



## The Water Garden



Chief Engineer Willie Weddle and General Manager Christa Duggan



### Office Building Complex Pumps Up Energy Savings Using SCE's Automated Demand Response Program

#### Building a Commitment to Energy Savings

The largest commercial property in the Santa Monica area, The Water Garden provides a premier business environment for its tenants. Its 17-acre campus includes eight office towers, with a lake, six fountains and tree-canopied paths that create a true urban oasis.

This outdoor beauty exists hand-in-hand with a strong commitment to conservation. A long-time proponent of energy efficiency, in early 2010 The Water Garden complex earned a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED)<sup>®</sup> Gold Certification for Existing Buildings in recognition of its green building features.

As part of its ongoing effort to save energy, money and the environment, The Water Garden, through property management firm CB Richard Ellis, used SCE's TA&TI Program in 2009 for a site assessment to identify Demand Response potential. Based on the results, in 2010 The Water Garden joined SCE's Automated Demand Response (Auto-DR) program.

Auto-DR allows customers with an automated load control system, such as energy management (EMS) or Supervisory Control and Data Acquisition (SCADA) systems, to participate in SCE's DR programs with no manual intervention, providing flexibility and ease of use. Customers pre-select their level of participation and earn incentives for peak-period energy load reductions, which help ensure adequate electricity supplies and also offer environmental benefits.

SCE provides incentives of up to \$300 per kilowatt (kW) of tested load reduction for system upgrades and technologies that allow Auto-DR. The Water Garden's incentive totaled approximately \$46,500, which facility General Manager Christa Duggan says "paid for virtually the entire energy management system."

The Water Garden uses Auto-DR to participate on the Critical Peak Pricing (CPP) rate schedule, which rewards customers for reducing or shifting electricity usage during nine to 15 summer critical peak events, when the demand for and price of electricity climb.

#### Estimated Savings by Managing Energy

- *Building Name:* The Water Garden
- *Managing Agent:* CB Richard Ellis
- *Location:* Santa Monica, CA
- *Industry:* Office Building
- *Description:* Six six-story towers and two five-story towers totaling 1.27 million square feet, with three levels of subterranean parking
- *SCE Programs Utilized:* Technical Assistance and Technology Incentives (TA&TI) Program, Automated Demand Response (Auto-DR), Critical Peak Pricing (CPP), Express Solutions, Customized Solutions
- *Results:*
  - **Demand Response** — A \$46,500 incentive to pay for the site's Auto-DR equipment, and electricity bill savings of more than \$4,700 by participating on the CPP rate schedule in summer 2010
  - **Energy Efficiency** — Electricity savings of more than 2.7 million kilowatt-hours and \$400,000 annually from 2000-2010 from installing more energy-efficient equipment and implementing other energy efficiency measures

# Energy Management Success Story

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## Adding Auto-DR to the Energy Solution

During a CPP event, a central system sends a signal to The Water Garden's EMS to automatically turn off the pumps that feed the site's water features. This allows The Water Garden to take part in DR events, given its limited options to reduce or shift load inside the buildings during peak-period times without affecting tenants. The Water Garden retains the ability to override the automated signals and change its load reduction strategies at any time.

In its first summer participating on CPP using Auto-DR, The Water Garden saved \$4,770 on its electric bills, and can drop as much as 140 kW per CPP event.

"It's a 'no-brainer,'" Duggan says. "It's transparent to tenants and doesn't impact their work productivity."

Chief Engineer Willie Weddle says the EMS system that allows for use of Auto-DR also provides the advantage of scheduling pump system operations from one location, instead of from six separate pump rooms located throughout the complex.

"Before we worked with six different time clocks, which were hard to synchronize," Weddle says. "Now we can instantly go to a computer screen and make changes to the pump schedules. With a couple of mouse clicks we can accommodate a change."

Weddle adds that the automated system makes it as easy as possible to reduce load during critical times.

"We get an automatic e-mail the day before a CPP event is scheduled," he says, "and we don't have to do anything else."

## Annual Energy Efficiency Savings of \$400,000-Plus

In the decade prior to implementing Auto-DR, The Water Garden took significant steps to lessen its energy usage, including:

- Retrofitting more than 8,600 garage fixtures (32-watt T8 lamps to 25-watt T8 lamps) and about 230 equipment room light fixtures (T12s to T8s)
- Replacing 440 stairwell light fixtures with occupancy sensors and 15-watt pilot lights
- Installing variable speed drives on the cooling towers, HVAC fans and chillers at the complex
- Implementing an "on-demand" program that allows tenants to request air conditioning on Saturdays, but otherwise not running it on that day

Weddle says these measures and many others saved The Water Garden more than 2.7 million kilowatt-hours annually over the 10-year period, for annual savings of \$400,000-plus.



# Energy Management Success Story

The Water Garden also received more than \$280,000 in SCE rebates and incentives for installing qualifying high-efficiency equipment.

"It's a corporate responsibility to our community to be more efficient," Duggan says of The Water Garden's long-term commitment to energy savings. "It also lowers our operating expenses, with savings passed through to tenants."

Duggan says that once higher levels of DR incentives became available, it made sense to take that next step beyond energy efficiency. The Water Garden's SCE Account Executive, she adds, "always comes up with great ideas and looks for ways for us to reduce load and get incentives."

For other commercial properties also looking to save energy, money and the environment, Duggan recommends starting with SCE. She says, "Having a good relationship between the account executive, building managers and engineers goes a long way."

## More About Auto-DR

Simplifying participation in DR programs, Auto-DR utilizes automated load control systems such as an EMS or SCADA to automatically achieve specified energy demand reductions (kW and duration) during peak periods. Qualifying customers who do not have automated controls can receive technology incentives to help offset the purchase and installation of the system equipment or the upgrade to existing systems.

Auto-DR is available to customers who are willing to participate in one of the following programs: Capacity Bidding Program (CBP), Critical Peak Pricing (CPP), Demand Bidding Program (DBP), Demand Response Contracts (DRC) and Real-Time Pricing (RTP). Certain DR programs allow customers to enroll in a second compatible program, which may offer benefits beyond what a single program can provide.

Customers on Auto-DR receive energy and money savings from DR program participation, plus up to \$300 per kW of verified load reduction for equipment installed through Auto-DR incentives.

To learn more about Auto-DR opportunities, contact your SCE Account Representative, visit [www.sce.com/autodr](http://www.sce.com/autodr), call **(866) 238-3605** or e-mail [ta&ti@sce.com](mailto:ta&ti@sce.com).

**"It's a 'no-brainer.' It's transparent to tenants and doesn't impact their work productivity."**

Christa Duggan, The Water Garden General Manager, on the Santa Monica commercial property's use of Auto-DR

## Earn Even More Savings with Other SCE Programs

- Find out how other SCE Demand Response Programs, such as Demand Bidding Program, can reward you for reducing your electricity usage during peak hours. **(866) 334-7827**  
[www.sce.com/drp](http://www.sce.com/drp)
- Take free SCE classes in lighting, HVAC, energy management and more at an Edison Energy Center. **Irwindale: (800) 336-2822**  
[www.sce.com/ctac](http://www.sce.com/ctac)  
**Tulare: (800) 772-4822**  
[www.sce.com/agtac](http://www.sce.com/agtac)
- Use Web-based tools such as SCE EnergyManager<sup>SM</sup> Basic, SCE Cost Manager<sup>®</sup> and SCE Bill Manager<sup>®</sup> to monitor your electricity usage in real time and over the long term: **(888) 462-7078**  
[www.sce.com/energymanager](http://www.sce.com/energymanager)
- Take the Online Business Survey at [www.sce.com/\\_Tools/Business/online-energy-guide](http://www.sce.com/_Tools/Business/online-energy-guide) or contact your SCE Account Representative to calibrate your facility for savings.

## Start Saving Now

SCE offers a range of solutions such as cash incentives, energy surveys, and payment options to help you better manage your electricity costs.

## For More Information

[www.sce.com/solutions](http://www.sce.com/solutions)

**(800) 990-7788**

**Contact your SCE Account Representative**



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