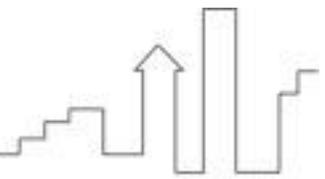


# Decarbonizing an Existing Commercial Office Building



## Decarbonization Plan for BIG GRP 275 Grove Owner

Newton, MA

The commercial office building, a 497,000 square foot, 4-Story existing building, is currently operating at 56.9 Energy Use Intensity (EUI) and will be in breach of Boston's Building Emissions Reduction and Disclosure Ordinance as soon as 2030.

The building owner is advocating for a holistic decarbonization plan to ensure the building invests the least to get the most decarbonization that keeps the building below local fine levels.

As Owner's Performance Advocate, AUROS Group's role was to build an Optimum Decarbonization Plan.



## Owner's Project Goals

### Operational Carbon Metrics

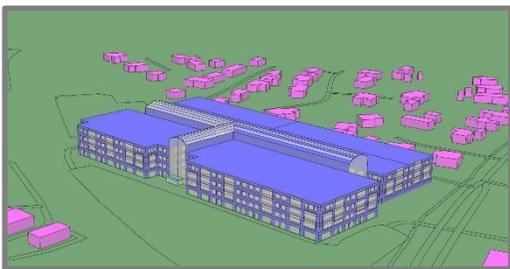
- Zero Carbon Emissions by 2050
- BERDO Compliance/Fine Avoidance

### Sustainability Programs

- Passive House PHI EnerPHit strategy for efficiency-first load reduction solution.

### Decarbonization Plan

- Create a plan, based on natural triggers, to ensure optimum efficiency is achieved, within annual Capex budgets, as building components reach life cycle.



## Decarbonization Plan

The Decarbonization Plan includes an Operational Model, a highly calibrated dynamic building energy model and a virtual representation of the existing building. The model is calibrated to <1% of building performance.

The plan includes an Optimum Model, which is a Passive House model developed from the Operational Model. The Optimum Model represents the best pre-renewable performance possible based on proven building science.

Finally, the plan includes Step Models, which are the phased Decarbonization Execution models, transforming the existing building to its Optimum Decarbonization potential, while respecting building triggers of life cycle, deferred maintenance, planned renovations, change in use, and other opportunities to transform the building.

The Decarbonization Plan de-risks investments in reducing carbon emissions in existing buildings.

### Existing Building

Commercial Office  
497,000 square feet

### Project Team

AUROS Group  
Cosentini Associates

### Project Reference

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