

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

August 29, 2024

Dear ENERGY STAR® Packaged Terminal Air Conditioner (PTAC) or Packaged Terminal Heat Pump (PTHP) Manufacturer or Other Interested Stakeholder:

With this letter, the U.S. Environmental Protection Agency (EPA) is releasing the enclosed [Draft 1 ENERGY STAR Version 1.0 Packaged Terminal Heat Pump \(PTHP\) specification](#). The EPA will hold a public webinar on September 12, 2024, at 1 PM ET to discuss the Draft 1 specification in greater detail. The EPA invites the public to submit comments on this draft proposal no later than September 30, 2024.

ENERGY STAR is a voluntary partnership between government, businesses, and purchasers designed to encourage the manufacture, purchase, and use of efficient products to help protect the environment. Products that earn the ENERGY STAR label prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by EPA in consultation with stakeholders. To date:

- More than 90% of American households recognize the ENERGY STAR label.
- Approximately 1,800 manufacturers and 1,200 retailers partner with ENERGY STAR to make and sell millions of ENERGY STAR certified products across more than 75 residential and commercial product categories.
- More than 840 utilities, state and local governments, and nonprofits leverage ENERGY STAR in their efficiency programs, reaching roughly 97% of households in all 50 states.
- Since 1992, ENERGY STAR and its partners helped American families and businesses save 5 trillion kilowatt-hours of electricity, avoid more than \$500 billion in energy costs, and achieve 4 billion metric tons of greenhouse gas reductions.

In developing a specification for PTHPs, the EPA's goal is to highlight for purchasers the PTHP models that will help them save energy, reduce greenhouse gas emissions, and minimize their heating and cooling costs. Given the standard sizing of PTACs and PTHPs and the frequency of one-to-one retrofits, the Agency also seeks to encourage customer selection of an efficient PTHP as a replacement for an electric-resistance heating PTAC. Several PTHP manufacturers have expressed interest in an ENERGY STAR program, noting frequent customer requests for ENERGY STAR models, particularly in the hospitality sector. The EPA is also interested in the applicability of PTHPs to multifamily housing as a potential solution for buildings seeking to efficiently decarbonize.

Overview of Draft 1 Proposal

The EPA is proposing that to qualify for the ENERGY STAR recognition, a unit that meets the definition of a PTHP and provides heat through a reverse-cycle refrigeration loop must be at least 6% more efficient than the current DOE minimum standard for both heating and cooling. Given the interchangeability of PTACs and PTHPs in application, the EPA has considered a combination of both products as representative of the market in its analysis of energy savings potential and consumer payback in the proposed ENERGY STAR specification. Out of currently available PTACs and PTHPs, approximately 26% of standard size and 17% of non-standard size basic models meet the proposed criteria.

The EPA calculated that an ENERGY STAR certified PTHP at the proposed levels would have, on average, less than a 6-year consumer payback period when compared to a baseline PTAC, and less than a 4-year consumer payback period when compared to a baseline PTHP. However, this payback period greatly varies with a building's heating needs and may be less than 4 years when switching a baseline PTAC to an ENERGY STAR certified PTHP in climates with more heating days, for buildings without centralized heating, and for buildings that use individual space heaters. The EPA estimates that at the proposed levels, the national annual cost savings will grow to \$86 million with over 1 billion pounds of greenhouse gas emissions prevented each year. As with all ENERGY STAR products, the EPA has worked with the Department of Energy (DOE) on this draft proposal and will ensure it continues to be informed by the DOE regulatory process.

Key elements of the Draft 1 proposal include:

- Definitions of eligible products
- COP and EER minimum requirements, varying by standard and non-standard sizing and cooling capacity

Stakeholder Meeting:


EPA will host a webinar on **September 12, 2024, from 1 PM – 3 PM ET** to discuss the Draft 1 document and address initial stakeholder comments and questions. Please register to attend the webinar [here](#).

Comment Submittal:

The public is encouraged to provide written comments for EPA consideration to HVAC@energystar.gov no later than **September 30, 2024**. As a reminder, all submitted comments will be posted to the [ENERGY STAR product development website](#) unless the submitter specifically requests their respective comments remain confidential.

Please contact me, Holly Tapani, EPA, at Tapani.Holly@epa.gov or 202-751-5089, or Megan McNelly, ICF, at Megan.McNelly@icf.com with questions or concerns. Thank you for your continued support of the ENERGY STAR program.

Sincerely,

A handwritten signature in black ink, appearing to read "Holly Tapani". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Holly Tapani, Product Manager ENERGY STAR HVAC
U.S. Environmental Protection Agency

Enclosures:

[ENERGY STAR Version 1.0 PTHP Draft 1 Specification](#)

[ENERGY STAR Version 1.0 PTHP Draft 1 Data & Analysis Package](#)