

DOE Zero Energy Ready Home Waiver for the use of Air Source Heat Pumps in Climate Zone 7, through the Performance Compliance Pathway

July 1, 2021

The U.S. Department of Energy (DOE) Zero Energy Ready Home (ZERH) Version 1 program currently requires relatively low Energy Rating Index (ERI) scores for homes in Climate Zone 7 that are using air source heat pumps (ASHPs) as the home's heating system.

This waiver policy provides a pathway to utilize ASHPs in Climate Zone 7 that will result in DOE ZERH ERI Target Scores that are more comparable to those found in Climate Zone 6. At the same time this waiver policy requires that an ASHP used in Climate Zone 7 has sufficient heating capacity to meet the home's heating load at the design temperature. Note that this waiver is a *temporary* policy for DOE ZERH Version 1 that will be sunset once the ERI modeling software used to determine DOE ZERH V1 compliance is updated to reflect a revised algorithm for ASHPs in Climate Zone 7.

Raters should take the following steps to utilize this pathway for Climate Zone 7 homes that are using an ASHP as the home's heating system.

1. Confirm that the home is located in Climate Zone 7, and is using an ASHP for the home's heating system.
2. Complete an energy model for the home based on its specifications and its location in Climate Zone 7. This model should reflect the Proposed Home's use of the proposed air-source heat pump.
3. Using this energy model, modify the project location to reflect the nearest county that is located in Climate Zone 6. For this revised energy model, record the DOE Zero Energy Ready Home Version 1 ERI Target Score. This is the maximum ERI score permitted for DOE ZERH V1 compliance. If the Size Adjustment Factor (SAF) applies, then record the DOE ZERH V1 ERI Target Score with the SAF applied. Document the DOE ZERH ERI Target score using a software report or a screen capture.
4. Change the energy model back to the actual project location in Climate Zone 7. Note the ERI Score of the Proposed Home.
5. Confirm and provide to the DOE ZERH program the Project Submission form below.
6. Submit the Project Submission form and documentation of the DOE ZERH ERI Target (Step #3 above) to the DOE ZERH program via email to zero@newportpartnersllc.com. DOE ZERH certification certificates will be sent back to the energy rater within 3-5 business days following the submission of a complete and accurate waiver form.

This waiver policy is in effect and available for use for homes permitted on or after July 1, 2020. The DOE ZERH program may revise or sunset this waiver policy in the future, and will provide such updates on the program website under Waivers.

For questions on this waiver policy please contact the DOE Zero Energy Ready Home program at zero@newportpartnersllc.com.

ASHP Temporary Waiver for Climate Zone 7 – Project Submission Form

Date of Submission:

Site Address:

Builders Name:

DOE Zero Energy Ready Home Builder ID#:

Certified Rater:

Date of Rating:

ERI Score of Proposed Home:

DOE ZERH Target ERI Score based on Waiver Policy (from Step 3 in the 7/1/2021 Waiver Policy):

House Type: Single-family detached Attached Duplex Low-rise multifamily Other:

Year Built:

of Bedrooms:

Square footage of Conditioned Space including Basement:

Square footage of conditioned space without Basement

Rater Confirms:

- The ERI Score of the Proposed Home is less than or equal to the DOE ZERH V1 ERI Target Score recorded in Step 3 of the 7/1/2021 Waiver Policy.
- The rated heating capacity of the ASHP at design conditions is equal to or greater than the home's heating load at design temperature.
- The home satisfies all other applicable DOE ZERH V1 program requirements, based on the current Revision of the program specifications that are in effect.

Mandatory Requirements: (Exhibit 1 in DOE Zero Energy Ready Home National V1 Program Requirements). Rater confirms that the home complies with:

- Mandatory ENERGY STAR Qualified Homes Version 3 Requirements and Certification
- Mandatory Fenestration Requirements
- Mandatory Insulation Requirements
- Mandatory Duct Location Requirements
- Mandatory Water Efficiency Requirements
- Mandatory Appliance Requirements
- Mandatory Lighting Requirements
- Mandatory Fan Efficiency Requirements
- Mandatory Indoor airPLUS Requirements & Certification
- Mandatory Renewable Energy Ready Solar Electric Requirements

Additional, *optional* programs: the home complies with:

- Certified under the EPA WaterSense for New Homes Program
- Certified under the IBHS Fortified for Safer Living Program
- Followed the DOE Zero Energy Ready Home Quality Management Guidelines
- The buyer of this home signed a waiver giving DOE Zero Energy Ready Home access to utility bill data for one year

Additional Documentation to Submit:

- Appendix to this submission form documentation of the DOE ZERH V1 ERI Target score, with the home located in Climate Zone 6 (as described in Step 3 of the 7/1/2021 Waiver Policy), using a software report or a screen capture.