



High Efficiency Lighting and Remote Dimming Lower Costs at Block-Long Retail Center

New LED fixtures reduced wattage and the baseline demand of the exterior lighting fixtures by 49%.



Asset Facts

Square Feet	169,942
Asset Type	Retail Center Parking

Project Facts

Annual Energy Savings	47,877 kWh
Annual Energy Reduction (%)	49
Annual Savings	\$7,041
Gross Investment	\$26,429
Rebates	\$1,574
Rebates as % of Total Project Cost	6
Net Investment	\$24,855
Net Payback	2.8 years

ROI 35%

Challenge

The retail center occupies an entire block of approximately 290,000 ft². Of that area, approximately 170,000 ft² are designated for parking, car traffic, and access to the retail center.

The retail space includes a grocery store, gas station, and small shops and restaurants.

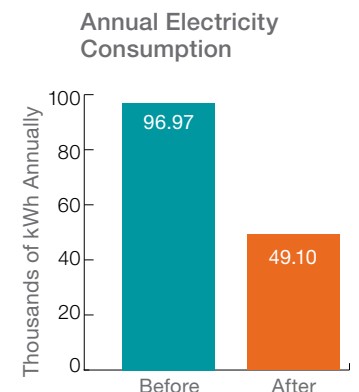
Our Solution

The existing 106 exterior light fixtures were original to the center and were predominately 1,000 W metal halide 30' shoe box fixtures and 100 W to 400 W metal halide canopy fixtures.

- Green Generation Solutions retrofitted the 1,000 W metal halide pole fixtures with a bi-level dimming ballast and reduced wattage 775 W metal halide lamps. We also installed a web-based control system that provides fixture reporting and advanced scheduling capabilities for the 30' pole fixtures
- The control system enables the property manager to dim the 30' fixtures remotely to 50% output after operating hours in accordance with municipal and energy code requirements
- GreenGen installed a variety of LED, dark sky compliant, full cut-off fixtures ranging in wattage from 20 W to 141 W
- GreenGen coordinated all rebate capture activities with the local utility to secure funding for 6% of the total project cost
- The solution was measured and verified through data collected by the control system, as well as a comparison of billing and consumption information 12 months before and three months after project installation.

Energy Savings – 49%

- The installed lighting and controls save approximately 47,877 kWh per year, resulting in annual savings of \$7,041
- Overall, the solution resulted in a 49% reduction in the annual parking lot electric consumption
- Annualized energy savings are equivalent to 34 metric tons of greenhouse gases reduced, or 7 cars removed from the road.



How can we help you? Please contact Green Generation Solutions at info@greengenerationsolutions.com or 301.202.2930