

industrial case study
T E Connectivity (Tyco Electronics)



Main Achievements

- Cut operational expenses using a “green” solution
- Optimized lighting with occupancy sensors
- Achieved required light levels while reducing lamp power

Background

With a 50-plus year history of leadership, TE Connectivity is a global, \$12.1 billion company that designs and manufactures over 500,000 products that connect and protect the flow of power and data inside the products that touch every aspect of our lives.

Their nearly 100,000 employees partner with customers in virtually every industry—from consumer electronics, energy and healthcare, to automotive, aerospace and communication networks—enabling smarter, faster, better technologies to connect products to possibilities.

Original Situation

Metrolight partner North Coast Electric was given the task to come up with an appropriate retrofit for the plant manufacturing area lighting system. They were assisted by Connections for Conservation, an agency specializing in Energy Retrofits. The existing system was comprised of 350W PS MH Glass High Bays. Options considered included LED, Induction and Fluorescent solutions.

Snapshot

Energy Savings
49%

Lamp Power
Reduced from 375W to 218W

Annual kWh Saved
341,672 kWh

Annual CO₂ Saved
245 metric tons

Simple Payback Period
2.3 years after incentives

Total Annual Saving
\$22,955

The Result

The chosen solution was a new acrylic highbay equipped with Metrolight Electric Metal Halide using 200W lamps.

It was also determined that many areas were found to be unoccupied for long periods of time. So occupancy sensors were installed on all the High Bays which would dim non occupied areas to 50% until occupancy was again detected. The Metrolight dimming was so smooth that the transition is totally unnoticed.

The main reasons for choosing this technology included:

- Maintenance of 1 lamp compared to 6 fluorescent lamps
- Reduced maintenance costs due to lumen maintenance over time
- Cost when compared to LED and induction
- Aesthetic appeal of the fixtures
- Extremely smooth dimming resulting in additional savings



TE Connectivity Previous lighting system at the manufacturing plant



TE Connectivity TE Connectivity: Serving a range of sectors

“We are very pleased with the installation. The light levels are good or even better than what we had previously and they are saving over 150W per fixture. It is simply amazing! With regards the dimming, the only one who ever notices the dimming is me and that’s only because I know about it. It is so smooth that it is unnoticeable.”

Michael Dawkins, TE Connectivity Project Manager

Features	Before Installation	After Installation	Savings
Fixture Power Consumption W	375	218	157
Operating Hours/Days	14/365	14/365	-
Annual lighting-related energy cost*	\$49,392	\$26,437	\$22,955
Total annual savings*		\$22,955	
Simple Payback	2.3 (After Rebate)		

Integration Partner

CONNECTIONS FOR CONSERVATION

Connections for Conservation is a certified lighting management consultant and specializes in energy conservation. We work with Utility Companies, Manufacturers and Contractors in the designing, distribution and promotion of energy efficient technology. We are a member of the Northwest Trade Ally Network and serve over 325 counties in WA, OR, ID, MT and CA.

For more information visit www.connectionsforconservation.net

Distribution Partner

NORTH COAST ELECTRIC

Family owned and operated since 1913, North Coast Electrical is one of the largest and fastest growing electrical distributors in the nation with 33 locations operating in Washington, Oregon, Idaho, Alaska, and Arizona. (As a full line electrical distributor, we supply a wide range of electrical equipment to the electrical contractor, factory automation, industrial MRO, and commercial & institutional markets.)

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