

Multifamily Case Study – 601 S 9th St, San Jose

Modernizing a historic apartment building with holistic electrification



The entrance to the 601 S 9th St apartments in San Jose, CA

Holistic electrification is not only for new or luxury buildings. Read the story of how one owner modernized this historic building while lowering costs and improving tenant quality of life.

In 2017, Kelvin Hong of KH Properties acquired a historic 9-unit apartment building to add to his small portfolio of rental housing properties in San Jose, CA. The property, which offers a mix of traditional units and “single-room occupancy” (SRO) units with shared amenities, primarily serves students from the nearby San José State University. Since Kelvin and his wife self-manage their properties on top of their day jobs, reducing management load and maintenance calls is their top priority, along with being able to quickly fill vacancies left by students on short-term leases.

Kelvin knew that the old gas furnaces and water heaters were not very efficient and would need to be replaced before long. He had recently installed rooftop solar panels and liked the idea of pairing them with high-efficiency electric heat pumps

PROPERTY PROFILE	
Location	601 S 9 th St, San Jose, CA 95112
Owner	KH Properties
# of Units	9
# of Buildings	1
Sq ft	4,306
Year Built	1925

“I can’t say enough good things about Jack, my program advisor. He was always there when I had a technical question and helped me understand how certain things should be installed”

– Kelvin Hong, KH Properties

that could use the self-generated solar power to heat the building’s air and water, but was concerned about the upfront cost of such a project. That’s when he stumbled upon a brochure and decided to enroll in the [Bay Area Multifamily Building Enhancements \(BAMBE\) program](#), which offers no-cost technical assistance and \$500-\$5,000+ per unit in rebates to support energy efficiency and electrification upgrades.

To begin, Jack Aitchison, a technical advisor for the program, conducted a detailed on-site energy assessment and proposed a comprehensive scope of work that would ensure maximum savings with minimal disruption. Jack explained that installing electric heat pumps would qualify the project for additional layered incentives through the statewide [TECH Clean California Initiative](#), which would allow the project fit within Kelvin’s limited budget.

Kelvin and Jack ultimately decided to split the project into two phases. Phase 1 included attic insulation, LED lighting, and package-terminal heat pumps in each unit, which function by absorbing heat from the outdoor air and pumping it directly into the units. Not only are heat pumps 3-4x as efficient than conventional gas heaters, but they can function as air conditioners as well. This was especially welcome by residents of the SRO units, who had previously been served by central heat but can now set the precise temperature inside their units and stay cool during the summer months.

The second phase of the project included a central heat pump water heater to serve all 9 units, along with wall insulation and water-efficient showerheads throughout the building. Although there were several unexpected barriers to overcome during the installation, Kelvin credits Jack for “always [being] there when I had a technical question to help me understand how certain things should be installed.” Kelvin also acknowledged the tremendous help his contractor, GLD Green Energy, provided to bring the project to fruition.



Above: An Innova package-terminal heat pump (PTHP)

Below: An exterior vent for a PTHP

UPGRADE AT A GLANCE

Energy Savings	63.5% modeled energy savings
BayREN Rebate	\$ 20,700
Scope of Work	<ul style="list-style-type: none"> • Attic insulation • Wall insulation • Package terminal heat pump • In-unit hard-wired lighting • Central HPWH • Low-flow showerheads
Benefits	<ul style="list-style-type: none"> • Lower utility bills • More stable indoor temperatures • Added cooling capacity • Improved system reliability

Bay Area Multifamily Building Enhancements

Rebates & Free Consulting for Energy Savings

All the newly installed systems were fully functional by July 2022, and the results have exceeded Kelvin's expectations. By combining the all-electric heat pumps with rooftop solar and building insulation, the property's utility bills have fallen by several hundred dollars per month and the solar panels have already paid for themselves. Residents are more comfortable in their units and especially love the new A/C functionality of the heat pumps, which Kelvin notes has become the property's "#1 selling point to prospective tenants."

The holistic project at 601 9th St proves that by combining building electrification with energy efficiency and on-site solar, it's not only possible to drastically reduce a property's environmental impact on a budget, but to do so in a way that saves money and improves resident comfort and satisfaction. With more incentives available than ever before, now is the perfect time for property owners to consider making the switch.

Interested owners can learn more and get started by visiting www.bayren.org/multifamily.



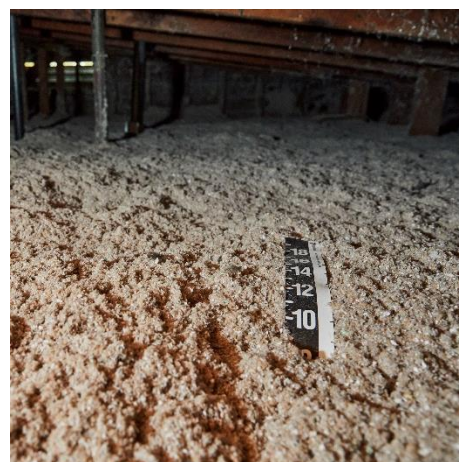
Kelvin Hong, left, with Long Phuong and Brian Phuong of GLD Green Energy



Exterior hard-wired LED lighting reduces energy use and makes residents feel safer.



A central heat pump water heater with 2 tanks provides reliable hot water to the entire building.



R-38 attic insulation helps to maintain stable indoor temperatures and reduces stress on the PTHP systems.