Residential Programs
Hybrid Water Heater Program Specifications

Applicability - This document covers the equipment and installation requirements for a Hybrid Water Heater (HWH) under the Tacoma Power Customer Energy Program. Installation must follow the manufacturer specifications and meet local building, electrical and mechanical codes.

Tacoma Power Hybrid Water Heater Specifications are required in addition to manufacturer specifications and code requirements.

1. TECHNICAL QUALIFICATIONS

a) Refer to Hot Water Solutions (https://hotwatersolutionsnw.org/installation/do-it-yourself) to find training and installation information for Hybrid Water Heaters.

2. INSTALLATION

a) Tank must be installed to manufacturer installation specifications, which includes room size recommendations.
b) Unit must be a BPA qualified Tier 3 HPWH.
c) Unit must be level.
d) Condensate line must be drained via a sloped drainage system, a condensate pump, or connect to a plumbing drain. Condensate must not create a slip hazard over walkways. Below-freezing temperatures may affect condensation drainage. Check manufacturer installation requirements for more details.
e) If unit is ducted:
   - All duct runs must be sealed.
   - Penetrations through the exterior of the home need to be sealed with an insulative sealant.
   - The exhaust air (conditioned air) duct from the Hybrid Water Heater must be insulated to prevent condensation.

3. PERMITS

a) Home owner is solely responsible for all required permits. Upon request, all necessary permits shall be provided to Tacoma Power.
b) Installation must comply with all applicable codes.

4. PIPE INSULATION

a) Pipe insulation must be used to help maintain water temperature when the unit is located in an unconditioned space.
b) Hot and cold pipes must be insulated with a minimum of R-3, closed-cell, foam insulation for at least the first three feet past the water heater and, if accessible, up to six feet adjacent to the water heater.
c) Insulation material, jackets of facing, and adhesive (if used) must have a flame spread/smoke density rating in accordance with ASTM E-84.
d) Pipe insulation must not cover pressure relief valves, handles, safety drain valves or any other safety control device.
e) All pipe elbows and joints must be mitered to ensure coverage at the same thickness as straight runs.
f) Pipe insulation must be secured with twine, corrosion resistant wire, or plastic compression ties every 12 inches and within three inches of the ends.

5. COMBUSTION APPLIANCE REQUIREMENTS

a) If there is a Combustion Appliance present in the house, garage, or other attached space, a UL listed, C-UL listed , or equivalent carbon monoxide detector must be installed.

6. CUSTOMER EDUCATION – CONTRACT OR INSTALLER MUST:

a) Demonstrate and emphasize the importance of cleaning the filters.
b) Explain the maintenance requirements.
c) Give the homeowner the manufacturer's operation manual. Refer to the manual during the HWH operation walk-through/training.

ADDITIONAL SPECIFICATIONS FOR TIER 3 SPLIT SYSTEM

- All water or refrigerant lines connecting the tank and outdoor units shall be insulated with minimum R-4.
- If domestic hot water pipes outdoors are freeze-protected with heat cable, the cable shall be installed per manufacturer's instructions, underneath the insulation, and shall be thermostatically controlled to prevent the tape from operating above 38°F.
- No resistance heating is allowed.
- System plumbed with a thermal mixing valve, which is equipped with internal check valves on the hot and cold water lines connecting to it.