



## ***DUCTLESS HEAT PUMPS: SETTING A MARKET TRANSFORMATION STANDARD***

Since 2006, the Ductless Heat Pump (DHP) program has served as a testament to the resilience, flexibility and staying power of the alliance's Market Transformation efforts. Starting with a product that was virtually unknown in the Northwest—inverter-driven DHPs—the alliance overcame a host of market barriers by working with manufacturers and the supply chain to develop efficient products, build product distribution channels, increase market capacity and create consumer demand to accelerate adoption in electrically heated homes.

By the end of 2020, more than 110,000 DHPs had been installed across the Northwest, with 82,702 installations receiving rebates from 108 utilities. After 12 years of intervention, there is now a sustained market for the technology. Though Market Transformation objectives have been met, the alliance continues to provide market support on this product through long-term monitoring and tracking (LTMT). The DHP program transitioned to LTMT in 2021, allowing the alliance to further many of its commitments, including continuing to build on the substantial progress made in advancing DHP performance in colder climates.



Beyond the continued advancement of DHP technology, the DHP program has laid the foundation for further Market Transformation work in the residential HVAC market. For example, the alliance has built upon the lessons learned and strategies sharpened over the years to shape its approach to a new residential HVAC program committed to [advancing variable speed heat pumps](#)—a product that could save the region 50 aMW over 20 years.

“DHPs are the gateway to the future of HVAC,” said Robert Weber, engineer and residential tech lead at Bonneville Power Administration. “We started with a 1% market share, and we’ve been able to help the technology proliferate and mature from there. The region’s work on DHPs has served as the starting point for some really great heat pump solutions. This work will benefit all kinds of homes because the market is now ready for heat pump technology.”

## **BUILDING LOCAL ECONOMIES THAT SUPPORT SMALL BUSINESSES AND WORKERS**

From the beginning, the alliance knew that transforming the market would require a flexible approach that could be adapted to changing market conditions and market partner needs. This built-in flexibility and responsiveness helped the DHP program to not only advance the technology, but also to establish a new DHP-ready market that improves the economic circumstances of hundreds of small businesses and individuals in the Northwest. By supporting manufacturer training programs with technical materials, guidance and delivery, the alliance gave local businesses the support they needed to deliver energy-efficient services to local communities, including properly sizing and designing DHPs to work efficiently and effectively in all climates.

Over the years, these interventions helped local contracting companies strengthen their businesses using energy-efficient practices and products as a market differentiator. Now, 96% of HVAC installation companies in the Northwest install DHPs, and [according to a recent survey](#), they “always” or “often” recommend a DHP when applicable.

## THE NEVER-ENDING STORY OF MARKET TRANSFORMATION

Thanks to this adaptive approach, and constant exploration and collaboration with the supply chain, DHPs are expected to have a lasting foothold in the Northwest, with an opportunity to serve a wide variety of customers, including low-income and manufactured homes.

“DHPs are incredibly common now,” said Jess Kincaid, acting Energy Efficiency programs manager at BPA. “Thanks to these Market Transformation efforts, consumers are aware of the technology’s benefits, installers know how to sell and install, and utilities have collectively saved megawatts over the last 15 years.”

With the program in its LTMT phase, the alliance plans to fortify this lasting progress in a variety of ways, including by:

- Tracking target market progress, particularly in colder areas of the region, to ensure market adoption continues to grow.
- Continuing to access DHP and other HVAC sales data through market-partner relationships.
- Advancing an improved test procedure and rating system for residential heat pumps to ensure clear and accurate differentiation of heat pump products.
- Maintaining strong supply chain relationships to engage with new products and monitor market dynamics.
- Performing market scanning and research on smart technology and trends.
- Informing the creation of new residential HVAC programs, such as [variable speed pumps](#).

**TOGETHER** *We Are Transforming the Northwest*

