

Regional Utility Company Leads By Example & Saves \$183,437 A Year On Energy Bills!

PROJECT OVERVIEW

The PPL Electric Corporation is a regional utility company with over 10.5 million customers in Pennsylvania, Kentucky, and Great Britain, and has 8,000 megawatts of regulated electric generating capacity. With more than enough electric generation capacity, PPL opted to lead by example and update its corporate facility with LED lighting and advanced controls. The PPL Corporate Facility consisted of warehousing, light manufacturing, a maintenance facility, and a service garage, all amounting to an excess of one million square feet of space.

SBT Alliance and our strategic partner, American Eagle Solutions (AES), audited PPL's corporate facility to identify areas of improvement. SBT Alliance then worked directly with the client's preferred fixture manufacturer, Hubbell, to add advanced networked controls into Hubbell Peloton high bay LED fixtures. All IoT device integration was conducted through SBT Alliance factory Integrated Advanced Controls, which helped to reduce energy output, as well as increased savings further.

THE PROBLEM

PPL Electric is the leading power utility in Pennsylvania, but their antiquated lighting system was negatively impacting their image in the areas they served. Their existing lights were high-wattage Metal Halide and T12 fluorescents, which were inefficient. Because there was no controls system, lights remained on at all times, wasting energy.

With warehousing, light manufacturing, a maintenance facility, and a service garage, PPL Electric's building components each had a unique set of requirements and challenges, including mandated safety standards.

THE SOLUTION

SBT Alliance worked with the client's preferred fixture manufacturer, Hubbell, to install Peloton high bay LED lighting fixtures throughout the warehousing, light manufacturing, and maintenance garage. SBT also devised an advanced controls solution with IoT Controls Ecosystem partner Avi-On. Avi-On's Bluetooth® Mesh lighting controls solution was perfect for PPL Electric as it offered custom zoning, scheduling, occupancy detection, and auto-light adjustment depending on the time of day. Daylight harvesting especially contributed to energy savings, taking advantage of natural light around the facility. To streamline the process of integrating the IoT controls into the Hubbell fixtures, SBT Alliance deployed its internal factory, Integrated Advanced Controls, to fixture-embed the Avi-On devices into each light and pre-commission the fixtures before arriving on site.



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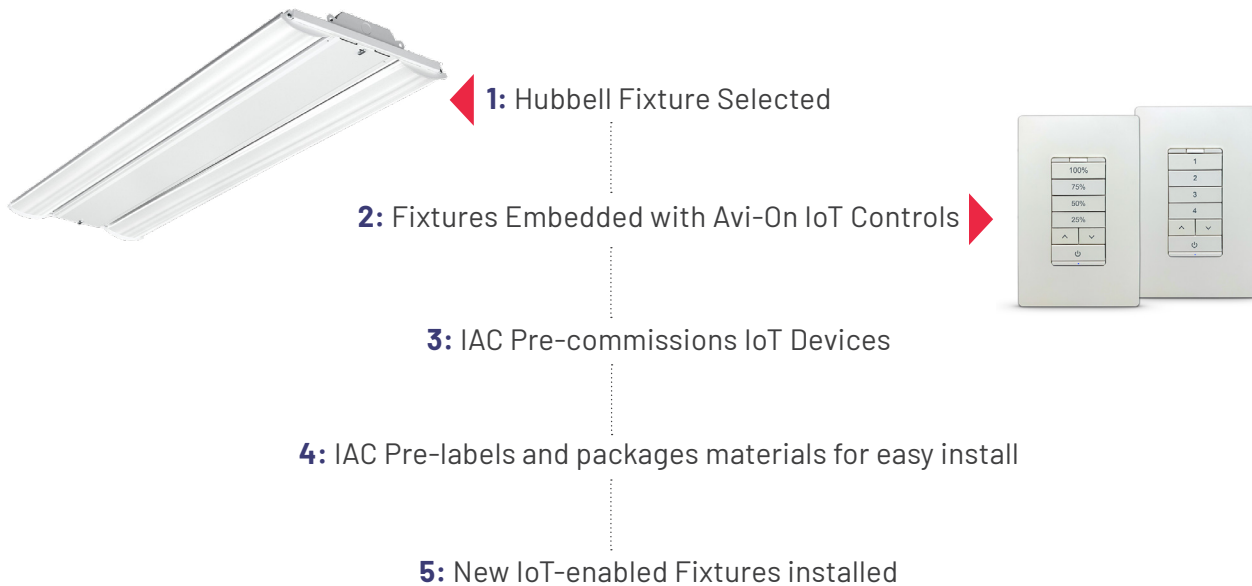
THE RESULTS

In phase one of the project, PPL Electric reduced annual kilowatt-hours (kWh) by 1,228,808, which equated to \$98,305 in annual energy savings and \$37,185 in maintenance savings. Phase two reduced usage by another 554,488 kWh with an additional \$44,359 in energy savings and \$3,588 in maintenance savings.

The expert team at American Eagle Solutions managed this comprehensive energy upgrade, and through these initial two project phases, AES and SBT greatly expanded the energy-saving capacity of the PPL Operations Center. The next phases will tackle additional areas of the one million square foot Operations Center.

PHASE 1		PHASE 2
1,228,808	REDUCTION OF KILOWATT-HOURS (KWH)	554,488
\$98,305	INCREASE IN ANNUAL ENERGY SAVINGS	\$44,359
\$37,185	INCREASED MAINTENANCE SAVINGS	\$3,588

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HEADQUARTERS

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