

## LIGHTING ENERGY EFFICIENCY IN PARKING CAMPAIGN

### Overview

Kimco Realty Corporation's large facility portfolio could be considered quite challenging to some organizations trying to reduce energy savings, but Kimco was able to provide upgrades to 160 sites across 25 states over 2 years. The 50-year old real estate investment trust based in New Hyde Park, New York was a 2014 Lighting Energy Efficiency in Parking (LEEP) Campaign winner for Largest Absolute Number of Facility Upgrades. Kimco has reduced their lighting energy usage primarily through the use of lighting controls for their parking lots representing approximately 51 million square feet of parking area. Kimco, which owns and operates over 800 shopping centers in North and South America, can add their LEEP accomplishments to their 2013 National Association of Real Estate Investment Trusts (NAREIT) award for leadership in sustainability and energy efficiency.

### Keys to Success

Through its Property Gateway Building Controls Initiative or "Gateway", Kimco wanted to better manage shopping center utility costs and to reduce the company's environmental footprint. With each facility averaging over 200,000 kWh in annual energy usage, energy reductions were achieved by addressing control of the lighting systems. Most sites were upgraded to a custom web-based lighting control system that resulted in an average of 23,000 kWh in annual energy savings. Kimco teamed with their national vendor, MCI out of Charlotte, NC, who provides turnkey services for the Gateway program, including site assessment, system design, installation, and other ongoing support.

Kimco averaged site-level savings of 10-20% depending on site-specific security needs and retailer operating hours.

**"We are also growing our lighting retrofit efforts, but decided to first focus significant effort on lighting controls. After all, turning unneeded lights off is the easiest way to save energy."**

Nate Mitten, Manager of Energy Services for Kimco



280 Metro Center in Colma, CA. Image courtesy of Kimco.

Results	
<b>Energy Savings</b>	23,000 kWh, a savings of 10-20%
<b>Lighting Power Density (W/sq. ft.)</b>	0.10, a reduction of 50%
<b>Installation and Maintenance</b>	Energy reductions were achieved by addressing control of the lighting systems. Most sites were upgraded to a custom web-based lighting control system, along with a custom web-based dashboard and iPad application to easily control and monitor the system remotely.
<b>Overall Performance</b>	Kimco management has been pleased with the results and property managers enjoy the fact they can override lights, change schedules, and confirm energy savings all from their phone or iPad. The system also enhances security and safety by providing automatic notifications of electrical issues and power outages.

Kimco developed a custom web-based dashboard and iPad application to easily control and monitor the system remotely. Kimco management has been pleased with the results and property managers enjoy the fact they can override lights, change schedules, and confirm energy savings all from their phone or iPad. Beyond energy savings and operational effectiveness, the system enhances security and safety by providing automatic notifications of electrical issues and power outages.

Kimco focused heavily on lighting controls prior to lighting retrofits for a variety of reasons. Although upgrading lighting controls does not improve the visual appeal of the center nor deliver the depth of savings possible with more efficient luminaires, it is cost effective and can be implemented quickly. The return on investment has been between 25-50% and the simple payback has been between 2-4 years for the majority of projects. This only includes energy savings and does not factor in the security benefits or operational effectiveness. Mitten said, "We moved slowly at first but once we found success with the right system design and implementation process, the program quickly gained traction."

### Lessons Learned

- ▶ Early on, it was difficult to find a controls technology that provided the right balance of features and cost. It also took time to find a vendor able to service Kimco's large national portfolio with a diverse set of technical and project management capabilities.
- ▶ Kimco worked with a third-party incentives processing company to apply for utility incentives where possible. The selected controls systems fell into utility custom incentive programs and the application process was time consuming and the percentage of successful incentives was less than expected.

### Next Steps

**"We're capitalizing on what we've learned and plan to leverage building automation technology beyond lighting for other applications including irrigation, sub-metering, video monitoring, and HVAC,"**

*Nate Mitten, Manager of Energy Services for Kimco*

Despite some challenges, the ongoing Gateway program is considered a success. Kimco is currently installing new lighting control systems at approximately 60 properties this year, while also

### 2014 LEEP Award: Largest Absolute Number of Facility Upgrades

<b>Location:</b>	160 sites across 25 states
<b>Parking Area:</b>	51 million sq. ft.
<b>Solution:</b>	Upgrades to lighting control systems

integrating approximately 100 sites using legacy control systems into their new standard software platform. This upgrade involves a highly detailed site assessment, optimization process, and dashboard development while still utilizing the existing hardware on site. Kimco has a goal to have over 400 total site lighting systems under automated control by the end of 2015.

Additionally, Kimco plans to complete 3 parking area LED lighting retrofits this year and grow that to over 100 retrofits in 2015. As part of their best-in-class strategy, Kimco is placing a strong emphasis on LED lighting retrofits for its parking areas and building lights. This enhances curb appeal, safety, security, and ultimately drives higher shopping activity. At certain sites, Kimco plans to control its LED lights with occupancy sensors and wireless nodes on each fixture. The incremental cost will be offset by even higher energy savings achieved through late-night dimming and fixture-specific maintenance alarms that reduce the need for recurring maintenance inspections.

**"For our sustainability team, the LEEP campaign award is not only an honor but a terrific validation that our Property Gateway Building Controls Initiative is on the right track."**

*Nate Mitten, Manager of Energy Services for Kimco*

### Learn More

Through the [Better Buildings Alliance](#), members across different market sectors work with the U.S. Department of Energy to develop better buildings in which we work, shop, eat, stay, and learn. Learn more about how to join the Better Building Alliance's Lighting Energy Efficiency in Parking Campaign, at [www.leepcampaign.org/](http://www.leepcampaign.org/).