



Eugene Water & Electric Board

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Ductless Heat Pump Program Step by Step Instructions for Contractors

For any questions that you have regarding these instructions or required paperwork, please contact the assigned EWEB Energy Management Specialist or the Ducted Heat Pump program lead at 541-685-7000. The current version of all EWEB forms can be downloaded from EWEB's main website found here:

<http://www.eweb.org/saveenergy/home/contractors>

These documents must be received by EWEB before an EWEB Energy Management Specialist will be assigned to any project:

- ☐ A **completed** Residential Program Application (FORM 1). <http://www.eweb.org/programapp.aspx>
- ☐ If the customer indicates a desire to use EWEB's 0% interest loan, a **complete** loan application must be submitted. Due to privacy requirements, EWEB can only accept the loan application from the customer. https://ems.eweb.org/ems_loanApplication.aspx
- ☐ For rental properties, rental property owners must **complete and submit** an IRS Form W9. Due to privacy requirements, EWEB can only accept the W9 form from the customer.

When a EWEB customer's project has been assigned in the Ductless Heat Pump (DHP) program, the EWEB Energy Management Specialist will:

- ☐ Notify the customer in writing that they have been either approved or denied participation in the program. If necessary, the Energy Management Specialist may schedule a site visit with the customer.

When the customer has decided to have a system installed, the contractor will:

- ☐ Select a ductless heat pump that meets the following eligibility requirements:
 - The system must serve at least 50% of the conditioned area of the home. Installing a head in the main living area of the home is generally acceptable. For homes with mixed heating fuels, the contractor must be prepared to provide to EWEB a load calculation to show that an installed Ductless Heat Pump system will act as the primary heating system.
 - The system must have a Heating Seasonal Performance Factor (HSPF) of 9.0 for single head systems and 8.0 for multi-head systems.
 - The system must not have ducted indoor units.
 - The system uses inverter technology with R-410A refrigerant.
 - The system is certified by AHRI to provide at least 50% of the rated heating capacity when outside air is 17° F.
 - The system must have no built-in electric resistance heat.
 - The system must be warranted by the manufacturer against defects in material and workmanship for a minimum of 2 years from the date of equipment start-up. Warranties shall cover parts and labor.
- ☐ Secure all permits, including (but not limited to) the mechanical and electrical permits, required by law for the installation of a ductless heat pump system.
- ☐ Install the system according to all terms of the contractor's agreements with the customer, EWEB, NW Ductless Heat Pump Project, and according to the manufacturer's installation instructions and warranty requirements.
- ☐ Arrange for all required permit inspections and obtain final permit approvals.

As part of the installation process:

- ☐ Flare connections shall be used at the indoor and outdoor units (no brazed connections are allowed).

- ☐ Outdoor Unit (Compressor):
 - Set the unit on a stable, level mounting pad.
 - Risers at least 4" tall shall be installed to prevent snow and debris build-up, and allow better drainage of defrost water.
 - Outdoor units shall be secured to the pad, risers, and/or surface on which they are set using molly bolts and/or adhesive.
- ☐ The pre-existing heating system may remain operational in order to serve as a backup system to the ductless heat pump.
- ☐ At the time of installation, contractor shall protect all exterior, insulated refrigerant lines. Protection requirements are as follows:
 - Rigid line set hides shall be installed over insulated refrigerant lines on the exterior of the house.
 - Between the outdoor unit and the start of the line set hide, UV-resistant tape shall be wrapped around the insulated refrigerant lines.
 - All line set penetrations through the envelope of the house shall be filled with foam and covered.
- ☐ Refer to the **Best Practices for Ductless Heat Pump Installations – A Contractor's Guide** from the Northwest DHP Project and Northwest Energy Efficiency Alliance (NEEA) for detailed installation requirements.

After the system has been installed:

- ☐ Contractor will submit to EWEB the following:
 1. An itemized customer invoice(s) for the ductless heat pump system and insulation (if applicable). The ductless heat pump warranty information shall be listed on the customer's proposal / contract.
 2. A completed **Ductless Heat Pump Installation Form**. All data fields shall be completed (i.e. model numbers for outdoor/indoor units, installer name, cost to customer, etc.). The form can be found online here: http://www.eweb.org/public/documents/energy/contractor_DHP_installation_form.pdf. Note: DHP funding may be available for homes without electric heat; use the Ductless Heat Pump Installation Form for both electrically heated homes *and* for homes without pre-existing electric heat.
 3. A copy of the AHRI Certificate of Performance.
 4. A completed **EWEB Contractor Invoice Summary, Exhibit F** if insulation measures are installed.
- ☐ EWEB will do the following:
 1. EWEB may schedule an appointment with the customer and inspect the system for compliance with all Ductless Heat Pump program specifications. It is helpful if the contractor is available for this final inspection as this could alleviate a contractor callback for non-compliance. EWEB will promptly communicate to the contractor the reasons for any failed inspection.
 2. The Energy Management Specialist will e-mail or fax to the contractor's representative the details pertaining to any failed final inspection. It is the responsibility of the contractor to remedy any issues in a timely manner and to notify the Energy Manager Specialist once the job is ready for a re-inspection.
 3. When the Energy Management Specialist has approved the installation, he or she will authorize payment of any funds for which the customer has been approved. A Notice of Project Status email will be sent to the contractor that identifies the payment amount and the payment designee.