

Requirements

Unitary & split-system heat pump water heaters must be:

- Tier 3 or higher on BPA's Heat Pump Water Heater Qualified Products List.
- Installed according to manufacturer's specifications.
- A maximum of one heat pump water heater measure may be claimed per home. Accessory dwelling units with separate plumbing systems qualify, even if they are on the same electrical meter.
- Available for existing Multifamily housing, existing Single-family homes and manufactured homes.

Split-system heat pump water heaters must also meet the following qualifications:

- 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 degrees Fahrenheit.
- No resistance heating is allowed, except heat tape for freeze protection.
- System plumbed with a thermal mixing valve and equipped with internal check valves on the hot and cold-water lines connecting to it.



Connect with the local serving utility to confirm pre- and post-condition requirements.

SPECIFICATION CHECKLIST

- Follow manufacturer specifications regarding water heater clearance, intake and exhaust configurations, and seismic strapping.
- Position the unit so the control panel is facing outward and easily accessible to the homeowner. Make sure all data connection ports are accessible.
- Aim the exhaust air away from the center of the room so it does not inadvertently blow on anyone walking past. Direct exhaust away from any thermostats.
- If installing in a conditioned space (inside the heated portion of the home), consider ducting either the exhaust, or both the exhaust and intake to reduce cool air being added into the home.
- Ensure the intake air path is clear of obstruction, and the filter can be removed for cleaning and maintenance. For some installations, a ducted inlet and/or exhaust may be appropriate.
- Ensure that the positioning allows for easy access to inspect the water heater and controls, change the air filter and drain the tank.
- Provide condensate drainage as required by local code. Ensure the water heater is level so condensate properly collects into, and drains from, the condensate collection pan if used.
- Provide minimum R-10 foam pad under the heat pump water heater to minimize unnecessary heat loss through the bottom of water heater.
- Insulate the hot water piping to at least the minimum requirements in accordance with your local codes.
- If installing on a floor susceptible to water damage, install a drain pan to guard against any problems from future leaks.
- Wiring is grounded and proper wire gauge is used. Note: Most heat pump water heaters still have full-size resistance elements, so wiring requirements are identical to standard electric-resistance water heaters.
- Mode of operation is set at a minimum, to hybrid, and preferably heat- pump only.
- Jobsite is left clean and orderly. All scrap material, tools and equipment have been removed.

AT A GLANCE

HEAT PUMP WATER HEATERS

Installation Examples



MEETS MINIMUM EFFICIENCY AND FOUND ON QPL
Courtesy of Northwest Energy Efficiency Alliance



DOES NOT MEET MINIMUM EFFICIENCY
Courtesy of Santa Fe Community College



INSULATE WATER PIPES TO PREVENT HEAT LOSS
Courtesy of NW Ductless Heat Pump Project



UNINSULATED HOT WATER PIPE FROM WATER HEATER
Courtesy of ENERGY STAR, U.S. Environmental Protection Agency



WHEN INSULATION IS NOT ENOUGH, USE HEAT TAPE TO PREVENT FREEZING



FROZEN PIPE DEVELOPS LEAK



DRAIN PANS CAN HELP PREVENT MESSSES AND WATER DAMAGE



NO DRAIN PAN OR LEAK DETECTION

MINIMUM REQUIRED DOCUMENTATION

Contact the serving [utility](#) for specifics on required documentation.

QUALIFIED PRODUCT LIST AND GUIDES

- [Heat Pump Water Heaters Qualified Product List.](#)
- [Better Built NW Heat Pump Water Heater Technical Guide.](#)

PAIRS WELL WITH

- Ductless or Air-Source Heat Pump.
- Whole-House Air Sealing.
- Attic, Floor and Wall Insulation.
- Appliance Measures.