

All Electric Multifamily Retrofit

cleaner, healthier, more efficient



Menlo Spark, Association for Energy Affordability, and BayREN collaborated on a 1960s era, five-plex multifamily building at 63rd Street in Berkeley, California.

Climate Pollution Removal

Removal of all gas appliances (water heaters, furnaces, clothing dryers), replaced by heat pump electric versions. All gas lines shut off.



Tenant and Public Health



Elimination of NOx and all gas combustion pollutants that cause asthma, cardiac disease, and other serious health concerns.

Bill Savings for Tenants

Tenants save **estimated \$360/year (\$30/month)** with heat pump HVAC and heat pump water heater vs. traditional gas appliances and AC systems.*



Extreme Heat Resilience



Heat pump HVAC systems provide cooling (AC) for the first time to tenants, reducing health risks from heat waves.

NO Main Electrical Panel Upgrade Needed



Power efficient design debunks myth that all-electric retrofits require main panel upgrades. Circuit sharing could enable EV charging in the future at this building.

*Source: RMI Analysis, Cost Savings From Household Heat Pump Adoption (Alameda County data), April 2025

Note: All buildings are different, and estimated savings are averages only.

Power Efficient Design Tools Used

- 120 volt heat pump water heaters (plug into existing outlets).
- Heat pump mini split HVAC systems (provide heating and cooling).
- 120 volt heat pump washer/dryer units (plug into existing outlets).
- Electric induction ranges.
- Smaller main panel (200 amps) vs newer buildings; no upgrade needed.
- NEC Code 220.84 for "Other Multifamily" with in-unit appliances provides more electrical load flexibility than other relevant NEC codes.
- Load calculations available from Menlo Spark upon request: angela@menlospark.org.

Photo, top right: Building owner, Preeti T. with new heat pump water heater.

Photo, bottom, right: Menlo Spark, Angela Evans with GLD Green Energy contractor, Kelvin Hong.

