

Overview of ENERGY STAR Multifamily New Construction

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Today's Agenda

Overview of the MFNC program

Building Eligibility

Roles and Responsibilities

Certification Paths: ERI, ASHRAE, Prescriptive

Mandatory Req's: Compare to SFNH & MFHR

Policy Record & Program Revision Process

Certification Process

MFNC website & other resources

Q&A: <u>energystarhomes@energystar.gov</u>



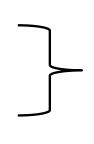


ENERGY STAR Residential New Construction Eligibility*









Single-Family New Homes (SFNH) [Certified Homes]











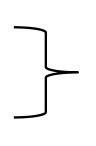
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ENERGY STAR Residential New Construction Eligibility*









Single-Family New Homes (SFNH) [Certified Homes]





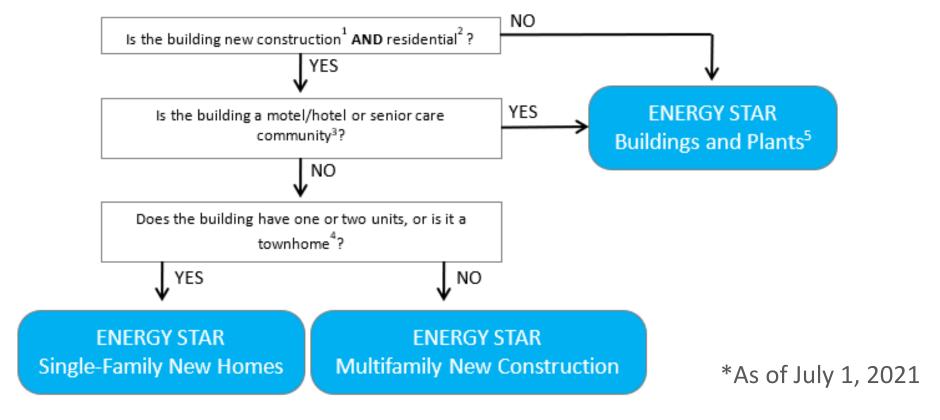






ENERGY STAR Residential New Construction Eligibility*

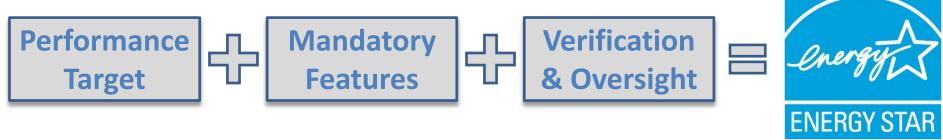
EPA ENERGY STAR Multifamily New Construction Program Decision Tree







MFNC Program Requirements Overview



ASHRAE Path ERI Path Prescriptive Path













Builder/ Developer

Rater

Functional Testing Agent

HVAC Designer



ASHRAE Modeler (ASHRAE Path)



Architect



ect Multifamily Oversight Orgs
Home Certification Org (ERI Path)
Multifamily Review Org (ASHRAE / Prescriptive Paths)











Builder/ Developer

Rater

Functional Testing Agent

HVAC Designer



ASHRAE Modeler (ASHRAE Path)



Architect



Multifamily Oversight Orgs Home Certification Org (ERI Path)

Multifamily Review Org (ASHRAE / Prescriptive Paths)

*Blue indicates from SFNH









Builder/ Developer

Rater

Functional Testing Agent

HVAC Designer



ASHRAE Modeler (ASHRAE Path)



Architect



ect Multifamily Oversight Orgs
Home Certification Org (ERI Path)
Multifamily Review Org (ASHRAE / Prescriptive Paths)

*Purple indicates modified from SFNH









Builder/ Developer

Rater

Functional Testing Agent

HVAC Designer



ASHRAE Modeler (ASHRAE Path)



Architect



Multifamily Oversight Orgs Home Certification Org (ERI Path)

Multifamily Review Org (ASHRAE / Prescriptive Paths)

*Red indicates from MFHR



Builders & Developers

Role & Expectations

- Either the Builder OR Developer must be a partner
- Responsible for Water Management System Requirements
- Work with a <u>Rater</u> in your area





Locate Builders, Developers, Energy Rating Companies, and Incentives in Your Area

Use the interactive map below to search for home builders, developers, and energy rating companies in your area who are constructing and verifying ENERGY STAR certified new homes and apartments, as well as available incentives. Or, use our Multifamily Building Locator to search for ENERGY STAR certified apartments and condos.

Learn more about the features and benefits of ENERGY STAR certified homes and apartments.





See the Market Share for ENERGY STAR certified homes by State

BACK TO NATIONAL SEARCH

Builders/Developers Serving Minnesota Energy Rating Companies Serving Minnesota Energy Rating Company Service Areas Partner Since Number of Homes and Apartments Certified Dubuque; Providence-Warwick; Syracuse; · Last 12 months in location selected: 394 Chicago-Naperville-Elgin; Rochester; Other NC areas; Athens-Clarke County; Buffalo-2010 All time in location selected: 1136 · All time in all service areas: 24026 Cheektowaga-Niagara Falls; Other NH areas; New York-Newark-Jersey City Minneapolis-St. Paul-Bloomington; Other MN · Last 12 months in location selected: 55 areas; Bay City; Mankato-North Mankato; 2005 · All time in location selected: 774

Rochester



· All time in all service areas: 775

Expand All (Collapse All (

Builders & Developers

Role & Expectations

- Either the Builder OR Developer must be a partner
- Responsible for Water Management System Requirements
- Work with a <u>Rater</u> in your area

Requirements

- Complete Online Partnership Agreement
- View online orientation <u>video</u>





Raters

Roles & Expectations



Rater Design Review and Field Checklists

Collect Additional Documentation

- HVAC Design Report
- HVAC Functional Testing Checklist*
- ASHRAE Path: ASHRAE Path Calculator, Model Input/Output Files
- ASHRAE/Prescriptive Paths: MF Workbook, Photo Documentation, Construction Docs

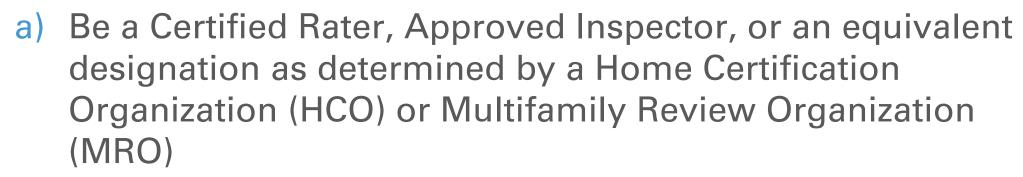


*Not required to be collected if completed by a credentialed contractor



Raters

Requirements



- b) Have attended and successfully completed an EPA-recognized training class
- c) Complete online Partnership Agreement



Raters

Training

Current ENERGY STAR Rater:

 MFNC Rater Training Similar format to SFNH 18 RESNET PDHs

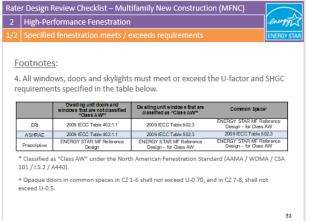
Not yet taken SFNH Training:

SFNH & MFNC Rater Training

Find a training

RESNET's Approved Rater Professional Development Courses









Functional Testing Agents

Roles & Expectations

Complete section(s) of the MFNC HVAC Functional Testing Checklists

Requirements

Maintain one of the required credentials

 H-QUITO credentialed contractor, functional testing credentials (including PE), or OEM representative

Watch online orientation & be listed in the directory (unless a credentialed contractor)





HVAC Designer

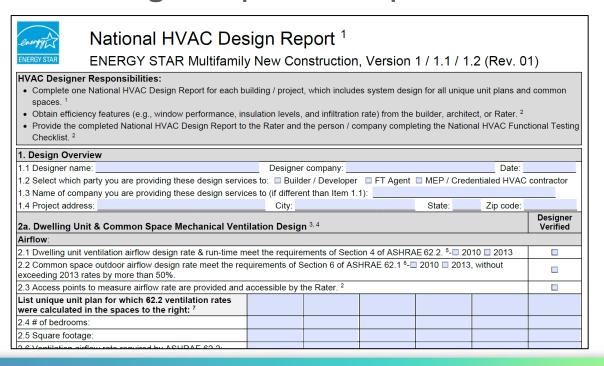
Roles & Expectations

Complete the MFNC HVAC Design Report and provide to the

Rater

Requirements

None









ASHRAE modelers

Role & Expectations

Create ASHRAE 90.1 whole building energy models

Use Appendix G & the Simulation Guidelines
 Complete the ASHRAE Path Calculator, at Design and As-Built

Requirements

Watch online orientation & be listed in the directory





Architect

Roles & Expectations

Work with a Rater to design the building to meet ENERGY STAR requirements



None





Multifamily Oversight Organizations

Home Certification Organization (HCO)

ERI Path

Provide oversight similar to SFNH

Multifamily Review Organization (MRO)

ASHRAE and Prescriptive Paths

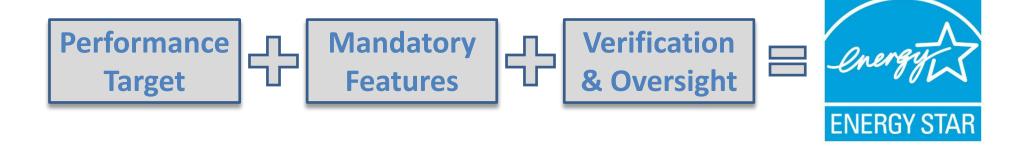
Provide oversight similar to MFHR





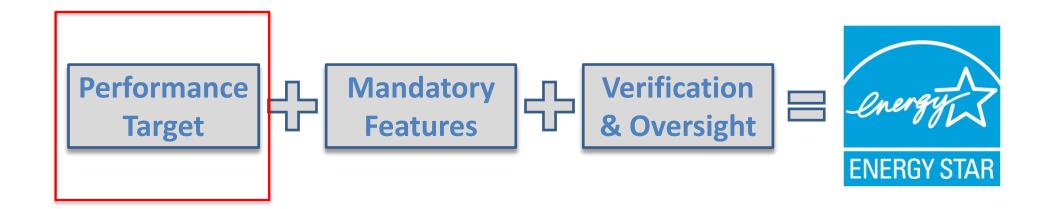


Key Components to Program Requirements





Key Components to Program Requirements





ASHRAE Path

Performance Target

Performance Target

Whole-Building Modeled Energy Savings

- 15% cost savings above ASHRAE 90.1 App G
 - ASHRAE Path Calculator, Simulation Guidelines
 - Year based on the state commercial code*
 - Alt. option: source savings for 90.1-2013+
- Alt. opt: WUFI metric for PHIUS cert. projects
- 10% above Title 24-2016 in California
 - California Compliance Report

*For 2021 IECC/ASHRAE 90.1-2019, target based on Version 1.2 implementation



Energy Rating Index (ERI) Path



- ENERGY STAR Multifamily Reference Design
 - Version "1" and "1.1" match
 Version "3" and "3.1" states based on SFNH
 Reference Design (generally modeling more stringent)
 - National 1.2 and CA 1.3 coming soon
 - Townhomes use SFNH Ref Design



Energy Rating Index (ERI) Path



- ENERGY STAR Multifamily Reference Design
 - Version "1" and "1.1" match
 Version "3" and "3.1" states based on SFNH
 Reference Design (generally modeling more stringent)
 - National 1.2 and CA 1.3 coming soon
 - Townhomes use SFNH Ref Design
- Available for any height bldg
- Prescriptive common area measures



Prescriptive Path

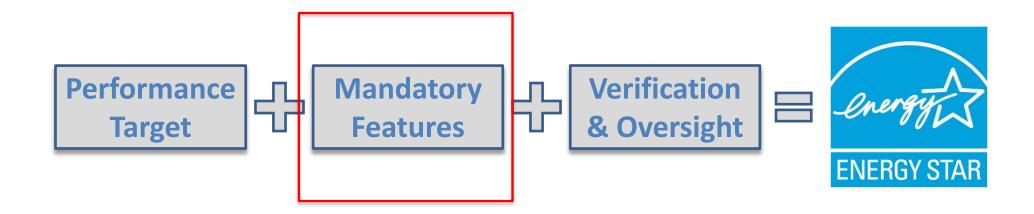
Performance Target

Performance Target

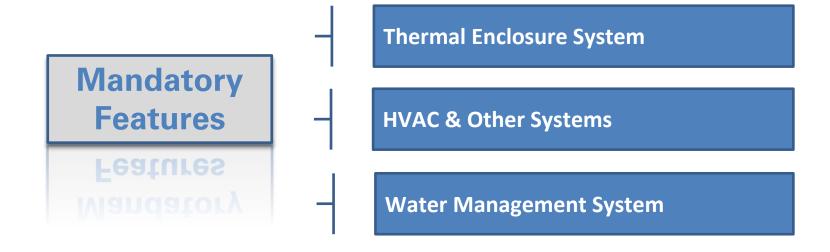
- No energy modeling
- Available for all projects (except CA)
- ENERGY STAR Multifamily Reference Design specifications is required (in-unit and common areas)
- Additional req'ts beyond ENERGY STAR
 Multifamily Reference Design (e.g. in-unit
 lighting power density, building level
 window-to-wall ratio)



Key Components to Program Requirements









Features
Leatures
Wandatory

Thermal Enclosure System

- High-performance insulation, windows, & doors
- Tightly-sealed apartments
- Reduced thermal bridging for improved comfort





HVAC System

- Right-sized heating & cooling, with functional testing
- Efficient hydronic & air distribution systems
- Mechanical ventilation for dwellings & common spaces
- Effective, efficient kitchen, bath, & garage exhaust fans





Other Systems

- Efficient DHW, with insulated pipes
- Lighting efficiency, density & control requirements
- Effective, efficient kitchen, bath, & garage exhaust fans
- Benchmarking systems in place (bldgs. > 50,000 ft2)





Water Management System

- Water-managed roof
- Water-managed walls
- Water-managed foundation and site
- Water-managed building materials



Mandatory Feature Development

Mandatory Features

- Developed by evaluating req'ts from SFNH & MFHR and combining/adjusting as appropriate
- Similar Checklist format as SFNH
- Added req'ts for central HVAC & HW systems
- Added req'ts in common areas
- Added req'ts to reduce hot water energy use



ENERGY STAR MFNC Program Documents

Mandatory Features

- Rater Design Review Checklist
- Rater Field Checklist
- HVAC Design Report
- HVAC Functional Testing Checklist
- Water Management System Requirements

ENERGY STAR MFNC Program Documents

Mandatory Features

- Rater Design Review Checklist
- Rater Field Checklist
- HVAC Design Report
 - HVAC Grading & SFNH alternative
- HVAC Functional Testing Checklist
- Water Management System Requirements



ENERGY STAR MFNC Program Documents

Mandatory Features

- Rater Design Review Checklist
- Rater Field Checklist
- HVAC Design Report
- HVAC Functional Testing Checklist
 - Sampling Protocols
- Water Management System Requirements



ENERGY STAR MFNC Supporting Documents and Tools

Mandatory Features

- Multifamily Workbook Excel What's in it?
 - Rater Design Review and Field Checklists
 - Testing results
 - Compliance checks
 When is it used?
 - Required: ASHRAE & Prescriptive
 - Optional: ERI
- Photo Documentation
 - ASHRAE & Prescriptive submit to MROs
 - ERI submit to Provider



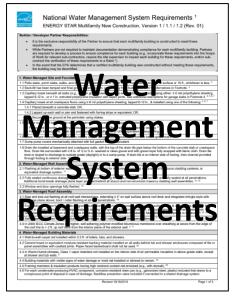
ENERGY STAR MFNC Program Documents and Tools

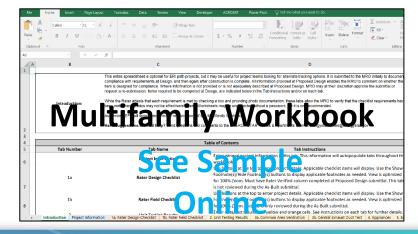












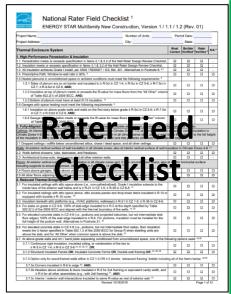


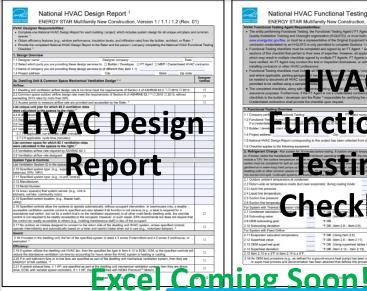


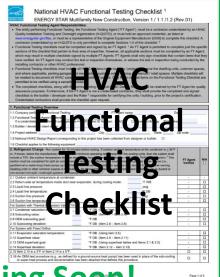


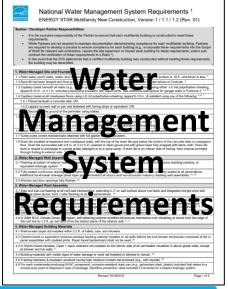
ENERGY STAR MFNC Program Documents and Tools - ASHRAE

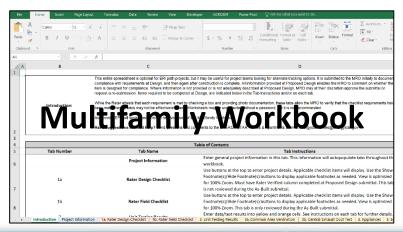


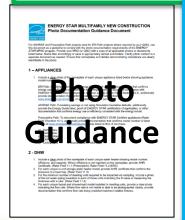


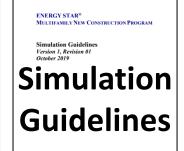


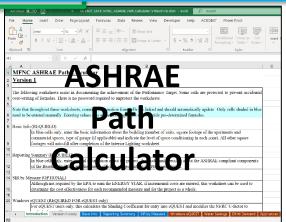
















How does MFNC compare to Homes & MFHR?

ADDITIONAL RESOURCES

MENC Partners and Stakeholders

MENC Certification Process

Educational Resources

Building America Solutions Center

MFNC National Version 1 Cost & Savings Document (PDF, 779 KB)

MFNC National ERI Target Procedure Version 1 2014 (PDF, 171 KB)

MFNC National ERI Target Procedure Version 1 2019 (PDF, 171 KB)

MFNC National Version 1.1 Cost & Savings Document (PDF, 784 KB)

MFNC National ERI Target Procedure Version 1.1 2014 (PDF, 172 KB)

MFNC National ERI Target Procedure Version 1.1 2019 (PDF, 172 KB)

MFNC Oregon & Washington ERI Target Procedure Version 1.2 2014 (PDF, 249 KB)

MFNC Oregon & Washington ERI Target Procedure Version 1.2 2019 (PDF, 249 KB)

Comparison of SFNH to MFNC (PDF, 114 KB)

Comparison of MFHR to MFNC (PDF, 477 KB)

Quality Assurance Checklist (ERI Path) (PDF, 734 KB)





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ENERGY STAR Program Comparison: SFNH vs MFNC

While the Multifamily New Construction program documents are similar to the Single-Family New Homes program documents, this comparison document summarizes the most significant changes, between MFNC Revision 02 and SFNH Revision 11.

1. National Program Requirements, MF Reference Design and Target Procedure

- a. Eligibility includes most configurations of MF. Only single family detached and 2-family dwellings will remain with Single-Family New Homes. Townhouses will be able to choose either program (i.e., Checklists), but the Reference Design will be the one from Single-Family New Homes.
- b. If one unit in a building fails, none of the units in the building can be certified, even if they met the requirements on an individual basis.
- c. Changed the criteria for individuals completing the HVAC Commissioning Checklist and re-named it Functional Testing. Created mandatory online orientation training for this 'Functional Testing' agent.
- d. Developed a MF version of the ENERGY STAR Rater Training.
- e. Three paths are available: ERI, Prescriptive, ASHRAE. The ASHRAE Path requires an ASHRAE energy modeler who has completed online orientation.
- ERI Path is still under the oversight of the Home Certification Organization, but a Multifamily Review Organization is needed for the Prescriptive and ASHRAE Paths
- g. Some modifications to the Reference Design (i.e., what's used to model the ERI Target and the basis of the Prescriptive Path):
 - Infiltration switched to compartmentalization, with a de-rate
 - · Insulation levels based on commercial wood-frame
 - Added Class AW window options
 - 90% Tier I lighting (i.e., CFL)

2. Rater Design Checklist

- a. Added blanks for project name and # of units. Moved Rater check of the entity doing Functional Testing (i.e., contractor doing Commissioning Checklist in Single-Family New Homes) to the Rater Field Checklist.
- Added a Rater check of the ASHRAE modeler, to ensure they have taken the mandatory online orientation.
- c. Expanded the high-performance fenestration and insulation sections to include common spaces. Insulation requirements generally allow choice between residential or commercial chapter, with values dependent on the Path chosen.
- d. Based on changes to the HVAC Design Report, slight changes to what the Rater
- e. Added an optional, but recommended section, on construction document review.

3. Rater Field Checklist

- a. Added blanks for project name and # of units.
- Allow a licensed professional to verify certain noted items.

Thermal Enclosure System (Sections 1, 2, 3, & 4)

- c. Based on new common space high-performance fenestration and insulation requirements, added Rater checklist items to include those spaces.
 - For Prescriptive Path: Window-to-wall ratio <30%
- Added insulation requirements for heated plenums and garages.

Revised 04/22/2022

Page 1 of 3



ENERGY STAR Program Comparison: MFHR vs MFNC

When developing the ENERGY STAR Multifamily New Construction (MFNC) Program, the requirements of the Multifamily High Rise (MFHR) and Certified Homes (ESCH) Programs were merged and used as the basis of the MFNC program, with a goal to limit significant increases in stringency of the merged requirements.

With respect to formatting, a decision was made for the Multifamily New Construction program documents to adopt the format used in the Certified Homes program documents. For MFHR Program participants, this reflects a significant change in how program requirements are presented in comparison to these three MFHR documents: Performance Path, Prescriptive Path, and Testing & Verification Protocols.

This comparison document summarizes the most significant technical changes and is organized according to the MFNC program documents, as updated in Revision 02. Appendix A shows an annotated version of the MFHR Performance Path to further identify key changes.

1. National Program Requirements

General: In MFHR, there was a Performance Path document and a Prescriptive Path document, and each contained all information related to the certification process and mandatory requirements of that Path. In the MFNC program, there is a National Program Requirements document, which instead combines information related to all Paths and moves mandatory technical requirements to these five separate documents: Rater Design Review & Field Checklists, HVAC Design Report, HVAC Functional Testing Checklist, and Water Management System Requirements (see #5-#9).

- a. MFNC eligibility includes all configurations of MF except two-family dwellings and is no longer limited by building height. The percentage of common space is also no longer a
- New Builder/Developer Partners are now required to take an online orientation training.
- c. Online orientation training is now mandatory for the Functional Testing agent (role described in #8) and the ASHRAE Path modeler.
- Individuals conducting 3rd party inspections and testing (i.e., Raters, Inspectors) are required to complete ENERGY STAR MFNC Rater Training offered through an RESNET Accredited Rater Training Provider.
- e. In addition to the ASHRAE-based Performance Path used in MFHR, a modeling path based on the Energy Rating Index (ERI) of a dwelling unit and an updated Prescriptive Path are available. While limited to certain states in MFHR, the MFNC Prescriptive Path is currently available in states that have adopted the 2012, 2015, and 2018 IECC.
- f. For projects using the ASHRAE Path, source energy savings instead of energy costs savings may be used to meet the Performance Target when modeling using ASHRAE 90.1-2013 or more current versions.
- g. For PHIUS Certified projects, a modeling option is available that utilizes their savings reports instead of an ASHRAE or ERI model.
- h. While MRO's continue to provide verification & oversight for the Prescriptive and ASHRAE Paths, if following the ERI Path, the oversight is provided by a HCO (i.e., RESNET).

Revised 03/02/2021



Highlights from the Comparison document

How is MFNC different from **SFNH**?

- Requirements for common spaces (envelope, HVAC, OA, lighting)
- Mandatory compartmentalization testing (<0.30 cfm50/ft²)
- Minimum insulation at concrete podiums/heated garages
- Options for reducing thermal bridging
- Central exhaust duct leakage test required (if more than 4 apts)
- Whole building energy data collection strategy for really large MF (>50,000 ft²)

...but unit-level load calcs allowed, DLTO only required for Townhouses, and most bedrooms, no pressure-test requirement



Highlights from the Comparison document

How is MFNC different from MFHR?

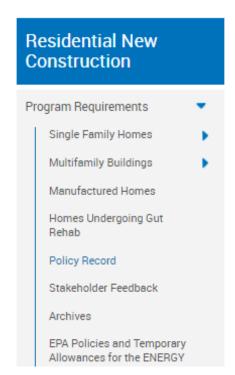
- Program documentation (PDF checklists)
- Minimum insulation/fenestration requirements
- Options for reducing thermal bridging
- ENERGY STAR and WaterSense products not required in ASHRAE Path (just Prescriptive)
- Whole building energy data collection strategy for really large MF (>50,000 ft²)
- Rater is required for verification





Policy Record

Home » Partner Resources » Residential New Construction » Program Requirements » Policy Record



Policy Record

It is expected that EPA will periodically revise the program requirements during their implementation in response to partner questions and evolving standards (e.g., ENERGY STAR labeled product specifications, NAECA standards, model energy codes). The purpose of this revision process is to be responsive to partner questions, to disseminate policy changes in a consistent manner, and to adapt the program as needed for success. Revisions will be made on an as needed basis; however, it is expected that the guidelines will not be updated more frequently than every three months and that after a year of implementation, the updates will slow to every six months.

Single Family

Multifamily

Policy Record

- Current Policy Record (PDF, 158KB) This document contains policy issues that were received and have been resolved since the
 release of Version 1, some of which may result in modifications that will be incorporated into the next revision of the program
 documents. This document was posted on March 17, 2022.
- Archive of Policy Record (PDF, 1.3 MB) This document contains all resolved policy issues that have previously appeared in the Current Policy Record. This document was posted on March 17, 2022.

Click here to view the policy record for the Multifamily High Rise Program. This document was last updated on June 21, 2021.





Policy Record (Example)

ENERGY STAR Multifamily New Construction Policy Record

ID	Log Date	Program Document	Classification	Topic
00212	08/17/2021	Rater Field Checklist, Version	Clarification	Item 3.7.1 – Mineral wool considered rigid insulation
		1/1.1 (Rev.02)		Issue: Partners have asked if mineral wool insulation could be used as continuous rigid insulation to meet reduced thermal bridging requirements.
				Resolution: Mineral wool can be considered 'rigid' because it has good structural integrity, even in its standard semi-rigid form. Therefore, it is permitted to be used as continuous rigid insulation to meet reduced thermal bridging requirements, provided that it is continuous across all structural members without thermal bridges other than fasteners and service openings.



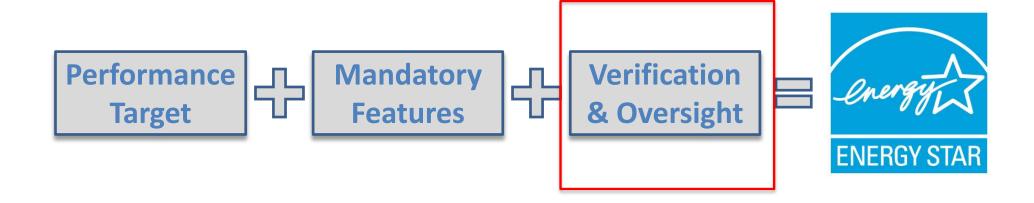
MFNC Versions & Revisions

State / Territory	Buildings Permitted On or After This Date ¹ Must Meet the Adjacent Version	Multifamily New Construction Program Version	Revision
	07-01-2020	National Version 1	Rev. 01
AL, AK, AZ, AR, CO, GU, HI, IN, ID, KS, KY, LA, MS, MO, NH, NMI, NC, ND, OH, OK, SC, SD, TN, WV, WI, WY	07-01-2021	National Version 1	Rev. 02
WV, WI, WI	01-01-2024	National Version 1.1	Rev. 02
CT, DC, DE, FL, IA, IL, MA, MD, MI, MN, MT, NJ,	07-01-2020	National Version 1.1	Rev. 01
NV, NY, RI, TX, VT	07-01-2021	National Version 1.1	Rev. 02

- Rev. 02 required for projects permitted on or after July 1, 2021
- Version 1.1 required for projects permitted on or after January 1, 2024



Key Components to Program Requirements





Verifiers and Oversight Organizations

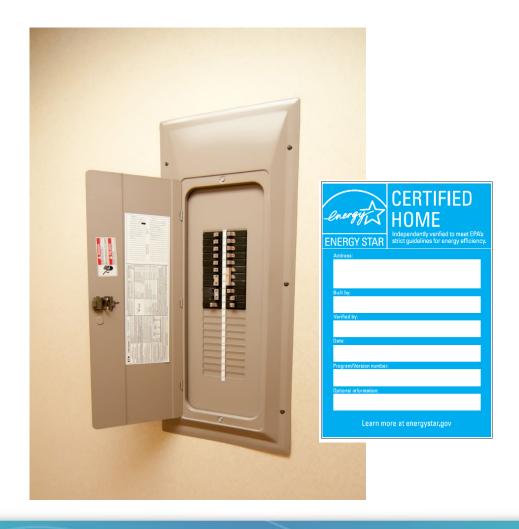
Verification and Oversight

Verification and Oversight

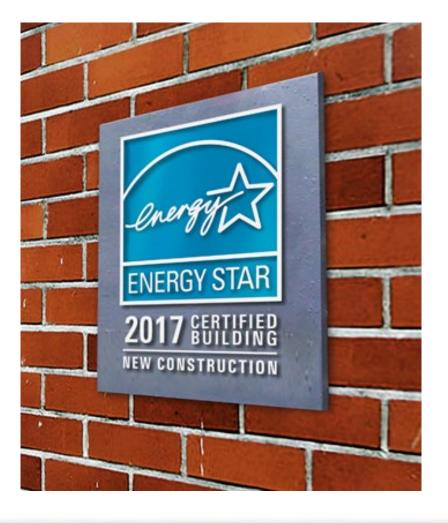
- Different Oversight Organizations for different pathways
 - ERI Path:
 - Similar to SFNH
 - Home Certification Organization (HCO)
 - Submitted at Final
 - ASHRAE and Prescriptive Paths:
 - Similar to MFHR
 - Multifamily Review Organization (MRO)
 - Submitted at Design & Final



Unit Labeling (required)



Building Labeling (optional)





Unit Certificate (required)

ENERGY STAR® CERTIFIED NEW CONSTRUCTION

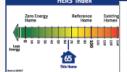
Builder/Developer Name: Gamble Builders Permit Date/Number: 4 April 2011

Washington DC 20005

Rating Company: G Force Testing Rater Identification Number: 2345678

Rating Date: 6 July 2011

ENERGY STAR Program/Version Number: 3.0



This value is not intended to be used for code on

Builder/Developer Name: Gamble Builders Permit Date/Number: 4 April 2011 Home/Unit Address: 1310 | Street

Washington DC 20005

Rating Company: G Force Testing Rater Identification Number: 2345678 Rafing Date: 6 July 2011

ENERGY STAR® CERTIFIED

NEW CONSTRUCTION

Standard Features of ENERGY STAR Certified New Homes and Apartments

rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency (EPA), including:

Your ENERGY STAR certified new home or apartment has been designed, constructed, and independently verified to meet

ENERGY STAR Program/Version Number: 3.0

Standard Features of ENERGY STAR Certified New Homes and Apartments

Your ENERGY STAR certified new home or apartment has been designed, constructed, and independently verified rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency (EPA), including:

Thermal Enclosure System

A complete thermal enclosure system that includes comprehensive air sealing, quality-installed insulatio and high-performing windows comfort and lower utility bills. Air Infiltration Test: 4 ACH50

Primary Insulation Levels: Wall: R.10

Primary Window Efficiency:

Heating, Cooling, and Ventilation System

Total Duct Leakage:

6 CFM25 per 100 sq. ft.

Primary Heating (System Type - Fuel Type - Efficiency) Primary Cooling (System Type • Fuel Type • Efficiency):

Appliances

Water Management System

A comprehensive water management system to protect roofs, walls, and foundations.

Flashing, a drainage place, and site grading to move water from the roof to the ground and then away from

Management of moisture levels in building materials during o

Energy Efficient Lighting and

ENERGY STAR Certified Lighting: 75%

ENERGY STAR Certified Appliances and Fans:

Energy efficient products to help reduce utility bills, while

Primary Water Heater (System Type - Fuel Type - Efficier

Electric Resistance Heater - Flectric - 0.04 FF

Thermal Enclosure System

A complete thermal enclosure system that includes comprehensive air sealing, quality-installed insulation and high-performing windows to deliver improved comfort and lower utility bills.

Air Infiltration Test: 4 ACH50 Primary Insulation Levels: Ceiling: R-30 Floor: R-10 Walt: R-19 Slab: R-8

Primary Window Efficiency: U-Value: 0.60 SHGC: 0.27

Heating, Cooling, and Ventilation System

Total Duct Leakage **Duct Leakage to Outdoor** 6 CFM25 per 100 sq. ft. 4 CFM25 per 100 sq. ft. Primary Heating (System Type - Fuel Type - Efficiency

Primary Cooling (System Type + Fuel Type + Efficiency) Ground-source Heat Pump • Electric • 14.5 SEER

Water Management System

A comprehensive water management system to protect roofs, walls, and foundations.

Flashing, a drainage place, and site grading to move water from the roof to the ground and then away from the home or building.

Water-resistant materials on below-grade walls and undermeath slabs to reduce the potential for watering entering the home or building.

Management of moisture levels in building materials during construction

Energy Efficient Lighting and

Appliances Energy efficient products to help reduce utility bills, while providing high-iquality performance.

ENERGY STAR Certified Lighting: 75% **ENERGY STAR Certified Appliances and Fans.**

Primary Water Heater (System Type - Fuel Type - Efficiency):

Note that when a home or spartment contains multiple performenterwis for a particular feature (a.g., window efficiency or insulation levels), the predominant value is shown. Also, homes and spertments may be calified to earn the ENERSY STAR using a sampling protocol, whereby one home or spectment is rando

Building Certificate (optional)



The U.S. Environmental Protection Agency awards the ENERGY STAR to the units in

Gamble Towers



10/5/2020



The units in this building are designed, constructed, and independently verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency.

Built by: Hudson LLC - Verified by: Passe Projects

Oversight by: Residential Energy Services Netwo







Mandatory Minimum Requirements



Model unit-by-unit energy savings based on the ERI target (or savings above Title 24 in California) and follow a prescriptive package of energy efficient measures developed by EPA in common spaces.

ERI

Model energy savings of the building's design compared to ASHRAE 90.1 (or Title 24 in California).

ASHRAE

Use a prescriptive package of energy efficient measures developed by EPA.

(Not available in California.)

Prescriptive





MFNC Certification Process

JOIN

All participants met participation requirements prior to certifying multifamily buildings.

Complete **Design Verification Documents**.

DESIGN

BUILD

Complete Construction Verification Documents.

CERTIFY

Rater submits all documentation to an oversight organization.

MARKET

ENERGY STAR certification label and ENERGY STAR certificate.

ENERGY STAR plaques available for purchase.





Mandatory Minimum Requirements



Model unit-by-unit energy savings based on the ERI target (or savings above Title 24 in California) and follow a prescriptive package of energy efficient measures developed by EPA in common spaces.

ERI





JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers





JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

DESIGN

Complete **Design Verification Documents.**

✓ Rater Design Review Checklist ✓ HVAC Design Report

Optional: Multifamily Workbook; Reference: Rater Field Checklist, Water Mgmt System Requirements

ERI

Conduct energy modeling to ensure that project design meets or exceeds the ERI Target.





JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

DESIGN

Complete **Design Verification Documents**.

✓ Rater Design Review Checklist ✓ HVAC Design Report

Optional: Multifamily Workbook; Reference: Rater Field Checklist, Water Mgmt System Requirements

ERI

Conduct energy modeling to ensure that project design meets or exceeds the ERI Target.

Complete Construction Verification Documents.

✓ Rater Field Checklist
✓ HVAC Functional Testing Checklist

✓ Photo Documentation

BUILD

Optional: Multifamily Workbook; Reference: Water Mgmt System Requirements





JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

DESIGN

Complete **Design Verification Documents**.

✓ Rater Design Review Checklist ✓ HVAC Design Report

Optional: Multifamily Workbook; Reference: Rater Field Checklist, Water Mgmt System Requirements

ERI

Conduct energy modeling to ensure that project design meets or exceeds the ERI Target.

Complete Construction Verification Documents.

✓ Rater Field Checklist
✓ HVAC Functional Testing Checklist

✓ Photo Documentation

BUILD

Optional: Multifamily Workbook; Reference: Water Mgmt System Requirements

CERTIFY

Rater submits all documentation to an oversight organization.

ERI

Update energy rating based on conditions. Register each unit in the project with an EPA-approved HCO.





JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

DESIGN

Complete **Design Verification Documents**.

✓ Rater Design Review Checklist ✓ HVAC Design Report

Optional: Multifamily Workbook; Reference: Rater Field Checklist, Water Mgmt System Requirements

ERI

Conduct energy modeling to ensure that project design meets or exceeds the ERI Target.

BUILD

Complete Construction Verification Documents.

Optional: Multifamily Workbook; Reference: Water Mamt System Requirements

✓ Rater Field Checklist
 ✓ HVAC Functional Testing Checklist

✓ Photo Documentation

CERTIFY

Rater submits all documentation to an oversight organization.



Update energy rating based on conditions. Register each unit in the project with an EPA-approved HCO.

MARKET

ENERGY STAR certification label and ENERGY STAR certificate. ENERGY STAR plaques available for purchase.









Mandatory Minimum Requirements



Model energy savings of the building's design compared to ASHRAE 90.1 (or Title 24 in California).

ASHRAE





ASHRAE

JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

✓ ASHRAE Path Modelers

DESIGN

Complete **Design Verification Documents**.



Conduct energy modeling to ensure that project design achieves the required savings over ASHRAE 90.1 (or Title 24). Submit required documents to EPA-approved MRO.

Proposed Design Submittal:

EPA Documents

- ✓ Rater Design Review Checklist
- ✓ HVAC Design Report
- ✓ Multifamily Workbook
- ✓ ASHRAE Calc. (or CA Compliance Report)

Project Documentation

- ✓ Construction Documents
- ✓ Model Input / Output Files

Reference Documents:

- ✓ Rater Field Checklist
- ✓ Water Management System Requirements





ASHRAE

JOIN

All participants met participation requirements prior to certifying multifamily buildings.

Builders

Raters

Functional Testing Agents

Developers

ASHRAE Path Modelers

DESIGN

Complete **Design Verification Documents**.

- Rater Design Review Checklist
- ✓ HVAC Design Report ✓ ASHRAE Calc.
- ASHRAE

Multifamily Workbook Reference: Rater Field Checklist, Water Mamt System Requirements

Conduct energy modeling to ensure that project design achieves the required savings over ASHRAE 90.1 (or Title 24). Submit required documents to EPA-approved MRO.

BUILD

Complete Construction Verification Documents.

- Rater Field Checklist
- **HVAC Functional Testing Checklist**
- Photo Documentation

- **Multifamily Workbook**
- ASHRAE Path Calculator

Reference: Water Management System Requirements

CERTIFY

Rater submits all documentation to an oversight organization. ASHRAE

Update energy model based on conditions. Submit project As-Built Submittal to an EPA-approved MRO.

As-Built Submittal:

EPA Documents

- Rater Field Checklist
- **HVAC Functional Testing Checklist**
- Multifamily Workbook
- ASHRAE Calc. (or CA Compliance Report)

Project Documentation

- Photo Documentation
- Model Input / Output Files

Reference Documents:

Water Management System Requirements





ASHRAE

JOIN

All participants met participation requirements prior to certifying multifamily buildings.

Builders

Raters

Functional Testing Agents

Developers

ASHRAE Path Modelers

DESIGN

Complete **Design Verification Documents**.

- Rater Design Review Checklist
 - ✓ HVAC Design Report ✓ ASHRAE Calc.
 - Reference: Rater Field Checklist, Water Mamt System Requirements

Conduct energy modeling to ensure that project design achieves the required savings over ASHRAE 90.1 (or Title 24). Submit required documents to EPA-approved MRO.

BUILD

Complete Construction Verification Documents.

- Rater Field Checklist
- ✓ HVAC Functional Testing Checklist
- Photo Documentation

Multifamily Workbook

Multifamily Workbook

ASHRAE Path Calculator

Reference: Water Management System Requirements

CERTIFY

Rater submits all documentation to an oversight organization. ASHRAE

ASHRAE

Update energy model based on conditions. Submit project As-Built Submittal to an EPA-approved MRO.

MARKET

ENERGY STAR certification label and ENERGY STAR certificate. ENERGY STAR plaques available for purchase.











Mandatory Minimum Requirements



Use a prescriptive package of energy efficient measures developed by EPA.

(Not available in California.)

Prescriptive





Prescriptive

JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

DESIGN

Complete **Design Verification Documents.**

Prescr.

Ensure the design meets all the mandatory requirements for Prescriptive Path projects. Submit required documents to EPA-approved MRO.

Proposed Design Submittal:

EPA Documents

- ✓ Rater Design Review Checklist
- ✓ HVAC Design Report
- ✓ Multifamily Workbook

Project Documentation

✓ Construction Documents

Reference Documents:

- Rater Field Checklist
- ✓ Water Management System Requirements





Prescriptive

JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

DESIGN

Complete Design Verification Documents.

- ✓ Rater Design Review Checklist ✓ HVAC Design Report
- ✓ Multifamily Workbook Reference: Rater Field Checklist, Water Mamt System Requirements

Ensure the design meets all the mandatory requirements for Prescriptive Path projects. Submit required documents to EPA-approved MRO.

BUILD

Complete Construction Verification Documents.

- ✓ Rater Field Checklist
- ✓ HVAC Functional Testing Checklist
- ✓ Photo Documentation

✓ Multifamily Workbook

Reference: Water Management System Requirements

CERTIFY

Rater submits all documentation to an oversight organization.

Prescr.

Prescr.

Submit project As-Built Submittal with required documents to an EPA-approved MRO.

As-Built Submittal:

EPA Documents

- ✓ Rater Field Checklist
- ✓ HVAC Functional Testing Checklist
- ✓ Multifamily Workbook

Project Documentation

✓ Photo Documentation

Reference Documents:

✓ Water Management System Requirements





Prescriptive

JOIN

All participants met participation requirements prior to certifying multifamily buildings.

✓ Builders

✓ Raters

✓ Functional Testing Agents

✓ Developers

DESIGN

Complete Design Verification Documents.

- ✓ Rater Design Review Checklist ✓ HVAC Design Report
- ✓ Multifamily Workbook Reference: Rater Field Checklist, Water Mgmt System Requirements

Ensure the design meets all the mandatory requirements for Prescriptive Path projects. Submit required documents to EPA-approved MRO.

BUILD

Complete Construction Verification Documents.

- ✓ Rater Field Checklist
- ✓ HVAC Functional Testing Checklist ✓ Photo Documentation
- ✓ Multifamily Workbook

Reference: Water Management System Requirements

CERTIFY

Rater submits all documentation to an oversight organization.

Prescr.

Prescr.

Submit project As-Built Submittal with required documents to an EPA-approved MRO.

MARKET

ENERGY STAR certification label and ENERGY STAR certificate. ENERGY STAR plaques available for purchase.



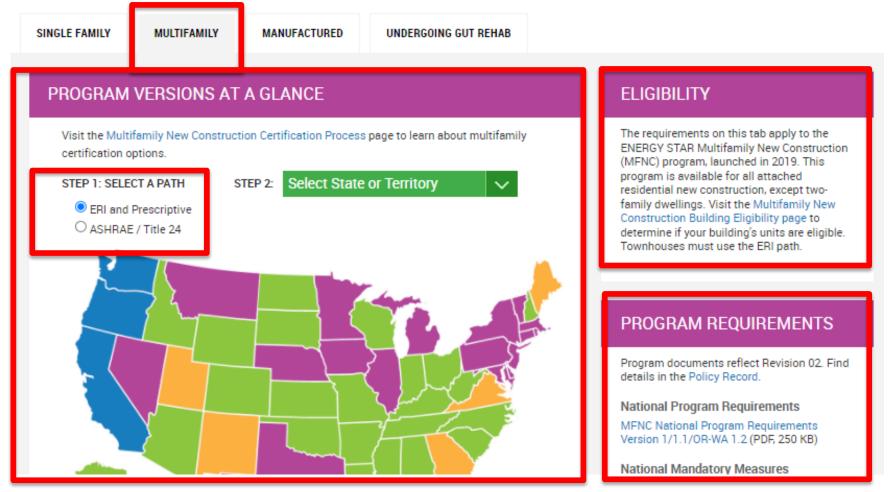


















IMPLEMENTATION TIMELINE

*UPDATE: All buildings permitted on or after January 1, 2024 will be required to meet the National Version 1.1 program requirements. There is no change for buildings built in locations where National Version 1.1 or a regional program requirement is already in effect.

To determine the program Version that a multifamily building is required to be certified under, identify the location and permit date of the building below. Note that regional program requirements, and associated implementation timelines, have been developed for buildings in CA, OR, PR, USVI, and WA

State / Territory	Buildings Permitted On or After This Date ¹ Must Meet the Adjacent Version	Multifamily New Construction Program Version	Revision
AL, AK, AZ, AR, CO, GU, HI, IN, ID, KS, KY, LA, MS, MO, NH, NMI, NC, ND, OH, OK, SC, SD, TN, WV, WI, WY	07-01-2020	National Version 1	Rev. 01
	07-01-2021	National Version 1	Rev. 02
	01-01-2024	National Version 1.1	Rev. 02

National Mandatory Measures

MFNC Rater Design Review Checklist (PDF,

MFNC Rater Field Checklist (PDF, 775 KB)

MFNC HVAC Design Report (PDF, 375 KB)

MFNC HVAC Design Supplement - Dwellings & Units (PDF, 565 KB)

MFNC HVAC Design Supplement - Common Spaces & Central Systems (PDF, 371 KB)

MFNC HVAC Functional Testing Checklist (PDF, 332 KB)

MFNC Water Management System Requirements (PDF, 88 KB)

Regional Program Requirements

MFNC California Program Requirements Version 1.2 (PDF, 136 KB)

MFNC Caribbean Program Requirements, Version 1 (PDF, 101 KB)

Regional Mandatory Measures

MFNC Caribbean Rater Design Review Checklist (PDF, 212 KB)

MFNC Caribbean Rater Field Checklist (PDF,

Download All

SUPPORTING DOCUMENTS



SINGLE FAMILY

MULTIFAMILY

MANUFACTURED

UNDERGOING GUT REHAB

PROGRAM VERSIONS AT A GLANCE

Visit the Multifamily New Construction Certification Process page to learn about multifamily certification options.

STEP 1: SELECT A PATH

- ERI and Prescriptive
- ASHRAE / Title 24

TEP 2: To see county design temperatures, select your tate or territory.

Select State or Territory



ELIGIBILITY

The requirements on this tab apply to the ENERGY STAR Multifamily New Construction (MFNC) program, launched in 2019. This program is available for all attached residential new construction, except twofamily dwellings. Visit the Multifamily New Construction Building Eligibility page to determine if your building's units are eligible. Townhouses must use the ERI path.

PERFORMANCE TARGETS

For the ASHRAE Path, determine the commercial code in effect in your state and then choose from the Performance Target options in the table below. In states that have no commercial energy code or have adopted the 2009 IECC or earlier, buildings are required to meet a Performance Target of 15% over ASHRAE 90.1-2007, if permitted before January 1, 2024, and 15% over ASHRAE 90.1-2010, if permitted on or after January 1, 2024. For all other states, the Performance Target is 15% better than the energy code under which the building is permitted, unless choosing one of the equivalent options in the table below.

PROGRAM REQUIREMENTS

Program documents reflect Revision 02. Find details in the Policy Record.

National Program Requirements

MFNC National Program Requirements Version 1/1.1/OR-WA 1.2 (PDF, 250 KB)

National Mandatory Measures



SINGLE FAMILY

MULTIFAMILY

MANUFACTURED

UNDERGOING GUT REHAB

PROGRAM VERSIONS AT A GLANCE

Visit the Multifamily New Construction Certification Process page to learn about multifamily certification options.

STEP 1: SELECT A PATH

- ERI and Prescriptive
- O ASHRAE / Title 24

STEP 2: To see county design temperatures, select your state or territory.

Select State or Territory



ELIGIBILITY

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PROGRAM REQUIREMENTS

Program documents reflect Revision 02. Find details in the Policy Record.

National Program Requirements

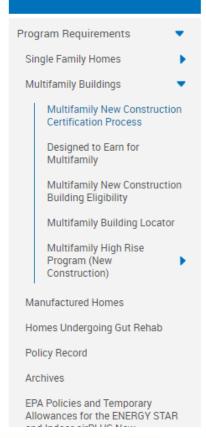
MFNC National Program Requirements Version 1/1.1/OR-WA 1.2 (PDF, 250 KB)

National Mandatory Measures



ENERGY STAR MFNC Certification Process Page

Residential New Construction



Multifamily New Construction Certification Process

There are three paths to earning the ENERGY STAR for multifamily new construction projects. Builders/developers may choose:

- ERI Path: Use an approved rating tool software to determine unit-by-unit energy savings based on the ERI target (or savings above Title 24 in California) and follow a prescriptive package of energy efficient measures developed by EPA in common spaces; OR
- ASHRAE Path: Use an energy modeling software approved to determine energy cost savings of the building's energy efficient design compared to ASHRAE (or Title 24 in California); OR
- 3. Prescriptive Path: Use a prescriptive package of energy efficient measures developed by EPA. (Not available in California)

Regardless of which path is chosen, each building must meet certain minimum mandatory requirements, and these are verified in the field by an approved Rater.

The step-by-step graphic below illustrates the process that eligible multifamily buildings follow to earn the ENERGY STAR. Visit the ENERGY STAR Technical Bulletins page to learn more about each of these steps, including

A Rater's Guide to the ENERGY STAR Multifamily New Construction Program Paths (PDF, 234 KB).

Step 1: Join	•
Step 2: Design	•
Step 3: Build	•
Step 4: Certification	•
Step 5: Marketing and Labeling	•



ENERGY STAR Partner Pages

Resources for ENERGY STAR Residential New Construction Partners

Find program requirements, resources, and training for ENERGY STAR residential new construction partners, and learn about the benefits of partnership.

Residential New Construction Program Requirements

To earn ENERGY STAR certification, a new home or apartment must meet strict energy efficiency requirements established by EPA's ENERGY STAR Residential New Construction program.







Working with ENERGY STAR

Builders, developers, energy rating companies, utilities, and other energy efficiency program sponsors can partner with ENERGY STAR.

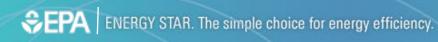
Learn More

Already a partner? Log in to your My ENERGY STAR Account (MESA) for partner-only tools and resources and to update partnership information.

Log In

Organizations such as real estate professionals and HVAC contractors can work with ENERGY STAR in other ways.

Learn More





Stakeholder Pages

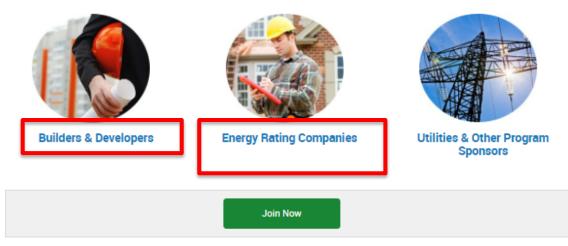


Partner with ENERGY STAR

ENERGY STAR is the government-backed symbol for energy efficiency recognized by more than 90% of American households. ENERGY STAR certified homes and apartments are designed and constructed to be significantly more energy efficient than those built to code while lowering homeowner utility bills and providing superior comfort, quality, and durability.

ENERGY STAR provides marketing, technical, and programmatic support to partners to help them maximize their success.

There are opportunities for various types of organizations to support the construction of energy-efficient new homes and apartments through the ENERGY STAR Residential New Construction program. Learn more about participating with ENERGY STAR, including eligibility to partner with the program.





Stakeholder Pages - Rater



Energy Rating Companies

The demand for home energy rating services is strong and growing. Energy Rating Companies (ERCs), comprised of trained and certified professionals (e.g., Home Energy Raters, HERS Raters, Providers), can partner with ENERGY STAR to expand their service offerings while becoming an invaluable asset to their builder clients.

Third party verification is a central component of the ENERGY STAR Residential New Construction programs and gives homebuyers and renters confidence that their new homes are energy-efficient. ERCs participating in either ENERGY STAR Certified Single-family New Homes or ENERGY STAR Multifamily New Construction (MFNC) can increase their revenue by gaining exclusive access to thousands of ENERGY STAR builder and developer partners. ERCs work closely with builders and developers to design homes and multifamily buildings that meet the Program Requirements and verify critical construction details during and after construction.

Partnering with ENERGY STAR is an opportunity for ERCs to expand their service offerings beyond simply providing energy ratings or individual performance tests (i.e., blower door tests). ERCs can become an invaluable asset to their clients and transition to the role of energy consultants by providing value throughout the construction process.

ERC partners can leverage the ENERGY STAR brand and take advantage of a suite of sales and marketing resources to help attract and recruit clients. ERC partners also become eligible for national recognition from EPA in the form of ENERGY STAR Awards if they meet eligibility criteria and demonstrate exemplary leadership in the verification of certified homes and apartments.

ENERGY STAR provides technical support in the form of webinars and resources posted online that can help Energy Rating Companies improve their understanding of building science. If you have a question about ENERGY STAR requirements that is not easily addressed by ENERGY STAR resources, email energystarhomes@energystar.gov for one-on-one support.

Visit the Partner Locator to find active ENERGY STAR partners and incentives near you.

Training Requirements

To begin or maintain an active partnership with ENERGY STAR, an Energy Rating Company must have at least one individual on staff who is a certified rater, approved inspector, or an equivalent designation as determined by a Home Certification Organization (HCO) or Multifamily Review Organization (MRO) and has completed required training through a HCO-accredited training provider for the ENERGY STAR program they will use to certify homes.

Current providers include:

RESNET-Approved Training Providers EXIT → (Approved trainings list EXIT →)



Stakeholder Pages - Rater

Required training by ENERGY STAR program:

- Single-Family:
 - ENERGY STAR Certified Homes Version 3 / 3.1 training or
 - ENERGY STAR Certified Homes Caribbean Version 3 training
 - For individuals who will primarily be working in Puerto Rico or the U.S. Virgin Islands, it is recommended that they complete
 training using these materials instead of the ENERGY STAR Certified Homes Version 3 / 3.1 materials.
- · Multifamily:
 - ENERGY STAR Certified Homes Version 3 / 3.1 training, and
 - ENERGY STAR Multifamily New Construction (MFNC) Version 1 training (to certify MFNC projects on or after January 1, 2020)
 - Download the list of MFNC trained raters (EXCEL, 13 KB)

All of the above-listed trainings present the technical content of each program's Rater Design Review Checklist and Rater Field Checklist. The training takes the trainee through each section of the checklist, explaining in great detail each individual checklist requirement, how to verify it, and explanation of any corresponding footnotes. Upon completing the training, raters will have a solid understanding of how to verify and complete the checklists they are responsible for in the ENERGY STAR certification process.



Stakeholder Pages - Rater

Required training by ENERGY STAR program:

- Single-Family:
 - ENERGY STAR Certified Homes Version 3 / 3.1 training or
 - o ENERGY STAR Certified Homes Caribbean Version 3 training
 - For individuals who will primarily be working in Puerto Rico or the U.S. Virgin Islands, it is recommeded that they complete training using these materials instead of the ENERGY STAR Certified Homes Version 3 / 3.1 materials.
- Multifamily:
 - ENERGY STAR Certified Homes Version 3 / 3.1 training, and
 - ENERGY STAR Multifamily New Construction (MFNC) Version 1 training (to certify MFNC projects on or after January 1, 2020)
 - Download the list of MFNC trained raters (EXCEL, 13 KB)

All of the above-listed trainings present the technical content of each program's Rater Design Review Checklist and Rater Field Checklist. The training takes the trainee through each section of the checklist, explaining in great detail each individual checklist requirement, how to verify it, and explanation of any corresponding footnotes. Upon completing the training, raters will have a solid understanding of how to verify and complete the checklists they are responsible for in the ENERGY STAR certification process.



Stakeholder Pages -**ASHRAE** Modeler

Residential New Construction

Program Requirements

About the ENERGY STAR Residential New Construction Program



Manufactured Homes Quality Assurance Providers (QAPs)

Marketing Resources

Educational Resources

Tools & Resources

Related Programs

Certified Homes Partner Locator

Other Participants

There are opportunities for a number of different types of organizations to support the ENERGY STAR Residential New Construction program and the construction of energy-efficient new homes and apartments. Learn more about how different types of organizations can participate with ENERGY STAR, including their eligibility to partner with the program.

Oversight Organizations	Multifamily Professionals	Real Estate Industry Professionals	Other Stakeholders
Home Certification Organizations (HCOs) Multifamily Review Organizations (MROs) Manufactured Homes Quality Assurance Providers (QAPs)	ASHRAE Path Energy Modelers Functional Testing Agents (FTAs)	Home Appraisers Housing Agencies Lenders Manufactured Homes Retailers Real Estate Professionals	Architects & Designers Home Builders Associations HVAC Contractors



Architects & Designers

Residential architects and designers can help their builder clients design home plans that meet the rigorous energy efficiency requirements of the ENERGY STAR Residential New Construction program. By designing energy efficiency into the front-end of a project, a team can ensure that critical building science details and efficiency features are included that offer direct resident benefits, including energy-savings, comfort, and

Architects and designers can better promote their multifamily projects by using the Designed to Earn the ENERGY STAR mark.



ASHRAE Path Energy Modelers

The ENERGY STAR Multifamily New Construction program offers a certification path which requires wholebuilding energy models that demonstrate energy cost savings above ASHRAE Standard 90.1. Energy modelers tasked with developing these building models are required to complete an online orientation, which will provide an overview of the Multifamily New Construction program and its requirements.

After completing the online orientation, email energystarhomes@energystar.gov to share contact information with EPA and include "ASHRAE Modeling Orientation" in the subject line. Recognized Energy Modelers are added to the ASHRAE Path Energy Modeler Directory.





Stakeholder Pages – ASHRAE Modeler

ASHRAE Path Energy Modeler Directory

After completing the orientation and sharing contact information with EPA, recognized ASHRAE Path Energy Modelers are added to the directory below. Learn about ASHRAE Path Energy Modelers on our Other Participants page to get started.

Individual Name	Organization	Email	Phone Number	City	State
CONSTRUCTION	w			[1×11 (×11)	(xx)
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Stakeholder Pages – Functional Testing Agents

Related Programs

Home Buyer Information

Complaints and Certification



Functional Testing Agents (FTAs)

Professionals who hold EPA-recognized credentials can complete parts of the ENERGY STAR Multifamily New Construction HVAC Functional Testing Checklist (PDF, 354 KB).

Functional Testing Agents must be a contractor credentialed by an HVAC Quality Installation Training and Oversight organization (H-QUITO) or must be one of the following:

ACG Certified Commissioning Authority (CxA)	Licensed Professional Mechnical Engineer
ACG Certified Commissioning Technician (CxT)	NEBB Building System Commissioning Certified Technician (BSC CxCT)
AEE Certified Building Commissioning Professional (CBCP)	NEBB Building System Commissioning Certified Professional (BSC BP)
AEE Existing Building Commissioning Professional (EBCP)	NEEM Commissioning Process Professional (CxPP)
ASHRAE Building Commissioning Professional (BCxP, formerly the Commissioning Process Management Professional (CPMP))	Representative of the Original Equipment Manufacturer (OEM)
BCCB Certified Commissioning Professional	

Professionals seeking to provide Functional Testing services in support of the ENERGY STAR Multifamily New Construction Program must complete an online orientation [EXIT -], which will provide an overview of the program and its requirements. Note: online orientation is not required for credentialed HVAC contractors.

After completing the online orientation, email energystarhomes@energystar.gov to share contact information and a copy of your credential certificate or documentation with EPA. In clude "Functional Testing Orientation" in the subject line. Recognized Functional Testing Agents are added to the Functional Testing Agent Directory

Stakeholder Pages – Functional Testing Agents

Functional Testing Agent Directory

The entity performing Functional Testing, the Functional Testing Agent ("FT Agent"), must be a contractor credentialed by an HVAC Quality Installation Training and Oversight organization (H-QUITO), must hold an approved credential, or must be a representative of the Original Equipment Manufacturer (OEM). Learn about Functional Testing Agents on our Other Participants page to get started.

After completing the orientation and sharing contact information with EPA, recognized Functional Testing Agents (FTAs) are added to the directory below.

Raters: To confirm the status of an unlisted Functional Testing Agent, please contact energystarhomes@energystar.gov.





Marketing Materials







Working with ENERGY STAR

Builders, developers, energy rating companies, utilities, and other energy efficiency program sponsors can partner with ENERGY STAR.

Learn More

Already a partner? Log in to your My ENERGY STAR Account (MESA) for partner-only tools and resources and to update partnership information.

Log In

Organizations such as real estate professionals and HVAC contractors can work with ENERGY STAR in other ways.

Learn More

Resources & Training



Technical Guidance & Webinars

Access technical information about the program, supplemental guidance, and sign up for webinars on a variety of topics.



Marketing Resources

Educate prospective homebuyers about the features and benefits of ENERGY STAR certified homes and apartments using a variety of no cost resources.



Awards & Recognition

Learn about awards and other recognition available for ENERGY STAR residential new construction partners.





Marketing Materials

commitment to energy efficiency to residents, employees, and the community. Program participants are eligible to order an aluminum building plaque to promote the building's energy-efficient construction.

Multifamily Plaque Templates*

Partners may use these plaques on projects that have earned the ENERGY STAR label to promote their accomplishment and participation with ENERGY STAR.

Designed to Earn Mark*

If the project has earned the Designed to Earn Mark, you may use these marks for their approved design.

SOCIAL MEDIA

ENERGY STAR Homes on Twitter

Follow @ENERGYSTARHomes on Twitter for energy savings tips, ENERGY STAR Certified Homes program updates, and to engage with other program partners.

ENERGY STAR on Facebook

Like the ENERGY STAR Facebook page to stay connected with the program and engage with other companies, organizations, and individuals interested in energy efficiency on a page that is viewed by thousands of Facebook users every day.

ADDITIONAL RESOURCES

Marketing Tools (PDF, 426 KB)

Review this document to learn about many of the free marketing resources available for ENERGY STAR builder partners.

Multifamily Marketing Tools (PDF, 392 KB)

Review this document to learn about additional marketing resources available for ENERGY STAR multifamily builder and developer

Key Resources to Remember (PDF, 372 KB)

Find additional web resources for partners.



^{*}Only available via partners' My ENERGY STAR Account (MESA)

Marketing Materials

ENERGY STAR Multifamily New Construction MARKETING TOOLS



Building and labeling ENERGY STAR certified homes and apartments is only the first step to being a successful ENERGY STAR partner. To extend the value of your partnership, educate prospective buyers and renters about the features and benefits with these resources. All resources detailed below can be found at www.energystar.gov/mesa*.

Plaques

Partner Mark

The Partnership Mark helps ENERGY STAR partners communicate their commitment to the ENERGY STAR program and energy efficiency. Use the mark in advertising, on your website, on signage, and in promotional materials to associate your apartments with the nationally recognized and trusted ENERGY STAR program. To ensure you are using the marks correctly, obtain a copy of ENERGY STAR's Brand Book.



brochure and insert to help residents understand the big message behind the little label; better is better. The brochure helps residents learn about the features and benefits of living in any

Certified Apartments Brochure & Insert

Partners may use the co-brandable, tri-fold

ENERGY STAR certified apartment, while the insert provides additional information on ENERGY STAR Multifamily New Construction program

Buildings that earn the ENERGY STAR can

promote their commitment to energy efficiency

to residents, employees, and the community.

Partners can choose to use a pre-designed

their own building plaque to promote the

Ready to Order Plaque: Partners can order

building's energy efficient construction.

create their own building plaque.

plaque or use plaque template files to create



Promotional Mark & Web Buttons

The Promotional Mark is used in educational and promotional materials intended to inform others about the benefits of the ENERGY STAR program. Use the Promotional Mark to showcase the energy efficient features of your homes and apartments, such as including a designated "Energy Efficiency" section on your website.



The marks are also available as web buttons that can be easily uploaded to your site to promote your ENERGY STAR partnership and allow you to easily link back to the Multifamily New Construction consumer-facing landing page.

Designed to Earn Mark

Multifamily new construction projects can achieve Designed to Earn the ENERGY STAR recognition if the design is verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency.

Use the mark in promotional materials for approved project designs to showcase your commitment to energy efficiency and high-performance design.



ENERGY STAR Sales Training Kit (STK) & Selling the Value of ENERGY STAR to Renters

aluminum building plaques through an identified vendor.

Plaque Templates: Partners can use template plaque files to

The ENERGY STAR Sales Training Kit helps sales agents describe the features and benefits of ENERGY STAR certified homes in a way that aligns with customers' own values. Coming soon, to compliment the STK, is an additional resource designed to train leasing staff on highlighting the key features and benefits of renting an ENERGY STAR home or apartment.



Promotional Language

Sample text is provided to help promote your ENERGY STAR certified apartments and partnership to consumers. Simply copy and paste the sample text to your organization's web site. Use this content in combination with our web banners and buttons to take advantage of ENERGY STAR's web linking policy.



Communicating the Benefits of ENERGY STAR

This resource is a collection of ideas for "silent sales signs" that highlight the distinct features of ENERGY STAR certified apartments. It provides examples of display methods and recommended language that can be used in a sales office or model unit to showcase the benefits of ENERGY STAR certification to



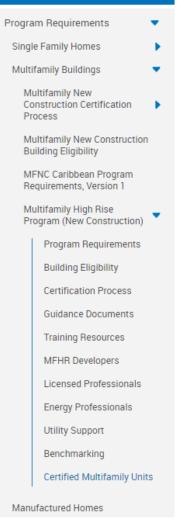
"The "My ENERGY STAR Account" (MESA) site is password protected. If you don't know your username or password, contact energystarhomes@energystar.go





Market Your Building

Residential New Construction



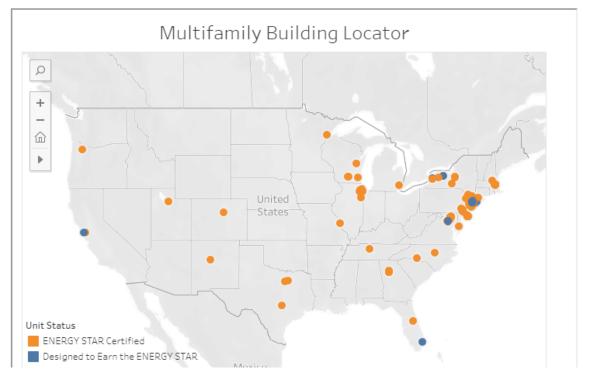
Certified Multifamily Units

Looking for an ENERGY STAR certified apartment or condo? Use the Building Locator or browse our List of Buildings with ENERGY STAR Certified Apartments to find buildings with certified units near you that deliver better quality, comfort, and value.

MULTIFAMILY BUILDING LOCATOR

Click on a location within the map to see more information, including a link to the building's profile (where available). Designed to Earn the ENERGY STAR designates buildings under construction where the design has met the ENERGY STAR requirements, but post-construction verification is still required for apartments to earn ENERGY STAR certification.

If you are experiencing issues with the interactive features of the map or tables below, try opening the map in a new tab by clicking here





Market Your Building

ENERGY STAR Multifamily High Rise Building Profile

The Main Street Building

123 Main Street Washington, DC 20005

[Web Address]

Licensed Professional:

ABC Development Corporation

Building Developer:

XYZ Architectural Designs

Year Certified:

2014

Construction Type:

New Construction

Market Rate

Sector:

Technologies Used:

-Steel frame walls with R-13 fiberglass and R-5 rigid

insulation -15 SEER AC

-Low-flow fixtures, ENERGY STAR appliances and

CFLs

Building Description:

EPA has created this fillable PDF template that also allows you to upload a picture of the building and developer company logo. Building Profiles are an opportunity to showcase the unique energy efficiency features of your building to consumers and prospective clients alike. Building Profiles are linked from www.energystar.gov/mfhr and will be posted to the ENERGY STAR MFHR Consumer Page www.energystar.gov/certifiedapartments.

A Building Profile includes general information and a description of the building, specific energy efficiency measures, and a photo of the building and the developer company logo. Developers can add a link to either their website or building website if they comply with the ENERGY STAR Web Linking Policy.







BUILDING PROFILE HIGHLIGHT

FRANKLIN MANOR (PDF. 614 KB)

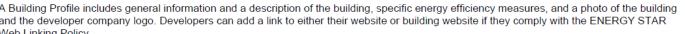
Interested in learning more about the energy saving features in ENERGY STAR certified apartments? Use the gray arrows below to search the profiles of multifamily high rise buildings with ENERGY STAR certified units. Interested in having your multifamily high rise building highlighted? Instructions on how to submit a Building Profile are available in the Building Profile Kit (PDF, 901KB).







LINC32 AT ORANGE STATION (PDF. 696 KB)





Awards

Partner of the Year

Partner of the Year Award



2021 Market Leader Award Winners

Multifamily Hig	h Rise Developers
333 Lenox Asso	ociates, LLC
City Centre Ass	ociates, LLC
Common Groun	nd
Community Acc	cess, Inc
Comunilife, Inc.	
Concern For Inc	dependent Living
Douglaston Dev	velopment
East 138th St., I	LLC
East Village 14	LLC
Habitat for Hum	nanity - New York City
2Life Communi	ties
NYC Partnershi	p Housing Development Fund Company, Inc.
Parkadon Devel	lopment LLC
Phipps Houses	
Promesa HDFC	
Sandy Clarkson	LLC
Settlement Hou	ising Fund, Inc.
Tenderloin Neig	hborhood Development Co. (TNDC)

Technical Bulletins

Residential New Construction Program Requirements About the ENERGY STAR Residential New Construction Program Working with ENERGY STAR Marketing Resources Educational Resources **ENERGY STAR Webinars** Technical Bulletins Supplemental Program Guidance

Technical Bulletins

- A Rater's Guide to the ENERGY STAR Multifamily New Construction Program Paths Technical Bulletin, December 16, 2020 (PDF, 360 KB)
 - This technical bulletin highlights the differences and similarities between the three different ENERGY STAR Multifamily New Construction paths (ERI, ASHRAE and Prescriptive) and clarifies the Rater's responsibilities for each Path.
- How to Get Your ENERGY STAR Multifamily New Construction Project Team Ready Technical Bulletin, August 12, 2020 (PDF, 360 KB)
 - The transition to EPA's ENERGY STAR Multifamily New Construction (MFNC) program is fast approaching. Is your project team ready? Key participants for the Multifamily New Construction program include builders / developers, raters, functional testing agents, and ASHRAE path energy modelers. This technical bulletin highlights the key steps to complete before starting an MFNC project.
- Four Misunderstood Facts About ENERGY STAR Homes Technical Bulletin, October 29, 2019 (PDF, 346 KB)
 Builder partners sometimes misunderstand ENERGY STAR program requirements and overestimate the level of upgrades needed to participate. The truth is that ENERGY STAR might be an easier lift than you think. This technical bulletin presents four facts about ENERGY STAR program requirements that are commonly misunderstood.
- Whole-House Ventilation Rate Responsibilities for Designers, Contractors, and Raters Technical Bulletin, March 14, 2019 (PDF, 207 KB)



Technical Bulletins

ENERGY STAR Multifamily New Construction Certification Process for Raters						
	ERI	ASHRAE	Prescriptive			
	Confirm that your Developer/Builder and your Energy Rating Company (ERC) have signed a partnership agreement with EPA by checking the ENERGY STAR Partner List					
	Confirm that the Rater for the project (1) holds approved credentials (e.g., Certified Rater, Approved Inspector), (2) has completed required ESMFNC training and (3) (optionally) is listed on the MFNC Trained Raters list					
Getting Started	Confirm that the Functional Testing Agent has or will complete online orientation and confirm if, as the Rater, you will complete any aspects of the Functional Testing Checklist (i.e., Section 5 or by using HVAC Grading)					
g.	Optional: Hold kick-off meeting and/or provide program documents to design team					
Gett	Note: No ENERGY ST	FAR project application is required to enroll	in the MFNC program!			
	Confirm Energy Rating Company is engaged with Home Certification Organization (HCO) and aware of	Engage <u>Multifamily Review</u> Organization (MRO) Confirm that the <u>energy modeler</u> has or	Engage Multifamily Review Organization (MRO)			
	quality assurance requirements	will complete the online orientation				
	Request HVAC Design Report from HVAC designer or MEP					
	Complete Rater Desi	ign Review Checklist (PDF OR within the N	Aultfamily Workbook)			
5.	Optional: Review construction drawings to confirm design complies with all program requirements as listed in the 4 other key program documents (Rater Field, HVAC Design, HVAC Functional Testing & Water Management)					
Design	Strongly recommended: Submit proposed design documentation to oversight organization for review					
_	Complete preliminary energy modeling (dwelling units)	Complete preliminary energy modeling (building)	(No modeling required)			
	Optional: Complete MF Workbook (with Design components completed)	Complete MF Workbook (with Design components completed)	Complete MF Workbook (with Design components completed)			
_	Verify all items on Rater Field Checklist (via inspections and diagnostic tests)					
Piling	Collect HVAC Fur	nctional Testing Checklist, completing Sect	ion 5 if applicable			
_	Optional: Update MF Workbook	Update MF Workbook	Update MF Workbook			
it sction	Complete final energy model to reflect as-built conditions for all dwelling units	Complete final energy model to reflect as-built conditions	(No modeling required)			
Post Construction	Submit each dwelling unit's energy model to HCO	Submit As-Built Submittal (ABS) to MRO	Submit As-Built Submittal (ABS) to MRO			
	Save copies of all documents per oversight organization requirements					
eding	Send ENERGY STAR dwelling unit labels (and building certificates, if requested) to Developer/Builder					
Narketing &Labeling	Coordinate with <u>HCO or Rating</u> <u>Provider</u> to report certified units to EPA	No action required. MRO reports certified projects to EPA	No action required. <u>MRO</u> reports certified projects to EPA			
_ 8	Follow HCO protocol for file/field quality assurance reviews	Follow MRO protocol for flie/field quality assurance reviews	Follow MRO protocol for file/field quality assurance reviews			
Quality Assurance	[10% of units by Rater file-reviewed, 1% of units field-reviewed, including cample of common space in building)	[100% file review, 1% of all projects field-reviewed; based on MRO's volume, not by Rater]	[100% file review, 1% of all projects field-reviewed; based on MRO's volume, not by Rater]			



Technical Bulletin: How to Get Your ENERGY STAR Multifamily New Construction Project Team Ready

August 12, 2020

The transition to EPA's ENERGY STAR Multifamily New Construction (MFNC) program is fast approaching. Is your project team ready?

Key participants for the Multifamily New Construction program include builders / developers, raters, functional testing agents, and ASHRAE path energy modelers. The ENERGY STAR Multifamily team created the guide below to highlight key steps to complete before starting an MFNC project.

- Functional Testing Agents
- ASHRAE Path Energy Modelers

Builders / Developers

Builders and developers work with ENERGY STAR Rater partners to construct ENERGY STAR certified multifamily buildings that meet EPA requirements for improved comfort, energy efficiency, and durability.



To identify an ENERGY STAR Rater near you who has trained in the specifics of MFNC, visit the Energy Rating Companies page to download a list of MFNC trained

While the Rater is responsible for verifying many program requirements, it is the responsibility of the builder/developer to review the National Water Management System Requirements and ensure that each multifamily building is designed and constructed to meet those requirements.

Partnership: Multifamily builders and/or developers must sign an ENERGY STAR Partnership Agreement with EPA acknowledging their roles and responsibilities as a partner and documenting their commitment to meet the MFNC Program Requirements.

Credentials/Prerequisites: None.

Training: Builder / Developer Orientation Video is viewed as part of the Online Partnership Agreement above.

Directory: ENERGY STAR Partner Locator

Visit the Builders & Developers page and the MFNC Certification Process page to learn more.



ENERGY STAR Recorded Webinars

- **ENERGY STAR Multifamily New Construction: This is the Way** (6/22/21; 5/19/21; 2/22/21)
- Start with ENERGY STAR (Multifamily New Construction) (6/16/21)
- **ENERGY STAR MFNC Multifamily Workbook Tutorial (6/3/20)**
- Deep Dive: Technical Details of the ENERGY STAR Multifamily New Construction Program (3/5/20)
- How to Utilize the ENERGY STAR Multifamily New Construction Program (2/6/20)





Highlights of Recent Updates Webinar Coming Soon



Today's Agenda

- Overview of the MFNC program
- Building Eligibility
- ✓ Roles and Responsibilities
- Certification Paths: ERI, ASHRAE, Prescriptive
- ✓ Mandatory Req's: Compare to SFNH & MFHR
- ✓ Policy Record & Program Revision Process
- ✓ Certification Process
- ✓ MFNC website & other resources
 Q&A: energystar.gov







Top Takeaways from SFNH Background

ERI Path

- 1. ERI still a path, it is combined with prescriptive req'ts in common spaces.
- Oversight is similar to process in Homes. QAD has an ENERGY STAR
 Quality Assurance checklist for MFNC projects and it includes a sample of
 common spaces.
- 3. New Reference Design used within rating software will result in a different (likely lower, more stringent) ERI Target than SFNH.
- 4. Some different/new mandatory requirements, including common spaces.
- 5. One single HVAC Design Report now covers all systems in the building.
- 6. HVAC "Commissioning" Checklist replaced with HVAC "Functional Testing" Checklist & applies to <u>all</u> HVAC systems in the building.
- 7. Need to identify a Functional Testing Agent that has completed orientation, or use credentialed contractor.



Top Takeaways from SFNH Background

ASHRAE / Prescriptive

- 1. Prescriptive Path and ASHRAE 90.1 paths are now available.
- 2. Work with an MRO instead of an HCO for QA and oversight.
- 3. If doing ASHRAE, need the modeler to complete online orientation.
- 4. Some different/new mandatory requirements, including common spaces.
- 5. One single HVAC Design Report now covers all systems in the building.
- 6. HVAC "Commissioning" Checklist replaced with HVAC "Functional Testing" Checklist & applies to all systems in the building.
- 7. Need to identify a Functional Testing Agent that has completed orientation, or use credentialed contractor.



Top Takeaways from MFHR Background

- 1. Still have Prescriptive Path & now two Performance Paths (ASHRAE 90.1 & ERI)
- 2. For ASHRAE and Prescriptive, still submit to an MRO. There is no Project Application, but some additional files required with submissions.
- 3. For ERI, QA performed by HCO-approved Provider or similar, but only AFTER project is complete and units uploaded in Registry.
- 4. "Licensed Professional" not required, instead:
 - Rater (i.e., HERS Rater, Rating Field Inspector, equivalent) required for inspections and testing and they have to take training
 - Credentialed person needed to do Functional Testing and they must complete online orientation
 - For ASHRAE, need the modeler to complete online orientation



Top Takeaways from MFHR Background

- 5. New PDF checklist format.
- 6. Items on Rater Design and Rater Field checklist will feel familiar; HVAC Design Report, HVAC Functional Testing Checklist and Water Management System Requirements will have more content that is new.
- 7. No T&V Worksheets (but Excel-based Multifamily Workbook has some similar info)
- 8. No Photo <u>Template</u> to complete, but still need to provide MRO or QAD with photo <u>documentation</u>



ENERGY STAR Multifamily New Construction

Web & Email:

Main: <u>energystar.gov/newhomespartners</u>

Technical: www.energystar.gov/mfnc

Email: <u>energystarhomes@energystar.gov</u>

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