Zero Over Time - 1111 Third Ave

Increasing Value while decreasing Energy Use

The 12 Strategies below are organized into Good, Better, and Best menu options to decrease energy use and increase asset value.

- **Good** strategies are lower cost and can be implemented in the near term; see the EUI Over Time chart to the right.

A group of **Better** strategies consolidates mechanical equipment on Level 3B, providing a new Amenity Space with Elliot Bay views, an active presence on the skyline and visual connection to the waterfront. This is possible by converting to a DOAS system once all tenants have upgraded their floor's mechanical equipment, typifying into an extended condenser loop. The mechanical and envelope upgrades on each floor also improve indoor air quality and allow more substantial filtration for wildfire season and as a pandemic response.

- **Best** strategies think bigger, looking at waste heat mining, renewable energy, re-cladding, and other options to drastically reduce energy use.

Enough renewable energy cannot be generated on site to reach Net Zero Energy; some on-site renewable energy will be procured. If Net Zero Energy is reached, additional height and FAR may be available under the City’s Living Building Pilot Program.

Tenant Impact + Mechanical Upgrades Over Time

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<th>Phase</th>
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| Phase 1 | Heat Pump Tenant HVAC, Lighting, Plug Load Management, and DOAS Conversion of Tenant HVAC | 2 EUI | Demonstrated Building Envelope - Floor by Floor from proposed tenant HVAC
| Phase 2 | Heat Pump Tenant HVAC, Lighting, Plug Load Management, and DOAS Conversion of Tenant HVAC | 2 EUI | Improved Building Envelope - Floor by Floor from proposed tenant HVAC
| Phase 3 | Heat Pump Tenant HVAC, Lighting, Plug Load Management, and DOAS Conversion of Tenant HVAC | 2 EUI | Demonstrated Building Envelope - Floor by Floor from proposed tenant HVAC

Building Envelope Commissioning

- **Good** Strategy: Requires replacement of Glazing, and removal of interior finishes + new opaque wall up to R20-R35+ with 2” rigid insulation or low-GWP spray foam, air sealing to reduce energy use.

**Better** Strategy: Include new rainscreen sealant joints and increase roof insulation to 8” of R-30+ insulation, add thermal mass, and ensure more substantial ventilation.

**Best** Strategy: Re-cladding, and other options to drastically reduce energy use.

Roof Deck and Facade Renewable Energy

- **Good** Strategy: **Gray = Existing To Remain**, 44 square feet of solar panels on the roof (payback EUI improvement 0.5 kbtu/sf/year).

**Better** Strategy: **Gray = Existing To Remain**, 100 square feet of solar panels on the roof (payback EUI improvement 1.5 kbtu/sf/year).

**Best** Strategy: **Gray = Existing To Remain**, 200 square feet of solar panels on the roof (payback EUI improvement 2.5 kbtu/sf/year).

Radical CO2 Emissions

- **Good** Strategy: **Gray = Existing To Remain**, 20% of parking to be EV-ready.

**Better** Strategy: **Gray = Existing To Remain**, 20% of parking to be EV-ready and proactive management to ensure 20% of parking to be EV-ready.

**Best** Strategy: **Gray = Existing To Remain**, 20% of parking to be EV-ready and proactive management to ensure 20% of parking to be EV-ready, including new EV charging stations.

Lighting Improvements

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EUI Varies

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