

BLUE PLANET ENERGY POWERS

The Country's First Passive House, Nanogrid-Backed Multi-Unit Residence

PROJECT DETAILS

Project	Net Positive Energy Nanogrid Multi-Unit Residence
Sector	Residential, Multi-Unit
Location	San Francisco, California
Partners	SunPreme Solar, Sarter Construction & Design Inc., Precision Air Services Inc.

Project Background

Sol-Lux Alpha is a passive-house, net positive energy luxury multi-unit residence located in the heart of San Francisco. Sol-Lux is the first of its kind in several respects: it is the first multi-unit residence in the United States to combine passive house and nanogrid technology, and it is the first building in San Francisco to achieve an "alternate path of compliance" to the city's Green Building Code.

Certified by Energy Star, Passive House Institute US and the EPA's WaterSense program, the building meets the highest standards of sustainability and is unmatched in efficiency for energy and water use.

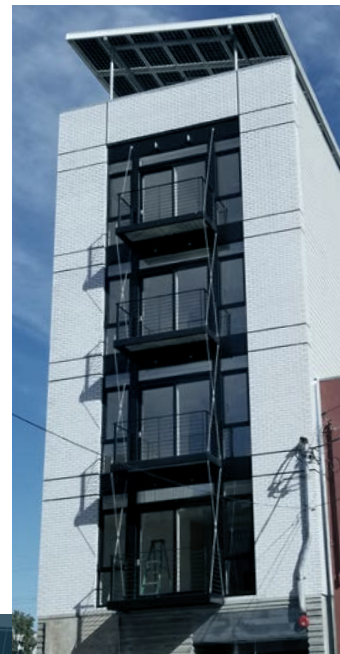
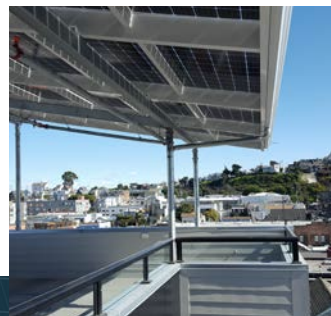
The Blue Planet Energy Solution

Blue Planet Energy provided two 12 kWh Blue Ion 2.0 battery systems to provide energy storage for the building's common spaces and elevator. Using three Schneider inverters configured to provide three-phase power, the Blue Ion batteries are paired with 6 kW of solar power, mounted on an innovative raised trellis on the building's roof.

As part of the building's grid-tied nanogrid system, Blue Planet Energy's batteries allow Sol-Lux to store excess solar power generated by the rooftop array, ensuring the building stays fossil fuel free. Substantial excess solar generation can be used to charge electric vehicles, making Sol-Lux Alpha a "Carbon Neutral Living+Transportation" system.

"Blue Planet Energy's Blue Ion 2.0 battery system perfectly supports Sol-Lux Alpha in power supply and in our larger mission of promoting sustainability and clean energy. The Blue Ion's exceptionally long life cycle and 100 percent depth of discharge allow us to power the elevator — one of the building's largest single electrical loads — as well as its common spaces with primarily solar generation, ensuring we can maintain our high standards of energy efficiency."

— JOHN SARTER, DEVELOPER & OWNER/PARTNER



CHALLENGES

- Providing adequate power for common areas and elevator in a four-unit building
- Choosing sustainable, zero-carbon products to support sustainable lifestyle
- Intermittency of solar demands storage solutions with day-to-day 100% depth of discharge
- Reliable and safe battery solutions for building residents

OUTCOMES

- Powerful off-grid storage installed with 20-year life cycle and zero maintenance
- Synced with on-site power assets without the need for secondary communications equipment
- No fire risk or toxic hazards
- Carbon-free and sustainable energy storage system