DOE Zero Energy Ready Home Program Certification Protocol

for Homes and Apartments

Using an Energy Rating Index or Dwelling Unit Modeling Compliance Path

Effective Date: 1/1/2023



DOE ZERH Program Requirements for Home Certifications Using an Energy Rating Index or a Dwelling Unit Modeling Compliance Path

Homes and apartments certified to the U.S. Department of Energy (DOE) Zero Energy Ready Home (ZERH) program using the Energy Rating Index (ERI) or Dwelling Unit Modeling compliance paths must be certified through a DOE-recognized Home Certification Organization for Zero Energy Ready Homes (HCO for ZERH) in accordance with the Standards and DOE ZERH Program Requirements identified below. Stakeholders should refer to the DOE ZERH program requirements website to determine the required program version and revision for a given project, based on location, building type, and permit date. Both ERI and Dwelling Unit Modeling compliance paths are included in the following DOE ZERH program requirements documents:

- DOE Zero Energy Ready Homes, Single Family National Program Requirements
- DOE Zero Energy Ready Homes, Multifamily National Program Requirements
- DOE Zero Energy Ready Homes, Single Family California Program Requirements
- DOE Zero Energy Ready Homes, Multifamily California Program Requirements

These program requirements include references to additional documents that establish the modeling benchmark against which to model homes (i.e., the ERI Target Procedure), reference standards for specific calculations and testing procedures, and a policy record that tracks ongoing updates to the program requirements. These additional documents are listed in the sections below.

ERI Target Procedures

The following documents are referenced within the program requirements documents and contain additional information about how to determine the DOE ZERH ERI Target that must be met for certification:

- DOE ZERH for Single Family Homes Version 2 ERI Target Procedure
- DOE ZERH Multifamily Version 2 ERI Target Procedure *

Referenced Standards in the ZERH Program Requirements

- ANSI/RESNET/ICC Standard 301-2019, "Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index," including published Addenda.
- ANSI/RESNET/ICC 380-2019, "Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems," including published Addenda.
- For California: Data Input requirements and On-Site Inspection Procedures in the California Home Energy Rating System (HERS) Technical Manual.

 Indicates that a document is under development as of the time of this document's most recent revision Note: additional reference standards aside from those listed above may be embedded within the ZERH <u>prerequisite</u> requirements for certification under the ENERGY STAR Residential New Construction and Indoor airPLUS programs.

DOE ZERH New Construction Program Policy Record

DOE periodically updates program requirements in response to partner questions and/or revisions to reference standards. These updates are contained in the DOE ZERH Policy Record, which are posted on the website for each program version. Any change or clarification published by DOE can be applied immediately.

Informative References from the Program Requirements

The following documents are listed below for informative purposes, as they are referenced within the program requirements documents. These documents outline measures and procedures that must be met for certification:

DOE Zero Energy Ready Homes – Single Family

- ZERH Single Family Homes Version 2 National Rater Field Checklist
- ZERH PV-Ready Checklist Version 2
- ZERH Single Family Homes for California Version 2, CA Rater Field Checklist*

DOE Zero Energy Ready Homes – Multifamily*

- ZERH Multifamily Version 2 National Rater Checklist*
- ZERH Multifamily for California Version 2, CA Rater Field Checklist*

DOE ZERH Requirements for Certification Organizations Using an ERI or Energy Modeling Compliance Path

Home Certification Organizations for ZERH (HCOs for ZERH) are independent organizations that are recognized by DOE to implement a ZERH certification program that complies with all DOE ZERH Program certification system requirements, described in <u>Certification System for Homes and Apartments Using an Energy Rating Index or Dwelling Unit Modeling Compliance Path</u>. The sections below list documents that are integrated into the implementation of the ZERH Certification System, where single-family and multifamily homes are certified using the Energy Rating Index (ERI) or dwelling unit modeling.

Application for Recognition as an HCO for ZERH

The Application for DOE Recognition as a ZERH Certification Organization is included in the document: *DOE* Zero Energy Ready Home Program <u>Certification System for Homes and Apartments Using an Energy</u> <u>Rating Index or Dwelling Unit Modeling Compliance Path</u>. Responsibilities of HCOs for ZERH include: training and credentialing of raters operating under the HCO for ZERH; ensuring the use of approved software rating tools in certifications; implementing quality control protocols; issuing the ZERH certificate for certified homes; administering a resolution process for homeowner inquiries; and conducting recordkeeping and reporting.

DOE ZERH Quality Assurance Checklists

The following documents provide direction for an HCO for ZERH's quality assurance personnel during quality assurance file review and field evaluation.

- Zero Energy Ready Home Single Family Homes, Version 2 Quality Assurance & Certification Review Checklists
- Zero Energy Ready Home Multifamily, Version 2 Quality Assurance & Certification Review Checklists*

Certification Review Policy

The following webpage provides guidance on the Certification Review process by which HCOs for ZERH respond to homeowner concerns with DOE ZERH certified homes:

https://www.energy.gov/eere/buildings/complaints-and-zerh-certification-review