



## Case Study

Customer  
Bay Area Hotel

Location  
San Francisco, CA

Industry  
Lodging

Product  
Aegis A 350



# Eco-Friendly Comfort: Aegis Delivers Efficient Hotel Heating

## What the Client Needed

An innovative global hotel chain headquartered in Europe embarked on an ambitious project to build a new hotel in the San Francisco Bay Area, California. Known for its commitment to renewables and recycling, the hotel chain aimed to construct upscale rooms from used shipping containers. This eco-friendly approach was designed to attract guests who prioritize sustainability.

The hotel, strategically located near a major technology company, targeted business travelers and featured a European influence in its fixtures and interior design. As such, it sought to implement advanced domestic water heating solutions similar to those available in Europe, utilizing natural refrigerants. Their primary challenge was to find an electrified domestic heating system that could complement their existing electrified space heating system (mini split systems with a small condenser farm on the rooftop). The system needed to be efficient, sustainable, and capable of meeting the high demands of a 240-room hotel with a full-service bar and two lounge levels.

## The Solution

Lync, in collaboration with its sales representative AirTreatment, provided a comprehensive domestic water heating solution tailored to the specific needs and vision of the hotel. The solution included:

- 2 Aegis A 350 air-source heat pump water heaters
- 2 heat exchanger skids
- 1 Sequencer
- 1 750-gallon storage tank (LC750S)
- 1 750-gallon storage tank (180L750A-VE) with 36kW of electric heat

Given the coastal location of the hotel, the heat pumps were equipped with an evaporator coating to resist salt spray damage, ensuring longevity. To address the Bay Area's occasional freezing temperatures, the heat exchanger module isolated the heat pumps from the domestic water, using a 10% propylene glycol mixture in the water loop between the heat pump and heat exchanger module.





The Lync Sequencer played a crucial role in optimizing the system performance. It staged the heat pumps based on compressor run hours, equalizing the run hours to extend the lifespan of each unit. The sequencer also served as a single point of connection for tank staging sensors, the Building Automation System (BAS), and system setpoints. The Lync Sequencer communicates with the BAS via BACnet TCP, allowing the customer to monitor connected tank temperatures, heat pump operation, and any alarms through a single interface.

## Results and Future Impact



The implementation of Lync's solution enabled the hotel to advance its sustainability goals. The heat pump water heating technology, incorporating natural refrigerants, aligned perfectly with the hotel's eco-friendly ethos. By sourcing all domestic hot water equipment from a single manufacturer, the hotel ensured consistent system support and maintenance for years to come. The measurable outcomes included:

- **Enhanced energy efficiency:** The advanced heat pump technology significantly reduced energy consumption compared to traditional water heating methods
- **Improved system longevity:** The ability of the Sequencer to equalize run hours and the protective measures against coastal conditions extended the lifespan of the equipment
- **Seamless integration:** The integration with the BAS provided real-time monitoring and control, enhancing operational efficiency