

Manufacturing and distribution portfolio reduces energy costs with data, lighting upgrades and solar

A chain of manufacturing and distribution centers will save over \$5 million in annual energy spending while improving their employee environment with real-time energy data, lighting improvements, and solar photovoltaic (PV) systems installed by Centrica Business Solutions.

43K+

annual MWh savings

\$5M+

annual utility cost savings

\$600K

annual maintenance cost savings



Massive buildings and energy use

Manufacturing and distribution centers require large amounts of energy to ensure the safety and quality of their products. A major retailer in the southern region of the U.S. was using thousands of MWh across their portfolio of manufacturing and distribution centers. They were looking to improve cost savings across six storage facilities, ranging in size from a few hundred thousand square feet to several million square feet.

People are at the heart of every decision this organization makes, and they continuously search for ways to serve their communities better. In that vein, they have committed to sustainability to conserve natural resources, ensure safety, and reduce carbon emissions.

Energy conservation and generation

The organization partnered with Centrica Business Solutions to carry out a multi-prong approach tackling their energy consumption, carbon footprint, and utility costs. They trusted Centrica Business Solutions with this next step in their sustainability journey, as they previously worked with Centrica to address the need for comprehensive visibility of their energy assets across their distribution centers – from site level down to individual equipment for lighting, machinery, and HVAC.

By leveraging data collected from over 3,500 wireless sensors and analyzing the data in PowerRadar™, the organization reduced energy waste and has built a business case for broader energy efficiency measures, equipment modernization, and maintenance.

As the next step toward boosting efficiency and sustainability, Centrica Business Solutions identified that the organization could conserve energy by addressing

inconsistent, energy-draining lighting. They upgraded 21,000 fixtures to LED across six facilities – over six million square feet – both interior and exterior lighting. Lighting upgrades were prioritized in these facilities primarily to improve employee environments, providing improved lighting for work. In addition, upgrading these facilities to consistent lighting treatments across all six facilities meant that operating these facilities would be much more seamless and consistent to maintain.

Centrica Business Solutions also identified that the organization could further offset energy use and costs – while reducing their carbon footprint – by leveraging their massive rooftops to generate clean solar power on-site. So far, 15.55 MW of solar have been installed across four facilities – with a fifth facility being planned.

The results

With the lighting upgrades and solar PV systems, the organization will reduce their grid energy consumption by 43,118 MWh each year. These savings translate into a total of \$5,074,160 in annual utility costs savings and offset the CO₂ emissions from over 33,774,116 pounds of coal burned. In addition, the organization will avoid paying \$600,000 in annual maintenance costs by upgrading their lighting to LED.

Centrica Business Solutions helped the organization navigate a complex incentive market and coordinated everything. Centrica Business Solutions captured almost \$1,000,000 in utility incentives for the lighting upgrades – these savings directly lowered the project cost. They also helped the organization take advantage of the solar Business Investment Tax Credit (ITC) which covered 80% of the roof cost for their brand new facility.



20K
annual MWh
savings from
LED



23K+
annual MWh
savings from
solar



\$5M+
annual
utility cost
savings



\$600K
annual
maintenance
cost savings



33.7M
pounds of
coal offset
annually

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