

# SCE Energy Efficiency PARTNERSHIPS



NEWS

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## CPUC UPDATE

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## SCE Strategic Plan Solicitation Summary

The California Public Utilities Commission's (CPUC) decision authorizing utility energy efficiency programs for 2010-12 addresses the significant role envisioned for local governments in implementing elements of the California Long-Term Energy Efficiency Strategic Plan (CEESP). The decision authorizes a significantly increased budget (\$32 M) to local governments via the Southern California Edison's Energy Efficiency Partnership Program.



The SCE Partnership Team, in collaboration with Pacific Gas & Electric, Sempra Energy, and the State's Energy Division, developed a strategic menu list of options that local governments can address with these funds. The Partnership Team released a solicitation on January 18 seeking proposals from Partnership cities, counties, and regional governments that wish to respond to this strategic menu list.

This solicitation process is intended to generate innovative ideas and provide a unique opportunity for Partnership jurisdictions to continue the forward thinking ideas developed with California's Energy Efficiency leadership. Strategic Plan Support activities should focus on long-term change that will result in permanent, sustainable energy savings, and that draw on the unique capabilities of the various government partners.

Proposed activity criteria:

- Have a maximum allocation of \$1M per jurisdiction
- Are to be completed within the three year program cycle of 2010-2012
- Must directly support energy efficiency
- Must be sustainable beyond the year 2012

Excluded from the scope of this effort are funding for incentives, generation, staffing resources, short-term initiatives, and greenhouse gas strategies unrelated to energy efficiency, and initiatives replicating existing utility program offerings. The ultimate goal for the Strategic Plan support is to codify and institutionalize energy efficiency in the local governments' policies, programs and processes to establish a culture of energy efficiency.

The Partnership Team held a pre-bidder's conference on February 1st to explain the effort and process which includes various opportunities to aid the jurisdictions with this unique opportunities to aid the jurisdictions. Proposals were due March 22nd and a public information workshop was held April 13th to provide a general summary of the proposals received. Strategic Planning work is planned to start in August.

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FOR OVER 100 YEARS...LIFE. POWERED BY EDISON.

### **CSU Fullerton Lights the Way Toward Big Energy Savings**

**The UC/CSU-IOU Partnership program is leading the way in bringing new and emerging technologies to the California university and college systems.**

Taking advantage of new energy efficient solutions is easier and more affordable through the technical assistance and financial incentives provided by the Partnership Program.

An example of this can be seen through the close working relationship between SCE and California State University, Fullerton (CSUF). CSUF has implemented a new, comprehensive and sustainable lighting system that is helping the campus achieve its energy efficiency goals.

Over a year ago the university began to evaluate a lighting control and management system that would complement their current HVAC system. The campus wanted a single source solution for all interior and exterior lighting fixtures, providing a unified management tool which would ensure a safe and energy efficient environment. The results of their analysis led them to select a solution from Exergy Controls.

The system uses a combination of wired and wireless digital communication to provide lighting control and energy management. Every component in their system works in concert to provide a multitude of lighting options, including the harvesting of all available sunlight through windows and skylights. The combination of controlled lights and daylighting results in enhanced lighting system functionality while lowering energy needs and minimizing a facility's overall carbon footprint.

#### **Better Light, More Control, and 60% Less Energy**

The campus retrofitted existing lighting fixtures in several offices, conference rooms and hallways with fully dimmable "smart" ballasts. The system integrated this network of fixtures together with sophisticated sensors and user control stations to provide simple and

effective lighting energy management control. Equipped with a unique daylight harvesting system, the system adjusts each fixture individually in response to natural daylight from windows. Operation is managed through multi-scene user control stations and innovative administrative software. The system's software tools deliver powerful (password protected) administrative access to the lighting system, providing easy to use management and monitoring of system operation. One such function monitors real-time

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***"Integrating these wireless dimming controls with their exterior LED system provides a much quicker return on the University's investment."***

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lighting system energy consumption, displaying daily, monthly and yearly energy savings. In addition, the system has build-in Demand Response and Peak Load Shedding capabilities, essential elements in the campus' energy management plans. Over the past year, the system has produced energy savings in excess of 60%.



#### **Control Doesn't Stop at the Door**

In addition to managing interior lighting, the campus integrated innovative wireless outdoor dimming controllers into their LED site lighting retrofit program. In the near future, all exterior fixtures will utilize monitored and controlled LED's.

According to Doug Kind, CSUF's Manager of Commissioning and Energy, *"It is our intention to utilize these unique wireless outdoor controls to tailor lighting system performance to campus activity, reducing fixture output - and resulting energy consumption - as traffic in parking and*

*roadways diminish."* Campus security will have an interface allowing the main office or mobile vehicles to control lighting if the need arises. According to Mr. Kind, *"Integrating these wireless dimming controls with their exterior LED system provides a much quicker return on the University's investment."*

# LOCAL GOVERNMENT PARTNERSHIP NEWS

Highlighting Recent Local Government Partnership Activities

## Cyclists Come From All Over the World to Race the Beaumont Circuit

“The 3rd annual Beaumont Circuit of the Redlands Bicycle Classic was held Friday, March 26th, 2010. Over three hundred world-class cyclists from all over the world came to compete on the arduous Beaumont course. In addition to the men’s and women’s professional races, the Beaumont Circuit also included a hand-cycle race which featured local athletes from the PossAbilities community outreach program sponsored by Loma Linda University Medical Center. All three events drew crowds of spectators along the race course and in front of the Beaumont Civic Center who gathered to cheer on these amazing athletes.



Pictured, left to right: Shaina Harwood, Kelsey DeForge, Joanna Chang, Kyle Warsinski

The Chamber of Commerce took advantage of the crowds by holding a business expo near the start/finish line. SCE’s Partnerships group arranged for Edison’s Mobile Energy Unit (MEU) to be at the expo, promoting both Business and Residential Programs, and signing up customers for income qualifying programs.

Partnership representatives also handed out 500 re-usable bags printed with the Beaumont Partnership logo, further reinforcing the relationship between the City and SCE.

## PARTNERS Q & A

### Question:

*How often or when does my incentive tier change over the next three year cycle?*

### Answer:

*Your Local Government Partnership incentive tier level will be updated on a quarterly basis throughout the three-year cycle. The incentive tier existing at the time your project’s incentive agreement is originated will prevail regardless of movement along the tiered incentive scale.*

### Question:

*Demand Response (DR) requirements became part of the Energy Leader Partnership model with this new 2010- 2012 partnership cycle. How much time do I have to comply with these requirements?*

### Answer:

*In most instances, you will have until September 30, 2010 to comply with DR actions requiring account management or DR program enrollment. There are other DR requirements such as communication and outreach that have a shorter time-frame to comply.*

*A table with compliance dates will be available to you during your April partnership meeting.*



## CALENDAR OF EVENTS

### 05/01/10

Simi Valley  
Arbor Day  
Veteran’s Plaza in  
Rancho Tapo Community Park  
10:00 AM - 2:00 PM

### 05/08/10

Simi Valley  
Chamber of Commerce Street Fair  
9:00 AM - 5:00 PM

### 05/19/10

San Bernardino  
Public Services Fair  
300 North D Street  
10:00 AM - 2:00 PM

### 05/27/10

Beaumont  
State of the City  
Civic and Community Center  
10:00 AM - 2:00 PM

### 05/29/10

Beaumont  
Breezin Through Beaumont  
Beaumont Civic Center  
8:00 AM - 12:00 PM

### 10/02/10

Santa Ana  
Celebrate Santa Ana  
Santa Ana Zoo  
1801 East Chestnut Ave.  
2:00 PM - 5:00 PM

Got Questions? Send them to us and we’ll publish the answer in a future edition of Partnership News.

Email your questions to: [EnergyEfficiencyPartnerships@sce.com](mailto:EnergyEfficiencyPartnerships@sce.com)



## PEER TO PEER

*Sharing Partnership Experiences & Best Practices*

### **Southern California Edison Partnership Helps San Bernardino County to 'Go Green'**

At 20,160 square miles, San Bernardino County is the largest county in the nation, covering a diverse region stretching from the Los



Angeles County line to the Arizona and Nevada borders.

Recent years have brought dramatic growth in population, and this unprecedented growth has put tremendous

pressure on the county and local governments to accommodate the growing needs of their residents.

The County has recently undertaken a number of energy efficiency projects. County leaders see the projects as an answer to current financial stresses. "Counties are trying to tackle the downturn in the economy, and one way they're doing it is by working to be smarter in terms of their energy usage," says Carl Alban, Director of Architecture and Engineering for the County.

#### **Partnership Expertise Proves to be the Key**

Alban has been working with the Southern California Edison (SCE) Partnership Program team on these projects and he has found the partnership to be invaluable.

"The whole team has done a great job," says Alban. The technical expertise provided by the SCE Partnership team proved to be priceless in helping the County make project efficiency decisions. According to Alban, "Our Board of Supervisors approved a number of energy saving projects and the partnership with Edison provided key expertise that helped the County prioritize projects that held the most savings potential." The County was able to move forward on several crucial projects, including the Chino Airport, Sheriff's Headquarters, Public Works, the County Museum in Redlands and the County Library in Yucaipa.

#### **Benefits Now, and for the Future**

San Bernardino County has its eye on the present as well as a clear vision of the future. While they are already enjoying the savings

brought about by these energy efficiency projects, they are also clearly focused on the long term benefits to the County and to the environment.

In discussing the energy savings, Alban puts the results in this perspective: "We've saved 2.7 Million kilowatt hours. That's the equivalent of taking about 375 houses off the grid. At the Chino Airport alone, the savings is more than one million kWh. Even more important, we will continue to see savings year after year as a result of the partnership's guidance."

The County is clearly looking towards a greener, more energy-efficient future and Alban says he credits the joint partnership with the successful project implementations and energy savings the County is already experiencing. "This partnership has paid us dividends that we enjoy now and expect to continue enjoying well into the future. It is a positive step toward the greening of San Bernardino County."

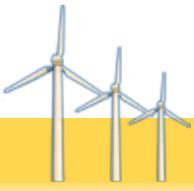
#### **County is 'On Board' for a Green Future**

The Board of Supervisors has a clear vision of a 'green' San Bernardino County and this partnership has been instrumental in making significant strides towards realizing that vision.

"The entire Board of Supervisors supported the idea of becoming a 'green' county," says Alban, "and they have been extremely supportive in terms of moving forward."

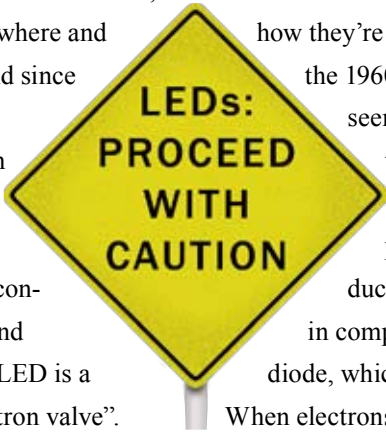
This support is clear from the words of Gary Ovitt, Chairman of the San Bernardino County Board of Supervisors, as he speaks of his pride in how the County has been moving into a leadership position in 'green' energy solutions, "I am pleased to see that our County is being recognized for its energy conservation measures. This is an ongoing effort that will provide not only an energy savings but serve as a model for others to emulate."





### LEDs - Illuminating the Issues

Light Emitting Diodes (LEDs) are playing an ever-larger role in energy efficiency. LEDs have the potential to provide efficiency, long life and low maintenance, but careful consideration should be given to just where and how they're used. LEDs have been around since the 1960's, but the last 5 or 6 years has seen significant advancements in the technology. LEDs developed out of the world of computers - they are basically semi-conductors, the same components found in computer chips. The heart of an LED is a diode, which is essentially a one-way "electron valve". When electrons pass through the semi-conductor material in the LED, they emit photons of a particular wavelength, depending on the material being used. This wavelength determines the color of the light.



Because LEDs are based on semi-conductors, their development is following a path very similar to the development of computer chips and components, with new rapid advances in performance, and decreases in price.

#### Let There be White

Performance increases are being seen in areas such as energy efficiency, but a more critical advance has been technological: the ability to produce a white light with LEDs. One way of making white light with LEDs is by mixing colors, notably with the inclusion of blue. It wasn't until the 1990's that blue LEDs became available, thereby making white LEDs possible. A white light makes a wide range of applications possible, such as street lights. But there are still a number of issues and concerns that need to be taken into account when considering an LED lighting project.

#### Environment Matters - Thermal Management

Successful LED lighting is very application-specific, and careful consideration must be given to the environment in which they will be used. LEDs are very "thermally dependant" - they work very well in cold environments, but there are performance decreases in both light output and life span of the devices in hot environments.

One very successful application of LED technology today is in exit signs. Because exit signs are ubiquitous in most buildings, are usually in stable, moderate temperatures, are on 24/7, and require little light output, using LEDs is a very energy-efficient choice for many buildings.

At the other end of the spectrum are LED street lights. This is a much more complicated application than exit signs, and a number of issues need to be considered carefully.

In regions where it stays hot at night, LED streetlight systems might not be a good choice. High temperatures could decrease energy efficiency and life span of the lights, making them a poor choice in those regions.

However, because streetlights are generally only on at night, when the temperature in most regions is cool, an LED streetlight system can be a viable option in many areas.

#### Shedding a Little Heat on the Issue

Replacing incandescent lights with LEDs can lead to some unexpected problems. One recent project was undertaken at an airport, where standard lights on the landing field were replaced with LEDs. When the retrofit was completed, it appeared to be a successful retrofit. However, a problem was discovered when snow arrived. The heat from the old incandescent bulbs used to melt the snow that landed on them, keeping them visible. But the LEDs didn't get warm, so the snow just covered the lights! The solution was to install heaters around the LEDs to melt the snow, completely eliminating the energy-efficiency gains.

#### Many Metrics, No Standards. Yet

A current problem in the world of LEDs is a lack of standards. The technology is evolving faster than standards bodies can keep up with. For example, there are currently limited industry standards for testing product lifespan. Manufacturers have claimed product life spans of up to 100,000 hours, or 20 years, but many of these claims are for devices that are only five years old. Although, recent developments have created standards for light output and efficiency,

Continued on page 6 ➡

## PARTNERSHIP MEMBERS

### INSTITUTIONAL PARTNERSHIPS

CDCR ..... Harry Franey  
County of Los Angeles ..... Howard Choy,  
Nora Hernandez, Brian Roberts  
County of Riverside ..... Janet Purchase, Dan Martinez  
CCC ..... Fred Harris, Dan Estrada  
UC/CSU/IOU ..... Len Pettis, Dirk VanUlden  
County/San Bernardino ..... Steven Pamintuan

### LOCAL GOVERNMENT PARTNERSHIPS

Beaumont ..... Kelsey DeForge  
Redlands ..... Danielle Garcia, Rick Cross  
Community Energy Partnership  
The Energy Coalition ..... Craig Perkins  
Desert Cities: CVAG ..... Katie Barrows  
Eastern Sierra: H.S.E.F. .... Rick Phelps  
Kern County: KCOG ..... Linda Urata  
Long Beach ..... Chris Garner, Meredith Reynolds  
Orange County Cities  
Huntington Beach ..... Aaron Klemm  
Costa Mesa ..... Dan Baker and Tom Hatch  
Fountain Valley ..... Matt Mogensen  
Westminster ..... Soroosh Rahbari  
Palm Desert ..... Martin Alvarez  
Ridgecrest ..... Ann Taylor  
San Gabriel Valley ..... Nicholas Conway  
Santa Ana ..... Teri Cable, Christy Kindig, Janet Esparza  
Simi Valley ..... Laura Behjan  
South Bay: SBCOG  
County of Santa Barbara ..... Roy Hapeman  
City of Santa Barbara ..... James Dewey  
Goleta ..... Cindy Moore  
Carpinteria ..... Kevin Silk  
South Gate ..... David Torres, Robert Dickey  
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## LEDs - Illuminating the Issues

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there are still limited testing standards or other metrics. Because of these uncertainties, and no track record of long term maintenance costs, it's difficult to determine an accurate return on investment.

### Evolution

In addition to a lack of standards, it's difficult to know if a switch to LEDs is a good move today since there are big performance gains currently being made in the industry. This makes it difficult to determine if 'now' is the time to move to LEDs, or if it's better to wait for the bigger gains that are sure to come. But one thing that's clear is that LEDs have a bright future.



## AGTAC On-Location

### AGTAC Kicks Off First Energy Center On-Location in January

On January 27<sup>th</sup> SCE's Agricultural Technology Application Center (AGTAC) held its first Energy Center On-Location in Porterville, as part of its new program strategy for 2010-2012. AGTAC partnered with the Porterville Unified School District, the Porterville Chamber of Commerce with support of the Valley Innovative Energy Watch (VIEW) EE Partnership to present the "Save Energy, Save Money" seminar; a two-hour presentation on ways to save energy, and save money through energy efficiency, utility rebates and incentive programs. The

seminar garnered great participation and requests for more seminars in the community. There were 33 people in attendance including college students, college faculty, small business owners and facility operations personnel. The Porterville seminar earned local media attention with an article featured in the Porterville Recorder and a live interview promoting the free seminar was featured on KTIP radio.

AGTAC looks forward to bringing more of these types of classes to the other jurisdictions in the central valley region and is looking for partners to make those opportunities possible.



## SEND US YOUR SUGGESTIONS

Please send us your thoughts and suggestions. While we'll make every effort to bring you the news and information you need, we want to hear from you. Tell us what you think about what we're doing, and let us know what we can do better!

We promise we'll do everything we can to bring you the answers and information you want and need to be as energy efficient as possible. Send email to:

[EnergyEfficiencyPartnerships@sce.com](mailto:EnergyEfficiencyPartnerships@sce.com)

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