Success Story: Commercial HVAC

HVAC Transformation: Dual-Fuel Solutions Elevate Building Health and Efficiency

By transforming the commercial HVAC market for good, NEEA has ushered in a new era of healthy, resilient and efficient buildings in the Northwest. NEEA's end-to-end approach to Market Transformation begins with testing emerging products and design approaches to verify the best outcomes for Northwest consumers, including those in the commercial sector. Once solutions are validated, NEEA equips manufacturers with the data and market support they need to bring the best-performing products to the Northwest. Then, with manufacturers on board, NEEA ensures the Northwest's commercial building market is ready to adopt new approaches by providing technical guidance and building strong buy-in and awareness of the multifaceted value of these proven technologies and techniques.

Across fuel types and commercial sectors, NEEA's work continues to significantly reduce energy use throughout the region, improve indoor comfort, and protect building occupants from the spread of potentially devastating viral contaminants. As demonstrated by the success of NEEA's **Efficient Rooftop Unit (RTU) program** and **High-Performance HVAC program,** these Market Transformation outcomes provide ongoing value to owners, operators and occupants of gas and electric buildings.

Efficient RTU Program

Efficient RTUs that incorporate heat recovery and tighter, better insulated shells can deliver as much as 40% energy savings beyond minimum efficiency RTUs. Recognizing that widespread adoption of efficient RTUs could generate annual savings between 3 million and 10 million therms by 2039, NEEA's upstream Market Transformation strategies include:

- Working directly with manufacturers to produce an increasing variety and volume of units at lower price points.
- Differentiating more-efficient units by developing a voluntary specification and qualified products list.

Ultimately, NEEA's Efficient RTU program will provide evidence to support a federal standard by 2030 that requires at least 20% more efficient RTUs than the 2020 market average.

See additional efficient RTU resources at **betterbricks.com/rtu.**

High-Performance HVAC Program

NEEA's upstream and midstream Market Transformation interventions have long paved the way for very high efficiency dedicated outdoor air systems (DOAS) in the Northwest market. Very high efficiency DOAS represents the next step in the ongoing evolution of HVAC design. These systems use the most efficient equipment and key design principles to provide cleaner and safer indoor air and enhance indoor comfort—while reducing commercial building HVAC energy use by an average of 69% over code.

The unique design principles and technology requirements of very high efficiency DOAS require the alliance to collaborate with manufacturers, distributors and designers to generate strong system awareness and buy-in. NEEA's Market Transformation strategies leverage influential organizations like ASHRAE and trusted mechanical system experts to introduce this new approach to building professionals, help the market gain experience, and highlight the additional value to the end customer.

The High-Performance HVAC program also works with partner efficiency programs across the U.S. to build demand for the very high efficiency equipment required in the design, and ultimately influence manufacturers to increase availability of this equipment. Since the program's inception, the alliance has grown the qualifying product list from one manufacturer with a handful of products to nine manufacturers and well over 100 products spanning price points and size categories.

See additional very high efficiency DOAS resources at **betterbricks.com/vhedoas.**

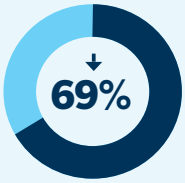
Find out more about these and other NEEA Market Transformation programs at **neea.org/our-work/programs.**

400,000+ RTUs in the Northwest

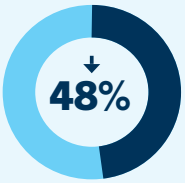
Used by small and medium commercial buildings such as:

- Schools
- Shopping centers
- Grocery stores
- Restaurants
- Office buildings

In 12 demonstration projects in the Northwest, very high efficiency DOAS upgrades delivered on average:*



69% HVAC energy reduction



48% whole-building energy reduction

*Compared to existing code-minimum systems

www.neea.org

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