ENERGY STAR Multifamily New Construction
Oregon and Washington Program Requirements, Version 1.2 (Rev. 05)

These Program Requirements shall only be used in the States of Oregon and Washington

Eligibility Requirements

The following multifamily building types are eligible to participate in the ENERGY STAR Multifamily New Construction (MFNC) program:

- Any multifamily building with dwelling or sleeping units that is NOT a detached dwelling (e.g., not a single-family home or a duplex) or townhouse; [1, 2, 3] OR
- Any mixed-use buildings with dwelling or sleeping units, where the dwelling units, sleeping units, and common space exceed 50% of the building square footage. Parking garage square footage is excluded from this calculation. [1, 2, 4]

To determine the applicable MFNC program requirements, including the minimum Version and Revision, to which a building is eligible to be certified, visit www.energystar.gov/MFNCVersions.

While primarily intended for new construction, existing buildings (e.g., undergoing a substantial reconstruction or rehabilitation) are also eligible to participate in the ENERGY STAR Multifamily New Construction program, with guidance available at: www.energystar.gov/RehabGuidance.

For information about other ENERGY STAR residential new construction programs, visit www.energystar.gov/newhomesrequirements.

Note that compliance with these requirements is not intended to imply compliance with all local code requirements that may be applicable to the building to be built. [5]

Partnership, Training, and Credentialing Requirements

The following requirements must be met prior to certifying multifamily buildings:

- The Builder or Developer for the building is required to sign an ENERGY STAR Partnership Agreement and complete the online "Builder / Developer Orientation", which can be found at www.energystar.gov/homesPA.
- FT Agents must meet one of the following:
  - The HVAC installing contractor AND credentialed by an EPA-recognized HVAC Quality Installation Training and Oversight Organization (H-QUITO). An explanation of this process can be found at www.energystar.gov/eshvac; OR
  - Not the HVAC installing contractor, AND
    - Signed up online in the EPA's online database as an FT Agent and watched the online FT Agent orientation, which can be found at www.energystar.gov/ftas; AND
    - Holds one of the credentials listed online here: www.energystar.gov/ftas or is a representative of the Original Equipment Manufacturer (OEM).
- Energy Rating Companies (e.g., rater companies and Providers [6]) are required to sign an ENERGY STAR Partnership Agreement, which can be found at www.energystar.gov/homesPA).
- Raters [7] are required to complete EPA-recognized training, which can be found at www.energystar.gov/mftraining, and be credentialed by a Home Certification Organization (HCO) [8] or meet the credential requirements of a Multifamily Review Organization (MRO) prior to completing inspections. Learn more at www.energystar.gov/hco and at www.energystar.gov/mro.
- Modelers for buildings in the ASHRAE Path must sign up online in the EPA's online database as a Modeler and watch the online Modeler orientation, which can be found at www.energystar.gov/ASHRAEdirectory.

ENERGY STAR Certification Process [9]

1. The certification process offers three paths to meet the performance target. Each has varying levels of flexibility to select a custom combination of measures for each building:
   a. **Prescriptive Path**: The units and common spaces meet or exceed all the items in the National Rater Design Review and Field Checklists, including, where specified, meeting the minimum requirements set in the ENERGY STAR Multifamily Reference Design, Exhibit 1. Buildings following 1a must be certified through an MRO. The EPA recommends that Raters identify their MRO during the design stage, but at the latest, the building must be under MRO oversight prior to the first inspection. MROs have limited discretion to grant an exemption to this policy (e.g., when a building switched Paths).

   b. **ERI Path**: Each unit is equivalent in performance to the minimum requirements of the ENERGY STAR Multifamily Reference Design, Exhibit 1, as assessed through energy modeling, and the building meets or exceeds the requirements in the National Rater Design Review and Field Checklists, including, where specified for common spaces, meeting the minimum requirements set in Exhibit 1 for common spaces. Buildings following 1b must be certified through an HCO.

   An EPA-recognized Home Certification Organization (HCO)'s Approved Software Rating Tool shall automatically determine the ENERGY STAR ERI Target, which is the highest ERI value that each rated unit may achieve to earn the ENERGY STAR. [10]

   Note: Raters must use an Approved Software Rating Tool that has been updated to ANSI / RESNET / ICC 301-2019 or later to use the ERI Path for buildings that exceed five stories.

   c. **ASHRAE Path**: The building meets or exceeds the ASHRAE performance target, as described in Exhibit 3. Buildings following 1c must be certified through an MRO. The EPA recommends that Raters identify their MRO during the design stage, but at the latest, the building must be under MRO oversight prior to the first inspection. MROs have limited discretion to grant an exemption to this policy (e.g., when a building switched Paths).

   Buildings must follow the modeling requirements in the ENERGY STAR Multifamily New Construction Simulation Guidelines – Appendix G 2016.

Exception: For buildings that are certified as PHIUS+ CORE, 2015 or 2018, achieving a specific source energy use of ≤6,500 kWh/person per year, without renewables, is accepted in lieu of achieving the ASHRAE performance target based on a baseline of ASHRAE 90.1-2016 or earlier. For buildings that are certified as Phius CORE 2021 or Phius ZERO 2021, achieving 10% less than the Phius CORE 2021 source energy criteria, without renewables, is accepted in lieu of achieving the ASHRAE performance target based on a baseline of ASHRAE 90.1-2016 or earlier.

2. Based on the path chosen, select the efficiency measures for the building:
   a. Prescriptive Path: Meet or exceed the requirements specified in the Rater Design Review and Field Checklists.
   b. ERI Path: Meet or exceed the requirements specified in the Rater Design Review and Field Checklists. Using the same software program specified in Step 1, configure the preferred set of efficiency measures for the unit to be certified and verify that the resulting ERI meets or exceeds the ENERGY STAR ERI Target, as determined in Step 1.
   c. ASHRAE Path: Meet or exceed the requirements specified in the Rater Design Review and Field Checklists. Following the Simulation Guidelines AppG2016, configure the preferred set of efficiency measures for the building to be certified and verify that the resulting energy savings above the ASHRAE Baseline Building meets or exceeds the required performance target per Exhibit 3.

   Exception: For buildings that are Phius Certified and submitting the specific source energy use per person in lieu of meeting the ASHRAE Performance Target, calculations are done in accordance with Phius modeling protocols.

   Note that, regardless of the path chosen or the measures selected, the Mandatory Requirements for All Certified Multifamily Buildings in Exhibit 2 are also required and impose certain constraints on the efficiency measures selected (e.g., insulation levels, insulation installation quality, window performance, duct leakage). Furthermore, on-site power generation may not be used to meet the ENERGY STAR ERI Target or the performance target in the ASHRAE Path.
3. Prior to certification, the Rater must submit design documentation to a Provider or MRO for their review and approval. The EPA strongly recommends submitting this documentation before construction; however, Raters may instead choose to submit the design documentation at final certification.
4. Upon completion of design, multifamily buildings may be eligible for the Designed to Earn the ENERGY STAR designation. To earn this optional additional designation, follow the guidance available at www.energystar.gov/mfdees.
5. Construct the building using the measures selected in Step 2 and the Mandatory Requirements for All Certified Multifamily Buildings, Exhibit 2.
6. Using a Rater, verify that all requirements have been met in accordance with the Mandatory Requirements for All Certified Multifamily Buildings and with the inspection procedures for minimum rated features in ANSI / RESNET / ICC 301, Appendix B. This will require a minimum of two inspections: one at pre-drywall and the other at final. Sampling protocols are permitted to be used within the limitations defined in Fn. 7. For modular multifamily buildings, 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. [11]

   The Rater must review all items on the Rater checklists for the whole building to verify that each inspection checklist item has been met within program-defined tolerances. [2]

   In the event that a Rater determines that a program requirement has not been met, the building cannot earn the ENERGY STAR until the item is corrected. If correction of the item is not possible, the building cannot earn the ENERGY STAR and individual units in the multifamily building also cannot be certified. In the event that an item on a Rater checklist cannot be inspected by the Rater, the building also 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 five items and the sections of the National Rater Field Checklist where a Licensed Professional may assume responsibility for verifying the specified items. A Licensed Professional must be a Professional Engineer or Registered Architect in good standing and possess a current license. This option shall only be used at the discretion of the Rater. When exercised, the builder's and/or Licensed Professionals' responsibility will be formally acknowledged by the builder and/or Licensed Professional signing the checklist for the item(s) that 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 or MRO. If the Provider or MRO also cannot make this determination, then the Rater, Provider, or MRO shall report the issue to the EPA prior to building completion at: energystarhomes@energystar.gov and will receive an initial response within 5 business days. If the 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 building in question. In contrast, if the 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 buildings permitted after a specified transition period after the release of the revised program requirements, typically 60 days in length.

   This will allow the 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.
7. Once verification on all units and common spaces is complete, submit the whole building to the HCO or MRO for final certification (see alternative below). The Rater is required to keep electronic or hard copies of the completed and signed Rater checklists, and Multifamily Workbook. In addition, for buildings using Track A, the Rater is required to keep for each dwelling unit and each graded common space an HVAC design report compliant with ANSI / RESNET / ACCA / ICC 310. The Rater must also keep a National HVAC Design Supplement to Std. 310 for Dwellings & Units for each dwelling unit, and, where applicable, the National HVAC Design Supplement to Std. 310 for Common Spaces & Central Systems. For buildings using Track B, the Rater is required to keep the National HVAC Design

Report. Finally, for both Tracks, when the FT Agent is not a HVAC Credentialed Contractor, National HVAC Functional Testing Checklists for all systems must be kept. Additionally, the following steps are required:

a. ERI Path: submit the building to the HCO for final certification and follow the HCO's certification and oversight procedures (e.g., quality assurance, recordkeeping, and reporting).

   Generally, buildings must be submitted for certification after verification on all units and common spaces is complete. Alternatively, at the discretion of the Provider, individual dwelling units may be conditionally certified prior to the building completion if the following process is observed:

   i. The Provider must generate a Conditional ENERGY STAR Certification Disclosure letter to be included with the label and certificate for the homebuyer of each conditionally certified unit.

   ii. Once verification on all dwelling units and common spaces is complete, and the whole building is certified, the Provider must generate an ENERGY STAR Certification Confirmation letter for the builder to deliver to the applicable homebuyers.

   In the event that any dwelling unit or common space in the building is ultimately unable to be verified, the building will not be able to earn certification; the Provider must decertify any conditionally certified units; and the builder must notify the applicable homebuyers.

b. ASHRAE and Prescriptive Path: submit the building to the MRO for final certification with the specified documentation based on as-built conditions, as described in Exhibit 2, and follow the MRO's certification and oversight procedures (e.g., quality assurance, recordkeeping, and supporting documentation).

Exhibit 1: ENERGY STAR Multifamily Reference Design Summary [12, 13]

For buildings pursuing the ERI Path, the following table summarizes the key efficiency features in the ENERGY STAR Multifamily Reference Design which is modeled to determine the ENERGY STAR ERI Target. They are not mandatory in the units for buildings pursuing the ERI Path, but if they are not used then other measures will be needed to achieve the ENERGY STAR ERI Target. The following features are mandatory within the common spaces where specified in the National Rater Design Review and Field Checklists.

For buildings pursuing the Prescriptive Path, the ENERGY STAR Multifamily Reference Design is the set of efficiency features that mandatory within the units and common spaces where specified in the National Rater and Field Checklists.

This Exhibit is not applicable for buildings pursuing the ASHRAE Path.

In addition, note that the Mandatory Requirements for All Certified Multifamily Buildings, Exhibit 2, contain additional requirements such as total duct leakage limits, minimum allowed insulation levels, and minimum allowed fenestration performance. Therefore, the EPA recommends that partners review the documents in Exhibit 2 prior to selecting measures.

These Program Requirements shall only be used in the States of Oregon and Washington

Table 1: Envelope, Ventilation, Water Heating, Lighting, Appliances, and Residential Heating and Cooling Equipment

2012 IECC Climate Zone 4C, 5, & 6 [14]

Residential Cooling Equipment (Where Provided) in Dwelling Units or Common Spaces. If not listed here, see Table 2.

- Cooling equipment meet the applicable efficiency levels below:

- 13 SEER2 Ductless Air Conditioning,
- 12.3 SEER2 Ducted Split System Air Conditioning,
- 12.3 SEER2 Ducted Single Packaged System Air Conditioning,
- Heat pump (See Residential Heating Equipment)

Residential Heating Equipment (Where Provided) in Dwelling Units or Common Spaces. If not listed here, see Table 2.

- Heating equipment meet the applicable efficiency levels below, dependent on fuel and system type:

- 95 AFUE gas furnace (common spaces see Table 2),
- 85 AFUE oil furnace,
- 90 AFUE gas boiler,
- 86 AFUE oil boiler,
- 8.5 HSPF2 / 15 SEER2 Ductless air-source heat pump with electric or dual-fuel backup,
- 8.0 HSPF2 / 14.2 SEER2 Ducted Split System air-source heat pump with electric or dual-fuel backup,
- 7.9 HSPF2 / 14.2 SEER2 Ducted Single Packaged System air-source heat pump with electric or dual-fuel backup.

Envelope, Windows, & Doors

- Dwelling unit insulation levels meet the levels below and Grade I installation per ANSI / RESNET / ICC 301. For common spaces, refer to Item 2.1 of the National Rater Design Review Checklist for insulation levels.

Above-Grade Wall	Ceiling	Floor	Basement Wall	On-Grade & Below-Grade Slab
U-0.056	U-0.026	U-0.028	U-0.042	R-10 at perimeter for entire depth of slab and under entire slab area

- Infiltration rate: 0.30 CFM50/sq. ft. of enclosure.
- Dwelling unit windows and doors, unless Class AW, meet the following:

Window U-Factor:	0.27
Window SHGC:[15]	0.30

Door U-Factor:	Opaque: 0.17	≤½ lite: 0.25	>½ lite: 0.30
Door SHGC: [15]	Opaque: Any	≤½ lite: 0.25	>½ lite: 0.30

Class AW and all common space fenestration meet 2015 IgCC levels (Commercial fenestration U-Factor requirements) below.

Climate Zone:	**CZ 4 C & 5**	**CZ 6**
Fixed Window U-Factor:	0.36	0.34
Operable Window U-Factor:	0.43	0.41
Glazed Entrance Door U-Factor:	0.73	0.73
SHGC (same as above) [15]	0.30	0.30

Water Heater

- DHW equipment with the following efficiency levels and types as applicable:
- Dwelling units and common spaces with gas or propane DHW fuel type: Tankless 0.91 EF.
- For other DHW fuel type: Dwelling units: In CZ 4C & 5 [14]: Electric heat pump with 2.5 EF or 2.57 UEF; In CZ 6 [14]: Electric heat pump with 2.0 EF / UEF. Common spaces: 0.95 EF
- DHW piping insulation modeled: R-3.

Thermostat & Ductwork

- Programmable thermostat.
- All ducts located in unconditioned space with R-8 insulation.
- Duct leakage to outdoors meets the greater of 4 CFM25 per 100 sq. ft. or 40 CFM25.

Lighting, Appliances, & Fixtures

- ENERGY STAR refrigerators, dishwashers, clothes washers and dryers. [16]
- 90% Fluorescent or LED Lighting
- WaterSense bathroom faucets, bathroom aerators, and showerheads, with 2.0 gallons per minute.

These Program Requirements shall only be used in the States of Oregon and Washington

Table 2: Commercial Minimum Heating and Cooling Equipment

Equipment Type	Minimum Efficiency
Room AC (window, through-wall, ductless mini-splits)	ENERGY STAR certified
Air conditioners, air cooled (<13 Kbtu/h)	12.3 SEER2
Air conditioners, air cooled (≥13 and <65 Kbtu/h)	Dwelling unit systems & common space split systems: See Table 1
Air conditioners, air cooled (≥65 and <240 Kbtu/h)	11.5 EER/12.0 IEER
Air conditioners, air cooled (≥240 and < 760 Kbtu/h)	10.0 EER/10.5 IEER
Electric resistance space heating [17]	• Not permitted in any dwelling unit using the Prescriptive Path • Electric resistance heating specified in common spaces and garages have a total heating capacity ≤ 12 kBtu/h (3.5 kW) per enclosed space and has automatic thermostatic controls
Warm-Air Furnace (<225 KBtu/h, common spaces)	78% AFUE or 80% Et
Warm-Air Furnace (<225 KBtu/h, dwelling units)	See Reference Design. For PTAC, use 80% Et
Warm-Air Furnace (≥225 KBtu/h)	80% Et (gas) or 81% Et (oil)
Packaged Terminal Air Conditioner (PTAC < 7 kBtu/h)	11.9 EER
Packaged Terminal Air Conditioner (PTAC > 15 kBtu/h)	9.5 EER
Packaged Terminal Air Conditioner (≥7 and ≤15 KBtu/h)	14.0 – (0.300 X Cap/1000) EER
Packaged Terminal Heat Pump (PTHP)	Cooling: 14.0– (0.3 X Cap/1000) EER Heating: 3.7– (0.052 X Cap/1000) COP
Air cooled heat pump (≥13 and <65 KBtu/h)	Dwelling unit systems & common space split systems: See Table 1
Air cooled heat pump (≥65 and <240 KBtu/h)	Cooling: 11.1 EER/11.6 IEER Heating: 3.3 COP (@47°F DB)
Air cooled heat pump (≥240 KBtu/h)	Cooling: 9.6 EER/9.6 IEER Heating: 3.2 COP (@47°F DB)
Water-source heat pump (<135 KBtu/h)	Cooling: 14.0 EER(86°F entering water) Heating: 4.2 COP(68°F entering water)
Boilers, hot water (<300,000 Btu/h)	See Reference Design
Boilers, hot water (≥300,000 Btu/h)	86% E_t (89% E_t if using heat pumps)
VRF Air Conditioners and Heat Pumps	See Tables 6.8.1I and 6.8.1J of ASHRAE 90.1-2010
Air-cooled chillers with or without condenser	10.0 EER / 12.5 IPLV
Water-cooled chiller, positive displacement (<75 tons)	0.780 kW/ton (Full load) / 0.630 kW/ton (IPLV)
Water-cooled chiller, positive displacement (75-150 tons)	0.775 kW/ton (Full load) / 0.615 kW/ton (IPLV)
Water-cooled chiller, positive displacement (150-300tons)	0.680 kW/ton (Full load) / 0.580 kW/ton (IPLV)
Water-cooled chiller, positive displacement (>300 tons)	0.620 kW/ton (Full load) / 0.540 kW/ton (IPLV)
Water-cooled, centrifugal (<300 tons)	0.634 kW/ton (Full load) / 0.596 kW/ton (IPLV)
Water-cooled, centrifugal (≥300 and <600 tons)	0.576 kW/ton (Full load) / 0.549 kW/ton (IPLV)
Water-cooled, centrifugal (≥600 tons)	0.570 kW/ton (Full load) / 0.539 kW/ton (IPLV)
Air-cooled absorption single effect chiller	0.6 COP
Water-cooled absorption single effect chiller	0.7 COP
Absorption double effect indirect-fired chiller	1.0 COP (Full load) / 1.05 COP (IPLV)
Absorption double effect direct-fired chiller	1.0 COP (Full load) / 1.00 COP (IPLV)
Open-loop propeller or axial fan cooling towers**	>40 gpm/hp (@95°F entering water, 85°F leaving water, 75°F wb entering air)
Closed-loop propeller or axial fan cooling towers**	>15 gpm/hp (@102°F entering water, 90°F leaving water, 75°F wb entering air)
Open-loop centrifugal fan cooling towers**	>22 gpm/hp (@95°F entering water, 85°F leaving water, 75°F wb entering air)
Closed-loop centrifugal fan cooling towers**	>8 gpm/hp (@102°F entering water, 90°F leaving water, 75°F wb entering air)
Air source DX-DOAS (dehumidification mode)	4.0 ISMRE
Air source DX-DOAS (heat pump, heating mode)	2.7 ISCOP
Other DX-DOAS (e.g., water source)	See ASHRAE 90.1-2016; Table 6.8.1-15

Cap means the rated capacity of the product in Btu/h. If < 7,000 Btu/h, use 7,000; if > 15,000, use 15,000 in calculation.
*For Equipment Types not listed here (e.g., single package AC/HP < 65 kBtu/h), minimum efficiencies shall be based on those listed in ASHRAE 90.1-2010.
**Cooling tower fan motors must be equipped with VFD controlled by a temperature sensor on the condenser water supply pipe.

These Program Requirements shall only be used in the States of Oregon and Washington

Two tracks are provided for satisfying the mandatory requirements for all certified buildings, Exhibit 2. Track A – HVAC Grading by Rater allows a Rater to utilize ANSI / RESNET / ACCA 310 [18], a standard for grading the installation of residential HVAC systems serving individual spaces and a Functional Testing Agent to verify commercial and central systems. Track B – HVAC Testing by FT Agent utilizes a Functional Testing Agent for all systems. Either track may be selected, but all requirements within that track must be satisfied for the building to be certified.

Exhibit 2: Mandatory Requirements for All Certified Multifamily Buildings

Party Responsible	Mandatory Requirements
Requirements Applicable to All Buildings	
Rater	• Completion of MFNC National Rater Design Review Checklist, Version 1.1 / 1.2 / 1.3 • Completion of MFNC National Rater Field Checklist, Version 1.1 / 1.2 / 1.3 • Completion of Multifamily Workbook • Capture of Specified Photo Documentation
Functional Testing Agent	• Completion of MFNC National HVAC Functional Testing Checklist, Version 1.1 / 1.2 / 1.3 Note: Sections 2 and 3 are exempt for buildings following Track A for Dwelling Unit HVAC systems as the Rater is the party responsible for assessing the installation quality of these systems in accordance with ANSI / RESNET / ACCA 310.
Requirements Only Applicable to Track A – HVAC Grading by Rater [18]	
HVAC System Designer	• Completion of HVAC design report(s) compliant with ANSI / RESNET / ACCA 310, plus the SFNH / MFNC National HVAC Design Supplement(s) to Std. 310 for Dwellings & Units, All Versions • Completion of the MFNC National HVAC Design Supplement to Std. 310 for Common Spaces & Central Systems, All Versions, where applicable
Requirements Only Applicable to Track B – HVAC Testing by FT Agent	
HVAC System Designer	• Completion of MFNC National HVAC Design Report, Version 1.1 / 1.2 / 1.3
Requirements Only Applicable to ASHRAE Path	
ASHRAE Modeler	• Completion of ASHRAE Standard 90.1 Performance Based Compliance Form (Compliance Form) and ENERGY STAR MFNC / ZERH Companion Tool (Companion Tool)

Notes:

- For multifamily projects with multiple buildings, each building must demonstrate compliance with the program requirements, but can be documented using one Multifamily Workbook and one HVAC Design Report per project.
- For buildings pursuing the ASHRAE Path, where buildings are identical, only one set of modeling files, one Compliance Form, and one Companion Tool are required to be submitted. At the discretion of the ASHRAE modeler, connected buildings may be modeled as one building or separate buildings.
- For buildings choosing the Phius alternative modeling option in the ASHRAE Path, in lieu of submitting the Compliance Form, Companion Tool, and modeling files, documentation is instead provided that demonstrates achievement of the required source energy per person and final certification from Phius.
- For the Excel-based Compliance Form, Companion Tool, and Multifamily Workbook, while Partners are encouraged to always use the newest versions available online, unless otherwise specified, file updates between Program revisions will not be required. After a Program revision, Raters will be required to use the updated documents based on the enforcement timeline set for the revision.

Exhibit 3: ASHRAE Path Performance Targets

The ASHRAE Performance Targets described below are required for all buildings pursuing the ASHRAE Path in states under Oregon – Washington Version 1.2. The ASHRAE Path Performance Target for other Versions can be found at www.energystar.gov/mfnc.

The ASHRAE performance target is 15% over ASHRAE 90.1-2016. Buildings must meet a target of 15% energy cost savings OR 15% source energy savings when compared to ASHRAE 90.1-2016 as determined by the ENERGY STAR and ZERH Companion Tool. Appendix G from ASHRAE 90.1-2016 or later must be used, along with the ASHRAE Standard 90.1 Performance Based Compliance Form, ENERGY STAR and ZERH Companion Tool, and Simulation Guidelines_AppG2016 available at energystar.gov/mfnc.

These Program Requirements shall only be used in the States of Oregon and Washington

Footnotes:

1. Buildings that do not contain dwelling or sleeping units are not eligible for certification under MFNC. Hotels, motels, and assisted living or skilled nursing facilities that meet the definition of senior care facilities are also not eligible for certification under MFNC. Dormitories, residence halls, buildings with single-room occupancies, supportive housing, cohousing, and or other senior housing not meeting the definition of senior care facilities are eligible for the MFNC program. Visit https://www.energystar.gov/partner_resources/residential_new/program_reqs/mfnc_building_eligibility for more information.
2. The term 'building' refers to a structure that encompasses dwelling/sleeping units and (if present) common spaces, sharing one or more of the following attributes: a common street address, a common entrance or exit, central/shared mechanical systems, or structurally interdependent wall or roof systems. Attached structures such as 4-story two-unit structures (commonly referred to as "2-over-2s") may be considered separate buildings if they are divided by a vertical fire separation wall from the foundation to the roof sheathing and share none of the other attributes listed above. A skyway or a breezeway that connects two structures is not considered a common entrance or exit. A dwelling unit, as defined by ANSI / RESNET / ICC 301, is a single unit that provides complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation. A 'sleeping unit', as defined by ANSI / RESNET / ICC 301, is a room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. 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.
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. The term 'common space' refers to any spaces in the building being certified that serve a function in support of the residential part of the building that is not part of a dwelling or sleeping unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, residential recreation rooms, and dining halls, as well as offices and other spaces used by building management, administration or maintenance in support of the residents. For the ASHRAE Path, the requirements for 'common spaces' apply to commercial or retail spaces where they are included in the energy model and savings contribute to achieving the Performance Target.
5. 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. For more information about how these program requirements help satisfy code requirements, visit: www.energystar.gov/newhomesguidance. In the event that a code requirement, a manufacturer's installation instructions, or an engineering document conflicts with a requirement of the ENERGY STAR program, 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. Note that a dwelling unit must still meet its ENERGY STAR ERI Target. Therefore, other efficiency measures may be needed to compensate for the omission of the conflicting requirement.
6. The term 'Provider' refers to an Approved Rating Provider as defined by ANSI / RESNET / ICC 301 that is a designee of an HCO.
7. 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, Approved Inspector, as defined by ANSI / RESNET / ICC 301, or an equivalent designation as determined by an HCO or MRO; and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/mftraining.

   Raters who operate under an MRO or an HCO with a Sampling Protocol are permitted to verify the minimum rated features of the building and to verify any Checklist Item designated "Rater Verified" using an MRO HCO-approved sampling protocol. Functional Testing Agents, except the installing contractor, may follow the sampling protocol described in the MFNC HVAC Functional Testing Checklist Sampling Protocols. No other parties are permitted to use sampling. All other items shall be verified for each certified building. For example, no builder verified items are permitted to be verified using a sampling protocol.
8. Home Certification Organizations (HCOs) are independent organizations recognized by the EPA to implement an ENERGY STAR certification program for single-family and multifamily homes and apartments using an Energy Rating Index (ERI) compliance path. Learn more and find a current list of HCOs at www.energystar.gov/partner_resources/residential_new/working/other_participants/hco.
9. These requirements apply to all dwelling units, sleeping units, common spaces [4], and garages (open or enclosed) in the building being certified, and where specified, parking lots. These requirements do not apply to commercial or retail spaces, except in the ASHRAE Path, if included in the energy model and the savings contribute to achieving the Performance Target. These requirements do not apply to common spaces that are located in buildings on the property without any dwelling or sleeping units. These requirements do not apply to parking garages or lots where the cost of the energy use of the parking garage or lot is not the responsibility of the Builder/Developer, Building Owner or Property Manager.
10. The software program shall automatically determine (i.e., without relying on a user-configured ENERGY STAR Multifamily Reference Design) this target for each rated unit by following Rev. 05 of the National Multifamily ERI Target Procedure, Oregon and Washington Version 1.2, available at www.energystar.gov/mfnc.
11. A modular building is a prefabricated building 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 buildings.
12. For buildings pursuing the prescriptive path, where 'ENERGY STAR' is indicated, ENERGY STAR certification is required for these products. For current ENERGY STAR products, visit www.energystar.gov/products.
13. For buildings pursuing the ERI path, the ENERGY STAR ERI Target Procedures contain the complete set of the efficiency features modeled. While the corresponding ERI Target Procedure specifies air conditioners and heat pumps using SEER and HSPF, in this

document they have been converted to the current rating metrics, SEER2 and HSPF2. Similarly, while water heaters have been specified using Energy Factor (EF), in this document they have been converted to Uniform Energy Factor (UEF).

14. 2012 IECC Climate Zone designations, as defined and illustrated in Section R301 of the code, are used to configure the ENERGY STAR Reference Design.
15. For the Prescriptive Path in CZ 4C-8, any SHGC may be used. For the ERI Path, the ERI Target Procedure specifies what SHGC has been used in determining the ERI Target.
16. While clothes washers and dryers must be ENERGY STAR certified for the Prescriptive Path, in the corresponding ERI Target Procedure they are not specified as ENERGY STAR. Note that the dishwasher and refrigerator efficiency features within the ENERGY STAR ERI Target Procedure aligned with the product specifications when this Version was first released. These efficiency features form the basis of the ENERGY STAR ERI target, regardless of any subsequent revisions to ENERGY STAR certified product specifications.
17. Electric resistance heating specified in common spaces has a total heating capacity ≤ 12 kBtu/h (3.5 kW) per enclosed space and has automatic thermostatic controls. Electric resistance limitations do not apply to heat pumps with integral supplemental or emergency electric resistance heating. The EPA recommends but does not require that heat pumps have controls to limit the use of emergency or supplemental heat to heat pump failures or when the heat pump cannot meet the heating load. The EPA also recommends but does not require that heat pumps in CZ 5-8 are ENERGY STAR certified cold-climate heat pumps. Electric resistance limitations do not apply to systems dedicated to heating outdoor air supplied by a mechanical ventilation system, as long as the space served is primarily heated by a non-electric-resistance system that meets the efficiency requirements noted in ENERGY STAR Multifamily Reference Design. Electric resistance limitations apply to garages, but do not apply to heated plenums meeting Item 5.12 of the Rater Field Checklist, or stairwells where automatic thermostatic controls prevent operation above 50°F.
18. Track A – HVAC Grading by Rater shall use ANSI / RESNET / ACCA 310 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO or MRO that the building is being certified under.