

Non-Disruptive Energy Saving Solution for Lighting at Emek Medical Center (EMC)

CLIENT PROFILE

Emek Medical Center (EMC) hospital is the largest facility providing health services to more than 500,000 citizens. Established in 1924, EMC houses 25 medical departments, 60 outpatient clinics, and over 1700 employees, of them 300 Doctors and 700 Nurses.

With LEC, EMC experienced a total of 20.3% direct savings and an ROI in less than 2 years.

BUSINESS NEED

EMC is in the process of expanding its facility and upgrading the departments to offer a higher standard of patient comfort, privacy and amenities. Simultaneously they were serving a growing number of patients with limited funds. The facility operates between 18-24 hours a day, with a mixture of Metal Halide, Fluorescent, and HPS lamps in the halls, lounges, patient rooms, and emergency centers. With electricity consuming a significant portion of the utility bill, EMC required a non-disruptive energy efficiency system that could be implemented on their existing infrastructure, provide immediate savings and cut their current operating costs.

SOLUTION

EMC chose PowerSine's Lighting Energy Control (LEC) system due to its ability to install immediately on any infrastructure and provide voltage control to the entire facility's lighting circuit without disrupting any life-saving equipment. Due to the sensitivity of the hospital equipment they demanded a solution that would not cause any disruption (harmonics) to their equipment, since past experience with other solutions resulted in RF distortions. The LEC system met these requirements and supported the facilities existing lighting needs as well as future infrastructure.

EMC could immediately cut operating costs and benefit from 15%-27% electric savings.

RESULTS

EMC initially installed 10 LEC units in different parts of the facility; public corridors, pediatric units, internal medicine units, obstetrics & gynecology, and surgical units. Auditing tests verified the LEC performance and savings, by assessment in 'Save' and 'Bypass' mode. Results showed average savings of 20.3% and an ROI in less than 2 years.

The table below depicts the saving results for the first 10 LEC units. Upon project completion, over 100 energy efficiency units will be installed throughout the facility.

LEC Systems in the range of 10A – 30A / single and three phase	
Annual consumption in KWh	532,000 KWh
Saving percentage	20.3%
Electricity savings in KWh	108,000 KWh
Electric bill reduction	€ 10,580
Capital expenditure (excluding VAT)	€ 22,532
EMC total savings	20.3%
Return on Investment (ROI)	Less than 2 years

Full report is available upon request.

CASE STUDY

APPLICATION

Medical Center & Hospitals

BENEFITS

23%-38% savings

ROI in 1-2 years

Improved Power Factor

Non-disruptive to life saving applications

No harmonics

Quick and easy installation on existing infrastructure

Extends lamp lifetime

Immediate savings on cost of electricity

Control and stabilize all lighting circuits

