



Plan to Free Liberty Center from High Energy Costs

Combined 26-story Westin Hotel and 27-story office complex assessed for phased energy efficiency upgrades



Asset Facts

Date Built	1986
Square Feet	878,905
Asset Type	Hotel and office

Project Facts

Annual Energy Savings	706,529 kWh
Annual Savings	\$56,508
Gross Investment	\$265,445
Rebates	\$32,800
Rebates as % of Total Project Cost	12.4%
Net Investment	\$232,645
Net Payback	4.12 years

ROI 24.3%

Challenge

During the purchase of the Pittsburgh Liberty Center, Starwood Capital Group commissioned a top-to-bottom assessment of the energy efficiency improvement opportunities and potential cost savings for this signature property. The complex, which occupies over 530,000 ft² of Class A offices and 616 hotel rooms, was fully occupied, requiring a phased approach to retrofits and improvements.

Our Solution

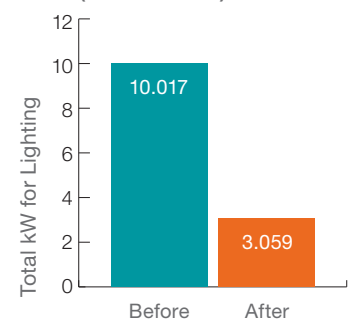
A detailed analysis and three-phased plan was presented, detailing cost as well as energy savings.

- Phase One: (completed) Added lighting controls and retrofit of over 400 T12 lamps with high-efficiency T8 lamps, fixtures, and occupancy controls
- Phase Two: (in process) Ballroom lighting retrofit using high efficiency LED lamps in the ballrooms, meeting spaces, and corridors with advanced dimming controls, which allow occupants to adjust light levels to their needs

Energy Savings – 66%

- Runtime decrease 40%
- Wattage decrease 70%
- 246 occupancy sensors Installed
- In Phase I, replacing 1,672 lighting fixtures resulted in a savings of 398,690 kWh, or roughly \$22,000 annually
- In Phase II, replacing 756 lighting fixtures and installing 246 occupancy sensors resulted in an additional savings of 307,839 kWh, or roughly \$34,000 annually

70% Wattage Reduction for Lighting (Phase 1 & 2)



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