Fact Sheet

COMMERCIAL BUILDING HEAT PUMP ACCELERATOR

Commercial building space conditioning accounts for approximately 40% of commercial energy use in the United States. Heat pump rooftop units (RTUs) are estimated to reduce GHG emissions and energy costs by up to 50% compared with conventional RTUs (with natural gas heating). While demand is growing, fewer than 15% of commercial buildings in the U.S. currently have heat pumps. Heat pump adoption is even lower in cold climates, where the performance and availability of commercial building equipment lags behind residential systems. Through the **Commercial Building Heat Pump Accelerator**, DOE will work with key stakeholders to develop and deploy this technology. The Accelerator will run through December 2027.

Accelerator Components

- **Commercial Building Heat Pump Technology Challenge**

  The Commercial Heat Pump Technology Challenge's goal is to produce life cycle cost and emissions-effective Heat Pump RTUs that help organizations meet their energy efficiency needs and decarbonization objectives. Manufacturers are challenged to develop new equipment that meets an advanced technology specification developed by the U.S. Department of Energy (DOE). DOE, partnering with the National Renewable Energy Laboratory and other laboratories, will develop prototypes with manufacturers, test the performance and durability of the products, and lead field validations with Better Buildings partners. Units will be available for purchase as soon as 2027.

- **Commercial Building Heat Pump Campaign**

  DOE will work with end users and other stakeholders to increase the adoption of both existing and emerging technologies to meet market demand. Through this campaign, DOE will provide building owners and operators with resources and guidance to deploy heat pump technology to support both site-level and portfolio-level installations. Other resources include estimates on emissions and economic comparisons for different geographic regions, and case studies showcasing how building owners have successfully implemented heat pump RTUs to achieve decarbonization goals. Campaign participants can join working groups on topic areas including manufacturer equipment specifications, validation activities, workforce challenges, best practices, and utility engagement.

Who Can Join the Commercial Building Heat Pump Accelerator?

- The technology challenge is open to commercial heat pump manufacturers.
- The campaign is open to building and plant owners and operators, utilities, and other supporting organizations that may include non-profits, NGOs, associations, and trade organizations.

Commercial Building Heat Pump Technology Challenge

PARTNERS WILL

- **Commit** to bring to market advanced technologies to meet end user needs, including a heat pump RTU that meets or exceeds the specifications of the technology challenge by the end of 2027
- **Collaborate** with DOE to better understand barriers, unit performance, technical challenges, and opportunities for advanced technologies
- **Provide** quarterly updates on development progress, including preliminary results and performance data, product challenges, testing needs, and expected milestone timelines
- **Share** company's name and logo to be included in technology challenge materials

DOE WILL

- **Provide** technical support to partners, including by connecting them with National Laboratory capabilities for analysis and testing, assistance matching field testing locations
- **Convene** manufacturers, commercial building owners, utilities, state agencies, and other stakeholders
- **Recognize** manufacturers who successfully meet the technology challenge specifications

Commercial Building Heat Pump Campaign

PARTNERS WILL

- **Commit** to advancing the deployment of heat pump RTUs on commercial buildings
- **Commit** to evaluating and, if deemed suitable, purchasing new units developed as a result of the Commercial Heat Pump Technology Challenge.
- **Share** how your organization will support high efficiency and low carbon RTUs and collaborate on educational and awareness initiatives
- **Share** your organization's name and logo to be included in campaign materials

DOE WILL

- **Recognize** campaign partners that implement high performance RTUs across their portfolios
- **Assist** participants in the research and development of educational and training materials for new heat pump products and support resources for successful installation and maintenance
- **Facilitate** peer-to-peer learning among partners and convene working groups to discuss barriers and identify solutions

Join Today

Click to access the Campaign Partnership Agreement.

Click to access the Challenge Partnership Agreement.

Please send completed agreements to BetterBuildings@ee.doe.gov.