



BENTON RURAL ELECTRIC ASSOCIATION

402 7th Street • P.O. Box 1150 • Prosser, Washington • (509) 786-2913 • Fax (509) 786-0291

Dear Member,

During installation, there are two processes that can dramatically improve the performance of any new heat pump. Benton REA offers a rebate for both.

1. Controls and Commissioning—Programmable thermostats need to be installed in a manner that prevents inadvertent activation of backup (resistance) heat. When properly done, the startup testing of the equipment at the time of installation is quite involved and we need considerable documentation from your contractor of that process, which they are aware of.
2. Duct Testing and Sealing – Ductwork in the crawl space and attic often leaks valuable conditioned air to areas outside the living space of the home. This can dramatically increase the cost of heating and cooling your house, even if you have an efficient heat pump. Only ductwork within the crawl space and attic are eligible for this rebate. Duct testing and sealing can be done anytime, not only during installation of a new heat pump.

Benton REA incentivizes these activities to encourage contractors to undertake these extra measures when a new system is being installed. Both require a substantial amount of work and reporting by your contractor. We believe they are well worth the investment. In most cases, the cost of correcting duct leaks will likely exceed our rebate and so there could be some out of pocket expense to you. If the leakage is significant, this would be money well spent.

| Measure | Rebate |
|----------------------------|---|
| Commissioning and Controls | \$500 |
| Duct Testing and Sealing | \$250 – Stick Built Home \$200 – Manufactured Home |

Commissioning and controls is available on any new heat pump installation. If you are installing a heat pump with an HSPF ≥ 9.0 and are seeking the high efficiency heat pump rebate, it is a requirement.

Included is our Residential HVAC Rebate Pre-Application—the first step in this process. You can accept the rebate yourself or designate it to your contractor. You may want the rebate paid directly to the installing contractor to lower the total amount you owe to the contractor. Rebates designated to the contractor must show as a line item credit against the project cost on estimates and invoices.

Included is a list of participating HVAC contractors who partner with us in our program. If your contractor is not on the list, have them talk to me about becoming a participant in our rebate program.

Fill out and send me the Confirmation of Completion Form when the job is done. I am happy to answer any questions you have.

Sincerely,
Eric Miller, 509-781-6751
Energy Services, eMiller@BentonREA.org

Washington State Energy Code Requirements



Did you know that testing ductwork in your house is now required by the Washington State Energy Code (WSEC) if you are repairing or replacing certain parts of your heating or cooling (HVAC) system?

Your HVAC contractor must test the ducts in your home and provide the results to you and the building official that issued your permit. Once you have the results, you can choose whether or not you want the contractor to seal your ducts.

Some houses are exempt from these requirements. If your house has any of the following, you do not have to test your ducts:

- All of the ductwork is contained inside your house or less than 40 linear feet is outside of the conditioned space.
- The ducts have been previously tested and sealed.
- The ducts contain asbestos.

More information

For more facts about duct sealing, you can watch the video " Duct Sealing for Comfort, Energy and Indoor Air Quality ."



This video can be found on our website:
www.energy.wsu.edu/code

Washington State University Extension Energy Program

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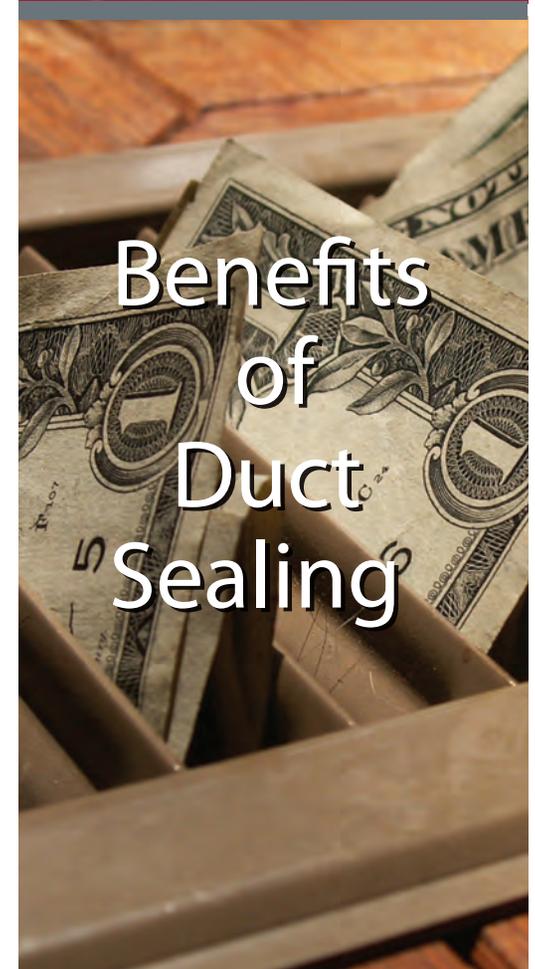
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and the U.S. Department of Energy.

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Extension Energy Program

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WASHINGTON STATE UNIVERSITY EXTENSION ENERGY PROGRAM



Prepared in cooperation with



Benton Rural Electric Association

Why should you seal your ducts?

Sealing the ducts in your home is an easy decision that can help you reap several benefits.

Energy Savings

Duct sealing can help you save on your monthly heating and cooling bills, resulting in more money in your pocket. Leaky duct systems typically contribute to 20-40 percent of a home's heating and cooling costs. Duct sealing can increase a heating and/or cooling system's efficiency to a greater degree than upgrading to a high-efficiency furnace and with less of an investment.



Additionally, if you plan to install a new heating and cooling system, having efficient ducts may make it possible for you to downsize to a smaller, less costly system.



Improved Comfort

If you find that some rooms in your home get too warm while others stay too cool – or if you experience uncomfortable drafts – it might be due to leaks in your duct system. Sealing ducts can help keep the temperature even.

Cleaner Air

Sealing your ducts can also improve the air quality inside your home and safeguard the health of your family. Leaky ducts can cause the air in your home to carry pollutants like car exhaust, pesticides, insulation fibers, mold or mildew, and more. Duct leaks can also draw in combustion gases from fireplaces, wood stoves, gas and oil furnaces, and water heaters.

Help the Environment

When you seal the ducts in your home, it reduces the amount of energy your home uses. The less energy we use, the less pollution we create. If we all do our part to conserve energy, we will have a cleaner, healthier environment.

Cost vs. Savings

The cost of sealing your ducts will vary based on the market and the going rate of labor where you live. The type of existing ductwork system that you have in your house will also impact the cost of duct sealing.

Evaluating the payback is impacted by many variables such as: the climate where you live, where your ductwork is located, how frequently your heating and air conditioning equipment is running, and the cost of energy from your local utility.



In general, research proves that duct sealing has a quick payback and is one of the most effective energy saving measures you can perform on your home.

- National Renewable Energy Laboratory and U.S. Department of Energy (DOE) research concludes that the cost of sealing and/or insulating ductwork can often be paid for in three years from energy savings alone.
- According to a study by DOE's Energy Information Administration, duct sealing yields the greatest energy savings out of 12 measures studied – and it was the least expensive.
- Research by Lawrence Berkeley National Laboratory concludes that 25 percent of the energy typically used – and money spent – for heating and cooling is wasted through duct system energy losses in forced air distribution systems.



Benton Rural Electric Association

Participating HVAC Contracting Companies

These companies are PTCS trained and partner with us in the rebate program.

| Company | Location | Phone # |
|----------------------------------|--------------------------------|----------|
| A-One Refrigeration & Htg | 910 N. 20th Ave, Pasco | 586-7613 |
| Access Electric and Heating | 106904 E 297 PR SE, Kennewick | 545-8755 |
| Advantage Heating & AC | PO Box 445, Selah | 697-8557 |
| All Assured Electric | PO Box 3684, Pasco | 545-0103 |
| Allard Enterprises | 4506 Maple Ave., Yakima | 575-0955 |
| Apollo Sheet Metal | 1119 W Columbia Dr., Kenn | 586-1104 |
| Basin Refrigeration & Heating | 810 N Douglas Court, Pasco | 736-9929 |
| Bob Rhodes Heating & AC | 111 N. Volland, Kennewick | 783-3291 |
| Bruce Heating & Air Conditioning | 5115 Brinkley Road, Kennewick | 734-0669 |
| Campbell & Company | 2828 Irving Street, Pasco | 727-8312 |
| Chinook Heating & Air | 6821 W. Clearwater, Kennewick | 736-1121 |
| CK Home Comfort | 1460 N Forsell Road, Grandview | 391-0322 |
| Dayco Heating | 11 N. Auburn, Kennewick | 586-9464 |
| Delta Heating and Cooling | 80 Wellsian Way, Richland | 943-1092 |
| Jacobs & Rhodes Inc | 4825 W Clearwater, Kenn | 783-3121 |
| Miller and Team Heating & AC | 601 First Ave, Zillah | 829-0747 |
| Panchos Heating & Cooling | 3306 W 7th Ave, Kennewick | 396-9783 |
| Total Energy Management | 1975 Butler Loop, Richland | 946-4500 |



Benton Rural Electric Association Residential HVAC Rebate Pre-Application

Return pre-application to:

Benton REA (Attn: Eric) or email to eMiller@BentonREA.org
P.O. Box 1150
Prosser WA 99350

Rebates may discontinue at any time – call 509-781-6751 to confirm.

| | | |
|------------------------------------|---------------|--|
| Member/Owner Name: | Best Phone #: | Email: |
| Address of Home (where installed): | | Home Type (select one) <input type="checkbox"/> Site-built Home <input type="checkbox"/> Manufactured home |
| Contractor: | | Existing heating system (select one) <input type="checkbox"/> Zonal <input type="checkbox"/> Electric Furnace <input type="checkbox"/> Heat Pump <input type="checkbox"/> Other |

Benton REA has the following incentives to help members achieve energy savings through HVAC improvements. **As a member-owner, you get to decide who receives these incentives.** Use the check boxes on the left to select the qualifying measures you plan to have installed. Use the check boxes on the right to let us know if you want to receive the incentive or if you want us to pay the rebate to your contractor directly. Rebates allocated to the contractor will show as line item credits against the project cost on estimates and invoices.

| | Energy Efficiency Measure | Rebate Amount | Pay Me | Pay Contractor |
|--------------------------|---|---------------|--------------------------|--------------------------|
| <input type="checkbox"/> | Smart Thermostat - when installed by the contractor <ul style="list-style-type: none"> Qualifying models of Nest or Ecobee (see next page) | \$175 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Duct Sealing – Site-built home <ul style="list-style-type: none"> For electrically heated homes not previously sealed | \$250 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Duct Sealing – Manufactured home <ul style="list-style-type: none"> For electrically heated homes not previously sealed | \$200 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Ductless Heat Pump (primary head in main living area) <ul style="list-style-type: none"> Replaces electric furnace or zonal as primary heating system | \$1,300 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Commissioning and Controls (required on all PTCS installations) <ul style="list-style-type: none"> Also appropriate for new heat pumps with <9.0 HSPF | \$500 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | High Efficiency Heat Pump Upgrade with C&C <ul style="list-style-type: none"> Replaces older heat pump as primary heating system | \$200 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Variable-Speed Heat Pump Upgrade with C&C <ul style="list-style-type: none"> Replaces older heat pump as primary heating system | \$400 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | High-Efficiency (HSPF≥9) Heat Pump Conversion with C&C <ul style="list-style-type: none"> Replaces electric furnace as primary heating system | \$1,400 | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | Variable-Speed Heat Pump Conversion with C&C <ul style="list-style-type: none"> Replaces electric furnace as primary heating system | \$1,600 | <input type="checkbox"/> | <input type="checkbox"/> |

Member/Owner Signature

Date

Terminology for Measures

- Smart Thermostats:** An evolved and simplified programmable thermostat that can automatically adjust the heating and cooling temperature settings in your home for optimal performance and energy savings. Qualifying units: Ecobee 3, Ecobee 4, Ecobee Smart Thermostat with voice control (Not Ecobee Lite), Nest 3rd Gen, or Nest E.
- Duct Sealing:** The process of sealing up duct work to reduce the leaks and ensure more of the conditioned air makes it to the desired rooms. Duct sealing requires a pre and post test to confirm savings (which are frequently substantial). More than 50% of the ducts must be outside of the home, such as in the crawlspace or attic.
- Commission & Controls (PTCS):** (C&C): Preparation, testing and reporting by the contractor to ensure a quality installation. Meant to assure the system will perform to achieve expected energy savings and system longevity.
- High Efficiency Heat Pump:** A high efficiency heat pump must have a Heating Seasonal Performance Factor (HSPF) of 9 or greater to qualify for the Benton REA incentives.
- Variable Speed Heat Pumps:** Heat pumps that have a compressor that adjusts its capacity to the heating/cooling demands of the home at that moment. Presumed benefits of this technology are higher efficiency, better comfort and increased longevity.
- Conversion:** Replacing an electric furnace with a high efficiency or variable speed heat pump.
- Upgrade:** Replacing an older heat pump with a high efficiency or variable speed heat pump. This also includes upgrades from zonal and other types of heating systems.
- HSPF:** Heating Seasonal Performance Factor (HSPF) is the number associated with heating efficiency (higher is better).
- SEER:** Seasonal Energy Efficiency Ratio (SEER) is a number associated with cooling efficiency (higher is better).



Return Confirmation of Completion form to:

Benton REA (Attn: Eric) or email to eMiller@BentonREA.org
P.O. Box 1150
Prosser WA 99350

Rebates may discontinue at any time – call 509-786-6751 to confirm.

| | |
|------------------------------------|---------------|
| Member/Owner Name: | Best Phone #: |
| Address of Home (where installed): | |
| Contractor: | |

This form is to confirm the items indicated in the Pre-Application are completed so the rebate funds can be released as requested. Please check the boxes for the measures that have been completed.

| Energy Efficiency Measure | Completed Items |
|---|--------------------------|
| Smart Thermostat - when installed by the contractor <ul style="list-style-type: none"> Qualifying models of Nest or Ecobee (see next page) | <input type="checkbox"/> |
| Duct Sealing – Site-built home <ul style="list-style-type: none"> For electrically heated homes not previously sealed | <input type="checkbox"/> |
| Duct Sealing – Manufactured home <ul style="list-style-type: none"> For electrically heated homes not previously sealed | <input type="checkbox"/> |
| Ductless Heat Pump (primary head in main living area) <ul style="list-style-type: none"> Replaces electric furnace or zonal as primary heating system | <input type="checkbox"/> |
| Commissioning and Controls (required on all PTCS installations) <ul style="list-style-type: none"> Also appropriate for new heat pumps with <9.0 HSPF | <input type="checkbox"/> |
| High Efficiency Heat Pump Upgrade with C&C <ul style="list-style-type: none"> Replaces older heat pump as primary heating system | <input type="checkbox"/> |
| Variable-Speed Heat Pump Upgrade with C&C <ul style="list-style-type: none"> Replaces older heat pump as primary heating system | <input type="checkbox"/> |
| High-Efficiency (HSPF≥9) Heat Pump Conversion with C&C <ul style="list-style-type: none"> Replaces electric furnace as primary heating system | <input type="checkbox"/> |
| Variable-Speed Heat Pump Conversion with C&C <ul style="list-style-type: none"> Replaces electric furnace as primary heating system | <input type="checkbox"/> |

 Member/Owner Signature

 Date

To receive the incentive, Benton REA must receive the following from you or your contractor: Residential HVAC Rebate Pre-Application, Heat Loss Calculations, A Sizing Tool, AHRI Certificate, PTCS Registry Report, PTCS Technician's Field Report, A Copy of the Final Invoice and this form.