

CASE STUDY

ADIDAS GROUP

Brantford, ON (Canada)

adidas Group is one of the world's largest designers and distributors of sporting goods and apparel. The adidas Group corporate strategy is "to lead the sporting goods industry with brands built on a passion for sports and sporting life style." They are also passionate about the environment and constantly seek new ways to reduce their carbon footprint by improving their energy efficiency.



LED high bay fixtures with a networked lighting control system provided energy savings and enhanced lighting

Facility Type:

Manufacturing & Warehouse/
Distribution Facility

Square Footage:

More than 1 million SF

Technologies:

LED high bay fixtures with
networked advanced lighting
control system

Savings:

Over US \$370,000 annually

Incentive:

More than US \$178,000 from
Hydro One

Situation

Following success with energy efficient lighting projects in other facilities, adidas was interested in identifying new ways to reduce energy consumption through the application of advanced lighting controls, while improving the quality of light for added safety and security for their Brantford Ontario facility.

Solution

The energy efficient lighting project incorporated LED high bay fixtures that were designed to better distribute light at a lower operating cost while utilizing an advanced lighting control with wireless intelligent sensors. The sensors were equipped to gather, interpret, and distribute lighting, energy, and facility data to a central control module. The control system constructed specific light profiles for each fixture in each work area. The networked control system allowed for local and remote access for altering the lighting and energy profiles.

Both the design and implementation phases were conducted by Eco Engineering. Staff training on advanced lighting control system and profiles was also provided.

Results

The project was estimated to conserve 57% energy based on the assumption that fixtures would be operating at full light output. After implementation, and with the refinement of the profiles established in the lighting control system, actual energy savings surpassed initial estimates as light output was reduced by as much as 40% while still meeting facility light level standards.

- **Annual Demand Reductions**
More than 570 kW over the first year is forecast
- **Annual Consumption Savings**
Over 2.1 million kWh annually with a 57% reduction in the lighting portion of usage

Reduced Billings

The project will exceed the annual savings projection of US \$373,000 and easily achieve the ROI metrics established by adidas. Coupled with the credits earned from local utility provider, Hydro One, the project is forecast to deliver a minimum of US \$2.5 million in total energy savings over the next 10 years.