



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

OFFICE OF
AIR AND RADIATION

July 16, 2020

Dear ENERGY STAR® Geothermal Heat Pump Brand Owner or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) is pleased to provide you with the final Version 3.2 [ENERGY STAR Geothermal Heat Pump \(GHP\) specification](#). This amendment adds explicit requirements for direct geexchange (DGX)-to-water heat pumps. Currently certified products are not affected by this update.

EPA thanks stakeholders for their comments in support of this amendment and the adoption of American National Standards Institute/Air Conditioning, Heating, and Refrigeration Institute (ANSI/AHRI) 870-2016 “Performance Rating of Direct Geexchange Heat Pumps” as the updated test method.

In the Version 3.2, EPA has clarified the use of the term “remote unit” as requested by stakeholder comments. This term is used within the specification and the test method to refer to the portion of a split system that houses the compressor. Unlike an air-source unit, where there is a clear indoor and outdoor unit, the compressor portion of a split-type geothermal heat pump is often located indoors, but out of the conditioned space. For this reason, “remote unit” is used within the definition of the basic model group.

One stakeholder requested a clarification on how EPA derived the proposed efficiency levels for DGX-to-water products. EPA used the difference in efficiency of closed loop to water-to-air and closed loop water-to-water and applied that to the DGX-to-air level to arrive at a DGX-to-water level. While other methods might suggest a slightly higher level, and there are DGX-to-water units that meet a higher level, EPA chose an inclusive level because GHPs are among the most efficient heating and cooling technologies available to residential consumers. EPA does appreciate these comments and will take them under consideration for future revisions to this specification. EPA additionally received a request to clarify if the specification had a limitation on the heating or cooling capacities of the equipment. The specification does limit the scope to single-phase units but does not place limits on capacity at this time. EPA may consider adding this limitation in a future revision, as needed.

As a final note, EPA wishes to inform geothermal heat pump partners that it has updated its qualified products exchange to allow brand owners to submit refrigerant information. To the extent brand owners wish to share it, this information will be displayed on the consumer facing ENERGY STAR website list of qualified products.

All materials related to this amendment are posted on the [ENERGY STAR Geothermal Heat Pump Version 3 development page](#). Please direct any specific questions to Abigail Daken, EPA, at daken.abigail@epa.gov or (202) 343-9375, and Julia Hegarty, ICF, at julia.hegarty@icf.com

or (202) 862-1163. General questions about this product category can be directed to ghps@energystar.gov.

Thank for your continued support of the ENERGY STAR program.

Sincerely,

A handwritten signature in cursive script, appearing to read "Abigail Daken".

Abigail Daken, Product Manager
ENERGY STAR for HVAC

Enclosures:

[Version 3.2 ENERGY STAR Geothermal Heat Pump Specification](#)