

PTCS Program Newsletter: April 2021

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Upcoming PTCS Training Opportunities

If you or other HVAC professionals want to be certified to complete PTCS Heat Pump or Duct Sealing installations, [contact us](#) to register for one of these sessions:



Heat Pump Training

- 7:30 a.m. - 1:00 p.m. (PST), Monday, April 19.
- 7:30 a.m. - 1:00 p.m. (PST), Monday, May 24.
- 7:30 a.m. - 1:00 p.m. (PST), Monday, June 28.

Duct Sealing Training

- 7:30 a.m. - 12:30 p.m. (PST), Tuesday, April 20 & Wednesday, April 21.
- 7:30 a.m. - 12:30 p.m. (PST), Tuesday, June 29 & Wednesday, June 30.

To become certified and access PTCS Heat Pump utility incentives, technicians must attend a 5 1/2-hour online class and have access to a TrueFlow metering system from [The Energy Conservatory](#) and a digital pressure gauge. The PTCS Duct Sealing class consists of two half-day online classes. After completing the web-based classroom portion of the heat pump and duct sealing classes, technicians will schedule a time after the class for a 30-minute video call with our instructors to show proficiency with the testing processes.

New testing equipment from The Energy Conservatory can be purchased at a 12.5% discount through the PTCS program. Please contact us at 800-941-3867 or ResHVAC@bpa.gov for more information.

Stay up-to-date on upcoming trainings and other announcements at ptcs.bpa.gov.

Checking Refrigerant Charge During Cooling Season

Remember: When outdoor temperatures are above 65

degrees Fahrenheit, a subcooling test is required to confirm refrigerant charge for PTCS installations.

PTCS techs are occasionally experiencing challenges when performing subcooling tests on variable-speed heat pumps during hot weather. To help overcome this issue, PTCS specifications allow alternative refrigerant-measuring methods that are approved and documented by the manufacturer, including adding refrigerant based on line-set length.



Our experts can assist you with submitting this type of project to the PTCS Registry. You have two options:

- Email the completed PTCS form to ResHVAC@bpa.gov or fax to 877-848-4074 and we will complete the registry entry for you.
- Enter project data in the registry — except for the "refrigerant charge check." Instead, add the pertinent information for the alternative refrigerant charge check into the "Notes" field and save your progress. Follow up by contacting us at ResHVAC@bpa.gov or 800-941-3867, and the customer service team will review and manually approve the entry.



Proper System Evacuation

Installation of a new heat pump requires the technician to evacuate the refrigerant lines and indoor coil to ensure there is no air or moisture in the system. Using a vacuum pump and micron gauge is essential to this work. Regularly changing the vacuum pump oil will reduce the time it takes to pull a deep vacuum. Manufacturers recommend that a vacuum holds at or below 500 microns to ensure a clean and dry line set and coil.

Some manufacturers recommend a triple evacuation process:

1. Run the vacuum pump until the micron gauge reads below 2500 microns.
2. Break the vacuum with dry nitrogen.
3. Run the vacuum pump again until the micron gauge reads below 1000 microns,
4. Break the vacuum again with dry nitrogen
5. Run the vacuum pump again until the micron gauge reads and holds below 500 microns

Improperly evacuating the system will allow air and moisture to remain in the lines. It could also create acid that will damage components. Other issues may include:

- Higher than normal high-side pressure
- Excessive energy consumption
- Reduced life of the heat pump

If a proper evacuation and weighing in of additional refrigerant are followed, you will rarely need to further adjust refrigerant levels when commissioning the new heat pump.

Remote PTCS Heat Pump Quality Assurance Inspections and Contractor SPIF Incentive

To increase participation in the PTCS program's remote quality assurance, or QA, pilot for air source heat pumps, your local utility and BPA are offering a \$250-per-project contractor sales performance incentive fund, or SPIF to PTCS-certified contractors. Funds are limited and provided on a first-come, first-served basis.



The pilot will help ensure the heat pump is commissioned while your technician is onsite, avoid return visits, reduce administrative time and limit interruptions for your customers. We expect

remote QA inspections for air-source heat pumps will be standard following this pilot, and your input will be valuable in streamlining the process.

To participate in or inquire about this offer, please contact us at ResHVAC@bpa.gov or 800-941-3867.

Tonnage Rounding in the PTCS Registry

A system update of the PTCS Registry will improve its function and precision for projects with variable-speed air-source heat pump, or VSHPs. The Registry was initially designed to support single-speed and two-stage air source heat pumps. With greater adoption of VSHP technology, data entry occasionally resulted in “Rejected” projects when the VSHP’s airflow per ton did not meet the allowed range in the PTCS specification (325-500 CFM/ton). To address this issue, a new alert will warn the user if a project may be rejected due to inadequate airflow. The user will be able to manually edit the tonnage value of the VSHP to align with manufacturer’s nominal tonnage; however, the project status will go into “Pending” for a review and follow-up by PTCS staff. The update will also improve the Registry’s identification and rounding of VSHP tonnage values, specifically for 4- and 5-ton VSHPs. For questions concerning VSHPs or the Registry update, please contact the PTCS Contact Center at 800-941-3867 or ResHVAC@bpa.gov.

New Test Equipment Coming Soon

The Energy Conservatory is introducing a new version of the [TrueFlow® Air Handler Flow Meter](#). The new Digital Trueflow® is priced lower than the previous version and can be used with the [TEC Gauge app](#). Training sessions will soon be available from PTCS program staff once the product is available.

Don't forget, new testing equipment from The Energy Conservatory can be purchased at a 12.5% discount through the PTCS program. Please contact us at 800-941-3867 or ResHVAC@bpa.gov for more information.

