MULTIFAMILY REVIEW ORGANIZATION APPLICATION (Version 1.1)

VERSION 1.1 UPDATE OVERVIEW

EPA has developed a new, combined multifamily specification that will be applicable to all types of multifamily dwellings (high-rise, mid-rise, and low-rise). The new specification allows for different verification approaches, depending on the needs/preferences of the project Developer. These include a HERS-based path, an ASHRAE-based path, and a Prescriptive path. Projects that will be verified through the ASHRAE or Prescriptive paths must submit their documentation for review to an MRO. Updates in Version 1.1 of this application are mainly to accommodate the new program requirements, and are only applicable to those projects going through the new Multifamily Program beginning January 2019.

This update also:

- Allows MROs to perform modeling (but not testing or inspections) of multifamily projects pursing ENERGY STAR certification through other MROs;
- Requires that photo documentation be included as part of the As-Built Submittal (ABS) for all projects in the new Multifamily Program that are certified through an MRO; and
- Allows MROs to choose to implement alternative Proposed Design Submittal review requirements for Submitters and ASHRAE Modelers¹ that have demonstrated experience with the program.

PILOT PROGRAM BACKGROUND

Through the ENERGY STAR Multifamily Program, multifamily buildings can be certified to earn the ENERGY STAR. For projects to be certified through the ASHRAE-based modeling path or Prescriptive path, all applicable ENERGY STAR program requirements in the building must be independently verified by a Rater (certified Home Energy Rater, Rating Field Inspector, or an equivalent designation) or Licensed Professional (i.e., a Registered Architect or Professional Engineer), and specific program documents must be submitted for review and approval. These submittals demonstrate that the program's requirements have been met, that all mandatory measures are included, and that each energy conservation measure is installed to specification. Historically, the review and approval of submittals has been performed by EPA (or its designated agent).

Beginning in January 2018, EPA began piloting an approach to transition review and approval process to the private marketplace, consistent with how homes/units in other parts of ENERGY STAR's residential sector programs are certified. To accomplish this, EPA is recognizing select organizations (referred to as Multifamily Review Organizations or MROs) to provide independent, third-party review and oversight of Multifamily project submittals to determine whether the project has earned ENERGY STAR certification. At this time, EPA also began phasing out its internal review

¹ Modelers are defined as the individual who is responsible for completing the ASHRAE model for a project pursuing the ASHRAE path.

option (with the exception of certain projects for which EPA's review was already in-process). Today, all new projects that are being certified through an ASHRAE-based or Prescriptive path are required to be reviewed and approved by a recognized MRO. The person responsible for sending the documentation to the MRO, for the purposes of this document, will be referred to as the Submitter.

The MROs' designated roles and responsibilities were developed based on the requirements of similar oversight models that have been implemented in the ENERGY STAR program for single-family/low-rise multifamily homes (i.e., Verification Oversight Organizations and HVAC Quality Installation Oversight Organizations) and have been adapted for the specific needs of the ENERGY STAR Multifamily Program.

The MRO pilot program will allow EPA to evaluate the effectiveness of this review and oversight approach and make modifications, as necessary, before determining if the model should be deployed on a permanent basis. Applicants for recognition should note that EPA may continue to make changes to MRO requirements based on its ongoing evaluation during the pilot. Organizations that have been previously recognized by EPA will be given a period of no less than 180 days to implement any policies or procedures needed to comply with the new requirements.

RECOGNITION REQUIREMENTS

EPA's recognition of an MRO is contingent upon the organization submitting an application that demonstrates that it meets all established eligibility criteria and can satisfactorily fulfill all required roles and responsibilities.² Once recognized, the organization must continue to abide by all program requirements to maintain their recognition.

EPA's recognition of MROs relates solely and specifically to the ENERGY STAR Multifamily Program and does not authorize the organization to implement or participate in other programs (ENERGY STAR or otherwise). Further, organizations that are recognized by EPA as an MRO should not imply that they are ENERGY STAR partners.

Activities undertaken by Multifamily Review Organizations are not intended to provide services to the federal government. These organizations are expected to be market-based and may not submit claims for compensation to EPA or any other federal agency for their activities related to fulfilling the required roles and responsibilities of recognized MROs. Recognized MROs may implement participation or certification fee structures, or seek funding from other sources, to support their oversight programs and activities.

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² Organizations may team together to submit a joint application and/or an organization's application can specify the use of outside subcontractors to perform some of the roles and responsibilities required of MROs. Collectively, the organizations identified in the application must demonstrate that they can perform all of the MRO roles and responsibilities. In cases where a team or subcontractor-based application is submitted, a lead organization must be identified that, on its own, meets the all of the core Eligibility Criteria and will be responsible for ensuring that the team operates in accordance with MRO requirements.

ELIGIBILITY CRITERIA

1) Demonstration of ability to operate impartially

MROs must demonstrate that they are organized and operated to preserve the objectivity of their activities, maintaining a system or process to safeguard impartiality. Organizations seeking recognition must demonstrate to EPA that they:

- Maintain policies to ensure that potential conflicts of interest are identified and avoided;
- Maintain an open participation policy related to Submitter qualifications;
- Maintain impartiality and confidentiality in the project approval process;
- Maintain impartiality in the internal oversight of Reviewers; and
- Establish an impartial conflict resolution process.

An MRO may not review documentation submittals for multifamily projects for which it performed modeling, testing, or inspections. However, MROs are permitted to perform modeling (but not testing or inspections) of multifamily projects pursing ENERGY STAR certification, provided that the organization will not serve as the MRO for any projects for which they provided modeling services.

2) Scope of Operations

In other residential sectors where EPA has established comparable oversight organization constructs to the MRO, maintaining a national scope of operations is required (except in unique geographic or code-based circumstances). However, during the pilot phase of the MRO approach, EPA will consider applications for recognition from organizations that operate at a local, state, regional, or national level. Note that EPA may revisit this policy as the pilot progresses and more information becomes available.

ROLES AND RESPONSIBILITIES

Organizations seeking recognition must submit an application that satisfactorily demonstrates the capability, competencies, and proper controls to implement a review program in accordance with this document, including the standards and program requirements listed in Appendix A. The organization must be able to fulfill all required roles and responsibilities, including:

- Establish Submitter qualifications;
- Perform documentation review;
- Develop and maintain project Reviewer qualifications;
- Develop and implement a quality assurance process for the review process;
- Develop a process for and perform on-site quality assurance of ENERGY STAR Multifamily projects being certified through an ASHRAE-based or Prescriptive path;
- Develop and implement a dispute resolution process;
- Develop and implement a process to deliver communications to Submitters and Developers;
- Maintain project files and records; and
- Participate in pilot program meetings and communications with ENERGY STAR staff.

TERMINATION

If, after recognition, EPA determines that a Multifamily Review Organization is not adequately meeting its required roles or responsibilities or is not acting in good faith to maintain consumer and industry confidence in the ENERGY STAR program, EPA will provide the MRO with written notification and allow a period of 30 days to resolve identified issues and provide EPA with a written response summarizing the changes made. If the organization fails to meet this requirement, EPA will suspend or rescind recognition.

APPLICATION FOR RECOGNITION: Multifamily Review Organization

Completed applications for recognition should be submitted to EPA at: mfhr@energystar.gov

EPA will confirm receipt of applications received within 5 business days and notify the applicant regarding EPA's determination on the application within 20 business days. EPA will inform organizations whose applications are not approved of the specific deficiencies identified. Applicants that are not recognized are invited to contact EPA to further discuss their applications and to reapply based on feedback.

PART ONE: General Applicant Information

Organization Name:
Mailing Address:
Primary Contact:
Primary Contact Telephone #:
Primary Contact E-mail Address:
Organization Web Site Address:
Other Team Organizations or Organizations Performing Some of the MRO Responsibilities: ³

³ Applicants may submit additional organization names for EPA to review at any time during the pilot.

PART TWO: Demonstration of Eligibility

The applicant must attach documentation demonstrating that the organization meets the following criteria for eligibility:

- Maintain policies to ensure that potential conflict of interest issues are identified and avoided;
- Maintain an open participation policy related to Submitter qualifications;
- Maintain impartiality and confidentiality in the project approval process;
- Maintain impartiality in the internal oversight of Reviewers;
- Establish an impartial conflict resolution process;
- Does not perform testing or inspections of multifamily projects pursing ENERGY STAR certification through the ASHRAE or Prescriptive Paths; and
- Does not perform modeling of multifamily projects pursing ENERGY STAR certification through the ASHRAE Path, OR has policies or procedures to ensure that it will not serve as the MRO for any projects for which they provided modeling services.

Does the applicant intend to perform modeling services for multifamily projects to be certified through the ASHRAE-based or California whole-building modeling path? If so, how will the organization ensure that those projects are submitted to a different MRO?

Considering the team members identified above in Part One, how will the organizations across the team be utilized and how will any conflict of interests (including business competition issues) be managed?

PART THREE: Demonstrated Satisfaction of Required Roles and Responsibilities

The applicant must attach documentation that describes the organization's policies and approach to conducting each of the following:

1) Submitter Qualifications⁴

A Submitter is defined as the individual that is responsible for transmitting ENERGY STAR-related project documentation to the MRO for review. Recognized MROs may accept ENERGY STAR Multifamily Program documentation from any Submitter who is in good standing⁵, is an ENERGY

⁴ These Submitter qualifications are applicable to the new ENERGY STAR Multifamily Program. Projects being completed through the ENERGY STAR Multifamily High Rise Program must meet the original Submitter qualifications (i.e., a Licensed Professional), as described in Appendix B.

⁵ MROs may reserve the right not to accept documentation from Submitters that have been put on probation, suspended, or revoked from participation in the MRO's ENERGY STAR Multifamily Program.

STAR Partner, holds an EPA-recognized credential ⁶, and has successfully completed ENERGY STAR multifamily training.

Applicant is proposing to accept project documentation from individuals with the
following credentials:
[] RESNET HERS Rater
[] RESNET Rating Field Inspector
[] BSI ENERGY STAR Verifier Level 2
[] BSI ENERGY STAR Field Verifier Level 2

- Applicant is [] or is not [] proposing to accept project documentation from individuals with credentials other than those listed above.
- If the applicant is proposing to accept documentation from individuals other than those
 that meet EPA's current criteria, in an attachment, please provide any relevant
 information about the proposed qualification, general training requirements and
 competencies, confirm third party status, and, if applicable, describe any additional
 quality assurance and oversight provided by the credentialing organization.⁷

2) Submittal Documentation⁸

Each Multifamily project seeking to earn ENERGY STAR certification must⁹ have the following documentation submitted to an MRO for review:

a) A Proposed Design Submittal (PDS), including the ENERGY STAR Checklists, Multifamily Workbook, ASHRAE Path Calculator, Statement of Energy Design Intent (SEDI) if applicable, construction documents, and (for ASHRAE path projects only), either the modeling file or the modeling input and output files;¹⁰ and

⁶ EPA has recognized the following credentials: RESNET HERS Rater, RESNET Rating Field Inspector, BSI ENERGY STAR Verifier Level 2, and BSI ENERGY STAR Field Verifier Level 2. MROs may accept these credentials without additional EPA approval and/or may submit alternate credentials to EPA for consideration.

⁷ Applicants may submit additional qualifications for EPA to review at any time during the pilot.

⁸ These submittal document requirements are applicable to the new ENERGY STAR Multifamily Program. Projects being completed through the ENERGY STAR Multifamily High Rise Program must meet the original document requirements, as described in Appendix **B**.

⁹ For projects that have already moved beyond the design phase at the time that they are first submitted, MROs may use their discretion to allow the project to proceed without a Design Submittal and rely on only an As-Built Submittal to determine whether the project gets certified. However, EPA notes that in many cases, skipping the Design Review process may increase the likelihood that a project will not meet all of the program's requirements for certification. Furthermore, while the Design Submittal is not required, 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 switches Paths).

¹⁰ Construction documents and modeling files are included to provide a reference for MRO Reviewers and reduce review times; MROs are not expected to fully review this documentation for consistency with the other elements of the submittal.

b) An As-Built Submittal (ABS), including the Multifamily Workbook, ASHRAE Path Calculator, photo documentation,¹¹ construction documents, and (for ASHRAE path projects only), either the modeling file or the modeling input and outputs files.

An MRO may require Submitters to provide additional documentation files for a project, at its discretion. Further, MROs have the option to use alternate documentation, templates, or web forms, so long as all the information that is required in EPA's program documents is collected for a project.¹²

- In addition to accepting EPA's ENERGY STAR Multifamily documentation, the Applicant is
 [] or is not [] proposing to accept alternate submittal documentation.
- If the Applicant is proposing to accept alternate documentation, in an attachment, please identify what type of alternate documentation the MRO plans to allow, and how the MRO will ensure that it covers that same data requirements as the EPA documentation. ¹³

3) Documentation Review¹⁴

An MRO must have a formal and defined process for reviewing all Project Submittals for compliance with the standards and ENERGY STAR program requirements listed in Exhibit A that includes, at a minimum, all the elements specified below. EPA expects that an MRO's review turnaround time typically should be no more than 20 business days. EPA plans to monitor turn-around times throughout the pilot.

- For a project's first submission, the MRO must review the project information to ensure that it meets program eligibility requirements.
- For the PDS and ABS, the documentation review process may include the use of EPA's Review Templates; or the MRO can use an alternative process that, at a minimum, reviews the same data points specified in the EPA checklists.
 - MROs may choose to implement alternative PDS review requirements for Submitters and Modelers that have demonstrated experience with the program. MROs can

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¹¹ Photo documentation is required for all projects. This serves to better align the MRO requirements with the requirements for the Home Certification Organizations that oversee ERI Path projects, while not adjusting the MRO on-site inspection criteria required for all submittals. MROs may accept without EPA pre-approval, alternative documentation (e.g., collecting photos through apps) that includes all the required photos.

¹² MROs are required to review EPA's ENERGY STAR Multifamily documentation when submitted for a project, regardless of whether they also have their own templates or allow alternative options.

¹³ Applicants may submit proposals for accepting alternate documentation for EPA to review at any time during the pilot.

¹⁴ These document review requirements are applicable to the new ENERGY STAR Multifamily Program. Projects being completed through the ENERGY STAR Multifamily High Rise Program must meet the original document requirements, as described in Appendix B.

consider the optional process described in Appendix D, or create their own guidelines for EPA approval.

- MROs may also choose to implement alternative ABS review protocols for Submitters and Modelers that have demonstrated the ability to consistently meet program requirements in their submittals. For example, this could include a less in-depth model review. Any changes to the current requirement to review all documentation must be submitted and approved by EPA in advance.
- The MRO must review a SEDI to ensure that it meets EPA's requirements for the Designed to Earn the ENERGY STAR program, when applicable. EPA's SEDI checklist is attached in Appendix C.
- EPA strongly recommends that, whenever possible, MROs have the same person review all submittals for a project to ensure consistency throughout the process.
 - In an attachment, please specify:
 - How projects are assigned Reviewers
 - What policies the organization has in place to ensure a consistent review from Proposed Design to As-Built
 - What policies the organization has regarding multiple review iterations
 - The estimated turn-around time for submittal reviews
 - How comments related to the review (e.g., why a submission was not accepted) will be sent to the Submitter
 - The Applicant is [] or is not [] proposing to utilize an alternative submittal review process or documentation to the EPA checklists. 15
 - If the Applicant is proposing to use an alternative submittal review process, please describe the process in an attachment.
 - If the Applicant is proposing to use alternative review documentation, in an attachment, please include the documentation and demonstrate how this will ensure the same data points specified in the EPA checklists will be reviewed.

¹⁵ Applicants may submit alternative processes or documentation for EPA to review at any time during the pilot.

4) Project Reviewer Qualifications¹⁶

MROs must develop and employ a process to ensure that project Reviewers are trained and qualified to review ENERGY STAR multifamily projects. The MRO is responsible for ensuring that all Reviewers possess the knowledge, skills, and abilities to effectively review an ENERGY STAR multifamily project submission. All Project Reviewers must take ENERGY STAR Multifamily New Construction (MFNC) Version 1 training prior to reviewing buildings certifying to MFNC for all reviews on or after January 1, 2023. All reviewers for ASHRAE Path projects must have significant experience with ASHRAE 90.1 Appendix G modeling. ¹⁷

• In an attachment, please describe how the organization will ensure that project Reviewers are trained and qualified to review ENERGY STAR Multifamily projects.

5) Quality Assurance of Review Process¹⁶

MROs must develop and employ an internal quality assurance process to ensure proper oversight of the review process.

 In an attachment, please describe the organization's internal quality assurance process, including how quality assurance is performed and on what elements of the review process, who is responsible for performing quality assurance, and policies and procedures for addressing deficiencies when they are identified.

6) On-site Quality Assurance of ENERGY STAR Multifamily Projects 16

MROs must develop and employ a system for on-site quality assurance¹⁸, at either pre-drywall or as-built phase, at a frequency of no less than two projects or 1% of all projects with As-Built Submittals¹⁹ received by the MRO every three years, whichever is greater.

At least one of these On-Site Quality Assurance inspections must occur within one year of the first As-Built Submittal being submitted to the MRO. Furthermore, at least one of the inspections every three years must be an as-built inspection. In addition, MROs must have a formal policy that informs project Submitters that it reserves the right to perform on-site quality assurance for any project, at its discretion.

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¹⁶ These requirements are applicable to both the new ENERGY STAR Multifamily Program and the ENERGY STAR Multifamily High Rise Program.

¹⁷ MFNC training may be delivered by the MRO or an HCO-approved training provider.

¹⁸ MROs have the option to use a remote/virtual quality assurance process, so long as all of the verification that is completed in an on-site inspection is able to be completed remotely or through a combination of on-site and remote verification. If the MRO intends to use remote quality assurance, the MRO must describe the process and submit it to EPA for approval.

¹⁹ The rate is based on all projects submitted to the MRO regardless of the specific Submitter.

On-site quality assurance performed by the MRO must include, but is not limited to, completion of the ENERGY STAR MFNC Quality Assurance Checklist. This requires, but is not limited to, the following:

- 1) For Pre-drywall inspections: 20, 21
 - a. Confirm that all ENERGY STAR mandatory requirements are installed and inspected.
 - b. Confirm that all visible items in the ENERGY STAR Multifamily Workbook (or equivalent documentation) and ASHRAE Path Calculator are installed as reported.
- 2) For As-Built inspections: 21, 22
 - a. Confirm that all visible ENERGY STAR mandatory requirements are installed and inspected.
 - b. Confirm that all visible items in the ENERGY STAR Multifamily Workbook (or equivalent documentation) and ASHRAE Path Calculator are installed as reported.
 - c. Re-test and confirm Submitter's duct leakage test results.
 - d. Re-test and confirm Submitter's compartmentalization test results.
 - e. Re-test and confirm Submitter's ventilation flow rates.
- In an attachment, please describe the organization's on-site quality assurance process, including how the projects are selected for on-site quality assurance, how quality assurance is performed and on what project elements, who is responsible for performing quality assurance, and policies and procedures for addressing deficiencies when they are identified. If applicable, include a sample form the inspectors would use to document the inspection results.

7) Dispute Resolution¹⁶

MROs must develop and maintain a Dispute Resolution Process that provides a formal framework for addressing issues or disagreements that may arise between the Submitter's project team (Modeler, Submitter, Developer, etc.) and the MRO's Reviewer(s).

• In an attachment, please provide a detailed description of the organization's Dispute Resolution Process.

²⁰ MRO is responsible for verifying all measures that are installed at the time of inspection. The MRO must document whether a measure is not yet installed, or should have been installed and is therefore out of compliance. While it is understood that some measures may not be installed by the time of this visit, the MRO is responsible for ensuring that the pre-drywall visits are scheduled in a way to provide meaningful quality assurance. ²¹ For each selected project, verification must occur in at least 10 units.

²² The MRO is responsible for verifying all measures that are reasonably visible at the time of inspection. It is understood that measures such as insulation levels may not be verified if they are behind drywall. For the performance tests, the MRO may perform the test, observe the original test, or observe a re-test being performed.

8) Communications with Submitters and EPA¹⁶

MROs must develop and maintain a system to deliver submission approval notifications, certification documents²³, marketing materials, and send a notification to EPA. These communications may include, but are not limited to:

MRO is sending out the following:

- a. Proposed Design Submittal and As-Built Submittal Acceptances²⁴
- b. Proposed Design Submittal and As-Built Submittal Rejections and Comments
- c. Certificates and printed labels for all units in the building
- d. Information on ENERGY STAR marketing materials
- e. Designed to Earn recognition

MRO is notifying EPA of the following:

- a. Proposed Design Approval
- b. As-Built Submittal Approval
- Applicant acknowledges this requirement. []

9) Data Management 16

MROs must maintain all submitted project files related to ENERGY STAR Multifamily projects certified by their organization for at least 7 years after final certification. The MRO must agree to provide EPA with any and all project files related to any ENERGY STAR Multifamily project, upon request. The MRO must also track and report to EPA on project review times.

The MRO must also commit to reporting the following information to EPA on a quarterly basis: 25

- For each submitted project: project name; address; Developer and/or Builder name;
 Submitter name; Modeler name, if applicable; number of buildings and units per building;
 square footage; path used; code baseline; and status of the project.²⁶
- If available, also include: Architect of Record; Portfolio Manager ID number (from SEDI);
 SEDI score; % energy cost savings; project website; project market sector; and participation in other green building programs.

²³ For MFHR buildings, EPA will send out the certificates and marketing materials. For MFNC buildings, the MRO will send out the certificates and marketing materials.

²⁴ For MFHR projects, the MRO must also send out Project Application approvals and rejections.

²⁵ EPA may add or change quarterly reporting requirements during the pilot.

²⁶ Project status examples include: Project Application approved, Proposed Design Submittal approved/not approved, As-Built Submittal approved/not approved, Withdrawn.

 When applicable, also include: Designed to Earn the ENERGY STAR status; PDS review turnaround time; number of PDS submittals; ABS review turnaround time; and number of ABS submittals.

EPA intends to review the greater of 10% or 5 projects submitted to each MRO in their first year of recognition.²⁷ EPA also intends to review all onsite quality assurance related files.

• Applicant acknowledges this requirement. []

10) Coordination with ENERGY STAR staff 16

At a minimum, MROs must actively participate in periodic conference calls or webinars with ENERGY STAR staff to be informed of program updates, provide EPA with information on their successes and challenges, and to help ensure consistency of review and certification activities across the program. These may be in the form of one-on-one communications between an individual MRO and EPA staff, or may include more than one MRO, depending on the subject and EPA's programmatic needs.

In addition, MROs must commit to ensuring that any questions from project teams regarding the ENERGY STAR Multifamily Program are answered accurately and in a timely manner. This may require additional communication with EPA staff beyond the periodic calls and webinars described above.

Applicant acknowledges this requirement. []

²⁷ EPA will consider the frequency of QA after the first year based on the results of the initial year. This initial estimate includes projects that may be reviewed but not attain certification.

Appendix A – ENERGY STAR Certification Protocol for Homes and Apartments using an ASHRAE or Prescriptive Path

ENERGY STAR certified homes and apartments that use an ASHRAE or Prescriptive compliance path must be certified through an EPA-recognized Multifamily Review Organization (MRO) in accordance with the Standards and ENERGY STAR Residential New Construction national and regional Program Requirements identified below.

Refer to the Implementation Timeline exhibit within each program requirements document to determine the Version and, if applicable, the Revision that is required to be used for each building.

ENERGY STAR Multifamily New Construction (MFNC) National and Regional Program Requirements

- MFNC National Program Requirements
- MFNC California Program Requirements
- MFNC Caribbean Program Requirements

ENERGY STAR NextGen Program Requirements

• ENERGY STAR NextGen Program Requirements

ENERGY STAR New Construction Program Policy Record

EPA periodically updates the program requirements in response to partner questions and standard revisions. These updates are contained in the ENERGY STAR New Construction Program Policy Record. Any change or clarification published by EPA can be applied immediately.

Informative References from the Program Requirements

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

ENERGY STAR Multifamily New Construction (MFNC) Mandatory Measures

- MFNC National Rater Design Review Checklist
- MFNC National Rater Field Checklist
- MFNC National HVAC Design Report
- MFNC National HVAC Functional Testing Checklist
- MFNC National Water Management System Requirements
- MFNC Caribbean Rater Design Review Checklist
- MFNC Caribbean Rater Field Checklist
- Multifamily Workbook

ENERGY STAR NextGen Mandatory Measures

NextGen Rater Field Checklist

ENERGY STAR Quality Assurance Checklists

The following documents provide guidance for an MRO's quality assurance personnel during quality assurance file and field evaluation.

- MFNC Quality Assurance Checklist (ASHRAE or Prescriptive Path)
- MFNC PDS File Review Template
- MFNC ABS File Review Template

ASHRAE Path Modeling Documents

- The following documents are referenced within the program requirements documents and contain additional information about how to model and what modeling data to report in order to meet the Performance Target that must be met for certification.
 - ASHRAE Path Calculator
 - ASHRAE Path Calculator AppG 2016
 - Simulation Guidelines
 - Simulation Guidelines AppG 2016
 - ASHRAE Standard 90.1 Performance Based Compliance Form

Referenced Standards in the Program Requirements

- ANSI/RESNET/ICC Standard 301-2019, "Standard for the Calculation and Labeling of the Energy Performance of Low-Rise Residential Buildings using an Energy Rating Index," including published Addenda.
- ANSI/RESNET/ICC 380-2019, "Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems," including published Addenda.
- ANSI/RESNET/ACCA 310-2020, "Standard for Grading the Installation of HVAC Systems," including published Addenda
- For California: Data Input requirements and On-Site Inspection Procedures in the California Home Energy Rating System (HERS) Technical Manual
- ANSI/ASHRAE/IES Standard 90.1-2007, "Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings"
- ANSI/ASHRAE/IES Standard 90.1-2010, "Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings"
- ANSI/ASHRAE/IES Standard 90.1-2013, "Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings"
- ANSI/ASHRAE/IES Standard 90.1-2016, "Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings"
- ANSI/ASHRAE/IES Standard 90.1-2019, "Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings"

Appendix B – Requirements for projects in the ENERGY STAR MFHR Program *Program has been sunset and no new buildings may be accepted*

The following requirements apply to projects going through the ENERGY STAR MFHR Program and are unchanged from Version 1.0 of the MRO Application.

Submitter Qualifications

The Submitter is the individual responsible for sending the project paperwork to the MRO and signing off that the information is valid. EPA requires that MROs maintain, as part of their Submitter qualifications, a policy that permits ENERGY STAR Multifamily High Rise documentation for projects to be submitted by any Licensed Professional that meets EPA's current criteria (i.e., a Registered Architect or Professional Engineer).

In addition to permitting submissions from Licensed Professionals that meet EPA's criteria, an MRO may allow individuals with alternative qualifications to submit project documentation, so long as they are a third party and subject to quality assurance and oversight. Note that EPA must approve any alternative qualifications for submitting program documentation in advance of the MRO accepting submittals from individuals with the specified qualifications.

- Applicant is [] or is not [] proposing to accept project documentation from individuals other than those that meet EPA's current criteria.
- If the applicant is proposing to accept documentation from individuals other than those that meet EPA's current criteria, in an attachment, please provide any relevant information about the proposed qualification, confirm third party status, and describe the quality assurance and oversight provided.²⁸

Submittal Documentation

EPA currently requires that each Multifamily High Rise project seeking to earn ENERGY STAR certification submit the following documentation for review:

- a Project Application;
- a Proposed Design Submittal (PDS), including the Submittal Validation Form, Testing and Verification file, Performance Path Calculator, and Statement of Energy Design Intent; and
- an As-Built Submittal (ABS), (including the Submittal Validation Form, Testing and Verification file, Performance Path Calculator, and Photo Template.

²⁸ Applicants may submit additional qualifications for EPA to review at any time during the pilot.

²⁹ Note that after EPA or an MRO has certified three projects submitted by a Developer or Licensed Professional, EPA does not require submission of a Photo Template for additional projects by that Developer or Licensed Professional. However, the photos must still be collected by the project team and, if requested, submitted to the

An MRO may require Submitters to provide additional documentation files for a project, at its discretion. Further, MROs have the option to use alternate documentation, templates, or web forms, so long as all of the information that is required in EPA's program documents is collected for a project.³⁰ If the MRO intends to use alternate documentation, it must demonstrate that it satisfies this requirement in its application.

- In addition to accepting EPA's ENERGY STAR Multifamily High Rise documentation, the Applicant is [] or is not [] proposing to accept alternate submittal documentation.
- If the Applicant is proposing to accept alternate documentation, in an attachment, please include the documentation and demonstrate how this documentation will collect the same information currently collected. 31

Documentation Review

EPA requires that, for each project, the MRO must have a formal process in place to review all Project Applications, Proposed Design Submittals (including the Submittal Validation Form, Testing and Verification file, Performance Path Calculator, and Statement of Energy Design Intent), and As-Built Submittals (including the Submittal Validation Form, Testing and Verification file, Performance Path Calculator, and Photo Template) for compliance with the ENERGY STAR program requirements.³² Under normal circumstances, EPA expects that an MRO's review turnaround time should be no more than 20 business days. EPA plans to monitor turn-around times throughout the pilot.

For the Project Application, EPA requires that the MRO review the application to ensure the project meets the eligibility requirements.

For the PDS and ABS reviews, this process may include the use of EPA's <u>Proposed Design Review</u> and <u>As-Built Review Templates</u> or the MRO can use an alternative process that, at a minimum, reviews the same data points specified in the EPA checklists. In addition, the MRO must review the SEDI to ensure that it meets the EPA requirements for Designed to Earn the ENERGY STAR when applicable. EPA's SEDI checklist is attached in Appendix A. EPA recommends where possible having the same person review all submittals for a project to ensure consistency throughout the review.

MRO or EPA. The MRO must honor this waiver for Developers and Licensed Professionals who have previously submitted projects to EPA and met the three project threshold.

³⁰ Note that an MRO is required to review EPA's ENERGY STAR Multifamily High Rise documentation when submitted for a project, regardless of whether they also have their own templates.

³¹ Applicants may submit alternate documentation for EPA to review at any time during the pilot.

³² MROs have discretion for allowing alternate submittal review protocols for Submitters that have demonstrated the ability to consistently meet program requirements in their submittals. Any changes to the current requirement to review all documentation must be submitted and approved by EPA in advance.

- The Applicant is [] or is not [] proposing to utilize an alternative submittal review process or documentation to the EPA checklists.³³
- If the Applicant is proposing to use an alternative submittal review process or documentation, in an attachment, please include the documentation or process description and demonstrate how this will ensure the same data points specified in the EPA checklists will be reviewed.
- In an attachment, please also specify:
 - The Project Application review process
 - How projects are assigned Reviewers
 - What policies the organization has in place to ensure a consistent review from Proposed Design to As-Built
 - What policies the organization has regarding multiple review iterations
 - The estimated turn-around time for submittal reviews
 - How comments related to the review (e.g., why a submission was not accepted) will be sent to the Submitter

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³³ Applicants may submit alternative processes or documentation for EPA to review at any time during the pilot.

Appendix C – Sample SEDI Review Process

Verify	/ S	EDI Submission – Data Entry and Key Details	Υ	N	N/A	PPC/T&V Entry
		project information entered into the SEDI matches the Project Application iew the following information:				
1.		Project Name				
2.		Building Address				
	The project information is generated by the SEDI. Verify these details match the submission:					
1.		Gross Square Footage (note: does NOT include parking)				
2.		Multifamily Square Footage				
3.		Commercial Square Footage (if applicable, may be combined under Multifamily if <25% of gross sq footage				
4.		Parking Square Footage (note: including this in the SEDI is optional)				
		Parking Type (Open / Partially Enclosed Garage / Enclosed Garage)				
5.		Number of Units				
6.		Number of Units in low-rise, mid-rise, high-rise (all units should be in one category per building)				
7.		Number of Bedrooms				
8.		Electric Usage				
9.		Gas Usage				
10	0.	Other Fuel Usage				
C. D	EE	ES review:				
1	1.	Do 1-10 in Section B all match and energy use is included? Note: Energy use discrepancies are acceptable if Submitter has a valid rationale such as deviating from the simulation guidelines based on the expected actual use of the building.				
1:	2.	Is commercial space included in the model? (Note: If the project contains commercial space, this space must be modelled in order to earn DEES)				
1:	3.	Is commercial space more than 25% of the GFA?				
		If yes, is the commercial space separated out into a separate category?				
14	4.	Is ENERGY STAR Design score 75 or higher?				
1:	5.	DEES earned? (Are 11,12,13a all yes or N/A?)				

Appendix D - Optional Process for Reduced Design Reviews:

This framework presents an optional process for reducing the 100% PDS review requirement. ³⁴ MROs may use this framework for their process or develop an alternative approach. In either case, MROs must get EPA approval before implementing any alternative Design Review process.

- 1) Raters may be permitted not to have a design review on their Prescriptive Path projects, after their first Prescriptive Path design approval.
- 2) Model reviews:
 - a) All model reviews (Design and As-Built) will be graded on a scale determined by the MRO. The MRO will determine what grade is necessary to consider the model to "pass." The general intent of this is to document that the model was properly completed and met the Simulation Guidelines and the Submittal is able to be approved or there were only minor issues or issues unrelated to the model.
 - b) After an individual Modeler has passed model reviews for three projects with the same MRO, any projects with models by that individual do not need to have a model review at design.
 - c) If the individual Modeler fails two subsequent model reviews, they are no longer able to operate under Reduced Design Review. To regain this status, they must submit and pass three design models.
 - d) With approval from EPA, an MRO can also reduce the number of design reviews from 3 to 1 for Modelers who have past experience with the MFHR program, have attended relevant training, or have modeling certifications.
- 3) An ASHRAE path project can eliminate design reviews once the individual Rater has one approved design submittal and the Modeler has met the criteria for eliminating model reviews.

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³⁴ Projects that do not go through a design review are not able to earn Designed to Earn the ENERGY STAR.