

Lighting, Aisle Way Lighting Controls and Rooftop Air Handler Control Improvements

Reduce Energy Consumption And Improve Lighting Control and CRI



Penguin Putnam is a warehousing and distribution center located in Kirkwood New York, has a gross area of 514,473 square feet. The Original structure was built in 1979 with additions added in 1994 and 1999. The facility uses gas fired heaters for space temperature control and packaged rooftop units along with radiators for heating of administration areas. In addition, a significant amount of electricity is used for the long hours of operation in aisle ways as well as battery charging stations for the large quantities of electric driven fork lifts. The New York State Energy Research and Development Authority worked with Penguin Putnam in Kirkwood, NY to help reduce building operational costs and save energy through the co-funding of a comprehensive energy audit.

Project Objectives

The objective of the comprehensive energy audit was to identify energy efficient alternatives to providing existing lighting, building heating, air conditioning, making improvements to the existing building envelope and analyzing the existing building controls and aisle lighting controls throughout the facility. Through NYSERDA's Technical Assistance program, Penguin Putnam I Kirkwood, NY received a matching grant to have an engineering study completed for the evaluation of energy efficiency opportunities.

Measures Recommended

NYSERDA's study concluded that through seven recommended energy conservation measures that included: energy efficient lighting, lighting controls, boiler controls, energy management system, window film, domestic hot water controls and electric to fossil fuel conversion of hot water production the facility could reduce electrical consumption by 25% and reduce facility utility costs by over 202%.

- Cost of Recommended Measures - \$304,990
- Energy Savings - \$ 86,274
- NYSERDA Incentives - \$ 57,691
- Simple Payback Years - 2.9 years

About the Technical Services Program

NYSERDA's Technical Assistance programs identify opportunities for New York businesses to increase competitiveness by using energy more efficiently and improving productivity. This project was funded under NYSERDA's New York Energy Smart program, which helps utility customers take advantage of opportunities to save energy that are emerging as a result of the newly deregulated, competitive utility industry. For more information about this and other NYSERDA programs, call Mr. Gregory Lampman at (518) 862-1090, ext. 3372, or visit the website at www.nyserdera.org