

# Sustainable Communities

<b>1. Projected Program Budget</b>	<b>\$ 4,284,084</b>
<b>2. Projected Program Impacts</b>	
MWh	8,212
MW (Summer Peak)	21.10
<b>3. Program Cost Effectiveness</b>	
TRC	3.85
PAC	4.49

## 4. Program Descriptors

Market Sector: Crosscutting  
 Program Classification: Local  
 Program Status: New

## 5. Program Statement

SCE’s Sustainable Communities Program (SCP) provides comprehensive energy efficiency and demand response services to help address the increasing demand for electricity in the State. SCP will provide a “full spectrum” of solutions for new communities and individual projects by leveraging existing community programs, services, and tools in conjunction with SCE’s programs’ services and tools.

## 6. Program Rationale

This program is a direct response to the growing interest in designing facilities and communities with sustainable design practices. Programs like the U.S. Green Building Council’s (USGBC) LEED™ (Leadership in Energy and Environmental Design) program are catching the attention of many business and government entities (PAG/PRG Workshop – Recommendation). Many of these institutions are incorporating aspects of LEED and Savings By Design into their new construction requirements. Efficient use of electrical energy efficiency is a major component of the LEED program, and SCP will seek to leverage existing programs and resources from internal SCE programs and services such as: Savings By Design (SBD), Self-Generation Incentive Program (SGIP), Residential

New Construction, SCE service planners, Economic Business and Development (EBD), Public Affairs, Transmission and Distribution Business Unit, and Consumer Affairs to

### What’s New for 2006-08?

- Innovation
  - A brand new program that addresses the growing interest in a comprehensive look at energy and sustainability issues.
- Integration
  - Leverages information and resources from existing programs and coordinates efforts to effectively address energy efficiency in new buildings and community developments.
  - Leverages resources through an alliance with SCG and San Diego Gas & Electric’s teams.

leverage and influence developers and designers to maximize energy efficiency (gas, water, electric) and sustainability concepts. This program will also seek to form collaborative efforts with city/county agencies (gas, water, city planning) (PAG/PRG Workshop – Recommendation); LEED; CHPs; and Energy Star® to name a few.

## **7. Program Outcomes**

### **Sustainability**

- Identify the salient components, develop, design and implement a successful collaborative model to affect project sustainability design goals for buildings and communities.
- Support electric energy efficiency and sustainable design principles in a number of projects.

### **Leveraging Existing Internal and External Programs**

- Strategic support of raising the level of LEED certification for those participating projects.
- Provide offerings and services that support the Green Buildings Executive Order goals to establish a “...campaign to inform building owners and operators about the compelling

economic benefits of energy efficiency

**Provide offerings and services that support the Green Buildings Executive Order goals...**

measures; improving commercial building efficiency programs to help achieve the 20% goal...” (PAG/PRG Workshop – Recommendations).

- Develop materials which highlight and promote successful projects to raise the awareness and viability of the sustainable design process and the technologies used.
  - SCP will use the energy centers in SCG and SCE’s service territories to provide pertinent subject matter training on technologies and sustainability issues. Offsite training may also be used if necessary.
  - Most training will be provided by consultants.

### **Innovation**

- Investigate and incorporate potential electric energy savings from indirect sources such as water conservation strategies. Any verifiable electric energy savings will be reported as part of this program offering. Collaborate with Savings By Design and any other effort to quantify these energy savings. (White Paper, NRDC, “Energy Efficiency Program Ideas.”)

## **8. Program Strategy**

The primary focus of the program is to utilize utility and community delivery channels to offer an enhanced bundled package of SCE’s energy efficiency, pricing and demand response, self-generation, economic and business development, and service planning tools while leveraging existing agencies such as water, gas, infrastructure services, and others. Projects will be used as case studies to demonstrate the economic benefits of

including proven sustainable designs and practices in new building and community developments.

## **9. Program Objectives**

### **Sustainability**

- Evaluate sustainability market potential and electric energy savings
- Identify, develop and participate in several sustainable projects.
  - Include a program effectiveness review
  - Incorporate substantive comments into program improvement modifications as appropriate.
- Develop case studies and detailed process report for projects.
- Develop and offer training classes on designing with sustainability with emphasis on cost-effective energy efficiency.

### **Leveraging Existing Internal and External Programs**

- Establishing a network of subject matter experts in the area of energy and sustainability that will coordinate efforts in assisting customer projects attain energy and sustainability goals.
- Assist in three to five state government or institution projects over the course of the program to ensure that these projects achieve the State's Green Building Initiative goals.
- Evaluate completed projects to identify learning opportunities and process improvements to ensure that the program is viable and that participants recognize the benefits of the program's services.

### **Innovation**

- Evaluate and substantiate when applicable nontraditional electrical energy savings from sources such as water, electrical infrastructure, and building materials.

## **10. Program Implementation**

By working with community leaders and stakeholders, such as developers, planning departments, and local agencies, SCE will facilitate development of an integrated solutions proposal that incorporates the approach, design, and delivery of this pilot

**SCE will facilitate development of an integrated solutions proposal that incorporates the approach, design, and delivery of this pilot program for specific community or facility needs...**

program for specific community or facility needs, whether it encompasses a whole community development or a

single building or several facilities on the same site. This proposal will incorporate planned measures, schedules, and deliverables for this project, in concert with the community development goals and guidelines that serve the best interest of the community. LEED™ certification, Energy Star® tools and other references will be included as appropriate.

The process:

- 1) Potential projects will be identified from several key sources including SCE's Savings By Design new construction representatives, SCG' Savings By Design new construction representatives, SCE's Residential New Construction representatives, SCE's Public Affairs group, city/county/community planners, developers, and architects.
- 2) The SCP program manager will evaluate the potential project and determine what resources need to be involved.
- 3) The SCP program manager and/or a consultant will facilitate energy efficiency and sustainability design meetings with the client.
- 4) SCE or its consultant will assist with energy and environmental analyses. Energy savings will include impacts not attributable to any existing program.

**SCE has initiated discussions with the city of Irvine about an innovative demonstration of integrating all demand-side actions, along with sustainable building practices, at the Irvine Great Park Conservancy. We are also in discussions with the city of Santa Monica about the possibilities for their Civic Center project.**

- SCE will work jointly with SCG and the Santa Monica Sustainability project (PAG/PRG Workshop – Recommendations).
- Energy Centers will provide education and training regarding sustainable community issues and techniques. As appropriate, utilities will coordinate training activities. As resources permit, this program will sponsor training on green policies and support efforts by other entities to educate the marketplace. (PAG/PRG Workshops – Recommendations)
- SCE will review and evaluate the potential to partner with other cities in an effort to promote sustainable communities. (PAG/PRG Workshops – Recommendations).

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## **11. Customer Description**

The target audience will include architects, building contractors, building owners, engineering firms, land developers, and municipalities and their internal agencies.

Primary customer market sectors/customer class include new construction projects involving public buildings, schools, office buildings, retail, multi-family, and single family residences.

Target market players are city and county community development stakeholders, building owners, architects, designers, engineers, and land developers.

## **12. Customer Interface**

The primary objectives for customer interface activities are:

- Establish a resource network which includes internal SCE programs and services and external agencies such as water and gas departments, consultants, USGBC, Energy Star™, developers, and other entities.
- Develop materials that clearly identify the availability of specific resources and the process the SCE will use in making their project reach its energy and sustainability goals.
- Based on input from various groups, develop marketing material that focuses on specific building types and community development efforts. Outreach materials may also be developed to target specific ethnic groups.
- Effective project coordination; the project manager will participate in all meetings as needed along with necessary support personnel such as the SBD new construction representative, the consultant, representatives from various agencies.

### **13. Energy Measures and Program Activities**

Electric energy savings will be calculated using SBD's Whole Building Energy analysis tool, eQUEST. Calculation assumptions for eQUEST are located in Appendix 1, Section - II. Calculation Assumptions.

#### **13.1. Measures Information**

SCE expects the majority of measure information to come from leveraged programs, such as Savings By Design, Residential New Construction, Multi- and Single-Family Rebates, and the Self-Generation Incentive Program.

Design assistance in facilitating the sustainability process will result in electric energy savings not associated with any direct incentive offering. Due to the influence and support to the customer's decision making process, SCE will include these savings as program results.

Initially, SCE will provide incentives on selected new construction projects, to increase the project's energy efficiency above 20% better than Title 24. SCE will also provide incentives to projects which encompass the total project. Program criteria will be discussed and developed on a statewide basis.

#### **13.2. Energy Savings and Demand Reduction Level Data**

Energy savings and demand reduction will be determined based on information obtained from the first prototype of buildings or community projects. Most energy savings and incentive payments will come from a primary program such as Savings By Design. Electric energy savings from indirect sources such as water conservation efforts will be research and reported as results as appropriate.

#### **13.3. Non-energy Activities**

**Non-energy activities will include:**

- Identify, develop and participate in 7 to 10 sustainable projects over the 3 year period.
- Develop case studies and detailed process report for 3 to 5 of the total projects.

- Develop and offer 2 to 4 training classes on designing with sustainability, with emphasis on cost-effective energy efficiency.

#### **13.4. Subcontractor Activities**

Consultants will be used to facilitate electrical energy efficiency, sustainability, and LEED compliance as can be accomplished cost-effectively. Their activity will be supplemental to services provided by current program staffing. Consultants will be chosen by competitive bid.

#### **13.5. Quality Assurance and Evaluation Activities**

Quality assurance and evaluation will be accomplished by verification or commissioning of completed projects.

##### **13.5.1. Expected Number/Percent of Inspections**

Inspections/verifications will adhere to the process and procedures of the primary incentive/rebate program. In addition, SCE is exploring including a commissioning component for all project (White Paper, NRDC, “Energy Efficiency Program Ideas”)

#### **13.6. Marketing Activities**

Marketing activities will include:

- Promotional pieces to educate potential building owners of the advantages of building with sustainability in mind
- Trade shows and convention table top promotions

#### **14. Program Changes**

Initially Sustainable Communities Program (SCP) will provide incentives which encourage customers to design their project to exceed Title 25 energy standards by at least 20%. SCP will be selective on which projects will qualify. The program, by its design, must work with different building and facility types to gain the greatest insights that can be integrated into a viable multi-facility and multi-use project. The criteria will be discussed and developed on a statewide basis to ensure cooperative efforts that will minimize overlap.

Using the same criteria referenced above, the program will also provide financial and technical assistance to those customers’ projects that have targeted to be LEED Silver (high level certification) or better. The assistance at this time will be focused on those areas where there are electrical energy savings potentials.