



East Liberty Presbyterian Church (ELPC)

116 S. Highland Avenue
Pittsburgh, PA 15206

RENOVATION

Renovation of Iconic Gothic
Cathedral

150,000 square feet

\$6 million

PROJECT TEAM

East Liberty Presbyterian
Church

AUROS Group

Pfaffmann + Associates

CJL Engineering

PROJECT REFERENCE

Stefani Danes, Elder and
Building Committee Co-Chair
East Liberty Presbyterian
Church

Adjunct Professor, Architecture
Carnegie Mellon University

sl42@Andrew.cmu.edu
(412) 298-5198

Historic Church Uses Technology to Reduce Energy and Carbon

ELPC's first-ever comprehensive renovation, consisting of increasing usable space in the building while reducing energy and dramatically improving indoor air quality.

Owner's Project Requirements

ELPC raised \$6 million for the renovation with the objective to get as much building performance as possible while reducing long-term operating. Using AUROS360® technology, the church targeted a 25% reduction in Energy Use Intensity and improved thermal comfort.

Metrics

25% or greater reduction in EUI

Particulate Matter 2.5 (PM2.5) : < 12 µg/m³

Particulate Matter 10 (PM10): < 50 µg/m³

Total Volatile Organic Compound (TVOC):
< 400 µg/m³

Carbon Dioxide (CO₂): < 600 ppm

Sustainability Programs

Passive House strategies

RESET Air

Project Highlights

As Owner's Performance Advocates, AUROS Group used Owner's Project Requirements (OPR) to align all team members to performance metrics. Using whole building performance simulations, smart building infrastructure and an integrated performance dashboard, ELPC knew the impacts of their investments before spending one dollar in construction costs.

- Expected Energy Reduction from 83.6 EUI to 58.6 EUI
- RESET AIR Full Certification expected in December, 2018. First cathedral in the world to get full RESET Air Certification
- 35% improvement in church space utilization problems.