

**DOE Zero Energy Ready Home Program
Multifamily Review Organization**

Certification System & Application

Effective Date: 9/1/2023



Contents

1.0 Introduction	3
2.0 Eligibility Criteria	4
2.1 Become an EPA-recognized MRO	4
2.2 Demonstration of ability to operate impartially	4
2.3 Scope of Operations	5
3.0 Roles and Responsibilities	5
4.0 Termination	6
5.0 Amendments, Modifications, and Revisions	6
5.1 DOE-Initiated Changes	6
5.2 MRO for ZERH-Initiated Changes	7
6.0 DOE Audits	7
7.0 Application for Recognition	8
7.1 General Applicant Information	8
7.2 Demonstration of Eligibility	8
7.3: Demonstrated Satisfaction of Required Roles and Responsibilities	9
7.3.1 Submitter Qualifications	9
7.3.2 Submittal Documentation	10
7.3.3 Documentation Review	11
7.3.4 Project Reviewer Qualifications	12
7.3.5 Quality Assurance of Review Process	13
7.3.6 On-site Quality Assurance of ZERH Multifamily Projects	13
7.3.7 Dispute Resolution	14
7.3.8 Communications with Submitters and DOE	15
7.3.9 Data Management	15
7.3.10 Coordination with ZERH Staff	15
Appendix A – Required DOE Zero Energy Ready Home Data Reporting	16

1.0 Introduction

The U.S. Department of Energy (DOE) Zero Energy Ready Home (ZERH) program relies upon a third-party verification of homes and apartments to determine ZERH certification. The ZERH program requires ENERGY STAR Residential New Construction program certifications as a prerequisite within the different specifications (e.g., single-family homes, multifamily). Therefore, the raters for ZERH Multifamily (ZERH MF) projects using a Prescriptive or an ASHRAE-based compliance path will be working under the oversight of EPA-recognized Multifamily Review Organizations (MROs). Certification under the ZERH MF program (both the national and California program requirements) requires additional verifications and quality assurance processes, and therefore DOE has implemented the Multifamily Review Organization for Zero Energy Ready Home Certifications (MRO for ZERH) system as defined in this document, subsequently referred to as the ***MRO for ZERH Certification System and Application***.

Multifamily Review Organizations for Zero Energy Ready Home Certifications (MROs for ZERH) are independent organizations recognized by DOE to implement a ZERH certification program that complies with the MRO for ZERH Certification System and Application. These organizations are responsible for exercising authority over decisions related to ZERH MF certifications, including the oversight and quality assurance of individuals that verify these projects to earn ZERH certification. These individuals are hereafter referred to as “Raters.”

To be eligible for consideration as an MRO for ZERH, an organization must first be an EPA-recognized MRO. Next, an organization seeking to become an MRO for ZERH must submit this application to DOE, demonstrating that it meets the program’s eligibility criteria and has the capability, competencies, and proper controls to implement a ZERH Multifamily certification program.¹ DOE will evaluate each application and will either:

1. grant approval for an MRO for ZERH to operate a ZERH multifamily certification program, or
2. provide written feedback to the applicant noting where the application did not meet DOE requirements and the opportunity to discuss identified issues with DOE.

Under the second scenario, applicants will be given 30 days to amend their application and resubmit for review. If the applicant does not resubmit within 30 days, the application will be terminated. Further, if DOE determines that the resubmitted application does not meet its requirements, the application may be terminated, and DOE may not review subsequent amendments to the application for a period of six months.

¹ 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 for ZERH. Collectively, the organizations identified in the application must demonstrate that they can perform all of the MRO for ZERH 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 all of the core Eligibility Criteria and will be responsible for ensuring that the team operates in accordance with MRO for ZERH requirements.

DOE's recognition of an MRO for ZERH relates solely and specifically to the DOE Zero Energy Ready Home program for multifamily buildings that are certified using a Prescriptive or ASHRAE-based path, or, in California, for multifamily buildings that qualify as high-rise under 2022 California Building Energy Efficiency Standards (2022 BEES). This recognition does not qualify an organization to implement or participate in other aspects of the DOE ZERH program such as ZERH certification of single-family homes or multifamily buildings that are using the Energy Rating Index (ERI) compliance approach.

Activities undertaken by MROs for ZERH are not intended as services provided to the federal government. MROs for ZERH are expected to be market-based and may not submit claims for compensation to DOE or any other federal agency for their activities related to fulfilling the required roles and responsibilities of recognized MROs for ZERH. Recognized MROs for ZERH may implement participation or certification fee structures or seek funding from other sources to support their ZERH Multifamily certification program.

2.0 Eligibility Criteria

To be eligible for recognition by DOE as an MRO for ZERH, an organization is required to demonstrate the following:

2.1 Become an EPA-recognized MRO

The organization must already be an EPA-recognized Multifamily Review Organization (MRO) as listed on the EPA Home Certification Organization website.² Any organization may apply for EPA recognition using the EPA application, found here.³

EPA-recognized MROs have demonstrated legal responsibility, independent governance, geographic scope of operations, and staffing and competency characteristics and capabilities sufficient to provide independent third-party review and oversight of multifamily project submittals to determine whether the project has earned ENERGY STAR certification. Therefore DOE, in coordination with EPA, uses EPA's recognition of an MRO as an eligibility requirement for DOE's consideration of an organization as a Multifamily Review Organization for Zero Energy Ready Home Certifications (HCO for ZERH).

2.2 Demonstration of ability to operate impartially

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

- Maintain policies to ensure that potential conflicts of interest are identified and avoided.
- Maintain an open participation policy related to Submitter⁴ qualifications.
- Maintain impartiality and confidentiality in the project approval process.

² https://www.energystar.gov/partner_resources/residential_new/working/other_participants/mros

³ https://www.energystar.gov/partner_resources/residential_new/working/other_participants/mros/become_mro

⁴ A Submitter is defined as the individual that is responsible for transmitting ZERH-related project documentation to the MRO for ZERH for review. See Section 3.1 of the *MRO for ZERH Certification System and Application*.

- Maintain impartiality in the internal oversight of Reviewers.⁵
- Disclose any identified potential or existing conflicts of interest and mitigation steps to DOE on an annual basis.
- Establish an impartial conflict resolution process.
- Have the capability to track, keep, and report to DOE all required data in Appendix A.

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

2.3 Scope of Operations

For EPA-recognized MROs applying for DOE recognition as an MRO for ZERH, DOE will consider their application (in terms of geographic scope of operations) on the same basis that EPA recognizes the MRO.

3.0 Roles and Responsibilities

Organizations seeking recognition must submit an application that satisfactorily demonstrates the ability to fulfill all required roles and responsibilities to oversee the ZERH multifamily certification process, 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 ZERH MF projects being certified through the ASHRAE-based path, the Prescriptive path, or the compliance path for high-rise buildings under ZERH Multifamily for California.
- Develop and implement a dispute resolution process.
- Develop and implement a process to deliver communications to Submitters and Builders/Developers.⁶
- Maintain project files and records.
- Report certifications and all required data to DOE on a quarterly basis (see Appendix A).

⁵ A Reviewer is defined as the individual trained and qualified by the MRO for ZERH to review ZERH Multifamily projects after they are submitted to the MRO for ZERH and determine if submissions are eligible to receive ZERH certification.

⁶ A multifamily Builder/Developer is defined as an organization that constructs or manages the construction of multifamily buildings of any height or number of units. If there are multiple organizations executing a project, the Builder/Developer is the entity responsible for signing the ZERH Builder Partner Agreement and maintaining active ZERH partnership for the duration of the project.

- Ensure that energy modeling software used for the ASHRAE 90.1-based compliance pathway meets minimum software requirements, as established by DOE.⁷

Sampling of Verified Dwelling Units: In performing these roles and responsibilities, MROs for ZERH are permitted (but not required) to allow the use of sampling of verified dwelling units, under the following conditions:

- the Rater on the project is affiliated with a DOE-recognized Home Certification Organization for ZERH (HCO for ZERH), and
- the Rater's HCO for ZERH implements a sampling protocol approved by DOE as part of the HCO approval process, and
- the Rater for the project is applying this approved sampling protocol to dwelling units eligible under ZERH Multifamily program. Townhouses may not be verified using a sampling protocol.

4.0 Termination

If, after recognition, DOE determines that an MRO for ZERH is not adequately meeting its required roles or responsibilities or is not acting in good faith to maintain consumer and industry confidence in the Zero Energy Ready Home program, DOE will provide the MRO for ZERH with written notification and allow a period of 30 days to resolve identified issues and provide DOE with a written response summarizing the changes made. If the organization fails to meet this requirement, DOE will suspend or rescind recognition. If EPA terminates an organization as an MRO, DOE will terminate that organization as an MRO for ZERH automatically and without written notice.

Should DOE suspend or terminate an MRO for ZERH, or if an MRO for ZERH determines that it will no longer implement a ZERH Certification System, the organization is required to cooperate with DOE to ensure an orderly closure of its activities and timely transfer of relevant documentation related to the certification of dwelling units.

5.0 Amendments, Modifications, and Revisions

The following sections describe procedures to be followed in the event of amendments, modifications, and/or revisions to the MRO for ZERH Certification System and Application initiated either by the MRO for ZERH or by DOE.

5.1 DOE-Initiated Changes

DOE reserves the right to amend, revise, or provide technical clarification regarding the MRO for ZERH Certification System and Application as needed to ensure the value and integrity of the ZERH program.

MROs for ZERH are required to implement changes according to the implementation timeline exhibit that DOE publishes with each update.

⁷At the current time, DOE has not established minimum software standards, but may do so in the future.

For changes to the MRO for ZERH Certification System and Application, organizations previously recognized by DOE will generally be given 3 - 6 months to implement any policies or procedures needed to comply with new DOE requirements, unless otherwise specified by DOE based on consultation with MROs for ZERH. If changes affect an MRO for ZERH's application or an applicant's referenced documents, the MRO for ZERH is required to provide DOE with a redlined copy of any updates.

5.2 MRO for ZERH-Initiated Changes

The MRO for ZERH is required to notify DOE in writing about any proposed organizational, procedural, or policy changes, such as an addendum or interpretation to the MRO for ZERH's operation standards, that materially affect its compliance with the requirements outlined in the MRO for ZERH Certification System and Application. If changes affect an MRO for ZERH's application or applicant's referenced documents, the MRO for ZERH is required to provide DOE with a redlined copy of any updates. Notification must be made at least 60 days prior to the implementation of such changes and with sufficient time to allow for DOE to evaluate the changes and determine if the MRO for ZERH will continue to meet all program requirements.

6.0 DOE Audits

DOE reserves the right to conduct audits of any MRO for ZERH activities related to the implementation of the MRO for ZERH Certification System and Application as needed to ensure the value and integrity of the ZERH program. These audits may include an assessment of their quality assurance, oversight, software approval, and other relevant functions. DOE may revisit the audit protocols and schedules in response to program needs. These audits may include, but are not limited to:

- Review of MRO for ZERH policies, procedures, documentation, and certification records.
- A review of an MRO for ZERH's first 3 projects which are ZERH certified.
- Phone interviews with MRO for ZERH personnel.
- In-person meetings with MRO for ZERH personnel at the MRO for ZERH's or DOE's offices, at DOE's discretion.
- Site visits (including re-evaluation, at DOE's discretion) at homes and apartments that have been certified by the MRO for ZERH.

MROs for ZERH are expected to fully cooperate with DOE audits, provide requested documentation, and make personnel available for interviews and meetings with DOE staff.

If DOE's audit identifies deficiencies, DOE will provide the MRO for ZERH with written notification and allow 30 days to resolve identified issues and provide DOE with a written response to DOE's findings. If the organization fails to submit a satisfactory response to DOE that addresses the deficiencies identified, DOE reserves the right to suspend or terminate the organization's recognition.

7.0 Application for Recognition

Multifamily Review Organization for Zero Energy Ready Home Certifications

Completed applications for recognition should be submitted to DOE at zerh@doe.gov.

DOE will confirm receipt of applications received and note any missing documents within 5 business days and notify the applicant when DOE's review is complete. DOE will inform organizations whose applications are not approved of the specific deficiencies identified. Applicants that are not recognized are invited to contact DOE to further discuss their applications and to re-apply based on feedback.

Organizations are encouraged to replicate their EPA MRO application and edit it for specificity to the ZERH program. DOE understands that there may be necessary redundancy, but notes that it is important to have applicant responses specific to the ZERH program. DOE will work with EPA and MROs to streamline future versions of certification oversight systems.

7.1 General Applicant Information

Organization Name: _____

Mailing Address: _____

Primary Contact: _____

Primary Contact Telephone: _____

Primary Contact E-mail: _____

Organization Website: _____

Other Team Organizations or Organizations Performing Some of the MRO for ZERH Responsibilities:

7.2 Demonstration of Eligibility

7.2.1 The applicant must attach documentation demonstrating that the organization (without accounting for the qualifications or capabilities of team members or subcontractors) meets the following criteria for eligibility:

- 7.2.1.1 Current recognition as an MRO by the EPA.
- 7.2.1.2 Maintain policies to ensure that potential conflicts of interest are identified and avoided.
- 7.2.1.3 Maintain an open participation policy related to Submitter qualifications.
- 7.2.1.4 Maintain impartiality and confidentiality in the project approval process.
- 7.2.1.5 Maintain impartiality in the internal oversight of Reviewers.
- 7.2.1.6 Establish an impartial conflict resolution process.

- 7.2.1.7 Does not perform testing or inspections of multifamily projects pursuing ZERH certification through the ASHRAE, Prescriptive, or Title 24 High-Rise (California) compliance path.
- 7.2.1.8 Does not perform modeling of multifamily projects pursuing ZERH certification through the ASHRAE or Title 24 High-Rise (California) path or has policies or procedures to ensure that it will not serve as the MRO for ZERH for any projects for which the organization applying has provided modeling services.

7.2.2. Does the applicant intend to perform modeling services for multifamily projects to be certified through the ASHRAE-based or Title 24 High-Rise (California) path? If so, how will the organization ensure that those projects are submitted to a different MRO for ZERH?

7.2.3. Considering the team members identified above in Part One, how will the organizations across the team be utilized and how will any conflicts of interest (including business competition issues) be managed? Does the applicant agree to disclose any identified potential or existing conflicts of interest and mitigation steps to DOE on an annual basis?

7.3: 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:

7.3.1 Submitter Qualifications

A Submitter is defined as the individual that is responsible for transmitting ZERH-related project documentation to the MRO for ZERH for review. Recognized MROs for ZERH may accept ZERH Multifamily Program documentation from any Submitter who is in good standing⁸, is a ZERH Partner, holds an EPA-recognized credential⁹, and has successfully completed applicable ZERH Multifamily Training.

- Applicant is proposing to accept project documentation from individuals with the following credentials (check all that apply):
 - 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.

⁸ MROs for ZERH may reserve the right not to accept documentation from Submitters that have been put on probation, suspended, or revoked from participation in the MRO for ZERH’s Multifamily Program.

⁹ 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 for ZERH may accept these credentials without additional DOE approval and/or may submit alternate credentials to DOE for consideration. DOE will only consider alternate credentials which have been recognized by EPA.

- If the applicant is proposing to accept documentation from individuals other than those that meet DOE’s current criteria (as listed above), 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.¹⁰

7.3.2 Submittal Documentation

Each multifamily project seeking to earn Zero Energy Ready Home certification is highly encouraged to submit a Proposed Design Submittal¹¹ and is required to submit an As-Built Submittal to an MRO for ZERH for review. DOE recommends that Raters and Builders identify their MRO for ZERH during the design stage, but at the latest, projects must be under MRO for ZERH oversight prior to the first inspection. MROs for ZERH have limited discretion to grant an exemption to the first inspection policy (e.g., when a building switches compliance paths).

A Proposed Design Submittal (PDS) includes¹²:

- The ENERGY STAR Multifamily Workbook, including ZERH addenda
- The ENERGY STAR Multifamily New Construction Design Checklists
- Construction documents showing integration of all items from the three ZERH MF Checklists: Rater (National or California), PV-Ready, and EV-ready
- ASHRAE path projects only: energy modeling files (or input and output files) and DOE Compliance Form demonstrating compliance with the energy performance target for ZERH Multifamily Version 2

An As-Built Submittal (ABS) includes:

- The ENERGY STAR Multifamily Workbook, including the ZERH addenda
- The ZERH Multifamily Rater Checklist (National or California)
- The ZERH Multifamily PV-Ready Checklist (not required in California)
- The ZERH Multifamily EV-Ready Checklist
- Construction documents

¹⁰ Applicants may submit additional qualifications for DOE to review at any time, after they are approved for use by EPA.

¹¹ For projects that have already moved beyond the design phase at the time that they are first submitted, MROs for ZERH 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 earns certification. However, DOE 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.

¹² Construction documents and modeling files are included to provide a reference for MRO for ZERH Reviewers and reduce review times. MROs for ZERH are not expected to fully review this documentation for consistency with the other elements of the submittal.

- Photo documentation¹³ specific to ZERH program requirements¹⁴ (in addition to photo documentation for ESMFNC)
- ASHRAE path projects only: energy modeling files (or input and output files) and DOE Compliance Form

An MRO for ZERH may require Submitters to provide additional documentation files for a project, at its discretion. Further, MROs for ZERH have the option to use alternate documentation, templates, or web forms, as long as all the information that is required in DOE’s program documents is collected for a project.¹⁵

- In addition to accepting DOE’s Zero Energy Ready Home 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 for ZERH plans to allow, and how the MRO for ZERH will ensure that it covers the same data requirements as the DOE documentation.¹⁶

7.3.3 Documentation Review

An MRO for ZERH must have a formal and defined process for reviewing all Project Submittals for compliance with ZERH program requirements that includes, at a minimum, all the elements specified below. DOE expects that an MRO for ZERH’s review turnaround time typically should be no more than 20 business days.

- For a project’s first submission (whether PDS or ABS), the MRO for ZERH must review the project information to ensure that it meets program eligibility requirements.
- For a project’s PDS and ABS, the documentation review process may include the use of DOE reporting checklists and templates¹⁴ or the MRO for ZERH may use an alternative process that, at a minimum, reviews the same data points specified in the DOE Checklists listed under item 7.3.2, Submittal Documentation.
 - MROs for ZERH may choose to implement alternative PDS review requirements for Submitters and Modelers¹⁷ that have demonstrated experience with the program. Any

¹³ Photo documentation is required for all projects. This serves to better align the MRO for ZERH requirements with the requirements for the Home Certification Organizations for the Zero Energy Ready Home program that oversee ERI Path projects, while not adjusting the MRO for ZERH on-site inspection criteria required for all submittals. MROs for ZERH may accept, without DOE pre-approval, alternative documentation (e.g., collecting photos through apps) that includes all the required photos, as specified in the ENERGY STAR and ZERH Photo Documentation Guidance documents.

¹⁴ Currently under development, will be available on the ZERH webpage for DOE-Recognized ZERH Certification Organizations

¹⁵ MROs for ZERH are required to review DOE’s ZERH Multifamily documentation when submitted for a project, regardless of whether they also have their own templates or allow alternative options.

¹⁶ Applicants may submit proposals for accepting alternate documentation for DOE to review at any time.

¹⁷ A Modeler is defined as an individual responsible for conducting energy simulation analysis of the project to demonstrate compliance with the energy performance target.

PDS review process other than that established by the DOE Proposed Submittal Design Review Form¹⁴ must be submitted and approved by DOE in advance.

- MROs for ZERH may also choose to implement alternative ABS review protocols than the protocols established by the DOE As-Built Submittal Review Form¹⁴ 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 required for the ZERH program must be submitted and approved by DOE in advance.
- DOE strongly recommends that, whenever possible, MROs for ZERH have the same person review all submittals for a project to ensure consistency throughout the process.

7.3.3.1 In an attachment, please specify:

- How projects are assigned by 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 use an alternative submittal review process or documentation to the DOE PDS and/or ABS Review Forms.¹⁸
- 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 as specified in the DOE Review Forms¹⁴ will be reviewed.

7.3.4 Project Reviewer Qualifications

MROs for ZERH must develop and employ a process to ensure that project Reviewers are trained and qualified to review ZERH Multifamily projects. The MRO for ZERH is responsible for ensuring that all Reviewers possess the knowledge, skills, and abilities to effectively review a ZERH Multifamily project submission. Prior to reviewing buildings certifying to ZERH Multifamily Version 2 on or after January 1, 2024, all project Reviewers must complete the ZERH Version 2 Orientation Training. In addition, Reviewers must complete the ZERH Multifamily Version 2 Training when it becomes available.¹⁹ DOE

¹⁸ Applicants may submit alternative processes or documentation for DOE to review at any time.

¹⁹ ZERH Orientation and Multifamily training may be delivered to project Reviewers by the MRO for ZERH or an HCO for ZERH-approved training provider. Raters and reviewers must take training through an HCO or MRO for ZERH that will track their successful completion of training. While the recorded ZERH Orientation webinar is available for free on the program website, this resource is intended for general stakeholders. DOE does not track completion for official credentialing of raters and reviewers. The ZERH Multifamily Version 2 Training is currently under development and will be provided to MROs for ZERH when complete.

may also add other training content requirements over time. All reviewers for ASHRAE Path projects must have significant experience with ASHRAE 90.1 Appendix G modeling.

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

7.3.5 Quality Assurance of Review Process

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

7.3.5.1 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.
- Policies and procedures for addressing deficiencies when they are identified.

7.3.6 On-site Quality Assurance of ZERH Multifamily Projects

MROs for ZERH must develop and employ a system for on-site quality assurance²⁰ 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 Submittals²¹ received by the MRO for ZERH every three years (starting from the date when the MRO is recognized by DOE), whichever is greater. These can be the same projects tested for adherence to the ENERGY STAR MRO provisions. Any test results from a previously conducted on-site ENERGY STAR QA review may be used for reporting in an on-site ZERH QA review without retesting if the on-site ENERGY STAR QA review occurred no more than one year prior to the on-site ZERH QA review.

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 for ZERH. Furthermore, at least one of the inspections every three years must be an as-built inspection. In addition, MROs for ZERH 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.

On-site quality assurance performed by the MRO for ZERH must include, but is not limited to, the completion of the ZERH Multifamily Quality Assurance Checklist.¹⁴ This requires, but is not limited to, the following:

²⁰ MROs for ZERH have the option to use a remote/virtual quality assurance process, as 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 for ZERH intends to use remote quality assurance, the MRO for ZERH must describe the process and submit it to DOE for approval.

²¹ The rate is based on all projects submitted to the MRO for ZERH regardless of the specific Submitter.

- For Pre-drywall inspections:^{22,23}
 - Confirm that all ZERH mandatory requirements are installed and inspected.
 - Confirm that all visible items in the ENERGY STAR Multifamily Workbook, with ZERH Addenda (or equivalent documentation, e.g., ZERH MF rater checklists) and DOE Compliance Form are installed as reported.
- For As-Built inspections:²³
 - Confirm that all visible ZERH mandatory requirements are installed and inspected.
 - Confirm that all visible items in the ENERGY STAR Multifamily Workbook, with ZERH Addenda (or equivalent documentation, e.g., ZERH MF rater checklists) and DOE Compliance Form are installed as reported.
 - If energy modeling was performed for the project, confirm that the heating efficiency, air conditioning efficiency, water heating efficiency, and other key parameters reflect those used in the energy model submitted for certification.
 - Re-test and confirm Submitter’s duct leakage test results.²⁴
 - Re-test and confirm Submitter’s compartmentalization test results.²⁴
 - Re-test and confirm Submitter’s ventilation flow rates.²⁴

7.3.6.1. 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.

7.3.7 Dispute Resolution

MROs for ZERH 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, Builder/Developer, etc.) and the MRO for ZERH’s Reviewer(s).

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

²² The MRO for ZERH is responsible for verifying all measures that are installed at the time of inspection. The MRO for ZERH 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 for ZERH is responsible for ensuring that the pre-drywall visits are scheduled in a way to provide meaningful quality assurance.

²³ For each selected project, on-site verification must occur in at least 10 dwelling or sleeping units. If the MRO for ZERH has not yet reviewed the selected project’s As-Built Submittal, file review (using the ZERH Multifamily Quality Assurance Checklist or other approved documentation) must occur for the dwelling or sleeping units selected for on-site verification.

²⁴ This QA test is also present in ESMFNC and ESMFNC QA results may be used if in alignment with requirements stated above.

7.3.8 Communications with Submitters and DOE

MROs for ZERH must develop and maintain a system to deliver submission approval notifications and certification documents to Submitters, and send a notification to DOE. These communications must include, but are not limited to:

MRO for ZERH sending out the following:

- a. Proposed Design Submittal and As-Built Submittal Acceptances
- b. Proposed Design Submittal and As-Built Submittal Rejections and Comments
- c. ZERH Certificates for all units in the building²⁵

MRO for ZERH notifying DOE of the following:

- a. Proposed Design Approval
- b. As-Built Submittal Approval

Applicant acknowledges this requirement. _____

7.3.9 Data Management

MROs for ZERH must maintain all submitted project files related to ZERH Multifamily projects certified by their organization for at least 10 years after final certification. The MRO for ZERH must agree to provide DOE with any and all project files related to any ZERH Multifamily project that it has reviewed, upon request. The MRO for ZERH must also track and report to DOE on project review times.

The MRO for ZERH must also commit to reporting the information in Appendix A to DOE no less frequently than quarterly.

DOE reserves the right to review all projects submitted to each MRO for ZERH and all associated onsite quality assurance related files.

Applicant acknowledges this requirement. _____

7.3.10 Coordination with ZERH Staff

At a minimum, MROs for ZERH must actively participate in periodic conference calls or webinars with ZERH staff to be informed of program updates, provide DOE 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 for ZERH and DOE staff or may include more than one MRO for ZERH, depending on the subject and DOE's programmatic needs.

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

Applicant acknowledges this requirement. _____

²⁵ DOE will provide a certificate template that MROs must use.

Appendix A – Required DOE Zero Energy Ready Home Data Reporting

For All Certified Units (regardless of certification pathway)

Program Certification Version

- Zero Energy ready Homes Multifamily V2
- Zero Energy Ready Homes California Multifamily V2
- [reserved – other future versions of the Multifamily certification]

Builder Identification

- ZERH Partner ID (note: found in public partner profile)
- Registered Builder Organization Name

Rater Identification

- Rater name
- Rater Organization Name

Home Location

- Building Street Address
- Dwelling/Sleeping Unit # or identifier
- City
- State
- Zip Code
- 2021 IECC Climate Zone

Home Characteristics

- Home Type
 - Townhouse
 - Multifamily Unit
- Number of Bedrooms
- Dwelling Unit Square footage of conditioned space
- Date of approved rating

Dwelling Unit Unique Identifier

- Possible Future Requirement - Unique identifier for each ZERH certified dwelling unit, using standardized format as determined by DOE and EPA – In Development

For Units Certified Using 90.1 Pathway

Energy Savings Relative to Baseline

- % Energy Savings Relative to Baseline without OPP
- % Energy Savings Relative to Baseline with OPP (if applicable)
- Date of Rating
- Software Used and Version
- Annual Electricity Use (assumed kWh)

- Annual Natural Gas Use (if applicable)
- Natural Gas Units (if applicable)
- Annual Fuel Oil Use (if applicable)
- Oil Units (if applicable)
- Annual Propane Use (if applicable)
- Propane Units (if applicable)
- Annual Energy Cost Total
- Price Electricity
- Price Natural Gas
- Price Fuel Oil
- Price Propane
- Annual Savings Electric
- Annual Savings Natural Gas (if applicable)
- Annual Savings Fuel Oil (if applicable)
- Annual Savings Propane (if applicable)
- CO2 Index (possible future requirement)
- Reduction CO2 (tons/year)
- Reduction SO2 (lbs./year)
- Reduction NOx (lbs./year)
- Peak Load
 - Proposed Home Peak Load
 - Energy Rating Reference Home Peak Load
 - Peak Savings compared to Energy Rating Reference Home
- Site Energy Use Intensity

Mandatory Requirements Met

- Mandatory ENERGY STAR Certification
- Mandatory Fenestration Requirements Met
- Mandatory Insulation Requirements Met
- Mandatory Duct Location Requirements Met
- Mandatory Appliance Requirements Met
- Mandatory Lighting Requirements Met
- Mandatory Fan Efficiency Requirements Met
- Mandatory Indoor airPLUS Certification
- Mandatory H/ERV Requirements if Applicable (CZ 6-8)
- Mandatory Renewable Ready Requirements Met
- Mandatory Electric Ready Requirements Met
- Mandatory Electric Vehicle Ready Requirements Met

Note: all Mandatory and optional items can be True/False, Yes/No, or similar binary format.

For Units Certified Using Prescriptive Pathway

- All Prescriptive Items met
- Presence of onsite power production (if applicable)