Southern California

Case Study: Energy Management Systems

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Situation Analysis

Talk to any facility manager about what they wish they had more of and they will probably say time and money. Installing an energy management system (EMS) to control mechanical systems can address both, and Culver City completed an EMS system installation project at five of its key facilities, freeing up staff time and budget resources through energy savings.

The city received no-cost technical assistance, project management support, utility incentive and On-Bill Financing application support from The SoCalREN Public Agency Program, and successfully completed the multi-site EMS project on budget.

The Benefits of EMS

Culver City is a leader in sustainability, but their reasons for prioritizing this project went beyond energy savings. The EMS allows facilities personnel to investigate and try to resolve issues with their HVAC systems quickly without having to be onsite, maintain energy efficiency settings for HVAC systems by monitoring and controlling operation, and save money through better control of energy use. The City will also be able to detect issues in real time to avoid long-term thermal comfort issues and reduce the need for costly maintenance repairs.

Project Summary

The city successfully completed the following energy efficiency measures:

- Energy Management System (EMS) at Police Station, Senior Center, City Hall, Veterans Memorial Center, and Transportation Center
- Interior and exterior lighting at select sites

Key Savings and Benefits



112 Metric Tons Metric tons CO₂ equivalent emissions reduction



250,000+ kWh Anticipated annual energy savings



16,900 therms Anticipated annual gas savings

About Culver City

Culver City is a five-square-mile urban community in Los Angeles County. It is a center for movie and television production and is particularly known for its "small town" charm, growing high-tech and creative economies, and dynamic downtown.



September 2013 Joined SoCalREN Public Agency Program



39,000 Population (2010 census)



Heart of Screenland Known for its historic role in the movie industry



SoCalREN Public Agency Programs are administered by the County of Los Angeles and funded by California utility ratepayers under the auspices of the California Public Utilities Commission

Key Savings and Benefits (continued)

The SoCalREN Public Agency Program offers high-level technical assistance, objective third-party expertise, access to financing and project staffing for all stages of an energy efficiency project at no cost*. Free project delivery services utilized by Culver City for their EMS project include:

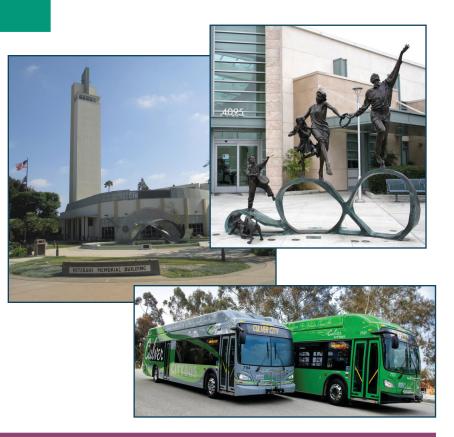
- Project Management
- Incentive application assistance
- On-bill financing application
- Technical review
- Financial analysis
- Audit/calculations
- Design/scope of work
- Sourcewell construction services

The Bigger Picture

Culver City was an early member of the SoCalREN Public Agency Program, and has worked hard to identify and implement energy efficiency projects throughout their community as part of their broader suite of sustainability efforts, including renewable and distributed energy resources, recycling and waste management, water conservation, and bicycle/pedestrian initiatives. They've recently joined the Clean Power Alliance, a new, locally operated electricity provider for communities across Los Angeles and Ventura Counties, and committed to 100% Green Power as their default electricity rate option (made up of 100% renewable energy).

Looking to the future, the city is moving beyond the "low hanging fruit" of energy efficiency projects, diving deep into their energy use data to identify new opportunities. They're committed to remaining on the cutting edge and implementing new, innovative, and financially viable energy efficiency projects.

			^{Φ08,000+} ^{annual cost}
Project Financials			
	\$575,600	Gross project costs	
	- \$80,000	Incentives & rebates	
	\$495,600	Project costs	
	- \$442,000	0% Financing (OBF)	
	= \$53,600	Net Project Costs	_



"The City's Energy Management System (EMS) is essential to the ongoing understanding and management of energy use. Access to the EMS through the City's network allows us to monitor and control all the facilities lighting and HVAC systems remotely, without having to be on-site."

-Charles Herbertson, Public Works Director/City Engineer, Culver City

*Agency pays construction costs