

Energy Leader Partnership

Integrated Demand-Side Management Success Story

City of Moreno Valley



City of Moreno Valley Transforms Its Facilities to Become an Energy Leader

Moreno Valley is located at the crossroads of the San Bernardino Valley, Lake Perris, the Coachella Valley, and Riverside. Nearly 200,000 residents enjoy a mild Mediterranean climate, with summer temperatures averaging in the mid-to-high 90s (although summer days often exceed 100 degrees). The beautiful weather, along with the City's close proximity to major airports and the MetroLink rail, has encouraged a new development boom. Corporate office buildings and industrial parks are expanding throughout the area.

Energy savings has always been important to Moreno Valley, and as the City grows, so do its conservation goals. Plans are in place to achieve these goals through measures such as building design, site planning, structure rehabilitation, traffic reduction, and walking and bike path additions. The City also conserves through efficient irrigation, recycling, and exterior lighting standards.

Residents are served by a variety of City facilities, including the Town Gate and March Field Community Centers, Animal Shelter, City Hall, Library, Senior Center, Conference and Recreation Center, and several

fire stations. All these facilities are undergoing measures to reduce energy consumption and practice conservation, and are targeted for future Energy Efficiency (EE) upgrades to lower electricity costs and increase overall operational savings.

A "Before-and-After" Look at a Major Renovation for Energy Savings

Perhaps the most exciting of Moreno Valley's recent EE projects was the complete retrofit of Annex 1, a commercial building located directly across the street from City Hall.

The transformation began in early 2012 as a cost-effective plan to move City staff from leased space into a City-owned, energy-efficient work space. The remodel, completed in early 2013, used technologies that enable most of the staff to work in areas illuminated by an abundance of natural day lighting.

During the project's design phase, City staff worked with SCE's Savings by Design team to strategically plan building improvements, including identifying which types of equipment and rebates would be most beneficial. Initial projects included replacing the

Photo Above

Moreno Valley Eastern View at Daybreak

Estimated Savings by Managing Energy

- *Location:* Moreno Valley, Calif.
- *Industry:* Municipality
- *Type of Installations:* Solar sky light tubes, low-e dual window glazing, T-8 lamp fixtures, occupancy sensors
- *SCE Programs Utilized:* Energy Leader Partnership, Energy Efficiency Measures, and Demand Response Programs
- *Results:* 12% to 13% energy savings beyond Title IV requirements

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roof with a “cool roof;” applying low-emissivity (Low-E) dual-window glazing; retrofitting existing T-12 lamps to T-8 fixtures, ballasts, and lamps; replacing electrical HVAC units with gas-powered units; installing occupancy sensors, light dimmers, interior shades, and new solar sky light tubes; and replacing five south-facing warehouse roll-up bay doors with walls or tinted windows.

Because the building is being used much differently than it was with its previous occupants, now that the overhaul is complete, the City can begin measuring energy usage at Annex 1 from “day one,” then calculate savings going forward.

Advancement through SCE’s Energy Leader Partnership

SCE’s Energy Leader Partnership (ELP) program helps municipalities lower their energy usage levels, and promotes City leadership through the completion of EE project installations. Participating cities advance upward to higher ELP ranks as energy reductions are achieved — starting from Valued Partner, then up to Silver, Gold, and Platinum. Upon reaching higher tiers, cities become eligible for incentives that produce per-kWh savings.

Moreno Valley achieved the Gold level on April 1, 2012. Integrating Demand Response programs with EE solutions (Annex 1 is enrolled in SCE’s Summer Discount Plan) will help the City continue to advance and receive more in rebates.

Annex 1 “Before” — Working Together toward Renewal

Upgrading existing buildings sometimes presents challenges. Certain aspects of the design and permit processes may be time-consuming. The Savings by Design program helps to streamline projects by working with cities early, then providing support every step of the way.

To get started, Moreno Valley’s Savings by Design representative reviewed preliminary designs and shared ideas for the most budget-friendly enhancements available. “We saved taxpayer money by doing the most cost-effective projects first” says Alice Rod, Management Analyst for the City of Moreno Valley. Once projects were selected, the program representative also assisted with permits and code compliance.

Leadership in Energy and Environmental Design (LEED) technologies are typically easy to obtain, low in cost, and relatively simple for any city or resident to install. While LEED certification is a valuable achievement, Moreno Valley has independently completed enough LEED installations to nearly qualify for certification — without actively seeking it. This approach saved the City money by pursuing only select technologies, and saved time by working outside the LEED documentation process. The end result — energy savings — was most important. As a result of these efforts, Moreno Valley has experienced 12%–13% energy savings beyond Title IV requirements for buildings and industry.

A key installation in the Annex 1 conversion involved installing 10 solar tubes throughout the office space. These tubes allow for natural day lighting to be captured into central areas and light the interior workspace, illuminating hallways and offices. The solar tubes work with a lighting control system, so when the tubes work hard, the standard lighting system works less, saving electricity. Other enhancements include:

- Economizers on all air conditioning units for high-cooling operation
- Reduced-wattage lighting
- A high-efficiency water heating unit
- Swamp coolers in the warehouse
- EE wall pack and parking lot exterior lighting



Annex 1 Building Space “Before”

“We saved taxpayer money by doing the most cost-effective projects first.”

Alice Rod, Management Analyst
City of Moreno Valley

Annex 1 “After” – A Strategy for Future Savings

Every year, Moreno Valley’s staff looks for new EE opportunities and captures their ideas in a pipeline for future enhancements. Each November, the concepts are evaluated to determine actions and next steps.

How much work is ahead? To achieve a 15% savings from the City’s 2010 baseline and reach the ELP Platinum level, Moreno Valley must implement projects amounting to 2,105,624 in annual kWh savings. How will the cost be covered? In addition to rebates

from previous installations, the City plans to establish a special “EE Fund” to be used as seed money toward future projects.

The City of Moreno Valley is leading by example, identifying and installing EE measures throughout its facilities. The City will conduct regular energy audits to assist in its ongoing quest for newer, better EE and Demand Response solutions into the future, and SCE will be there to help Moreno Valley act on its plan and discover new opportunities for energy and cost savings.



Annex 1 Break Room “After”
with Solar Lighting Tubes Installed



Annex 1 Office Space “After”
with Solar Lighting Tubes Installed

Start Saving Now

- **SCE’s Energy Efficiency Partnerships**

E-Mail:

EnergyEfficiencyPartnerships@sce.com

Other SCE Programs to Help Save More

- Find out how SCE’s Demand Response Programs can reward you for reducing your electricity usage during peak hours:
(866) 334-7827
sce.com/drp
- Learn about SCE’s Business Incentive Programs:
(800) 736-4777
- Take free SCE classes in lighting, HVAC, energy management and more at an Edison Energy Center:
Irwindale: (800) 336-2822
sce.com/ctac
Tulare: (800) 772-4822
sce.com/agtac
- Get building project design assistance and incentives from Savings by Design. To find out if your project qualifies, visit:
sce.com/sbd

SCE offers a variety of solutions, including incentives, energy surveys and payment options to help you better manage your electricity costs.

For More Information

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