

PowerSines LEC Saves 30% on Outdoor Lighting & High Masts in Savannah Port

CASE STUDY

OVERVIEW

Facilitating global trade through strategic U.S. East Coast gateways, the Georgia Ports Authority is a leader in the operation of modern terminals and in meeting the demands of international business. The port of Savannah specializes in the handling of container, reefer, breakbulk and RoRo cargoes. Georgia Ports Executive Director, Curtis Foltz, states that ***"This [PowerSines] new technology is part of GPA's broader initiative to operate in an environmentally sensitive and fiscally responsible manner."***

"The lighting system continues our efforts to cut energy consumption."
Curtis Foltz, Georgia Ports Executive Director

SOLUTION

Following the earlier pilot project covering part of a 50-acre section of the container yard, for which Georgia Environmental Facilities Authority (GEFA) also verified a 30% energy savings, PowerSines system was chosen to improve the overall energy savings at the Savannah Port in Atlanta Georgia. Johnson USA Electrical Engineers implemented PowerSines LEC Lighting Energy Controllers across the Port of Savannah's 495-acre container and storage field.

Due to the success of PowerSines systems, the installation project was entitled to the American Recovery & Reinvestment Act grant awarded via GEFA. ***"PowerSines products are fully controllable, enable dynamic voltage stabilization and have compact footprint,"*** said PowerSines Chairman Shimon Limor. ***"As a result, our energy systems are easy to install and highly efficient."***

With LEC, instead of simply turning on at a given time of day, the high mast lights are now controlled by a 3rd party computer system (Motorola VMM radio-based SCADA) programmed according to an astronomical clock set for the port's location. The lights come on at dusk and grow in intensity until fully dark. They then begin to dim as dawn approaches, and turn off after sunrise. As the days get longer and summertime predawn and evenings get brighter, the system adjusts the intensity and duration of the lighting.

Companies such as Dell, Fedex Ground, DHL, IBM, Microsoft and Amsterdam International Airport use PowerSines lighting energy controllers to reduce electricity consumption and CO₂ emissions.

RESULTS

15 LEC A Tp/277V (3x80A – 160A) units were installed to control the high masts with 1000W HPS lamps and outdoor lighting. According to GPA engineers, the energy savings achieved will allow for a return on GPAs investment within just a few months.

PowerSines system flexibility allows the Ports Authority to use less power. The improvement is an expansion of an earlier pilot project covering part of a 50-acre section of the container yard, for which GEFA also verified a 30% energy savings.

Savannah Port Savings with LEC

Energy Savings	~ 30%
ROI	~ 3 months

APPLICATION

Sea Port Container Yard

BENEFITS

20%-38% savings

ROI in 1-3 years

Extends lamp lifetime

Dual operation mode for all lighting circuits

Zero maintenance required

Installs on any existing electric infrastructure

48% improvement in conduction losses

Voltage control & stabilization for all lighting systems: Fluorescent, HPS and MH

