



Lincoln Tower

This building was built in 1988

This project was completed in December of 2007

805 SW Broadway
Portland, OR

Costs and Savings:

Annual kWh Savings: 241,900
Annual therms Savings: N/A
Total Yearly Cost Savings: \$21,600
Total Project Costs: \$121,793
Total Program Incentive: \$29,028
Net Owner Cost: \$92,765
Simple Payback: 4.3 yrs

Owner:
Shorenstein

Size:
12 floors totally 220,00 ft^{sq}

Project Scope:
DDC Controls Upgrade

Incentive Program:
Energy Trust of Oregon

Project Overview:

Shorenstein, one of the leaders in the property management industry, looks to optimize existing equipment to maximize energy savings and reduce utility costs. Lincoln Tower was equipped with an outdated DDC system that limited the ability of the facility engineers to monitor equipment and run energy saving optimization control routines. Due to the controls limitations the Building Automated Systems (BAS) group at TraneOregon was contacted by Shorenstein to see what systems were available. In working on the controls system upgrade the BAS group engaged the Energy Solutions team to enroll the Lincoln Tower into the Energy Trust of Oregon's (ETO) incentive program. Contracted by the ETO the Energy Solutions team supported Shorenstein with:

- An in-depth investigation to identify energy savings opportunities
- A detailed energy study that was submitted to the ETO in order for Lincoln Tower to receive incentives for the energy upgrade project.

The Lincoln Tower controls upgrade resulted in a 8.5% reduction in energy use with an expected cost savings of \$21,600 and an ETO incentive amount of \$29,028.

Investigating Energy Saving Opportunities:

The TraneOregon Energy Solutions group found that an upgrade to the DDC controls system would bring significant energy savings by:

- Eliminating unnecessary simultaneous heating and cooling
- Incorporating tighter control strategies like optimum start, supply air temperature reset, and economizer control
- Providing accurate time of day schedules

Energy Savings Results:

A new DDC system has been installed to monitor the rooftop units and incorporate energy savings opportunities.