PROJECT	The Tidelands Housing
LOCATION	San Francisco, CA
OWNER	University of California, San Francisco (UCSF)

BUILT
2019

Key Elements

- Air Source Heat Pumps
- Rooftop Installation
- Dormitories & Student Housing
- Urban Residential Application
- CO2 Emissions Reduction

/ PROJECT PROFILE

Heating Water for 97% Carbon-Free, Electric-Powered Student Housing

The UCSF Tidelands is a student housing complex designed to offer affordable, sustainable living for over 800 graduate students in one- and two-bedroom apartments. As part of UCSF's broader commitment to environmental sustainability, the project integrates cutting-edge HVAC and domestic water heating technologies to maximize energy efficiency and reduce carbon emissions.

UCSF needed an energy-efficient, cost-effective water heating system to meet the high hot water demands without increasing the facility's carbon footprint. Traditional heating systems, such as gas boilers, were incompatible with the university's sustainability initiatives due to high operating costs, environmental impact, and space constraints in the urban setting.

Nyle Water Heating Systems supplied nine C250A air-source heat pump water heaters to be installed on the rooftop of the Tidelands building. This system offers a combined capacity of 2,250,000 BTUH. Paired with 9,000 gallons of storage located in the basement and designed to operate in a multi-pass configuration, the system ensures reliable hot water delivery at 887 gallons per hour (GPH).

The main challenges involved meeting the high hot water demand while minimizing the carbon footprint, and overcoming the limited space available for the heat pumps and storage tanks. Additionally, UCSF required a system that could be installed and maintained efficiently without affecting operations. Nyle worked closely with the project managers to address these challenges, and provided a solution that integrated seamlessly into the existing infrastructure.

Nyle's solution delivered an annual efficiency rate of 250% and an estimated CO2 offset of 581,265 lbs annually. The system also generates substantial cost savings, providing up to $82,160 in annual savings compared to electric resistance heating and $8,546 versus natural gas. This project highlights the scalability and efficiency of Nyle's water heating systems in large housing applications, ensuring reliable hot water and meeting sustainability objectives.

690 Maine Ave / Bangor, ME (844) 432-8420 watersales@nyle.com heatwater.com

© Copyright 2024 Nyle Water Heating Systems, Inc.