



# Two Liberty Place Central Utilities Plant Energy Retrofit

## PROJECT INFORMATION

**CONCORD DIVISION**  
Concord Management

**PROJECT LOCATION**  
Philadelphia, PA

**MARKET**  
Mixed-Use

**SERVICES**  
Design Builder  
Engineering

**CONSTRUCTION COST**  
\$6 Million

## ABOUT TWO LIBERTY PLACE

Two Liberty is a 57-story iconic multi-use high rise in downtown Philadelphia. The building consists of retail shopping, an expansive food court, 30 floors of Class A office space – corporate office for Cigna Insurance company, an upscale restaurant and 20+ floors of high-end condominiums.



## PROJECT SUMMARY

Rich Energy Solutions (RES) partnered with Concord Management Services (CMS) a large engineering and development firm, to deliver a turn-key energy retrofit of the thermal plant located on the 36th-38th floors of the building. The project consisted of replacing 2,000 tons of chillers with new high efficiency mag-bearing chillers, new fiberglass modular cooling towers, upgraded BACnet controls, a 1000-ton plate and frame heat exchanger for free cooling in the winter and a dynamic chiller plant optimization software package to completely modulate the chillers, pumps, cooling towers and valves automatically based on demand!

## CHALLENGES

- Due to the close proximity of other buildings, a helicopter lift was prohibited.
- Without an adequately sized freight elevator and rigging path, the antiquated mechanical equipment could not be replaced.

## SOLUTIONS

- Concord devised a plan to build in place cooling towers and a rigging path to allow addition of new high efficiency centrifugal chillers.

## RESULTS

- ✓ 47% thermal plant energy reduction
- ✓ Qualified for PECO custom incentive and received a significant rebate from their commercial incentive program.

