	
1-1: Carry out integrated marketing of DSM opportunities across all customer classes.	Integrate demand-side management programs (Distributed Generation, California Solar Initiative and Demand Response) in order to limit lost opportunities.

2) Program Implementation[19]

a. Statewide IOU Coordination: Describe statewide IOU coordination efforts that will guide program implementation. Describe how the following will be coordinated and unified when available:

i) Program name

Statewide Institutional Energy Efficiency Partnerships – (CDCR, State of CA, UC/CSU, CCC); Local Government Partnerships – University of San Diego, San Diego County Water Authority

ii) Program delivery mechanisms

The partnerships will build upon the implementation strategies used in the 06-08 cycle. Mechanisms include:

CORE / Target Market coordination
Third Party Coordination
Direct Install coordination with new and existing implementers
Non-Residential Retrofit (NRR)
Coordination with Non-residential New Construction (NRNC)

The implementation plan for this cycle will be refined to account for progress already made and will include:

A more streamlined program management structure.

Coordination with other energy efficiency programs and ongoing statewide and local government partnerships.

Energy efficiency retrofits program element implementation (including project selection and implementation).

[19] To be provided for each program and sub-program in PIP.

Monitoring-based commissioning (MBCx) and MBCx Express implementation.

Energy efficiency education and best practices development and training implementation.

Integration with portfolio of products & services (e.g. California Solar Initiative, Savings By Design, new construction and demand response activities) into a partnership that enables easier customer access and streamlined IOU management of programs

Third Party Program Coordination

Partnerships will ensure that third party programs are coordinated throughout partnership portfolios. Partnerships will present all delivery channels to customers to meet their unique needs. Due to funding constraints; third party program may be a more cost effective alternative to achieving energy savings. Management teams will coordinate internally to deliver third party programs as a combined front to the partner, eliminating multiple personnel and points of contact.

iii) Incentive levels

See sub-program PIPs for specific incentive levels.

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The Institutional Partnership structure builds on previously successful marketing and communication networks between the partner and its various agencies. This ―buy-in‖ from the top opens up communications channels to the whole system. Combined with the existing management structure from the 2006-08 programs, this will facilitate marketing activities through pre-established channels for 2013 - 2014. Due to support from the top of the organization, partnership programs will be very visible and provide opportunities to leverage existing conferences and meetings to raise awareness among internal departments for the program.

Peer-to-Peer Support

Peer-to-peer support is considered a key part of the partnership strategy. Forums will be created for partners to share best practices and offer support for each other. Institutional partners utilize conferences and partnership workshops to present lessons learned and share success stories to expand outreach and encourage other segment customers to implement these various strategies for aligning with the CEESP.

See Sub-PIP tables Section 6, iv for Key Outreach Activities

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

IOUs are continuously monitoring their respective local government partners to leverage off best practices and new/innovative programs. IOU's are also researching opportunities with the CEC to help provide alternative funding sources such as CEC loans for CDCR medical facilities. In regards to the ARB there is constant observation on air pollution policies to help partners meet the mandate of AB 32.

vi) Similar IOU and POU programs

The four IOUs strive to have consistency in their respective program offering where practical to make the transactional experience for the state agencies seamless and transparent. Where the IOUs differ in their implementation strategies, the state agencies are educated and guided by the management team to ensure complete process follow through. If POUs have interest in implementing EE programs, the partnership may provide technical assistance in designing these programs if requested.

b) Program delivery and coordination: Addressing all applicable items on the list below, describe how the program will be delivered or implemented in concert with them, including, if applicable, coordination with other Agency programs or actions. Describe timeline by which market segment/ sub-segment is expected to be "transformed". Where they exist, highlight any shared or leveraged budget categories and amounts (admin, incentives, ME&O, and other applicable categories).

i) Emerging Technologies program:

<u>Emerging Technologies Element</u>

Institutions provide venues for the piloting of new technologies and may test technologies that could potentially be implemented across the state. The Codes and Standards Program considers partnerships a high priority in the selection of test sites and also links with CEC's PIER program.

The importance of energy efficiency within the state and the world is encouraging rapid development of new technologies and improved energy efficiency. However, it is virtually impossible for either key decision-makers or their technical staff to keep up with the rapidly evolving market. Even when they learn about the new technologies, it is very difficult to ascertain the true energy efficiency value of the new technologies and to distinguish scientific research from sales hyperbole.

The utilities, their research organizations, and their connection with the various state research organizations are vital links to the partners. New technology will be a useful component of the education and training element of the partnerships. The partnerships will be able to provide information to the managerial and technical personnel of the institutional customers to help them determine which technologies are worthy of consideration in energy efficiency.

Furthermore, some of the customers are very interested in serving as beta test sites for new technologies. Partnerships may well become key avenues by which new products or technologies can be installed, tested, and evaluated. The partnerships and their institutions will be able to work hand-in-hand with the utility and/or Energy Commission researchers in this arena.

Many of the Higher Education partnerships also include in house development and research of new emerging technologies lending to the ever increasing request for institutional partners to pilot new technologies.

ii) Codes and Standards program

Reach Code Support

The Reach Code Support sub-element will be implemented primarily through the Codes and Standards program PIPs. IP's that choose to include Reach Code Support in their program will be encouraged to optimize compliance of existing codes before developing new reach codes. Some individual Partnerships may choose to include Reach Code activities to promote codes that exceed Title 24 requirements. Again, all reach code support activity will be coordinated with the Codes and Standards program to ensure government input and support for Codes and Standards development of model reach codes that align with Title 24 and achieve measurable energy savings. Partnerships that include Reach Code activities could perform activities that range from training staff regarding adoption and implementation of model reach codes to establishing expedited permitting processes, fee structures and other incentives for green buildings and other above-code developments. IP's may attend training and/or market the training to relevant trades, in coordination with utility and statewide marketing activities.

Code Compliance Support

The Code Compliance sub-element will be implemented primarily through the Codes and Standards program, as described in the Codes and Standards PIP. Some individual Institutional Partners (IPs) will take action related to code compliance by engaging in a range of activities that will be coordinated with the Codes and Standards program.

IP's who participate in the Codes and Standards program may take advantage of the Title 24 and measure-specific training. They may also be able to participate in pilots designed to evaluate and improve the process used by governments to conduct code compliance.

Because optimization of existing compliance is the most effective approach to code compliance, IP's will be encouraged to start with this goal before tackling additional LEED certification requirements. IP Code Compliance activities may include referral to SDG&E's Codes and Standards program for training staff that are charged with code compliance. IP activity may also include referral to SDG&E's Codes and Standards program to access

certification programs for inspectors and contractors. IP's may assist with marketing in coordination with SDG&E and statewide marketing activities, including advertising training opportunities to relevant trades, raising awareness of current codes among business and residential customers and encouraging compliance by accessing a suite of resources described in the Codes and Standards PIP.

Please refer to the Codes and Standards PIP for further information.

iii) WE&T efforts

Referenced above in Master PIP Section 4, 3a.

iv) Program-specific marketing and outreach efforts (provide budget)

Outreach, Education and Training Element

The various partnerships will seek opportunities to increase awareness and understanding of energy efficiency as appropriate. In all cases this involves reaching upper management and/or elected officials to gain the support of decision makers for energy efficiency projects. It also involves reaching out to other departments within the customer organizations so that mid-level management of these departments will be responsive to and supportive of energy efficiency within the buildings in their jurisdictions. Likewise, it is important to train the day-to-day operating staff within the various facilities management organizations so that the designers, planners, and technicians are aware both of the importance of energy efficiency and the means by which it can be achieved. For institutional partnerships, education and training will be extended to elected officials, managers, and operations staff. Partnerships with educational institutions, it will involve educating faculty on energy efficiency so that they in turn may pass on the knowledge to their students.

The partnerships' education and training will also leverage existing utility training programs provided through the various training centers such as San Diego Gas & Electric's Energy Innovation Center. In some cases, multiple partnerships may work together to provide education and training that is available to all of their constituents and thereby increase the availability and flexibility of the training programs. Specialized training sessions may be held at venues within the customer's facilities in order to minimize hardship on customer personnel and maximize attendance.

The education and training component also includes partnerships' outreach. Outreach is typically internal to the customer's organization, as the large and complex institutions that make up the partners have thousands of employees and many different departments. In many cases communication between the various departments of the organization is not well organized and information flow is slow or non-existent. The partnership will assist in the outreach to these ancillary departments in order to increase the awareness and understanding of energy efficiency. Partnerships will also reach out to similar but independent government

agencies within their geographic regions; in particular, the county partnerships will reach out to cities, school districts, and other local agencies in order to bring them aboard. Partnerships will utilize existing infrastructures to accomplish outreach activities and others will rely more heavily on assistance from the utility partner and/or partnership consultants.

The education and training activities will include workshops for facility managers. They will receive training on best practices for implementation of energy efficiency retrofit projects, building operations, and new technologies that may be applicable to the effective completion of their daily tasks. Participants will have an opportunity to explore the utility programs currently available. In addition, the partnerships will provide opportunities for participants to share best practices with other facility managers.

Workshops will be coordinated and delivered in conjunction with other partnership efforts. In addition, the partnership team will coordinate with existing training centers such as SDG&E's Energy Innovation Center, SCE's Customer Technology Application Center (CTAC) and Agricultural Technology Application Center (AgTAC), SoCalGas's Energy Resource Center, and PG&E's Pacific Energy Center and Energy Training Center to deliver various technical training courses to improve the skills and knowledge of facility staff.

The training of multiple groups and types of personnel within the institutional partners will help ensure partnership coordination of the project implementation process and coordination and cooperation of all key players from all departments within the organization.

The primary objectives of the education and training programs are to produce cost-effective energy savings. This will help the partners to comply with the requirement of Executive Order S-20-04 and their goals to reduce energy consumption. This will be achieved by:

Increasing transfer of energy efficiency knowledge and implementation experience.

Increasing awareness and knowledge of the benefits of energy efficiency initiatives.

Integrating efforts between partnership activities and utility programs offerings.

Reducing the number of projects that are implemented without attention to energy efficiency.

Increasing the number of institutional departments and/or local government agencies that use energy efficiency as a key decision-making parameter.

Increasing communication between and building camaraderie among various key personnel in the facilities management groups of many departments, agencies, and organizations.

Sub-program specific activities are referenced in each sub-program PIP Section 6, iv.

v) Rationale for selection of sub-contractors;

Subcontractor Activities

Subcontractors may be used to assist in program administration and management, and will provide professional and technical support for the implementation of each of the program elements. A program consultant will assist in day-to-day coordination and communication among the Institutional Partners as follows:

Provide staffing to the Management Team and program specific subcommittees and implementation teams

Coordinate, schedule, and document results and action items from program team meetings

Prepare and conduct formal presentations and participate in conferences as required by the Management Team

Develop and maintain a Project Tracking and Reporting database system.

Assist the IOUs and Partners in CPUC reporting and regulatory communications.

Assist in the development of workshop agendas and materials, identification of experts, facilitation of workshops and training sessions, and preparation of minutes for the Training and Education component

Miscellaneous professional and technical assistance as requested by the IOUs

Program Management Structure

Partnerships will continue to be administered by management teams consisting of representatives from IOUs and partnership management. A program administrator and management subcontractor for the CDCR, CCC, and UC/CSU partnerships will track project progress and keep the lines of communication and information consistent. The management structure of the partnership has allowed for a more streamlined approach and flexibility in overall program administration.

The management team will set overall program policy and ensure that the program stays on plan throughout its life cycle, and will meet roughly every three weeks. Subcommittees or –teams‖ made up of members of the management team and other representatives will perform the detailed work associated with the program elements, and make recommendations to the management team for action. This will potentially include a retrofit team, MBCx Express Team, an outreach team, and/or a training and education team. The team will be providing a more coordinated and integrated approach and will increase the penetration of energy efficiency and avoid lost opportunities.

Key Activities of Management Teams include:

Key	Description
Identify key stakeholders to participate	The partnership management team identifies key stakeholders in each agency. They may be selected to participate in the project team.
Conduct solicitation for potential projects from participating agencies	The retrofit project team coordinates with the customer to generate a pool of projects to be evaluated.
Compile and evaluate projects based on project criteria and cost effectiveness requirements.	The retrofit project team performs due diligence on proposed projects to determine if each project meets the criteria and cost- effectiveness requirements. The project team provides a list of recommended projects.

Key Activity	Description
Approve projects for funding	The partnership management team reviews project team recommendations for potential projects.
Identify funding sources	The partnership team and participating state agency explore financing alternatives such as rebates and incentives, on-bill financing, application of existing budget, and Energy $Mart financing to maximize the state's investment in energy efficiency.
Coordinate project implementation with partners and contractors.	The project team provides oversight of project implementation and coordinates with customer and contractors to ensure successful and timely implementation.
Verify project installation and provide incentive payments.	The project team conducts 100% inspection. Upon verification, project team approves the completed projects for incentive payments.
Compile project results and complete final report.	The project team compiles all relevant project information including measure information; energy savings; program incentives paid; etc.
Coordinate with EM&V contractor where applicable.	If required, management team coordinates with the project teams and key stakeholders to support any requests from the CPUC approved EM&V contractors.

Partnerships can also hire energy efficiency retrofit subcontractors to install the energy efficiency measures for the retrofit component, and commissioning agents to assist in the performance of MBCx projects. Partnerships may also hire engineering subcontractors to assist with project development, as needed.

vi) *Non-energy activities of program*
If applicable specific non-energy activities will be listed in sub- program PIPs Section 6, vi.

Guiding Document Support

Guiding document support will be provided by IOUs and will influence the partnerships through collaborative efforts that bring about the adoption of higher standards for energy efficiency. In addition, a tool will be developed for decision makers. This will enable customers to utilize this tool for guiding future decision making process and energy policy development that will align with the CLTEESP.

Technical Assistance

The Partnership will focus on technical assistance and help the Partner to identify projects for potential implementation. The Partnership team will prepare comprehensive lists of projects,

evaluate their energy savings potential, and bring them to the team for review. The Partners can then use this information to accelerate the timing of some projects, modify the scope of others, and rely on strategic energy planning, rather than simple maintenance schedules, for energy efficiency enhancements. Some technical assistance may include:

1. Training and Education
2. Energy Audits
3. Design assistance
4. Due diligence/Project Review

vii) *Non-IOU Programs*
If applicable will be detailed in sub-program PIPs, Section 6, vii. viii) *CEC work on PIER*
Applicable PIER program coordination will be detailed in sub- program PIPs, Section 6 viii.

ix) *CEC work on codes and standards*
If applicable will be detailed in sub-program PIPs, Section 6 ix. x)

iix) *Non-utility market initiatives*
If applicable will be detailed in sub-program PIPs Section 6, x.

c) Best Practices: Describe why program approach constitutes "best practice" or reflects "lessons learned" in market strategies, program design and/or implementation techniques. Provide references where available.

Institutional Partnerships have provided documentation that is valuable and provides lessons learned for a variety of institutional customers. Overarching best practices for institutional partnerships are noted below:

Type of Best Practice	Best Practice	Institutional Application(s)
Goals & Objectives	Develop and use clearly articulated objectives that are internally consistent, actionable and measurable.	Share clearly defined and obtainable goals that are developed with partner input. Track goals through bi-weekly management team meetings to ensure they are achieved.
	Develop tools to track the portfolio's performance on a continuous basis and report progress.	The detailed program plan and the Program Advisor handbook is a living document that will facilitate continuous tracking and reporting.
Planning	Design programs within the portfolio based on sound program plans; where appropriate, utilize clearly but concisely articulated program theories.	The plan & program structure are based on sound program plans & theories.
	Conduct baseline research	Baseline research was conducted of each Partnership and the individual participating cities & counties.
	Build feedback loops into program design and logic	The partnership program structure calls for a mechanism that closely monitors progress and making adjustments as may be

Type of Best Practice	Best Practice	Institutional Application(s)
	Maintain the flexibility to rebalance portfolio initiatives, as needed, to achieve the portfolio's goals and objectives.	meet the Partnership goals and objectives.
Staffing	Select highly qualified in-house staff &/or outside contractors to manage, design, implement and evaluate programs.	SDG&E Program Advisors have been assigned to each Partnership to assure continuous open communications and implementation success. The roles and responsibilities of SDG&E and the various Partners and participants are clearly defined in the program plan. Resources will be supplemented with pre-qualified technical support contractors selected by SDG&E though competitive solicitations to cost-effectively provide the portfolio of technical assistance needed to support its Partners.
	Clearly define portfolio implementation responsibilities and clarify roles to minimize confusion.	
Integration	Leverage relationships from complementary organizations such as utilities, trade allies, and industry specialists.	Structured to leverage all resources, assets and relationships of SDG&E, it's Partners, and their participants, constituents, stakeholders, and other related individuals & organizations.
Reporting & Tracking	Clearly articulate the data requirements for measuring portfolio and program success.	The program plan, coupled with frequent meetings between/among SDG&E, its Partners and their members/ constituents is designed to track and report Partnership progress and successes.
	Design tracking systems to support the requirements of all major users: program administrators, managers, contractors and evaluators.	

Specific best practices are referenced for each specific partnership in Sub-Program PIP I, II, III, IV, Section 6, b.

d) *Innovation: Describe any unique or innovative aspects of program not previously discussed. Why is this innovative?*
Innovative aspects of programs will be detailed in sub-program PIPs, Section 6, d, if applicable.

e) Integrated/coordinated Demand Side Management: Describe in detail how program will achieve integrated or coordinated delivery of all DSM options (energy efficiency, demand response, and onsite generation) where applicable including integrated program design and delivery, shared budgets, program evaluation, and incentive mechanisms that promote greater integration of DSM resources. Provide a complete description for all the technologies, including integration supporting technologies that will be included in the program. If the program does not include all DSM options as noted above, briefly provide an explanation for a more limited subset of DSM technologies. Utilize Attachment 5A to highlight any shared or leveraged budget categories and amounts (admin, incentives, ME&O, and other applicable categories).

SDG&E supports the loading order in which our partners can achieve the highest level of integrated energy efficiency savings. Some of our partnerships have completed the Analysis (1) and Energy Conservation (2) efforts prior to becoming fully engaged into Partnership programs.

Once engaged into partnership programs, customers and partnerships focus on the Energy Efficiency aspect of integrated programs before moving onto Self Generation (5) or Demand Side Management (6). Moving partnerships into Self Generation or Demand Side Management at a premature time may act to mitigate energy savings and not realize energy savings.
Most partnerships remain focused on the Energy Efficiency aspect of integrated energy efficiency programs to maximize energy efficient efforts. The partnerships continue to focus on the ever demanding requests of Self Generation
and Demand Side Management. Many institutional partners are under significant pressure from government mandates to implement Self Generation and Demand Side Management technologies. Partnerships have included Self Generation and Demand Side Management into implementation plans to meet these demands but also focus on the importance of appropriate energy efficiency management.

Integration of programs such as Self Generation and Demand Side Management require partnerships to develop innovative ways to share allocated budgets and developed goals. When plausible and cost-effective, partnerships will leverage off existing program delivery channels and budgets to provide Self Generation and Demand Side Management.

f) *Integration across resource types (energy, water, air quality, etc): If program aims to integrate across resources types, please provide rationale and general approach.*

If applicable this item will be detailed in the sub-program PIPs, Section 6, f.

g) *Pilots: Please describe any pilot projects that are part of this program*

If applicable this item will be detailed in the sub-program PIPs, Section 6 g.

h) *EM&V: Describe any process evaluation or other evaluation efforts that will be undertaken by the utility to determine if the program is meeting its goals and objectives. Include the evaluation timeframe and brief description of scope, as well as a summary of specific methodologies, if already developed. If not developed, indicate the process for developing them. Please include, as well, whether there are program-tracking databases that will be needed for evaluation purposes.*

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7). Diagram of Program: Please provide a one page diagram of the program including sub-programs. This should visually illustrate the program/sub-program linkages to areas such as:

a. *Statewide and individual IOU marketing and outreach*
b. WE&T programs
c. Emerging Technologies and Codes and Standards
d. Coordinated approaches across IOUs
e. Integrated efforts across DSM programs

See Appendix

8). Program *Logic Model: Provide a program logic model including sub-programs. May be included in an appendix to the PIP.*

See Appendix

I. Sub-Program Implementation Plan – CCC/IOU Partnership Program

1) California Community College/Investor Owned Utility (CCC/IOU) Partnership Program

2) Projected Program Budget Table

Table 3[20]

Program #	Main Program Name / Sub-	Total Administrative Cost (Actual)	Total Marketing & Outreach (Actual)	TOTAL Direct Implementation	Integration Budget Allocated to Other Programs (if Applicable)	Total Budget By Program (Actual)
Market Sector Programs						
	Core Program #1					
	Sub-Program #1					
	Sub-Program #2					
	Etc.					
	TOTAL:					

3) Projected Program Gross Impacts Table

Table 4

Program #	Program Name / Sub-Programs	2013 - 2014 Three-Year EE Program Gross kWh Savings	2013 - 2014 Three-Year EE Program Gross kW Savings	2013 - 2014 Three-Year EE Program Gross Therm Savings
Market Sector Programs				
	Core Program #1			
	Sub-Program #1			
	Sub-Program #2			
	Etc.			
	TOTAL:			

[20] Definition of Table 1 Column Headings: Total Budget is the sum of all other columns presented here
Total Administrative Cost includes all Managerial and Clerical Labor, Human Resource Support and Development, Travel and
Conference Fees, and General and Administrative Overhead (labor and materials).
Total Direct Implementation – includes all financial incentives used to promote participation in a program and the cost of all direct labor, installation and service labor, hardware and materials, and rebate processing and inspection used to promote participation in a program.
Total Marketing & Outreach includes all media buy costs and labor associated with marketing production.
Integrated Budget Allocated to Other Programs includes budget utilized to coordinate with other EE, DR, or DG programs. Total Budget is the sum of all other columns presented here
Definition of Sub-Program: A "sub-program" of a program has a specific title; targets; budget; uses a unique delivery or marketing
approach not used across the entire program; and for resource programs, has specific estimated savings and demand impacts.

4) Program Description

a) Describe Program

The CCC/IOU Energy Efficiency Partnership has been a successful collaboration between the California Community Colleges (CCC) and the four Investor-Owned Utilities (IOUs). The CCC is a two-year public institution of higher education that is composed of 112 colleges statewide and organized into 72 self-governing Districts. It serves more than 2.6 million students coming from a wide range of cultural and economic backgrounds, and represents the largest system of higher education in the world. San Diego Gas & Electric (SDG&E) alongside the other IOUs (PG&E, SCG and SCE), will continue this collaboration, which started with the 2006-08 CCC/IOU Energy Efficiency Partnership, to share best practices and implement energy efficiency programs and projects for immediate and long-term energy savings and peak demand reduction.

This partnership provides a unique opportunity to deliver cost effective energy savings while leveraging the CCC's local and statewide new construction bond funding. The 2013 – 2014 CCC/IOU Partnership will expand its efforts for the implementation of energy-efficient Retrofits, New Construction Design Assistance facilitated by the Savings By Design program, Demand Response, Retro-Commissioning (RCx), and Monitoring-Based Commissioning (MBCx) projects. The program will also focus its efforts on training and education, which will expand existing education programs by training faculty and staff in best practices on energy efficient technology implementation and energy management.

Projects will adopt a comprehensive approach by including retrofits and their DSM alternatives to include: demand-response, DG (renewable self-generation), solar hot water and water efficiency.

The 2013 - 2014 CCC/IOU Partnership will expand its efforts in the delivery of energy efficiency and provide the following program elements:

Energy-efficient retrofits of equipment and systems

New construction design assistance. This will be a focus of the partnership due to the significant bond-funded construction of new and renovated facilities that are occurring at the CCC's at an unprecedented rate.

Retro-commissioning/monitoring-based commissioning (RCx/MBCx) projects.

Provide a ―portal‖ to other IOU energy programs for a coordinated, integrated DSM program

Training & education program, which will provide training to facility maintenance and operations staff in best practices on energy efficient technology implementation and energy management.

Explore opportunities to partner with existing curriculum development efforts to train the next generation of the ―green workforce‖, which has been identified as a critical component for California's future economy.

b) List Measures.

Measure Categories	Technologies
Lighting	Includes indoor and outdoor fluorescent, HID, LED replacements, lighting controls, and other lighting projects.
Controls and other Equipment	Includes fans, motors, VFDs, air compressors, EMS systems and other equipment not covered under the lighting or HVAC categories.
HVAC, Air Conditioning and Refrigeration	Includes system and major subsystem replacements
Other	New Construction, RCx, MBCx and others

Incentives

Incentives will be paid on projects based on a cents per kWh saved. These rates are an average of $ .24/kwh saved. Incentives are paid by the utility to the agency upon completion of the project. They are based upon the agreed-upon energy savings determined as part of the project evaluation, subject to changes made during the project's implementation. All gas savings will be at $1.00 per therm.
Incentive rates for the Partnership will be as follows:

Lighting- $0.24/kWh

Controls and other Equipment- $0.24/kWh

HVAC, Air Conditioning and Refrigeration- $0.24/kWh

All gas savings will be at $1.00/Therm

Savings by Design/ Commercial New Construction Projects- $0.10/ kWh above core SBD incentive rate

c) List non-incentive customer services

The California Community College/ Investor Owned Utility Partnership will include non-energy activities such as creating presentations for industry and association conferences, attending various conferences, meetings, and outreach events, and distributing marketing materials through said conferences as well as training sessions.

A training and education component for campus design staff, project managers, energy managers and others will also be provided in using best energy practices in the construction, retrofit, and monitoring based commissioning of campus buildings and central plant infrastructures.

Subcontractor Activities

Subcontractors will be used to assist in program administration and management, and will provide professional and technical support for the implementation of each of the program elements. A program consultant will assist in day-to-day coordination and communication among the partners (the colleges, System office, and four utilities) as follows:

- Provide staffing to the management team and program specific subcommittees and implementation teams

Assist in program planning and design areas such as:

- Program narrative preparation for filings
- Organization of financial budgets
- Preparation of program energy savings estimates and E3 cost-effectiveness calculators

- Providing assistance in the development of marketing and outreach plans
- Coordinate, schedule, and document results and action items from program team meetings
- Provide technical engineering assistance to develop projects and ensure that project documentation complies with CPUC energy efficiency policy and supports EM&V assessments.
- Prepare and conduct formal presentations and participate in conferences as required by the Management Team
- Develop and maintain a project tracking and reporting database system.
- Assist the IOUs and CCCs in CPUC reporting and regulatory communications
- Assist in the development of workshop agendas and materials, identification of experts, facilitation of workshops and training sessions, and preparation of minutes for the training and education component
- Miscellaneous professional and technical assistance as requested by the IOUs

The campuses will hire:

- Energy efficiency subcontractors to install the energy efficiency measures for the retrofit component
- Consultants and contractors to assist in the performance of MBCx projects
- Engineers and architects to assist with the New Construction Design Assistance element. Campuses may also hire engineering consultants to assist with project development as needed.

As seen in the 2006-08 partnership, the campus facilities management staff will play a major role in this program component while enlisting the assistance of subcontractors.

Non Incentive Services	Delivery Mechanism
Education and Training	Delivered through the creation of presentations for industry and association conferences, attending various conferences, meetings and outreach events, and distributing marketing materials through education programs. Training energy managers, facility maintenance staff and design staff, project manager and others in using best practices in the construction, retrofit, retro-commissioning and monitoring based commissioning of buildings and central plant infrastructure.
Emerging Technologies	Delivered through coordination with SDG&E's Emerging Technologies group. The CCC/ IOU Partnership Program will work with the ETP group to develop potential pilots for emerging technologies development.
Funding Sources	Federal grants, state financing, local bonds, and IOU incentives. Further coordination and integration of SDG&E's On-Bill Financing Program to assist in the funding of energy efficiency projects.
Subcontractor Activities	Subcontractors may be used to assist in program administration and state wide coordination among partners.

Program Administration and Management	Utility program managers will: Identify project tasks and establish schedule of deliverables and responsibilities to ensure the deliverance of successful program implementation, obtain inputs from the partners, facilitate the decision-making on key program elements while coordinating partnership team communications, provide analytical assistance as needed, and submit accurate program information for reporting to the CPUC.
Quality Assurance and Evaluation	The New Energy Efficiency Partnerships team will establish and oversee quality assurance measures for the partnership program, including oversight and verification of subcontractor activities. These procedures and the associated reporting will be developed in more detail as a part of program implementation. In general, the partnership will continue the level of due diligence and quality assurance of the present IOU energy efficiency offerings, including a representative percentage of pre/post installation confirmation inspections for small hardware projects, and pre/post inspections on all large or specialized/ hardware projects (installation of energy efficient equipment, facility retrofits, and building commissioning and new construction projects).
Codes and Standards	The other key element will be the refinement and further adoption of voluntary policies and requirements by the customers for energy efficiency and sustainability to create incrementally more efficient buildings in parallel with the adoption of more stringent, mandatory Codes and Standards by local and state jurisdictions.

5) Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information:

Table 3

	Baseline		
	Metric A	Metric	Metric C
Program/Element			

Refer to the overarching PIP section.

b) Market Transformation Information:

Table 4

Program/Element	2013	2014
Metric A		
Metric B		
Metric C		
Etc.		

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

SDG&E and the other IOUs face the challenge of implementing cost effective energy efficiency programs that will result in immediate, long-term peak energy and demand savings in their service territories. The CCC system consumes vast quantities of energy and make up a significant portion of the both the electric and natural gas load in the State of California. However, due to the decentralized and self-governing structure of the CCCs, as well as the lack of funding and resources at these campuses, it has been an extremely challenging process to assist these districts in implementing energy efficient measures and practices.

The existing partnerships have worked diligently to overcome these barriers, though many still exist. The effort to resolve them is on-going, and significant progress has been made. At the heart of the evolving success are the partnership teams made up of customer staff, utility staff, and consulting professionals. These teams enable the partnerships to overcome these barriers through a number of important mechanisms:

Primary Barriers	Strategies to Overcome Barriers
Funding Levels- Project Funding Constraints. Energy efficiency is costly and budgets are limited. The actual decision-makers approving the details of a project often choose not to implement the higher-costing more-efficient systems, equipment, or technologies. Incentive dollars are most often allocated to the general fund which makes for an inability to ensure incentives are allocated toward the participating department budget.	Incentives help relieve budgetary constraints and assist the economic evaluations of the customers by making energy efficiency more cost-effective. In addition to their purely economic role, the incentives play an important part in promoting the importance and visibility of energy efficiency. When a partnership can bring an incentive to the decision-making body and make a public announcement, it not only improves the economics, but it demonstrates the importance of the project and increases public awareness of both the utility's and the customer's commitment to energy efficiency and environmental quality. The Energy $Mart Loan program has been created to finance energy projects through the Department of General Services. SDG &E ' s On -Bill Financing Programs is currently being implemented as a way of financing retrofit and modernization upgrades.
Short-sightedness- Economic decisions are often short-sighted, with capital limitations taking precedence over long-term savings, even when accurate economic analysis would select the higher initial cost of higher-efficiency choices.	Education and training brings energy efficiency awareness to decision-makers at all levels. Many of the partnerships have specific plans to incorporate education and training for a variety of people including elected officials, key department managers, facilities staff, personnel from other local governments (such as cities and school districts within the counties), and, in the case of the college partnerships, training within the general population. This component will enhance the awareness of energy efficiency, which in turn will subdue some of the barriers caused by lack of information or erroneous economic analysis.

Technology- itself is rapidly developing, and even the best-informed energy professionals have difficulty distinguishing between sales propaganda and truly valid technical advancements.	Integration allows the partnership management team to be the single source of contact that enables the institutional customers to take advantage of all energy programs offered by the IOUs. This integration will break down many customer barriers to participation in multiple programs. This integration is innovatively being collaborated with internal utility departments in order to fulfill this strategy. Future strategic plans are being developed to include new construction, emerging technologies, education and training, demand response, California Solar Initiative (CSI), self-generation, on-bill financing, and other utility programs within the scope of partnership activities.
Staffing- Staff time is at a premium, with most facilities personnel having too much to do in too little time. Attention to proper energy efficiency is time consuming and may get shelved as staff members work on more immediately urgent problems. Community College campuses tend to have inadequate staffing due to the current staff being overextended; additional technical assistance desired.	Professional assistance from utility staff and partnership consultants allows potential projects to be identified and evaluated. Many institutional customers do not have the time to methodically evaluate their buildings and identify the most salient energy efficiency projects. Furthermore, facility personnel often lack the technical expertise to evaluate those projects and determine the best energy efficiency improvements. The partnership team is able to prepare a comprehensive lists of projects, evaluate their energy savings potential, and bring them to the team for review. The customer can then use this information to accelerate the timing of selected projects, modify the scope of others, and rely on strategic energy planning, rather than simple maintenance schedules for energy efficiency enhancements.
Information Dissemination- Some of the agencies lack the technical expertise to develop or manage projects. Therefore they lose out on opportunities to improve efficiency when staff is unaware of available technology and measures. Lack of funding and management support also causes the removal of such measures from a project.	The management team is currently developing an information tool for some agencies that will help reveal the savings potential of implementing projects with likely energy efficiency measures that may appear in agencies' typical facilities. This is meant to appeal to the facilities managers or decision makers and allow the IOU to perform detailed energy audits that eventually lends itself to a project proposal.

We anticipate the partnership will continue to work through the various obstacles that inhibit the full implementation of energy efficiency within their institution. This is a gradual and evolving process. Nonetheless, the partnership model has shown to be extremely effective, and leads to considerable energy savings and demand reduction both in new construction and in existing buildings. For the California Community Colleges, budget requirements are becoming even tighter. The continuation of the partnerships will help assure that these barriers do not become even more significant as budgets are reduced.

d) Quantitative Program Targets: .

Program Name	Program Target by 2013	Program Target by 2014
New Construction	Communicate Integration and incentive structure. TBD x number of projects identified.	Develop project agreement plan to ensure penetration of all existing and future potential projects. TBD x number of projects implemented
On-Bill Financing	Development of On-Bill Financing documentation package for partners. Develop project agreement plan and determine whether partners will participate. TBD x number of projects.	TBD x number of applications.
CSI	Establish communication plan for ensuring partners have been educated regarding solar potential	Develop project agreement plan and determine necessary stakeholders.
RCx and MBCx	TBD Benchmark X # of facilities to determine potential for RCx or MBCx.	TBD Complete project agreement packages for x # of facilities.
Education and Outreach	TBD # of Partner Presentations	TBD # of Partner Presentations
EE/DR Audits	Ensure 100% of all audits are coordinated EE/DR efforts if applicable	Ensure 100% of all audits are coordinated EE/DR efforts if applicable

e) Advancing Strategic Plan goals and objectives:

Institutional partnerships are a natural fit with the goals, objectives, and strategies articulated in the California Energy Efficiency Strategic Plan. The partnerships have demonstrated that the three *Pillars* of the Strategic Plan -- Innovation, Integration, and Collaboration -- are indeed the key to achieving the next generation of cost-effective energy efficiency and the resulting reduction in greenhouse gas emissions.

The partnership management teams have and will continue to:

Be very successful in developing a collaborative approach
Overcome many of the barriers that diverse stakeholder groups encounter
Successfully navigate these challenges, improve communications, firmly identify roles and responsibilities, and develop a continuity of both people and a management approach that works very well for their own partnerships.
Firmly align goals: saving energy, improving the environment, and saving money

for the institutional customers.

Embrace Monitoring Based Commissioning (MBCx) and Retro-commissioning (RCx) at their facilities as a result of the 2006-2008

Some of the partnerships have also worked with the PIER SPEED program, which has resulted in the installation of several pilot projects in 2007.

Work with the PIER and IOU ET teams to leverage the pilot projects into larger scale emerging technology programs and projects in 2013 - 2014.

Work with the IOU Food Service Technology groups in an outreach effort to educate food service, maintenance, and facilities decision makers in the newer energy efficiency technologies emerging in this area. Innovation in the food service technology sector will be an important focus for the partnerships in the 2013-14 transition period..

Lead the deployment of many information technology energy efficiency measures. Retrofit measures have included server virtualization, PC powermanagement, CRT to LCD monitor replacements, and high-efficiency UPS systems.

Been innovative in setting policy for energy efficiency and sustainability. Ramp up voluntary policies and requirements that fit with the Strategic Plan initiative in the *Codes and Standards* area to adopt voluntary energy efficiency standards as a precursor to progressively more stringent mandatory building codes and standards.

6) Program Implementation

a) <u>Statewide IOU Coordination</u>:

i) Program Name

California Community College/ Investor Owned Utility (CCC/ IOU) Partnership Program

ii) Program Delivery Mechanisms

The 2013 - 2014 CCC/ IOU Energy Efficiency Partnership Program will utilize and build upon the implementation strategies employed in the partnership from the 2006-2008 program cycle. The implementation plan for this cycle will be refined to account for progress already made which will include:

<u>Program Management Structure</u>

The management structure of the partnership will be further streamlined from the 2006-08 cycle to allow for more flexibility in overall program administration, outreach, project identification and development, and project implementation and verification. The program will continue to be administered by a management team, consisting of representatives from the California Community College Chancellor's Office, representatives from the local community college districts,, all four IOUs, and a program administration and management consultant who will track project progress and keep the lines of communication and information flowing. The management team will set overall program policy and ensure that the program stays on plan throughout its life cycle. One of the biggest changes from 2006-08 is to streamline implementation to combine the various responsibilities for project evaluation and implementation into a single team which will oversee

retrofit, MBCx, new construction, and innovative projects. The team will be providing a more coordinated and *integrated approach* and will increase the penetration of energy efficiency to avoid lost opportunities.

Program Elements

The following program elements will operate on a statewide, *integrated* basis, providing immediate energy savings and setting the foundation for a long-term program that focuses on its sustainability and best practices.

Energy Efficiency Retrofits

The partnership outreach and/or project team will identify and develop potential retrofit projects using the project portfolio described above as a starting point, with follow up campus audits and performance of savings calculations. SDG&E will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing. In some cases, campuses will utilize ESCOs or other engineering firms under contract to develop projects. Project applications will be submitted, or when necessary, completed by the IOUs. If approved through the IOU due-diligence review process, the applications will be executed by the campus and the IOU, and project implementation will, at that time, commence. The projects will be implemented by the CCC campus staff or their engineering and construction contractors, and the IOUs will perform verification inspection prior to payment of incentives.

The energy efficiency retrofit projects that will be performed for the program will be electric and gas saving measures including: lighting retrofits, building wide lighting controls, boiler replacements, installation of water heaters, HVAC and chiller upgrades, VFDs, and central plant projects, amongst others.

Retro-Commissioning (RCx) / Monitoring-Based Commissioning (MBCx)

This element of the program is a unique approach to obtaining savings that combines the expertise of the state facility management staff, utility and subcontractor expertise. Through these resources, a systematic, comprehensive RCx/MBCx program will be implemented in existing buildings. It will provide a cost effective approach to achieving optimized operating facilities, save both electric and gas energy, reduce operating cost and improve occupancy comfort.

New Construction and New Construction Design Assistance

New Construction is a significant opportunity to achieve a breakthrough in energy savings at the Community Colleges. This program will be managed towards meeting the strategic energy plan goals of zero net energy for commercial buildings by 2030. The goal of the 2013 - 2014 partnership is to fully integrate the new construction design assistance program under the partnership umbrella to capture those opportunities. In addition, the partnership will consider additional incentive dollars to implement those measures that show persistent energy savings and capture the lost opportunities by those projects that have been value-engineered out of the project scope due to budget and time constraints.

Quality Assurance

The CCC/IOU team will establish and oversee quality assurance measures for the partnership program, including oversight and verification of subcontractor activities. These procedures and the associated reporting will be developed in more detail as a part of a program implementation. In general, however, the partnership will continue the level of due diligence and quality assurance of the present IOU energy efficiency offerings. This will include a representative percentage of pre/post installation confirmation inspections for small hardware projects and pre/post inspections on all large or specialized projects hardware projects (installation of energy efficient equipment, facility retrofits, and building commissioning and new construction projects).

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iii) Incentive Levels

Lighting projects- $0.24/ kWh
Motors/ VFDs/ Compressors/ Controls/ Others- $0.24/ kWh
HVAC projects with electric savings- $0.24/ kWh
Projects with gas savings- $1.00/ Therm

iv) Marketing and outreach plan.

A change for the upcoming 2013 - 2014 program cycle is the refinement of the Outreach Team, which tried several models in 2006-2008, and has evolved into an effective team consisting of customer-focused IOU Account Executives, team leadership from the Community College Chancellor's Office, and key District staff. Because of the positive relationships that have been formed, the Outreach team has been able to reach the campus and District decision makers more effectively. The IOUs and consultant technical and engineering staff have also been able to quickly and accurately assess project opportunities, complete energy savings calculations, and process project applications with campuses.

The CCC/ IOU Partnership will also continue its activities with creating presentations for industry and association conferences, attending various conferences, meetings, and outreach events, and distributing marketing materials to contractors, architects, and Community College staff members statewide.

Key Activity	Description
Outreach	The partnership management team begins outreach efforts by contacting the heads of facilities management for each department, informing them of the availability of funds for approved measures and activities in state facilities. The team schedules meetings to discuss options, implementation criteria, benefits of program participation, and program offerings.
Customer Follow-Up	The partnership management team, in coordination with staff from the state and the IOUs, visit each targeted site to talk with facilities managers about the various options and proposed energy efficiency measures. After confirming an appropriate site for implementing measures and/or retro- commissioning, the management team meets the appropriate facilities managers to present the anticipated energy savings, other benefits, and considerations associated with the implementation.
Implementation and Training	The partnership management team share energy efficiency knowledge and implementation experience with other public agency entities through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs.

v) IOU program interactions

IOUs are continuously monitoring their respective partners to leverage off best practices and new/innovative programs. IOU's are also researching opportunities with the CEC to help provide alternative funding sources such as CEC loans for CCC facilities. In regards to the ARB there is constant observation on air pollution policies to help CCC meet the mandate of AB 32.

vi) Similar IOU and POU programs

b) Program delivery and coordination. i)

Emerging Technologies Program

ii) Codes and Standards Program

iii) WE&T Efforts

Foundation building, including preparing a needs assessment, evaluating cost-benefit analysis tools for investments in WE&T, creating a WE&T web portal, establishing ongoing dialogue with key players, and forming a WE&T task force.

Focus specific strategies on community colleges and technical training.

Transform HVAC—including its products, companies, employees and even its customers—to develop, install and maintain highly efficient and peak-friendly systems.

The partners will provide education and training for students and facility personnel through workshops and other training strategies in collaboration with other partnerships. It will be a venue for those individuals responsible for managing energy use on campuses to share information and experiences related to facility operations, to gain knowledge of industry best practices in energy efficiency management, and for successful energy efficiency project implementation, among other issues. The other strategy for the education and training element is the development of an energy efficiency vocational curriculum that will be offered to campus students to equip them with energy efficiency knowledge which they can apply in the industry. Lastly, this partnership will seek opportunities to improve project coordination and communication to strengthen the relationships amongst the Partners.

The primary vehicles for training and dissemination of information will be a series of training sessions and workshops (covering new construction, building operator training, retrofits, retro-commissioning, and monitoring based commissioning) to be held in Northern and Southern California. The partners will collaborate with the IOUs' technology centers to assist with course offerings and curriculum and content development and will utilize the existing material and best-practices documentation developed by other partnership programs during 2004-05 and 2006-08 program cycles.

Major Activities:

Key Activity	Description
Identify key stakeholders to participate	The management team will identify key stakeholders in each agency to participate in the project team.
Conduct solicitation for potential projects from participating agencies	The retrofit project team will coordinate with customer to generate a pool of projects for evaluation.
Compile and evaluate projects based on project criteria and cost effectiveness requirements.	The retrofit project team will perform due diligence on proposed projects to ensure that each project meets the criteria and cost-effectiveness requirements. Projec team will provide a list of recommended projects to proceed with implementation.
Approve projects for funding	The management team will review project team recommendations for potential projects.
Coordinate project implementation with Partners and contractors.	The project team will have oversight of project implementation and will coordinate with customer and contractors to ensure successful and timely implementation of the project.
Verify project installation and provide incentive payments.	The project team will conduct 100% inspection. Upon verification, project team will approve the completed projects for incentive payments.
Compile project results and complete final report.	The project team will compile all relevant project information including measure information, energy savings, program incentives paid, etc.
Coordinate with EM&V contractor where applicable.	If required, there will be management team coordination with the project teams and key stakeholders to support any requests from the CPUC approved EM&V contractors.

iv) Program-specific marketing and outreach efforts (provide budget)
v) Non-energy activities of program

Non-Energy Activities

The CCC/IOU Partnership will include non-energy activities such as creating presentations for industry and association conferences, attending various conferences, meetings, and outreach events, and distributing marketing materials through education programs.

The partnership will also continue the progress made with the establishment of a statewide approach to training and building operations to facilitate long-term energy efficiency savings. The training and education component of the partnership involves training of campus design staff, project managers, energy managers and others in using best energy practices in the construction, retrofit, and monitoring based commissioning of campus buildings and central plant infrastructures.

Subcontractor Activities

Subcontractors will be used to assist in program administration and management as well as in each of the three program elements. This approach was used successfully in the previous program cycle.

An administrative consultant will assist in day-to-day coordination and communication among the partners (the CCC and four IOUs) as follows:

Provide staffing to the management and executive team and program specific implementation teams.

Assist in the three program elements, especially in the coordination and facilitation of partnership meetings providing timely and accurate meeting minutes. The consultant will provide communications between the partnership and the campuses, as well as providing analytical assistance to the IOUs, CCC as needed.

Assist the CCC/IOU partners in providing timely and accurate program information for reporting to the CPUC.

Assist in development of workshop agendas and materials, and facilitation of workshops and training sessions.

The campuses will hire energy efficiency retrofit subcontractors to install the energy efficiency measures for the retrofit component, and commissioning agents to assist in the performance of MBCx projects. Campuses may also hire engineering consultants to assist with project development, as needed.

vi) Non-IOU Programs
vii) CEC work on PIER
viii) CEC work on codes and standards
ix) Non-utility market initiatives: Where applicable, include specific references to other sections of the application where there is more detail.

c) <u>Best Practices</u>:

Type of Best Practice	Best Practice	Institutional Application(s)
Goals & Objectives	Develop and use clearly articulated objectives that are internally consistent, actionable and measurable.	Share clearly defined and obtainable goals that are developed with partner input. Track goals through bi-weekly management team meetings to ensure they are achieved.
	Develop tools to track the portfolio's performance on a continuous basis and report progress.	The detailed program plan and the Program Manager handbook is a living document that will facilitate continuous tracking and reporting.
Planning	Design programs within the portfolio based on sound program plans; where appropriate, utilize clearly but concisely articulated program theories.	The plan & program structure are based on sound program plans & theories.
	Build feedback loops into program design and logic	The partnership program structure calls for a mechanism to closely monitor progress and make adjustments as may be needed to meet the Partnership goals and objectives.
	Maintain the flexibility to rebalance portfolio initiatives, as needed, to achieve the portfolio's goals and objectives.	
Staffing	Select highly qualified in-house staff &/or outside contractors to manage, design, implement and evaluate	SDG&E Program Advisorshave been assigned to each Partnership to assure continuous open communication and implementation success. SDG&E's resources will be

Type of Best Practice	Best Practice	Institutional Application(s)
	programs.	supplemented with pre-qualified technical support to meet the needs of its Partners.
	Clearly define portfolio implementation responsibilities and clarify roles to minimize confusion.	
Integration	Leverage relationships from complementary organizations such as utilities, trade allies, and industry specialists.	Structured to leverage all resources, assets and relationships of SDG&E, it's Partners, and their participants, constituents, stakeholders, and other related individuals & organizations.
Reporting & Tracking	Clearly articulate the data requirements for measuring portfolio and program success.	Frequent meetings between/among SDG&E, its Partners and their members/ constituents is designed to track and report Partnership progress and successes.
	Design tracking systems to support the requirements of all major users: program administrators, managers, contractors and evaluators.	

d) <u>Innovation</u>:

The CCC's made significant progress in adopting innovative projects during the 2006-2008 program cycle. Projects and technologies in the high technology (IT systems) areas such as Server Virtualization, PC Power Management, CRT to LCD monitor replacements, and high efficiency UPS systems were a focus. Pilot Projects were established with PIER for emerging technologies such as: Integrated Classroom Lighting Systems (ICLS), Bi-Level Stairway Lighting systems, and Kitchen Demand Controlled Exhaust Hood ventilation controls. Additionally in 2008, the Partnership began collaboration with IOU Food Service Technology groups to expand energy efficiency in campus cafeterias. The plan for the 2013 – 2014 Partnership is to leverage these innovative pilot projects to a fully focused and large scale offering for the California Community Colleges.

e) <u>Integrated/coordinated Demand Side Management</u>:

Demand response programs provide tariff-based benefits to customers implementing demand response activities. For demand response initiatives involving the purchase and installation of equipment by SDG&E business customers, a plan will be developed to provide a financial incentive for energy savings resulting from the equipment supplied through the partnership program.

This partnership will look for opportunities to integrate demand response and other DSM services into the program implementation plan. Resources will be leveraged to improve implementation efficiency and reduce transactional impacts on partnership staff. IOU energy efficiency and demand response program staff will collaborate with partners to conduct comprehensive audits and identify energy efficiency measures and demand response opportunities. The approach will reduce technical resources by combining EE/DR audits to avoid duplication and collaborate on incentive offerings which will all minimize customer interruptions.

The partnership will also assist, where applicable, facility management staff that are interested in solar technology and will provide recommendations in facility operations through energy audits to improve its facilities with less costly EE/DR measures prior to implementing more costly solar technologies.

f) *Integration across resource types (energy, water, air quality, etc):*
N/A

g) *Pilots:*
N/A

h) *EM&V:*

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) *Diagram of Program*

See Appendix

8) *Program Logic Model.*

See Appendix

II. Sub-Program Implementation Plan – CDCR/IOU Partnership Program

1) Program Name

California Department of Corrections and Rehabilitation/Investor Owned Utility Statewide Energy Efficiency Partnership – Statewide Institutional Partnership

2) Projected Program Budget Table

Table 5[21]

Program #	Main Program Name / Sub-	Total Administrative Cost (Actual)	Total Marketing & Outreach (Actual)	TOTAL Direct Implementation	Integration Budget Allocated to Other Programs (if Applicable)	Total Budget By Program (Actual)
Market Sector Programs						
	Core Program #1					
	Sub-Program #1					
	Sub-Program #2					
	Etc.					
	TOTAL:					

3) Projected Program Gross Impacts Table

Table 6

Program #	Program Name / Sub-Programs	2013 - 2014	2013 - 2014
		Two-Year EE Program Gross kWh	Two-Year EE Program Gross kW
Market Sector Programs			
	Core Program #1		
	Sub-Program #1		
	Sub-Program #2		
	Etc.		
	TOTAL:		

[21] Definition of Table 1 Column Headings: Total Budget is the sum of all other columns presented here
Total Administrative Cost includes all Managerial and Clerical Labor, Human Resource Support and Development, Travel and
Conference Fees, and General and Administrative Overhead (labor and materials).
Total Direct Implementation – includes all financial incentives used to promote participation in a program and the cost of all direct labor, installation and service labor, hardware and materials, and rebate processing and inspection used to promote participation in a program.
Total Marketing & Outreach includes all media buy costs and labor associated with marketing production.
Integrated Budget Allocated to Other Programs includes budget utilized to coordinate with other EE, DR, or DG programs. Total Budget is the sum of all other columns presented here
Definition of Sub-Program: A "sub-program" of a program has a specific title; targets; budget; uses a unique delivery or marketing
approach not used across the entire program; and for resource programs, has specific estimated savings and demand impacts.

4) Program Description

a) Describe Program

San Diego Gas and Electric Company (SDG&E) and the California Department of Corrections and Rehabilitation (CDCR) are collaborating to continue the Department of Corrections and Rehabilitation/Investor-Owned Utility (IOU) Partnership for the 2010 - 2012 cycle. The CDCR/IOU partnership is a customized statewide energy efficiency partnership program that accomplishes immediate, long-term peak energy demand savings and establishes a permanent framework for sustainable, long-term comprehensive energy management programs at CDCR institutions served by California's four large IOU's.

This program capitalizes on the vast opportunities for efficiency improvements and utilizes the resources and expertise of CDCR and IOU staff to ensure a successful and cost-effective program that meets all objectives of the California Public Utilities Commission (CPUC or Commission). The program also leverages the existing contractual relationship between CDCR and Energy Service Companies (ESCOs) to develop and implement energy projects at CDCR facilities statewide. CDCR is comprised of Adult Institutions, Parole Offices, Community Conservation Camps, and Juvenile Facilities which encompass an estimated 47,714,415 square feet of occupied space.

In the 2006-2008 program cycle SDG&E and the other IOUs collaborated with CDCR facility staff to identify opportunities for energy efficiency projects by conducting audits at each location and compiled equipment information to create a pool of projects for implementation. CDCR worked diligently to remove barriers that had previously prevented energy efficiency projects from being implemented with state agencies. The IOU Management team executed an agency specific agreement with CDCR to capitalize on the agency's authority to complete on-site facility construction and renovation. Unlike other state agencies, CDCR has an Office of Facilities Management that handles all construction and operates independently from the Department of General Services (DGS). Based on past success the IOU Management team will facilitate another agency specific agreement with CDCR for the next program cycle.

CDCR initiated a Request for Proposal (RFP) to procure contractors, engineering subcontractors, and Energy Services Companies (ESCO's) to assist with project implementation at all statewide prison facilities. CDCR was also one of the first agencies to take advantage of the Energy $mart financing program available through the Department of Finance (DOF) and administrated by the Department of General Services (DGS) to finance their energy efficiency projects. Energy $mart financing has provided over 4.7 million dollars coupled with IOU incentives to fund energy efficiency projects at CDCR facilities. Energy $mart loans have been the main source of financial funding for CDCR energy efficiency projects and will continue to act as the primary source in the next program cycle.

Subsequently, the IOU Management Team initiated a RFP to procure an energy engineering and consulting firm devoted exclusively to the CDCR/IOU partnership program. The IOU Management Team has developed a cost-sharing model to help fund the Project Administrator dedicated to CDCR energy efficiency activities.

Future projects will continue to adopt a comprehensive approach by incorporating retrofits, new construction, and Demand Side Management (DSM) alternatives to include: demand-response, renewable self-generation, solar hot water and water efficiency. SDG&E, CDCR, and the other IOUs are confident that this partnership will be very successful through the next three-year cycle and are committed to expanding the program in the future.

b) List Measures

Measure Name	Rebate to end use customer or its assignee ($/unit)
Customized - Indoor Lighting	$ 0.24
Customized - Indoor Lighting Controls & EMS	$ 0.24
Customized - Outdoor Lighting	$ 0.24
Customized - Outdoor Lighting Controls	$ 0.24
Customized - Motors	$ 0.24
Customized - VFDs	$ 0.24
Customized - HVAC EMS	$ 0.24
Customized - Chillers	$ 0.24
Customized - HVAC	$ 0.24
RCx/MBCx	$ 0.24
Overall Building Performance	$ 0.10 above core
System Approach - Light Power Density	$ 0.10 above core
System Approach - Chillers	$ 0.10 above core
System Approach - Daylighting	$ 0.10 above core
System Approach - HVAC Energy Reduction	$ 0.10 above core

Table x: Program Specific Measures

c) List non-incentive customer services

The partnership shall provide the following non-incentive services:

1. Training and Education
2. Energy Audits
3. Technical Assistance
4. Design assistance
5. Due diligence/Project Review
6. Marketing/Outreach
7. Support of Assembly Bill 32, 900, Senate Bill 20-04

5) Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information:

Table 3

	Baseline		
	Metric A	Metric	Metric C
Program/Element			

Refer to the overarching PIP section.

b) Market Transformation Information:

Market Transformation Planning Estimates

Table 4

Program/Element	2013	2014
Metric		
Metric		
Metric		
Etc.		

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

The CDCR/IOU is a mature program that has a repeatable process for creating a project pipeline, seeking project approval, procuring project funding, implementing the project, monitoring the project, and inspecting. That does not mean the program does not have its challenges that affects implementation. These challenges/barriers are:

Barrier: Project Funding Constraints – With the challenges the state is facing with their budgetary constraints, great opportunities for energy efficiency projects are not easily addressed.

- o Solutions:
  - The Energy $Mart Loan program has been created to finance energy projects through the Department of General Services.
  - The IOUs On-Bill Financing Programs are either being implemented or developed as a way of financing smaller retrofit and modernization upgrades.
  - Increase the purview of CEC loans to include other State facilities.
  - IOU's to develop other innovative financing options.

Barrier: Financial market situation: The current financial crisis has taken its toll on the Energy $mart financing program. The Energy $mart program has significantly reduced the amount of preferred lenders in the portfolio resulting in a time intensive competitive process for loan procurement.

- o Solution: Continue to develop and research alternative funding mechanisms for energy efficiency projects.

Barrier: High cost for project overhead: CDCR is unique in that not only must the department account for traditional project costs it must also account for additional labor and facility access. ESCOs have limited timeframes and access to facilities. Additionally, guards must be assigned at each location for additional security.

Solution: The partnership will continue to offer high incentive rates to adjust for additional costs and to make projects viable.

d) Quantitative Program Targets:

See Master PIP Section 2

e) Advancing Strategic Plan goals and objectives:

See Master PIP Section

6) Program Implementation

a) Statewide IOU Coordination:

i) Program Name

California Department of Corrections and Rehabilitation/Investor Owned Utility Statewide Energy Efficiency Partnership

ii) Program Delivery Mechanisms

Delivery mechanisms, program elements, and subcontractor activities are detailed above in Master PIP Section 4, a and Section 6, a, ii.

CDCR does not utilize additional delivery mechanisms at this time. A detailed table of management activities for project delivery is provided below.

iii) Incentive Levels

a. Lighting projects- $0.24/kWh
b. Motors/VFDs/Compressors/Others - $0.24/kWh
c. HVAC projects with electrical savings - $0.24/kWh
e. New construction projects - $0.10 above core SBD rates.

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The CDCR/IOU partnership will rely on existing communication between the CDCR institutions and Operation and Maintenance (O&M) staff. This combined with the partnership management team structure will facilitate marketing activities through pre-established channels.

Key Activity	Description
Outreach	The partnership management team and program administrator will use preexisting communication channels to disseminate information throughout CDCR. Since the partnership is an agency specific agreement all interested parties are represented on the management team. Other pertinent parties are addressed my management team on an as needed basis.
Customer Follow-Up	CDCR partnership is an agency specific program. Follow-up is conducted at management team meetings held every 3 weeks.

Key Activity	Description
Implementation and Training	The partnership management team and program administrator share energy efficiency knowledge and implementation experience with all pertinent parties through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs as necessary.
Facility Audits	SDG&E will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

IOUs are continuously monitoring their respective local government partners to leverage off best practices and new/innovative programs. IOU's are also researching opportunities with the CEC to help provide alternative funding sources such as CEC loans for CDCR medical facilities. In regards to the ARB there is constant observation on air pollution policies to help CDCR meet the mandate of AB 32.

vi) Similar IOU and POU programs

The four IOUs strive to have consistency in their respective program offerings where practicable to make the transactional experience for the state agencies seamless and transparent. Where the IOUs differ in their implementation strategies, the state agencies are educated and guided by the management team to ensure complete process follow through. If POUs have interest in implementing EE programs, the partnership shall provide technical assistance in designing these programs if requested.

b) <u>Program delivery and coordination:</u>.

The CDCR/IOU Partnership is in a unique position in which by collaboration, has certain delivery and coordination activities made possible by the agreements that are in place as required when entering into the partnership. Below are types of coordination activities already in place within the partnership:

i. Emerging Technologies Program

If opportunities allows, the IOUs bring forth emerging technologies to the partner either through PIER project opportunities or the management team's introduction of technology demonstration projects.

ii. Codes and Standards Program

Referenced above in the Master PIP

iii. WE&T Efforts

WE&T type of activities is an integral part of the MBCx strategy where facilities staff are trained to maintain building optimization adding value to their skill sets and further securing their need in the workforce

x. Program-specific marketing and outreach efforts (provide budget)

The outreach efforts for the partnership involves the Energy Management Section of the Facilities Management Division working directly with the individual prison sites

xi. Non-energy activities of program

Non energy activities include the technical assistance the partner may need but do no have the resource available in house. The program provides this kind of support as an added benefit to the partner in addition to the monetary incentives they may receive from the IOUs. CDCR however has adequate resources with ESCOs on board.

xii) Non-IOU Programs

n/a

xiii) CEC work on PIER

PIER technology projects are introduced into the programs at the project level when opportunities arise.

xiv) CEC work on codes and standards

xv) Non-utility market initiatives: Where applicable, include specific references to other sections of the application where there is more detail.

c) <u>Best Practices</u>:

Reference Master PIP

d) <u>Innovation</u>:
N/A

e) <u>Integrated/coordinated Demand Side Management</u>:
N/A

f) <u>Integration across resource types</u> (energy, water, air quality, etc):

SDG&E is exploring the option of including CDCR in a pilot water research program. Initial discoveries show that similarities exist between pilot facilities and CDCR's unique facilities.

g) <u>Pilots:</u>
N/A

h) <u>EM&V:</u>

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) Diagram of Program :

See Appendix

8) Program Logic Model:

See Appendix

III. Sub-Program Implementation Plan – UC/CSU/IOU Partnership Program

1) Program Name

University of California (UC)/California State University (CSU) / Investor-Owned Utility (IOU) Energy Efficiency Partnership

2) Projected Program Budget Table

Table 7[22]

Program #	Main Program Name / Sub-	Total Administrative Cost (Actual)	Total Marketing & Outreach (Actual)	TOTAL Direct Implementation	Integration Budget Allocated to Other Programs (if Applicable)	Total Budget By Program (Actual)
Market Sector Programs						
	Core Program #1					
	Sub-Program #1					
	Sub-Program #2					
	Etc.					
	TOTAL:					

3) Projected Program Gross Impacts Table

Table 8

Program #	Program Name / Sub-Programs	2013 - 2014 Two-Year EE Program Gross kWh Savings	2013 - 2014 Two-Year EE Program Gross kW Savings
Market Sector Programs			
	Core Program #1		
	Sub-Program #1		
	Sub-Program #2		
	Etc.		
	TOTAL:		

[22] Definition of Table 1 Column Headings: Total Budget is the sum of all other columns presented here
Total Administrative Cost includes all Managerial and Clerical Labor, Human Resource Support and Development, Travel and
Conference Fees, and General and Administrative Overhead (labor and materials).
Total Direct Implementation – includes all financial incentives used to promote participation in a program and the cost of all direct labor, installation and service labor, hardware and materials, and rebate processing and inspection used to promote participation in a program.
Total Marketing & Outreach includes all media buy costs and labor associated with marketing production.
Integrated Budget Allocated to Other Programs includes budget utilized to coordinate with other EE, DR, or DG programs. Total Budget is the sum of all other columns presented here
Definition of Sub-Program: A "sub-program" of a program has a specific title; targets; budget; uses a unique delivery or marketing approach not used across the entire program; and for resource programs, has specific estimated savings and demand impacts.

4) Program Description

a) Describe Program

The University of California, California State University (UC/CSU), San Diego Gas and Electric Company (SDG&E) and the three other Investor-Owned Utilities (IOUs) are collaborating to continue the Energy Efficiency Partnership Program to share energy efficiency best practices and to implement energy efficiency projects for immediate and long-term energy savings and peak demand reduction.

The UC/CSU/IOU Partnership is a natural fit with the goals, objectives and strategies articulated in the CLTEESP. The partnership was designed to achieve immediate energy and demand savings and establish a permanent framework for sustainable, comprehensive energy management programs. The partnership program is an existing statewide nonresidential program that will continue in the 2013 - 2014 program cycle. It will continue to offer incentives for retrofit projects, monitoring-based commissioning, and training for campus energy managers.

SDG&E and the other IOUs have implemented the partnership program with the goal of extending the reach and effectiveness of traditional utility programs by using the UC and CSU system communication and outreach channels. This will achieve broad penetration of energy efficiency services on campuses. SDG&E will engage the UC and CSU systems to be strategic partners to help reach campus end-use customers through partnership activities and serve as channels for the IOUs' other energy efficiency and demand reduction programs.

The statewide partnership concept was pioneered during the 2004-05 program cycle by the four IOUs and the UC and CSU systems. The program was very successful in achieving the above goals. The UC/CSU/IOU Energy Efficiency Partnership will build on this success and emulate these strategies for the 2013 - 2014 program cycle. Projects will adopt a comprehensive approach by including retrofits and DSM alternatives to include: demand-response, distributed generation (renewable self-generation), solar hot water and water efficiency.

b) List Measures.

Measure Categories	Technologies
Lighting	Includes indoor and outdoor fluorescent, HID, LED replacements, lighting controls, and other lighting projects.
Controls and other Equipment	Includes fans, motors, VFDs, air compressors, EMS systems and other equipment not covered under the lighting or HVAC categories.
Air Conditioning and Refrigeration	Includes system and major subsystem replacements
Other	New Construction, RCx, MBCx and others

Incentives

Incentives will be paid on projects based on a cents per kWh saved. These rates are an average of $ .24/kwh saved. Incentives are paid by the utility to the agency upon completion of the project. They are based upon the agreed-upon energy savings determined as part of the project evaluation, subject to changes made during the project's implementation. All gas savings will be at $1.00 per therm.

Incentive rates for the Partnership will be as follows:

Lighting projects will be at $0.24/kWh

Motors/VFDs/Compressors/Others - $0.24/kWh

HVAC projects with electrical savings will be $0.24/kWh

All gas savings will be at $1.00/Therm

c) List non-incentive customer services

The partnership shall provide the following non-incentive services:

a. Audit services
b. Technical assistance
c. Training and education
d. Design assistance
e. Due diligence project review
f. Outreach activities

5) Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information:

Table 3

	Baseline		
	Metric A	Metric	Metric C
Program/Element			

Refer to the overarching PIP section.

b) <u>Market Transformation Information:</u>

Table 4

Program/Element	2013	2014
Metric A		
Metric B		
Metric C		
Etc.		

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers: .

d) Quantitative Program Targets:
See Master Section PIP

e) Advancing Strategic Plan goals and objectives:

The California Long-Term Energy Efficiency Strategic Plan (Strategic Plan) sets forth a statewide roadmap to maximized achievement of cost–effective energy efficiency in California's electricity and natural gas sectors between 2009 and 2020, and beyond. **See Appendix:** summarizes how the Institutional Objectives and Strategies during the 2013 - 2014 program cycle contribute to the fulfillment of the Strategic Plan near-term action and steps toward the plan's longer term goals.

6) Program Implementation

a) Statewide IOU Coordination:
i) Program Name
University of California (UC)/California State University (CSU) / Investor-Owned Utility (IOU) Energy Efficiency Partnership

ii) Program Delivery Mechanisms
Quality Assurance and Evaluation Activities
For reporting purposes, both the State and the IOUs require a stringent measurement and validation (M&V) process. For ESCO projects, the state requires measurement of energy savings that are accurate and objective to ensure that the ESCO is meeting the conditions of their performance contract. An ESCO includes in its proposal a guarantee to provide an energy analysis compiled by an M&V agent that the state and the IOU, where applicable, must approve prior to payment. M&V services are equally important to the IOUs because they must provide a verification of savings to the California Public Utilities Commission to substantiate their use of public good charge funds. The state and the IOUs require assistance from subcontractors to perform M&V tasks.

The partnership management team establishes and oversees quality assurance measures for the partnership programs including oversight and verification of subcontractor activities. These procedures and the associated reporting are developed in detail during the program implementation process. Project teams provide the level of due diligence and quality assurance that are consistent with current partnership and utility programs.

Test samples include a representative percentage of pre- and post-installation

confirmation assignments

iii) Incentive Levels

a. Lighting projects- $0.24/kWh
b. Motors/VFDs/Compressors/Others - $0.24/kWh
c. HVAC projects with electrical savings $0.24/kWh
d. All gas savings - $1.00/Therm
e. New construction projects - $0.10 above core SBD rates.

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The UC/CSU/IOU Partnership is fortunate to have a built-in marketing and communication network between the UC Office of the President, the CSU Chancellors Office, and the campus energy managers. This ―buy-in‖ from the top opens up communications channels to the whole system. Combined with the existing management structure from the 2006-08 programs, this will facilitate marketing activities through pre-established channels for 2013 - 2014. Due to support from the top of the organization, partnership programs will be very visible and provide opportunities to leverage existing UC and CSU conferences and meetings to raise awareness among campuses for the program. In 2006-08 this was accomplished via the UC Sustainability Conference and the CSU Facilities Conference. As such, marketing efforts are minimal and cost effective.

Key Activity	Description
Outreach	The partnership management team begins outreach efforts by contacting each campuses head of facilities management informing them of the availability of funds for approved measures and activities in the partnership. The team schedules meetings to discuss options, implementation criteria, benefits of program participation, and program offerings.
Customer Follow-Up	The partnership management team, in coordination with staff from the state and the IOUs, visit each targeted site to talk with facilities managers about the various options and proposed energy efficiency measures. After confirming an appropriate site for implementing measures and/or retro- commissioning, the management team meets the appropriate facilities managers to present the anticipated energy savings, other benefits, and considerations associated with the implementation.
Implementation and Training	The partnership management team share energy efficiency knowledge and implementation experience with other public agency entities through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs.
Facility Audits	SDG&E will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

Reference Master PIP

vi) Similar IOU and POU programs

b) *Program delivery and Coordination:*

c) *Best Practices:*

Reference Master PIP

d) *Innovation:*

The UC/CSU campuses have made significant progress in adopting innovative projects during the 2006-08 program cycles. Projects and technologies in the high technology (IT systems) areas such as server virtualization, PC power management, and CRT to LCD monitor replacements, and high efficiency UPS systems were a focus. Pilot projects were established with PIER for emerging technologies such as: Integrated Classroom Lighting Systems (ICLS), bi-level stairway lighting systems, and kitchen demand controlled exhaust hood ventilation controls. Additionally in 2008, the partnership began collaboration with IOU food service technology groups to expand energy efficiency in campus cafeterias. The plan for the 2013 - 2014 partnership is to leverage these innovative pilot projects to a fully focused and large scale offering for the UC/CSU Universities.

e) *Integrated/coordinated Demand Side Management:*

See Master Section PIP

f) *Integration across resource types (energy, water, air quality, etc):*

g) *Pilots:*

h) *EM&V:* .
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) *Diagram of Program :*
See Appendix

8) *Program Logic Model:*
See Appendix

IV. Sub-Program Implementation Plan – State of California/IOU Partnership Program

1) *Program Name*
State of California/IOU Statewide Energy Efficiency Partnership Sub-Program

2) *Projected Program Budget Table*

Table 9[23]

Program #	Main Program Name / Sub-	Total Administrative Cost (Actual)	Total Marketing & Outreach (Actual)	TOTAL Direct Implementation	Integration Budget Allocated to Other Programs (if Applicable)	Total Budget By Program (Actual)
Market Sector Programs						
	Core Program #1					
	Sub-Program #1					
	Sub-Program #2					
	Etc.					
	TOTAL:					

3) Projected Program Gross Impacts Table

Table 10

Program #	Program Name / Sub-Programs	2013 - 2014 Two-Year EE Program Gross kWh	2013 - 2014 Two-Year EE Program Gross kW
Market Sector Programs			
	Core Program #1		
	Sub-Program #1		
	Sub-Program #2		
	Etc.		
	TOTAL:		

[23] Definition of Table 1 Column Headings: Total Budget is the sum of all other columns presented here
Total Administrative Cost includes all Managerial and Clerical Labor, Human Resource Support and Development, Travel and
Conference Fees, and General and Administrative Overhead (labor and materials).
Total Direct Implementation – includes all financial incentives used to promote participation in a program and the cost of all direct labor, installation and service labor, hardware and materials, and rebate processing and inspection used to promote participation in a program.
Total Marketing & Outreach includes all media buy costs and labor associated with marketing production.
Integrated Budget Allocated to Other Programs includes budget utilized to coordinate with other EE, DR, or DG programs. Total Budget is the sum of all other columns presented here
Definition of Sub-Program: A "sub-program" of a program has a specific title; targets; budget; uses a unique delivery or marketing
approach not used across the entire program; and for resource programs, has specific estimated savings and demand impacts.

4) Program Description

a) Describe Program

SDG&E and the State of California are collaborating to continue the State of California/Investor-Owned Utilities (IOU) Energy Efficiency Partnership program for the 2013 - 2014 program cycle. This program's goals include sharing energy efficiency (EE) best practices and implementing projects to capture immediate and long-term energy savings and to produce mechanisms for peak demand reduction.

The program will assist the state's agencies to reduce the amount of energy they purchase from the grid by 20 percent by the year 2015, as required by the governor's Executive Order S-20-04 (i.e. Green Building Initiative (GBI)). Like all Executive Orders, the GBI is an unfunded mandate that requires State agencies to support the governor's environmental agenda.

Accompanying the GBI is the Green Building Action Plan (GBAP), which contains detailed instructions on how to achieve the mandated energy savings and reduction in demand. In addition to requiring all new construction and large renovations to meet Leadership in Energy and Environmental Design (LEED) silver certification requirements, the GBAP directs the state to benchmark, retro-commission, and retrofit its existing building stock.

The objective of the State of California/IOU Partnership program is to develop creative strategies to maximize the implementation of energy efficiency opportunities throughout the state. Through the partnership, the state can increase the value that agencies receive on their investments in energy efficiency measures. The overall goal is to uncover opportunities for retro-commissioning and retrofits by leveraging IOU incentive programs. In addition to financial benefits, the partnership provides a mechanism for the State to receive technical assistance from IOU staff and consultants. The partnership assists state agencies to comply with Executive Order S-20-04, the California Public Utilities Commission (CPUC) Decision 05-09-043, and the IOUs' CPUC-approved energy efficiency and demand response programs.

Program activities will operate on a statewide, integrated basis, focusing on the development and implementation of projects that will provide immediate energy savings and set the foundation for a long-term partnership that focuses on sustainability and best practices. SDG&E will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

This partnership will seek opportunities to coordinate and integrate projects with other demand side management (DSM) programs and will provide a comprehensive approach by including retrofits and DSM alternatives that include demand-response, distributed generation (renewable self-generation), solar hot water, and the energy efficiency related elements of water conservation.

b) List Measures

Measure Name	Rebate to end use customer or its assignee ($/unit)
Customized - Indoor Lighting	$ 0.15
Customized - Indoor Lighting Controls & EMS	$ 0.15
Customized - Outdoor Lighting	$ 0.15
Customized - Outdoor Lighting Controls	$ 0.15
Customized - Motors	$ 0.18
Customized - VFDs	$ 0.18
Customized - HVAC EMS	$ 0.18
Customized - Chillers	$ 0.24
Customized - HVAC	$ 0.24
RCx/MBCx	$ 0.24
Overall Building Performance	$ 0.10 above core
System Approach - Light Power Density	$ 0.10 above core
System Approach - Chillers	$ 0.10 above core
System Approach - Daylighting	$ 0.10 above core
System Approach - HVAC Energy Reduction	$ 0.10 above core

c) List non-incentive customer services

The partnership shall provide the following non-incentive services:

g. Audit services
h. Technical assistance
i. Training and education j. Design assistance
k. Due diligence project review l. Outreach activities

5) Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information:

Table 3

	Baseline		
	Metric A	Metric	Metric C
Program/Element			

Refer to the overarching PIP section.

b) Market Transformation Information:

Table 4 Market Transformation Planning Estimates

Program/Element	2013	2014
Metric		
Metric		
Metric		
Etc.		

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

The State of California's departments and systems are large, complex organizations with diverse geographic, climatic, and operational needs that serve a broad range of stakeholders and constituencies. With this size and diversity comes an opportunity to save energy and energy costs on a scale that is significant to the IOUs and to California taxpayers. In the 2006-08 program cycle, the partnership allowed the State and IOUs to remove many barriers and achieve some milestones that include:

Barrier: Agreement of Objectives – In order for the Partnership to have a clear vision that supports the goal, it is clear that a guiding agreement needs to be set it place to allow the team to initiate the effort.

- Solution: A Memorandum of Understanding (MOU) with the State to implement the partnership program in support of the Green Building Initiative allowed the partnership to have the proper sponsorship that provides enablement for the Department of General Services (as the state's primary procurement agency) and cooperation from each of the 36 agencies.

Barrier: Project Delivery Mechanism – The State of California's departments and systems are large, complex organizations with diverse geographic, climatic, and operational needs that serve a broad range of stakeholders and constituencies. As the primary state procurement agency, the Department of General Services needed to have a project delivery mechanism in order to take advantage of the great energy savings opportunities for the state's agency facilities.

- Solution: A model contract between the state and an Energy Service Company (ESCO) was developed and approved.
- Solution: A list of qualified ESCOs is being used during the selection process.
- Solution: An ESCO Request for Proposals has been developed and the first round of projects is out for bid. A list of projects has been created for the project approval process.

Barrier: Project Funding Constraints – With the challenges the state is facing with their budgetary constraints, great opportunities for energy efficiency projects are not easily addressed.

- Solution: The Energy $Mart Loan program has been created to finance energy projects through the Department of General Services.

- Solution: The IOUs On-Bill Financing Programs are either being implemented or developed as a way of financing smaller retrofit and modernization upgrades.
- Solution: Increased IOU incentives offerings to motivate the state to complete EE projects.
- Increase purview of CEC loans to incorporate ―other‖ State facilities.
- Performance contracting with ESCOs
- On-Bill Financing program
- Additional innovative financing options

Barrier: Information Dissemination – Some of the agencies lack the technical expertise to develop or manage projects. Therefore the state loses out on opportunities to improve efficiency when staff is unaware of available technology and measures or a lack of funds, or lack of management support causes the removal of such measures from a project.

- Solution: The management team is currently developing an information tool for agencies that helps reveal the savings potential of implementing projects with likely energy efficiency measures that may appear in agencies' typical facilities. This is meant to appeal to the facilities managers or decision makers and allow the IOU to perform detailed energy audits that eventually lends itself to a project proposal.

Barrier: Gap in ESCO Process and Small Projects – The prior program cycle revealed to the management team that while the ESCO process and Energy $mart project financing mechanism works for the larger projects, smaller projects cannot pass the Life-Cycle Cost Analysis and the ESCOs do not find the projects attractive. 95% of the state's building inventory is less than 25,000 sq. ft. which indicates the majority of the projects are smaller.

- Solution: The management team is exploring alternative project delivery and financing models which may include a mechanism that creates seed money for starting up projects and integrating it with the On-Bill Financing program. This would be augmented by innovative pilot project delivery models such as the project co-funding approach, low to no cost measure offerings, and third party program bridging to pilot concepts that may fill gaps in the program.

Barrier: Specific agencies who partake in EE projects are unable to delegate utility incentives to their internal budgets

- Solution: Work with Department of Finance to authorize agencies to keep incentives.

Barrier: Lack of consensus between executive buy-in and facility management.

- Solution: Management team to push for coordinated meetings with executives and facility management.

Barrier: The State of CA and unfunded mandates

Solution:

- State of CA to assign funding for specific energy efficiency projects.
- Increase purview of state agencies under CEC loans.

d) Quantitative Program Targets:

See Master Section

e) Advancing Strategic Plan goals and objectives:

The California Long-Term Energy Efficiency Strategic Plan (Strategic Plan) sets forth a statewide roadmap to maximized achievement of cost–effective energy efficiency in California's electricity and natural gas sectors between 2009 and 2020, and beyond. **Appendix R:** summarizes how the Institutional Objectives and Strategies during the 2013 - 2014 program cycle contribute to the fulfillment of the Strategic Plan near-term action and steps toward the plan's longer term goals.

6) Program Implementation

a) Statewide IOU Coordination:

i) Program Name

The State of California/IOU Energy Efficiency Partnership Program

ii) Program Delivery Mechanisms

Delivery mechanisms, program elements and subcontractor activities are detailed above in Master PIP Section 4, a.

The State of CA is unique in the fact that it utilizes benchmarking systems for project identification.

Benchmarking

The identification of potential projects begins with a benchmarking effort. The state uses the United States Department of Energy's benchmarking tool, Portfolio Manager, to determine the ENERGY STAR scores of all state-owned buildings.
Low-scoring facilities may be candidates for retro-commissioning or retrofit projects.

Buildings that receive scores of 75 or higher meet the requirements of Executive Order S-20-04.

Buildings that receive an ENERGY STAR® score between 45 and 75 receive consideration for retro-commissioning.

Buildings that receive scores lower than 45 are candidates for retrofits or renovation.

These buildings would not benefit from retro-commissioning since the low score indicates the existence of problems that lie outside the scope of retro-commissioning, such as major equipment replacement.

Once a retro-commissioning or a retrofit project maximizes a building's energy efficiency, it is benchmarked again during the measurement and verification (M&V) process. Benchmarking provides the information that the state needs to compile a yearly report on progress made toward achieving the 20 percent reduction in energy usage by 2015 (mandated by Executive Order S-20-04), and allows the IOUs to document the energy savings accrued by the partnership. The state conducts these activities with assistance from the IOUs. In fact, during the previous cycle, the partnership was instrumental in providing support to the State, the IOUs, and administrator for the Portfolio Manager program at the U.S. Department of Energy to allow the IOU energy usage data to seamlessly transfer to the DOE database for benchmarking. These modifications benefited not only the state, but other customers, as well as the federal program operators. This unanticipated benefit reflects the type of opportunities the partnership makes available to the state.

iii) Incentive Levels

a. Lighting projects- $0.15/kWh
b. Motors/VFDs/Compressors/Others - $0.18/kWh
c. HVAC projects with electrical savings - $0.24/kWh
d. All gas savings - $1.00/Therm
e. New construction projects - $0.10 above core SBD rates.

iv) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The retrofit and retro-commissioning program elements use similar marketing approaches. The partnership management team, in coordination with DGS and other state agency staff conduct marketing and outreach efforts. These efforts are accomplished using contacts with facility administrators and managers. Team members inform them of the availability of energy efficiency services available through the partnership and other utility programs. Key marketing activities include:

Key Activity	Description
Outreach	The partnership management team begins outreach efforts by contacting the heads of facilities management for each department, informing them of the availability of funds for approved measures and activities in state facilities. The team schedules meetings to discuss options, implementation criteria, benefits of program participation, and program offerings.
Customer Follow-Up	The partnership management team, in coordination with staff from the state and the IOUs, visit each targeted site to talk with facilities managers about the various options and proposed energy efficiency measures. After confirming an appropriate site for implementing measures and/or retro- commissioning, the management team meets the appropriate facilities managers to present the anticipated energy savings, other benefits, and considerations associated with the implementation.
Implementation and Training	The partnership management team share energy efficiency knowledge and implementation experience with other public agency entities through a series of meetings and workshops. These meetings and workshops are coordinated with other partnership programs.

v) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

The partnership shall utilize the available CEC funding mechanism for the state hospital projects. There are currently two state hospital facilities in the pipeline to take advantage of this opportunity.

vi) Similar IOU and POU programs

The four IOUs strive to have consistency in their respective program offerings where practicable to make the transactional experience for the state agencies seamless and transparent. Where the IOUs differ in their implementation strategies, the state agencies are educated and guided by the management team to ensure complete process follow through. If POUs have interest in implementing EE programs, the partnership shall provide technical assistance in designing these programs if requested.

b) <u>Program delivery and coordination:</u>

The State of California/IOU Partnership is in a unique position in which by collaboration, has certain delivery and coordination activities made possible by the agreements that are in place as required when entering into the partnership. Below are types of coordination activities already in place within the partnership:

i. Emerging Technologies Program
If opportunities allows, the IOUs bring forth emerging technologies to the partner either through PIER project opportunities or the management team's introduction of technology demonstration projects.

ii. Codes and Standards Program

See Master PIP Section

iii. *WE&T Efforts*

WE&T type of activities is an integral part of the MBCx strategy where facilities staff are trained to maintain building optimization adding value to their skill sets and further securing their need in the workforce.

iv. *Program-specific marketing and outreach efforts (provide* budget)
The outreach efforts for the partnership involve working with individual state agencies that may have the resources or commitment to implement energy efficiency projects.

v. Non-energy activities of program

Non energy activities include the technical assistance the partner may need but do no have the resource available in house. The program provides this kind of support as an added benefit to the partner in addition to the monetary incentives they may receive from the IOUs.

vi. Non-IOU Programs

The partnership understands that some third-party programs serve the purpose of filling program gaps. The IOUs sees this as an added value to the program offering and makes the effort of augmenting the program's offering with these non-IOU programs.

vii. CEC work on PIER

PIER technology projects are introduced into the programs at the project level when opportunities arise.

viii. CEC work on codes and standards
N/A

ix. Non-utility market initiatives:

N/A

c) *Best Practices:*
See Master Section PIP

d) *Innovation:*

There are several innovative models currently being developed. They include:

A co-funding model allows the project implementation activities to be shared between the agency and the IOU in order to facilitate implementation where barriers exist. In the state's stringent contracting requirements, one approach is to perform contracting and contract payments through the IOU's project implementation infrastructure. This system works around obstacles that agencies would normally encounter with the state's infrastructure while still complying with internal requirements.

An On-Bill Financing pilot was held with the California Department of Fairs and Exposition. The IOUs completed this financing program's development with a take away from this pilot of the best practices that were incorporated intoOn-Bill Financing.

Shared Savings-Direct Install program. The State of California is facing significant funding and implementation barriers the IOU's are looking at the potential of a Direct Install/Shared Savings pilot for the 09-11 cycle.

e) Integrated/coordinated Demand Side Management:

See Master Section PIP

f) Integration across resource types (energy, water, air quality,

etc): N/A

g) Pilots:

The State of California Partnership program is exploring different options for program delivery models that may fill gaps in program design. While the Retro-commissioning and ESCO process may work for larger projects, a solutions package for the small retrofit and modernization project is needed for the majority of the projects. The partnership program is currently underway with pilot projects that address the project development and financial barriers. These pilot projects are as follows:

A co-funding model allows the project implementation activities to be shared between the agency and the IOU in order to facilitate implementation where barriers exist. In the state's stringent contracting requirements, one approach is to perform contracting and contract payments through the IOU's project implementation infrastructure. This system works around obstacles that agencies would normally encounter with the state's infrastructure while still complying with internal requirements.

An On-Bill Financing pilot is currently in process with the California Department of Fairs and Exposition. The IOUs will complete this financing program's development with a take away from this pilot of the best practices as it affects On-Bill Financing.

Shared Savings-Direct Install program. The State of California is facing significant funding and implementation barriers the IOU's are looking at the potential of a Direct Install/Shared Savings pilot for the 09-11 cycle.

h) *EM&V:*

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) *Diagram of Program :*

See Appendix

8) *Program Logic Model:*

See Appendix

V. Sub-Program Implementation Plan – San Diego County Water Authority Partnership Program

a. Statewide IOU Coordination:

i) Program name

San Diego County Water Authority (SDCWA) Partnership Program

ii) Advancing Strategic Plan goals and objectives

The programs meet the goals of the strategic planning process by generating energy savings through the implementation of a leak-loss detection and pressure management program. Additional elements to the program include a managed landscape component and a prison retrofit component.

iii) Program Delivery Mechanisms

Implementation of this program will be achieved through the successful Water Authority-SDG&E partnership. The partnership has been responsible for the installation of over 30,000 high-efficiency clothes washers, a successful energy efficiency survey program, a direct install program for restaurant pre-rinse spray valves, and the distribution of thousands of high-efficiency showerheads.

In the areas of education and outreach, the Water Authority executed major conservation- themed communications campaigns in the past, such as the successful ―Waterhog‖ campaign in the early 1990s, and the "20 Gallon Challenge" in the mid-2000s , to help achieve its voluntary conservation goals

iv) Program Design to Overcome Barriers

Barrier:

The leak detection program will integrate water savings and embedded energy savings through one program. The Water Authority will benefit through a reduction in water demand, and SDG&E will benefit through embedded energy savings.

Solution:

The program will achieve energy savings through a comprehensive program that targets the Water Authority's 24 member agencies as participants. The Water Authority will facilitate participation by its member agencies, and a third party contractor will provide leak detection and pressure management services.

v) Incentive levels

vi) Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

This program is a public outreach and education campaign designed to stimulate greater understanding and appreciation of how saving water can also save energy. The program aims

to achieve greater levels of awareness that eventually lead to increased participation

by water agencies in joint water-energy conservation programs offered by the Water Authority and SDG&E Another aim is to increase the number of energy and water-saving measures being implemented to help reduce regional energy demands by reducing demand for energy-intensive imported water.

vii) IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

viii) Similar IOU and POU programs

b. <u>Program delivery and coordination:</u>

<u>Leak Loss Detection Program for Water Agencies</u>

The Water Authority and its 24 member agencies own and operate numerous facilities and infrastructure, including flow control facilities, pumping facilities, water treatment facilities, and pipelines. Although the water agencies have participated in energy efficiency programs to reduce energy costs, many opportunities to improve energy efficiencies and reduce embedded energy consumption still exist.

This program will provide participating water agencies an opportunity to save water and embedded energy through top down water audits. The top down water audits will be performed by a third party contactor and will balance the total volume of water entering a water system against authorized consumption and water losses. The program will target the water agencies with cost-effective opportunities to recover leakage. The program will also identify opportunities for water agencies to implement pressure management measures to reduce or eliminate water loss due to leaks.

The program will also increase energy efficiency, energy conservation, and demand response knowledge for the Water Authority and its member agencies by providing numerous education and/or training opportunities.

In addition, the program will also aim to reduce water usage and embedded energy costs by incorporating successful components of recent water/energy pilots including but not limited to, managed landscaping irrigation components for large irrigated areas and retrofitting of high water usage equipment in a prison facility. The program will be implemented by hired subcontractors in the SDG&E/Water Authority's service area.

i) WaterSmart Landscape Efficiency Program*Advancing Strategic Plan goals and objectives*

San Diego Gas & Electric Company (SDG&E), in partnership with the San Diego County Water Authority (Water Authority), propose the WaterSmart Landscape Efficiency Program

to reduce net energy consumption related to water use by capturing embedded, or "upstream savings," and the conservation of water.

SDG&E and the Water Authority partnered to successfully developed and implement the "Managed Landscapes Program" (MLP) as a means to capitalize on water-related embedded energy savings. The partnership between SDG&E and the Water Authority leverages a long-standing relationship between the two organizations, which embodies the preservation of two vital resources, water and energy. In response to the ACR in R.06-04-010, directing IOUs to create a partnership with a water provider to implement a jointly funded pilot program, SDG&E and the Water Authority implemented a pilot program that featured the MLP as one of the key program elements. The program was subsequently evaluated and found to achieve significant water and water-related embedded energy savings. The proposed WaterSmart Landscape Efficiency Program (WSLEP) for 2013-2014 builds upon the successful MLP. Water management will continue to be at the core of the 2013-2014 program. The WSLEP will also expand the range of eligible landscape technologies and include targeted industry outreach to leverage a broader pool of qualified installers and water managers.

The Water Authority was formed in 1944. As a water wholesaler, the Water Authority's mission is to provide a safe and reliable supply of water to its 24 member agencies in the San Diego region, who in turn deliver the water to individual homes and businesses throughout the county. The agencies are represented through a board of directors. The county's 3 million residents rely on imported water for up to 70 percent of their total supply in a typical year. The Water Authority's vast experience makes it an ideal partner for SDG&E. Together, the two agencies will achieve the Commission's goal of maximizing opportunities to capture water-related embedded energy savings.

The San Diego region continues to rely on imported water to meet the majority of its water demand. Water resource management activities, including storage, transportation, treatment and distribution have been found to be among the state's top energy-intensive activities. As such, water conservation programs in the San Diego region have a significant embedded energy component. This partnership seeks to promote additional water and embedded energy savings.

The SDG&E/Water Authority partnership will work toward the following outcomes:

- Implementation of a program designed to maximize embedded energy savings per dollar of program cost, while also promoting the San Diego region's water conservation priorities.
- Maximize awareness of SDG&E/Water Authority energy efficiency and water conservation programs, in all market segments.

ii) Program Delivery Mechanisms

The WaterSmart Landscape Efficiency Program component will fully document and verify achieved water savings and related energy savings obtained through a performance-based incentive program. Participants will retain pre-qualified contractors to baseline water use, identify and install efficiency upgrades, establish a water budget, and manage the site's water use to deliver guaranteed savings. The program will focus on increasing the efficiency of outdoor water use - potable water used for aesthetic landscapes. Given that about 60% of all

municipal and industrial water is used on landscaping in an average year, efficient management of this increment is critical to achieve water and energy savings. This is especially important since 45% of all landscape water use takes place in May, June, July, and August when treatment and delivery systems are strained to meet demands. This same time frame coincides with the energy peak demand period.

Program Indicators

The program's primary Success Indictors will be: 1) number of participating sites; 2) quantity and diversity of landscape efficiency upgrades installed; 3) gallons of water saved for the duration of the program; and 3) number of sites that continue to comply with the water budget after completion of the program.

iii) Program Design to Overcome Barriers

The program will conduct a request for qualifications (RFQ) process to identify contractors with the appropriate experience and/or water management certifications. The program will be implemented in the Water Authority's service area at approved property sites owned by third party participants. Participants may include, but are not limited to, multifamily apartment complexes, condominiums, office parks, commercial properties, community associations, and large residential estates. All sites would receive a professional irrigation audit, water efficiency upgrades including smart irrigation controllers, and enrollment in a water budgeting program to track metered water consumption on a monthly basis.

a. <u>Program delivery and coordination:</u>

Project Operations:

Qualified contractors shall provide participants with a guaranteed savings program and use remote water management technologies, which may include smart irrigation controllers (based on climate or soil moisture) and other devices to track metered usage. Contractors will compile and produce detailed water usage reports to document savings over time.

Verification of Savings:

The program shall use metered data from dedicated landscape meters, obtained from participating water utilities (member agencies of the San Diego County Water Authority) to establish the baseline consumption history; to compare usage after installation; and to track savings performance over a period of one-year, or for the duration of the program.

Water Savings Estimates:

With the requirement that all sites with dedicated meters enroll in a water budget program, it is likely that a high level of savings will be achieved and retained long-term. Based on the *Embedded Energy in Water Pilot Programs Impact Evaluation Final Report*, average water savings may again be as high as 35%.

SDG&E and the Water Authority will establish and oversee quality assurance measures for the program, including oversight of contractor activities and field verification. These procedures and the associated reporting will be developed in more detail as a part of program

implementation. In general however, SDG&E and the Water Authority will continue the level of due diligence and quality assurance of its present energy efficiency offerings.

Prison Retrofit Program

ii)Advancing Strategic Plan goals and objectives

San Diego Gas & Electric Company (SDG&E), in partnership with the San Diego County Water Authority (Water Authority), propose the Prison Retrofit Program to reduce net energy consumption related to water use by capturing embedded, or "upstream savings," and the conservation of water.

SDG&E and the Water Authority partnered to successfully implement the Bailey Detention Facility retrofit after participation in the Water/Energy Large Audit Pilot Program as a means to capitalize on water-related embedded energy savings. The partnership between SDG&E and the Water Authority leverages a long-standing relationship between the two organizations, which embodies the preservation of two vital resources, water and energy. In response to the ACR in R.06-04-010, directing IOUs to create a partnership with a water provider to implement a jointly funded pilot program, SDG&E and the Water Authority implemented a pilot program that featured the Audit pilot as one of the key program elements. The program was subsequently evaluated and found to achieve significant water and water-related embedded energy savings. The proposed Prison Retrofit Program (PRP) for 2013-2014 builds upon the successful water/energy pilot. Water management will continue to be at the core of the 2013-2014 program.

The SDG&E/Water Authority partnership will work toward the following outcomes:
• Implementation of a program designed to maximize embedded energy savings per dollar of program cost, while also promoting the San Diego region's water conservation priorities.
• Maximize awareness of SDG&E/Water Authority energy efficiency and water conservation programs, in all market segments.

iii) Program Delivery Mechanisms

Prison Retrofit Program component will fully document and verify achieved water savings and related energy. Participants will retain pre-qualified contractors to identify and install water efficiency upgrades. During the pilot program, another detention facility in the SDG&E/Water Authority service territory had implemented flush timer technology and it reduced water consumption at the site. In addition, the detention facility plumbers are already familiar with the flush timers and low-flow toilets from prior maintenance experience and are proponents of the measures.

Program Indicators
The program's primary success indicators will be: 1) quantity and diversity of water efficiency upgrades installed; and 2) gallons of water saved for the duration of the program.

iv) Program Design to Overcome Barriers

The program will conduct a request for qualifications (RFQ) process to identify contractors with the appropriate experience and/or water management certifications. The program will be implemented in SDG&E/the Water Authority's service area at an approved property site.

b. Program delivery and coordination:

• Project Operations:
Qualified contractors shall provide participants with a guaranteed savings program and install water savings equipment such as electronic flush valves, low flow showerheads, low flush volume toilets, and sink aerators.

• Verification of Savings:
The program shall use metered data from member agency meters, obtained from participating water utilities (member agencies of the San Diego County Water Authority) to establish the baseline consumption history; to compare usage after installation; and to track savings performance over a period of one-year, or for the duration of the program.

• Water Savings Estimates:
Based on the Embedded Energy in Water Pilot Programs Impact Evaluation Final Report, water savings may again be as high as 35%.

SDG&E and the Water Authority will establish and oversee quality assurance measures for the program, including oversight of contractor activities and field verification. These procedures and the associated reporting will be developed in more detail as a part of program implementation. In general however, SDG&E and the Water Authority will continue the level of due diligence and quality assurance of its present energy efficiency programs.

c. Best Practices:

d. Innovation:

e. Integrated/coordinated Demand Side Management.

f. Integration across resource types (energy, water, air quality, etc): .

g. Pilots:

h. EM&V:

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) Diagram of Program :

See Appendix

8) Program Logic Model:

VI. Sub-Program Implementation Plan – University of San Diego Partnership Program

a. *Statewide IOU Coordination:*

i. *Program name*

University of San Diego Partnership Program

ii. *Program Delivery Mechanisms*

The overall goal of the University's Sustainability and Climate Change Initiative is to reduce energy usage and Green House Gas (GHG) emissions through facility and equipment improvements. In order to create a more sustainable campus with a smaller environmental footprint, the campus will be sharing best practices, provide community outreach, and education and training to key personnel.

Specific objectives to achieve these goals include:

1) Reduce overall energy consumption (kWh and therms);

2) Reduce campus demand (kW);

3) Increase use of renewable energy, both generated on-site and purchased

4) Educate campus audiences in identifying and adopting energy saving practices not only on campus, but also in their careers and homes.

All energy savings projects will focus on USD facilities. Education and outreach activities will be directed at USD students, faculty, staff, alumni, parents and friends of the University.

The proposed partnership is comprehensive in nature and is intended to set the foundation for a long-term program that focuses on sustainability and best practices. From a broad perspective, the projects included will address facility energy use, and education to the building occupants on energy use and reduction.

The proposed partnership seeks to first maximize energy and demand savings opportunities on campus through efficiency measures. These measures include but are not limited to: lighting retrofits, building wide lighting controls, boiler replacements, installation of water heaters, HVAC and chiller upgrades, VFDs, building commissioning, and central plant projects. Once efficiency and demand response participation are maximized, USD will explore ways to generate electricity onsite and where possible, USD will explore opportunities to create net zero energy buildings.

Program Measures and Services

In order to identify and implement the energy efficiency retrofit portion of our partnership, and with the help of USD will work in collaboration with their IOU representative(s) to identify opportunities and leverage best practices. When applicable, the campus may utilize external vendors, ESCOs, and/or other engineering firms in coordination with the campus energy manager to identify projects for additiona demand and consumption savings opportunities.

The proposed partnership will target all end uses, including but not limited to lighting, heating, ventilation, and air conditioning (HVAC); energy management systems, appliances, vending machines and other equipment, computer networks, servers, and other computer-related hardware. It will look at all aspects of energy use on campus, from chiller systems to every desktop computer, reinforcing the comprehensive approach of achieving deep energy efficiency retrofits.

Below is a list of core and sub-program elements that will be facilitated and pursued-

Core Program Elements	Sub-Program Elements	Type of Program Element
1 – Government and Institutional Facilities	Energy Efficiency Retrofits	Resource
	Retro-Commissioning (RCx) & Monitoring Based Commissioning (MBCx)	Resource
	Demand Response New Construction	Demand Response Resource
	Program Administrative Management and Engineering Support	Non-Resource (technical assistance for project management, training, audits, etc.)
	On-Bill Financing	Non-Resource
2 – Strategic Plan Support	Code Compliance Support	Non-Resource
	Reach Code Support	Non-Resource
	Guiding Document(s) Support	Non-Resource
	Funding Sources	Non-Resource
	Peer-to-Peer Support	Non-Resource
3 – Core Program Coordination	Outreach & Education	Non-Resource
	New Construction and Demand Response	Resource – Demand Response
	Third Party Program Coordination	Non-Resource
	Emerging Technologies	Non-Resource
	Technical assistance for program management, training, audits, etc.	Non-Resource

Measurable Energy and Demand Savings:

USD proposes to take a comprehensive approach to identifying and implementing energy and demand savings projects on campus, including:

- conducting comprehensive energy efficiency and demand response assessments
- implementing energy savings projects in existing USD buildings and
- Designing new and major renovation projects to seek LEED certification.

Working with its energy partners USD identified a range of retrofit projects on a building-by-building basis, which were the first projects undertaken in the 2010 - 2012 timeframe under the partnership. Through the extension of the partnership, USD will continue to conduct comprehensive campus-wide audits to identify energy efficiency and demand response opportunities across all USD facilities. USD will assess all facilities of the 186-acre campus, including 34 buildings totaling 2,738,616 square feet of usable space. Projects identified in this process, will be added to the current pipeline. USD is also evaluating opportunities to add renewable energy generation technology, such as photovoltaic, to buildings on campus.

SDG&E will provide integrated audits to government partners where cost effective and reasonable, ensuring coordination between programs and utilities for information sharing.

2013-2014 Energy Savings Goals		
	2013	**2014**
kWh	900,000	900,000
Therms	50,000	50,000
kW	500	500

iii. Program Design to Overcome Barriers

Energy efficiency has always been an important part of USD's facility planning and management. In the past, USD has conducted energy projects and participated in SDG&E's programs to the extent possible. Earlier energy efficiency efforts were typically done on a siloed building-by-building approach. With the resources provided through the partnership, USD would be able to take a more comprehensive and holistic approach to energy reduction and management.

Primary Barriers	Strategies to Overcome Barriers
Funding Levels- Project Funding Constraints. Energy efficiency is costly and budgets are limited. The actual decision-makers approving the details of a project often choose not to implement the higher-costing and more-efficient systems, equipment, or technologies. Incentive dollars are most often allocated to the general fund which creates an inability to ensure incentives are allocated toward the participating department budget.	This partnership helps to leverage incentives through SDG&E's core programs, assistance with project identification, staff time and consultant(s) to coordinate and execute projects. By funding a full-time dedicated energy manager, USD is able to dedicate one person to energy and sustainability initiatives, which would allow USD to develop a comprehensive plan of achieving deep energy retrofit savings. Incentives help relieve budgetary constraints and assist the economic evaluations of the customers by making energy efficiency more cost-effective. In addition to their purely economic role, the incentives play an important part in promoting the importance and visibility of energy efficiency. When a partnership can bring an incentive to the decision-making body and make a public announcement, it not only improves the economics, but it demonstrates the importance of the project and increases public awareness of both the utility's and the customer's commitment to energy efficiency and environmental quality. SDG&E's On-Bill Financing Programs is currently being implemented as a way of financing retrofit and modernization upgrades.
Short-sightedness- Economic decisions are often short-sighted, with capital limitations taking precedence over long-term savings, even when accurate economic analysis would select the higher initial cost of higher-efficiency choices.	Education, training, marketing, and outreach bring energy efficiency awareness to key stakeholders and decision-makers at all levels. Through the collaboration between SDG&E and USD, this partnership will incorporate education and training for a variety of people on campus and within the local community. This component will enhance the awareness of energy efficiency and sustainability, which in turn will subdue some of the barriers caused by lack of information or erroneous economic analysis.
Technology- itself is rapidly developing, and even the best-informed energy professionals have difficulty distinguishing between sales propaganda	Integration and collaboration allows the partnerships to take advantage of all energy efficiency programs and expertise offered by the IOUs. This integration will break down many

Primary Barriers	Strategies to Overcome Barriers
and truly valid technical advancements.	customer barriers in regards to participation and access of resources.. Future strategic plans are being developed to include new construction, emerging technologies, education and training, demand response, California Solar Initiative (CSI), self-generation, on-bill financing, and other utility programs within the scope of partnership activities.
Staffing- Staff time is at a premium, with most facilities personnel having too much to do in too little time. Attention to proper energy efficiency is time consuming and may get shelved as staff members work on more immediately urgent problems. While USD has always been committed to efficiency, having an energy manager dedicated to energy and sustainability tasks would allow USD to develop the more comprehensive, campus-wide approach proposed in this partnership.	• Professional assistance from utility staff and partnership consultants allows potential projects to be identified and evaluated. With limited staff and funding, USD does not have the time to methodically evaluate their buildings and identify the most salient energy efficiency projects. Furthermore, facility personnel often lack the technical expertise to evaluate those projects and determine the best energy efficiency improvements. • In 2010 as a result of this partnership, USD was able to hire and fund a full-time energy manager and part-time interns dedicated to identify and implement energy efficiency and demand response projects, conduct strategic energy planning for the campus, develop and coordinate the creation of campus energy policies, act as a liaison between campus departments and stakeholders, etc.

iv. Advancing Strategic Plan goals and objectives

USD is proposing a partnership in the –Other‖ category; therefore, many of the specific issues addressed in the strategic plan may not apply. Below we have addressed some of the main issues as they apply to our partnership and proposed activities.

- Net Zero Energy Opportunities—highly efficient buildings with associated renewable energy generation (3. Commercial Sector, Strategy 4)
- Leading by example, with built projects and implementation of policies (3. Commercial Sector, Strategy 2)
- Enforcing state energy efficiency/conservation codes and standards (7. Codes & Standards, Strategy 2)
- Adopting stricter local codes for new and existing buildings (7. Codes & Standards, Strategy 1)
- Incentivizing projects that voluntarily exceed state and local minimum energy standards (7. Codes & Standards, Strategy 1)
- Requiring municipal contractors and vendors to meet higher energy efficiency standards for services and products that they provide to local government (7. Codes & Standards, Strategy 1 and 12. Roles of Local Government, Strategy 1)
- Collaborating with other entities, including IOUs, in outreach initiatives, and providing education and technical assistance to local residents and businesses, if resources are available
- Participate in energy efficiency pilot projects and behavioral studies as applicable
- 1.1.5 – Develp and adopt programs to encourage energy efficiency such as one-stop permitting, on-line permitting, separate Zero Net Energy permit process, density bonuses, or a recognition program.

    - GOAL: Develop a policy and implement a recognition program in 2013
- 2.1 – Improve processes resulting in increased code compliance through education, training and enforcement practices.
    - GOAL: Develop internal training procedures for staff and seek to develop a program in partnership with SDG&E and the continuing education department at USD
- 3.1 – Develop a program to track energy usage, such as through energy management software and benchmarking of facilities.
- 3.1.1 Develop energy benchmarking policies and procedures to enable ongoing benchmarking facilities.
- 3.2 – Adopt an Energy or Climate Action Plan for operations.
    - 3.2.3 – Develop a policy for a revolving energy efficiency fund for facilities
    - Develop commissioning/retro-commissioning policies for facilities
- 4.1 – Adopt a Climate Action Plan (CAP), Energy Action Plan (EAP) or adopt energy efficiency language into another policy document such as a General Plan, to reduce community greenhouse gas emissions with a focus on energy efficiency.
    - 4.1.2 - Customize CAP with energy efficiency language and data.
    - 4.1.3 - Update General Plan/Conservation element with the Climate policies. Provide energy efficiency framework and data for other people doing planning.
    - 4.1.4 Conduct the energy efficiency savings analysis for an annual Greenhouse Gas inventory for the campus.
    - GOAL: Complete these measures before 2015.

v. Incentive levels

USD will utilize SDG&E's core rebates and incentives programs with the facilitation of their partnership representative.

vi. Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

The proposed marketing and outreach activities seek to touch everyone associated with the University, including all students, faculty, staff, alumni and parents. This broad approach will allow us to communicate our efforts, the general benefits of energy efficiency, and the availability of regional energy programs to nearly 100,000 people.

To accomplish overall goals to make USD more sustainable and to reduce greenhouse gas emissions, USD will implement a range of strategies. The principle strategies are listed below.

Simplify and Standardize Relevant Policies and Codes at Statewide Level: USD seeks to institutionalize green building protocols, including a process to evaluate all new projects and to conduct regular assessments to maximize efficiency in buildings and other equipment. USD also seeks to create better cross-departmental cooperation on complex projects that involve the jurisdiction of many departments on campus.
Several key areas, like building maintenance, are divided among several different departments. By streamlining these processes, USD hopes to improve the effectiveness with which we identify, finance, implement, and maintain energy improvement measures.

Build Capacity for Local Institutions to Lead by Doing: By hiring a full time Partnership Manager, USD will be increasing its capacity to develop and implement energy efficiency, renewable energy, and green building projects on campus. This process has helped to increase knowledge and awareness of LEED certification. The proposed Partnership Manager will be responsible for directing the LEED certification process. USD hopes to develop educational signs and kiosks to educate the USD campus and visitors about our sustainability efforts.

Maximize Energy Efficiency in New and Existing Construction through Local Institution Policy: The Sustainability and Climate Change Task Force is currently assessing existing policies in the areas of new construction, purchasing, recycling, etc. It is anticipated that USD will develop a policy to require some level of LEED rating on all new construction and major renovation projects.

Rapidly Upgrade and Expand Energy Efficiency Training and Information for Local Institutions: USD has participated in local energy efficiency training sessions offered by SDG&E and other program providers in the San Diego region. As part of the partnership, USD will increase training efforts to ensure key personnel, including facilities management employees, receive relevant training. The Partnership Manager will be required to attend training sessions on topics such as energy efficiency, project financing, renewable energy, green building, and climate reduction planning.

Increase Financial Incentives for Local Institutions to Adopt Energy Efficiency and other Sustainability Measures: USD is exploring innovative internal financing measures to allow the campus to implement efficiency and renewable energy projects. In addition as is the case in the broader community, particularly in local governments, perverse incentives exist in certain departments on campus that may provide disincentives to implementing sustainable practices.

Local Institutions Mobilize Community and Set Community-wide Goals and Strategies:

USD's overall campus Sustainability and Climate Change Strategic Plan will cover the entire USD campus community, including academics (sustainability across the curriculum), facilities – both physical plant and auxiliary (bookstore, print shop), procurement, student life, and the mission and ministry division. Not only will USD's plan touch every aspect of campus, it also will engage and empower members of the entire USD community to help implement the vision, goals and necessary strategies.

vii. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable

viii. Similar IOU and POU programs

b. Program delivery and coordination:

Staffing:
To implement the proposed partnership activities, USD plans to staff the project with 1.5 to 2 FTEs, plus various Graduate and Undergraduate Student positions. These positions will be responsible for managing the initiative, including regular reporting, budget management, and communications with SDG&E; working with the facilities team to identify and implement needed projects; facilitation of data gathering to monitor progress and any measurement and verification activities associated with the partnership; coordinating all education and outreach activities, including event planning, collateral development and distribution, coordinating partnership activities that include work from different departments and academic disciplines on campus. Additionally, this partnership will also seek to place current students in various "green" and/or other sustainable positions on campus when possible.

ix. Program-specific marketing and outreach efforts

USD will develop initiatives to promote awareness of energy efficiency and programs available to San Diego area residents. In conducting the education and outreach elements of the partnership, USD activities will inform and engage USD's entire campus community audiences include approximately 7500 fulltime graduate and undergraduate students, 367 full-time faculty, 399 part-time faculty, 1062 staff and 50,000 alumni, as well as current and past parents as contact information is available, and donors and friends as appropriate. USD will target the public that attends evens on campus, including high profile events at the Joan B. Kroc Institute for Peace and Justice and the Jenny Craig Pavilion. Among options USD willemploy are electronic communication (e.g., website, e-mail, e-newsletters), print media (e.g., brochures, posters, magazines, letters). In addition, USD will provide outreach and education to promote SDG&E programs, education of the real estate and development communities on green building issues, research on relevant topics, such as economics of green building.

x. Non-energy activities of program

The USD Partnership will include non-energy activities such as creating presentations for industry and association conferences, attending applicable conferences, meetings, and outreach events, and distributing marketing materials through education programs.

The partnership will also pursue training and building operations certification to facilitate long-term energy efficiency savings. The training and education component of the partnership involves training of campus design staff, project managers, energy managers and others in using best energy practices in the construction, retrofit, and commissioning of campus buildings and central plant infrastructures.

c. Best Practices:

The program design integrates various lessons learned from previous and existing partnerships. Relationships from complementary organizations such as utilities, trade allies, and industry specialists will also be leveraged.

d. Innovation:

e. Integrated/coordinated Demand Side Management: .

Demand response programs provide tariff-based benefits to customers implementing demand response activities. For demand response initiatives involving the purchase and installation of equipment by SDG&E business customers, a plan will be developed to provide a financial incentive for energy savings resulting from the equipment supplied through the partnership program.

This partnership will look for opportunities to integrate demand response and other DSM services into the program implementation plan. Resources will be leveraged to improve implementation efficiency and reduce transactional impacts on partnership staff. If needed, IOU energy efficiency and demand response program staff will collaborate with USD to conduct comprehensive audits and identify energy efficiency measures and demand response opportunities. The approach will reduce technical resources by combining EE/DR audits to avoid duplication and collaborate on incentive offerings which will all minimize customer interruptions.

The partnership will also assist, where applicable, facility management staff that are interested in solar technology and will provide recommendations in facility operations through energy audits to improve its facilities with less costly EE/DR measures prior to implementing more costly solar technologies.

f. Integration across resource types (energy, water, air quality, etc):

g. Pilots:

As part of the partnership, USD will seek (when possible and applicable) to identify pilot projects to demonstrate new technologies and techniques. In particular, as part of the campus wide evaluations of water, energy, and waste, USD will try to identify opportunities to develop net zero energy building projects in which energy efficiency is maximized and renewable energy is used to offset the annual energy needs of the building.

h. EM&V:

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) Diagram of Program:
See Appendix

8) Program Logic Model:
See Appendix

Appendix A: CCC Program Diagram
Table A1 – CCC Outreach Process

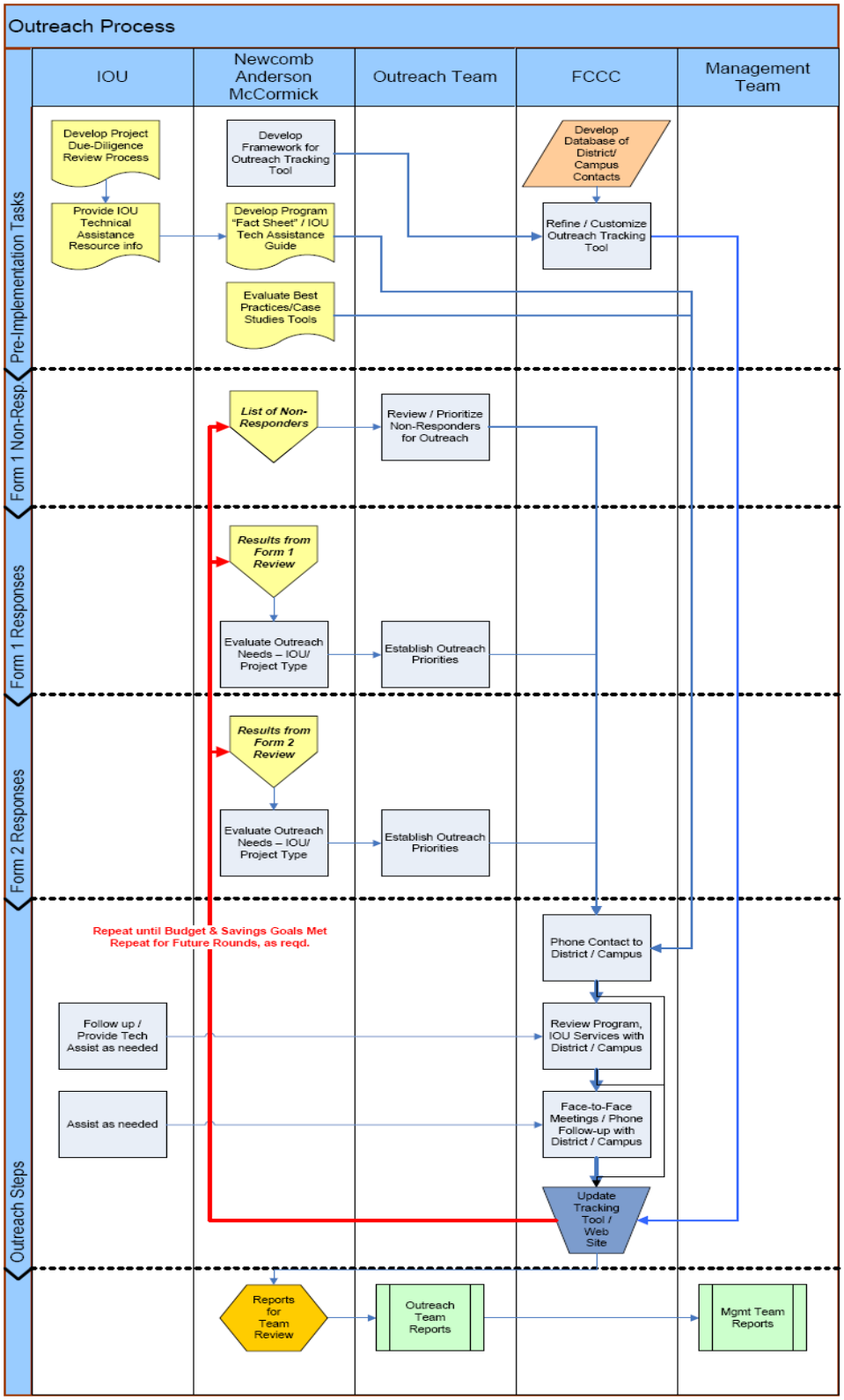


Table A2 – CCC EE Project Proposal and Approval Process

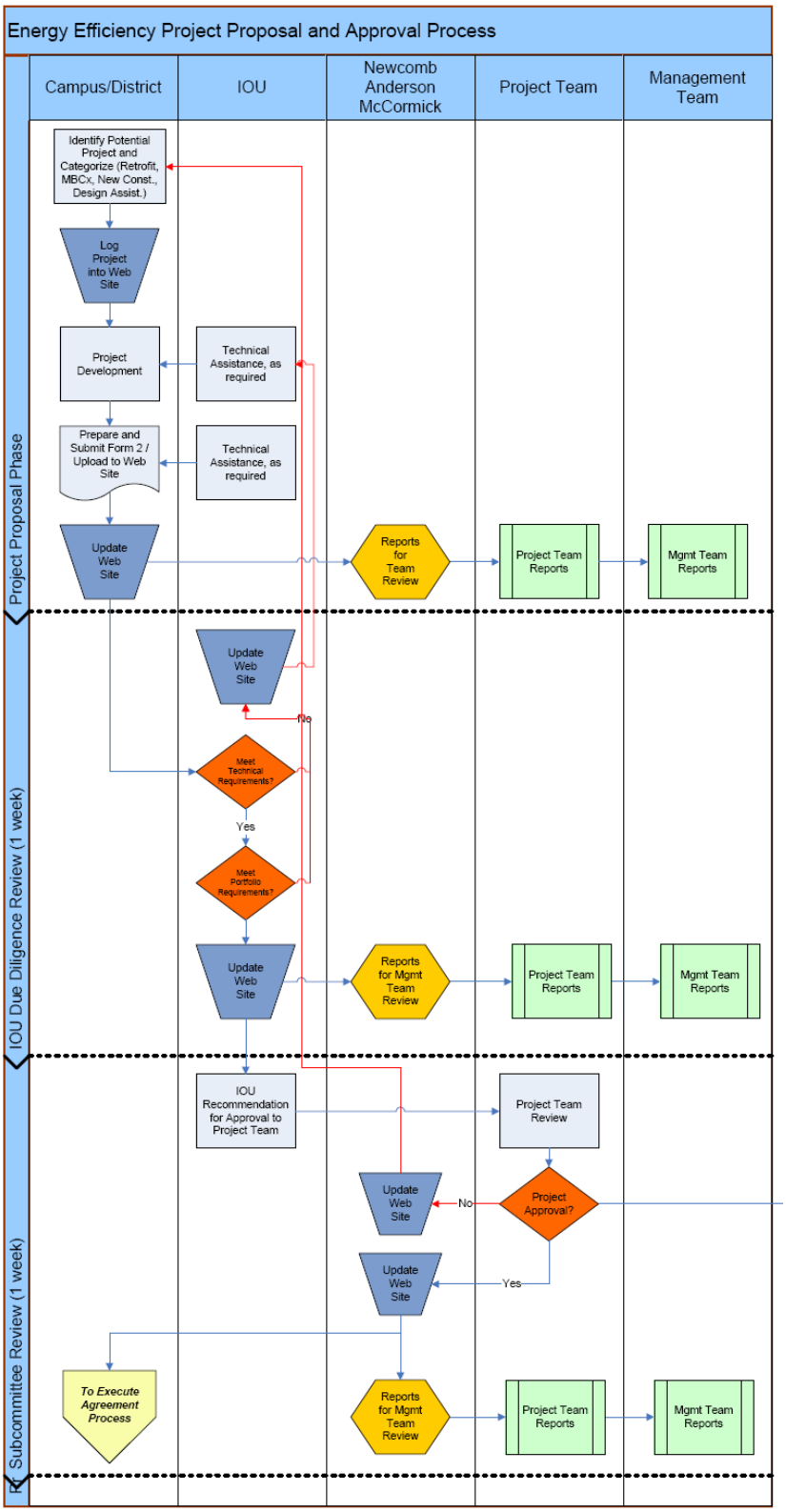


Table A3 – CCC Execution of Project Agreement

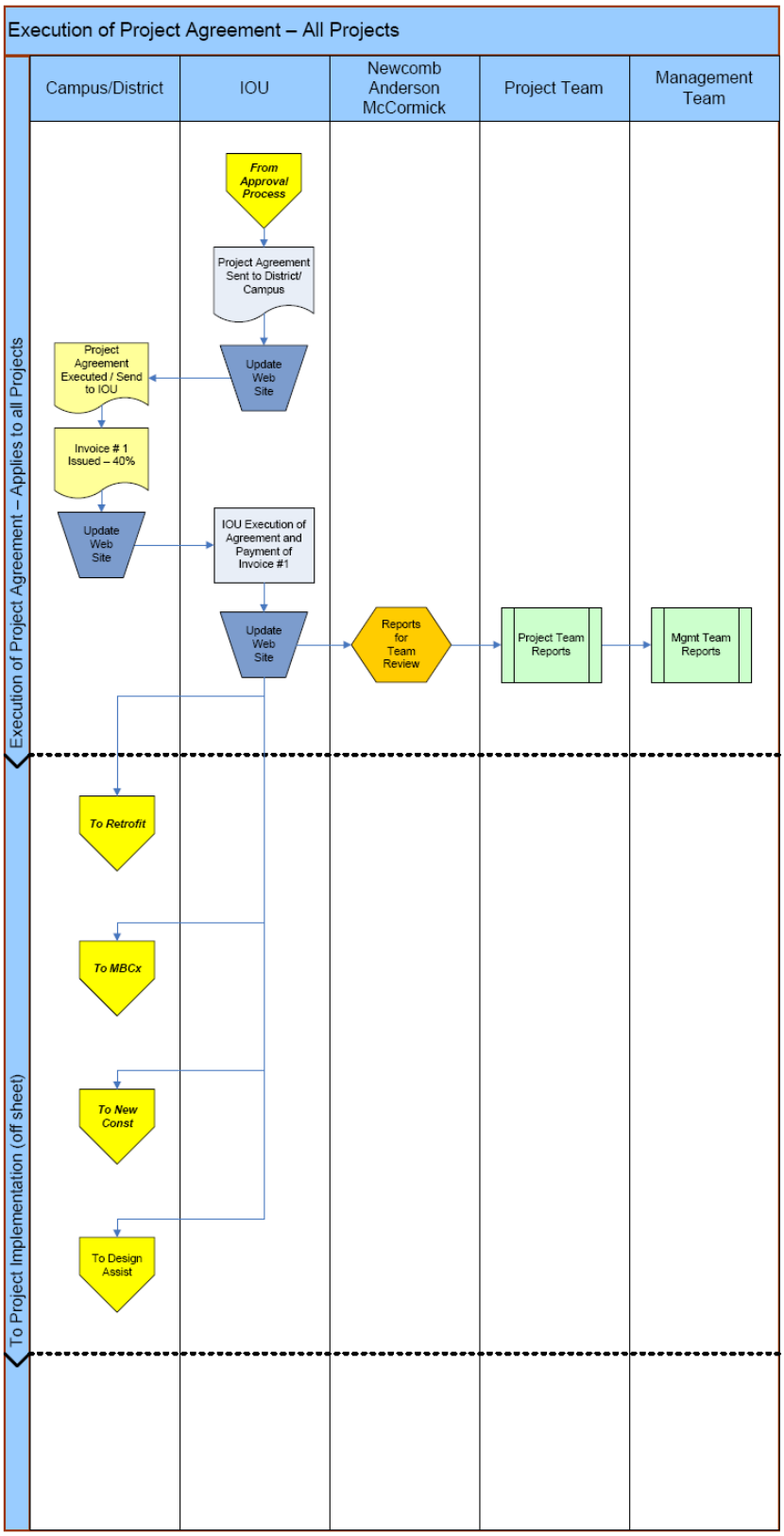


Table A4 – Retrofit Program Implementation Process

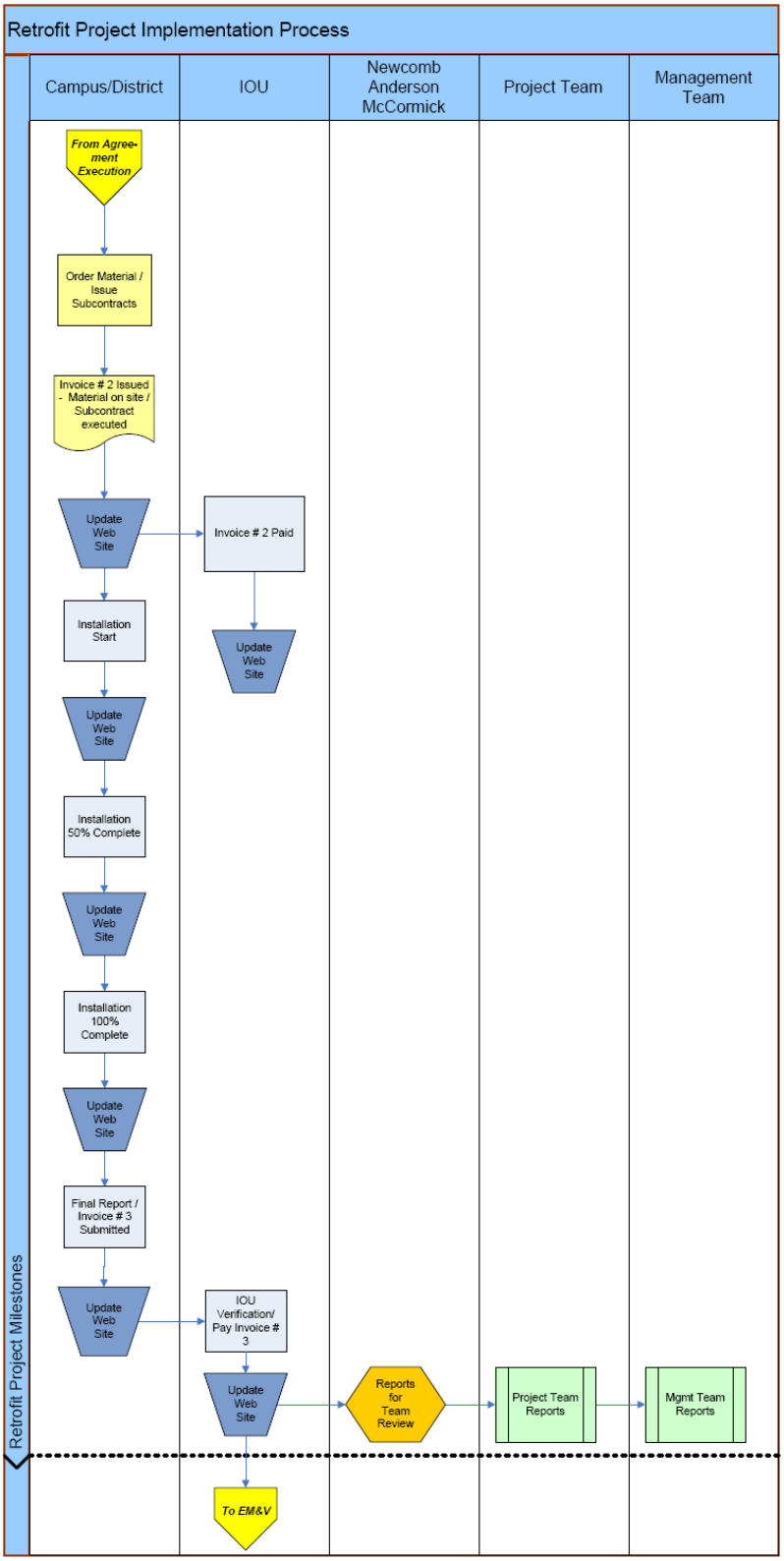
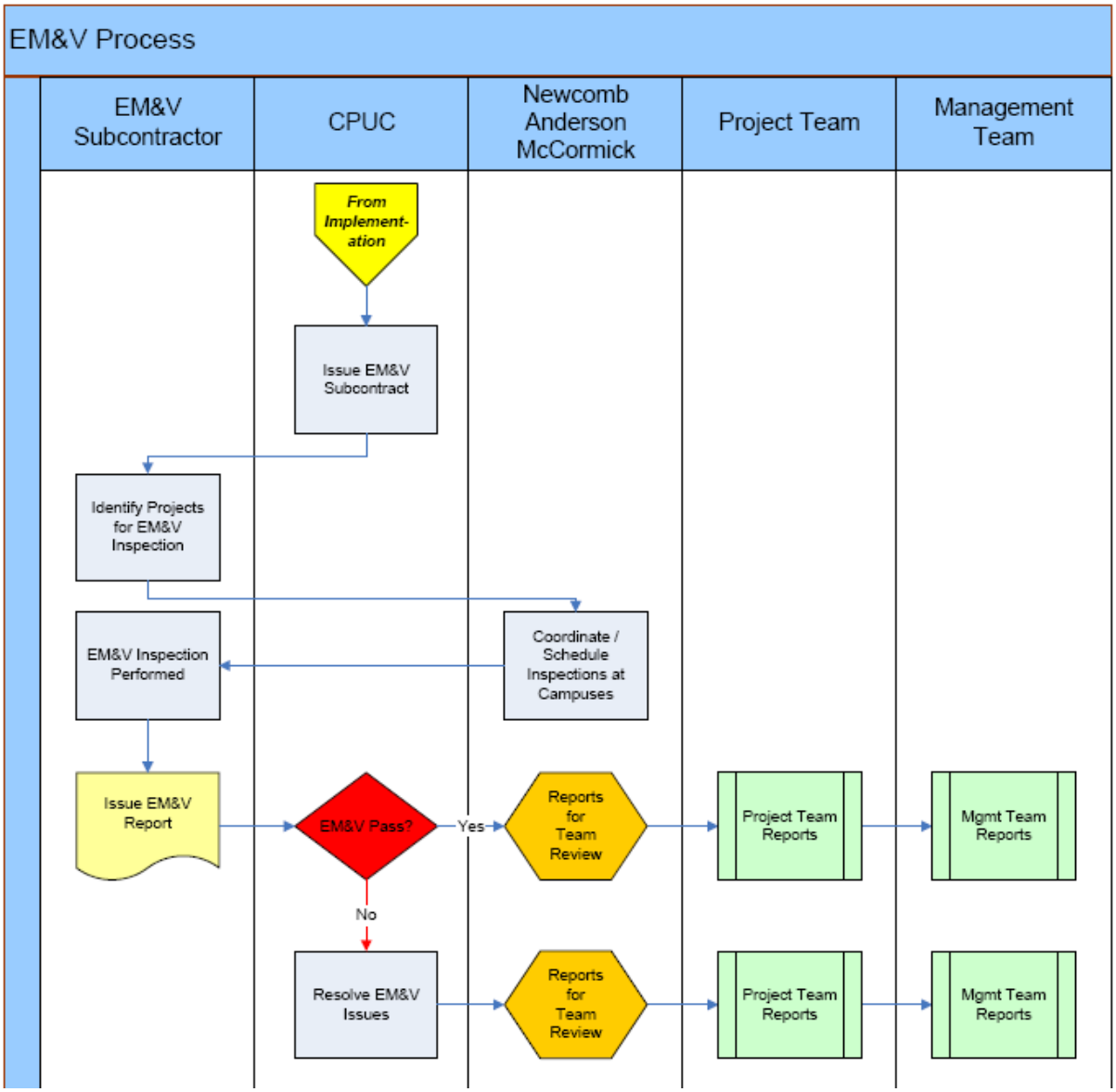


Table A5 – CCC EM&V Process



Appendix B: CCC Program Logic Models

Table B1 – CCC Program Logic Model

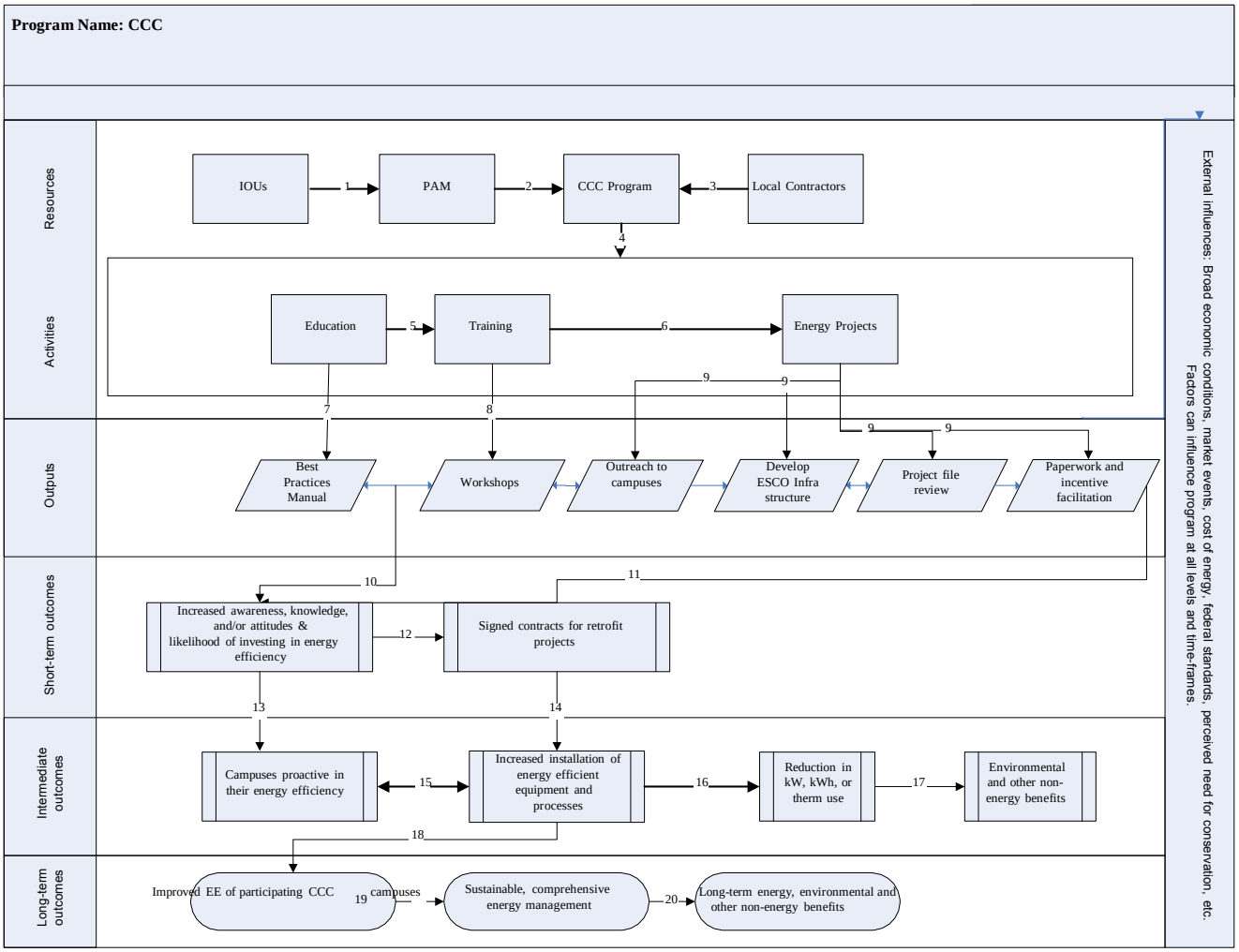
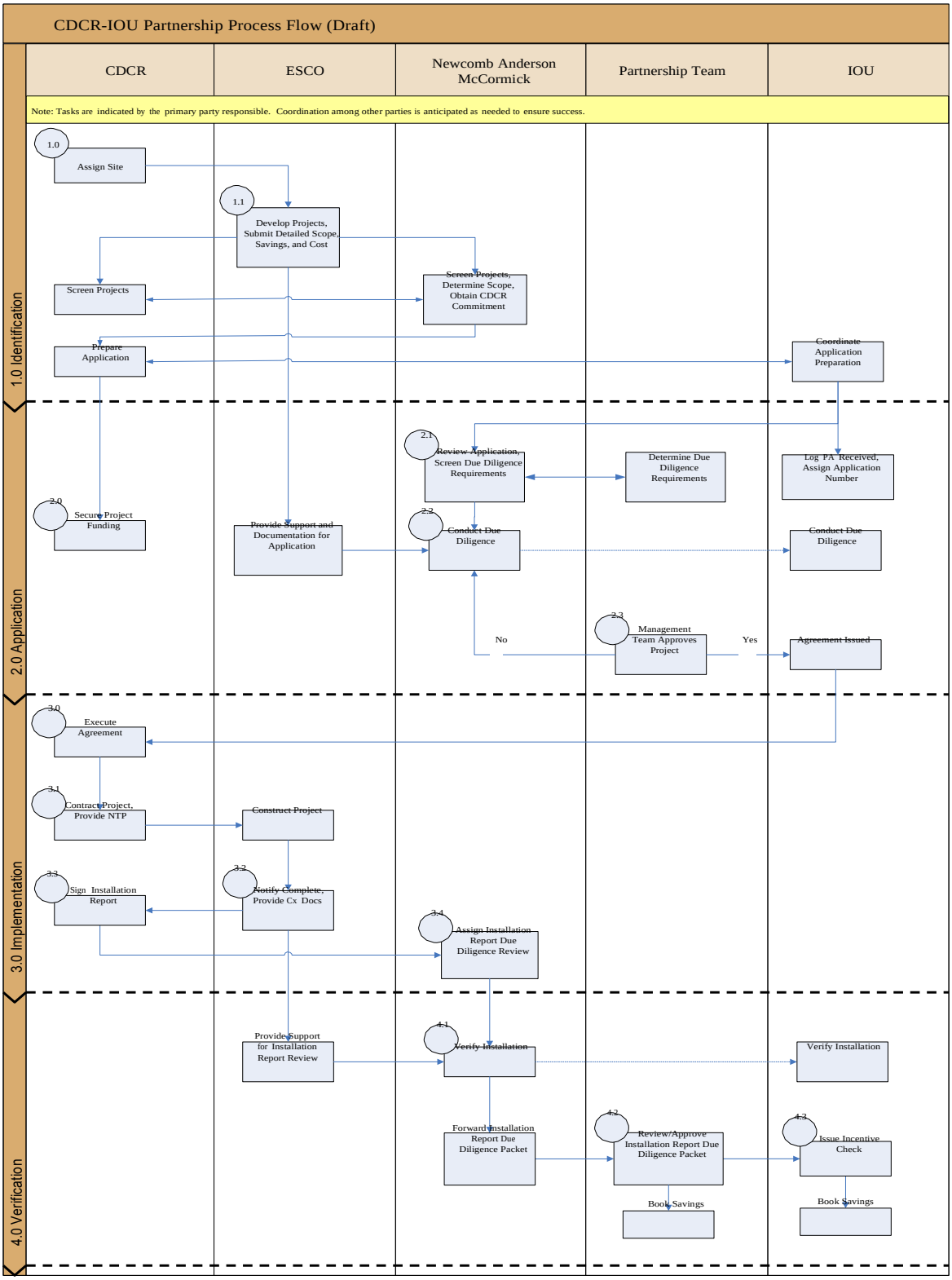


Table B2 – CCC Logic Model

Legend	
Symbol	Description
	Process
	Document
	Team Review Report
	Report Preparation
	Off-page reference
	Update Web Site
	Decision

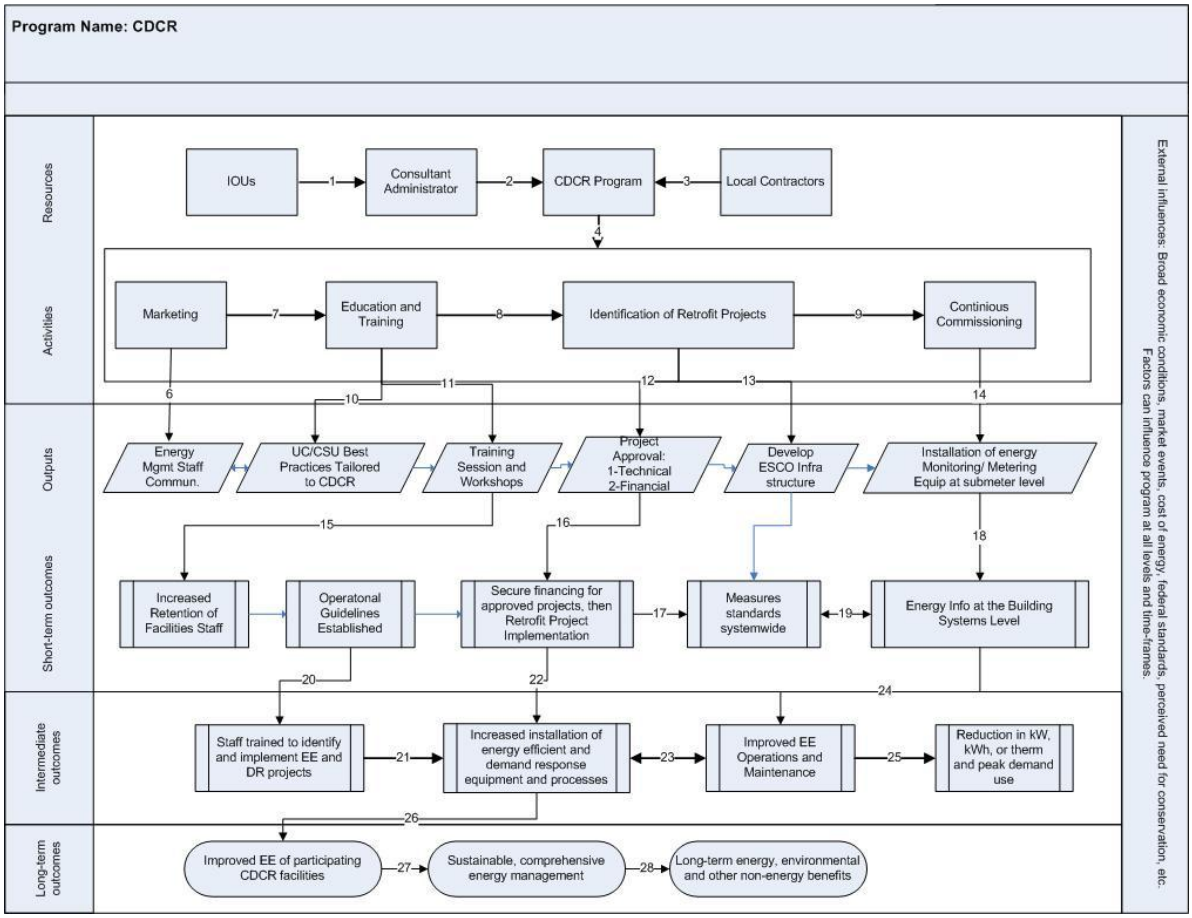
Appendix C: CDCR Program Diagrams

Table C1 – CDCR Process Flow

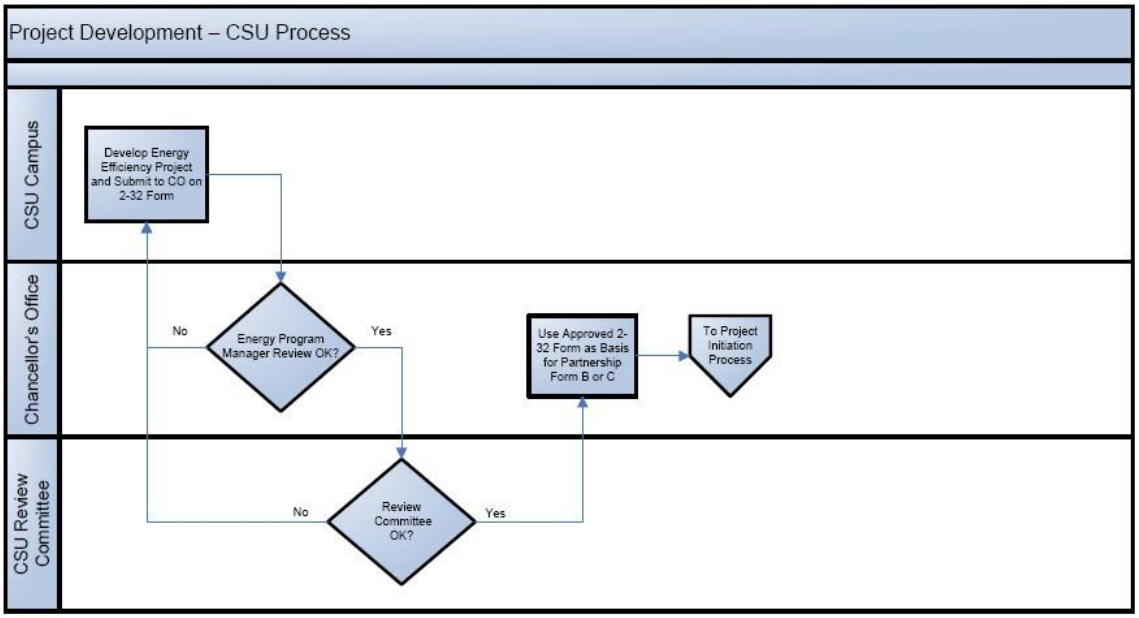


Appendix D: CDCR Program Logic Model

Table D1 – CDCR
Logic Model



Appendix E: UC/CSU Program Diagrams
Table E1–UC/CSU Project Development UC/CSU



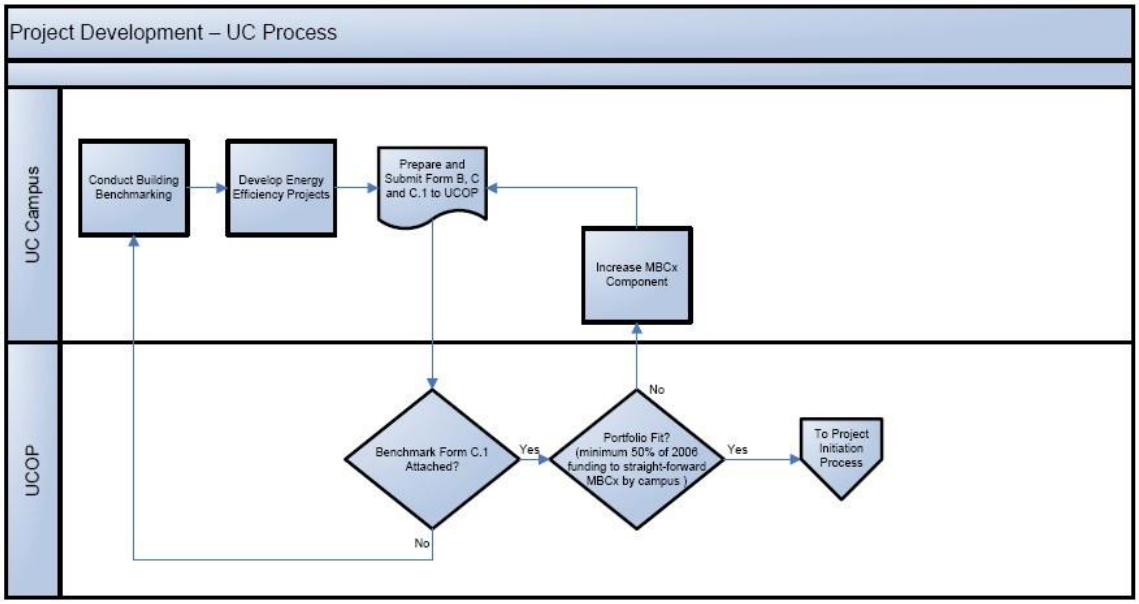
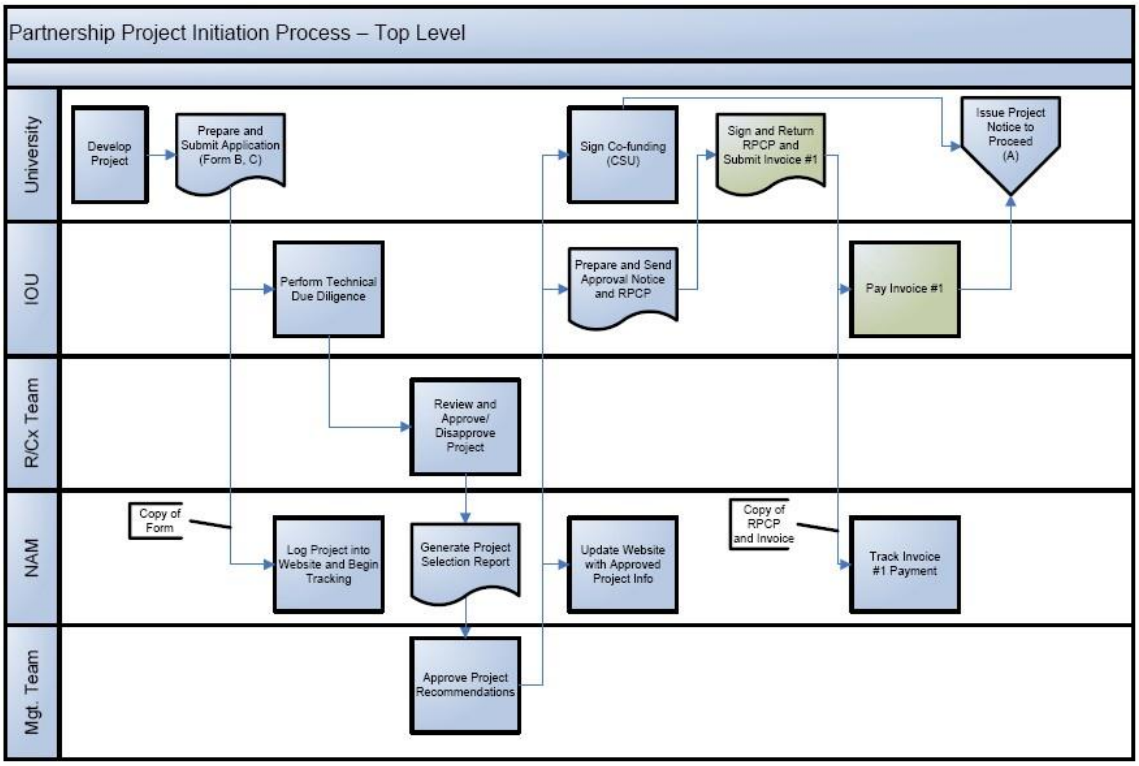
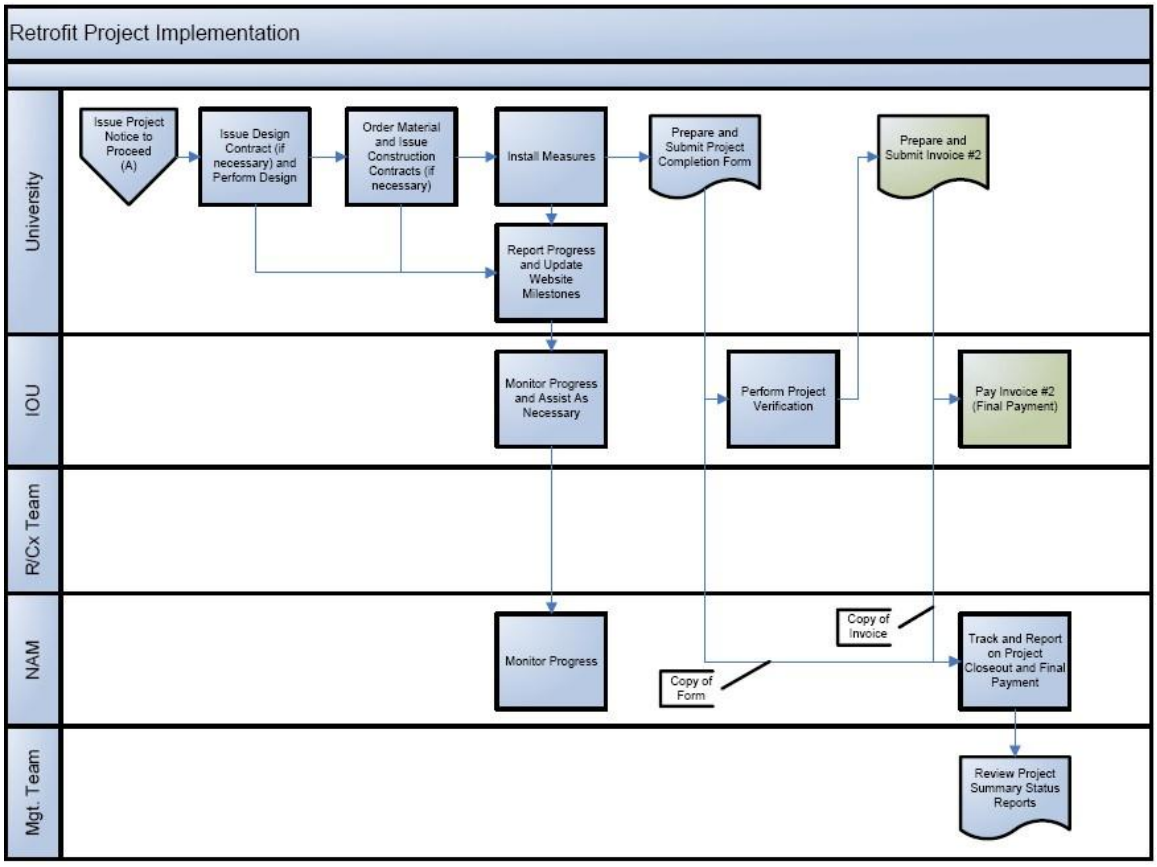
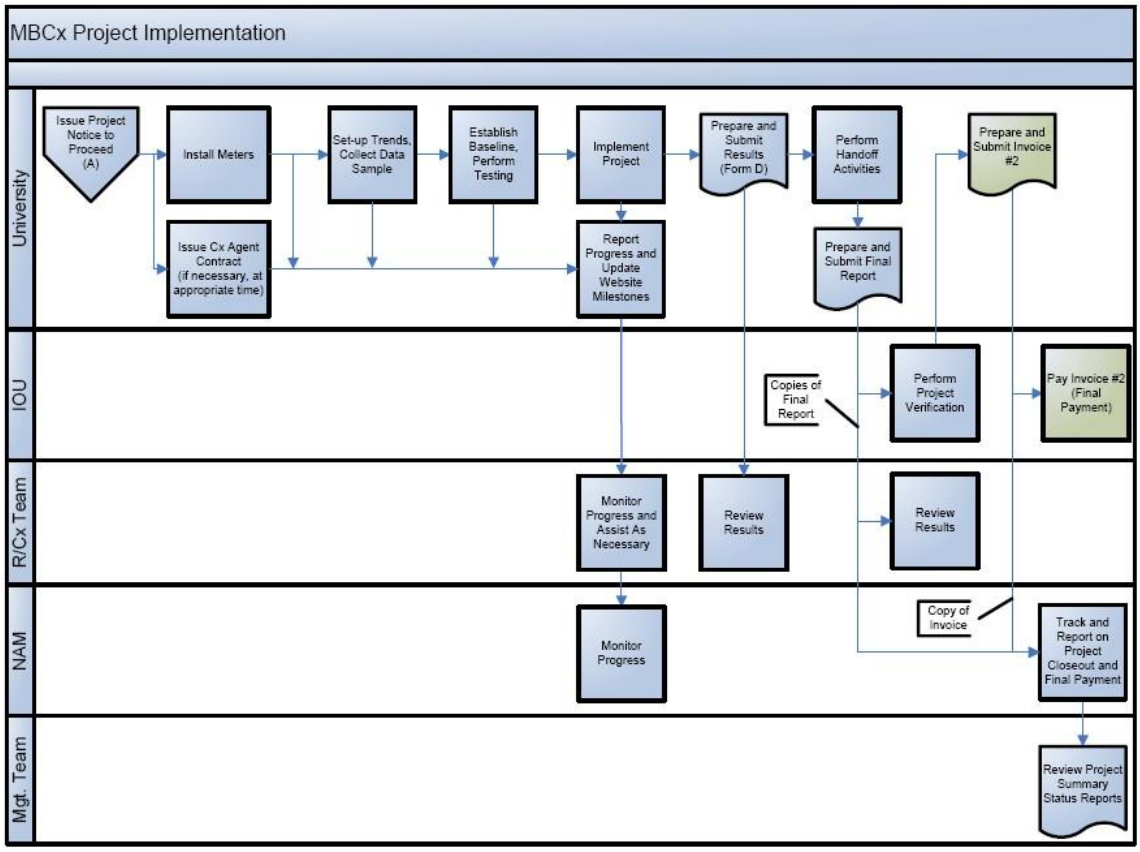


Table E2 – Partnership Project Initiation and Retrofit Project Implementation UC/CSU



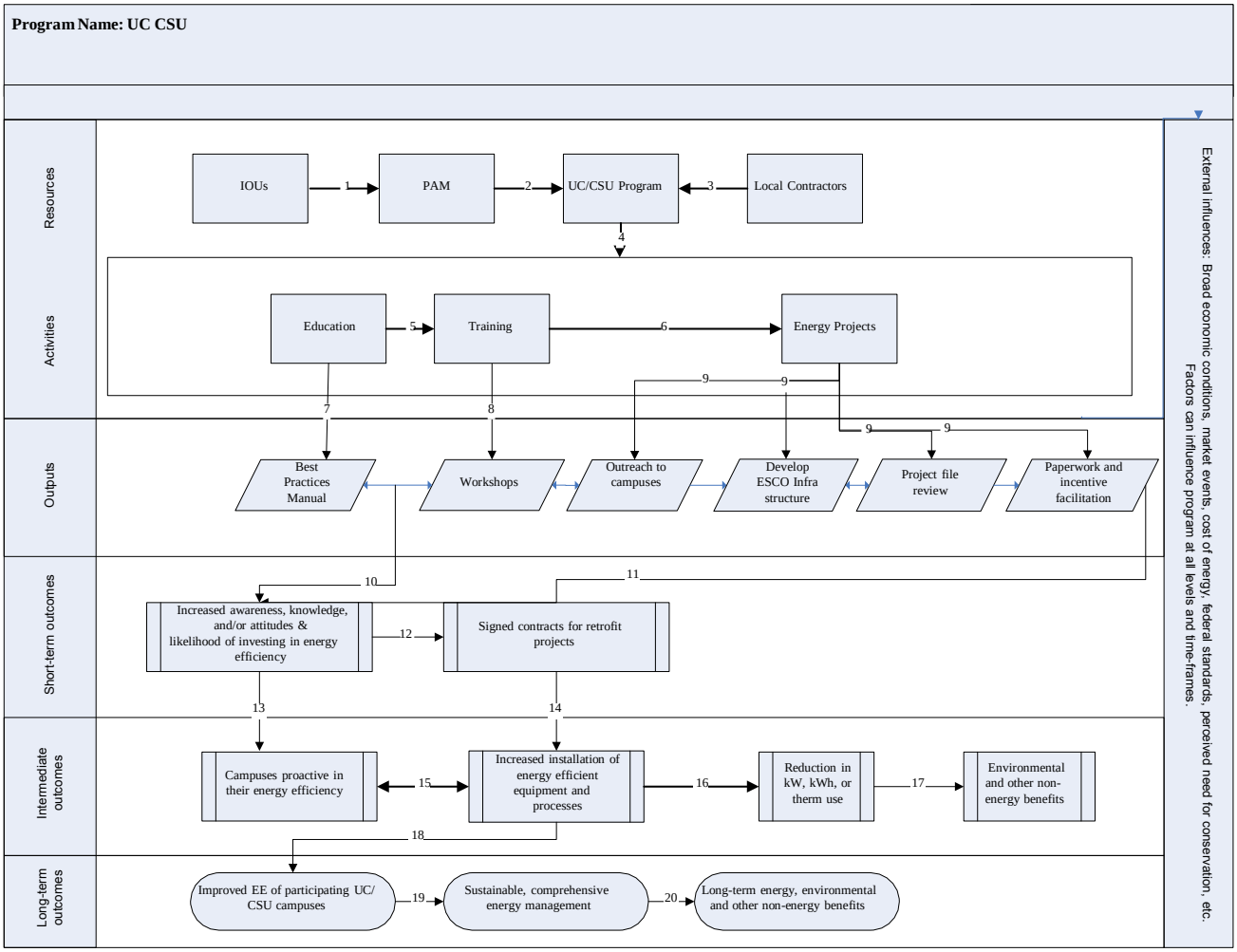


Appendix E3 – MBCx Project Implementation UC/CSU



Appendix F: UC/CSU Program Logic Model

Table F1 – UC/CSU Program Logic Model



Appendix G: State of California Program Diagrams

Table G1 – State of California Roadmap

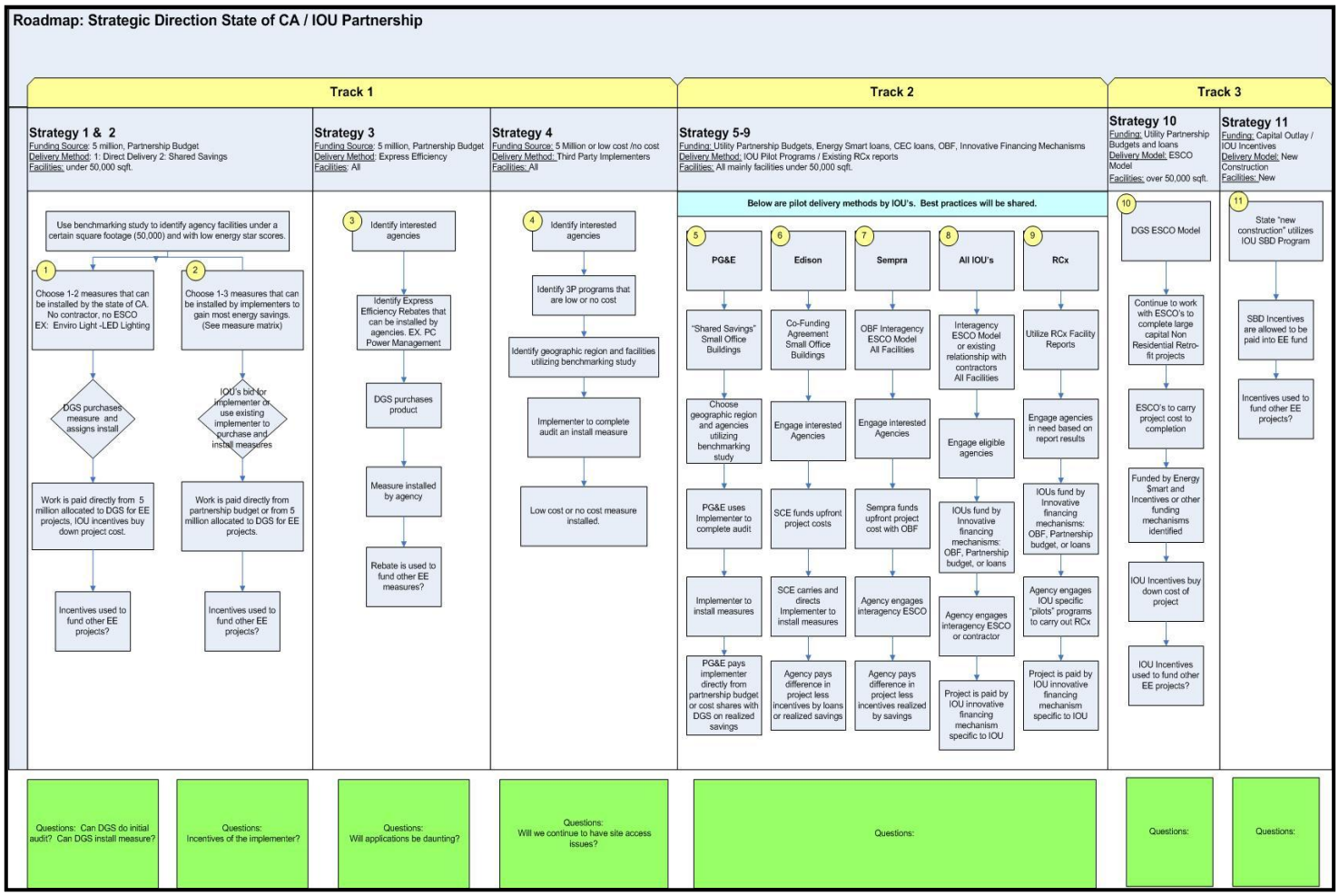
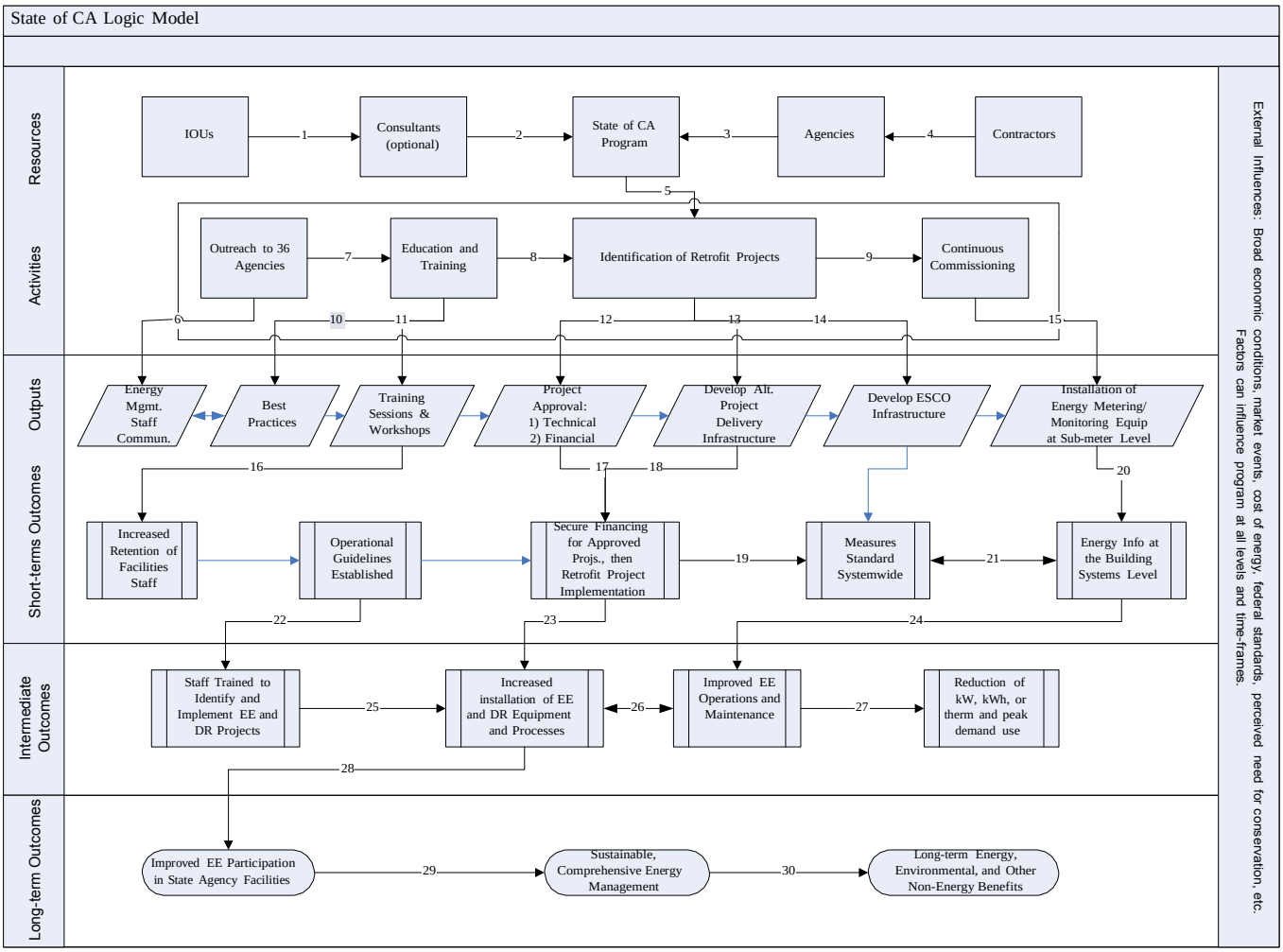


Table G2 – State of California Measure Matrix

State of CA Measure Matrix and Timeline

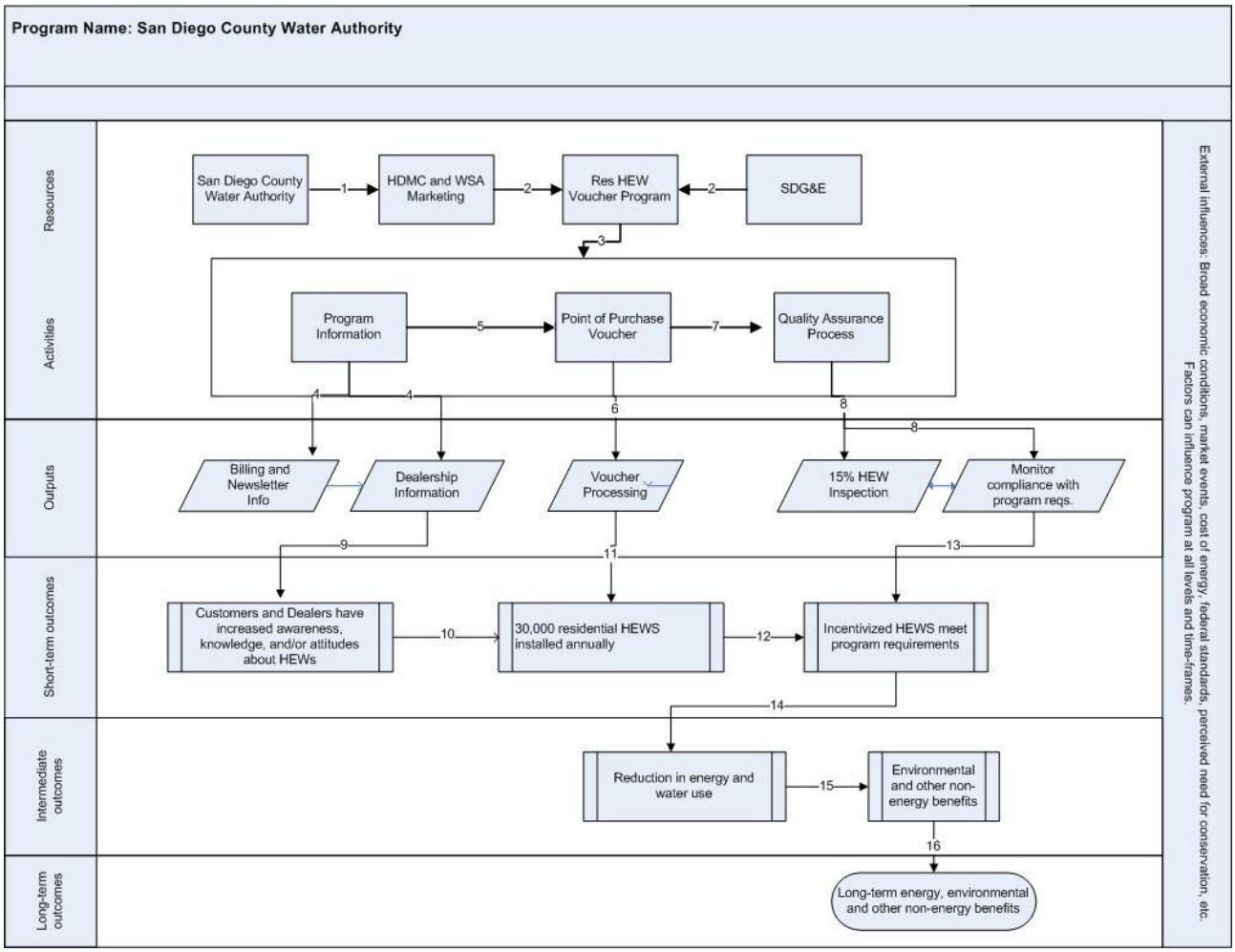
0-3 Months		3-6 Months		6-12 Months		12-36 Months	
IOU's would contract directly with the Manufacturer for Installation - incentive would offset cost of product and installation		IOU's would contract directly with the Manufacturer for Installation - incentive would offset cost of product and installation		Two Paths - Utilize Esco Model or IOU resources for installation		Utilize ESCO Model/Capital Outlay Process and IOU incentives to offset cost	
Technology	**Estimated Length of Installation**	**Technology**	**Estimated Installation Time**	**Technology**	**Estimated Installation Timing**	**Technologies**	**Estimated Installation Time**
Vending Machine Controls	2-3 Months	Occupancy Sensors	4 Months	Fluorescent Lighting Replacement	8 Months	Energy Management System	12-24 Months
PC Network Software	1-3 Months	CFL replacement	4-5 Months	Outdoor Lighting Replacement	6-8 Months	Lighting Projects requiring re-wiring	12-18 Months
LED Exit Signs	3 Months	Steam Traps	5-6 Months	Package Unit Replacement	6-9 Months	Boilers	12-18 Months
Storage Water Heaters	1-3 Months	Server Virtualization	4-5 Months	Adding VFD's	8-10 Months	Chillers	18-24 Months
Examples of Agencies to Participate		Domestic Hot Water Boilers	5-6 Months	Replacement of SAN or UPS	6-8 Months	Air Handler Replacement	18-20 Months
DHS		Fume Hood Occupancy Sensors	3-6 Months	Motor Replacement	8-10 Months	Wastewater Treatment Plants	24-36 Months
DOM		Furnaces	3-6 Months	HVAC Maintenance and Coil Cleaning	6-7 Months	New Buildings	24-36 Months
DDS		Building Envelope (Insulation, Window Treatments, Weather stripping, etc)	3-6 Months	Boiler Economizers		Major Renovations	24-36 Months
DMH		Food Service Equipment Replacement	3-6 Months	**Examples of Agencies to Participate**		Centralized Systems	24-36 Months
Fairs and Expos		**Examples of Agencies to Participate**		DHS		Reduce Distribution Losses- Distributed Systems (eliminating steam or hot water)	12-36 Months
Cal Trans		DMV		DMH		**ALL AGENCIES**	
BOE		CHP		Courts			
DGS		DMH		DDS			
State Compensation Ins. Fund		DDS					
		Cal Trans					
		DHS					
		Fairs and Expos					
		DGS					

Appendix H: State of California Program Logic Model



Appendix L SDCWA Program Diagrams
Appendix J: SDCWA Program Logic Model

Table 11 – SDCWA Logic Model



Appendix K: Integration with the CLTEESP

TBD

2013-2014 PIP Addendum

Program Name	Local Government Partnership	**Date Submitted**	
Subprogram Name		**Utility Name**	San Diego Gas & Electric
Program ID		**IOU Program Contact**	
		Program Cycle	2013-2014

This form is to be used to document any required changes to the Program Implementation Plans (PIPs). The following are triggers that will require a PIP change:

1. Changes to eligibiity rules
2. Changes affecting incentive levels (indicate advice letter approval below if required)
3. Fund shifts (indicate advice letter approval below if required)
4. Portfolio Budget and Other Commission–Directed Changes
5. Changes to Program Theory/Logic Models
6. Addition or elimination of programs and/or sub-programs (indicate advice letter approval below)
7. Changes in program targets
8. Change in sub-program approach - unless the IOUs submit logic models for the sub-programs (to be defined) with IOUs
9. Changes in incented measures
10. Changes in adopted PPMs/MTIs (indicate advice letter approval below if required)

Identify Specific Trigger (above) requiring the PIP change

4. Portfolio Budget and Other Commission-Directed Changes

Driver of Change:

Updates program for 2013-2014 Transition Period.

Description of Change (if advice letter approval required, indicate Commission resolution or approval and provide hyperlink to advice letter):

See Redline

PIP Section and/or Wording to be Changed or replaced:

See Redline

Replacement Language or Information

See Redline

Revised Energy Savings (If Any):

See Redline

Other PIP Changes Required:

See Redline

Revision Date: 05/11/2012

1) **Program Name:** Local Government Partnerships
Program ID #:
SDG&E Program Type:

2) **Program Description**

SDG&E's Local Government Partnership program is complex and multi-dimensional to capture the varied ways that SDG&E works with governments in its 2013-2014 portfolio. First, local governments are a distinct customer segment that operates with their own unique challenges and needs related to energy efficiency. Second, local governments also serve as a delivery channel for specific products and services when they serve as Local Government Partnerships. Finally, local governments have a unique role as leaders of their communities. Increasingly, local governments are interpreting their moral responsibility for community well-being to include reducing greenhouse gas (GHG) emissions, increasing renewable energy usage, protecting air quality, creating green jobs, and making the community more livable and sustainable.

The Government Partnership program is designed to reach local governments in all of their roles. Depending upon the activity, SDG&E may play a different role with the local government, ranging from service provider to supporter to equal partner. Governments increasingly engage in strategic planning for GHG reduction not only in their facilities (represented in the municipal GHG inventory) but also in the community (analyzed in the community GHG emissions inventory). Opportunities increase for partnerships with utilities to meet mutual goals of energy reduction. These governments can not only coordinate and integrate demand-side management opportunities in each sector or market they influence, but also effectively leverage and promulgate low-income offerings.

SDG&E will develop a marketing plan and marketing collateral based on customer segmentation work and research to support outreach efforts. This customer segmentation will help SDG&E develop an understanding of customers' needs and respond accordingly with products and services that customer's want. The segmentation analysis looks at what the customer requires and how the customer is engaged with SDG&E. SDG&E will use many delivery channels and marketing and outreach approaches to effectively reach customers. This will include a team of SDG&E experts and industry professionals, varying by market sub-segment, to deliver integrated offerings to the customer.

A joint report was submitted by the IOUs to Energy Division (ED) on June 6, 2010 called Criteria for Local Government Partnership Programs that address the directive of assessing reasonable scopes of work and funding end points for all three categories of local government partnership work.

<u>Continuation of Successful Partnerships</u>
In response to the Commissions directive to continue "successful" government partnerships, SDG&E established a Partnerships Program Advisory Group (PPAG), which consisted of local governments, and regional stakeholders such as CCSE and the Environmental Health Coalition. SDG&E also actively sought feedback and participation of LGSEC to ensure all stakeholders had an opportunity to be involved in the process. Through this open and collaborative process, the PPAG, after completing a critical and comprehensive review of all the programmatic activities each local government partner

engaged in, developed the following list of success criteria that was applied across each partnership:

1. Did the partner work collaboratively among regional partners and stakeholders?
2. Did the Partnership accomplish/meet all the goals outlined in the Scope of Work/PIP?
3. Did the partner utilize/leverage their unique authority throughout the partnership activities?
4. Was there a professional development and/or education program focused on the long term strategic plan elements?
5. Did the partnership activities help to implement specific elements of an adopted energy efficiency, climate change or sustainability plan to foster market transformation?

Ensuring Continued Partnerships Meet Success Criteria

The five (5) identified success criteria represents what the PPAG felt were the core components that should be present in any Partnership. In the course of critically evaluating each partnerships programmatic activities, it also became apparent that not only do these criteria represent what a successful partnership looks like, but that these criteria are the progeny of the unique collaborative relationship present in SDG&E's service territory. As such, the aggregate value of these criteria applied across the scope of the LGP program is greater than the sum of each individual partners contribution. To that end, the following provides details on how the LGP program and its individual partners will continue to meet the criteria identified above.

Looking across the Program, each Partnership is anticipated to complete the targeted goals set forth in the 2010-2012 program cycle, and has thus been identified as a "successful" Partnership to continue in the 2013-2014 Transition Period. Moving forward, the LGP program will be working toward meeting the mid-term goals identified in the Energy Efficiency Strategic Plan, building off the success and momentum established during the 2010-2012 cycle.

LGP Partners understand that regional collaboration and consistency are critical. The San Diego LGP's have formed an ad hoc regional energy network and have come together to work synergistically to leverage their regional collaboration on a number of initiatives. One example of a regional effort is the *San Diego Climate Collaborative*, which was established to provide a regional platform for joint program implementation, marketing and information sharing. The *San Diego Climate Collaborative* has already resulted in regional technical working groups, branding/website creation, and coordinated Energy Upgrade California program implementation. This regional network will be expanding over the next year to include other jurisdictions both large and small.

Leveraging of the unique jurisdictional authority within each Partnership is key to ensuring the continued success of the LGP program. To date, this critical leverage point has been a core strategy utilized by each Partner and accounts for much of the success seen to date. Moving forward, each partner is evaluating what additional critical touch points they have and where new opportunities exists for them to leverage their authority and maximize impact. Opportunities identified already include 1) building onto the already successful staff development programs by looking at how greater regional

collaboration can better disseminate and diffuse these practices to other jurisdictions just starting down the energy efficiency path; and 2) continued coordination, development and implementation of Climate Action Plans, Energy Plans, and/or Sustainability Plans throughout the region to help foster greater market transformation.

Expansion of Partnerships

In response to the Commissions directive to focus the expansion of government partnerships on deep retrofits, SDG&E established a Partnerships Program Advisory Group (PPAG), which consisted of local governments, and regional stakeholders such as CCSE and the Environmental Health Coalition. SDG&E also actively sought feedback and participation of LGSEC to ensure all stakeholders had an opportunity to be involved in the process. Through this open and collaborative process, the PPAG developed the following list of expansion criteria:

1. Expanding partnerships will focus on Energy Upgrade California and deep retrofits
2. If not already present, a plan will be developed to engage the community and various appropriate financing mechanisms will be developed or sought for targeted market segments.
3. Marketing, Education & Outreach will be utilized to educate customers and help establish behavior change.
4. Partnerships, working with SDG&E and relevant stakeholders, will develop and employ sector targeting strategies to promote and market deep retrofits to the community.
5. Workforce Education & Training will be developed to improve contractor ability to work with customers to provide a level of expertise required to experience deep retrofits.

Rejected PIP's of Local Government Partnerships

Ordering Paragraph 33 of Decision 12-05-015, requires SDG&E to submit any PIP that met identified criteria for expansion but was rejected by SDG&E. SDG&E has reviewed all PIPs submitted by local governments, provided above, and all met the criteria for expansion and none were rejected.

Additionally, Decision 12-05-015 notes on page 144:

> "…the utilities' applications shall include Program Implementation Plans (PIPs) for all local government programs and partnerships they seek to continue, including a detailed explanation for how each program will meet their suggested success criteria. To provide the Commission with the flexibility to consider local government proposals that were rejected by the utilities, the utilities' applications shall also include a separate set of PIPs for all local government program and partnerships that meet the local governments' proposed success criteria that were rejected by the utility."

All PIPs submitted to SDG&E by local government met the identified success criteria and were not rejected. The only partnership that will not continue in the 2013-2014 cycle is the City of San Juan Capistrano. SDG&E discussed with the San Juan Capistrano how

to best work with the City given the limited success of the 2010-2012 cycle partnership and it was decided that utilizing the Emerging Cities Program (ECP) would be a better fit for the City. Through the ECP the City will still have access to LGP resources and will be able to actively promote energy efficiency in their operations and throughout their community. The City of San Juan Capistrano did not submit a PIP.

San Diego Regional Energy Network

San Diego's Local Governments and SDG&E have a long history of strong collaboration. To date, these efforts have constituted a number of informal and formal networks that cover a range of activities. Starting in 2013, SDG&E in coordination with the City of San Diego, the County of San Diego, the City of Chula Vista, the Port of San Diego, and the San Diego Association of Governments (SANDAG) are proposing to formalize these efforts into the San Diego Regional Energy Network (SDREN). The SDREN will help support a variety of region-wide programs to facilitate "deep retrofits" and broad market transformation in a cost-effective manner. The SDREN will consist of the aforementioned parties, plus additional regional stakeholders including the California Center for Sustainable Energy, the San Diego Foundation and non-partner municipalities. The SDREN will utilize an equal representation governance structure where all partners have an equal vote with SDG&E being a partner, as well as overseeing associated contracts. The SDREN will focus on the following activities:

1. Regional EUC & Existing Home Retrofit Market Development

   The SDREN will help guide regional implementation of Energy Upgrade California and help develop a local market for home energy upgrades. The SDREN will expand the current **San Diego Regional Retrofit Advisory Council** to include broader stakeholder participation and to allow the region to "adaptively manage" local Energy Upgrade California (EUC) implementation. This implementation will be further informed by development of an online **Regional Energy Mapping Tool** that incorporates building, socio-economic, and utility data to educate potential EUC participants and to assist contractors and local governments in targeting their EUC-related marketing and outreach. Finally, the network will coordinate with the local real estate and lending community in order to enable these key market actors to become strong advocates for energy efficiency through **Green MLS Development and Appraiser Education & Training**.

   To ensure that local governments are prepared to support EUC, the San Diego Regional Energy Network will complete a review of current permitting requirements for EUC-type projects throughout the 19 jurisdictions in the region. With this information, a "best practices" guide for **EUC Permit Streamlining** will be created and sample permit templates will be developed to assist EUC contractors. The SDREN will also develop a **HERS Rating Incentive Pilot Program,** so that interested local governments can target incentives for home energy ratings through point-of-sale and permit application opportunities. Finally, the SDREN will work with local governments to leverage municipal affordable housing programs with hands-on **Home Performance Workforce Training** opportunities.

2. Regional Climate Action Planning Support

The San Diego Regional Energy Network will assist local governments and communities with understanding and implementing climate action strategies, especially related to energy efficiency. The SDREN will expand the current **Climate Collaborative** website platform and branding to include all local jurisdictions and indirect energy saving strategies, such as water conservation and urban heat island mitigation programs. The network will also develop joint outreach, marketing, and program templates to support voluntary **Green Business Challenge** programs in local jurisdictions serving as a conduit for participation in utility-sponsored direct install programs. Lastly, SDREN will identify suggested codes, policies, and incentives to help facilitate local achievement of the **Zero Net Energy Building Codes**.

3. Municipal Facility Audits, Retrofits, & Retro-Commissioning

The San Diego Regional Energy Network will facilitate "deep retrofits," both in terms of high energy savings and untapped markets, at municipal facilities. Specifically, the network will organize a **Joint Procurement Strategy Working Group** to identify shared municipal facility retrofit opportunities across jurisdictions in the region. With this information, joint procurement strategies will be developed to leverage economies of scale and to assist smaller jurisdictions with implementing their first energy efficiency upgrades.

3. Projected Program Budget Table

Table 1[1]

Program Code	Program Name	Administrative Amount	Marketing Amount	Direct Install Amount	Incentive Amount	Total Budget Amount
	SDG&E Local Government Partnerships					
3272	LGP- City of Chula Vista Partnership	$575,212	$178,749	$2,810,443	$0	$3,564,404
3273	LGP- City of San Diego Partnership	$382,869	$193,612	$2,402,165	$0	$2,978,647
3274	LGP- County of San Diego Partnership	$165,250	$51,267	$2,241,733	$0	$2,458,250
3275	LGP- Port of San Diego Partnership	$203,832	$135,561	$1,390,823	$0	$1,730,215
3276	LGP- SANDAG Partnership	$199,059	$117,252	$1,215,534	$0	$1,531,845
3277	LGP- SEEC Partnership	$51,436	$24,223	$269,379	$0	$345,038
3278	LGP- Emerging Cities Partnership	$99,215	$52,070	$607,928	$0	$759,213
	TOTAL:	$1,676,874	$752,735	$10,938,004	$0	$13,367,613

[1] Definition of Table 1 Column Headings: Total Budget is the sum of all other columns presented here
Total Administrative Cost includes all Managerial and Clerical Labor, Human Resource Support and Development, Travel and Conference Fees, and General and Administrative Overhead (labor and materials).
Total Direct Implementation – includes all financial incentives used to promote participation in a program and the cost of all direct labor, installation and service labor, hardware and materials, and rebate processing and inspection used to promote participation in a program.
Total Marketing & Outreach includes all media buy costs and labor associated with marketing production.
Integrated Budget Allocated to Other Programs includes budget utilized to coordinate with other EE, DR, or DG programs.
Total Budget is the sum of all other columns presented here
Definition of Sub-Program: A "sub-program" of a program has a specific title; targets; budget; uses a unique delivery or marketing approach not used across the entire program; and for resource programs, has specific estimated savings and demand impacts.

1) **Projected Program Gross Impacts Table**
Not Applicable

Note: Partnerships are considered non-resource programs and serve as a delivery mechanism for IOU programs.

3) **Program Element Description and Implementation Plan**

This LGP Master PIP describes each of the program elements listed below. The Master PIP discusses the major program elements of Government Facilities, California Long Term Energy Efficiency Strategic Plan (Strategic Plan) Support, and Core Program Coordination in an over-arching context in sections 4 - 6. Following the Master PIP discussion are sub-PIPs (which also cover sections 4 – 6) for the additional unique program elements of Emerging Cities and for each of the individual Local Government Partnerships. The sub-PIPs also discuss the three major program elements (Government Facilities, Strategic Plan Support, and Core Program Coordination). The sub-PIPs for individual LGPs provide details regarding any targeted or distinct aspects of the three main elements as they relate to that particular LGP.

Program Element	
A. Government Facilities	
	A1 – Retrofit of County and Municipal Buildings
	A2 - Retro-commissioning
	A3 - Integrating Demand Response
	A4 - Technical Assistance
	A5 - On-Bill Financing
B. Strategic Plan Support	
	B1 - Code Compliance
	B2 - Reach Code Support
	B3 - Guiding Document Support
	B4 - Financing for the Community
	B5 - Peer to Peer Support
C. Core Program Coordination	
	C1- Outreach Education
	C2 - Third Party Program Coordination
	C3- Technical Assistance
D. Emerging Cities - (Unique Program Element)	
F. Individual Local Government Partnerships	

Element A - Government Facilities

*4) **Program Element Description and Implementation Plan – Element A - Government Facilities***

A. Government Facilities	
	A1 – Retrofit
	A2 - Retro-commissioning
	A3 - Integrating Demand Response
	A4 - Technical Assistance
	A5 - On-Bill Financing

Overview

The Government Facilities element will be implemented by most of the unique individual Local Government Partners (LGPs). This section (4A – 6A) describes the standard overview, rationale, outcomes, and barriers associated with the Government Facilities element by an LGP. If an individual LGP has a distinctive or targeted approach to Government Facilities, that LGP's individual PIP will contain additional information. The individual LGPs will primarily target local government facilities/sites that are owned or leased by public agencies including city halls, administrative offices, recreation centers, fire stations, and libraries.

Individual LGPs play an important role in assisting local governments (cities, counties and special districts) with retrofitting the facilities that they own and operate to achieve short and long term savings. While all local governments have access to SDG&E programs and incentives to save energy, SDG&E's Government Partnership program will work closely with the LGPs to foster government facilities' energy savings and to place these projects in the context of sustainability and climate change initiatives.

Approaching efficiency in government facilities in this way not only achieves short and long term savings, it also demonstrates a commitment to efficiency to the local government's constituents and the community at large. This, in turn, enables government partnerships to become champions for energy efficiency programs and other utility programs to further reduce usage in their communities. Additionally, a comprehensive approach to government facilities will be an important step to addressing Assembly Bill 32 (AB32) and other statewide or local GHG reduction requirements.

The Emerging Cities program will be available to support smaller cities with integrated facility audits and technical assistance that support and empower emerging cities to achieve efficiency in their own facilities.

This program element will include five sub-elements: Government Facilities Retrofits, Government Facilities Retro-commissioning, Integrated Demand Response, Technical Assistance, and On-Bill Financing.

A1 - Retrofits: Local Government Partnerships which choose to include a Government Facilities Retrofit element in their programs will achieve energy savings by providing technical, financial, managerial and administrative support to the government actor (usually a facilities manager) who initiates and implements energy-efficiency retrofit projects. Sometimes this entity

is the same as the Partner, and other times it is a different entity. The degree of assistance provided will be tailored to each agency's need, taking into account energy savings potential, cost effectiveness, level of commitment, available funds and in-house technical expertise. This program element will be leveraged by and integrated with other programs such as retro-commissioning, demand response and self-generation as appropriate to achieve comprehensive impacts while minimizing lost opportunities.

Energy savings will be based on measures installed, e.g., retrofitted. Measures include, but are not limited to, the following:

Measure End Use Types Planned
Comprehensive Lighting
HVAC
Motors
Water Heating
Pumps
Other

A2 - Retro-commissioning (RCx): Local Government Partnerships which choose to include a Government Facilities Retro-commissioning element in their programs will provide similar services as those described above for retrofits. RCx is a systematic process for identifying less-than-optimal performance in an existing building's equipment, lighting, and control systems and making necessary adjustments. Whereas retrofitting involves replacing outdated equipment, RCx focuses on improving the efficiency of what is already in place. As mentioned in A1, by bundling RCx with retrofits and other comprehensive options, the customer will optimize their efficiency and get the best bang for the buck.

Measures include but are not limited to the following:

Measure End Use Types Planned
Comprehensive Lighting
HVAC controls and tune up
VFDs
Water Heating
Other

A3 – Integrating Demand Response: LGPs will determine demand response (DR) potential in the course of comprehensively evaluating sites for energy efficiency retrofit and retro-commissioning opportunities. DR will be integrated with energy efficiency and referrals to DR programs will be made as appropriate. In addition to DR programs, partnerships will continue to identify self-generation opportunities. SDG&E will work with the Partnerships to ensure that comprehensive packages are made available to the local governments within that Partnership, including, for example a menu of DR options. The LGP will promote offerings through an integrated marketing collateral and sales approach. With additional market segmentation and feedback from customers, the utilities will adjust approaches in order to offer the combination of programs to best meet the varied needs of customers. The goal is to integrate offerings through building auditing and assessment, marketing materials and the strategic sales approach.

A4 - Technical Assistance:

While SDG&E makes technical assistance available to all governments, the LGPs will have targeted resources to provide technical assistance to the agencies within each LGP's geographic area. This assistance is an integral component of LGP administered energy efficiency programs and may take the form of integrated engineering audits, equipment specifications, engineering and cost-effectiveness calculations, field inspections, and equipment testing and analysis, and is an integral component of LGP-administered energy efficiency programs. Partnerships will provide technical support for developing, packaging and completing energy-efficient retrofit projects. Additionally, SDG&E will provide partnerships with training and access to benchmarking technology such as the USEPA/Energy Star Benchmarking tool to identify the government facilities with the highest potential. Partnerships shall also provide resources for city staff training and certification, including but not limited to the following: Building Operator Certification, Certified Energy Management, LEED accreditation, Green Point rated and other applicable trainings. This training will serve to build knowledge of energy management and resource conservation within the LGP.

A5 - On-Bill Financing: On-bill financing (OBF) may be offered to LGPs. In addition to OBF, LGPs may utilize other financing options such as CEC loans or municipal bonds as well as other state/federal grant programs. The Emerging Cities program will incorporate opportunities for On Bill Financing in the audit information provided to the emerging cities.

Target Audience

A1 – Retrofit
The target audience is Government Facilities, which can include municipal administration buildings as defined by NAICS 3 such as:

- City and County Libraries
- Fire Stations
- County Medical Hospitals
- County Correctional Facilities
- Police Stations
- Teen Centers
- Recreation Centers
- City Museums
- Animal Shelters
- Public Works Department Facilities
- Bridges and Highways
- Water Agencies
- Transit Agencies
- Streetlights

A2 – Retro-commissioning
Same as A1

A3- Integrating Demand Response
Same as A1

A4 – Technical Assistance
Technical assistance associated with government facility retrofits will be targeted at the appropriate city staff including Department of Public Works, Energy Office, Department of Building Inspection, Department of the Environment, etc. While each partnership might vary slightly, the key target audience will be energy and/or facility managers. The Emerging Cities program will establish additional peer-to-peer networks to facilitate sharing of best practices via the SANGAG partnership and other local government associations.

A5 – On-Bill Financing
Any municipality associated with a Government Partnership would be a candidate for OBF and other financing assistance.

Implementation

A1 – Retrofit
The LGPs will offer a comprehensive portfolio of energy efficiency programs that target municipal facilities. By partnering with local governments, Partnerships are well positioned to promote energy efficiency in their communities. Retrofit program offerings will include integrated energy audits, lighting assessments and non-lighting system options, calculated and prescriptive rebates, and direct installation of a comprehensive portfolio of measures. To promote this program element, Partnerships will distribute throughout their networks marketing materials and information that is well coordinated with utility and statewide marketing plans. The Partnerships will also leverage their community relationships as well as community based organizations and associations. Partnerships may also directly market to municipal and special district staff and engage key stake holders within the local government and the community. Partnerships will work to achieve both immediate and comprehensive, long-term energy savings. Energy efficiency strategies and measures will be coordinated throughout municipal departments to streamline implementation. Partnerships will implement energy efficiency by providing comprehensive assessments, conservation measures and training and education to the local governments.

A2 – Retro-commissioning (RCx)
LGPs with a Government Facilities Retrofit element may choose to include a Government Facilities RCx program element. Such LGPs will perform field-based functional tests at the building system and/or building subsystem level to identify RCx opportunities that will deliver energy and demand savings. Each Partnership will tailor minimum criteria (as developed by SDG&E) to identify RCx projects that will deliver the most savings. Each potential project will be assessed by technical feasibility and cost effectiveness. Preliminary investigation of a site's potential will include on-site equipment testing, monitoring, and/or verifying proper operation and calibration of a sample of the building systems and/or building sub-systems to be included in the proposed RCx projects.

A3- Integrating Demand Response

In evaluating opportunities in government facilities, Government Partnerships will also determine demand response potential. LGPs will make referrals to demand response programs as appropriate. In addition to demand response programs, partnerships will continue to identify self-generation.

A4 – Technical Assistance
Assistance will be tailored to each agency's needs, scaled to the potential energy savings and level of commitment of the participating agency, and strategically applied to leverage the most savings from available resources. Technical assistance may also include education and training, support for peer networking to support best practices, team building and staff training.

A5 – On-Bill Financing
Refer to the on-bill financing section included in Testimony Chapter 3

5) ***Program Element Rationale and Expected Outcome – Element A - Government Facilities***

a) Quantitative Baseline and Market Transformation Information

Market Transformation (MT) metrics proposed in Tables 3 and 4 are preliminary. The proposed metrics are meant to initiate a collaborative effort to elaborate meaningful metrics that will provide overall indicators of how markets as a whole are evolving. MT metrics should neither be used for short-term analyses nor for specific program analyses; rather, should focus on broad market segments.

Market transformation is embraced as an ideal end state resulting from the collective efforts of the energy efficiency field, but differing understandings of both the MT process and the successful end state have not yet converged. The CPUC defines the end state of MT as "Long-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where further publicly-funded intervention is no longer appropriate in that specific market."[2] The Strategic Plan recognizes that process of transformation is harder to define than its end state, and that new programs are needed to support the continuous transformation of markets around successive generations of new technologies[3].

Market transformation programs differ from resource acquisition programs on 1) objectives, 2) geographical and 3) temporal dimensions, 4) baselines, 5) performance metrics, 6) program delivery mechanisms, 7) target populations, 8) attribution of causal relationships, and 9) market structures[4]. Markets are social institutions[5], and transformation requires the coordinated effort of many stakeholders at the national level, directed to not immediate energy savings but rather to intermediary steps such as changing behavior, attitudes, and

[2] California Public Utilities Commission Decision, D.98-04-063, Appendix A.
[3] California Public Utilities Commission (2008) *California Long Term Energy Efficiency Strategic Plan,* p. 5. Available at http://www.californiaenergyefficiency.com/docs/EEStrategicPlan.pdf
[4] Peloza, J., and York, D. (1999). "Market Transformation: A Guide for Program Developers." Energy Center of Wisconsin. Available at: http://www.ecw.org/ecwresults/189-1.pdf
[5] Blumstein, C., Goldstone, S., & Lutzenhiser, L. (2001) "From technology transfer to market transformation". Proceedings of the European Council for an Energy Efficient Economy Summer Study. Available at http://www.eceee.org/conference_proceedings/eceee/2001/Panel_2/p2_7/Paper/

market supply chains[6] as well as changes to codes and standards. Resource acquisition programs rely upon the use of financial incentives, but concerns have been raised that these incentives distort true market price signals and may directly counter market transformation progress[7]. According to York[8], "Market transformation is not likely to be achieved without significant, permanent increases in energy prices. From an economic perspective, there are 3 ways to achieve market transformation: (1) fundamental changes in behavior, (2) provide proper price signals, and (3) permanent subsidy."

The question of what constitutes successful transformation is controversial because of a Catch-22: Market transformation is deemed successful when the changed market is self-sustaining, but that determination cannot be made until after program interventions are ended. Often, however, the need for immediate energy and demand savings or immediate carbon-emissions reductions will mean that program interventions may need to continue, which would interfere with the evaluation of whether MT is self-sustaining. Market transformation success has also been defined in terms of higher sales of efficient measures than would have otherwise occurred against a baseline absent of program interventions. The real world, however, provides no such control condition. Evaluators must estimate these baselines from quantitative factors such as past market sales that may be sparse and/or inaccurate - particularly for new products. Evaluations must also defer to expert judgments on what these baselines may have been as well as on the degree of successful market transformation[9]. Due to the subjective nature of these judgments, it is imperative that baselines as well as milestone MT targets be determined and agreed upon through collaborative discussion by all stakeholders, and these targets may need periodic revision as deemed necessary by changing context.

Market transformation draws heavily upon diffusion of innovation theory[10], with the state of a market usually characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades[11]. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects[12]. The ability to make causal connections between these market transformation effects and any particular program's activities fades with time, as markets continually change and other influences come into play.

These challenges mentioned above are in reference to programs that were specifically designed to achieve market transformation; and these challenges are only compounded for programs that were primarily designed to achieve energy and demand savings. However, since the inception of market transformation programs almost two decades ago, many lessons

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[6] Sebold, F. D., Fields, A., Skumatz, L., Feldman, S., Goldberg, M., Keating, K., Peters, J. (2001) *A Framework for Planning and Assessing Publicly Funded Energy Efficiency*. p. 6-4. Available at www.calmac.org.

[7] Gibbs, M., and Townsend, J. (2000). The Role of Rebates in Market Transformation: Friend or Foe. In *Proceedings from 2000 Summer Study on Energy Efficiency in Buildings.*

[8] York, D., (1999). "A Discussion and Critique of Market Transformation", Energy Center of Wisconsin. Available at http://www.ecw.org/ecwresults/186-1.pdf.

[9] Nadel, S., Thorne, J., Sachs, H., Prindle, B., and Elliot, R.N. (2003). "Market Transformation: Substantial Progress from a Decade of Work." American Council for an Energy-Efficient Economy, Report Number A036. Available at: http://www.aceee.org/pubs/a036full.pdf

[10] Rogers (1995) Diffusion of Innovations, 5th Ed.

[11] Example in bottom chart of this graphic from NYTimes: http://www.nytimes.com/imagepages/2008/02/10/opinion/10op.graphic.ready.html

[12] Sebold et al (2001) p. 6-5,

have been learned about what the characteristics of successful MT programs are. First and foremost, they need to be designed specifically to address market transformation. "The main reason that (most) programs do not accomplish lasting market effects is because they are not designed specifically to address this goal (often because of regulatory policy directions given to program designers.)[13]" The Strategic Plan recognizes that regulatory policies are not yet in place to support the success of market transformation efforts[14], but also reflects the CPUC's directive to design energy efficiency programs that can lay the groundwork for either market transformation success or for codes and standards changes.

Above all else, the hallmark of a successful market transformation program is in the coordination of efforts across many stakeholders. The most successful MT programs have involved multiple organizations, providing overlapping market interventions[15]. The Strategic Plan calls for coordination and collaboration throughout, and in that spirit the utilities look forward to working with the CPUC and all stakeholders to help achieve market transformation while meeting all the immediate energy, demand, and environmental needs. Drawing upon lessons learned from past MT efforts, the Energy Center of Wisconsin's guide for MT program developers[16] suggests that the first step is not to set end-point definitions, progress metrics or goals. Rather, the first steps include forming a collaborative of key participants. As the Strategic Plan suggests, these may include municipal utilities, local governments, industry and business leaders, and consumers. Then, with the collective expertise of the collaborative, we can define markets, characterize markets, measure baselines with better access to historical data, and define objectives, design strategies and tactics, implement and then evaluate programs. The collaborative will also provide insights that will set our collective expectations for the size of market effects we can expect, relative to the amount of resources we can devote to MT. No one organization in the collaborative will have all the requisite information and expertise for this huge effort. This truly needs to be a collaborative approach from the start.

The metrics and baselines described below in Tables 3 and 4 are presented for the purposes of starting the much-needed discussion between all key participants. These are suggestions, intended to allow key participants to pilot-test processes for establishing baseline metrics, tracking market transformation progress, and for refining evaluation tools. Early trial of these evaluation metrics will reveal any gaps in data tracking so that we may refine our processes before full-scale market transformation evaluations take place.

The set of metrics we selected is intentionally a small set, for several reasons. First, as mentioned, the full set of metrics and baselines need to be selected by key participants. Second, we anticipate that market share data for many mid- and low-impact measures will be too sparse to show MT effects and not cost-effective to analyze. Third, we selected core measures and metrics that would both be indicative of overall portfolio efforts. These measures are also likely to be offered on a broad level by other utilities, providing a greater base of sales and customer data that could be analyzed for far-reaching MT effects.

[13] Peters, J.S., Mast,B., Ignelzi, P., Megdal, L.M. (1998). *Market Effects Summary Study Final Report: Volume 1."* Available at http://calmac.org/publications/19981215CAD0001ME.PDF.
[14] CPUC (2008) Strategic Plan, p. 5.
[15] Nadel, Thorne, Saches, Prindle & Elliot (2003).
[16] Peloza & York, (1999).

Therefore, for the Local Government Partnerships the following approach to quantitative baseline and market transformation information is presented as follows.
The utilities recommend development of a baseline, and tracking the number of cities, counties and government institutions that have plans for written energy efficiency provisions. Such a metric relates directly to the Strategic Plan (Goal 12.3.4) in terms of measuring progress towards 50% plans for sustainability.

In addition, we propose tracking community adoptions of new construction model reach codes, both residential and nonresidential. This metric aligns with the Strategic Plan (Goal 12.3.1). In addition to being a direct indicator of support by local government partnerships, community adoptions of model reach codes are of strategic interest to the CPUC. A proliferation of dissimilar reach codes would confuse the market relative to building codes and incentive programs. Model reach codes to be developed by Codes and Standards would allow energy efficiency efforts across partners to be aligned with a clear target for each climate zone. As discussed in the Local Government PIPs, the IOUs intend to work closely with partners in establishing baseline code compliance levels and pushing for model reach codes.

With this discussion in mind, IOUs propose the following metrics for this sector:

Table 3
N/A

b) Market Transformation Information

As stated above, market transformation draws heavily upon diffusion of innovation theory, with the state of a market characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects. Therefore it is problematic, if not impractical, to offer internal annual milestones towards market transformation sectors and specific program activities.

As a consequence, it is not appropriate to offer more than broad and general projections. Any targets provided in the following table are nothing more than best guesstimates, and are subject to the effects of many factors and market forces outside the control of program implementers.

Table 4
N/A

c) Program Design to Overcome Barriers:

Refer to individual partnership PIP section.

d) Quantitative Program Objectives:

Table 5
Refer to individual partnership PIP section.

6) ***Other Program Element Attributes- Element A - Government Facilities***

Other Program Element Attributes	**Government Facilities**
a) Best Practices: Describe why program element approach constitutes "best practice" or reflects "lessons learned" in market strategies, program design and/or implementation techniques, or past experience. Provide references where available.	The approach to Local Government Facilities constitutes a best practice because it incorporates the lessons learned from past program cycles. SDG&E has seen that, as local governments become champions for energy efficiency in their communities, there is an increased focus on leading by reducing energy use in municipal facilities.
b) Innovation: Describe any unique or innovative aspects of program element not previously discussed. Why is this innovative?	The Government Facilities program element incorporates innovative aspects of program design, as discussed above. These include benchmarking, community financing, and framing the facilities work within a climate action framework. Government Partnerships have used innovative solutions to address barriers. In using benchmarking technology and other technical assistance, Government Partnerships plan to prioritize the facilities that are best suited for retrofits. Additionally, each partnership will work to address potential barriers by sharing solutions and best practices. The Partnerships program will explore options for addressing financial barriers (e.g., support for California Energy Commission (CEC) loans and other funding opportunities) and support individual Partners that want to pilot new approaches, such earmarking energy savings in a separate fund to ensure that savings do not go back into the general fund. Benchmarking will be done consistent with Commission direction.
c) Interagency Coordination: Describe any interagency coordination with the ARB, CEC on PIER or Codes and Standards; non-utility market initiatives; energy efficiency market forces, opportunities and trends; and timeline by which market segment will be "transformed'' or other aspects of the program.	The Government Partnerships program will foster coordination in relation to government facilities efficiency, encouraging LGPs to make use of coordination resources including: o Participate in the CEC loan program for governments. o CEC's Public Interest Energy Research (PIER) program o "EPA Energy Star Low Carbon IT Campaign Ally" with their power management savings program. o Work with the ARB as well as other agencies to co-market materials, co-

Other Program Element Attributes	Government Facilities
	brand programs, etc.
d) Integrated/coordinated Demand Side Management (IDSM): Describe how program will achieve integrated or coordinated delivery of all IDSM options, as well as LIEE and WE&T. (If this is an integral part of the program element and fully covered under #4 note that here.) Describe in detail how program will achieve integrated or coordinated delivery of all IDSM options (energy efficiency, demand response, onsite generation and water efficiency) where applicable including integrated program design and delivery, shared budgets, program evaluation, and incentive mechanisms that promote greater integration of IDSM resources. Provide a complete description for all the technologies, including integration supporting technologies that will be included in the program. If the program does not include all IDSM options as noted above, briefly provide an explanation for a more limited subset of IDSM technologies. Utilize Attachment 5A to highlight any shared or leveraged budget categories and amounts (admin, incentives, ME&O, and other applicable categories).	Partnerships will achieve coordinated delivery of IDSM options. Some LGPs will achieve integration of all elements, while others will only integrate a few. The integrated elements will include: • Integrated energy audits will be offered to government facilities that show savings potential and are willing to commit to the additional time and financial investments. • Emerging Technologies and CEC-PIER collaboration is expected to include pilot projects and market acceleration assistance for market-ready products in the general categories of day lighting, lighting, HVAC, controls, and building envelope improvements. • Commissioning and retro-commissioning services will be continued to segment customers. • Demand response opportunities will be targeted in the larger facilities, particularly as part of monitoring-based retro-commissioning efforts where the controls to facilitate demand response efforts would be installed. • Coordination with LIEE to provide services to middle-income ("just above LIEE") customers. • Water efficiency will be addressed to segment customers.
e) Integration across resource types (energy, water, air quality, etc.): If program aims to integrate across resources types, provide rationale and general approach. (If this is an integral part of the program element and fully covered under #4 note that here.)	Government Partnerships will encourage conversations with other resource agencies including water, air quality and transportation authorities. The partnerships will enable individual LGPs to coordinate with other resource programs, such as water, waste, in achieving efficiencies in government facilities. The Emerging Cities program will play a supporting role, especially in sharing best practices among LGPs.
f) Pilots: Describe any pilot projects that are part of this program (If this was fully covered under #4, note that here.)	Some of the Pilots may address government facility efficiency. Smaller pilots may be implemented by individual LGPs as part of their

Other Program Element Attributes	Government Facilities
	partnership activity. The Government partnership team intends to do an assessment of government facilities and may pilot new approaches as a result of this assessment.
g) EM&V: Describe any process evaluation or other evaluation efforts that will be undertaken by the utility to determine if the program is meeting its goals and objectives. Include the evaluation timeframe and brief description of scope, as well as a summary of specific methodologies, if already developed. If not developed, indicate the process for developing them. Include reference to tracking databases that will be used for evaluation purposes.	A process evaluation will be conducted by a third party evaluator. The evaluation will assess communication and coordination effectiveness between partners as well as satisfaction with the service and increased awareness of energy efficiency opportunities. A combination of interviews and focus groups will likely be used to collect data. The evaluation is expected to build upon results found in the recently completed process evaluation for PY2010 to 2012.

Element B - Strategic Plan Support

7) ***Program Element Description and Implementation – Element B - Strategic Plan Support***

B. Strategic Plan Support	
	B1 - Code Compliance
	B2 - Reach Code Support
	B3 - Guiding Document Support
	B4 - Financing for the Community
	B5 - Peer to Peer Support

Overview

The Strategic Plan Support element will be implemented primarily through the unique program elements of the individual partners , which are specifically designed to actualize the vision set forth in the long term strategic plan. Additionally, this element will be coordinated on a regional level leveraging each LGP's strengths and best practices as it relates to the Strategic Plan. California's local governments will be leaders in using energy efficiency to reduce energy use and global warming emissions both in their own facilities and throughout their communities.

Individual LGPs will also play an important role in furthering the strategic plan. This section (4B – 6B) describes the standard overview, rationale, outcomes, and barriers associated with an individual LGPs implementation of the Strategic Plan support element. If an individual LGP has a different or targeted approach to Government Facilities, that LGP's individual PIP will contain additional information.

It is important to note that individual Partners vary widely in terms of how appropriate and/or ready each Partner is to undertake activities related to supporting the strategic plan. The functions for strategic plan support are quite distinct (from codes to policy to finance). Given the

diversity of entities serving as the individual LGP, some Partners can accommodate all of the distinct roles required for strategic plan support while others cannot.

The partners that directly represent a government entity will have different responsibilities and capabilities than those partners that represent a regional group, such as SANDAG. For example, governments are appropriate entities to enact policies including stretch codes, GHG targets, and general plan updates, but regional groups are better positioned to perform broader functions such as developing regional plans. In cases where the individual Partner does not function as a leader for some or all of the strategic plan initiatives (codes, climate plans, financing, and peer support), the Partner can often still play a supporting role.

Partners exhibit varying readiness to engage in strategic plan activity. Some partners have very limited staff and budgets and may be engaging in energy efficiency and sustainability issues for the first time. Other partners have been working on these issues for several years and are among the leading municipalities in the country in their sustainability efforts. Therefore, the approach to achieve strategic plan initiatives will need to be tailored to suit the individual needs and capabilities of each Partner.

Through the Emerging Cities program and SANDAG partnership, SDG&E will provide an integrated suite of program offerings geared toward strategic plan support, including tools and technical assistance, to all cities in the service area. Emerging Cities, coordinating with SANDAG, will provide a roadmap developing a starting point for all cities in SDG&E territory, including those with and without formal partnerships, that are interested in engaging in GHG reduction and energy efficient activities to reach objectives outlined in the Strategic Plan.

Local Government Partnerships will also implement, to varying degrees, aspects of the Strategic Plan Support element. The degree will depend on the level of knowledge and degree of capacity within the partnership's scope of influence.

The following section catalogs approaches and techniques that LGPs may choose to utilize to make constructive use of local government policies and services to promote community sustainability.

B1 - Code Compliance

The Code Compliance sub-element will be implemented primarily through the Codes and Standards program, as described in the Codes and Standards PIP. Some individual LGPs will take action related to code compliance by engaging in a range of activities that will be coordinated with the Codes and Standards program. LGP Code Compliance activities may include training local government staff that is charged with code compliance in coordination with SDG&E's Codes and Standards program or through training and education classes. LGP activity may also include developing and implementing certification programs for local inspectors and contractors. LGPs may assist with marketing in coordination with SDG&E and statewide marketing activities, including advertising training opportunities to relevant trades, raising awareness of current codes among business and residential customers and encouraging compliance. Local Governments often have access to constituents through existing relationships and can use those routes to enhance or complement other energy efficiency marketing activities.

Please refer to the Codes and Standards PIP for further information.

B2 - Reach Code Support

The Reach Code Support sub-element will be implemented primarily through the Codes and Standards program. Some individual Partnerships may choose to include Reach Code activities to promote local codes that exceed Title 24 requirements. Again, all reach code support activity will be coordinated with the Codes and Standards program. Partnerships that include Reach Code activities could perform activities that range from training local government staff regarding adoption and implementation of model reach codes to establishing expedited permitting and entitlement approval processes, fee structures and other incentives for green buildings and other above-code developments. Examples could include green building standards for new construction and retrofits/retro-commissioning or carbon offset reduction programs that exceed Title 24. SDG&E will provide training through its Education and Training program. LGPs may attend training and/or market the training to relevant trades, in coordination with utility and statewide marketing activities.

Please refer to the Codes and Standards PIP for further information.

B3- Guiding Document Support

This program element will help government's complete GHG emissions inventories and climate action plans in accordance with the process developed by ICLEI and help develop guiding documents that effectively and methodically reduce community energy consumption and GHG emissions. SDG&E will provide partnerships with energy usage data on local government facilities and facilitate the transfer of usage data for private buildings as authorized by customer consent to assist local governments in GHG emission inventories.

Those partnerships that include this program element could perform activities that range from quantifying a municipality's baseline energy use, to developing a climate action plan to reduce energy use to developing policies to be incorporated into a general plan.

Those partners who have not yet developed their baseline energy use could include activities to inventory their municipal operations and community GHG emissions that would support strategic planning to increase use of SDG&E energy efficiency, demand response, renewables, and other applicable programs. To assist the partners in their municipal operations and community GHG inventories, SDG&E will provide usage information on municipal facilities and on building sectors in a jurisdiction or neighborhood where applicable and as authorized by customer consent. Usage information will be provided to partnerships in a format that is cost effective, compatible to AB32 legislation and meets local government's needs. Partnership's with a more regional focus could develop local policy documents that could include energy elements in general plans, energy efficiency recommendations for new developments, energy-efficient equipment purchasing guidelines, community climate action plans, and analyses for energy conservation codes and ordinances targeting the private sector.

Partnerships with a more regional focus may assist municipalities within their jurisdictions with energy policies. For example, they may develop Community Energy Policy Packages for adopting and implementing a local energy initiative. This package may include draft policy language, a recommendation for legal authority (ordinance versus policy document versus administrative mandate); guidance and checklist for successful implementation (including assigning policy implementation to a sympathetic city department); staff report guidelines and discussion on implementations issues (e.g., how to frame objectives, scope, triggering

mechanisms, requirements, and enforcement strategies). These services may also include technical assistance for agencies pursuing adoption of local policies, and may include estimating local savings impacts, providing supporting calculations or analysis of staff reports, etc.

B4 - Financing for the Community

Some individual LGPs will implement some aspect of financing as part of their activity. A program element will be offered to Partners to help governments explore financing opportunities such as low-interest loans through the California Energy Commission (CEC). The CEC's Energy Efficiency Financing Program provides financing for schools, hospitals and local governments through low-interest loans for feasibility studies and the installation of energy-saving measures. For those partners who include this program element, the Partnership could provide project financial analysis assistance to quantify energy efficiency project economics in terms understood by local government decision makers, and could assist facility engineering staff in presenting projects for approval. Assistance may include providing life cycle cost analysis and illustrating how energy efficiency investments can be structured to pay for themselves, while also freeing up resources through lower future facility operating costs.

B5 – Peer to Peer Support

Individual LGPs may participate in peer sharing forums and the quarterly partner networking events set up by SDG&E. Individual LGPs may also set up their own networks for the governments within their area. LGPs provide an opportunity to raise awareness among local government staff and create connections across departments to lay the groundwork for the long-term change that is laid out in the strategic plan. Peer to peer exchange is one method for building local government energy efficiency knowledge and capability. LGP peer to peer exchange also may benefit utility and third party implementation staff where local government staff provides information about their local community needs and the inner workings of their local government.

Information sharing can occur within each Partnership (across Partnership members), across local government staff and across Partnerships. Peer to peer support will help local governments develop energy efficiency policy and program initiatives to promote energy efficiency within the local government community. Those Partners who choose to include this element in their program could utilize a combination of peer forums, local government-focused workshops, and a web based clearinghouse that will provide specific energy efficiency information and resources. Support networks would encompass those already working in energy efficiency or related areas such as environment, climate or sustainability and those whose primary function is not directly related to energy efficiency such as building inspectors, maintenance staff and city council members.

The expected outcomes are the exchange of information within, across and from Partnerships to broader local government staff. The range of expected impacts is consistent with elements of the strategic plan and includes:

- Increased knowledge and awareness of energy efficiency,
- Changes in local government behaviors related to energy efficiency,
- Increased ability to implement energy efficiency within local government, and
- Creation of linkages across local government staff and added resources that maximize the government’s ability to develop goals and implement strategies around energy efficiency and carbon reduction.

Non-Incentive Services

The functions and activities discussed in this section are all non-incentive services.

Target Audience

The Partnership program will assist local governments, quasi-governments, nonprofits focused on the public sector, and their agents in achieving objectives of the Strategic Plan. Each Partner's actions in this arena will benefit their respective constituents, including but not limited to residents, inspectors, contractors, businesses, and other local governments.

Implementation

For each of the five Strategic Plan Support elements described, implementation will vary across the LGPs. For detailed information about implementation, please see the Individual LGP PIPs. In general, each Partnership contract will identify which strategic plan program elements will be included in the partnership program and the associated budget. The utility and partner responsibilities will be defined for each program element included in the partnership.

8) ***Program Element Rationale and Expected Outcome – Element B - Strategic Plan Support***

a) Quantitative Baseline and Market Transformation Information

Market Transformation (MT) metrics proposed in Tables 3 and 4 are preliminary. The proposed metrics are meant to initiate a collaborative effort to elaborate meaningful metrics that will provide overall indicators of how markets as a whole are evolving. MT metrics should neither be used for short-term analyses nor for specific program analyses; rather, should focus on broad market segments.

Market transformation is embraced as an ideal end state resulting from the collective efforts of the energy efficiency field, but differing understandings of both the MT process and the successful end state have not yet converged. The CPUC defines the end state of MT as "Long-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where further publicly-funded intervention is no longer appropriate in that specific market."[17] The Strategic Plan recognizes that process of transformation is harder to define than its end state, and that new programs are needed to support the continuous transformation of markets around successive generations of new technologies[18].

Market transformation programs differ from resource acquisition programs on 1) objectives, 2) geographical and 3) temporal dimensions, 4) baselines, 5) performance metrics, 6) program delivery mechanisms, 7) target populations, 8) attribution of causal relationships, and 9) market structures[19]. Markets are social institutions[20], and transformation requires the

[17] California Public Utilities Commission Decision, D.98-04-063, Appendix A.
[18] California Public Utilities Commission (2008) *California Long Term Energy Efficiency Strategic Plan,* p. 5. Available at http://www.californiaenergyefficiency.com/docs/EEStrategicPlan.pdf
[19] Peloza, J., and York, D. (1999). "Market Transformation: A Guide for Program Developers." Energy Center of Wisconsin. Available at: http://www.ecw.org/ecwresults/189-1.pdf

coordinated effort of many stakeholders at the national level, directed to not immediate energy savings but rather to intermediary steps such as changing behavior, attitudes, and market supply chains[21] as well as changes to codes and standards. Resource acquisition programs rely upon the use of financial incentives, but concerns have been raised that these incentives distort true market price signals and may directly counter market transformation progress[22]. According to York[23], "Market transformation is not likely to be achieved without significant, permanent increases in energy prices. From an economic perspective, there are 3 ways to achieve market transformation: (1) fundamental changes in behavior, (2) provide proper price signals, and (3) permanent subsidy."

The question of what constitutes successful transformation is controversial because of a Catch-22: Market transformation is deemed successful when the changed market is self-sustaining, but that determination cannot be made until after program interventions are ended. Often, however, the need for immediate energy and demand savings or immediate carbon-emissions reductions will mean that program interventions may need to continue, which would interfere with the evaluation of whether MT is self-sustaining. Market transformation success has also been defined in terms of higher sales of efficient measures than would have otherwise occurred against a baseline absent of program interventions. The real world, however, provides no such control condition. Evaluators must estimate these baselines from quantitative factors such as past market sales that may be sparse and/or inaccurate - particularly for new products. Evaluations must also defer to expert judgments on what these baselines may have been as well as on the degree of successful market transformation[24]. Due to the subjective nature of these judgments, it is imperative that baselines as well as milestone MT targets be determined and agreed upon through collaborative discussion by all stakeholders, and these targets may need periodic revision as deemed necessary by changing context.

Market transformation draws heavily upon diffusion of innovation theory[25], with the state of a market usually characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades[26]. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects[27]. The ability to make causal connections between these market transformation effects and any particular program's activities fades with time, as markets continually change and other influences come into play.

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[20] Blumstein, C., Goldstone, S., & Lutzenhiser, L. (2001) "From technology transfer to market transformation". Proceedings of the European Council for an Energy Efficient Economy Summer Study. Available at http://www.eceee.org/conference_proceedings/eceee/2001/Panel_2/p2_7/Paper/

[21] Sebold, F. D., Fields, A., Skumatz, L., Feldman, S., Goldberg, M., Keating, K., Peters, J. (2001) *A Framework for Planning and Assessing Publicly Funded Energy Efficiency*. p. 6-4. Available at www.calmac.org.

[22] Gibbs, M., and Townsend, J. (2000). The Role of Rebates in Market Transformation: Friend or Foe. In *Proceedings from 2000 Summer Study on Energy Efficiency in Buildings.*

[23] York, D., (1999). "A Discussion and Critique of Market Transformation", Energy Center of Wisconsin. Available at http://www.ecw.org/ecwresults/186-1.pdf.

[24] Nadel, S., Thorne, J., Sachs, H., Prindle, B., and Elliot, R.N. (2003). "Market Transformation: Substantial Progress from a Decade of Work." American Council for an Energy-Efficient Economy, Report Number A036. Available at: http://www.aceee.org/pubs/a036full.pdf

[25] Rogers (1995) Diffusion of Innovations, 5th Ed.

[26] Example in bottom chart of this graphic from NYTimes: http://www.nytimes.com/imagepages/2008/02/10/opinion/10op.graphic.ready.html

[27] Sebold et al (2001) p. 6-5,

These challenges mentioned above are in reference to programs that were specifically designed to achieve market transformation; and these challenges are only compounded for programs that were primarily designed to achieve energy and demand savings. However, since the inception of market transformation programs almost two decades ago, many lessons have been learned about what the characteristics of successful MT programs are. First and foremost, they need to be designed specifically to address market transformation. "The main reason that (most) programs do not accomplish lasting market effects is because they are not designed specifically to address this goal (often because of regulatory policy directions given to program designers.)[28]" The Strategic Plan recognizes that regulatory policies are not yet in place to support the success of market transformation efforts[29], but also reflects the CPUC's directive to design energy efficiency programs that can lay the groundwork for either market transformation success or for codes and standards changes.

Above all else, the hallmark of a successful market transformation program is in the coordination of efforts across many stakeholders. The most successful MT programs have involved multiple organizations, providing overlapping market interventions[30]. The Strategic Plan calls for coordination and collaboration throughout, and in that spirit the utilities look forward to working with the CPUC and all stakeholders to help achieve market transformation while meeting all the immediate energy, demand, and environmental needs. Drawing upon lessons learned from past MT efforts, the Energy Center of Wisconsin's guide for MT program developers[31] suggests that the first step is not to set end-point definitions, progress metrics or goals. Rather, the first steps include forming a collaborative of key participants. As the Strategic Plan suggests, these may include municipal utilities, local governments, industry and business leaders, and consumers. Then, with the collective expertise of the collaborative, we can define markets, characterize markets, measure baselines with better access to historical data, and define objectives, design strategies and tactics, implement and then evaluate programs. The collaborative will also provide insights that will set our collective expectations for the size of market effects we can expect, relative to the amount of resources we can devote to MT. No one organization in the collaborative will have all the requisite information and expertise for this huge effort. This truly needs to be a collaborative approach from the start.

The metrics and baselines described below in Tables 3 and 4 are presented for the purposes of starting the much-needed discussion between all key participants. These are suggestions, intended to allow key participants to pilot-test processes for establishing baseline metrics, tracking market transformation progress, and for refining evaluation tools. Early trial of these evaluation metrics will reveal any gaps in data tracking so that we may refine our processes before full-scale market transformation evaluations take place.

The set of metrics we selected is intentionally a small set, for several reasons. First, as mentioned, the full set of metrics and baselines need to be selected by key participants. Second, we anticipate that market share data for many mid- and low-impact measures will be

[28] Peters, J.S., Mast,B., Ignelzi, P., Megdal, L.M. (1998). *Market Effects Summary Study Final Report: Volume 1."* Available at http://calmac.org/publications/19981215CAD0001ME.PDF.
[29] CPUC (2008) Strategic Plan, p. 5.
[30] Nadel, Thorne, Saches, Prindle & Elliot (2003).
[31] Peloza & York, (1999).

too sparse to show MT effects and not cost-effective to analyze. Third, we selected core measures and metrics that would both be indicative of overall portfolio efforts. These measures are also likely to be offered on a broad level by other utilities, providing a greater base of sales and customer data that could be analyzed for far-reaching MT effects. Therefore, for the Local Government Partnerships the following approach to quantitative baseline and market transformation information is presented as follows.
The utilities recommend development of a baseline, and tracking the number of cities, counties and government institutions that have plans for written energy efficiency provisions. Such a metric relates directly to the Strategic Plan (Goal 12.3.4) in terms of measuring progress towards 50% plans for sustainability.

In addition, we propose tracking community adoptions of new construction model reach codes, both residential and nonresidential. This metric aligns with the Strategic Plan (Goal 12.3.1). In addition to being a direct indicator of support by local government partnerships, community adoptions of model reach codes are of strategic interest to the CPUC. A proliferation of dissimilar reach codes would confuse the market relative to building codes and incentive programs. Model reach codes to be developed by Codes and Standards would allow energy efficiency efforts across partners to be aligned with a clear target for each climate zone. As discussed in the Local Government PIPs, the IOUs intend to work closely with partners in establishing baseline code compliance levels and pushing for model reach codes.

With this discussion in mind, IOUs propose the following metrics for this sector:

Table 3
N/A

c) Market Transformation Information

As stated above, market transformation draws heavily upon diffusion of innovation theory, with the state of a market characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects. Therefore it is problematic, if not impractical, to offer internal annual milestones towards market transformation sectors and specific program activities.

As a consequence, it is not appropriate to offer more than broad and general projections. Any targets provided in the following table are nothing more than best guesstimates, and are subject to the effects of many factors and market forces outside the control of program implementers.

Table 4
N/A

c) Program Design to Overcome Barriers:

Refer to individual partnership PIP section.

d) Quantitative Program Objectives:

Table 5
Refer to individual partnership PIP section.

*9) **Other Program Element Attributes – Element B - Strategic Plan Support***

a) Best Practices
SDG&E's approach to Strategic Plan Support is innovative and reflects lessons learned because SDG&E has observed that multiple actors provide governments with long-term GHG reduction and energy reduction strategies. SDG&E has learned from previous programs that it is more important for governments to have access to tools and technical assistance to become informed energy actors rather than directly performing all functions themselves.

b) Innovation
The Strategic Plan Support element is inherently innovative since these elements have not been a part of previous Government Partnership program.

c) Interagency Coordination
The Strategic Plan Support element affords many opportunities for CEC, ARB and PIER coordination especially as communities look towards AB32 implementation, Title 24 compliance and development of climate action plans. Government Partnerships who include Strategic Plan Support elements in their program will look to align the goals of their respective communities around the goals of the Strategic Plan through education and outreach campaigns, peer-to-peer support and by providing technical assistance around compliance issues with these agencies.

d) Integrated Demand Side Management
The Strategic Plan Support program element will achieve coordination of demand side management, low income efficiency, and workforce training. Peer to peer support will serve as a catalyst for integration by providing a platform for knowledge sharing. In this way, there is an opportunity to expose all peer to peer participants to all utility program offerings in an integrated fashion.

e) Integration across resource types (energy, water, air quality, etc.)
This program element integrates other resources, especially regarding guiding documents, which necessarily should include resource types such as waste, land use, water. While government Partnerships are designed to focus on energy efficiency, SDG&E can encourage partnerships to access other resources and can also emphasize when energy programs have incidental benefits to other resources. See individual PIPs for more specific information.

f) Pilots
Individual LGPs may choose to implement pilots related to this element. See individual PIPs for more specific information.

g) EM&V
A process evaluation will be conducted by a third party evaluator. The evaluation will assess communication and coordination effectiveness between partners as well as satisfaction with the service and increased awareness of energy efficiency opportunities. A combination of interviews

and focus groups will likely be used to collect data. The evaluation is expected to build upon results found in the recently completed process evaluation for PY2010 to 2012.

Element C - Core Program Coordination

10) ***Program Element Description and Implementation – Element C - Core Program Coordination***

C. Core Program Coordination	
	C1- Outreach Education
	C2 - Third Party Program Coordination
	C3 - Technical Assistance

Overview

The Core Program Coordination element will be implemented to some degree by all of the unique individual Local Government Partners (LGPs). This section (4C – 6C) describes the standard overview, rationale, outcomes, and barriers associated with the Core Program Coordination element by an LGP. If an individual LGP has a distinctive approach to Core Program Coordination, that LGPs individual PIP will contain additional information. Within Government Partnerships, the unique elements of Emerging Cities will also support the Core Program Coordination element.

Coordination with Core programs is important to the effectiveness of each individual LGP. A key to SDG&E's coordination effort is its market segment planning approach. All of SDG&E's programs will be via a customer segment planning team, which will include SDG&E staff from core, third party and government partnership as well as demand response, customer generation, and others. This means that LGPs will be coordinated with all other energy efficiency portfolio efforts to reach agricultural, commercial, industrial, residential and small business customers.

In addition, LGPs coordinate with each other, with SDG&E, and with other implementers to support energy efficiency programs across the SDG&E portfolio, and particularly with respect to outreach education for residential and small business customers, third party programs, and technical assistance. By utilizing the outreach channels of the local government, these programs target customers and fully canvas neighborhoods that may not be targeted by Core Programs.

In a continued effort to insure that customers and energy efficiency opportunities are not overlooked, SDG&E's Middle Income Direct Install program (MIDI), which targets customers that are slightly above the LIEE income guidelines, will work closely with the LGPs to serve as a marketing channel to increase program participation. Because of their close ties to the community, individual LGPs may identify opportunities to serve customer energy needs through integrated demand side management products including energy efficiency, demand response, low income programs, and codes and standards assistance as well as other utility programs including distributed generation. Such coordination provides customers with comprehensive solutions and minimizes overlap of effort and service. Where the LGP identifies a need that they do not currently service, they can refer participants to programs. The Partnership will provide the participant with contact information for the relevant programs and assistance as required. If program overlap is determined to exist, the Partnership will notify SDG&E of the program(s)

involved and discuss and coordinate efforts so as not to duplicate services and compete for customers.

In addition, LGPs can coordinate with and leverage other sources of funding to increase the impact of SDG&E offerings and include programs provided by other agencies such as the CEC, ARB and other state and federal agencies.

In addition to outreach for energy efficiency opportunities, LGPs are an important delivery channel for integrated approaches and emerging technologies. As new approaches of integration and emerging technologies are available, the LGPs will serve as a channel for providing the appropriate outreach and education to the community.

Local Governments Role in Advancing Energy Upgrade California

Local Governments play a unique and important role in the promotion and advancement of Energy Upgrade California. Beginning in 2009, when the American Recovery and Reinvestment Act was passed and programs like the State Energy Program and the Energy Efficiency & Conservation Block Grant program, jurisdictions across the state were given the unique opportunity to make significant investments on energy programs. Because of the unique and collaborative relationship that exists among the local jurisdictions and SDG&E, and the existence of a non-resource local government partnership program, the San Diego region saw the development of a number of community focused residential retrofit programs including innovative marketing pilots, specialized workforce education & training programs, and a variety of rebate and loan programs that sought to incentivize residents to perform energy upgrades in their homes.

Over the course of the last few years, SDG&E has worked closely with each local government to ensure local programs are closely coordinated and achieve the highest level of collaboration and consistency across the region. Building off the lessons learned over the course of the last few years as well as the unique authorities afforded local governments, SDG&E and the local government program advisory group has developed the following list of key roles that local governments will play to advance Energy Upgrade California during the transition cycle.

1. Incorporate building retrofits & building occupant health and safety issues into Climate Action Plans, General Plans, and other relevant planning and long term strategy documents;
2. Leverage community relationships and resources to market Energy Upgrade California including targeted outreach and education to the community;
3. Provide targeted education on EUC and its benefits to key community stakeholders, business sectors and elected officials
4. Coordinate workforce education and training program activities;
5. Leverage building permit interactions to encourage EUC enrollment and work to develop streamlined permitting process as it relates to EUC
6. Leverage unique authority to encourage/require building rating/audits to drive customers to EUC
7. Pilot unique incentive programs such as point of sale audits, to encourage participation in Energy Upgrade California

Work with the financing community to deploy innovative products and services to further enable residential and commercial energy upgrades throughout their jurisdictions.

C1 - Outreach and Education
LGPs will provide education and outreach to inform their customers about comprehensive energy saving opportunities and best practices. All of the outreach will be coordinated with SDG&E's marketing efforts as well as statewide marketing initiatives.

As part of the coordination of Training and Education, the LGPs will leverage trainings at the San Diego Energy Resource Center, SDG&E's Energy Innovation Center and other sources.

C2 - Third Party Program Coordination
LGPs will coordinate with Third Party direct install contractors and/or other core programs to implement retrofits of existing government buildings and municipal facilities. The contracts will be coordinated with the LGPs by establishing agreements between the contractors and the LGPs that specify which customers and in which geographic areas each contractor is eligible to serve. Contractors will be selected to provide focus on targeted customers as well as specialization in strategic technologies such as HVAC tune-ups and replacement projects.

C3 – Technical Assistance
Technical assistance is available to LGPs. Assistance many include but is not limited to audits, engineering calculations, reports and inspections.

Target Audience
Community level data will be analyzed to determine the areas with the largest potential based on market potential studies and looking at previously served customers.

C1 - Outreach and Education
The primary audience for outreach and education includes the following:

- Local Government Partners
- Government and agency employees
- Community based organizations
- Contractors
- SDG&E customers
- Building/Facility engineers & Plant Managers

C2 - Third Party Program Coordination
Individual LGPs will coordinate closely with the third parties providing the direct install implementation. In addition, each individual LGP will be trained in the programs offered by the third parties so that they may coordinate and/or refer customers to these programs. For example, third party coordination may be appropriate for more specialized technologies or specific target segments.

C3 – Technical Assistance
The target audience for technical assistance includes local government partners, SDG&E customers, and contractors.

Implementation

C1 - Outreach and Education
Objectives of the LGPs include leveraging marketing from existing core and statewide programs to provide a consistent and cost effective approach. Because LGPs best understand the needs of their community, the LGPs will tailor offerings to the community and implement programs through community outreach.

LGPs will also work with local governments, non-profits and SDG&E to develop an education curriculum and schedule that will engage their communities. Partnerships will leverage the resources of the SDG&E's Energy Innovation Center as well as the California Center for Sustainable Energy (CCSE). .

Some individual LGPs may develop training materials for adopting and implementing local energy initiatives or may utilize such materials developed under the Emerging Cities program. Partnerships will also develop workshop topics, schedule workshops in key locations, arrange for workshop presenters, coordinate workshop materials, market workshops to local governments, and facilitate workshops.

C2 - Third Party Program Coordination
LGPs using third party direct install programs will coordinate with third party direct install contractors selected by SDG&E to determine which areas of the community should be the focus of the direct install contractors marketing efforts. The direct install contracts will be between the direct install contractor and SDG&E. This method provides a more orderly approach to using the limited number of contractors to reach the widest population within a jurisdiction in a consistent manner.

C3 – Technical Assistance
Technical assistance is available to LGPs to provide audits, engineering calculations, reports and inspections. Additionally, partnerships will take a strategic market plan approach to address the customers with the largest potential or the biggest need. These efforts will be conducted with other third party and Core programs.

11) ***Program Element Rationale and Expected Outcome – Element C Core Program Coordination***

a) Quantitative Baseline and Market Transformation Information

Market Transformation (MT) metrics proposed in Tables 3 and 4 are preliminary. The proposed metrics are meant to initiate a collaborative effort to elaborate meaningful metrics that will provide overall indicators of how markets as a whole are evolving. MT metrics should neither be used for short-term analyses nor for specific program analyses; rather, should focus on broad market segments.

Market transformation is embraced as an ideal end state resulting from the collective efforts of the energy efficiency field, but differing understandings of both the MT process and the successful end state have not yet converged. The CPUC defines the end state of MT as "Long-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where further

publicly-funded intervention is no longer appropriate in that specific market."[32] The Strategic Plan recognizes that process of transformation is harder to define than its end state, and that new programs are needed to support the continuous transformation of markets around successive generations of new technologies[33].

Market transformation programs differ from resource acquisition programs on 1) objectives, 2) geographical and 3) temporal dimensions, 4) baselines, 5) performance metrics, 6) program delivery mechanisms, 7) target populations, 8) attribution of causal relationships, and 9) market structures[34]. Markets are social institutions[35], and transformation requires the coordinated effort of many stakeholders at the national level, directed to not immediate energy savings but rather to intermediary steps such as changing behavior, attitudes, and market supply chains[36] as well as changes to codes and standards. Resource acquisition programs rely upon the use of financial incentives, but concerns have been raised that these incentives distort true market price signals and may directly counter market transformation progress[37]. According to York[38], "Market transformation is not likely to be achieved without significant, permanent increases in energy prices. From an economic perspective, there are 3 ways to achieve market transformation: (1) fundamental changes in behavior, (2) provide proper price signals, and (3) permanent subsidy."

The question of what constitutes successful transformation is controversial because of a Catch-22: Market transformation is deemed successful when the changed market is self-sustaining, but that determination cannot be made until after program interventions are ended. Often, however, the need for immediate energy and demand savings or immediate carbon-emissions reductions will mean that program interventions may need to continue, which would interfere with the evaluation of whether MT is self-sustaining. Market transformation success has also been defined in terms of higher sales of efficient measures than would have otherwise occurred against a baseline absent of program interventions. The real world, however, provides no such control condition. Evaluators must estimate these baselines from quantitative factors such as past market sales that may be sparse and/or inaccurate - particularly for new products. Evaluations must also defer to expert judgments on what these baselines may have been as well as on the degree of successful market transformation[39]. Due to the subjective nature of these judgments, it is imperative that baselines as well as milestone MT targets be determined and agreed upon through

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[32] California Public Utilities Commission Decision, D.98-04-063, Appendix A.

[33] California Public Utilities Commission (2008) *California Long Term Energy Efficiency Strategic Plan,* p. 5. Available at http://www.californiaenergyefficiency.com/docs/EEStrategicPlan.pdf

[34] Peloza, J., and York, D. (1999). "Market Transformation: A Guide for Program Developers." Energy Center of Wisconsin. Available at: http://www.ecw.org/ecwresults/189-1.pdf

[35] Blumstein, C., Goldstone, S., & Lutzenhiser, L. (2001) "From technology transfer to market transformation". Proceedings of the European Council for an Energy Efficient Economy Summer Study. Available at http://www.eceee.org/conference_proceedings/eceee/2001/Panel_2/p2_7/Paper/

[36] Sebold, F. D., Fields, A., Skumatz, L., Feldman, S., Goldberg, M., Keating, K., Peters, J. (2001) *A Framework for Planning and Assessing Publicly Funded Energy Efficiency*. p. 6-4. Available at www.calmac.org.

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collaborative discussion by all stakeholders, and these targets may need periodic revision as deemed necessary by changing context.

Market transformation draws heavily upon diffusion of innovation theory[40], with the state of a market usually characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades[41]. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects[42]. The ability to make causal connections between these market transformation effects and any particular program's activities fades with time, as markets continually change and other influences come into play.

These challenges mentioned above are in reference to programs that were specifically designed to achieve market transformation; and these challenges are only compounded for programs that were primarily designed to achieve energy and demand savings. However, since the inception of market transformation programs almost two decades ago, many lessons have been learned about what the characteristics of successful MT programs are. First and foremost, they need to be designed specifically to address market transformation. "The main reason that (most) programs do not accomplish lasting market effects is because they are not designed specifically to address this goal (often because of regulatory policy directions given to program designers.)[43]" The Strategic Plan recognizes that regulatory policies are not yet in place to support the success of market transformation efforts[44], but also reflects the CPUC's directive to design energy efficiency programs that can lay the groundwork for either market transformation success or for codes and standards changes.

Above all else, the hallmark of a successful market transformation program is in the coordination of efforts across many stakeholders. The most successful MT programs have involved multiple organizations, providing overlapping market interventions[45]. The Strategic Plan calls for coordination and collaboration throughout, and in that spirit the utilities look forward to working with the CPUC and all stakeholders to help achieve market transformation while meeting all the immediate energy, demand, and environmental needs. Drawing upon lessons learned from past MT efforts, the Energy Center of Wisconsin's guide for MT program developers[46] suggests that the first step is not to set end-point definitions, progress metrics or goals. Rather, the first steps include forming a collaborative of key participants. As the Strategic Plan suggests, these may include municipal utilities, local governments, industry and business leaders, and consumers. Then, with the collective expertise of the collaborative, we can define markets, characterize markets, measure baselines with better access to historical data, and define objectives, design strategies and tactics, implement and then evaluate programs. The collaborative will also provide insights that will set our collective expectations for the size of market effects we can expect, relative to the amount of resources we can devote to MT. No one organization in the collaborative

[40] Rogers (1995) Diffusion of Innovations, 5th Ed.
[41] Example in bottom chart of this graphic from NYTimes:
http://www.nytimes.com/imagepages/2008/02/10/opinion/10op.graphic.ready.html
[42] Sebold et al (2001) p. 6-5,
[43] Peters, J.S., Mast,B., Ignelzi, P., Megdal, L.M. (1998). *Market Effects Summary Study Final Report: Volume 1."* Available at http://calmac.org/publications/19981215CAD0001ME.PDF.
[44] CPUC (2008) Strategic Plan, p. 5.
[45] Nadel, Thorne, Saches, Prindle & Elliot (2003).
[46] Peloza & York, (1999).

will have all the requisite information and expertise for this huge effort. This truly needs to be a collaborative approach from the start.

The metrics and baselines described below in Tables 3 and 4 are presented for the purposes of starting the much-needed discussion between all key participants. These are suggestions, intended to allow key participants to pilot-test processes for establishing baseline metrics, tracking market transformation progress, and for refining evaluation tools. Early trial of these evaluation metrics will reveal any gaps in data tracking so that we may refine our processes before full-scale market transformation evaluations take place.

The set of metrics we selected is intentionally a small set, for several reasons. First, as mentioned, the full set of metrics and baselines need to be selected by key participants. Second, we anticipate that market share data for many mid- and low-impact measures will be too sparse to show MT effects and not cost-effective to analyze. Third, we selected core measures and metrics that would both be indicative of overall portfolio efforts. These measures are also likely to be offered on a broad level by other utilities, providing a greater base of sales and customer data that could be analyzed for far-reaching MT effects. Therefore, for the Local Government Partnerships the following approach to quantitative baseline and market transformation information is presented as follows.
The utilities recommend development of a baseline, and tracking the number of cities, counties and government institutions that have plans for written energy efficiency provisions. Such a metric relates directly to the Strategic Plan (Goal 12.3.4) in terms of measuring progress towards 50% plans for sustainability.

In addition, we propose tracking community adoptions of new construction model reach codes, both residential and nonresidential. This metric aligns with the Strategic Plan (Goal 12.3.1). In addition to being a direct indicator of support by local government partnerships, community adoptions of model reach codes are of strategic interest to the CPUC. A proliferation of dissimilar reach codes would confuse the market relative to building codes and incentive programs. Model reach codes to be developed by Codes and Standards would allow energy efficiency efforts across partners to be aligned with a clear target for each climate zone. As discussed in the Local Government PIPs, the IOUs intend to work closely with partners in establishing baseline code compliance levels and pushing for model reach codes.

With this discussion in mind, IOUs propose the following metrics for this sector:

Table 3
N/A

b) Market Transformation Information

As stated above, market transformation draws heavily upon diffusion of innovation theory, with the state of a market characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects. Therefore it is problematic, if not impractical, to offer internal annual milestones towards market transformation sectors and specific program activities.

As a consequence, it is not appropriate to offer more than broad and general projections. Any targets provided in the following table are nothing more than best guesstimates, and are subject to the effects of many factors and market forces outside the control of program implementers.

Table 4
N/A

c) Program Design to Overcome Barriers:

Refer to individual partnership PIP section.

d) Quantitative Program Objectives:

Table 5
Refer to individual partnership PIP section.

6 - Other Program Element Attributes – Element C Core Program Coordination

Other Program Element Attributes	**CORE Program Coordination**
a) Best Practices: Describe why program element approach constitutes "best practice" or reflects "lessons learned" in market strategies, program design and/or implementation techniques, or past experience. Provide references where available.	This program element incorporates lessons learned from previous partnerships. Close coordination with Core and 3rd Party programs is integral for success. See EM&V section for future documentation of best practices.
b) Innovation: Describe any unique or innovative aspects of program element not previously discussed. Why is this innovative?	This program element is unique because it takes coordination to a new level from the 2010-2012 cycle. Government Partnerships will work with Core programs, 3rd Party programs to develop a strategic market segment plan. This plan will identify largest opportunities for cost-effective energy savings, address barriers, share best practices and efficiently allocate resources. Partnerships will use education and outreach channels to inform their customers about energy savings opportunities and share best practices within partnerships.

Other Program Element Attributes	CORE Program Coordination
c) Interagency Coordination: Describe any interagency coordination with the ARB, CEC on PIER or Codes and Standards; non-utility market initiatives; energy efficiency market forces, opportunities and trends; and timeline by which market segment will be "transformed'' or other aspects of the program.	Core program integration will require strong coordination with outside agencies. As communities look to retrofit buildings and perform education and outreach, coordination with other governmental agencies will be a priority. A strategy will be to identify partnership opportunities with the various agencies and beginning to align our goals. On the community level, as local governments begin to think about AB32 implementation, GHG emission reduction opportunities will be indentified by modeling usage, past program participation and other trends.
d) Integrated Demand Side Management: Describe how program will achieve integrated or coordinated delivery of all IDSM options, as well as LIEE and WET. (If this is an integral part of the program element and fully covered under #4 note that here.) Describe in detail how program will achieve integrated or coordinated delivery of all IDSM options (energy efficiency, demand response, and onsite generation) where applicable including integrated program design and delivery, shared budgets, program evaluation, and incentive mechanisms that promote greater integration of IDSM resources. Provide a complete description for all the technologies, including integration supporting technologies that will be included in the program. If the program does not include all IDSM options as noted above, briefly provide an explanation for a more limited subset of IDSM technologies. Utilize Attachment 5A to highlight any shared or leveraged budget categories and amounts (admin, incentives, ME&O, and other applicable categories).	In line with the Integration chapter of the Strategic Plan, partnerships will begin to adopt an integrated strategy for delivering demand response and self-generation programs. Partnerships will work to develop working groups to enable the most effective delivery method of the various programs. Workforce education and training initiatives will build capacity at the community level.
e) Integration across resource types (energy, water, air quality, etc.): If program aims to integrate across resources types, provide rationale and general approach. (If this is an integral part of the program element and fully covered under #4 note that here.)	Several partnerships have worked with various water, air quality and transportation agencies to provide integrated offerings. By coordinating with LIEE programs and other agency programs, certain partnerships plan to work closely with other agencies and look for further opportunities.

Other Program Element Attributes	CORE Program Coordination
f) Pilots: Describe any pilot projects that are part of this program (If this was fully covered under #4, note that here.)	Partnerships will look at their government facilities in a strategic and prioritized manner.
g) EM&V: Describe any process evaluation or other evaluation efforts that will be undertaken by the utility to determine if the program is meeting its goals and objectives. Include the evaluation timeframe and brief description of scope, as well as a summary of specific methodologies, if already developed. If not developed, indicate the process for developing them. Include reference to tracking databases that will be used for evaluation purposes.	A process evaluation will be conducted by a third party evaluator. The evaluation will assess communication and coordination effectiveness between partners as well as satisfaction with the service and increased awareness of energy efficiency opportunities. A combination of interviews and focus groups will likely be used to collect data. The evaluation is expected to build upon results found in the recently completed process evaluation for PY2010 to 2012.

Element D – Unique Program Element – Emerging Cities Program:

4 – Program Element Description and Implementation – Element D – Emerging Cities Program

Overview

The Emerging Cities Program (ECP) will build the capacity of local governments to engage in energy efficiency and will provide support to local governments and communities to achieve their energy use and GHG reduction goals. SDG&E will provide an integrated suite of program elements, including tools and technical assistance, to all cities and counties in the service area. The tightly-integrated program services, offered by SDG&E and selected service providers, will include:

- Elements will include government facility efficiency tools, code compliance and reach code support, guiding documents, innovative community pilots, and templates for outreach tools;
- Peer-to-peer learning networks, support, and opportunities;
- Robust communication of best practices and case studies; and
- Recognition program.

The Emerging Cities Program was initially developed to incorporate key strategies from the workshops and documents that led to the Strategic Plan (Strategic Plan). These key strategic tenets remain a cornerstone of the ECP:

Build capacity for governments to learn by doing. SDG&E's plan leverages existing LGPs and GHG emissions reduction activities in the SDG&E service area. The Emerging Cities program will increase the capacity of local governments to take informed energy action leading to long-term energy savings. One example of this is through the streetlight working group comprised of local governments utilizing peer to peer sharing of information to upgrade streetlights utilizing ARRA funds. In a letter submitted to the ED; SDG&E, SCE and PG&E addressed the directive to study opportunities for a statewide local government streetlight retrofit program.

- **Continue to expand employee training for local governments.** By increasing support for statewide and regional coordination and information-sharing, SDG&E will enable peer-to-peer learning.
- **Local governments will mobilize the community and set community-wide standards.** This program builds the capacity of local governments to mobilize multiple stakeholders, including residents and businesses, to set goals and reduce energy use and GHG emissions.
- **By 2020, IDSM awareness, incentives, and technical assistance and dedicated staff resources focused on energy management.** This program assists cities with developing energy action plans and builds awareness of IDSM approaches.

Many cities are already actively setting GHG emission / reduction targets and participating in energy efficiency programs, and AB 32 requires governments to reduce GHG emissions 15% from 2008 by 2020. In addition, the Strategic Plan calls for 50% of governments to adopt energy/sustainability/climate action plans by 2015 and 100% by 2020, including implementation of plans and tracking achievements. Similarly the Strategic Plan goals are for all local government General Plans to include energy efficiency, sustainability and climate change policies by 2015. However, many cities lack information, expertise, and resources to create and implement effective plans.

SDG&E plans to expand support for local GHG and energy use reduction efforts through the Emerging Cities Program. This program will work closely with communities and municipal governments to help them increase their capacity to engage in energy efficiency and achieve their energy use and GHG reduction goals. SDG&E will increase its capacity to deliver energy program specific data so that governments can develop GHG strategies that take advantage of Utility programs to help meet their GHG reduction and renewable goals. Improved information, shared with governments, enables governments to increase use of Utility offerings and energy savings by leveraging governments' unique roles.

The Emerging Cities Program is available to all governments in SDG&E's service area. The program will support LGPs in undertaking actions related to the three major elements described in the Master PIP (Government Facilities, Strategic Plan Support, and Core Program Coordination), as summarized below.

Element A – Government Facilities

The Emerging Cities Program supports the Government Facilities element by helping to place energy efficiency projects in the context of climate change and a guiding plan for energy action for a local government or community. In addition, the peer sharing networks supported by this program can help to spread best practices relating to government facilities work among local governments. Finally, ECP will provide access and may utilize implementers to train governments in the use of tools supporting government facilities efficiency, such as benchmarking.

Element B – Strategic Plan Support

ECP is most robust in its support of the Strategic Plan Support element because it was created specifically to advance the strategic plan. Details for each sub-element are below.

B1 – Code Compliance Support

Emerging Cities Program will work closely with the Codes and Standards team to promote code compliance by governments as a priority, high impact GHG emissions reduction strategy to use in Climate Action Plan implementation. ECP is aligned and coordinated with SDG&E's multiple training programs, including those focused on standards training on specific Title 20 and Title 24 measures, improving local government codes enforcement, and stretch code development support. Thus, this program will help maximize energy efficiency in new and existing construction through local government policy.

B2 – Reach Code Support

SDG&E will continue to work closely with the Codes and Standards team to help governments desiring to achieve greater energy use and GHG reductions by developing and adopting above code ordinances as part of Climate Action Plan implementation. ECP will closely coordinate with Codes and Standards staff and contractors to identify governments interested in pursuing stretch codes, to promote regional consistency in green building stretch codes, and to remain consistent with current Title 24 climate designations to reduce potential market confusion. In close coordination with Codes and Standards, ECP also will identify governments interested in exploring a tiered model of increasing code stringency.

B3 – Guiding Document(s) Support

In close cooperation with statewide actors such as the CPUC, CARB and CEC, SDG&E will offer:

- SDG&E program participation data and energy savings data that can be used by governments to develop and implement energy and GHG reduction strategies that maximize use of utility programs as appropriate
- CARB/ICLEI municipal operations and community scale GHG emissions inventory protocols
- Project specific protocols approved by CARB or other sanctioned programs
- Core list of cost-effective, priority impactful strategies as a template for local governments to utilize.

B4 – Financing for the Community

Local governments often have limited funding for energy efficiency and renewable projects. SDG&E will support efforts to establish innovative methods of financing projects. This includes

government options that allow energy efficiency cost savings to be returned to the host facility or department and/or as a revolving fund for additional energy projects, and tax assessments districts. The program will also look at other strategies that facilitate financing for private residential and commercial projects, and increase energy efficiency and renewable projects in the community.

B5 – Peer-to-Peer Support

- SDG&E's offering will include statewide coordination and information sharing through peer-to-peer learning; networking workshops for elected officials and staff through organizations such as California State Association of Counties and League of California Cities; and regional information sharing through various organizations.
- The program will offer a recognition program for cities and counties that reduce their GHG emissions and achieve energy savings.
- Statewide and Regional Action Planning Workshops for development of regional priorities and strategies for action plans.

Element C – Core Program Coordination

ECP supports the Core Program Coordination element in a general way by helping local governments develop the capacity to engage in coordination with the core programs. The Core Program Coordination element is very tactical and targeted, and therefore is most relevant at the individual LGP level with regards to coordination with direct install, third parties, and LIEE. However, the ECP program provides overarching support to governments in the areas of outreach and technical assistance.

C1 – Outreach and Education

- ECP provides additional capacity for SDG&E to deliver an integrated set of services to governments to meet GHG reduction and renewable goals.
- ECP contractors may include energy managers at large, to identify energy savings opportunities and increase referrals to Utility programs.
- Marketing, education and outreach (ME&O) for the ECP program is an integral part of the overall ME&O strategy for local governments. SDG&E is focused on developing a marketing plan, customer segmentation and marketing collateral to support the efforts of the products, services and sales groups. The process proceeds across a logical path to meeting the customer's needs. Marketing energy efficiency programs and services to local governments is a high priority.
- Outreach and marketing will also be coordinated and/or implemented through peer organizations for cities and counties such as SANDAG, regional associations, California League of Cities, Local Government Commission, ICLEI, and other public sector conveners focused on air quality and GHG emissions reduction.

C2 – Technical Assistance

ECP supports coordination with core technical assistance by making local governments aware of the availability of this assistance.

Non-Incentive Services

This is a non-resource government partnership program; all of the services delivered are non-incentive.

Target Audience

The Emerging Cities Program offering is available to all cities in SDG&E service area. The program's goal is to deliver start-up assistance to help communities effectively and efficiently save energy and reduce GHG emissions.

Programs and services will be delivered on a regional or state-wide basis, whenever possible, to increase efficiency.

Implementation

SDG&E will implement the ECP by creating and providing tools to all local governments. Such tools, such as sample plans, best practice case studies, and webinars, will be made available to local governments via Internet or print, and disseminated through existing marketing channels. Additional tools, such as expanded GHG and/or program penetration data, will be available to local governments on a targeted basis initially, while automated program delivery channels are developed.

SDG&E will also contract with organizations to serve as ECP providers to deliver specific tools and targeted services to local governments.

The ECP will provide tools, workshops and technical assistance related to energy and GHG reduction. Basic services provided to cities and counties through this program include:

- Web-based tool kit that may contain GHG Emissions protocols, Energy and Climate Action Plan Templates, decision support tools to measure and prioritize energy reduction actions, and communications tool kit;

- Limited technical assistance for plans and policies;

- Technical assistance on GHG plan implementation that drives customers toward energy efficiency, advanced metering through SDG&E's Smart Meter program, demand response, solar and other self-generation options, green programs such as clean air transportation offered by IOUs including LGPs, as well as others offered by third-party providers, and the State, such as the CEC's Energy Partnership Program; and

- Local government training and information sharing through peer-to-peer learning, recognition and networking workshops for elected officials and staff.

SDG&E will leverage State organizations including the CARB, EPA, Attorney General's Office, as well as regional and sub-regional organizations working in any given market. Similarly, SDG&E's vision is to leverage ECP with the San Diego Foundation and other funding agencies. Some program scopes may change as these offerings are coordinated and integrated with SDG&E's core programs, other government partnerships, third-party programs, renewable programs or similar programs across SDG&E's service areas. Related changes may then occur in program savings estimates, budgets, activities, targeted customer segments, targeted technologies and other areas, as applicable. In addition, distributed generation, demand response and/or additional measures may be added to make programs more comprehensive, where feasible.

5 - ***Program Element Rationale and Expected Outcome – Element D – Emerging Cities Program***

a) Quantitative Baseline and Market Transformation Information

Market Transformation (MT) metrics proposed in Tables 3 and 4 are preliminary. The proposed metrics are meant to initiate a collaborative effort to elaborate meaningful metrics that will provide overall indicators of how markets as a whole are evolving. MT metrics should neither be used for short-term analyses nor for specific program analyses; rather, should focus on broad market segments.

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[54] Nadel, S., Thorne, J., Sachs, H., Prindle, B., and Elliot, R.N. (2003). "Market Transformation: Substantial Progress from a Decade of Work." American Council for an Energy-Efficient Economy, Report Number A036. Available at: http://www.aceee.org/pubs/a036full.pdf
[55] Rogers (1995) Diffusion of Innovations, 5th Ed.
[56] Example in bottom chart of this graphic from NYTimes: http://www.nytimes.com/imagepages/2008/02/10/opinion/10op.graphic.ready.html
[57] Sebold et al (2001) p. 6-5,
[58] Peters, J.S., Mast,B., Ignelzi, P., Megdal, L.M. (1998). *Market Effects Summary Study Final Report: Volume 1."* Available at http://calmac.org/publications/19981215CAD0001ME.PDF.
[59] CPUC (2008) Strategic Plan, p. 5.

involved multiple organizations, providing overlapping market interventions[60]. The Strategic Plan calls for coordination and collaboration throughout, and in that spirit the utilities look forward to working with the CPUC and all stakeholders to help achieve market transformation while meeting all the immediate energy, demand, and environmental needs. Drawing upon lessons learned from past MT efforts, the Energy Center of Wisconsin's guide for MT program developers[61] suggests that the first step is not to set end-point definitions, progress metrics or goals. Rather, the first steps include forming a collaborative of key participants. As the Strategic Plan suggests, these may include municipal utilities, local governments, industry and business leaders, and consumers. Then, with the collective expertise of the collaborative, we can define markets, characterize markets, measure baselines with better access to historical data, and define objectives, design strategies and tactics, implement and then evaluate programs. The collaborative will also provide insights that will set our collective expectations for the size of market effects we can expect, relative to the amount of resources we can devote to MT. No one organization in the collaborative will have all the requisite information and expertise for this huge effort. This truly needs to be a collaborative approach from the start.

The metrics and baselines described below in Tables 3 and 4 are presented for the purposes of starting the much-needed discussion between all key participants. These are suggestions, intended to allow key participants to pilot-test processes for establishing baseline metrics, tracking market transformation progress, and for refining evaluation tools. Early trial of these evaluation metrics will reveal any gaps in data tracking so that we may refine our processes before full-scale market transformation evaluations take place.

The set of metrics we selected is intentionally a small set, for several reasons. First, as mentioned, the full set of metrics and baselines need to be selected by key participants. Second, we anticipate that market share data for many mid- and low-impact measures will be too sparse to show MT effects and not cost-effective to analyze. Third, we selected core measures and metrics that would both be indicative of overall portfolio efforts. These measures are also likely to be offered on a broad level by other utilities, providing a greater base of sales and customer data that could be analyzed for far-reaching MT effects. Therefore, for the Local Government Partnerships the following approach to quantitative baseline and market transformation information is presented as follows.
The utilities recommend development of a baseline, and tracking the number of cities, counties and government institutions that have plans for written energy efficiency provisions. Such a metric relates directly to the Strategic Plan (Goal 12.3.4) in terms of measuring progress towards 50% plans for sustainability.

In addition, we propose tracking community adoptions of new construction model reach codes, both residential and nonresidential. This metric aligns with the Strategic Plan (Goal 12.3.1). In addition to being a direct indicator of support by local government partnerships, community adoptions of model reach codes are of strategic interest to the CPUC. A proliferation of dissimilar reach codes would confuse the market relative to building codes and incentive programs. Model reach codes to be developed by Codes and Standards would allow energy efficiency efforts across partners to be aligned with a clear target for each climate zone. As discussed in the Local Government PIPs, the IOUs intend to work closely

[60] Nadel, Thorne, Saches, Prindle & Elliot (2003).
[61] Peloza & York, (1999).

with partners in establishing baseline code compliance levels and pushing for model reach codes.

With this discussion in mind, IOUs propose the following metrics for this sector:

Table 3
N/A

b) **Market Transformation Information**

As stated above, market transformation draws heavily upon diffusion of innovation theory, with the state of a market characterized by adoption rate plotted against time on the well-known S-shaped diffusion curve. In practice, however, the diffusion curve of products may span decades. Market share tracking studies conducted 3, 5 or even 10 years after the start of an MT program may reveal only small market transformation effects. Therefore it is problematic, if not impractical, to offer internal annual milestones towards market transformation sectors and specific program activities.

As a consequence, it is not appropriate to offer more than broad and general projections. Any targets provided in the following table are nothing more than best guesstimates, and are subject to the effects of many factors and market forces outside the control of program implementers.

Table 4
N/A

c) Program Design to Overcome Barriers:

Refer to individual partnership PIP section.

d) Quantitative Program Objectives:

Table 5
Refer to individual partnership PIP section.

*6 - **Other Program Element Attributes- Element D – Emerging Cities Program***

a) Best Practices:
The Emerging Cities Program (ECP) element approach constitutes best practices design because it consolidates the best thinking available during the 2010-2012 program cycle.

b) Innovation:
The ECP has many innovative elements that have already been discussed. These innovative elements grew out of the CPUC strategic plan workshops to support local government actions that align with the *California Long-Term Energy Efficiency Strategic Plan* (Strategic Plan) as well as the Global Warming Solutions Act (AB 32).

- The program increases local capacity for informed energy action in the context of GHG emissions reduction.

- The program assists and supports cities and counties in implementing a recommendation from the second strategy in the Strategic Plan: "Lead by example with local governments' facilities achieving economic energy efficiency, reduce CO2 emissions, and showcasing promising energy efficiency, IDSM and renewable products and practices."
- The program moves toward the AB 32 vision, which states that **"**By 2020, all of California's local governments will be operating within an energy efficiency and renewable resource environment that is characterized by integrated state approaches, local engagement and cooperation, and informed energy action."

c) Interagency Coordination:

The ECP will coordinate on a variety of levels with multiple agencies, such as air and water quality control boards, the CEC, local agencies, and others working with governments on GHG emissions reduction. The coordination will encompass policy, financial, and on-the-ground actions.

The Emerging Cities Program (ECP) design is coordinated directly with the other IOU LGP supporting programs in the case of the contracts negotiated with SANDAG, ICLEI, ILG and LGC. SDG&E is also sharing general information on the ECP with the other IOUs.

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d) Integrated Demand Side Management:

The ECP is a cornerstone to enable IDSM in the government sector. The utilities will continue their commitment to coordination with other entities and Third Parties to deliver energy-efficient measures to and in partnership with local governments. Initially, the utilities will promote offerings through an integrated marketing collateral and sales approach. With additional market segmentation and feedback from customers, the utilities will adjust approaches in order to offer the combination of programs to best meet the varied needs of customers. The goal is to integrate the following offerings:

- Energy efficiency
- Integrated energy audits/assessments focusing on customer solutions
- Demand response
- Distributed generation programs (California Solar Initiative and Self Generation Incentive Program), with a long-term focus on targeted communities where locating generation might also be able to provide grid support to the State
- Education and training programs
- Low income energy efficiency offerings
- Codes and standards education and training

In addition, the program managers will coordinate with members of the Statewide Integration Task Force to communicate approaches and offer suggestions of ways to leverage this program into a statewide offering.

e) Integration across resource types (energy, water, air quality, etc.):

The program will encourage governments to coordinate with and leverage funding from the multiple agencies, such as air quality control boards, water boards, transportation and waste agencies that are working with governments on GHG emissions reduction.

f) Pilots:
Potential pilots with emerging Technologies or other applicable programs will be evaluated.

g) EM&V:
A process evaluation will be conducted by a third party evaluator. The evaluation will assess communication and coordination effectiveness between partners as well as satisfaction with the service and increased awareness of energy efficiency opportunities. A combination of interviews and focus groups will likely be used to collect data. The evaluation is expected to build upon results found in the recently completed process evaluation for PY2010 to 2012.

Element F – Individual Local Government Partnerships

City of San Diego

4) **Program Element Description and Implementation Plan**

a) List of program elements

Program elements are listed and explained in the next section.

b) Overview

The City proposes to partner with SDG&E to leverage the City's assets with the programs offered by SDG&E. The anticipated outcomes are five-fold: 1) Maximize energy efficiency program penetration; 2) Achieve short and long-term energy savings and demand reduction for municipal operations and the community; 3) Reduce greenhouse gas emissions through energy and water conservation; 4) Design and enforce codes and standards and provide education and training to the diverse community served; and 5) Increase referrals to services provided by SDG&E.

Continuation of Successful Partnerships: City of San Diego

1. Did the partner work collaboratively among regional partners and stakeholders?		YES
2. Did the Partnership accomplish/meet all the goals outlined in the Scope of Work/PIP?		YES
3. Did the partner utilize/leverage their unique authority throughout the partnership activities?		YES
	4. Was there a professional development and/or education program focused on the long term strategic plan elements?	YES
	5. Did the partnership activities help implement specific elements of an adopted energy efficiency, climate change or sustainability plan to foster market transformation?	YES

In addition to continuing its existing local government partnership, City of San Diego, in collaboration with regional partners including Chula Vista, SANDAG and County of San Diego, the Port of San Diego, and California Center for Sustainable Energy; seeks to expand its existing

partnership to address deep energy retrofits as identified in the CPUC decision for expanding programs.

Expansion of a Successful Partnership: City of San Diego

1. Must focus on Energy Upgrade California and deep retrofits	YES
2. Must have or develop a plan to engage the community	YES
3. Appropriate financing mechanism for targeted market segment	YES

Element A- Government Facilities:

Master PIP sub elements partnership addresses

A-1	Retro-fit of County and Municipal Buildings	Yes
A-2	Retro-commissioning	Yes
A-3	Integrating Demand Response	Yes
A-4	Technical Assistance	Yes
A-5	On-Bill Financing or CEC Loans	Yes

This is a five-part program: 1) Energy efficiency improvements in municipal facilities, including energy audits, benchmarking and retro-commissioning for all facilities; 2) Expansion of outdoor lighting retrofit; 3) Specifications for consistent use of best-in-class technology; 4) Development of a comprehensive citywide Energy Strategy and Implementation Plan with annual monitoring; and 5) Energy training and certification program for City staff.

Element B- Strategic Plan Support:

Master PIP sub elements partnership addresses

B-1	Code Compliance	Yes
B-2	Reach Code Support	Yes
B-3	Guiding Document Support	Yes
B-4	Financing for the Community	Yes
B-5	Peer to Peer Support	Yes

B-2 – Reach Code Support:
Building on previous work to evaluate the effectiveness of current codes and standards, the City will develop a comprehensive plan to facilitate meeting Net Zero goals by 2020 for residential and by 2030 for commercial customers. Recommendations for implementing Reach Codes for private sector projects will be vetted by committee, through public forums, and with elected officials. Staff will develop a proposal to increase the number of deep retrofits in existing buildings, including but not limited to point-of-sale options. The City will finalize and implement a policy for private sector "Green Buildings" with Net Zero as the goal. Lastly, staff will focus on enhancing and enforcing code compliance protocols.

B-3 – Guiding Document Support:
A significant role of local government is that of a resource manager and planner. The linchpin for this is the City General Plan, which is a framework for the way a city grows, how it uses its resources, and the goals under which all policies, programs and ordinances must comply. The

General Plan Action Plan, developed by the City Planning Division,, was adopted unanimously by City Council in 2009. The Action Plan is the comprehensive implementation program for the 2008 General Plan. To assess progress in implementing the General Plan, the City began to prepare an annual General Plan Monitoring Report in 2010. In addition, the Environmental Services Department has taken the lead on preparing a Climate Mitigation and Adaption Plan, which is expected to be adopted before the end of 2012. Development of these reports and plans has provided a perfect opportunity for integrating and elevating energy efficiency into land use planning , referred to as "green neighborhoods", as well as promoting green buildings. Additionally, the Planning Division is linked to hundreds of "community planning districts", and these are venues for creating local champions.

B-5 Peer to Peer Support

As highlighted by the CPUC, the State needs the assistance of all community sectors to deliver a large portion of GHG savings necessary to reach the goals of AB 32, the Global Warming Solutions Act of 2006. To that end, this five-part program has been designed to increase awareness about the link between reduced energy use and decreased greenhouse gas emissions: 1) Provide GHG emission inventory updates to the Mayor and City Council, and develop a transparent, easily accessible website for the general public; 2) Participate in the San Diego Regional Energy Network's Climate Portal to deliver information to a variety of target audiences; 3) Provide outreach and education to targeted segments of the population,; 4) Participate in Regional Energy Programs, including but not limited to, Energy Upgrade California (EUC), existing home retrofit market development, Green Business Programs, and Joint Procurement Strategies, and 5) Continue peer-to-peer exchanges at the regional, state and national levels in order to make the best-in-class programs more transferable.

Element C- Core Program Coordination:

Master PIP sub elements partnership addresses

C-1	Outreach and Education	Yes
C-2	Third Party Program Coordination	Yes
C-3	Technical Assistance	Yes

The City will partner with SDG&E to provide education and outreach to the commercial and residential sectors on energy efficiency and conservation. This will include targeted outreach and education to segments of the population, participation in the San Diego Regional Energy Network, and peer-to-peer exchanges at the regional, state and national levels in order to make the best-in-class programs more transferable.

Element E – Balboa Park Program Component:

Balboa Park is the nation's largest urban cultural park, and is home to 15 major museums, renowned performing arts venues, and the world famous San Diego Zoo. Originally defined by two grand "World's Fairs" (1915-1916 and 1935-1936), the Park now has more than 3.5 million visitors annually. Most of the institutions in Balboa Park lease their buildings from the City of San Diego, and many have antiquated lighting and Heating Ventilation and Air-Conditioning (HVAC) systems. During the 2010-2012 cycle, this program was highly successful, leveraging multiple pots of funds to generate energy savings while also developing staff knowledge capacity and promoting energy efficiency to the general public through unique venues and events. In 2013-2014 this partnership component will continue to provide technical assistance and project management guidance for all of the institutions in Balboa Park to upgrade facilities, focusing on

deep retrofits. The SDG&E On-Bill-Financing program will be an integral part of the financial success of this project. The Balboa Park Cultural Partnership (BPCP) has stepped forward to help coordinate energy efficiency activities. The City will leverage outreach with the institutions and work with the BPCP to assist with the technical aspects of the energy efficiency upgrades. This program would interact with all City departments that are responsible for facilities maintenance. As these energy efficiency measures are implemented, the self-sustaining marketing of the improvements will promote energy efficiency throughout Balboa Park.

c) Non-Incentive services

This is a non-resource government partnership program. All of the services delivered are non-incentive.

d) Target audience

The 2013-2014 City of San Diego LGP will broadly serve City of San Diego residents and businesses. Specific activities will target homeowners, business owners/managers, contractors, developers, community leaders, and elected officials.

e) Implementation

The City of San Diego's partnership includes the following components:

- Upgrading electrical systems (lighting, heating, air conditioning, chillers, pumps, etc.) to more efficient technologies in City-owned facilities
- Partnering with the local utility and other local governments to provide education and incentives to the commercial and residential sectors on energy efficiency and conservation
- Implementing local policies and regulations fostering energy efficient new construction and remodels to meet LEED standards in the private and public sectors
- Installing self generation systems in the forms of landfill-gas-to-energy systems, hydro electric pumps, photovoltaic solar systems, and co-generation machines to reduce reliance on local utility resources
- Actively participating in partnerships with the Environmental Protection Agency (EPA), Green Building Association, and Climate Action Registry
- Actively participating in local policy advisory groups including the Sustainable Environment Advisory Board (SEAB) and the San Diego Association of Governments' energy working group
- Participating in legislative and regulatory activities at the State level
- Partnering with the local utility and other local governments to provide education and incentives to the commercial and residential sectors on energy efficiency and conservation including participation in the San Diego Regional Energy Network.
- Exploring revenue generating opportunities at City-owned properties including using landfill gas at closed landfills to generate electricity and to lease city owned land for the installation of utility-owned photovoltaic arrays
- Pursuing cost containment strategies including participating in rate design settlement conferences and entering into a Power Purchase Agreement for solar generated power

5) Program Element Rationale and Expected Outcome:

a) Quantitative Baseline and Market Transformation Information

Table 3
N/A

Refer to the overarching PIP section.

b) Market Transformation Information

Table 4
N/A

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

d) Quantitative Program Objectives:

Table 5

Program A: **Government Facilities**	*Program Target by 2014*	*Program Target by 2014*
kWh savings		4,246,667 kWh
Therm savings		35,967 therms
Kw savings		1,083 kW
Program B: **Strategic plan Support**	TBD	TBD
Program C: **Core Program Coordination**	TBD	TBD

6) Other Program Element Attributes: Local government Partner

a) Best Practices:
The partnership will incorporate best practices where applicable.

b) Innovation:
The City of San Diego departments are working closely together and with the community on energy issues, realizing that energy conservation is the linchpin for community sustainability, reducing greenhouse gas emissions, business development and retention, and accommodating a growing population. The Conservation Element of the City's General Plan identifies energy efficiency as a mandatory requirement for the future development of this City. This significant planning document is the culmination of successful integration with the Climate Action Plan and the Sustainable Community Indicators, all of which focus on energy efficiency. The eight-part proposal is achievable, innovative, and builds on the core competencies of local government and SDG&E.

Regional collaboration & capacity building
In coordination with San Diego Gas & Electric and other local jurisdictions, the City of San Diego LGP will help support a variety of region-wide programs through the San Diego Regional Energy Network (SDREN) to facilitate "deep retrofits" and broad market transformation in a cost-effective manner:

1. Regional EUC & Existing Home Retrofit Market Development

   The SDREN will help guide regional implementation of Energy Upgrade California and help develop a local market for home energy upgrades. The SDREN will expand the current **San Diego Regional Retrofit Advisory Council** to include broader stakeholder participation and to allow the region to "adaptively manage" local Energy Upgrade California (EUC) implementation. This implementation will be further informed by development of an online **Regional Energy Mapping Tool** that incorporates building, socio-economic, and utility data to educate potential EUC participants and to assist contractors and local governments in targeting their EUC-related marketing and outreach. Finally, the network will coordinate with the local real estate and lending communities in order to enable these key market actors to become strong advocates for energy efficiency through **Green MLS Development and Appraiser Education & Training**.

   To ensure that local governments are prepared to support EUC, the San Diego Regional Energy Network will complete a review of current permitting requirements for EUC-type projects throughout the 19 jurisdictions in the region. With this information, a "best practices" guide for **EUC Permit Streamlining** will be created and sample permit templates will be developed to assist EUC contractors. The SDREN will also develop a **HERS Rating Incentive Pilot Program,** so that interested local governments can target incentives for home energy ratings through point-of-sale and permit application opportunities. Finally, the SDREN will work with local governments to leverage municipal affordable housing programs with hands-on **Home Performance Workforce Training** opportunities.

2. Regional Climate Action Planning Support

   The San Diego Regional Energy Network will assist local governments and communities with understanding and implementing climate action strategies, especially related to energy efficiency. The SDREN will expand the current **Climate Collaborative** website platform and branding to include all local jurisdictions and indirect energy saving strategies, such as water conservation and urban heat island mitigation programs. The network will also develop joint outreach, marketing, and program templates to support voluntary **Green Business Challenge** programs in local jurisdictions serving as a conduit for participation in utility-sponsored direct install programs. Lastly, SDREN will identify suggested codes, policies, and incentives to help facilitate local achievement of the **Zero Net Energy Building Codes**.

3. Municipal Facility Audits, Retrofits, & Retro-Commissioning

   The San Diego Regional Energy Network will facilitate "deep retrofits," both in terms of high energy savings and untapped markets, at municipal facilities. Specifically, the network will organize a **Joint Procurement Strategy Working Group** to identify shared municipal facility retrofit opportunities across jurisdictions in the region. With this information, joint procurement strategies will be developed

to leverage economies of scale and to assist smaller jurisdictions with implementing their first energy efficiency upgrades.

c) Interagency Coordination:
Multiple departments within the City of San Diego organization will be involved in the design and outcome of the Partnership Programs. Environmental Services Department (ESD) will take the lead, and will coordinate with City Purchasing and Contracts Department, Development Services Department, Public Utilities Department, Fire Department, and when appropriate, other City departments. Additionally, non-City entities will be critical to the success of the Stakeholder process that will be used in three of the programs. The City will actively participate in partnerships with the Environmental Protection Agency (EPA), Green Building Association, and Climate Action Registry as well as advisory groups including the Sustainable Environment Advisory Board (SEAB) and the San Diego Association of Governments' energy working group.

d) Integrated/coordinated Demand Side Management:
The city will implement an integrated approach to energy efficiency through the incorporation of renewable energy, distributed generation, water-wise landscaping and demand response into City projects and throughout the community.

e) Integration across resource types:
The City is actively participating in partnerships with the Environmental Protection Agency (EPA), Green Building Association, Flex Your Power, and Climate Action Registry. The City of San Diego Partnership includes a Metropolitan Waste Water District component, which will increase and enhance the energy efficiency projects for Metro Wastewater Department.

f) Pilots:
San Diego will be working with the SDG&E Energy Upgrade California program and the SDREN to pilot HERS rating incentives. Additionally, the City will examine the potential for water-energy nexus pilots.

g) EM&V:
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Partnership Program Advancement of Strategic Plan Goals and Objectives

In compliance with Decision (D.) 09-09-047, Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SoCalGas) and Pacific Gas & Electric Company (PG&E) submitted a joint advice filing to set forth their Local Government Partnership (LGP) proposals in support of the California Long Term Energy

Efficiency Strategic Plan (Strategic Plan). City of San Diego partnership program made the following menu selections:

Partnership Name	Strategic Plan Menu Information		
	Strategic Plan Goal Number	**Strategy**	**Menu Option**
City of San Diego	1 - Local governments lead adoption and implementation of "reach" codes stronger than Title 24 on both mandatory and voluntary bases.	1.1 - Adopt codes, ordinances, standards, guidelines or programs that encourage or require building performance that exceeds state requirements. The focus should be on using existing models, or if there is something new and unique that it be replicable.	1.1.2 – Adopt a Green Building policy for municipal development, commercial development and/or residential development.
			1.1.5 – Develop and adopt programs to encourage energy efficiency such as one-stop permitting, on-line permitting, separate Zero Net Energy permit processes, density bonuses, or a recognition program.
			1.1.6 – Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines and programs.
		1.2 - Implement codes, ordinances, standards, guidelines or programs that encourage building performance that exceeds state standards.	1.2.1 – Implement any of the strategies in section 1.1 through a process involving internal and external stakeholders, etc.
	2 - Strong support from local governments for energy code compliance enforcement.	2.1 - Improve processes resulting in increased code compliance through education, training, and enforcement practices.	2.1.1 – 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.
City of San Diego *cont.*	3 - Local governments lead by example with their own facilities and	3.1 - Develop a program to track municipal energy usage, such as through energy management	3.1.1 – Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all

	energy usage practices.	software and benchmarking of municipal facilities.	local government facilities.
			3.1.2 – Set up a 'utility manager' computer program to track municipal usage. Identify need for sub-metering to plan, budget and manage bills.
	4 - Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change.	4.1 - Adopt a Climate Action Plan (CAP), Energy Action Plan (EAP) or adopt energy efficiency language into another policy document, such as a General Plan, to reduce community greenhouse gas emissions with a focus on energy efficiency.	4.1.3 – Update General Plan/Conservation Element with Climate policies. Provide energy efficiency framework and data for other people doing planning.
			4.1.4 – Conduct the energy efficiency savings analysis for an annual Greenhouse Gas inventory for the City/ County.

City of Chula Vista

4) Program Element Description and Implementation Plan

a) List of program elements

Program elements are listed and explained in the next section.

b) Overview

The 2013 - 2014 Chula Vista Local Government Partnership (Chula Vista LGP) with San Diego Gas & Electric is designed to leverage the unique resources of municipal government to expand energy efficiency opportunities in Chula Vista and surrounding communities. The Chula Vista LGP builds off seven years of successful collaboration with SDG&E and the City's recent federal stimulus-supported programs to achieve CA Energy Efficiency Long-Term Strategic Plan goals and facilitate "deep retrofits" within residential, business, and municipal sectors. The main program activities include:

- Municipal facility upgrades & integrated demand-side management
- Community outreach, upgrades, & financing
- Sustainable building codes, enforcement, & training
- Regional & Subregional Collaboration

In all cases, the Chula Vista LGP will be designed and implemented to complement broader Energy Efficiency Portfolio priorities such as Energy Upgrade California, Emerging Technologies, Zero Net Energy Roadmap, and Water-Energy Nexus initiatives.

Continuation of Successful Partnerships: City of Chula Vista

1. Did the partner work collaboratively among regional partners and stakeholders?	YES
2. Did the Partnership accomplish/meet all the goals outlined in the Scope of Work/PIP?	YES
3. Did the partner utilize/leverage their unique authority throughout the partnership activities?	YES
4. Was there a professional development and/or education program focused on the long term strategic plan elements?	YES
5. Did the partnership activities help implement specific elements of an adopted energy efficiency, climate change or sustainability plan to foster market transformation?	YES

In addition to continuing its existing local government partnership, City of Chula Vista, in collaboration with regional partners including SANDAG, the City and County of San Diego, the Port of San Diego, and California Center for Sustainable Energy; seeks to expand its existing partnership to address deep energy retrofits as identified in the CPUC decision for expanding programs.

Expansion of a Successful Partnership:

1. Must focus on Energy Upgrade California and deep retrofits	YES
2. Must have or develop a plan to engage the community	YES
3. Appropriate financing mechanism for targeted market segment	YES

Element A- Government Facilities:

Master PIP sub elements partnership addresses		
A-1	Retro-fit of County and Municipal Buildings	Yes
A-2	Retro-commissioning	Yes
A-3	Integrating Demand Response	Yes
A-4	Technical Assistance	Yes
A-5	On-Bill Financing or CEC Loans	Yes

Municipal facility upgrades & integrated demand-side management
The 2013-2014 Chula Vista LGP will expand the City's efforts to identify, finance, and implement energy improvements at municipal facilities. The City owns and operates a variety of public infrastructure including over 90 buildings, 8,000 streetlights, and 13 sewage and irrigation pump stations. The City will pursue an integrated demand-side management approach to municipal retrofits coupling energy efficiency with renewable energy and demand response opportunities. To ensure the ongoing efficient operation of facilities, retro-commissioning of targeted buildings will be explored and energy management training for appropriate facility staff will be supported. Finally, studies and field demonstrations will be pursued to test emerging

technology applications such as adaptive street-lighting controls and citywide municipal energy-management system capabilities.

Element B- Strategic Plan Support:

Master PIP sub elements partnership addresses		
B-1	Code Compliance	Yes
B-2	Reach Code Support	Yes
B-3	Guiding Document Support	Yes
B-4	Financing for the Community	Yes
B-5	Peer to Peer Support	Yes

Sustainable building codes, enforcement, & training
The 2013-2014 Chula Vista LGP will further City staff's expertise in energy conservation and green building principles, with the goal of infusing sustainable practices into every level of the planning, permitting, and inspection process. Specifically, the Chula Vista LGP will promote these principles by supporting direct customer engagement about energy-efficiency opportunities during the municipal permit and construction approval process, by organizing trainings for permit counter technicians and building inspectors on advanced energy technologies, and by conducting secondary plan checks and field audits to ensure compliance with Chula Vista's progressive green building standards. Through the Chula Vista LGP, the City will also revise its energy efficiency "reach" code to be consistent with 2014 Title-24 and create new water reuse standards to facilitate indirect energy savings. Finally, the City will work to develop new community-scale modeling tools and incentive programs to promote energy efficient design and construction in new development projects.

South Bay Energy Action Collaborative
In close coordination with the San Diego Association of Governments, the Chula Vista LGP will offer ongoing, comprehensive peer support for neighboring jurisdictions. The direct assistance will help participating jurisdictions implement the energy efficiency priorities identified in their recently-completed "Energy Roadmaps" and help build internal energy capacity and expertise. In addition, the Chula Vista LGP will provide opportunities for neighboring jurisdictions to collaborate on community outreach, marketing, and retrofit initiatives. Finally, the project will serve as a broader test case for sub-regional collaboration as a cost-effective means to supporting Strategic Plan goals.

Element C- Core Program Coordination:

Master PIP sub elements partnership addresses		
C-1	Outreach and Education	Yes
C-2	Third Party Program Coordination	Yes
C-3	Technical Assistance	Yes

Community outreach, upgrades, & financing

The 2013-2014 Chula Vista LGP will complement San Diego Gas & Electric's residential and commercial energy efficiency programs by providing targeted outreach and technical assistance to key market sectors. Energy efficiency messaging and education to the broader community will be delivered through Energy Lounges at the City's two main public libraries offering energy efficiency-related books, tools, and workshops to the public and through Empower Hour curriculums at Recreation Centers for youth groups. Through the City's Home Upgrade, Carbon Downgrade program, the Chula Vista LGP will facilitate residential energy retrofits and participation in Energy Upgrade California by offering home energy audits and education.

The business sector, especially small and medium enterprises, will be provided integrated, demand side energy evaluations via the business license-based Free Resource & Energy Business Evaluation (FREBE) to encourage enrollment into Direct Install, Summer Saver, and other SDG&E services. Businesses that have successfully incorporated energy efficiency and other sustainability strategies throughout their operations will be further recognized through the Chula Vista CLEAN Business Program. Finally, the City will continue to pursue the development of a "green" business park to assist in attracting new clean technology companies and to organize an informal peer network to assist existing businesses with identifying new "green" product and service opportunities.

All community-based activities will leverage the City's unique relationship with local business associations, community organizations, and non-profit entities to maximize the efficacy of outreach campaigns.

c) Non-Incentive services

This is a non-resource government partnership program. All of the services delivered are non-incentive.

d) Target audience

The 2013-2014 Chula Vista LGP will broadly serve City of Chula Vista residents and businesses estimated at 250,000 and 13,000, respectively. Specific activities will target homeowners, business owners/managers, contractors, developers, community leaders, and elected officials. It is also anticipated that the Chula Vista LGP will partially serve neighboring communities.

e) Implementation

Because of the current program, the City of Chula Vista has a thorough understanding of the staffing, budget, and time requirements necessary to successfully implement the new program. The Partnership will be managed internally by a Partnership Grant Administrator, who will be the primary contact for SDG&E and coordinate overall program negotiations, implementation, reporting, and invoicing. Each LGP program component will be assigned a staff "lead" that is responsible for individual component coordination and implementation. All program component leads are current City employees and their positions are already included in the next City fiscal year budget. Partnership coordination with SDG&E will occur during quarterly Progress Report meetings and more frequent, informal meetings. Furthermore, the City has already begun to identify facility energy-efficiency retrofit projects and received approval from City Council to

pursue project financing for the next Partnership cycle. As a result, the 2013-2014 Chula Vista LGP will be implemented immediately upon start of the new portfolio cycle.

5) Program Element Rationale and Expected Outcome:

a) Quantitative Baseline and Market Transformation Information

Table 3
N/A

Refer to the overarching PIP section.

b) Market Transformation Information

Table 4
N/A

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

d) Quantitative Program Objectives:

Table 5

Program A: **Government Facilities**	*Program Target by 2013*	*Program Target by 2014*
kWh savings	TBD	520,000 kWh
Therm savings	TBD	13,000 therms
Kw savings	TBD	130 kW
Program B: **Strategic plan Support**	TBD	TBD
Program C: **Core Program Coordination**	TBD	TBD

6) Other Program Element Attributes:

a) Best Practices:
The program design incorporates various best practice elements. Specific items include:
Program Theory and Design: Program reflects an understanding of local market conditions and includes a sound program plan

b) Innovation:

The 2013-2014 Chula Vista LGP's goal is to create innovative approaches to improving community and municipal energy efficiency and achieving both direct and indirect energy savings.

Regional collaboration & capacity building
In coordination with San Diego Gas & Electric and other local jurisdictions, the Chula Vista LGP will help support a variety of region-wide programs through the San Diego Regional Energy Network (SDREN) to facilitate "deep retrofits" and broad market transformation in a cost-effective manner:

1. Regional EUC & Existing Home Retrofit Market Development

   The SDREN will help guide regional implementation of Energy Upgrade California and help develop a local market for home energy upgrades. The SDREN will expand the current **San Diego Regional Retrofit Advisory Council** to include broader stakeholder participation and to allow the region to "adaptively manage" local Energy Upgrade California (EUC) implementation. This implementation will be further informed by development of an online **Regional Energy Mapping Tool** that incorporates building, socio-economic, and utility data to educate potential EUC participants and to assist contractors and local governments in targeting their EUC-related marketing and outreach. Finally, the network will coordinate with the local real estate and lending community in order to enable these key market actors to become strong advocates for energy efficiency through **Green MLS Development and Appraiser Education & Training**.

   To ensure that local governments are prepared to support EUC, the San Diego Regional Energy Network will complete a review of current permitting requirements for EUC-type projects throughout the 19 jurisdictions in the region. With this information, a "best practices" guide for **EUC Permit Streamlining** will be created and sample permit templates will be developed to assist EUC contractors. The SDREN will also develop a **HERS Rating Incentive Pilot Program,** so that interested local governments can target incentives for home energy ratings through point-of-sale and permit application opportunities. Finally, the SDREN will work with local governments to leverage municipal affordable housing programs with hands-on **Home Performance Workforce Training** opportunities.

2. Regional Climate Action Planning Support

   The San Diego Regional Energy Network will assist local governments and communities with understanding and implementing climate action strategies, especially related to energy efficiency. The SDREN will expand the current **Climate Collaborative** website platform and branding to include all local jurisdictions and indirect energy saving strategies, such as water conservation and urban heat island mitigation programs. The network will also develop joint outreach, marketing, and program templates to support voluntary **Green Business Challenge** programs in local jurisdictions serving as a conduit for participation in utility-sponsored direct install programs. Lastly, SDREN will identify suggested codes, policies, and incentives to help facilitate local achievement of the **Zero Net Energy Building Codes**.

3. Municipal Facility Audits, Retrofits, & Retro-Commissioning

   The San Diego Regional Energy Network will facilitate "deep retrofits," both in terms of high energy savings and untapped markets, at municipal facilities. Specifically, the network will organize a **Joint Procurement Strategy Working Group** to identify shared municipal facility retrofit opportunities across jurisdictions in the region. With this information, joint procurement strategies will be developed to leverage economies of scale and to assist smaller jurisdictions with implementing their first energy efficiency upgrades.

c) Interagency Coordination:
The Chula Vista LGP will be managed internally by a Partnership Grant Administrator, who will be the primary contact for SDG&E and coordinate overall program negotiations, implementation, reporting, and invoicing. The Partnership Grant Administrator will also be responsible for coordinating regional and subregional activities with other jurisdictions. Each program component will be assigned a staff "lead" that is responsible for individual component coordination and implementation.

d) Integrated/coordinated Demand Side Management:
For municipal facilities, the City will rely on integrated, demand side management energy evaluations of its largest facilities to identify potential upgrade opportunities. Chula Vista will further assess the feasibility of energy efficiency improvements based on their estimated direct energy savings, peak demand reduction, annual cost savings, implementation costs and incentive availability.

e) Integration across resource types:
The City of Chula Vista has three main energy-related policies – the Energy Strategy & Action Plan, Carbon Dioxide Reduction Plan, and Municipal Building Energy Efficiency Policy – which provide a framework for an integrated approach to energy efficiency. All three policies promote energy efficiency coupled with renewable energy, distributed generation, energy-efficient landscaping, water conservation (indirect energy savings), and demand response into City projects and throughout the community. These energy-related policies are complemented by a variety of other sustainability programs and initiatives such as deployment of electric vehicles and other alternative transportation options, movement towards zero solid waste disposal, and reuse of storm water, wastewater, and rain water. All of the City's sustainability efforts are seamlessly presented to the public under its *Chula Vista CLEAN* brand and accompanying website platform.

f) Pilots:
Chula Vista will be working with the SDG&E Energy Upgrade California program and the SDREN to pilot HERS rating incentives.

g) EM&V:
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of

broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) Partnership Program Advancement of Strategic Plan Goals and Objectives

In compliance with Decision (D.) 09-09-047, Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SoCalGas) and Pacific Gas & Electric Company (PG&E) submitted a joint advice filing to set forth their Local Government Partnership (LGP) proposals in support of the California Long Term Energy Efficiency Strategic Plan (Strategic Plan). City of Chula Vista partnership program made the following menu selections

Partnership Name	Strategic Plan Menu Information		
	Strategic Plan Goal Number	**Strategy**	**Menu Option**
City of Chula Vista	1 - Local governments lead adoption and implementation of "reach" codes stronger than Title 24 on both mandatory and voluntary bases.	1.1 - Adopt codes, ordinances, standards, guidelines or programs that encourage or require building performance that exceeds state requirements. The focus should be on using existing models, or if there is something new and unique that it be replicable.	1.1.4 – Change local codes to allow and encourage integration of energy efficiency, demand response, and on-site generation.
			1.1.5 – Develop and adopt programs to encourage energy efficiency such as one-stop permitting, on-line permitting, separate Zero Net Energy permit processes, density bonuses, or a recognition program.
			1.1.6 – Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines and programs.
	2 - Strong support from local governments for energy code compliance enforcement.	2.1 - Improve processes resulting in increased code compliance through education, training, and	2.1.2 – Redesign enforcement, compliance, plan review processes; introduce new forms and templates.

		enforcement practices.	
	3 - Local governments lead by example with their own facilities and energy usage practices.	3.1 - Develop a program to track municipal energy usage, such as through energy management software and benchmarking of municipal facilities.	3.1.1 – Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all local government facilities.
		3.2 - Adopt an Energy or Climate Action Plan for municipal operations. The plan could include setting energy efficiency standards for new and existing facilities, developing a revolving loan fund for energy efficiency projects, and so on.	3.2.1 – Develop/adopt an energy chapter for City/ County climate or energy action plan.
			3.2.3 – Develop policy for a revolving energy efficiency fund for City/County facilities.
	4 - Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change.	4.1 - Adopt a Climate Action Plan (CAP), Energy Action Plan (EAP) or adopt energy efficiency language into another policy document, such as	4.1.2 – Customize CAP with energy efficiency language and data.
			4.1.3 – Update General Plan/Conservation Element with Climate policies. Provide energy efficiency framework and data for other people doing planning.

		a General Plan, to reduce community greenhouse gas emissions with a focus on energy efficiency.	4.1.4 – Conduct the energy efficiency savings analysis for an annual Greenhouse Gas inventory for the City/ County.

County of San Diego

4) Program Element Description and Implementation Plan

a) List of program elements

Program elements are listed and explained in the next section.

b) Overview

The 2013 - 2014 County of San Diego Local Government Partnership (County of San Diego LGP) with San Diego Gas & Electric is designed to leverage the unique resources of municipal government to expand energy efficiency opportunities in the unincorporated areas within San Diego County. The County of San Diego LGP builds off three years of successful collaboration with SDG&E and the County's recent federal stimulus-supported programs to achieve CA Energy Efficiency Long-Term Strategic Plan goals and facilitate "deep retrofits" within residential, business, and municipal sectors.

The County is a public agency containing many large-scale departments that maintain different roles in implementing the goals and objectives of the Partnership. The departments of General Services (DGS), Planning and Land Use (DPLU), and of Parks and Recreation (DPR) all have active program responsibilities under the County Partnership.

The County will continue programs that identify and implement energy efficiency projects, implement the County Strategic Energy Plan, perform retro-commissioning, collaborate with and support Energy Upgrade California, seek community financing opportunities, as well as carry out climate change programs/policies, community outreach programs, and youth education programs.

In all cases, the County of San Diego LGP will be designed and implemented to complement broader Energy Efficiency Portfolio priorities such as Energy Upgrade California, Emerging Technologies, Zero Net Energy Roadmap, and Water-Energy Nexus initiatives.

Continuation of Successful Partnerships: County of San Diego

1. Did the partner work collaboratively among regional partners and stakeholders?	YES
2. Did the Partnership accomplish/meet all the goals outlined in the Scope of Work/PIP?	YES
3. Did the partner utilize/leverage their unique authority throughout the partnership activities?	YES
4. Was there a professional development and/or education program	YES

focused on the long term strategic plan elements?	
5. Did the partnership activities help implement specific elements of an adopted energy efficiency, climate change or sustainability plan to foster market transformation?	YES

In addition to continuing its existing local government partnership, County of San Diego; in collaboration with regional partners including Chula Vista, the City and SANDAG, the Port of San Diego, and California Center for Sustainable Energy; seeks to expand its existing partnership to address deep energy retrofits as identified in the CPUC decision for expanding programs.

Expansion of a Successful Partnership: County of San Diego

1. Must focus on Energy Upgrade California and deep retrofits	YES
2. Must have or develop a plan to engage the community	YES
3. Appropriate financing mechanism for targeted market segment	YES

Element A- Government Facilities:

Master PIP sub elements partnership addresses

A-1	Retro-fit of County and Municipal Buildings	Yes
A-2	Retro-commissioning	Yes
A-3	Integrating Demand Response	Yes
A-4	Technical Assistance	Yes
A-5	On-Bill Financing or CEC Loans	Yes

Retrofit of County Facilities

The County of San Diego will continue energy efficiency retrofits of existing facilities identified under Goal A-1, *Improve Energy Efficiency and Utilization of Existing Facilities,* in the County of San Diego 2009-2012 Strategic Energy Plan and County of San Diego 2013-2015 Strategic Energy Plan, currently under development. These retrofits will include upgrades or replacement of HVAC, lighting, controls and building envelop at County buildings, grounds and streets. The County will employ its Water and Energy Services Consultant, currently under contract, to perform energy assessments leading to energy efficiency measures for implementation. These energy assessments will be paid through an Energy Trust Fund established for this purpose. Measure implementation will be performed through its Energy Job Order Contracting contractors using both On-Bill Financing and California Energy Commission Loans. The County's Major Maintenance Program, funded internally, also incorporates energy efficiency upgrades to equipment that requires replacement. Retrofits will deliver a major contribution to the energy savings goals identified for this Partnership.

Retro-commissioning

The County of San Diego will continue its retro-commissioning efforts at existing facilities identified under Goal A-1, *Improve Energy Efficiency and Utilization of Existing Facilities,* and Goal A-6, *Monitor and Report Building System Performance,* of the County of San Diego 2009-2012 Strategic Energy Plan and County of San Diego 2013-2015 Strategic Energy Plan,

currently under development. Retro-commissioning efforts will include County buildings not already commissioned using SDGE's third-party Retrocommissioning Program. Priority will be given to buildings with existing building automation systems and those identified with the largest opportunity for improvement based on benchmarking results. The County will use Facilities Operation staff to perform retro-commissioning work, where possible, to strengthen its internal capabilities to identify deficiencies, correct them and then maintain high performance over time using the building automation system. Retrofits will deliver a significant contribution to the energy savings goals identified for this Partnership.

Integrating Demand Response

The County of San Diego will expand its Smart Building Initiative to both existing facilities and new construction identified under Goal A-1, *Improve Energy Efficiency and Utilization of Existing Facilities* and A-2, *Improved Energy Efficiency of New Construction and Major Renovations for County Facilities,* in the County of San Diego 2009-2012 Strategic Energy Plan and County of San Diego 2013-2015 Strategic Energy Plan, currently under development. The Smart Building Initiative includes real-time monitoring of the electricity consumption and demand using utility grade metering. By integrating the metering with monitoring and control of the HVAC, lighting and process systems, both demand response and demand management capabilities will be programmed into the building automation system.

Technical Assistance

The County of San Diego will continue to use the technical assistance provided by organizations such as the Institute for Local Government (ILG), ICLEI, Local Government Commission (LGC), the Statewide Local Government Energy Efficiency Best Practices Coordinator and SDG&E's Demand Response and Emerging Technologies Programs. The County of San Diego will continue to strive in the areas of climate action planning, benchmarking, and building automation and strive to incorporate best practices into its operations. The County's experiences and results will be shared with other regional and local governments.

On-Bill Financing and California Energy Commission Loans

The County of San Diego will continue to use On-Bill Financing (OBF), along with rebates and incentives, as the primary financing method to implement energy retrofit projects at County facilities. OBF was approved by the Board of Supervisors in 2011 as a financing mechanism for up to $10 million in projects. The County's energy contractors have been trained by SDG&E on the program for continued use and application. The Board of Supervisors also approved the application for and acceptance of approximately $2.4 million in California Energy Commission (CEC) loans. This capacity is expected to be fully subscribed during the 2013-2014 program cycle.

Element B- Strategic Plan Support:

Master PIP sub elements partnership addresses

B-1	Code Compliance	Yes
B-2	Reach Code Support	No
B-3	Guiding Document Support	Yes
B-4	Financing for the Community	Yes
B-5	Peer to Peer Support	Yes

Code Compliance

On January 1, 2014 the 2013 Building Energy Efficiency Standards are expected to be effective for mandatory compliance and enforcement to replace the current 2008 Building Energy Efficiency Standards. The new standards are an aggressive step to respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020. The County of San Diego will further energy efficiency requirements for new construction through staff trainings in preparation for the implementation of the revised Energy Efficiency Standards. The goal of the staff trainings is to advance staff knowledge of the new energy standards for the purposes of plan check, field inspection, and to increase their ability to provide guidance to customers on energy requirements and best practices.

Guiding Document Support

Energy guidance included in the County's Climate Action Plan (CAP) will be implemented and monitored. Annual reports will be completed as part of the requirements for the General Plan. The County's energy use and GHG emissions will be inventoried as part of this process. Continued support for the CAP and focus on implementation activities will effectively and methodically reduce community and municipal energy consumption and GHG emissions.

Financing For The Community

The County will continue to actively participate in the development of, and education in, community financing strategies. As the market for such financing opportunities continues to evolve, the County will be involved in finding the most beneficial programs to serve the needs of its communities, residents, and business owners and pursue adoption when that opportunity presents itself. Within the greater community financing efforts, the County will support when possible, the deployment of innovative products and services to further enable residential and commercial energy upgrades.

Peer To Peer Support

The County will continue networking with other Local Governments on best management practices and provide information/assistance to build local knowledge and capabilities for the promotion of energy efficiency within local communities. The County will participate in peer sharing forums, quarterly partner networking events, and in individual issue-specific network groups. Additionally, the County will play a unique and important role in the promotion and advancement of Energy Upgrade California (EUC) through the participation in the San Diego Regional Energy Network (SDREN). This network will support a variety of region-wide collaborative programs including the facilitation of "deep retrofits", creation of energy mapping

projects, and development of permit streamlining, workforce training and incentives processes. Peer to peer efforts will also include regional local government and community Climate Action Planning assistance through experience with local needs and understanding and implementation of climate action strategies, especially as they relate to energy efficiency..

Element C- Core Program Coordination:

Master PIP sub elements partnership addresses		
C-1	Outreach and Education	Yes
C-2	Third Party Program Coordination	No
C-3	Technical Assistance	Yes

Outreach And Education

The partnership will provide education and outreach to County employees, public agencies and other regional organizations on energy efficiency, emerging technologies and green building practices. Initiatives may include: web-based education, training sessions, participation and creation of community events, and comprehensive youth education programming implemented through community centers in unincorporated areas of the County. Additionally, the county will include educational messaging on EUC and its benefits to key community stakeholders, business sectors, elected officials, and to the general public. The County will strategically leverage community relationships, experience, and resources to market Energy Upgrade California including targeted outreach and education to the community and support to local training providers

Technical Assistance

The County will also provide energy audits and technical assistance with SDG&E program participation by the approximately 16,000 County employees as well as residents of the unincorporated areas of the County.

5) Program Element Rationale and Expected Outcome:

a) Quantitative Baseline and Market Transformation Information

Table 3
N/A

Refer to the overarching PIP section.

b) Market Transformation Information

Table 4
Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

d) Quantitative Program Objectives:

Table 5

Program A: **Government Facilities**	*Program Target by 2013*	*Program Target by 2014*
kWh savings		3,466,667 kWh
Therm savings		65,000 therms
kW savings		672 kW
Program B: **Strategic plan Support**	TBD	TBD
Program C: **Core Program Coordination**	TBD	TBD

6) Other Program Element Attributes:

a) Best Practices:
The County of San Diego, as an official ILG Beacon Award participant, will continue to incorporate the best practice areas framework, where possible.

b) Innovation:
The County will continue its Smart Building Initiative to deliver high performing, demand responsive, comfortable and healthy facilities by integrating IT and building systems. The County's method of delivering energy efficiency retrofit projects quickly will continue to be improved. This Partnership is also utilizing funds to train staff and transform its facilities to take advantage of building automation system capabilities, to reduce energy consumption, and employ demand response management.

Regional collaboration & capacity building
In coordination with San Diego Gas & Electric and other local jurisdictions, the County of San Diego LGP will help support a variety of region-wide programs through the San Diego Regional Energy Network (SDREN) to facilitate "deep retrofits" and broad market transformation in a cost-effective manner:

1. Regional EUC & Existing Home Retrofit Market Development

   The SDREN will help guide regional implementation of Energy Upgrade California and help develop a local market for home energy upgrades. The SDREN will expand the current **San Diego Regional Retrofit Advisory Council** to include broader stakeholder participation and to allow the region to "adaptively manage" local Energy Upgrade California (EUC) implementation. This implementation will be further informed by development of an online **Regional Energy Mapping Tool** that incorporates building, socio-economic, and utility data to educate potential EUC participants and to assist contractors and local governments in targeting their EUC-related marketing and outreach. Finally, the network will coordinate with the local real estate and lending community in order to enable these key market actors to

become strong advocates for energy efficiency through **Green MLS Development and Appraiser Education & Training**.

To ensure that local governments are prepared to support EUC, the San Diego Regional Energy Network will complete a review of current permitting requirements for EUC-type projects throughout the 19 jurisdictions in the region. With this information, a "best practices" guide for **EUC Permit Streamlining** will be created and sample permit templates will be developed to assist EUC contractors. The SDREN will also develop a **HERS Rating Incentive Pilot Program,** so that interested local governments can target incentives for home energy ratings through point-of-sale and permit application opportunities. Finally, the SDREN will work with local governments to leverage municipal affordable housing programs with hands-on **Home Performance Workforce Training** opportunities.

2. Regional Climate Action Planning Support

   The San Diego Regional Energy Network will assist local governments and communities with understanding and implementing climate action strategies, especially related to energy efficiency. The SDREN will expand the current **Climate Collaborative** website platform and branding to include all local jurisdictions and indirect energy saving strategies, such as water conservation and urban heat island mitigation programs. The network will also develop joint outreach, marketing, and program templates to support voluntary **Green Business Challenge** programs in local jurisdictions serving as a conduit for participation in utility-sponsored direct install programs. Lastly, SDREN will identify suggested codes, policies, and incentives to help facilitate local achievement of the **Zero Net Energy Building Codes**.

3. Municipal Facility Audits, Retrofits, & Retro-Commissioning

   The San Diego Regional Energy Network will facilitate "deep retrofits," both in terms of high energy savings and untapped markets, at municipal facilities. Specifically, the network will organize a **Joint Procurement Strategy Working Group** to identify shared municipal facility retrofit opportunities across jurisdictions in the region. With this information, joint procurement strategies will be developed to leverage economies of scale and to assist smaller jurisdictions with implementing their first energy efficiency upgrades.

c) Interagency Coordination:
The County of San Diego will continue collaboration between other local governments and agencies that are part of the SDG&E Partnership Program, through the proposed San Diego Regional Energy Network, San Diego Association of Governments and San Diego Foundation Climate Initiative.

d) Integrated/coordinated Demand Side Management:
The County of San Diego has developed and implemented a Strategic Energy Plan and is currently updating this plan for specific energy consumption reductions, demand responsiveness targets, and renewable energy supplies for Years 2013-2015. The Plan identifies goals that will be pursued including: energy efficiency in existing facilities and new construction, electrical

demand reduction, energy management planning for legislative changes impacting energy efficiency and demand response, energy procurement, renewable energy, construction standards, internal and regional energy efficiency outreach, collaboration with other agencies, regulatory and legislative monitoring and energy monitoring and reporting.

e) Integration across resource types:
The County has several "Green Initiatives" including LEED Certification for new construction, porous exterior surfaces to reduce storm water pollution, hybrid fleet vehicles, incentives for green building in the permitting process, a renewable energy plan, LED traffic signals, recycling program and affordable housing energy efficiency.

f) Pilots:
Potential pilots with emerging Technologies or other applicable programs will be evaluated.

g) EM&V:
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies.

7) Partnership Program Advancement of Strategic Plan Goals and Objectives:
In compliance with Decision (D.) 09-09-047, Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SoCalGas) and Pacific Gas & Electric Company (PG&E) submitted a joint advice filing to set forth their Local Government Partnership (LGP) proposals in support of the California Long Term Energy Efficiency Strategic Plan (Strategic Plan). The County of San Diego partnership program made the following menu selections:

County of San Diego	1 - Local governments lead adoption and implementation of "reach" codes stronger than Title 24 on both mandatory and voluntary bases.	1.1 - Adopt codes, ordinances, standards, guidelines or programs that encourage or require building performance that exceeds state requirements. The focus should be on using existing models, or if there is something new and unique that it be replicable.	1.1.2 – Adopt a Green Building policy for municipal development, commercial development and/or residential development.
			1.1.4 – Change local codes to allow and encourage integration of energy efficiency, demand response, and on-site generation.
			1.1.5 – Develop and adopt programs to encourage energy efficiency such as one-stop permitting, on-line permitting, separate Zero Net Energy permit processes, density bonuses, or a recognition program.

	2 - Strong support from local governments for energy code compliance enforcement.	2.1 - Improve processes resulting in increased code compliance through education, training, and enforcement practices.	2.1.1 – Local government staff and contract staff attend code compliance workshops offered by the California Energy Commission, utility codes & standards staff, or other local governments with strong compliance records.
			2.1.2 – Redesign enforcement, compliance, plan review processes; introduce new forms and templates.
County of San Diego (cont.)	3 - Local governments lead by example with their own facilities and energy usage practices.	3.1 - Develop a program to track municipal energy usage, such as through energy management software and benchmarking of municipal facilities.	3.1.1 – Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all local government facilities.
			3.1.2 – Set up a 'utility manager' computer program to track municipal usage. Identify need for sub-metering to plan, budget and manage bills.
	3 - Local governments lead by example with their own facilities and energy usage practices.	3.2 - Adopt an Energy or Climate Action Plan for municipal operations. The plan could include setting energy efficiency standards for new and existing facilities, developing a revolving loan fund for energy efficiency projects, and so on.	3.2.1 – Develop/adopt an energy chapter for City/ County climate or energy action plan.
			3.2.3 – Develop policy for a revolving energy efficiency fund for City/County facilities.
	4 - Local governments lead their communities	4.1 - Adopt a Climate Action Plan (CAP),	4.1.2 – Customize CAP with energy efficiency language and data.

	with innovative programs for energy efficiency, sustainability and climate change.	Energy Action Plan (EAP) or adopt energy efficiency language into another policy document, such as a General Plan, to reduce community greenhouse gas emissions with a focus on energy efficiency.	4.1.3 – Update General Plan/Conservation Element with Climate policies. Provide energy efficiency framework and data for other people doing planning.
			4.1.4 – Conduct the energy efficiency savings analysis for an annual Greenhouse Gas inventory for the City/ County.

San Diego Unified Port District

4) Program Element Description and Implementation Plan

a) List of program elements

Program elements are listed and explained in the next section.

b) Overview

The goal of the San Diego Unified Port District (Port) Energy Efficiency Partnership with SDG&E (Partnership) is to build upon the successful efforts of the 2010-2012 Partnership and enhance the Port's role in the region as an environmental steward. This will be done by maximizing energy efficiency on Port tidelands and providing education and outreach opportunities to Port staff, Port tenants, and the public. The Partnership components include energy efficiency education and outreach, implementation of the Climate Mitigation and Adaptation Plan (Climate Plan), energy efficiency upgrades to Port operations, and education and technical outreach to businesses on Port tidelands through the Green Business Network.

Work done through the partnership will be concentrated within the Port's five member cities: City of San Diego, Coronado, National City, Chula Vista, and Imperial Beach. These combined efforts will help reduce energy usage and help lower peak demands on Port tidelands.

Table 1: SDG&E/Port Energy Efficiency Partnership Program Summary

Partnership Component	Port Lead	Description	Audience
Education and Outreach	Environmental & Land Use Management, Marketing & Communications	Education Marketing and Outreach	Port staff and tenants, general public

Port Operations Energy Management	Environmental & Land Use Management, General Services & Procurement, Engineering & Construction	Identification and execution of retrofit opportunities	Facility Managers, General Services and Procurement, Engineering and Construction, general public
Climate Plan	Environmental & Land Use Management	Maximizing effectiveness of measures that achieve energy reductions through planning process	Port staff and tenants
Green Business Network and Technical Assistance	Environmental & Land Use Management, Real Estate, Marketing & Communications	Implementation of the Green Business Network, guiding tenants through the process of becoming energy efficient and environmentally friendly	Port tenants and general public
Administration	Environmental & Land Use Management, Finance	Program coordination and administrative duties	Environmental & Land Use Management, SDG&E
San Diego Regional Energy Network	Environmental & Land Use Management	Region-wide energy efficiency efforts	Port staff, Port tenants,

Continuation of Successful Partnerships: Port of San Diego

1. Did the partner work collaboratively among regional partners and stakeholders?	YES
2. Did the Partnership accomplish/meet all the goals outlined in the Scope of Work/PIP?	YES
3. Did the partner utilize/leverage their unique authority throughout the partnership activities?	YES
4. Was there a professional development and/or education program focused on the long term strategic plan elements?	YES
5. Did the partnership activities help implement specific elements of an adopted energy efficiency, climate change or sustainability plan to foster market transformation?	YES

In addition to continuing its existing local government partnership, Port of San Diego, in collaboration with regional partners including Chula Vista, SANDAG and County of San Diego, the City of San Diego, and California Center for Sustainable Energy, seeks to expand its existing partnership to address deep energy retrofits as identified in the CPUC decision for expanding programs.

Expansion of a Successful Partnership: Port of San Diego

1. Must focus on Energy Upgrade California and deep retrofits	YES
2. Must have or develop a plan to engage the community	YES

3. Appropriate financing mechanism for targeted market segment	YES

Element A- Government Facilities:

Master PIP sub elements partnership addresses

A-1	Retro-fit of County and Municipal Buildings	Yes
A-2	Retro-commissioning	Yes
A-3	Integrating Demand Response	Yes
A-4	Technical Assistance	Yes
A-5	On-Bill Financing or CEC Loans	Yes

The Port Operations Energy Management component of the Partnership will build on the success of previous Port facility retrofit efforts and will continue to focus on maximizing energy efficiency and demand response opportunities within the Port's operations. This program component will also facilitate capacity building for Port staff through energy efficiency and "deep retrofit" education and training opportunities such as Certified Energy Manager and Building Operator Certification. A reliable and updated infrastructure and professionally trained staff will support the future needs of the Port and the State of California and help achieve PUC energy goals and targets. This component will include opportunities and strategies to reduce kWh, kW and therms used by Port operations, and reduce greenhouse gas emissions through retrofits, retro-commissioning, the creation of polices and other energy efficiency activities. The Port intends to utilize SDG&E programs such as rebates, incentives, and On-Bill Financing for implementation.

Element B- Strategic Plan Support:

Master PIP sub elements partnership addresses

B-1	Code Compliance	No
B-2	Reach Code Support	Yes
B-3	Guiding Document Support	No
B-4	Financing for the Community	No
B-5	Peer to Peer Support	Yes

The implementation of the Port's Climate Plan, a comprehensive climate action plan, will be a driving force for the development of policies aimed at integrating increased energy efficiency, demand response, and distributed generation into core planning processes across Port tidelands. Implementation of this plan will help to institutionalize energy efficiency throughout the Port's jurisdiction, ensuring long-term reductions. This will be done through the development of energy efficiency specifications and policies, identifying incentives, and installing energy efficient equipment in new and redevelopment projects on Port tidelands. Incorporating energy efficiency and demand response strategies early in the project development process will help further energy efficiency savings.

Element C- Core Program Coordination:

Master PIP sub elements partnership

addresses

C-1	Outreach and Education	Yes
C-2	Third Party Program Coordination	Yes
C-3	Technical Assistance	Yes

Continuing the success of the 2010-2012 Partnership the Port will enhance the Green Business Network, an outreach program targeting over 500 Port tenant and sub-tenant businesses within the Port's jurisdiction. The Green Business Network will continue to deploy education and outreach opportunities, marketing strategies to promote additional energy efficiency and sustainability efforts of network members, and provide access to the tracking tool to provide benchmarking and additional resources to participants.

To enhance the Green Business Network, the Port will offer targeted technical assistance to Port tenants and sub-tenants. The technical assistance will include benchmarking services, energy audits, and assistance with implementation of energy efficiency retrofits, including support navigating SDG&E Core Programs. The intent is to remove barriers and facilitate increased participation in SDG&E Core Programs, despite the limited resources of businesses, especially small to medium-sized businesses. Leveraging the Port/tenant relationship, the Network will coordinate with SDG&E other programs, including On-Bill Financing, Direct Install, rebates and incentives, and other third party programs.

In addition to the Green Business Network, the Energy Efficiency Education and Outreach component of the Partnership will increase awareness of Port employees, all tenants and the public about energy efficiency benefits, opportunities, and SDG&E Core Programs. This includes trainings such as Certified Energy Manager, LEED, targeted energy efficiency trainings for the unique businesses on Port tidelands, and opportunities available through SDG&E's current portfolio of energy efficiency programs. Community outreach will be conducted with SDG&E through public education efforts.

c) Non-Incentive services

This is a non-resource government partnership program. All of the services delivered are non-incentive.

d) Target audience

The primary target audiences of the Port's Energy Efficiency Partnership consist of Port employees and tenants. There are approximately 500 tenants and subtenants within the Port's jurisdiction. These include small to large businesses and a wide variety of business types ranging from shipyards, and hotels to marinas and restaurants. This audience also includes activities at the Port's maritime cargo and cruise facilities, which are unique operations that greatly benefit from energy efficiency. The general public will also be targeted for education and outreach in coordination with SDG&E.

e) Implementation

The Port has created a foundation of planning and energy efficiency initiatives during the 2010-2012 Partnership that will ensure success during the next Partnership cycle. A dedicated team from the Port's Environmental and Land Use Management Department will continue to serve as the program mangers for the Partnership. This will allow for coordinated communication with SDG&E and other Local Government Partners, and successful implementation of the Partnership scope of work. In addition, as a 2010-2012 Local Government Partner, the Port has identified

various lessons learned and best practices that contribute to a successful partnership. These best practices will be applied to streamline implementation and leverage existing energy efficiency opportunities and efforts.

In addition, energy conservation is a primary component of the Port's Green Port Policy and Program. As an established environmental program, the Green Port Program will continue to serve as a platform to successfully implement the Partnership. In addition, several Port departments including Environmental and Land Use Management, Engineering and Construction, Real Estate, and General Services are dedicated to achieving energy efficiency through the strategies outlined in the scope of work. The Marketing and Communications Department is also dedicated to the Partnership, assisting lead staff with effective outreach and education strategies to target key audiences within the Port's jurisdiction.

5) Program Element Rationale and Expected Outcome:

a) Quantitative Baseline and Market Transformation Information

Table 3
Refer to the overarching PIP section.

b) Market Transformation Information

Table 4
Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:
The Port's Energy Efficiency Partnership will apply best practices and lessons learned from the 2010-2012 cycle to ensure the most successful implementation of the PIP. The planning and initiatives developed in the previous partnership will help to identify and overcome barriers identified. The Port will also continue successful collaboration with SDG&E.

d) Quantitative Program Objectives:

Table 5:

Program A: **Government Facilities**	*Program Target by 2013*	*Program Target by 2014*
kWh savings	0	500,000 kWh
Therm savings	0	100 therms
kW savings	0	50 kW
Overall reduction savings	0	5% reduction in energy consumption
Program B: **Strategic**	TBD	TBD

plan Support		
Program C: **Core Program Coordination**	TBD	TBD

6) Other Program Element Attributes:

a) Best Practices:
The Port's Partnership has been designed to incorporate best practices where applicable.

b) Innovation:
The goal of the Port's 2013-2014 Energy Efficiency Partnership is to integrate innovative energy efficiency and demand response strategies to enhance the effectiveness of the PIP implementation. Having unique operations and target audiences allows for innovation among traditional local governments.

Regional collaboration & capacity building
In coordination with San Diego Gas & Electric and other local jurisdictions, the Port of San Diego LGP will help support a variety of region-wide programs through the San Diego Regional Energy Network (SDREN) to facilitate "deep retrofits" and broad market transformation in a cost-effective manner:

1. Regional Climate Action Planning Support
   The San Diego Regional Energy Network will assist local governments and communities with understanding and implementing climate action strategies, especially related to energy efficiency. The SDREN will expand the current **Climate Collaborative** website platform and branding to include all local jurisdictions and indirect energy saving strategies, such as water conservation and urban heat island mitigation programs. The network will also develop joint outreach, marketing, and program templates to support voluntary **Green Business Challenge** programs in local jurisdictions serving as a conduit for participation in utility-sponsored direct install programs. Lastly, SDREN will identify suggested codes, policies, and incentives to help facilitate local achievement of the **Zero Net Energy Building Codes**.

2. Municipal Facility Audits, Retrofits, & Retro-Commissioning
   The San Diego Regional Energy Network will facilitate "deep retrofits," both in terms of high energy savings and untapped markets, at municipal facilities. Specifically, the network will organize a **Joint Procurement Strategy Working Group** to identify shared municipal facility retrofit opportunities across jurisdictions in the region. With this information, joint procurement strategies will be developed to leverage economies of scale and to assist smaller jurisdictions with implementing their first energy efficiency upgrades.

c) Interagency Coordination:
In coordination with San Diego Gas & Electric and other local jurisdictions, the Port's Partnership will help support a variety of region-wide programs through the San Diego Regional Energy Network (SDREN) to facilitate "deep retrofits" and broad market transformation in a cost-effective manner. These collaborations, which began in the 2010-2012 Partnership, also enable leveraging of funds and programs to a wider audience.

In addition, the Port will continue coordination with SDG&E's Marketing and Communications Departments to accomplish effective outreach and education strategies.

d) Integrated/coordinated Demand Side Management:
The Port will utilize an integrated approach in the implementation of the Energy Efficiency Partnership. The Port Operations Energy Management component will incorporate strategies to decrease the Port's peak demand, and incorporate alternative energy where feasible. Additionally, the goals of the Port's Green Port Program involve maximizing energy efficiency and utilizing alternative energy sources, thereby committing the Port to strive for an integrated approach to energy management.

e) Integration across resource types:
The Port's Green Port Policy, which sets the framework for the Green Port Program, is designed to integrate and coordinate efforts across resource types. The Green Port Program consists of the following six categories: water, energy, air, waste management, sustainable development, and sustainable business practices. Each of the six categories have long-term goals, objectives, and targets.

f) Pilots:
The Port will continue coordination with SDG&E's Emerging Technologies Program for potential pilot program opportunities.

g) EM&V:
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) Partnership Program Advancement of Strategic Plan Goals and Objectives:
In compliance with Decision (D.) 09-09-047, Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SoCalGas) and Pacific Gas & Electric Company (PG&E) submitted a joint advice filing to set forth their Local Government Partnership (LGP) proposals in support of the California Long Term Energy Efficiency Strategic Plan (Strategic Plan). Port of San Diego partnership program made the following menu selections:

Partnership Name	Strategic Plan Menu Information		
	Strategic Plan Goal Number	Strategy	Menu Option

Port of San Diego	1 - Local governments lead adoption and implementation of "reach" codes stronger than Title 24 on both mandatory and voluntary bases.	1.1 - Adopt codes, ordinances, standards, guidelines or programs that encourage or require building performance that exceeds state requirements. The focus should be on using existing models, or if there is something new and unique that it be replicable.	1.1.5 – Develop and adopt programs to encourage energy efficiency such as one-stop permitting, on-line permitting, separate Zero Net Energy permit processes, density bonuses, or a recognition program.
			1.1.6 – Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines and programs.
	3 - Local governments lead by example with their own facilities and energy usage practices.	3.1 - Develop a program to track municipal energy usage, such as through energy management software and benchmarking of municipal facilities.	3.1.1 – Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all local government facilities.
	4 - Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change.	4.1 - Adopt a Climate Action Plan (CAP), Energy Action Plan (EAP) or adopt energy efficiency language into another policy document, such as a General Plan, to reduce community greenhouse gas emissions with a focus on energy efficiency.	4.1.2 – Customize CAP with energy efficiency language and data.

San Diego Association of Governments (SANDAG)

4) Program Element Description and Implementation Plan

a) List of program elements

Program elements are listed and explained in the next section.

b) Overview

The SANDAG Partnership will take advantage of its capacity as the regional planning organization to provide outreach, planning and technical assistance to its member agencies on energy and climate change. SANDAG, in coordination with SDG&E's Emerging Cities program, will develop comprehensive energy management plans, "Energy Roadmaps," for its participating member agencies which will address energy efficiency, renewable energy, and carbon dioxide emissions among other sustainability measures for government operations and their communities.

This is a continuation of a successful local government partnership that has met the success criteria established by SDG&E in consultation with local governments and regional stakeholders.

Continuation of Successful Partnerships: SANDAG

1. Did the partner work collaboratively among regional partners and stakeholders?	YES
2. Did the Partnership accomplish/meet all the goals outlined in the Scope of Work/PIP?	YES
3. Did the partner utilize/leverage their unique authority throughout the partnership activities?	YES
4. Was there a professional development and/or education program focused on the long term strategic plan elements?	YES
5. Did the partnership activities help implement specific elements of an adopted energy efficiency, climate change or sustainability plan to foster market transformation?	YES

In addition to continuing its existing local government partnership, SANDAG; in collaboration with regional partners including Chula Vista, the City and County of San Diego, the Port of San Diego, and California Center for Sustainable Energy; seeks to expand its existing partnership to address deep energy retrofits as identified in the CPUC decision for expanding programs.

Expansion of a Successful Partnership: SANDAG

1. Must focus on Energy Upgrade California and deep retrofits	YES
2. Must have or develop a plan to engage the community	YES
3. Appropriate financing mechanism for targeted market segment	YES

Element A- Government Facilities:

Master PIP sub elements partnership addresses		
A-1	Retro-fit of County and Municipal Buildings	No
A-2	Retro-commissioning	No
A-3	Integrating Demand Response	Yes
A-4	Technical Assistance	Yes
A-5	On-Bill Financing or CEC Loans	Yes

Not directly applicable. The 19 local jurisdictions comprising San Diego County are "member agencies" to SANDAG. SANDAG will serve as a supporting role for its member agencies (that do not have local government partnerships) in the above sub elements through the Energy Roadmap Program. The Program develops and updates Energy Roadmaps, a.k.a. energy management plans, for the local jurisdictions. Implementation decisions are under the authority of each member agency: SANDAG provides guidance and support to local governments in making its decisions. See Emerging Cities PIP for more information.

Element B- Strategic Plan Support:

Master PIP sub elements partnership addresses		
B-1	Code Compliance	No
B-2	Reach Code Support	Yes
B-3	Guiding Document Support	Yes
B-4	Financing for the Community	Yes
B-5	Peer to Peer Support	Yes

SANDAG serves in a supporting role to its member agencies by recommending reach codes in the Energy Roadmaps and Roadmap implementation materials, a.k.a. energy management plans, where applicable (refer to the Emerging cities PIP for further information). Furthermore the SANDAG partnership directly integrates the Long Term Energy Efficiency Strategic Plan into all aspects of each city's Energy Roadmap. It also supports the Strategic Plan in the following manner:

- The partnership pursues the development and promotion of suitable "green" or sustainability standard and will support the enhancement and enforcement of California building energy Codes & Standards and will evaluate advancing energy efficiency through local ordinances.
- The partnership in collaboration with regional partners, will establish a clearinghouse of EUC-relevant permit information across the 19 jurisdictions of San Diego County.
- The partnership will support streamlining efforts, education and training to local government staff and decision-makers across jurisdictions.
- Partnership supports the enhancement and enforcement of California building energy Codes & Standards and will look into above code certifications like LEED
- SANDAG helps develop local energy plans (Energy Roadmaps) consistent with regional and state energy efficiency and sustainability goals.
-

In addition, the Partnership embraces the Strategic Plan's vision that by 2020, California's workforce is better trained and engaged to provide the human capital necessary to achieve California's economic energy efficiency and demand-side management potential. Specifically, the Partnership will address this strategic planning area as follows:

- By providing the technical assistance, education and planning documents to its member agencies in need, the Partnership will assist these cities in gaining the skill set to apply for their own LGP in the future to further reduce energy usage and carbon footprint of their city.
- Through its Energy Roadmap Program for Local Governments, SANDAG plans to continue providing assistance, training and education to its member agencies for as long as needed.

- SANDAG will educate its own staff on day-to-day sustainable measures and sustainable procurement practices through implementation of a Green Operations Manual developed in the previous program cycle.
- SANDAG also will prepare sustainable design criteria addressing energy efficiency and green building practices for inclusion in new construction projects for San Diego County transportation corridors.

The Partnership will continue to embrace the Strategic Plan's vision that Californians are engaged as partners in the state's energy efficiency, demand-side management and clean energy efforts for 2009 and beyond with the dual goals of informing them of the importance of energy efficiency, and opportunities to take action. Specifically, the Partnership will address this strategic planning area as follows:

- The Partnership will, through all its activities, actively promote the branding of California's energy efficiency and other DSM consumer products and services (e.g. Energy Upgrade California, Flex Alerts or other branding developed).
- The Partnership will aggressively and effectively use all potential social marketing opportunities to build awareness and improve local government attitudes and perceptions about energy efficiency and climate change.
- When applicable, the Partnership will utilize existing energy efficiency education programs run by SDG&E or third party rather than duplicate efforts.
- In collaboration with regional local government partners, SANDAG will support workforce training and development to perform building assessments, retrofits and inspections under EUC.
- SANDAG will support the continuation of the San Diego regional Retrofit Advisory Committee (RAC) to oversee EUC projects and programs.

The Partnership will embrace the Strategic Plan's vision to provide all eligible consumers the opportunity to participate in the LIEE programs and to offer those who wish to participate in cost-effective energy efficiency measures in their residences by 2020. Specifically, the Partnership will address this strategic planning area as follows:

- The Partnership will make sure that local governments are aware of LIEE programs available to their constituents.

Element C- Core Program Coordination:

Master PIP sub elements partnership addresses		
C-1	Outreach and Education	Yes
C-2	Third Party Program Coordination	Yes
C-3	Technical Assistance	Yes

SANDAG will expand its supporting role to its member cities in all of the sub elements through the energy management plans and implementation support. Each Energy Roadmap includes a chapter on, "Marketing Energy Efficiency to Residents, Schools, and Local Businesses," that includes all SDG&E core programs and third party/ direct implementation programs. In addition, Energy Roadmap Chapter 4 addresses technical training for municipal staff that SANDAG in collaboration with SDG&E's Emerging Cities Program supports for local city staff. See Emerging Cities PIP for more information.

c) Non-Incentive services

This is a non-resource government partnership program. All of the services delivered are non-incentive.

d) Target audience

SANDAG is the regional planning agency and its Board is made up of mayors, council members and supervisors from all of the 18 cities and County in San Diego. SANDAG's target audience is its member agencies, committees and working groups, including the Board, Regional Planning Committee, Energy Working Group and the Technical Working Group.

e) Implementation

The program will work with sixteen municipalities over the course of the 2-year program, conduct performance monitoring at city facilities, audit facilities, develop Energy Roadmaps for three cities, and updates for the completed 13. These plans will be the keys to implementing a broad array of energy efficiency projects. Through the audits, trainings and management plan recommendations, each municipality will be able to work with SDG&E to implement energy saving recommendations. This could be through rebates, incentives, on-bill financing or other mechanisms. SANDAG also will walk the talk by integrating the Green Operations Manual prepared in the previous program cycle and offering sustainability and energy efficiency education to the 200 plus staff that comprise SANDAG.

5) Program Element Rationale and Expected Outcome:

a) Quantitative Baseline and Market Transformation Information

Table 3

	Baseline Metric		
	Metric A	Metric B	
Program/Element			

Refer to the overarching PIP section.

b) Market Transformation Information

Table 4

	Market Transformation Planning Estimates		
Program/Element		2013	2014
Metric A			
Metric B			
Metric C			
Etc.			

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

d) Quantitative Program Objectives:

Table 5

Program A: Government Facilities	*Program Target by 2013*	*Program Target by 2014*
kWh savings		*500,000 kWh*
Therm savings		10,0000 therms
Kw savings		100
Program B: Strategic plan Support		Tbd
Program C: Core Program Coordination		Tbd

6) Other Program Element Attributes

a) Best Practices:
The partnership will incorporate best practices where applicable.

b) Innovation:
Regional collaboration & capacity building

In coordination with SDG&E and other local government partnerships, the SANDAG LGP will help support a variety of region-wide programs through the San Diego Regional Energy Network (SDREN) to facilitate "deep retrofits" and broad market transformation in a cost-effective manner.

- Regional EUC & Existing Home Retrofit Market Development

The SDREN will help guide regional implementation of Energy Upgrade California and help develop a local market for home energy upgrades. The SDREN will expand the current San Diego Regional Retrofit Advisory Council to include broader stakeholder participation and to allow the region to "adaptively manage" local Energy Upgrade California (EUC) implementation. This implementation will be further informed by development of an online Regional Energy Mapping Tool that incorporates building, socio-economic, and utility data to educate potential EUC participants and to assist contractors and local governments in targeting their EUC-related marketing and outreach.

To ensure that local governments are prepared to support EUC, the San Diego Regional Energy Network will complete a review of current permitting requirements for EUC-type projects throughout the 19 jurisdictions in the region. With this information, a "best practices" guide for EUC Permit Streamlining will be created and sample permit templates will be developed to assist EUC contractors. The SDREN will also develop a HERS Rating Incentive Pilot Program, so that interested local governments can target incentives for home energy ratings through point-of-sale and permit application opportunities. Finally, the SDREN will work with local governments to

leverage municipal affordable housing programs with hands-on Home Performance Workforce Training opportunities.

- Regional Climate Action Planning Support

The San Diego Regional Energy Network will assist local governments and communities with understanding and implementing climate action strategies, especially related to energy efficiency. The SDREN will expand the current Climate Collaborative website platform and branding to include all local jurisdictions and indirect energy saving strategies, such as water conservation and urban heat island mitigation programs. The network will also develop joint outreach, marketing, and program templates to support voluntary Green Business Challenge programs in local jurisdictions serving as a conduit for participation in utility-sponsored direct install programs. Lastly, SDREN will identify suggested codes, policies, and incentives to help facilitate local achievement of the Zero Net Energy Building Codes.

- Municipal Facility Audits, Retrofits, & Retro-Commissioning

The San Diego Regional Energy Network will facilitate "deep retrofits," both in terms of high energy savings and untapped markets, at municipal facilities. Specifically, the network will organize a Joint Procurement Strategy Working Group to identify shared municipal facility retrofit opportunities across jurisdictions in the region. With this information, joint procurement strategies will be developed to leverage economies of scale and to assist smaller jurisdictions with implementing their first energy efficiency upgrades.

c) Interagency Coordination:
The SANDAG Partnership will take advantage of its capacity as the regional planning organization to provide outreach, planning and technical assistance to its member agencies on energy and climate change

d) Integrated Demand Side Management:
The Partnership will embrace the Strategic Plan's vision that all integrated demand-side management programs are coordinated and, as appropriate, integrated to increase the penetration of energy efficiency and avoid lost opportunities. Specifically, the Partnership will address this strategic planning area as follows:

- The Partnership will closely integrate all IDSM areas, including energy efficiency, conservation, and demand response and self-generation technologies.
- DSM will be addressed in each comprehensive energy plan the Partnership produces.
- The energy audits will include demand response, energy efficiency, conservation, renewable energy and distributed generation opportunities.

e) Integration across resource types:
The Partnership will utilize a comprehensive and integrated approach to delivering energy saving services to each local government. The integrated approach is comprehensive in its approach by implementing multiple measures (e.g., lighting, HVAC, energy controllers, etc.) and multiple program elements (e.g., training, outreach, coordination and information sharing.)

f) Pilots:
N/A

g) EM&V:

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7) Partnership Program Advancement of Strategic Plan Goals and Objectives

In compliance with Decision (D.) 09-09-047, Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SoCalGas) and Pacific Gas & Electric Company (PG&E) submitted a joint advice filing to set forth their Local Government Partnership (LGP) proposals in support of the California Long Term Energy Efficiency Strategic Plan (Strategic Plan). SANDAG partnership program made the following menu selections:

Partnership Name	Strategic Plan Menu Information		
	Strategic Plan Goal Number	**Strategy**	**Menu Option**
SANDAG	1 - Local governments lead adoption and implementation of "reach" codes stronger than Title 24 on both mandatory and voluntary bases.	1.1 - Adopt codes, ordinances, standards, guidelines or programs that encourage or require building performance that exceeds state requirements. The focus should be on using existing models, or if there is something new and unique that it be replicable.	1.1.2 – Adopt a Green Building policy for municipal development, commercial development and/or residential development.
			1.1.6 – Develop educational programs for local elected officials, building officials, commissioners, and stakeholders to improve adoption of energy efficiency codes, ordinances, standards, guidelines and programs.
	3 - Local governments lead by example with their own facilities and energy usage practices.	3.1 - Develop a program to track municipal energy usage, such as through energy management software and benchmarking of municipal facilities.	3.1.1 – Develop energy benchmarking policies and procedures to enable ongoing benchmarking of all local government facilities.
	3 - Local governments lead by example with their own facilities and energy usage practices.	3.2 - Adopt an Energy or Climate Action Plan for municipal operations. The plan could include setting energy efficiency standards for new and existing facilities, developing a revolving loan fund for energy efficiency projects, and so on.	3.2.1 – Develop/adopt an energy chapter for City/ County climate or energy action plan.
	4 - Local governments lead their communities with innovative programs for energy efficiency, sustainability and climate change.	4.1 - Adopt a Climate Action Plan (CAP), Energy Action Plan (EAP) or adopt energy efficiency language into another policy document, such as a General Plan, to reduce community greenhouse gas emissions with a focus on energy efficiency.	4.1.2 – Customize CAP with energy efficiency language and data. SANDAG partnership will develop EAPs, or "Energy Roadmaps" for participating local governments. The EAPs will include language to include energy efficiency considerations in General Plans and other local government policies. The GHG reductions associated with energy efficiency measures will also be provided.
			4.1.4 – Conduct the energy efficiency savings analysis for an annual Greenhouse Gas inventory for the City/ County.

Statewide Energy Efficiency Collaborative (SEEC) Partnership

4) Program Element Description and Implementation Plan

a) List of program elements

Program elements are listed and explained in the next section.

b) Overview

The Statewide Energy Efficiency Collaborative (SEEC) a collaboration between ICLEI – Local Governments for Sustainability, U.S.A., Inc. (ICLEI), the Institute for Local Government (ILG), the Local Government Commission (LGC) and the four investor owned utilities is the statewide vehicle to provide coordinated resources including: workshops, technical assistance, a recognition program, and other means to allow local governments to share best practices associated with energy management and reducing greenhouse gas emissions. Work performed in this program is coordinated with the statewide local government energy efficiency best practices coordinator. SEEC will provide a consistent process for all local governments to develop GHG inventories, learn about relevant energy management issues, exchange lessons learned, and track their actions. This collaborative effort is structured to leverage the unique resources, assets, relationships, communications channels, programs, training, models and tools brought by each non-profit organization. The work of SEEC and the statewide coordinator is closely tied to the California Long-term Energy Efficiency Strategic Plan (Strategic Plan).

ICLEI will continue to help local government (LG) participants understand the linkages between energy efficiency and greenhouse gas (GHG) reduction/AB32 compliance, with an increased focus on implementation. ICLEI will continue to deliver in-person and online trainings to facilitate LG understanding of requirements under AB32, learn about principles and methodologies for conducting GHG inventories, updating inventories and setting GHG reduction targets, as well as developing and implementing climate action plans (CAPs). ICLEI will also provide access to templates and tools that detail the components of GHG inventories and CAPs and provide training on mitigation strategies for reducing GHG emissions in both local government operations and community-scale activities and facilities. Building on the existing SEEC tools and templates, ICLEI will assist local governments with the re-inventory and implementation process.

The LGC will conduct conferences, workshops and webinars to provide information about energy efficiency, demand response and renewable energy (EE/DR/RE), AB32 implementation, CEESP and other timely and important energy and climate policies, rules, regulations and legislation. These venues will increase opportunities for LGs to network and share information and experiences about best practices and lessons learned. LGC will continue to convene annual local government best practices forums. In advance of the forum LGC will convene advisory committee meetings with the utilities, ICLEI, ILG, the Coordinator, CEC and ARB to make sure the forum provides information on the most recent regulations that affect local governments and the best case studies statewide that can serve as models for other local governments to follow.

To encourage LGs to share and implement best practices and work towards reducing energy use and greenhouse gas emissions, the ILG will continue to promote and administer a statewide recognition program. The Beacon Award: Local Leadership toward Solving Climate Change recognizes cities and counties that achieve measurable energy savings and greenhouse gas

emissions and adopt policies and programs that promote sustainability in ten best practice areas. It includes silver, gold and platinum award levels, as well as opportunities to spotlight interim accomplishments as participants work toward achieving an award level.

SDG&E will co-fund with the other Utilities a non-utility position for a Statewide Local Government Energy Efficiency Best Practices Coordinator (Coordinator) at $200,000/year. This Coordinator will report to ICLEI, ILG and LGC supporting local government Strategic Plan activities. The Coordinator will identify best practices on Strategic Plan strategies such as revolving loan funds, residential energy conservation ordinances, green building codes, general plan vision for energy efficiency, building retrofits and energy savings. The Utilities will provide the Coordinator with information on local government partnership program work and progress in an easily accessible format, to facilitate the tracking and creation of best practices case studies. The Coordinator will share these best practice case stories broadly. The Coordinator will also track progress toward meeting the goals in the local government chapter of the Strategic Plan. The Coordinator will also be an advisor to the SEEC program.

Continuation of Successful Partnerships: SEEC

1. Did the partner work collaboratively among regional partners and stakeholders?	YES
2. Did the Partnership accomplish/meet all the goals outlined in the Scope of Work/PIP?	YES
3. Did the partner utilize/leverage their unique authority throughout the partnership activities?	YES
4. Was there a professional development and/or education program focused on the long term strategic plan elements?	YES
5. Did the partnership activities help implement specific elements of an adopted energy efficiency, climate change or sustainability plan to foster market transformation?	YES

In addition to continuing this existing partnership, SEEC, in collaboration with the non-governmental organizations (NGO's) and the statewide IOU's, seeks to expand its existing partnership to address deep energy retrofits as identified in the CPUC decision for expanding programs.

Expansion of a Successful Partnership:

1. Must focus on Energy Upgrade California and deep retrofits	YES
2. Must have or develop a plan to engage the community	YES
3. Appropriate financing mechanism for targeted market segment	YES

Element A- Government Facilities:
Master PIP sub elements partnership addresses

A-1	Retro-fit of County and Municipal Buildings	No
A-2	Retro-commissioning	No
A-3	Integrating Demand Response	No
A-4	Technical Assistance	Yes
A-5	On-Bill Financing or CEC Loans	Yes

This partnership will support element A in the following ways:

By providing another channel for disseminating information about the key characteristics of successful Government Facilities energy programs, including information about high potential EE/DR/RE technologies, measures and approaches.

By providing information about on-bill financing, CEC's California Energy Efficiency Financing Program (CEEFP) low interest loans, strategies for establishing self-replenishing revolving funds for energy projects, and other types of relevant information about financing municipal facilities retrofits.

By quantifying the GHG reductions that will be achieved through their Government Facilities energy retrofit plans so that this information can be effectively communicated to department heads, elected officials, lenders and community leaders whose support is needed to approve these plans.

By sharing best practices and lessons learned among local officials statewide through workshops, webinars, stories and other peer-to-peer learning opportunities.

Element B- Strategic Plan Support:
Master PIP sub elements partnership addresses

B-1	Code Compliance	No
B-2	Reach Code Support	No
B-3	Guiding Document Support	No
B-4	Financing for the Community	No
B-5	Peer to Peer Support	Yes

The 3 non-profit organizations will combine their respective membership bases and communication and networking infrastructure to bring broad peer networks for sharing information, lessons learned, best practices, models and tools. They will also coordinate their respective resource libraries and databases and compile comprehensive web-based resources related to best practices, tools and techniques that will be accessible by all cities and counties statewide.

ICLEI will focus on providing local governments' tools and resources needed to develop their GHG inventories, climate action plans and implement reduction measures. ICLEI will offer trainings for LGPs that explain the methodology for computing the GHG impacts of their Government Facilities energy projects, and using that information to make real reductions in energy output. ICLEI will also provide information about its GHG Inventory and Climate Action Planning Tools, and how these could be used to more effectively communicate the energy and GHG benefits of their Government Facilities energy portfolio to decision-makers that need to approve the capital expenditures. In addition, ICLEI will train participants on how to update inventories and develop and update Climate Action Plans (CAPs) that include GHG reduction strategies that reflect best environmental responsibility policies, plans, programs and practices.

The LGC will utilize its networks and relationships with local elected officials and staff to provide a number of educational venues highlighting resources, models and peer learning opportunities related to California's energy and climate policies and programs. The venues will include: ongoing annual Statewide Energy Efficiency Best Practices Forums (attracting over 150-200 local government participants) webinars (drawing 50-150 participants), workshops and regional local government partner networking meetings (drawing 30-100 participants). These forums help nourish peer networking and sharing of best practices among LGs that are implementing similar types of energy efficiency programs. Information about financing strategies and options will be included.

The ILG will recognize the achievements of LG Beacon Award program participants as they progress along the achievement scale. ILG will leverage its extensive network with California cities and counties as the non-profit research affiliate of the League of California Cities and the California State Association of Counties to reach all city and county officials through its sustainability and climate change programs. Building upon the solid foundation established during the 2010-2012 program cycle, ILG will continue to expand and manage its awards and recognition program (the Beacon Award: Local Leadership toward Solving Climate Change) for local governments that achieve specified levels of energy savings, GHG reductions and sustainability policies and programs.

The Coordinator and the three organizations will continue to work closely together to leverage their individual scopes of work, and toward the State goal of implementing the Strategic Plan.

The Coordinator will continue to produce best practices case stories, share information through email alerts and a web site (www.EECoordinator.info), connect local government energy staff with others working on similar energy efficiency issues, and track progress toward local government Strategic Plan goals.

Element C- Core Program Coordination:

Master PIP sub elements partnership addresses

C-1	Outreach and Education	Yes
C-2	Third Party Program Coordination	No
C-3	Technical Assistance	Yes

The SEEC partnership supports core program coordination by providing a key channel for disseminating information about community energy programs and opportunities, and for coordinating those outreach and education activities.

c) Non-Incentive services

This is a non-resource government partnership program. All of the services delivered are non-incentive.

d) Target audience

California cities and counties,-staff and management, including facilities managers, budget and finance staff, department heads and energy and sustainability staff, elected officials, and/or community leaders whose support is needed to move ahead with LG facilities retrofits and are involved in efforts to reduce greenhouse gas emissions in agency facilities and the community.

State agencies & policymakers that are depending on local governments to help achieve California's aggressive energy and climate action goals, including the Air Resources Board, the Governor's Office of Planning and Research, CalRecycle, the California Energy Commission, CalEMA and the California Public Utilities Commission.

A wide variety of stakeholders that are needed to support local government efforts to "lead by example" in energy efficiency, demand response, renewable energy, sustainability, and climate action.

e) Implementation

The focus is to provide education, outreach and general strategic planning assistance to participants ultimately driving local governments to greater utilization of utility energy efficiency programs as an integral component toward meeting their GHG implementation goals. Services include but are not limited to:

- Providing information through webinars, training, and peer support network groups about GHG inventories, the recently adopted Local Government Operations Protocol (LGOP), GHG reduction targets, climate action plans and potential GHG mitigation and adaptation strategies [ICLEI]
- Providing local governments access to tools and templates to compute their GHG emissions and that of their communities, and evaluate the GHG reduction impacts of various proposed policies, plans, codes & ordinances [ICLEI]
- Providing local governments with the guidance and tools to quickly and efficiently update existing GHG inventories and climate action plans. Creating real implementation routes to effective energy expenditure reduction through effective analysis of specific measures and their respective impacts [ICLEI]
- Conducting conferences, workshops, webinars, peer support network groups, and other types of venues for knowledge sharing, peer support, training and education about best policies, practices, etc. [LGC]
- Participating in conferences, workshops, webinars, peer support network groups, to provide peer support, training and education about best policies, practices, etc. [LGC, ICLEI, ILG and Coordinator]
- Developing and managing an awards and recognition program that recognizes local governments that achieve targeted levels of energy efficiency, with special recognition of local governments that adopt policies and programs to reduce energy and greenhouse gas emissions, including opportunities to share best practices through workshops, webinars, and peer to peer networks as they work toward achieving one or more of the award levels. [ILG]
- Collecting best practices and lessons learned from cities and counties and sharing with other cities and counties through peer learning networks, communication channels of the Local Government Commission, League of California Cities and the California State Association of Counties and other mechanisms to help promote energy efficiency and other activities to reduce greenhouse gas emissions. [ILG and Coordinator]

5) Program Element Rationale and Expected Outcome:

a) Quantitative Baseline and Market Transformation Information

Table 3
Baseline Metric

	Metric A	Metric B	Metric C
Program/Element			

Refer to the overarching PIP section.

b) Market Transformation Information

Table 4

	Market Transformation Planning Estimates		
Program/Element	2013	2014	
Metric A			
Metric B			
Metric C			
Etc.			

Refer to the overarching PIP section.

c) Program Design to Overcome Barriers:

Lack of resources - both funds and knowledgeable staff with sufficient time - remain the two most significant barriers to achieving government energy efficiency and GHG reduction. This program brings in 3 statewide non-profits with specific local government expertise and relationships that have information, tools and peer networks that can help LGs collaborate on how to overcome these barriers.

LGs are committed to help California achieve its aggressive energy and climate goals. Presently, however, many California's LGs are not clear about the immediate direction they are to take in addressing the multitude of policy priorities options – what they are, how they fit together, which needs to be done first, what is voluntary vs. mandatory, etc. In addition, local governments are faced with increasingly limited budgets and reduced staffing resources.

To overcome the staffing and knowledge gap that prevents many LGs from moving forward easily, the SEEC partnership will provide targeted information and training that helps clarify the maze of new and emerging policies, rules, regulation and legislation and LGs' role in implementing these so that LGs can take decisive action, thereby supporting the goals of the Strategic Plan.

Primary Barriers	Strategies to Overcome Barriers
Many local governments do not have sufficient staff resources to stay abreast of all the current issues (e.g., new policies, rules & regulations; AB32 & Title 24 compliance; most current and "best" policies, practices, programs, etc. for EE/DR/RE, climate action/GHG reductions, water efficiency, etc.). Many local governments also do not have staff that are knowledgeable in energy, climate & other sustainability issues and options. Many local governments are confused about the different types of carbon policies, programs, goals (especially mandatory vs. voluntary), and protocols.	Establish Baseline Understanding. The 3 non-profit organizations will collaborate in compiling a comprehensive repository of information for local governments about best-in-class energy, climate & other sustainability policies, programs, codes, ordinances, standards, practices, etc. This will build upon the existing resources of each of organizations and integrate new information from many other sources, including local government partners and other programs & stakeholders. These resources will help shortcut the amount of time needed by LGs to get their arms quickly around these types of issues and events, and also to understand what is deemed the body of "best practices", so that they can understand what needs to be done. Provide Regular Updates. California leads the nation in energy, climate and other environmental sustainability goals and initiatives. Each is progressing along its own track and few are fully integrated or coordinated with other initiatives. As a result, it is very difficult for any one person or organization to stay abreast of all of these issues. The need to understand this information is burdensome to LGs who have barely enough staff and funds to cover their current mission-critical responsibilities. The SEEC partnership will deliver a comprehensive portfolio of education and training through conferences, workshops, webinars, etc. that help LGs stay current on evolving policies, rules, regulation & legislation so that they can free up staff time to address other essential priorities. Provide Access to Continuous Peer Support. As California's LGs struggle to keep up with all of these activities, they find it very helpful to network, learn, grow and share data, information and experiences with other LGs that are facing the same challenges. The partnership will facilitate access to a wide variety of peer-to-peer networks and other strategies to share best practices and lessons learned so that LGs can participate in the topics that are of greatest interest, need and priority to them and identify other LGs that can share in the development and implementation of policies, programs, strategies, etc.

Quantitative Program Objectives:

Program	Program Target by 2013	Program Target by 2014
Workshop/Conferences		
Statewide Conference	1	1
Regional LG Networking Meeting	5	5
Energy/GHG Topics Regional Workshops	5	5
Recognition Program		
Launch	X	
Recognition Events	Min. 1/yr	Min. 1/yr

Tools CAP Guidebook Energy Programs database Best Practices database GHG reduction decision support tool	 X X X N/A	 Ongoing Ongoing Ongoing X
Direct LG Training Small group topical meetings/Webinars (e.g., GHG emissions inventories-LGOP, target setting, CAP development and implementation, Staffing, Financing, Recognition program, EE, CEESP) Coordination with regional entities (COGs, non-profit LG orgs, related agencies)	6 Ongoing	6 Ongoing
Outreach Email communications, Newsletters, Web sites, presentations, leveraging opportunities, etc	Ongoing	Ongoing

6) Other Program Element Attributes:

a) Best Practices:

Type of Best Practice	Best Practice	ELPP Application(s)
Planning	Build feedback loops into program design and logic.	The portfolio of activities to be developed and managed by the 3 nonprofit organizations will be reviewed a minimum of quarterly throughout the program period.
	Maintain the flexibility to rebalance portfolio initiatives, as needed, to achieve the portfolio's goals and objectives.	
Staffing	Clearly define portfolio implementation responsibilities and clarify roles to minimize confusion.	The roles of the 3 nonprofit organizations have been clearly defined.
Integration	Leverage relationships from complementary organizations such as utilities, trade allies, and industry specialists.	The partnership is structured to leverage all resources, assets and relationships of the three non-profit partners, the 4 IOUs, and other organizations that also have information about local government best policies, practices, tools, techniques, etc. for reducing energy and GHGs.
Reporting & Tracking	Clearly articulate the data requirements for measuring portfolio and program success.	Monthly coordination meetings coupled with quarterly portfolio reviews and adjustments.
	Design tracking systems to support the requirements of all major users: program administrators, managers, contractors and evaluators.	

b) Innovation:

These 3 nonprofit organizations all work now with LGs. Through the SEEC partnership they will combine and leverage their joint resources, assets, relationships, communications channels

to increase the robustness of the information, tools and services that they can bring to California's local governments. It makes sense that they should bring their respective members into a common forum for sharing information, tools and techniques with all California local governments. This close collaboration is expected to improve both effectiveness and cost-effectiveness of their education and outreach activities.

c) Interagency Coordination:
The full scope of this program is the broader umbrella of "sustainability" initiatives, and thus includes a wide variety of environmental sustainability strategies and initiatives by other state and local agencies. Coordination will be required with all of these agencies to assure that California local governments understand their roles in implementing these goals. The types of agencies with which coordination may occur include but are not limited to: California Air Resources Board (CARB); California Climate Action Registry (CCAR); California Department of Conservation's "Emerald Cities" and "Innovative Recycling" Programs; the California Department of Resources Recovery and Recycling (CalRecycle), California Strategic Growth Council; California Department of Housing & Community Development (HCD); California Energy Commission (CEC); California Department of Water Resources (DWR); Governor's Office of Planning & Research (OPR); California Emergency Management Agency (CalEMA); State Water Resources Control Board (SWRCB); U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE); U.S. Environmental Protection Agency's ENERGY STAR & WaterSense Programs.

d) Integrated/coordinated Demand Side Management:
This Partnership is designed primarily to provide strategic planning support for local governments and will include EE, DR and RE.

e) Integration across resource types:
Consistent with the CEESP, this program will include energy (EE, DR & RE) in combination with GHG reduction. Although not a direct goal of the partnership, the process of computing GHG inventories as well as developing and implementing CAPs will also benefit other sustainability initiatives such as water efficiency, waste management, transportation management, smart planning and growth.

f) Pilots:
No pilots are planned through this program, although it is possible that explorations of reach policies, goals, codes, ordinances, etc. could be developed into pilot programs.

g) EM&V:
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Partnership Program Advancement of Strategic Plan Goals and Objectives
N/A