



CenturyLink

IT Leader Enhances Network Performance with Smart Energy Management

Providing your customers with innovative and sustainable technology solutions requires ensuring operational excellence in your own business.

That’s exactly what CenturyLink – a renowned global information technology services provider – does, collaborating with Southern California Edison to achieve energy savings and maximize efficiency. ENERGY STAR® reports Information Technology (IT) as one of the industries with the fastest-growing energy usage nationwide. Especially with data centers’ around-the-clock operations, our energy management programs can significantly help our IT customers cut energy costs.

“Energy efficiency is always top of mind for CenturyLink, especially in data centers, where power consumption can make or break our profit margin,” said Kelly Sullivan, vice president of Global Data Operations. “And it’s great that our business objectives go hand-in-hand with our global green initiatives,” which also support CenturyLink customers’ own carbon reduction goals.

Saving Over 2.7 Million kWh Annually

Over the last few years, CenturyLink has implemented projects to enhance energy

savings and Power Usage Effectiveness (PUE, a ratio of the total site energy divided by the IT equipment energy).

The company’s Los Angeles County and Orange County data centers include separate “environments” (caged or fenced-off areas) for each of its more than 100 customers. CenturyLink uses a hot aisle/cold aisle containment system to manage airflow through the service rack configurations, with containment solutions specific to individual customer needs.

“We deliver cold air directly to the server inlet, take the hot air out from the back, and send that to the air conditioning system,” said Steve Forbes, critical facilities manager for the Orange County center. “We’re not blending the cold air with the hot air, which would increase energy needs.”

Randy Atterbury, critical facilities manager for the Los Angeles County site, added, “A key focus is building on our progress to optimize data center air distribution. We’re always looking at ways to improve efficiency so we can lower our energy costs for cooling.”

CenturyLink received incentives of approximately \$200,000 to install airflow

Project Overview

SCE Programs Utilized:

- Energy Efficiency (EE) Customized Solutions
- Savings by Design
- Data Centers EE Program (Third-Party)

Results:

Annual savings of more than 2.7 million kWh, demand reduction of 481 kW and incentives of over \$263,000, for energy efficiency upgrades and new construction efficiency measures in the Los Angeles and Orange County data centers



“ SCE really took the reins in guiding us through the requirements of incentive eligibilities. This helped in the process of developing ROI projections, and made capital funding for the projects easier to justify. ”

*Kelly Sullivan
Vice President of Global Data Operations
CenturyLink*

management controls with wireless temperature sensors at both data centers, resulting in annual savings of more than 2.1 million kilowatt-hours (kWh).

In addition, at the Orange County location, lighting retrofits with light-emitting diode (LED) fixtures earned a \$12,000 incentive and achieved 101,000 kWh in annual savings. These measures combined to reduce CenturyLink’s demand by 425 kW.

Making Capital Funding Easier to Justify

Incentive programs used for these improvements included our EE Customized Solutions program, which focuses on tailored equipment upgrades, and our third-party Data Centers EE Program.

CenturyLink also tapped into Savings By Design, a statewide utility program that offers incentives for high-performance nonresidential building design and construction. The company received a \$50,000 incentive for an expansion with measures that exceed California’s

Title 24 energy efficiency building standards, leading to annual savings of more than 493,000 kWh and 56 kW in demand reduction.

In addition, CenturyLink focused on other energy-saving measures, including an Energy Management System with occupancy sensors for lighting control, and Variable Frequency Drives to adjust supply fan speeds to use only the amount of energy needed.

Always Looking to the Future

CenturyLink continues to build on its energy management successes. The company installed a fuel cell (online since 2015) at its Orange County location, providing 500 kW of alternative generation.

In Orange County, resistance block pre-heaters on backup emergency diesel generators were replaced with more efficient recirculating block heaters. The company partnered with SCE to confirm the energy savings and help support a new incentive offering for this technology.

CenturyLink is not resting on its laurels when it comes to saving energy, reducing its carbon footprint, and improving operational efficiency.

“We’re always looking to the future – what’s next in cooling, lighting, power distribution, and building envelope,” Sullivan explained. “Reducing energy costs and using energy as efficiently as possible has always been a major focus for our company. It is a priority for us to seek out any and all opportunities to accomplish these goals.”

As a business owner or manager, you have a wide selection of savings opportunities, and SCE can deliver energy management programs and solutions with incentives and bill credits to go with them. Our energy management solutions offer a range of efficiency options, developed with your industry in mind, to help your business maximize savings over the long-term through the permanent and temporary reduction of electricity usage.



To learn more about SCE energy management solutions, ways to reduce your energy usage, and manage your energy costs, visit sce.com/business or call your SCE Account Manager.

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