SAN JOSE CLEAN ENERGY
A Program of the City of San José

San José Clean Energy EcoHome Payment Plan Equipment Specifications

Core Measures		
Equipment (Gas Replacement)	**Required Specifications**	**Recommended Specifications**
Heat Pump Water Heater (HPWH)	• Uniform Energy Factor (UEF) of 3.3 or greater unless a 120V or split system HPWH • Capacity equal to or greater than 40 gallons • Thermostatic mixing valve • Wi-fi capable or equipped with CTA-2045 module to allow grid connectivity • Instantaneous and tankless water heaters do not qualify • Existing gas water heater must be removed • Proof of final permitting required	• Recommend tank upsizing based on appliances' first hour rating. Please review worksheet on energy.gov website for more information
Heat Pump Heating, Ventilation, and Air Conditioning System (HP-HVAC)	• Seasonal Energy Efficiency Rating (SEER) cooling efficiency of 17 or greater, SEER2 of 16 or greater, or inverter/variable-speed heat pumps • Ducted central and ductless mini-split systems eligible • Existing air conditioning not required • Existing gas furnace must be removed • Dual-fuel systems not allowed	• Wi-fi capable heat pump • Existing ductwork sealed as required by Title 24 energy code • Replacement ductwork insulated to a minimum of R-8

	• Proof of final permitting required	
Residential Battery Storage	• Battery type must be on the California Self-Generation Incentive Program (SGIP)'s Verified Equipment List • Must be at least 5 kWh • Must be owned by the property owner. • Must be paired with solar (a new solar panel installation or existing home solar panels) of at least 2kW. • Must be permanently installed at site address • Proof of final permitting and PG&E interconnection required	• 80-100% Depth of Discharge (DoD) • Round-Trip Efficiency of 90%+ to minimize energy loss • Lithium-Ion (LFP or NMC) Battery • Modular systems to allow for future expansion • Lifespan cycles between 4,000 and 10,000 cycles (10-15 years) • Smart monitoring and management

Add-On Measures	
Equipment	**Required Specifications**
Electric Service Panel Upgrade	• Must be upgraded to at least 200 Amps • Installed in compliance with the California Electrical Code • Proof of final permitting required
Attic Insulation	• Must be paired with a HP-HVAC installation • Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration

	• Insulation shall be insulated to achieve a weighted average U-factor not exceeding U-0.043 or shall be insulated between wood-framing members with insulation resulting in an installed thermal resistance of R-22 or greater for the insulation alone • Attic access doors shall have permanently attached insulation using adhesive or mechanical fasteners • All insulation must be certified to California Quality Standards for Insulation Materials by the California Department of Consumer Affairs
EV Circuit Prewiring	• Prewired circuit voltage & amperage: 240V, 40A • All circuits must be wired to the source (wire and breaker) • Prewiring cost should be itemized on the contractor invoice • Proof of final permitting required for circuit • Circuit does not need to be wired to an EV charger • Installed in compliance with the California Electrical Code
Dryer Circuit Prewiring	• Prewired circuit voltage & amperage: 240V, 30A • Dryer circuits must be installed within 4 feet of existing gas appliance to allow for electric replacement • All circuits must be wired to the source (wire and breaker) • Proof of final permitting required for circuit • Prewiring cost should be itemized on the contractor invoice • Installed in compliance with the California Electrical Code
Cooking Circuit Prewiring	• Prewired circuit voltage & amperage: 240V, 40A-50A • Cooking circuits must be installed within 4 feet of existing gas appliance to allow for electric replacement • All circuits must be wired to the source (wire and breaker) • Proof of final permitting required for circuit

	• Prewiring cost should be itemized on the contractor invoice • Installed in compliance with the California Electrical Code
Circuit Splitter/Pauser Device*	• Can only be paired with either an EV circuit prewiring installation or dryer circuit prewiring installation as long as the circuit is newly installed

*Circuit pauser and splitter devices can be used to help avoid electrical panel upgrades. Circuit pausers measure the electric demand of the entire home and shut off specific appliances, such as EV chargers, when peak load is reached. Circuit splitters allow you to use a single circuit to power multiple appliances, such as an EV charger with a dryer or heat pump water heater.

How Big of a Battery Do I Need?*				
Appliance	**Power (Watt)**	**Avg. Daily Use (Hours)**	**Avg. Daily Energy (kWh)**	**Avg. 4 Hr. Energy (kWh)**
Refrigerator	150	10	1.50	0.25
LED TV (42”)	100	5	0.50	0.08
Laptop	60	4	0.24	0.04
Ceiling Fan	75	8	0.60	0.10
Desktop	250	4	1.00	0.17
Wi-Fi Router	10	24	0.24	0.04
Phone Charger	10	3	0.03	0.01
Microwave Oven	1,200	.5	0.60	0.10
Dishwasher	1,200	1	1.20	0.20
Washing Machine	500	1	0.50	0.08
Clothes Dryer	3,000	1	3.00	0.50
Space Heater	1,500	4	6.00	1.00
Air Conditioner (3-Ton)	3,500	6	21.00	3.50
Water Heater (Electric, Tanked)	4,500	3	13.50	2.25
Total			49.91	8.32 **

*U.S Department of Energy Estimating Appliance and Home Electronic Energy Use
**8 or 9 kWh battery is required to power the average home energy use for four hours