

# ENERGY STAR<sup>®</sup>

## Residential New Construction Programs

### Historical Document

This document is provided for reference because it has been superseded by a more recent Version or Revision. Please find current program documents on the [Program Requirements](#) webpage.

Use of older Versions and Revisions, such as this document, are typically limited to homes and buildings with a permit date (or, for manufactured homes, a production date) prior to a specified date. Consult the [Implementation Timeline](#) table to assess whether a home or apartment is still eligible to be certified using this document.

For questions or more information, contact us at [energystarhome@energystar.gov](mailto:energystarhome@energystar.gov).



# ENERGY STAR Single-Family New Homes California Program Requirements, Version 3.4 (Rev. 13)

## Eligibility Requirements

Site-built or modular <sup>1</sup> detached Dwellings <sup>2</sup> (e.g., single-family homes, duplexes) and Townhouses <sup>3</sup> are eligible to participate in the ENERGY STAR Single-Family New Homes (SFNH) program. To determine the applicable SFNH program requirements, including the minimum Version and Revision, to which a home is eligible to be certified, visit [www.energystar.gov/SFNHversions](http://www.energystar.gov/SFNHversions).

While primarily intended for new construction, existing homes (e.g., undergoing a gut rehabilitation) are also eligible to participate in the ENERGY STAR SFNH program, with guidance available at: [www.energystar.gov/GutRehabGuidance](http://www.energystar.gov/GutRehabGuidance).

For information about other ENERGY STAR residential new construction programs, visit [www.energystar.gov/newhomesrequirements](http://www.energystar.gov/newhomesrequirements).

Note that compliance with these requirements is not intended to imply compliance with all local code requirements. <sup>4</sup>

## Partnership, Training, and Credentialing Requirements

The following requirements must be met prior to certifying homes:

- Builders are required to sign an ENERGY STAR Partnership Agreement and complete the online Version 3 Builder Orientation, which can be found at [www.energystar.gov/homesPA](http://www.energystar.gov/homesPA).
- HVAC installing contractors are required to be credentialed by an EPA-recognized HVAC Quality Installation Training and Oversight Organization (H-QUITO) for homes certified using Track B in Exhibit 1. An explanation of this process can be found at [www.energystar.gov/newhomesHVAC](http://www.energystar.gov/newhomesHVAC).
- Energy Rating Companies (e.g., rater companies and Providers <sup>5</sup>) are required to sign an ENERGY STAR Partnership Agreement, which can be found at [www.energystar.gov/homesPA](http://www.energystar.gov/homesPA).
- Raters <sup>6</sup> are required to complete EPA-recognized training, which can be found at [www.energystar.gov/newhomestraining](http://www.energystar.gov/newhomestraining), and be credentialed by a Home Certification Organization (HCO) prior to completing inspections. Learn more at [www.energystar.gov/hco](http://www.energystar.gov/hco).

## ENERGY STAR Certification Process

1. The certification process provides flexibility to select a custom combination of measures for each home that meets one of two performance targets, as assessed through energy modeling. Select one of the two following performance targets:
  - a. An Efficiency Energy Design Rating (EDR2 Efficiency) that is  $\geq 5$  points better than that of the Standard Design corresponding to the home, as defined by the 2022 Building Energy Efficiency Standards and determined by a CEC-approved software program. <sup>7</sup>
  - b. A Compliance Margin (EDR2)  $\geq 10\%$  compared to the Compliance Total of the Standard Design TDV Energy corresponding to the home, as defined by the 2022 Building Energy Efficiency Standards and determined by a CEC-approved software program. <sup>7</sup>

2. Configure the preferred set of efficiency measures for the home to be certified and verify that the resulting performance meets or exceeds the applicable performance target using the applicable software program, as determined in Step 1.

Note that, regardless of the measures selected, the Mandatory Requirements for All Certified Homes in Exhibit 1 are also required and impose certain constraints on the efficiency measures selected (e.g., insulation levels, insulation installation quality, window performance, duct leakage).

3. Construct the home using the measures selected in Step 2 and the Mandatory Requirements for All Certified Homes, Exhibit 1.
4. Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Homes and with Data Input requirements and On-Site Inspection Procedures for California HERS Ratings. <sup>6</sup> This will require a minimum of two inspections: one at pre-drywall and the other at final. All items shall be verified for each certified home and sampling protocols shall not be used. For modular homes, a Rater must verify any requirement in the plant not able to be verified on-site because a feature will be concealed prior to shipment. Finally, submit the home to the HCO for final certification and follow the HCO's certification and oversight procedure (e.g., quality assurance, recordkeeping, and reporting). The Rater is required to keep electronic or hard copies of the completed and signed National Rater checklists and either an HVAC design report compliant with ANSI / RESNET / ACCA / ICC 310, and the National HVAC Design Supplement to Std. 310 for Dwellings & Units, for homes using Track A, or the National HVAC Design Report for homes using Track B.

The Rater must review all items on the National Rater checklists to verify that each inspection checklist item has been met within program-defined tolerances. In the event that a Rater determines that a program requirement has not been met, the home cannot earn the ENERGY STAR until the item is corrected. If correction of the item is not possible, the home cannot earn the ENERGY STAR. In the event that an item on a National Rater checklist cannot be inspected by the Rater, the home cannot earn the ENERGY STAR. The only exceptions to this rule are in the Thermal Enclosure System Section of the National Rater Field Checklist, where the builder may assume responsibility for verifying a maximum of eight items. This option shall only be used at the discretion of the Rater. When exercised, the builder's responsibility will be formally acknowledged by the builder signing the checklist for the item(s) they verified.

In the event that a Rater is not able to determine whether a program requirement has been met (e.g., an alternative method of meeting a checklist requirement has been proposed), then the Rater shall consult their Provider. If the Provider also cannot make this determination, then the Rater or Provider shall report the issue to EPA prior to project completion at: [energystarhomes@energystar.gov](mailto:energystarhomes@energystar.gov) and will receive an initial response within 5 business days. If EPA believes the current program requirements are sufficiently clear to determine whether the item in question has been met, then this guidance will be provided to the partner and enforced beginning with the house in question. In contrast, if EPA believes the program requirements require revisions to make the intent clear, then this guidance will be provided to the partner but only enforced for homes permitted after a specified transition period after the release of the revised program requirements, typically 60 days in length.

This will allow EPA to make formal policy decisions as partner questions arise and to disseminate these policy decisions through the [Policy Record](#) and the periodic release of revised program documents to ensure consistent application of the program requirements.



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Two tracks are provided for satisfying the mandatory requirements for all certified homes, Exhibit 1. Track A - HVAC Grading utilizes ANSI / RESNET / ACCA / ICC 310<sup>8</sup>, a standard for grading the installation of HVAC systems. Track B - HVAC Credential utilizes an HVAC contractor credentialed by an EPA-recognized H-QUITO. Either track may be selected, but all requirements within that track must be satisfied for the home to be certified.

## Exhibit 1: Mandatory Requirements for All Certified Homes

Party Responsible	Mandatory Requirements
<b>Requirements Applicable to Track A &amp; B</b>	
<b>Rater</b>	<ul style="list-style-type: none"> <li>• Completion of SFNH National Rater Design Review Checklist, Version 3 / 3.1 / 3.2<sup>9</sup></li> <li>• Completion of SFNH National Rater Field Checklist, Version 3 / 3.1 / 3.2</li> </ul>
<b>Builder</b>	<ul style="list-style-type: none"> <li>• Completion of SFNH National Water Mgmt. System Builder Reqs., Version 3 / 3.1 / 3.2</li> </ul>
<b>Requirements Only Applicable to Track A - HVAC Grading<sup>8</sup></b>	
<b>HVAC System Designer</b>	<ul style="list-style-type: none"> <li>• Completion of an HVAC design report compliant with ANSI / RESNET / ACCA / ICC 310, plus the SFNH / MFNC National HVAC Design Supplement to Std. 310 for Dwellings &amp; Units, All Versions.</li> </ul>
<b>HVAC Installing Contractor</b>	<ul style="list-style-type: none"> <li>• While the HVAC contractor plays a critical role in properly installing and commissioning a system, the Rater is the party responsible for assessing its installation quality, per ANSI / RESNET / ACCA / ICC 310. However, the installing contractor may be required to provide documentation to support the Rater's assessment (e.g., regarding the refrigerant system).</li> </ul>
<b>Requirements Only Applicable to Track B - HVAC Credential</b>	
<b>HVAC System Designer</b>	<ul style="list-style-type: none"> <li>• Completion of SFNH National HVAC Design Report, Version 3 / 3.1 / 3.2</li> </ul>
<b>HVAC Installing Contractor</b>	<ul style="list-style-type: none"> <li>• Completion of SFNH National HVAC Commissioning Checklist, Version 3 / 3.1 / 3.2</li> </ul>

### Footnotes:

1. A modular home is a prefabricated home that is made of multiple modules or sections that are manufactured and substantially assembled in a manufacturing plant. These pre-built sections are transported to the building site and constructed by a builder to meet all applicable building codes for site-built homes.
2. A Dwelling, as defined by ANSI / RESNET / ICC 301, is any building that contains one or two Dwelling Units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes. ANSI / RESNET / ICC 301 defines a Dwelling Unit as a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.
3. A Townhouse, as defined by ANSI / RESNET / ICC 301, is a single-family Dwelling Unit constructed in a group of three or more attached units in which each unit extends from the foundation to roof and with open space on at least two sides.
4. While certification will result in compliance with many code requirements, a Rater is not responsible for ensuring that all code requirements have been met prior to certification. In the event that a code requirement, a manufacturer's installation instructions, or an engineering document conflict with a requirement of the ENERGY STAR program (e.g., slab insulation is prohibited to allow visual access for termite inspections), then the conflicting requirement within these program requirements shall not be met. Certification shall only be allowed if the Rater has determined that no equivalent option is available that could meet the conflicting requirement (e.g., switching from exterior to interior slab edge insulation). Note that a home must still meet its performance target. Therefore, other efficiency measures may be needed to compensate for the omission of the conflicting requirement.
5. The term 'Provider' refers to an Approved Rating Provider, defined as an Approved entity responsible for the certification of raters working under its auspices and who is responsible for the Quality Assurance of such Certified Raters and for the Quality Assurance of Energy Ratings produced by such Certified Raters.

Approved shall mean approved by an HCO recognized by EPA to implement an ENERGY STAR certification program in California.

Quality Assurance is defined as the systematic processes intended to ensure reliable compliance with applicable standards.

A Certified Rater is defined as an individual who has become qualified to conduct California HERS Ratings through certification under an HCO recognized by EPA to implement an ENERGY STAR certification program in California.

An Energy Rating is defined as an unbiased indication of a Dwelling Unit's relative energy performance based on consistent inspection procedures, operating assumptions, climate data and calculation methods in accordance with the Data Input requirements and On-Site Inspection Procedures for California HERS Ratings.

6. The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, as defined in Footnote 5; and, b) have attended and successfully completed an EPA-recognized training class. See [www.energystar.gov/newhomestraining](http://www.energystar.gov/newhomestraining).
7. CEC-approved computer programs can be found at: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1>. Any measure that contributes to the Efficiency EDR (EDR2 Efficiency) or Compliance Margin (EDR2), as recognized by CEC-approved computer programs, is permitted to be used to meet these performance targets.



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8. Track A – HVAC Grading shall use ANSI / RESNET / ACCA / ICC 310 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under.
9. Homes certified using this version of the program requirements are automatically deemed compliant with Items 2.1 and 3.1 of the National Rater Design Review Checklist, Version 3 / 3.1 / 3.2 (Rev. 13) due to the inability of CEC-approved software to calculate the total thermal envelope UA and in consideration of the rigor of the 2022 Building Energy Efficiency Standards.