Project Profile
DUKE REALTY
Towers of Kenwood

Duke Realty Corporation (NYSE:DRE) owns and operates approximately 139 million rentable square feet of industrial and office assets, including medical space, in 18 major U.S. cities. A leader in energy management strategies for the facilities industry, Duke has implemented energy efficiency programs across more than one-third of the firm's 300+ office buildings.

Facility Type:
Multi-use Office Building

Square Footage:
404,000 SF

Products:
LED lamps & troffers;
Hi-lo stairwell fixtures; occupancy sensors

Savings:
$127,848 annually

Incentives:
$98,138 in rebates from Duke Energy

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Situation
The Towers of Kenwood, a multi-use office complex located in Cincinnati, had previously undergone basic lighting retrofits involving newer technologies. Despite the relatively modern lighting system, Duke's financial analysis showed that the implementation of lighting controls and more efficient LED fixtures, plus standardization of lamp types, would significantly reduce energy consumption and operating costs.

Solution
The energy efficient lighting project incorporated ultra-efficient, low wattage LED lamps and troffers throughout much of the office complex. Stairwell fixtures, exit signs and egress fixtures were also replaced with appropriate LED technologies. Various types of occupancy sensors were incorporated throughout the entire facility, providing a customized framework for reducing the operating hours of fixtures on a space-by-space basis.

The entire plan, and accompanying financial projections, was based upon a detailed engineering grade audit of the office complex. Both the design and the installation were complex undertakings given highly customized, multiple tenant needs related to lighting and the challenges associated with access to certain sensitive areas of the Towers, such as stock trading floors and a number of radio stations operating 24/7.

Both the design and implementation phases were conducted by Eco Engineering.

Results
The project met both lighting quality and financial expectations. A 2.2 year payback period is forecast with a 46% ROI aided by a substantial incentive from Duke Energy.

- Annual Demand Reductions
  2,156 kW
- Annual Consumption Savings
  Over 1,108,760 kWh
- Reduced Billings
  The project is estimated to deliver total energy savings of $127,848 for the first year following the renovation.

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