



NYSERDA

Multifamily New Construction Program (MF NCP) Guidelines

Program Opportunity Notice (PON) 3716

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Multifamily New Construction Program (MF NCP)

MF NCP Guidelines

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1 INTRODUCTION

The Multifamily New Construction Program (MF NCP) offers technical support and incentives to developers of multifamily high rise new construction and gut rehabilitation projects. The multi-tiered incentive structure is intended to promote increased levels of performance, up to and inclusive of net zero energy performance, identifying replicable and integrated design solutions by focusing on cost optimization analysis and financing strategies that recognize operational costs and management of perceived risks. The goal is to increase awareness of and demand for advanced clean energy solutions while strengthening the capacity of clean energy professionals to deliver design and construction services. Use of solar photovoltaic generation and other renewable energy systems, as well ground source heat pumps and other innovative technologies, are encouraged to achieve the higher performance targets. The Applicant is expected to hire a NYSEERDA-approved Primary Energy Consultant to act as the primary resource for their participation.

MF NCP significantly but not exclusively targets the Low to Moderate Income (LMI) housing sector, supporting New York State and New York City housing agencies as well as other funding authorities in their efforts to secure efficient, durable, resilient and healthy housing. MF NCP is closely aligned with NYSEERDA's Low-Rise Residential New Construction Program (LR NCP) to more seamlessly support the higher performance multifamily new construction market.

For additional information and related documents, please visit the Multifamily New Construction website page at:

<https://www.nyserda.ny.gov/All-Programs/Programs/Low-Rise-Residential/Mid-and-High-Rise-Multifamily-Buildings>.

2 PROGRAM ELIGIBILITY AND APPLICATION REQUIREMENTS, INCENTIVES

Prior to submitting a MF NCP Application Package to NYSERDA, the Applicant must determine MF NCP eligibility, market type and estimated incentives.

2.1 Establishing a project

The following section describes the requirements for MF NCP eligibility.

2.1.1 Eligibility Requirements

Applicants will be required to execute a MF NCP Terms and Conditions (Attachment B) with NYSERDA, and deliver completed projects that, at a minimum, meet the requirements detailed in these Guidelines and other MF NCP documents. To be eligible for MF NCP participation, a project must be, or be capable of and intend to be, a New York State electricity distribution customer of a participating utility company that pays into the System Benefits Charge. Project eligibility is fuel-neutral.

Requests by Applicants who had previously applied to PON 3319 but have yet been issued an Award Letter from NYSERDA will be accepted to participate in PON 3716 in lieu of PON 3319. Additionally, requests by Applicants who had previously applied to PON 3319 and have been issued an Award Letter from NYSERDA to participate but who have not yet received an incentive payment from NYSERDA will also be accepted to participate in PON 3716 in lieu of PON 3319.

NYSERDA has the sole discretion for determining an Applicant's eligibility to participate.

2.1.1.1 Project Size

The project must be a multifamily building(s) with four (4) or more stories.

Low-rise buildings, defined as having three (3) or fewer stories, are not eligible for MF NCP, and may apply to NYSERDA's PON 3717 Low-Rise Residential New Construction Program (LR NCP). For additional information on the LR NCP, please visit: <http://www.nyserda.ny.gov/All-Programs/Programs/Low-Rise-Residential/Low-Rise-Residential-New-Construction-Multifamily>.

2.1.1.2 Eligible Types of Construction

MF NCP will accept both new construction and gut rehabilitation, as defined below:

New Construction: A new building, or portion within a new building, where a licensed professional architect or engineer has prepared and certified the building plans.

Gut Rehabilitation: Substantial renovation, one of the following types of projects where a licensed professional architect or engineer has prepared and certified the building plans:

- Change of use and reconstruction of an existing building or space within;
- Construction work of a nature requiring that the building or space within be out of service for at least 30 consecutive days;
- Reconstruction of a vacant structure or space within.

2.1.1.3 Intended Use

The primary intended use of the building should be residential.

Projects may contain non-residential (commercial and/or retail) space if that space does not consist of more than 50 percent of the occupiable square footage of the entire building. Commercial and/or retail space within a primarily residential building supported by MF NCP may be eligible to access additional support through NYSERDA's Commercial New Construction Program.

Commercial facilities, such as motels/hotels, group homes, dormitories, shelters, monasteries, nunneries, assisted living facilities and nursing homes are not typically eligible for MF NCP but may be deemed by NYSERDA as eligible either in whole or in part, based on a case-by-case review of the intended use, expected occupancy, and compliance path indicated by the Applicant.

Supportive Housing, single room occupancy (SRO) facilities, and senior living residences may be deemed by NYSERDA as eligible for MF NCP, based on a case-by-case review. Supportive Housing is defined as residences that are owned and operated by non-profit organizations. Tenants are individuals and families who require both affordable permanent housing and support services, have lease agreements, pay rent (often a percentage of their income) and abide by the terms of their lease. This includes people who have been homeless, have histories of substance abuse, are coping with mental illness, have chronic illnesses like HIV/AIDS, are young adults aging out of foster care, are homeless veterans, or are grandparents raising grandchildren.

This is not a comprehensive list of property types that are eligible for MF NCP. Special circumstances may be reviewed by NYSERDA and considered for eligibility on a case-by-case basis.

2.1.1.4 ENERGY STAR Eligibility

Projects that have applied to MF NCP that meet the Performance Path with ENERGY STAR requirements are eligible to apply directly to the EPA for the ENERGY STAR MFHR label for the units within the building. Use the EPA's ENERGY STAR Multifamily New Construction Program Decision Tree to determine whether your project qualifies for the ENERGY STAR label:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_bldg_eligibility.

All of the EPA's ENERGY STAR MFHR referenced documentation is located at:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

Please refer to the EPA for more information on the ENERGY STAR MFHR Certification Process:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_certification.

2.1.2 Definition of a Project

For the purposes of MF NCP, a project is defined as a building or group of identical buildings. The Primary Energy Consultant will develop one Performance Path Calculator, one Building Performance Plan or one Modified Prescriptive Path Calculator for each project. Each building in a project must adhere to the requirements of the approved compliance path, including the applicable testing and verification protocols. Each building may be subject to a separate Open Wall inspection.

A group of buildings that includes more than one building design must apply to MF NCP as multiple projects. The Applicant must submit a separate Application Package for each building design. At the Modeling Milestone, the Applicant must submit a separate Performance Path Calculator, Building Performance Plan or Modified Prescriptive Path Calculator for each design.

Final determination of how a project is defined is at NYSERDA's discretion.

2.1.3 Determining Market Type

Eligibility to seek Low to Moderate Income (LMI) incentives can be established for the entire project if the majority of dwelling units will have a household income of no more than 80 percent of the State or Area Median Income (whichever is greater). Projects not meeting this majority threshold will be considered Market Rate. Eligibility to seek LMI incentives for individual dwelling units within any Market Rate project can also be established based on the thresholds stated above, when any related proxy does not require 100% of households to meet LMI requirements, the number of dwelling units associated with the project at each household income level must be clearly detailed in the submitted documentation. Eligibility to seek LMI incentives must be established through reliance on one of the proxies detailed in Table 2.1.

2.1.3.1 Low to Moderate Income (LMI)

To establish eligibility for the LMI incentive amounts and project caps, documentation must be submitted as soon as possible and prior to NYSERDA's payment of any incentive. There are three methods to verify that the project is eligible for LMI incentives:

- *Proxy:* NYSERDA allows certain proxies to be submitted to verify the project or individual dwelling units are eligible for LMI incentives. Please see Table 2.1 for approved proxies. Additional proxies may be considered by NYSERDA to establish eligibility for LMI incentives on a case-by-case basis. The number of eligible LMI dwelling units for projects funded through NYS Housing Finance Agency's (HFA's) 80/20 Program or NYC HDC's 80/20 or Mixed Income Programs may be established based on their regulatory funder's award letter or contract documents. Additional proxies may be considered by NYSERDA to establish eligibility for LMI incentives on a case-by-case basis.
- *Rent Roll:* The Rent Roll method applies only to gut rehabilitation projects that do not meet the LMI eligibility proxies; or to projects funded through NYS HFA's 80/20 Program or NYC HDC's 80/20 or Mixed Income Programs. This method may not be combined with the Resident Income method. Applicants must submit the annual rent, size, and occupancy for each apartment in the project. The majority of dwelling units must have a calculated household income no greater than 80 percent of the State or Area Median Income based on the assumption that 30 percent of household income is applied to housing costs (i.e. rent). A calculation spreadsheet tool is available upon request.
- *Resident Income:* The Resident Income method applies only to gut rehabilitation projects that do not meet the LMI eligibility proxies; or to projects funded through NYS HFA's 80/20 Program or NYC Housing Development Corporation's (HDC's) 80/20 or Mixed Income Programs. This method may not be combined with the Rent Roll method. Applicants must submit signed Resident Income Certification forms with supporting documentation for a majority of the project's dwelling units. Resident Income Certification Instructions and related forms are available upon request.

2.1.3.2 Market Rate

Eligible projects that do not qualify for LMI incentives amounts and project caps as detailed above may be eligible for Market Rate incentives.

Table 2.1 Low-to-Moderate (LMI) Proxies

ELIGIBILITY PROXY	DESCRIPTION	TYPE OF DOCUMENTATION ¹
1. US HUD, USDA-RD, and other Federally Regulated LMI Housing	<p>Properties that receive subsidies from US HUD or USDA-RD based on household income may be defined as LMI, based on household income criteria detailed in the contract or award, including regulatory control or structures such as:</p> <ul style="list-style-type: none"> • Section 8 Contract • Sections 202, 236, 811 • Public Housing Authorities 	Submit a copy of the US HUD contract or contract award notice.
2. NYS HCR-Regulated LMI Housing	Properties with subsidized mortgages or contracts that place them under the regulatory control of NYS HCR may be defined as LMI, based on household income criteria detailed in the NYS HCR contract or award.	Submit a copy of NYS HCR contract or contract award notice.
3. Low-Income Housing Tax Credits	Properties that receive tax credits may be defined as LMI based on household income criteria detailed in the tax credit award notice.	Submit a copy of tax credit award notice from NYS HCR or NYC HPD.
4. NYC HPD-Regulated LMI Housing (or similar local housing agencies)	Properties with loans, mortgages, or deeds of purchase (HDFC incorporation) from NYC HPD or similar local housing agencies may be defined as LMI, based on household income criteria detailed in the award documentation.	Submit documentation of current mortgage, loan closing, HDFC incorporation, or deeds.
5. SONYMA Mortgage Insurance	Properties subsidized for LMI residents with SONYMA subsidized financing through the NYS HFA may be defined as LMI, based on household income criteria detailed in the contract or award.	Submit a copy of loan closing/ mortgage insurance award documents.
6. Participation in NYS HFA's 80/20 Program or similar HFA-regulated offerings	Properties that have been accepted into the NYS HFA's 80/20 Program, or similar HFA-regulated offering, may be defined as LMI based on household income criteria detailed in the contract	Submit a copy of the award letter or NYS HFA or similar HFA contract documents.
7. Participation in NYC HDC's 80/20 or Mixed Income Programs or similar HDC-regulated offerings	Properties that have been accepted into the NYC HDC's 80/20 or Mixed Income Program, or similar HDC-regulated offering, may be defined as LMI based on household income criteria detailed in the contract or award.	Submit a copy of the award letter, NYC HDC contract documents, or similar HDC-regulated contract documents.

Glossary of Terms:

USDA-RD – United States Department of Agriculture Rural Development
 US HUD – United States Department of Housing and Urban Development
 NYS HCR – New York State Housing and Community Renewal
 NYS HFA – New York State Housing Finance Agency
 NYC HDC – New York City Housing Development Corporation
 NYC HPD – New York City Housing and Preservation Development
 SONYMA – State of New York Mortgage Agency

2.2 Incentives

Projects that have received a funding commitment from NYSERDA for Performance Tier 2 or Tier 3 and that have met all those requirements are eligible to request payment of the corresponding incentives. The incentives available through MF NCP are based on market type, the year the complete application was submitted, performance tier and number of dwelling units.

2.2.1 Calculating Incentives

There are separate incentive schedules for LMI and Market Rate projects. Additionally, different incentives are offered to projects based on the year the complete application was submitted, performance tier and number of dwelling units associated with the project.

For projects that have up to 50 dwelling units, the incentive per dwelling unit amount listed for “Up to 50 dwelling units” applies to all dwelling units. For projects that have more than 50 dwelling units, the first 50 dwelling units receive the incentive per dwelling unit amount listed for “Up to 50 dwelling units,” and the balance of the units receive the incentive per unit amount listed for “More than 50 dwelling units.”

Examples:

A Tier 2 project with 40 LMI-qualified dwelling units that applies in 2017 would be eligible to receive:
 $40 \text{ dwelling units} \times \$1,000/\text{unit} = \$40,000$

A Tier 2 project with 80 LMI-qualified dwelling units that applies in 2017 would be eligible to receive:
 $(50 \text{ dwelling units} \times \$1,000/\text{unit}) + (30 \text{ dwelling units} \times \$600) = \$68,000$

Per project incentives are capped based on market type, year of application and performance tier.

LMI						
2016			Performance Tier	2017-18		
Up to 50 dwelling units	More than 50 dwelling units	Cap		Up to 50 dwelling units	More than 50 dwelling units	Cap
\$ -	\$ -	\$ -	Tier 1	\$ -	\$ -	\$ -
\$ 1,000	\$ 600	\$ 100,000	Tier 2	\$ 1,000	\$ 600	\$ 100,000
\$ 3,500	\$ 3,000	\$ 300,000	Tier 3	\$ 3,500	\$ 3,100	\$ 300,000

Market Rate						
2016			Performance Tier	2017-18		
Up to 50 dwelling units	More than 50 dwelling units	Cap		Up to 50 dwelling units	More than 50 dwelling units	Cap
\$ -	\$ -	\$ -	Tier 1	\$ -	\$ -	\$ -
\$ 500	\$ 300	\$ 50,000	Tier 2	\$ 450	\$ 200	\$ 100,000
\$ 2,500	\$ 2,000	\$ 200,000	Tier 3	\$ 1,600	\$ 1,400	\$ 300,000

2.2.2 Incentive Payment Schedules

The Applicant will receive the incentives that NYSERDA has approved for their project after each Milestone has been approved.

Incentive payment at each Milestone is a set percentage of the total approved incentive. The incentive payment schedule is based on compliance path and performance tier.

To receive the full incentive amount, projects must verify that they have achieved the performance targets specified in their approved performance tier, and each Milestone must be approved by NYSERDA. If the project does not meet the performance target, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal. The NYSERDA-designated liaison will provide the adjusted incentive amount, if applicable.

MF NCP - Incentive Payment Schedule						
	Milestone 1		Milestone 2		Milestone 3	
	Performance Path, PHI, PHIUS	MoPP	Performance Path, PHI, PHIUS	MoPP	Performance Path, PHI, PHIUS	MoPP
Performance Tier	LMI and Market Rate					
Tier 1	N/A	N/A	N/A	N/A	N/A	N/A
Tier 2	25%	N/A	25%	50%*	50%	50%*
Tier 3	10%	N/A	35%	N/A	55%	N/A

*gut rehabs only

2.2.3 Renewable Energy, Ground Source Heat Pumps & Other Innovative Technologies

Applicants to MF NCP are encouraged to incorporate solar photovoltaics² and other renewable energy systems, as well ground source heat pumps and other innovative technologies, into their projects to achieve the performance targets. Applicants are not restricted from receiving targeted incentives additionally available from other NYSERDA programs to support those types of installations.

² Projects that otherwise meet the Tier 3 requirements intending to seek NYSERDA’s commitment for and payment of those Tier 3 incentives will be required to locate the solar electric array(s) on-site, co-located with the project’s buildings. Project applicants may seek a waiver from NYSERDA to allow a properly sized solar electric array to be located on a remote site and in a manner that allows a remote net metering arrangement to achieve the required offset of the project’s predicted energy use. To receive NYSERDA’s approval of the waiver request, the Applicant must demonstrate the solar electric array’s ownership is structured in a manner that assures its output will be dedicated to the project.

2.3 Project Application

Applicants will submit project applications, monitor the status of applications, submit documentation packages, and perform other program-related activities via the NYSERDA Portal. The project application will progress through each status shown below.

Project Application Flow



2.3.1 Unsubmitted Status

All project applications are generated in and submitted through the portal. Unsubmitted status is reached once an Applicant generates the application. The incentive rate is not confirmed until the application has been submitted.

2.3.2 Submitted Status

The project application moves to submitted status once the Applicant has submitted the application and any documents, inclusive of acceptance of the MF NCP Terms and Conditions signed by the Applicant, to the portal.

The following additional documents may be uploaded to the portal at any time, and must be received prior to any incentive being paid:

- Low to Moderate Income Documentation (for projects requesting LMI incentive rates)
- EPA's ENERGY STAR MFHR Developer Partnership Agreement (if not previously submitted and for Performance Path with ENERGY STAR projects only): to be completed by the developer/owner responsible for the project's design, financing and construction. A copy of the Agreement can be obtained from the following ENERGY STAR website:
https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_dev_partners.

The Applicant must submit all project applications electronically using the portal. The Applicant will be able to assign access to a project after they have initiated the application by identifying additional roles (contacts) on the project application, and designating read-only access or read-write access. Read-write access will allow the Applicant to collaborate with their Primary Energy Consultant to submit the application.

The project application must be signed by the Applicant either electronically in the portal, or by printing the Certification Statement and uploading the signed document to the portal as an attachment.

Applicants that are unable to submit a project application electronically may contact NYSERDA at ResMFNCP@nyserda.ny.gov or by calling 1-800-284-9069 to request a hard copy application.

2.3.3 Under Review Status

Upon receipt of a project application, program staff will move the application to under review status. At this time the application will move into the queue for technical review.

2.3.3.1 Technical Review

Once the project application has been received, the project may undergo a full technical review inclusive of a Scoping Session with the project team, to confirm that the project can achieve the stated performance and meets all program requirements, as described in this PON 3716.

If a project application has missing or inaccurate information or documents, the Applicant will be asked to provide the correct information in the portal.

2.3.4 Pending Approval Status

When the project application has passed technical review, the application will be moved to pending approval status. In this status, the purchase order is finalized and funding for the application is set aside.

2.3.5 Approved Status

When the project application has been approved by NYSERDA, the Applicant will receive their project Award Letter via email notification.

While in approved status, the Applicant may submit a project cancellation request, project extension request, project modification request, or project incentive payment request.

2.3.5.1 Project Cancellation Requests

Requests to cancel a project must be done through the portal by submitting a request for cancellation to the NYSERDA Project Manager and Project Coordinator. Should an Applicant decide to move forward with a project after cancellation, the Applicant must submit a new project Application Package. In this case, the incentive level and all rules in effect at the time the new application is submitted will apply.

2.3.5.2 Project Extension Requests

To request an extension, the Applicant must submit a project extension request in the portal to the NYSERDA Project Manager and Project Coordinator. NYSERDA will approve extensions on a limited case-by-case basis. Project extensions may be granted for legitimate and verifiable reasons which are beyond the control of the Applicant or Primary Energy Consultant. No other requests will be considered.

2.3.5.3 Project Modification Requests

To request a modification to an approved project, the Applicant must submit a project modification request in the portal to the NYSERDA Project Manager and Project Coordinator. A project modification request must state the original project award amount, performance tier, and unit count, the proposed performance tier and unit count, as well as the reason for the change. NYSERDA will review the request, and may elect to calculate, apply, and approve the modification, inclusive of an adjusted incentive amount (if applicable).

2.3.5.4 Project Incentive Payment Requests

The Applicant will receive the total project incentive in three installments based on each Milestone's requirement. To request the incentive payment for each Milestone, the Applicant must submit a project's Milestone submittal packages in the portal to the NYSERDA Project Manager and Project Coordinator. The deliverables will be reviewed by NYSERDA, and when all deliverables have been accepted, the project incentive payment request will be processed.

The deliverable submission must include:

- Milestone 1: Energy Modeling or Modified Prescriptive Path Calculator Submittal Package
- Milestone 2: Open Wall Submittal Package
- Milestone 3: As-Built Submittal Package

2.3.6 Completed Status

The project has achieved completed status once construction is complete, all deliverables have been accepted, and final payment has been approved by NYSERDA.

2.3.7 Contact Information

1. Eligibility, Intake and Application Inquiries - A team of individuals reviews each Application and responds to inquiries related to applications, eligibility and intake. Inquiries should be directed to NYSERDA at ResMFNCP@nyserda.ny.gov.
2. Project Inquiries - After receiving emailed confirmation that the Application has been received, all project-related correspondence between the Applicant and NYSERDA must be directed to the NYSERDA-designated liaison. This designee receives and reviews submittal packages in the portal, answers programmatic questions, and serves as a daily contact informed of the project's programmatic progress. Contact information will be provided upon assignment.

2.4 Scoping Session

Once NYSERDA has approved the project's application, NYSERDA or its designee will schedule a Scoping Session with the Applicant, the Primary Energy Consultant and the project team. The intent of the Scoping Session is to discuss general project information and review MF NCP requirements and responsibilities for each party. The Scoping Session may also identify additional documents required to allow the project to be established in NYSERDA's financial systems. Knowledgeable representatives from both the Applicant and the Primary Energy Consultant are required to attend the Scoping Session. After the Scoping Session, if all parties agree to move forward with this project in MF NCP, NYSERDA will send a MF NCP Project Award Letter to the Applicant verifying that the application is approved to participate in MF NCP. Final approval and issuance of the MF NCP Project Award Letter are at NYSERDA's discretion.

3 TECHNICAL REQUIREMENTS

MF NCP offers project teams technical support and guidance to achieve higher levels of energy performance as well as health and safety throughout the planning and construction process. Projects must meet the requirements detailed in this document and achieve their approved performance targets to receive NYSERDA's financial incentives (if applicable).

3.1 Compliance Paths

At the time of application, projects must select one of the following compliance paths:

3.1.1 Performance Path with ENERGY STAR®

This compliance path follows the standards developed by the US Environmental Protection Agency (EPA) for the ENERGY STAR Multifamily High Rise (MFHR) program. This pathway requires the Primary Energy Consultant to create a model of the proposed building design based on the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards and compare it to a baseline model. Additionally, for projects pursuing Tier 2 and Tier 3, the difference in the source energy use predicted by the two models must equal or exceed the performance target specified in the project's approved performance tier. Projects following the Performance Path with ENERGY STAR are required to adhere to all ENERGY STAR MFHR Performance Path Prerequisites and ENERGY STAR MFHR Testing & Verification Protocols. See Section 2.1.1.4 for information on ENERGY STAR MFHR eligibility, and Section 4 for more information on this pathway.

3.1.2 Passive House Institute US (PHIUS)

Projects following this compliance path must comply with the PHIUS+ Multifamily Certification Standard developed by the Passive House Institute US (PHIUS). The project must contract with a Certified Passive House Consultant (CPHC®) and a PHIUS+ Verifier, and must pursue, and obtain, certification by PHIUS. In addition to meeting the PHIUS requirements, projects pursuing PHIUS+ certification are required to submit the ENERGY STAR MFHR Photo Template. Refer to Section 5.3.2 for more details on this template, and Section 5 for more information on this pathway.

3.1.3 Passive House Institute (PHI)

Projects following this compliance path must comply with the Passive House Standard developed by the Passive House Institute (PHI). The project must contract with a certified PHI Consultant or Designer and an accredited PHI Certifier, and must pursue, and obtain, certification by PHI. In addition to meeting the PHI requirements, projects pursuing PHI certification are required to submit the ENERGY STAR MFHR Photo Template. Refer to Section 6.3.2 for more details on this template.

The North American Certifiers Circle is currently developing a third-party verification program called VeriPHY. Until VeriPHY is released, projects following this compliance path must record the results of all testing and verification in the corresponding sections of the ENERGY STAR MFHR Testing & Verification Workbook. Once released, NYSERDA will evaluate VeriPHY and consider allowing that process to replace this requirement for PHI projects. Refer to Section 6.3.2 for more details on verification, and Section 6 for more information on this pathway.

3.1.4 Modified Prescriptive Path (MoPP)

This compliance path requires the project to meet the set of requirements specified in the Modified Prescriptive Path Requirements (Attachment C) as set forth in Section 7, including completion of the ENERGY STAR MFHR Testing & Verification Protocols. Inclusion of these requirements is considered to equal or exceed the performance target specified in the project's approved performance tier. This pathway does not result in an ENERGY STAR label, but may result in the New York Energy \$mart designation from NYSERDA. Refer to Section 7 for more information on this pathway.

3.2 Performance Tiers

At the time of application, projects must select and commit to meeting one of the following performance tiers. Each performance tier is associated with specific performance requirements. Higher tiers are associated with increasing levels of performance and higher incentives. To be eligible to receive the associated incentives, the project must achieve the performance target associated with its approved performance tier.

3.2.1 Tier 1

Tier 1 is available to new construction projects following the Performance Path with ENERGY STAR or the MoPP.

Projects following the Performance Path with ENERGY STAR must achieve certification under the EPA's ENERGY STAR Multifamily High Rise (MFHR) program. To find out more about the EPA's program, rules and requirements, please visit the EPA website at https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_multifamily_highrise.

Projects that pursue either Passive House compliance path and were designed to achieve either Tier 2 or 3 but do not receive the associated certification from the applicable standards setting organization may qualify for Tier 1 if the project meets the associated Energy Modeling and As-Built Milestone requirements for that compliance path, and if their As-Built Submittal Package is complete and approvable except for achieving certification from the applicable standard organization.

3.2.2 Tier 2

Tier 2 is available to new construction and gut rehabilitation projects following the Performance Path with ENERGY STAR, the PHI path or the PHIUS+ path.

Tier 2 is also available to gut rehabilitation projects following the MoPP.

New construction projects following the Performance Path with ENERGY STAR must, at minimum, achieve a performance rating of 25% above ASHRAE Standard 90.1, where the performance rating is calculated using source energy (see Section 4.3.4 for more information). The version of ASHRAE 90.1 that must be used is dependent on what version of NYS Energy Code the project is permitted under. If the project is permitted under the Energy Conservation Construction Code of New York State (ECCC of NYS) 2014, then the project's performance rating is in reference to ASHRAE 90.1-2010. If the project is permitted under ECCC of NYS 2016, then the project's performance rating must be in reference to ASHRAE 90.1-2013, as defined by ECCC NYS 2016. Additionally, the project must achieve certification under the EPA's ENERGY STAR Multifamily High Rise (MFHR) program. To find out more about the

EPA's program, rules and requirements, please visit the EPA website at https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_multifamily_highrise.

Projects following either Passive House path must comply with the minimum requirements of the applicable Passive House standard, achieving certification to either PHI or PHIUS+.

Gut rehabilitation projects following the Performance Path with ENERGY STAR must achieve certification under the EPA's ENERGY STAR Multifamily High Rise (MFHR) program. To find out more about the EPA's program, rules and requirements, please visit the EPA website at https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_multifamily_highrise.

3.2.3 Tier 3

Tier 3 is available to new construction projects following the Performance Path with ENERGY STAR, the PHI path or the PHIUS path. Tier 3 is available to gut rehabilitation projects following the Performance Path with ENERGY STAR, with an adjusted baseline equivalent to that required of a new construction project.

Projects following the Performance Path with ENERGY STAR must, at a minimum, achieve a performance rating of 35% above ASHRAE Standard 90.1 without inclusion of any renewable or distributed generation and a performance rating of 42% above ASHRAE Standard 90.1 including any renewable or distributed generation, where the performance rating is calculated using source energy (refer to Section 4.3.4 for more information). The version of ASHRAE 90.1 that must be used is dependent on what version of NYS Energy Code the project is permitted under. If the project is permitted under ECCC NYS 2014, then the project's performance rating is in reference to ASHRAE 90.1-2010. If the project is permitted under ECCC NYS 2016, then the project's performance rating is in reference to ASHRAE 90.1-2013, as defined ECCC NYS 2016. Additionally, the project must achieve certification under the EPA's ENERGY STAR Multifamily High Rise (MFHR) program. To find out more about the EPA's program, rules and requirements, please visit their website at https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_multifamily_highrise

Projects following the PHI path must be designed, constructed, and certified to PHI standards and must achieve, at maximum, a Primary Energy Demand calculation of 33 kBtu/ft²/year without inclusion of any renewable or distributed generation, and a Primary Energy Demand calculation of 29 kBtu/ft²/year including any renewable or distributed generation. Calculation of this Primary Energy Demand threshold must rely on use of the PHI-required energy modeling tool; and the project must meet the minimum PHI requirements needed for the project to be certified as meeting the PHI standard. Both Primary Energy Demand thresholds may exclude the energy use attributed to amenities, such as dishwashers, laundry and exterior lighting, per Section 5.5.1.

Projects following the PHIUS path must be designed, constructed, and certified to PHIUS+ standards and must achieve, at maximum, a Primary Energy Demand calculation of 5,200 kWh/person/year without inclusion of any renewable or distributed generation, and a Primary Energy Demand calculation of 4,200 kWh/person/year including any renewable or distributed generation. Calculation of this Primary Energy Demand threshold must rely on use of the PHIUS-required energy modeling tool; and the project must meet the minimum PHIUS+ requirements needed for the project to be certified as meeting

the PHIUS+ standard. Both Primary Energy Demand thresholds may exclude the energy use attributed to amenities, such as dishwashers, laundry and exterior lighting, per Section 6.5.1.

3.3 Deadlines

For projects following the Performance Path with ENERGY STAR, the Energy Modeling Submittal Package, as detailed in Sections 4 and 7, must be submitted no later than 30 days after the municipal Buildings Department's final approval of New Building Architectural, Mechanical, and Plumbing plans. For projects following the PHI or PHIUS paths, the Energy Modeling Submittal Package, as detailed in Section 5 and 6, must be submitted no later than 30 days after the project has received PHI or PHIUS pre-certification.

3.4 Incentive and Incentive Caps

The incentives available through MF NCP are based on market type, the year the complete application was submitted, number of dwelling units, and performance tier. Refer to Section 2.2 for more details.

4 PERFORMANCE PATH WITH ENERGY STAR

The following section describes the requirements of the Performance Path with ENERGY STAR.

4.1 Submittal Package Requirements

For the Applicant to receive the NYSERDA incentives approved for their project, the Applicant must submit the required documentation as detailed in the Milestones below. These submittals may be reviewed by NYSERDA or its designee. The incentives will only be paid if these submittal packages are approved by NYSERDA. All documents listed in this section must be submitted in the portal to the NYSERDA Project Manager and Project Coordinator and approved by NYSERDA.

4.1.1 Milestone 1: Energy Modeling Submittal Package

The first NYSERDA incentive is available to the Applicant when the project has reached design completion and NYSERDA has approved the Energy Modeling Submittal Package. This submittal package must show that the project achieves the performance target and meets the requirements of the ENERGY STAR MFHR Performance Path. If the energy model indicates the intended performance target will not be met, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal.

The Energy Modeling Submittal Package must be submitted no later than 30 days after the Buildings Department’s final approval of New Building Architectural, Mechanical, and Plumbing plans. The Buildings Department’s approval shall be submitted to the project’s NYSERDA-designated liaison upon receipt, but must be received by the submission of the Open Wall Submittal Package.

Documents Required for Milestone 1:		Document Obtained From:
<input type="checkbox"/>	Applicant-Primary Energy Consultant Contract (signed by both parties)	Primary Energy Consultant created document
<input type="checkbox"/>	LMI Documentation (if not previously submitted)	See Table 2.1
<input type="checkbox"/>	Buildings Department’s final New Building approval of Architectural, Mechanical, and Plumbing plans (if available at the time of submittal)	Permitting office that approved the Construction Documents
<input type="checkbox"/>	Proposed Performance Path Calculator	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Testing & Verification Worksheets	EPA
<input type="checkbox"/>	Statement of Energy Design Intent**	EPA
<input type="checkbox"/>	Energy Modeling files*	Primary Energy Consultant created documents
<input type="checkbox"/>	Complete Construction Documents (CDs)	Applicant/Developer/Design Team

*For eQUEST models, please submit the .inp, .pd2, and .prd files

** Statement of Energy Design Intent will be submitted after the Energy Modeling Submittal Package is approved

4.1.2 Milestone 2: Open Wall Submittal Package

The second NYSERDA incentive is available to the Applicant when NYSERDA has approved the Open Wall Submittal Package and Site Inspection Report. The Primary Energy Consultant must submit a complete Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks before the project reaches the Open Wall Milestone. This gives the NYSERDA-designated MF NCP Site Inspector time to properly schedule the Open Wall inspection. The

purpose of this inspection is to verify that typical Open Wall components are installed in accordance with MF NCP requirements. This includes measures from the Proposed Performance Path Calculator and ENERGY STAR MFHR Performance Path Prerequisites.

Documents Required for Milestone 2:		Document Obtained From:
<input type="checkbox"/>	Site Inspection Request Form (Attachment D)	NYSERDA's website
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Testing & Verification Worksheets	EPA
<input type="checkbox"/>	Buildings Department's final New Building approval of Architectural, Mechanical, and Plumbing plans (if not previously submitted)	Permitting office that approved the Construction Documents

4.1.3 Milestone 3: As-Built Submittal Package

The third NYSERDA incentive is available to the Applicant when the project construction is complete, and NYSERDA has approved the As-Built Submittal Package and Data Release Authorization Forms (DRAFs). This submittal package must show that the project meets or exceeds the performance target specified in its approved performance tier and meets the requirements of the ENERGY STAR MFHR Performance Path Prerequisites. If the project does not meet the performance target, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal.

The Primary Energy Consultant must work with the Applicant to determine whether to submit Tenant DRAFs (Attachment F) or to follow the alternative process to allow the NYSERDA-designated liaison to access the utility consumption information directly.

- DRAFs: All projects are eligible to follow the DRAF process. The Applicant must submit the Owner DRAF (Attachment E), which must include utility information for all common areas of the building, and Tenant DRAFs (Attachment F), which must include utility information for a representative sample of apartments. The apartment sample shall consist of at least 10 percent of the apartments with no fewer than five apartments. Of the 10 percent sample, at least one of each apartment type (e.g. studio, 1 bedroom, large 1 bedroom) must be represented. Additionally, a list of all apartment numbers and their corresponding apartment type (e.g. studio, large 1 bedroom) must be provided.
- As an alternative to submitting the Tenant DRAFs (Attachment F) and associated list of apartments, the Applicant must complete and sign the utility's Letter of Authorization, complete the application tab of the utility's Aggregated Consumption Data Request form (if applicable), compile all documents listed in the appropriate table below, and submit in the portal to the NYSERDA Project Manager and Project Coordinator. All data is kept strictly confidential and only used to estimate the energy performance of the whole building, not of individual apartments. To be eligible to follow this approach, the project's electric and/or gas utility must provide aggregated data.

Documents Required for Milestone 3:		Document Obtained From:
<input type="checkbox"/>	As-Built Performance Path Calculator	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Testing & Verification Worksheets	EPA
<input type="checkbox"/>	Modeling files*	Primary Energy Consultant created documents

*For eQUEST models, please submit the .inp, .pd2, and .prd files

DRAF Documents:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)	NYSERDA's website
<input type="checkbox"/>	Tenant DRAFs (Attachment F) (executed)	NYSERDA's website
<input type="checkbox"/>	List of each apartment number and type (e.g., studio, 1 bedroom)	Applicant created document

Alternative utility account document submittal package requirements, if Tenant DRAF Documents and list of apartments are not submitted:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)	NYSERDA's website
<input type="checkbox"/>	Utility's Letter of Authorization*	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp
<input type="checkbox"/>	Utility's Aggregated Consumption Data Request	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp National Grid: http://www.nyc.gov/html/gbee/downloads/pdf/2017_national_grid_nyc_benchmarking_data_request_form.pdf
<input type="checkbox"/>	Copy of utility bill for project address and account numbers	Applicant/Developer
<input type="checkbox"/>	Lease-up date (date when the building will be occupied)	Applicant

* The signatory of this Authorization Form must be the utility account holder

4.2 Software Requirements

The modeling software used to determine the project's energy savings must satisfy the requirements detailed in ASHRAE 90.1-2010 Appendix G simulation and documentation requirements, as modified in the ENERGY STAR MFHR Simulation Guidelines. The Simulation Guidelines contains a list of examples of simulation programs that meet the requirements. The Simulation Guidelines can be obtained from the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

4.3 Associated Documents

4.3.1 Performance Path Calculator

The ENERGY STAR MFHR Performance Path Calculator is the comprehensive reporting tool populated and submitted by the Applicant and Primary Energy Consultant to NYSERDA. It documents general information about the project, details regarding the project's scope of work and achievement of the performance target. The Performance Path Calculator is a Microsoft Excel spreadsheet that assists the Primary Energy Consultant in analyzing model inputs and outputs. Instruction tabs within that document provide further information. For projects that are permitted under ECCC of NYS 2016, the Performance Path Calculator_AppG2016 version must be used and can be obtained from the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

4.3.2 Testing and Verification Protocols and Worksheets

Projects following the Performance Path are required to comply with the ENERGY STAR MFHR Testing & Verification Protocols. The ENERGY STAR MFHR Testing & Verification Protocols are mandatory requirements for the inspection, testing, and verification of components related to the project's energy performance. All inspections, diagnostic tests, and photo documentation described within the Protocols are required for each of the participating project's components and systems. Results of testing and verification must be documented in the ENERGY STAR MFHR Testing & Verification Worksheets and ENERGY STAR MFHR Photo Template. The ENERGY STAR MFHR Testing & Verification Protocols, Worksheets, and Photo Template can be obtained from the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

4.3.3 ENERGY STAR MFHR Performance Path Prerequisites

Projects following the Performance Path are required to comply with the ENERGY STAR MFHR Performance Path Prerequisites. Though the MF NCP Performance Path is performance-based and does allow trade-offs between various building components, the ENERGY STAR MFHR Performance Path Prerequisites provide a lower limit to the trade-offs for many building components. The ENERGY STAR MFHR Performance Path Prerequisites can be obtained from the following ENERGY STAR website: https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

Additionally, for projects following the Performance Path, residential or nonresidential floors above unconditioned spaces, including but not limited to parking garages, must comply with the Building Envelope Requirements in ASHRAE 90.1-2007 Tables 5.5-4 through 5.5-6, for the appropriate climate zone.

4.3.4 Simulation Guidelines

The ENERGY STAR MFHR Simulation Guidelines is a companion document to ASHRAE 90.1 Appendix G. It contains the methodology to assist Primary Energy Consultants in developing the Baseline Building Design, Proposed Building Design, and As-Built models for each project. The EPA currently has two versions of the Simulation Guidelines: one appropriate for projects permitted under ECCC of NYS 2014, which refers to ASHRAE 90.1-2010, and one appropriate for projects permitted under ECCC of NYS 2016, which refers to ASHRAE 90.1-2013 Excerpt. Both versions of the Simulation Guidelines are published by the EPA at their ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

4.3.4.1 Compliance with ENERGY STAR MFHR Program

All projects following the Performance Path shall demonstrate the EPA’s ENERGY STAR Multifamily High Rise (MFHR) program requirements have been met by following the EPA’s ENERGY STAR MFHR Simulation Guidelines.

4.3.4.2 Compliance with MF NCP Tier 2 and Tier 3 Performance Targets

To demonstrate compliance with the MF NCP performance targets for Tier 2 and 3 Performance Path projects, which are above and beyond the minimum ENERGY STAR requirements, the following guidance must be followed.

Calculating Performance Rating, based on Source Energy

The Proposed Building Performance and Baseline Building Performance must each be calculated as the sum of predicted **source energy use** by end use, not energy cost, as required to demonstrate compliance with the EPA’s program. The site energy consumption for each end use shall be taken from the report generated by the simulation program as described in Section G1.4 of Appendix G.

To determine the project’s performance rating, follow the steps in the EPA’s ENERGY STAR Simulation Guidelines Section 3.2, except in lieu of converting the site energy consumption to energy cost, convert the site energy consumption to source energy consumption, using the appropriate source-to-site energy conversions for each fuel type using the following source-to-site conversion factors shown below.

Energy Type	Source-to-Site Ratio
Electricity (grid purchase)	2.55
Natural gas	1.05
Fuel oil	1.01
Propane	1.01

Air sealing

Projects *may* pursue performance credit for air sealing. To receive this credit, the actual air leakage rate measured during the inspection phase of the project as part of the ENERGY STAR MFHR Testing and Verification Protocols conducted on the building, must be below 0.4 cfm/ft² at 75 Pa. To model the energy savings, the air leakage rate used to calculate the infiltration rates for the *Baseline Building Design* shall be 0.4 cfm/ft² at 75 Pa. In the Energy Modeling Submittal Package, the air leakage rate used to calculate the infiltration rates must be no less than 0.35 CFM/ft² at 75 Pa for the *Proposed Design*. In the As-Built model, the actual measured air leakage rate shall be used to calculate the infiltration rates for the *Proposed Design*. The air leakage rate of the building envelope shall be converted to appropriate units for the simulation program using one of the methods in ASHRAE 90.1-2013 Section G3.1.1.4.

Note: Currently, the ENERGY STAR MFHR Program does not allow this measure for projects following ASHRAE 90.1-2010. As such, projects following ASHRAE 90.1-2010 must be able to meet the MFHR performance rating target of 15% without this credit.

4.4 Quality Control (QC) Processes

NYSERDA and its designees may perform two different types of QC on each MF NCP project: technical reviews and site inspections. This section explains how these apply to projects following the Performance Path.

4.4.1 Technical Reviews

The technical review process occurs at the Energy Modeling and As-Built Milestones of each Performance Path project. The intent is to provide a thorough technical review of the submittal documents and verify that the project is meeting the performance target, in addition to meeting all requirements of the ENERGY STAR MFHR Performance Path Prerequisites. Failure to meet the performance target and all requirements of the ENERGY STAR MFHR Performance Path Prerequisites will result in termination of the project.

If the submittal package for any Milestone is not accepted, NYSERDA or NYSERDA's designated MF NCP Technical Reviewer may provide comments in a review document identifying the issues of each revision. The Primary Energy Consultant should review all comments, and find and correct the errors causing each identified issue or explain why an identified issue is justified. When all issues are resolved, the Primary Energy Consultant should respond to the Technical Reviewer's comments in the review document and include it in the next revision of the submittal package.

It is the Primary Energy Consultant's responsibility to identify any modeling issues causing the identified issues and to resolve them. MF NCP staff are available to provide any needed technical assistance if the Primary Energy Consultant is having difficulties. However, Primary Energy Consultants are encouraged to first use the following resources during their technical review process:

- *Primary Energy Consultant Guidance for Technical Review Process*: This document is available to all Primary Energy Consultants on NYSERDA's website to assist the Primary Energy Consultant throughout the entire technical review submittal process. It includes information about internal QC procedures, common modeling issues, strategies for resolving issues, and how to verify measure savings are reasonable.
- *End Use Comparison Tool*: This tool allows Primary Energy Consultants to compare the energy consumption of the project they are currently working on to the average energy consumption of past NYSERDA funded multifamily projects. The tool will flag any end use that falls outside of the typical range. It is updated regularly and emailed to Primary Energy Consultants.

All Primary Energy Consultants are expected to QC their work and to submit a high-quality model along with fully completed tools and documents. Primary Energy Consultant status may be affected if a good-faith effort is not made. If at any time during the technical review process, NYSERDA or its designee deems the submittal package as incomplete or missing information, the submittal package will be rejected and sent back to the Primary Energy Consultant to resubmit.

At the Energy Modeling Milestone, NYSERDA's designated MF NCP Technical Reviewer may review the energy model, Performance Path Calculator, and ENERGY STAR MFHR Testing & Verification Worksheets to verify that all requirements listed in the ENERGY STAR MFHR Performance Path Prerequisites have been met in addition to meeting the performance target. Additionally, the Technical Reviewer may verify that simulation outputs are reasonable, evaluate the general quality of the model, review submittal documents to ensure that ASHRAE 90.1 Appendix G and the ENERGY STAR MFHR

Simulation Guidelines were followed, and evaluate whether the projected savings are consistent with the features of the design.

At the As-Built Milestone, the Technical Reviewer may also review the model, Performance Path Calculator, and ENERGY STAR MFHR Testing & Verification Worksheets as during the Modeling Milestone. Additionally, the Technical Reviewer will review the ENERGY STAR MFHR Photo Template to ensure that all submittal documents reflect the installed conditions.

4.4.2 Site Inspections

Open Wall site inspections may be performed by a NYSERDA-designated MF NCP Site Inspector on all Performance Path projects.

Applicant and Primary Energy Consultant representatives are required to attend the site inspections. These representatives must have detailed knowledge of the project and must be prepared to answer any project-related questions that arise.

The Applicant must submit the Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks prior to the achievement of the Open Wall Milestone. The Applicant must remain in communication with the construction site superintendent or construction manager regarding the construction schedule and any anticipated deviations that may affect the inspection.

The timing of the Open Wall Milestone is based on the type of installed above-grade wall insulation:

- Exterior insulation: Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Insulated concrete form (ICF): Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Exterior Insulation and Finishing Systems (EIFS): Inspection should occur when 30% of the EIFS has been installed.
- Interior insulation only: Inspection should occur when 30% of insulation is installed and visible.
- Exterior insulation with interior insulation: Inspection should occur when 30% of interior insulation is installed and visible.
- Pre-fabricated exterior wall assemblies and modular construction: Inspection should occur when 30% of the pre-fabricated assemblies have been installed on-site. The Primary Energy Consultant may need to visit the pre-fabrication facility to complete required testing and verification. The Primary Energy Consultant must provide photo documentation of components that will not be visible during the Open Wall inspection.

The Applicant must contact the NYSERDA-designated liaison early in construction to determine the Open Wall Milestone for projects with above-grade wall insulation types or combinations not listed here.

If the Applicant fails to submit the Open Wall Submittal Package at least two weeks prior to the achievement of the Open Wall Milestone or the Primary Energy Consultant/Applicant is unresponsive to attempts to schedule the Open Wall inspection, the project will be required to expose sections of walls for inspection and all remaining incentive payments will be in jeopardy.

The Site Inspector may ask to see the construction drawings while on site to verify the planned installation of any components that the Site Inspector cannot inspect because either it has been covered or installation has not commenced.

For any completed component no longer visible during the inspection (below-grade exterior insulation, roof insulation, pre-fabricated assembly items, etc.), the Primary Energy Consultant must submit photographs using the ENERGY STAR MFHR Photo Template before the Site Inspection Report can be approved.

The Site Inspector may inspect all installed measures from the Detailed Measures tab of the Performance Path Calculator, as well as all installed ENERGY STAR MFHR Performance Path Prerequisites. The Site Inspector may develop a report detailing the Open Wall inspection findings, which the NYSERDA-designated liaison will submit in the portal. The report may contain Additional Requirements or Action Items for measures and prerequisites. Additional Requirements can be resolved at the As-Built submittal. Action Items must be resolved before the Open Wall Incentive can be paid. The report will provide an explanation of what is required to resolve Additional Requirements and Action Items.

If severe violations of the ENERGY STAR MFHR Performance Path Prerequisites are discovered during this inspection, NYSERDA and its Site Inspector reserve the right to request that the Applicant instruct the construction team to remove sections of sealed walls to fully inspect insulation and air sealing components. Additionally, NYSERDA and the Site Inspector reserve the right to require a second Open Wall inspection to take place once all the required corrections are complete.

Failure to meet the requirements of this Open Wall inspection may result in termination of the project.

4.5 Additional Requirements

4.5.1 ENERGY STAR Benchmarking

Building performance is as much a function of proper building management as the design and construction. Therefore, after earning the ENERGY STAR for the project, the developer or building owner must commit to benchmarking their building in Portfolio Manager for a period of two years to maintain their listing on the ENERGY STAR website.

Portfolio Manager is an online, interactive energy management tool that allows Applicants to measure and track their building's energy and water consumption, identify investment priorities, and verify improvements over time. Multifamily housing communities can use Portfolio Manager to track weather-normalized energy use intensity (EUI), energy costs, greenhouse gas emissions, and water consumption. For more information on how to use Portfolio Manager, see the Portfolio Manager Quick Start Guide document at the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_benchmarking.

To accomplish this goal, the developer, building owner, or an entity working on their behalf must have the capability to evaluate utility consumption of the residential-associated spaces independent of any commercial/retail space. These non-residential associated parts of the building shall be separately metered (or sub-metered) for electricity, gas, fuel oil, water, steam, and hot water for domestic and/or space heating purposes. The developer or building owner should also work with tenants to secure consumption information. If the building is direct-metered for utilities to the apartments, the building

owner must secure signed releases from individual apartment occupants to allow for benchmarking. In addition, the building owner must provide a signed release for the common area/whole-building utility meters. All data uploaded to Portfolio Manager is strictly confidential and only used to estimate the energy performance of the whole building, not of individual apartments.

NOTE: Receipt of NYSERDA incentives and the ENERGY STAR label will not be delayed due to this EPA requirement.

4.5.2 Gut Rehabilitation Projects

Gut rehabilitation projects following the Performance Path must meet the same requirements as newly constructed buildings. There are no allowances or exceptions for gut rehabilitation projects under the Performance Path.

For projects that are permitted under ECCC NYS 2014, the Performance Path relies on the modeling requirements of ASHRAE 90.1-2010 Appendix G, as supplemented by the ENERGY STAR MFHR Simulation Guidelines. ASHRAE 90.1-2010 Appendix G Table G3.1 does allow the following adjustment: for existing building envelopes, the baseline building design shall reflect existing conditions prior to any revisions that are part of the scope of work being evaluated. This is allowed for Tier 2 projects permitted under ECCC NYS 2014, but not allowed for any Tier 3 projects.

For projects that are permitted under ECCC NYS 2016, the Performance Path relies on the modeling requirements of ASHRAE 90.1-2013 Appendix, as defined by ECCC NYS 2016. ASHRAE 90.1-2013 Appendix G Table G3.1 does not include this allowance.

5 PASSIVE HOUSE INSTITUTE US (PHIUS)

The following section describes the requirements of the Passive House Institute US (PHIUS) path.

5.1 Submittal Package Requirements

For the Applicant to receive the NYSERDA incentives approved for their project, the Applicant must submit the required documentation as detailed in the Milestones below. These submittals may be reviewed by NYSERDA or its designee. The incentives will only be paid if these submittal packages are approved by NYSERDA. All documents listed in this section must be submitted in the portal to the NYSERDA Project Manager and Project Coordinator and approved by NYSERDA.

5.1.1 Milestone 1: Energy Modeling Submittal Package

The first NYSERDA incentive is available to the Applicant when the project has reached design completion and NYSERDA has approved the Energy Modeling Submittal Package. This submittal package must show that the project achieves the performance thresholds and meets the requirements of the PHIUS+ Multifamily Certification Standard. If the energy model does not project the required performance thresholds, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal. The Applicant must show that a Certified Passive House Consultant (CPHC) and a PHIUS+ Verifier have been hired to work on this project to be eligible for this incentive. Additionally, the project must be pre-certified by PHIUS prior to submittal to NYSERDA.

The Energy Modeling Submittal Package must be submitted no later than 30 days after the project has received PHIUS pre-certification. The proof of pre-certification shall be submitted to the project's NYSERDA-designated liaison upon receipt. The Buildings Department's approval shall also be submitted to the project's NYSERDA-designated liaison upon receipt, but must be received by the submission of the Open Wall Submittal Package.

Documents Required for Milestone 1:	Document Obtained From:
<input type="checkbox"/> Applicant-Primary Energy Consultant Contract (signed by both parties)	Primary Energy Consultant created document
<input type="checkbox"/> LMI Documentation (if not previously submitted)	See Table 2.1
<input type="checkbox"/> Proposed BPP	NYSERDA's website
<input type="checkbox"/> WUFI modeling files	PHIUS
<input type="checkbox"/> Proof of Pre-certification	PHIUS
<input type="checkbox"/> Complete Construction Documents (CDs)	Applicant/Developer/Design Team

5.1.2 Milestone 2: Open Wall Submittal Package

The second NYSERDA incentive is available to the Applicant when NYSERDA has approved the Open Wall Submittal Package and Site Inspection Report. The Primary Energy Consultant must submit a complete Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks before the project reaches the Open Wall Milestone. This gives NYSERDA's designated MF NCP Site Inspector time to properly schedule the Open Wall inspection. The purpose of this inspection is to verify that typical Open Wall components are installed in accordance with MF NCP requirements.

Documents Required for Milestone 2:		Document Obtained From:
<input type="checkbox"/>	Site Inspection Request Form (Attachment D)	NYSERDA's website
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	PHIUS+ Quality Control Workbook for Multifamily Projects	PHIUS

5.1.3 Milestone 3: As-Built Submittal Package

The third NYSERDA incentive is available to the Applicant when the project construction is complete and NYSERDA has approved the As-Built Submittal Package and Data Release Authorization Forms (DRAFs). This submittal package must show that the project meets or exceeds the performance thresholds specified in its approved performance tier and meets the requirements of the PHIUS+ Multifamily Certification Standard. The submitted WUFI model file must have been reviewed and approved by PHIUS prior to submittal to NYSERDA. If the project does not meet the performance thresholds, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal.

The Primary Energy Consultant must work with the Applicant to determine whether to submit Tenant DRAFs (Attachment F) or to follow the alternative process to allow the NYSERDA-designated liaison to access the utility consumption information directly.

- DRAFs: All projects are eligible to follow the DRAF process. The Applicant must submit the Owner DRAF (Attachment E), which must include utility information for all common areas of the building, and Tenant DRAFs (Attachment F), which must include utility information for a representative sample of apartments. The apartment sample shall consist of at least 10 percent of the apartments with no fewer than five apartments. Of the 10 percent sample, at least one of each apartment type (e.g., studio, 1 bedroom, large 1 bedroom) must be represented. Additionally, a list of all apartment numbers and their corresponding apartment type (e.g. studio, large 1 bedroom) must be provided.
- As an alternative to submitting the Tenant DRAFs (Attachment F) and associated list of apartments, the Applicant must complete and sign the utility's Letter of Authorization, complete the application tab of the utility's Aggregated Consumption Data Request form (if applicable), compile all documents listed in the appropriate table below, and submit in the portal to the NYSERDA Project Manager and Project Coordinator. To be eligible to follow this approach, the project's electric and/or gas utility must provide aggregated data. All data is kept confidential as per NYSERDA's guidelines and regulations, and only used to estimate the energy performance of the whole building, not of individual apartments.

Documents Required for Milestone 3:		Document Obtained From:
<input type="checkbox"/>	As-Built BPP	NYSERDA's website
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	PHIUS+ Quality Control Workbook for Multifamily Projects	PHIUS
<input type="checkbox"/>	WUFI modeling files	PHIUS
<input type="checkbox"/>	PHIUS+ Certificate	PHIUS

DRAF Documents:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)	NYSERDA's website
<input type="checkbox"/>	Tenant DRAFs (Attachment F) (executed)	NYSERDA's website
<input type="checkbox"/>	List of each apartment number and type (e.g., studio, 1 bedroom)	Applicant created document

Alternative utility account document submittal package requirements, if Tenant DRAF Documents and list of apartments are not submitted:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)	NYSERDA's website
<input type="checkbox"/>	Utility's Letter of Authorization*	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp
<input type="checkbox"/>	Utility's Aggregated Consumption Data Request	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp National Grid: http://www.nyc.gov/html/gbee/downloads/pdf/2017_national_grid_nyc_benchmarking_data_request_form.pdf
<input type="checkbox"/>	Copy of utility bill for project address and account numbers	Applicant/Developer
<input type="checkbox"/>	Lease-up date (date when the building will be occupied)	Applicant

* The signatory of this Authorization Form must be the utility account holder

5.2 Software Requirements

All MF NCP projects pursuing the PHIUS path must model the project using WUFI Version 3.0.3.0, 3.1.0, or 3.1.1 and following PHIUS+ Multifamily Certification Standard Book V1.01. The use of other versions of WUFI software or certification standard is subject to MF NCP review, must receive pre-approval by NYSERDA, and may result in a change to the performance threshold.

5.3 Associated Documents

5.3.1 Building Performance Plan

This calculator is used by the Primary Energy Consultant to capture details regarding the project's recommended scope of work and achievement of the required performance threshold(s) for projects following either Passive House compliance path. This document also collects project cost information

and verification that the Certified Passive House Consultant (CPHC) and a PHIUS+ Verifier have been hired by the Applicant.

5.3.2 Testing & Verification Documents

In addition to following all requirements of the PHIUS Passive House certification, projects following the PHIUS path are also required to document the results of testing and verification in the ENERGY STAR MFHR Photo Template. The Photo Template can be obtained from the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

5.4 Quality Control (QC) Processes

NYSERDA and its designees may perform two different types of QC on each MF NCP project: technical reviews and site inspections. This section explains how these apply to projects following the PHIUS path.

5.4.1 Technical Reviews

The technical review process occurs at the Energy Modeling and As-Built Milestones of each project pursuing PHIUS+ certification. The intent is to provide a thorough technical review of the submittal package and verify that the project is meeting all MF NCP requirements. Failure to meet the performance thresholds and all MF NCP requirements may result in termination of the project.

If the submittal package for any Milestone, is not accepted, NYSERDA or NYSERDA's designated MF NCP Technical Reviewer may provide comments in a review document identifying the issues of each revision. The Primary Energy Consultant should review all comments, and find and correct the errors causing each identified issue or explain why an identified issue is justified. When all issues are resolved, the Primary Energy Consultant should respond to the Technical Reviewer's comments in the review document and include it in the next revision of the submittal package.

All Primary Energy Consultants are expected to QC their work and to submit a high-quality model along with fully completed tools and documents. Primary Energy Consultant status may be affected if a good-faith effort is not made. If at any time during the technical review process NYSERDA or its designee deems the submittal package as incomplete or missing significant information, the submittal package will be rejected and sent back to the Primary Energy Consultant to resubmit.

At the Energy Modeling Milestone, NYSERDA-designated MF NCP Technical Reviewer may review the model, the Building Performance Plan, and PHIUS+ Quality Control Workbook for Multifamily Projects to verify that all MF NCP requirements have been met, in addition to meeting the performance thresholds. Additionally, the Technical Reviewer may verify that simulation outputs are reasonable, evaluate the general quality of the model, and evaluate whether the projected energy use is consistent with the features of the design.

At the As-Built Milestone, the Technical Reviewer may also review the model, the Building Performance Plan, and PHIUS+ Quality Control Workbook for Multifamily Projects as during the Modeling Milestone. Additionally, the Technical Reviewer may review the ENERGY STAR MFHR Photo Template to ensure that all submittal documents reflect the installed conditions.

5.4.2 Site Inspections

Open Wall inspections may be performed by a NYSERDA-designated MF NCP Site Inspector on all projects pursuing PHIUS+ certification.

Applicant and Primary Energy Consultant representatives are required to attend these site inspections. These representatives must have detailed knowledge of the project and must be prepared to answer any project-related questions that arise.

The Applicant must submit the Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks prior to the achievement of the Open Wall Milestone. The Applicant must remain in communication with the construction site superintendent or construction manager regarding the construction schedule and any anticipated deviations that may affect the inspection.

The timing of the Open Wall Milestone is based on the type of installed above-grade wall insulation:

- Exterior insulation: Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Insulated concrete form (ICF): Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Exterior Insulation and Finishing Systems (EIFS): Inspection should occur when 30% of the EIFS has been installed.
- Interior insulation only: Inspection should occur when 30% of insulation is installed and visible.
- Exterior insulation with interior insulation: Inspection should occur when 30% of interior insulation is installed and visible.
- Pre-fabricated exterior wall assemblies and modular construction: Inspection should occur when 30% of the pre-fabricated assemblies have been installed on-site. The Primary Energy Consultant may need to visit the pre-fabrication facility to complete required testing and verification. The Primary Energy Consultant must provide photo documentation of components that will not be visible during the Open Wall inspection.

The Applicant must contact the NYSERDA-designated liaison early in construction to determine the Open Wall Milestone for projects with above-grade wall insulation types or combinations not listed here.

If the Applicant fails to submit the Open Wall Submittal Package at least two weeks prior to the achievement of the Open Wall Milestone or the Primary Energy Consultant/Applicant is unresponsive to attempts to schedule the Open Wall inspection, the project will be required to expose sections of walls for inspection and all remaining incentive payments will be in jeopardy.

The Site Inspector may ask to see the construction drawings while on site to verify any component listed on the Open Wall Checklist that the Site Inspector cannot inspect because either it has been covered or installation has not commenced.

For any completed component no longer visible during the inspection (below-grade exterior insulation, roof insulation, pre-fabricated assembly items, etc.), the Primary Energy Consultant must submit photographs using the ENERGY STAR MFHR Photo Template before the Site Inspection Report can be approved.

The Site Inspector may inspect all installed measures from the BPP. The Site Inspector may develop a report detailing the Open Wall inspection findings, which the NYSERDA-designated liaison will submit in the portal. The report may contain Additional Requirements or Action Items for measures and

prerequisites or requirements. Additional Requirements can be resolved at the As-Built submittal. Action Items must be resolved before the Open Wall Incentive can be paid. The report will provide an explanation of what is required to resolve Additional Requirements and Action Items.

If severe violations of the BPP are discovered during this inspection, NYSERDA and the Site Inspector reserve the right to request that the Applicant instruct the construction team to remove sections of sealed walls to fully inspect insulation and air sealing components. Additionally, NYSERDA and its representatives reserve the right to require a second Open Wall inspection to take place once all the required corrections are complete.

Failure to meet the requirements of this Open Wall inspection may result in termination of the project

5.5 Additional Requirements

5.5.1 Modeling Guidelines

All MF NCP projects following the PHIUS path shall follow the PHIUS+ Multifamily Certification Standard Book V1.01, with the following additional requirements:

- Any deviations from program defaults for operating assumptions, such as source-to-site conversion, plug loads and hours of operation, are subject to review and must be specifically noted in the BPP.
- If a project includes an HVAC configuration or system type that cannot be explicitly modeled in the WUFI software, the Primary Energy Consultant or CPHC must work directly with PHIUS staff to ensure that the energy use of that system is accurately captured in the model.
- Any calculations performed outside of the approved version of WUFI, including but not limited to HVAC systems that are not directly supported, capturing power of continuously running fans integral to heating/cooling units, methodology for aggregating heating systems of different types or efficiency for input into WUFI, etc. must be included in the NYSERDA submittal and are subject to NYSERDA approval.

At the Applicant's and Primary Energy Consultant's option, the model used to show compliance with the MF NCP Tier 3 performance thresholds, which are above and beyond minimum PHIUS certification requirements, may choose to alter their model as follows. Note the project is still required to meet all PHIUS certification requirements without this allowance.

- When calculating the Primary Energy Demand metric to determine a project's compliance with the performance thresholds specified in its approved performance tier, the project may choose to exclude the energy use associated with optional amenities, including dishwashers, laundry facilities, and exterior lighting. If excluded, however, that component must, at minimum, meet the modified prescriptive path requirement for that component as defined in the Modified Prescriptive Path Requirements (Attachment C) (e.g., dishwashers and clothes washers must be ENERGY STAR® certified). Additional optional amenities, such as vending machines, on-site gym equipment, etc. may be excluded with prior NYSERDA approval.

5.5.2 ENERGY STAR Benchmarking

NYSERDA requires benchmarking for all PHIUS path projects. Building performance is as much a function of proper building management as the energy conservation measures incorporated into the

structure. Therefore, after completing the MF NCP project, the developer or building owner must commit to benchmarking their building in Portfolio Manager.

Portfolio Manager is an online, interactive energy management tool that allows Applicants to measure and track their building's energy and water consumption, identify investment priorities, and verify improvements over time. Multifamily housing communities can use Portfolio Manager to track weather-normalized energy use intensity (EUI), energy costs, greenhouse gas emissions, and water consumption. For more information on how to use Portfolio Manager, see the Portfolio Manager Quick Start Guide document at the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_benchmarking.

To accomplish this goal, the developer, building owner, or an entity working on their behalf must have the capability to evaluate the utility consumption of the residential-associated spaces independent of any commercial/retail space. These non-residential associated parts of the building shall be separately metered (or sub-metered) for electricity, gas, fuel oil, water, steam, and hot water for domestic and/or space heating purposes. The developer or building owner should also work with tenants to secure consumption information. If the building is direct-metered for utilities to the apartments, the building owner must secure signed releases from individual apartment occupants to allow for benchmarking. In addition, the building owner must provide a signed release for the common area/whole-building utility meters. All data uploaded to Portfolio Manager is strictly confidential and only used to estimate the energy performance of the whole building, not of individual apartments.

6 PASSIVE HOUSE INSTITUTE (PHI)

The following section describes the requirements of the Passive House Institute (PHI) path.

6.1 Submittal Package Requirements

For the Applicant to receive the NYSERDA incentives approved for their project, the Applicant must submit the required documentation as detailed in the Milestones below. These submittals may be reviewed by NYSERDA or its designee. The incentives will only be paid if these submittal packages are approved by NYSERDA. All documents listed in this section must be submitted in the portal to the NYSERDA Project Manager and Project Coordinator and approved by NYSERDA.

6.1.1 Milestone 1: Energy Modeling Submittal Package

The first NYSERDA incentive is available to the Applicant when the project has reached design completion and NYSERDA has approved the Energy Modeling Submittal Package. This submittal package must show that the project achieves the primary energy demand thresholds and meets the requirements of PHI Passive House standard. If the energy model does not project the performance threshold, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal. The Applicant must show that a PHI Consultant or Designer and PHI Certifier have been hired to work on this project to be eligible for this incentive. Additionally, the submitted PHPP modeling file must have been reviewed and found to be compliant with the PHI standard by both the PHI Consultant or Designer and Certifier prior to submittal to NYSERDA.

The Energy Modeling Submittal Package must be submitted no later than 30 days after the project has received PHI pre-certification. The proof of pre-certification shall be submitted to the project's NYSERDA-designated liaison upon receipt. The Buildings Department's approval shall also be submitted to the project's NYSERDA-designated liaison upon receipt, but must be received by the submission of the Open Wall Submittal Package.

Documents Required for Milestone 1:		Document Obtained From:
<input type="checkbox"/>	Applicant-Primary Energy Consultant Contract (signed by both parties)	Primary Energy Consultant created document
<input type="checkbox"/>	LMI Documentation (if not previously submitted)	See Table 2.1
<input type="checkbox"/>	Proof of Pre-certification	PHI
<input type="checkbox"/>	Proposed BPP	NYSERDA's website
<input type="checkbox"/>	PHPP v9.5 modeling files	PHI
<input type="checkbox"/>	Complete Construction Documents (CDs)	Applicant/Developer/Design Team

6.1.2 Milestone 2: Open Wall Submittal Package

The second NYSERDA incentive is available to the Applicant when NYSERDA has approved the Open Wall Submittal Package and Site Inspection Report. The Primary Energy Consultant must submit a complete Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks before the project reaches the Open Wall Milestone. This gives the NYSERDA-designated MF NCP Site Inspector time to properly schedule the Open Wall inspection. The purpose of this inspection is to verify that typical Open Wall components are installed in accordance with MF NCP requirements.

Documents Required for Milestone 2:		Document Obtained From:
<input type="checkbox"/>	Site Inspection Request Form (Attachment D)	NYSERDA's website
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Testing & Verification Worksheets	EPA

6.1.3 Milestone 3: As-Built Submittal Package

The third NYSERDA incentive is available to the Applicant when the project construction is complete and NYSERDA has approved the As-Built Submittal Package, and Data Release Authorization Forms (DRAFs). This submittal package must show that the project meets or exceeds the performance thresholds specified in its approved performance tier and meets the requirements of the PHI Passive House standard. The submitted PHPP model file must have been reviewed and approved by both the PHI Consultant/Designer and Certifier prior to submittal to NYSERDA. If the project does not meet the performance thresholds, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal.

The Primary Energy Consultant must work with the Applicant to determine whether to submit Tenant DRAFs (Attachment F) or to follow the alternative process to allow the NYSERDA-designated liaison to access the utility consumption information directly.

- DRAFs: All projects are eligible to follow the DRAF process. The Applicant must submit the Owner DRAF (Attachment E), which must include utility information for all common areas of the building, and Tenant DRAFs (Attachment F), which must include utility information for a representative sample of apartments. The apartment sample shall consist of at least 10 percent of the apartments with no fewer than five apartments. Of the 10 percent sample, at least one of each apartment type (e.g., studio, 1 bedroom, large 1 bedroom) must be represented. Additionally, a list of all apartment numbers and their corresponding apartment type (e.g. studio, large 1 bedroom) must be provided.
- As an alternative to submitting the Tenant DRAFs (Attachment F) and associated list of apartments, the Applicant must complete and sign the utility’s Letter of Authorization, complete the application tab of the utility’s Aggregated Consumption Data Request form (if applicable), compile all documents listed in the appropriate table below, and submit in the portal to the NYSERDA Project Manager and Project Coordinator. All data is kept confidential as per NYSERDA’s guidelines and regulations, and only used to estimate the energy performance of the whole building, not of individual apartments. To be eligible to follow this approach, the project’s electric and/or gas utility must provide aggregated data.

Document Required for Milestone 3:		Document Obtained From:
<input type="checkbox"/>	As-Built BPP	NYSERDA's website
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Testing & Verification Worksheets	EPA
<input type="checkbox"/>	PHPP v9.5 modeling files	PHI
<input type="checkbox"/>	PHI Certificate	PHI

DRAF Documents:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)	NYSERDA's website
<input type="checkbox"/>	Tenant DRAFs (Attachment F) (executed)	NYSERDA's website
<input type="checkbox"/>	List of each apartment number and type (e.g., studio, 1 bedroom)	Applicant created document

Alternative utility account document submittal package requirements, if Tenant DRAF Documents and list of apartments are not submitted:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)	NYSERDA's website
<input type="checkbox"/>	Utility's Letter of Authorization*	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp
<input type="checkbox"/>	Utility's Aggregated Consumption Data Request	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp National Grid: http://www.nyc.gov/html/gbee/downloads/pdf/2017_national_grid_nyc_benchmarking_data_request_form.pdf
<input type="checkbox"/>	Copy of utility bill for project address and account numbers	Applicant/Developer
<input type="checkbox"/>	Lease-up date (the date when the building will be occupied)	Applicant

* The signatory of this Authorization Form must be the utility account holder

6.2 Software Requirements

All MF NCP projects pursuing the PHI path must model the project using PHPP Version 9.5 and following PHI Passive House Standard v9.5 – PH Classic. The use of other versions of PHPP software or certification standard is subject to MF NCP review, must receive pre-approval by NYSERDA, and may result in a change to the performance thresholds.

6.3 Associated Documents

6.3.1 Building Performance Plan

This calculator is used by the Primary Energy Consultant to capture details regarding the project's recommended scope of work and achievement of the required performance threshold(s) for projects

following either Passive House compliance path. This document also collects project cost information and verification that the PHI Consultant or Designer and PHI Certifier has been hired by the Applicant.

6.3.2 Testing and Verification Worksheets

MF NCP projects following the PHI compliance path are required to report all performance testing results in the ENERGY STAR MFHR Testing & Verification Worksheets and ENERGY STAR MFHR Photo Template. Note that where the requirements stated in the Testing & Verification Worksheets conflict with PHI requirements, the PHI requirement stands.

The ENERGY STAR MFHR Testing & Verification Worksheets and Photo Template can be obtained from the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

6.4 Quality Control (QC) Processes

NYSERDA and its designees may perform two different types of QC on each MF NCP project: technical reviews and site inspections. This section explains how these apply to projects following the PHI path.

6.4.1 Technical Reviews

The technical review process occurs at the Energy Modeling and As-Built Milestones of each PHI path project. The intent is to provide a thorough technical review of the submittal documents and verify that the project is meeting all MF NCP requirements. Failure to meet the performance thresholds and all MF NCP requirements will result in termination of the project.

If the submittal package for any Milestone is not accepted, NYSERDA or NYSERDA's designated MF NCP Technical Reviewer may provide comments in a review document identifying the issues of each revision. The Primary Energy Consultant should review all comments, and find and correct the errors causing each identified issue or explain why an identified issue is justified. When all issues are resolved, the Primary Energy Consultant should respond to the Technical Reviewer's comments in the review document and include it in the next revision of the submittal package.

All Primary Energy Consultants are expected to QC their work and to submit a high-quality model along with fully completed tools and documents. Primary Energy Consultant status may be affected if a good-faith effort is not made. If at any time during the technical review process NYSERDA or its designee deems the submittal package as incomplete or missing information, the submittal package will be rejected and sent back to the Primary Energy Consultant to resubmit.

At the Energy Modeling Milestone, the NYSERDA-designated MF NCP Technical Reviewer may review the model, the Building Performance Plan, and ENERGY STAR MFHR Testing & Verification Worksheets to verify that all MF NCP requirements have been met, in addition to meeting the performance thresholds. Additionally, the Technical Reviewer may verify that simulation outputs are reasonable, evaluate the general quality of the model, and evaluate whether or not the projected energy use is consistent with the features of the design.

At the As-Built Milestone, the Technical Reviewer may also review the model, the Building Performance Plan, and ENERGY STAR MFHR Testing & Verification Worksheets as during the Modeling Milestone. Additionally, the Technical Reviewer may review the ENERGY STAR MFHR Photo Template to ensure that all submittal documents reflect the installed conditions.

6.4.2 Site Inspections

Open Wall inspections may be performed by the NYSERDA-designated MF NCP Site Inspector on all projects pursuing PHI certification.

Applicant and Primary Energy Consultant representatives are required to attend these site inspections. These representatives must have detailed knowledge of the project and must also be prepared to answer any project-related questions that arise.

The Applicant must submit the Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks prior to the achievement of the Open Wall Milestone. The Applicant must remain in communication with the construction site superintendent or construction manager regarding the construction schedule and any anticipated deviations that may affect the inspection.

The timing of the Open Wall Milestone is based on the type of installed above-grade wall insulation:

- Exterior insulation: Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Insulated concrete form (ICF): Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Exterior Insulation and Finishing Systems (EIFS): Inspection should occur when 30% of the EIFS has been installed.
- Interior insulation only: Inspection should occur when 30% of insulation is installed and visible.
- Exterior insulation with interior insulation: Inspection should occur when 30% of interior insulation is installed and visible.
- Pre-fabricated exterior wall assemblies and modular construction: Inspection should occur when 30% of the pre-fabricated assemblies have been installed on-site. The Primary Energy Consultant may need to visit the pre-fabrication facility to complete required testing and verification. The Primary Energy Consultant must provide photo documentation of components that will not be visible during the Open Wall inspection.

The Applicant must contact the NYSERDA-designated liaison early in construction to determine the Open Wall Milestone for projects with above-grade wall insulation types or combinations not listed here.

If the Applicant fails to submit the Open Wall Submittal Package at least two weeks prior to the achievement of the Open Wall Milestone or the Primary Energy Consultant/Applicant is unresponsive to attempts to schedule the Open Wall inspection, the project will be required to expose sections of walls for inspection and all remaining incentive payments will be in jeopardy.

The Site Inspector may ask to see the construction drawings while on site to verify any component listed on the Open Wall Checklist that the Site Inspector cannot inspect because either it has been covered or installation has not commenced.

For any completed component no longer visible during the inspection (below-grade exterior insulation, roof insulation, pre-fabricated assembly items, etc.), the Primary Energy Consultant must submit photographs using the ENERGY STAR MFHR Photo Template before the Site Inspection Report can be approved.

The Site Inspector may inspect all installed measures from the BPP. The Site Inspector may develop a report detailing the Open Wall inspection findings, which the NYSERDA-designated liaison will submit in the portal. The report may contain Additional Requirements or Action Items for measures and prerequisites or requirements. Additional Requirements can be resolved at the As-Built submittal. Action Items must be resolved before the Open Wall Incentive can be paid. The report will provide an explanation of what is required to resolve Additional Requirements and Action Items.

If severe violations of the BPP are discovered during this inspection, NYSERDA and the Site Inspector reserve the right to request that the Applicant instruct the construction team to remove sections of sealed walls to fully inspect insulation and air sealing components. Additionally, NYSERDA and its representatives reserve the right to require a second Open Wall inspection to take place once all the required corrections are complete.

Failure to meet the requirements of this Open Wall inspection may result in termination of the project.

6.5 Additional Requirements

6.5.1 Modeling Guidelines

All MF NCP projects following the PHI path shall follow the PHI Passive House Standard v9.5 – PH Classic, with the additional requirements:

- Any deviations from program defaults for operating assumptions, such as source-to-site conversion, plug loads and hours of operation, are subject to review and must be specifically noted in the BPP.
- If a project includes an HVAC configuration or system type that cannot be explicitly modeled in the PHPP software, the project team must work directly with PHI staff to ensure that the energy use of that system is accurately captured in the model.
- Any calculations performed outside of the approved version of PHPP, including but not limited to HVAC systems that are not directly supported, capturing power of continuously running fans integral to heating/cooling units, methodology for aggregating heating systems of different type /efficiency for input into PHPP, etc. must be included in the NYSERDA submittal and are subject to NYSERDA approval.

At the Applicants and Primary Energy Consultants option, the model used to show compliance with the MF NCP Tier 3 performance thresholds, which are above and beyond PHI minimum certification requirements, may choose to alter their model as follows. Note the project is still required to meet all PHI certification requirements without this allowance.

- When calculating the Primary Energy Demand metric to determine a project's compliance with the performance thresholds specified in its approved performance tier, the project may choose to exclude the energy use associated with optional amenities, including dishwashers, laundry facilities, and exterior lighting. If excluded, however, that component must, at minimum, meet the modified prescriptive path requirement for that component as defined in the Modified Prescriptive Path Requirements (Attachment C) (e.g., dishwashers and clothes washers must be ENERGY STAR® certified). Additional optional amenities, such as vending machines, on-site gym equipment, etc., may be excluded with prior NYSERDA approval.

6.5.2 ENERGY STAR Benchmarking

NYSERDA requires benchmarking for all PHI path projects. Building performance is as much a function of proper building management as the energy conservation measures incorporated into the structure. Therefore, after completing MF NCP, the developer or building owner must commit to benchmarking their building in Portfolio Manager.

Portfolio Manager is an online, interactive energy management tool that allows Applicants to measure and track their building's energy and water consumption, identify investment priorities, and verify improvements over time. Multifamily housing communities can use Portfolio Manager to track weather-normalized energy use intensity (EUI), energy costs, greenhouse gas emissions, and water consumption. For more information on how to use Portfolio Manager, see the Portfolio Manager Quick Start Guide document at the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_benchmarking.

To accomplish this goal, the developer, building owner, or an entity working on their behalf must have the capability to evaluate the utility consumption of the residential-associated spaces independent of any commercial/retail space. These non-residential associated parts of the building shall be separately metered (or sub-metered) for electricity, gas, fuel oil, water, steam, and hot water for domestic and/or space heating purposes. The developer or building owner should also work with tenants to secure consumption information. If the building is direct-metered for utilities to the apartments, the building owner must secure signed releases from individual apartment occupants to allow for benchmarking. In addition, the building owner must provide a signed release for the common area/whole-building utility meters. All data uploaded to Portfolio Manager is strictly confidential and only used to estimate the energy performance of the whole building, not of individual apartments.

7 MODIFIED PRESCRIPTIVE PATH (MOPP)

The following section describes the requirements for the MoPP. This compliance path does not result in an ENERGY STAR label for the final project’s units, but may result in the New York Energy Smart designation from NYSERDA.

Projects following this path must comply with the Modified Prescriptive Path Requirements (Attachment C) and the ENERGY STAR MFHR Testing & Verification Protocols.

New Construction projects following the MoPP will be eligible for Tier 1 only. Gut rehabilitation projects following the MoPP may be eligible for Tier 2.

7.1 Submittal Package Requirements

For the Applicant to receive the NYSERDA incentives approved for their project, the Applicant must submit the required documentation as detailed in the Milestones below. These submittals may be reviewed by NYSERDA or its designee. The incentives will only be paid if these submittal packages are approved by NYSERDA. All documents listed in this section must be submitted in the portal to the NYSERDA Project Manager and Project Coordinator and approved by NYSERDA.

7.1.1 Milestone 1: Modified Prescriptive Path Calculator Submittal Package

The submittal must show that the project achieves the performance target and meets the requirements detailed in the Modified Prescriptive Path Requirements (Attachment C) and the ENERGY STAR MFHR Testing & Verification Protocols. Note there are no incentives associated with this Milestone.

These submittal documents must be submitted prior to, or with, the Open Wall Submittal.

	Documents Required for Milestone 1:	Document Obtained From:
<input type="checkbox"/>	Applicant-Primary Energy Consultant Contract (signed by both parties)	Primary Energy Consultant created document
<input type="checkbox"/>	LMI Documentation (if not previously submitted)	See Table 2.1
<input type="checkbox"/>	Proposed Modified Prescriptive Path Calculator	NYSERDA’s website
<input type="checkbox"/>	Complete Construction Documents (CDs)	Applicant/Developer/Design Team

7.1.2 Milestone 2: Open Wall Submittal Package

For the MoPP, the first NYSERDA incentive is available to the Applicant when NYSERDA has approved the Open Wall Submittal Package and Site Inspection report. The Primary Energy Consultant must submit a complete Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks before the project achieves the Open Wall Milestone. This gives the NYSERDA-designated MF NCP Site Inspector time to properly schedule the Open Wall inspection. The purpose of the inspection is to verify that typical Open Wall components are installed in accordance with MF NCP requirements. This includes measures from the Modified Prescriptive Path Requirements (Attachment C) and the ENERGY STAR MFHR Testing & Verification Protocols.

Documents Required for Milestone 2:		Document Obtained From:
<input type="checkbox"/>	Site Inspection Request Form (Attachment D)	NYSERDA's website
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Testing & Verification Worksheets	EPA

7.1.3 Milestone 3: As-Built Submittal Package

The second incentive is available to the Applicant when the project construction is complete, and NYSERDA has approved the As-Built Submittal Package and Data Release Authorization Forms (DRAFTs). This submittal package must show that the project has complied with all Modified Prescriptive Path Requirements (Attachment C) and the ENERGY STAR MFHR Testing & Verification Protocols. If the project does not comply, the Primary Energy Consultant must contact the NYSERDA-designated liaison prior to submittal.

The Primary Energy Consultant must work with the Applicant to determine whether to submit Tenant DRAFTs (Attachment F) or to follow the alternative process to allow the NYSERDA-designated liaison to access the utility consumption information directly.

- DRAFTs: All projects are eligible to follow the DRAFT process. The Applicant must submit the Owner DRAFT (Attachment E), which must include utility information for all common areas of the building, and Tenant DRAFTs (Attachment F), which must include utility information for a representative sample of apartments. The apartment sample shall consist of at least 10 percent of the apartments with no fewer than five apartments. Of the 10 percent sample, at least one of each apartment type (e.g., studio, 1 bedroom, large 1 bedroom) must be represented. Additionally, a list of all apartment numbers and their corresponding apartment type (e.g. studio, large 1 bedroom) must be provided.
- As an alternative to submitting the Tenant DRAFTs (Attachment F) and associated list of apartments, the Applicant must complete and sign the utility's Letter of Authorization, complete the application tab of the utility's Aggregated Consumption Data Request form (if applicable), compile all documents listed in the appropriate table below, and submit in the portal to the NYSERDA Project Manager and Project Coordinator. All data is kept strictly confidential and only used to estimate the energy performance of the whole building, not of individual apartments. To be eligible to follow this approach, the project's electric and/or gas utility must provide aggregated data.

Documents Required for Milestone 3:		Document Obtained From:
<input type="checkbox"/>	As-Built Modified Prescriptive Path Calculator	NYSERDA's website
<input type="checkbox"/>	ENERGY STAR MFHR Photo Template	EPA
<input type="checkbox"/>	ENERGY STAR MFHR Testing & Verification Worksheets	EPA

DRAF Documents:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)*	NYSERDA's website
<input type="checkbox"/>	Tenant DRAFs (Attachment F) (executed)	NYSERDA's website
<input type="checkbox"/>	List of each apartment number and type (e.g., studio, 1 bedroom)	Applicant created document

Alternative utility account document submittal package requirements, if Tenant DRAF Documents and list of apartments are not submitted:

<input type="checkbox"/>	Owner DRAF (Attachment E) (for all common area utility accounts) (executed)	NYSERDA's website
<input type="checkbox"/>	Utility's Letter of Authorization*	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp
<input type="checkbox"/>	Utility's Aggregated Consumption Data Request	Con Edison: http://www.coned.com/energyefficiency/city_benchmarking.asp National Grid: http://www.nyc.gov/html/gbee/downloads/pdf/2017_national_grid_nyc_benchmarking_data_request_form.pdf
<input type="checkbox"/>	Copy of utility bill for project address and account numbers	Applicant/Developer
<input type="checkbox"/>	Lease-up date (date when the building will be occupied)	Applicant

* The signatory of this Authorization Form must be the utility account holder

7.2 Associated Documents

7.2.1 Modified Prescriptive Path Calculator

In lieu of submitting the Building Performance Plan, MoPP projects must submit the Modified Prescriptive Path Calculator. This calculator includes a checklist where the Primary Energy Consultant and Applicant confirm that all Modified Prescriptive Path Requirements (Attachment C) and ENERGY STAR MFHR Testing & Verification Protocols are met. It also calculates estimated savings based on project-specific data for NYSERDA reporting purposes. It incorporates the ENERGY STAR MFHR Testing & Verification Worksheets, as well as tabs that report information to NYSERDA. There is extensive linking between the tabs in this document to reduce the amount of data entry required of the Primary Energy Consultant.

The cells and tabs are color-coded to guide the Primary Energy Consultant in properly filling in the calculator. All cells that require the Primary Energy Consultant to input information are blue.

- *Modified Prescriptive Path Checklist*: This tab outlines the Modified Prescriptive Path Requirements (Attachment C) in checklist form. In addition to checking each box to indicate that the requirement has been met, certain components require basic information be entered. These cells are colored blue.
- *Savings*: This tab calculates the savings of each measure and the entire project, based on MF NCP-wide assumptions. No information should be changed in this sheet; it is for NYSERDA informational purposes only.
- *Testing & Verification Worksheets (Remainder of the tabs)*: After the final plan review confirms all recommendations have been integrated into the construction documents, the ENERGY STAR MFHR T&V Worksheets are intended to be printed and brought to the field. They list the measures and building components to be inspected, mandatory requirements to be confirmed, and any additional relevant information identified during the plan review. Once completed, they are used to document that each Modified Prescriptive Path requirement and each measure included in the As-Built Building meets all requirements and follows ENERGY STAR MFHR T&V Protocols.

7.2.2 Testing and Verification Protocols and Worksheets

Projects following the Modified Prescriptive Path (See Attachment C) are required to comply with the ENERGY STAR MFHR Testing & Verification Protocols. The ENERGY STAR MFHR Testing & Verification Protocols are mandatory requirements for the inspection, testing, and verification of components related to the project's energy performance. All inspections, diagnostic tests, and photo documentation described within the Protocols are required for each of the participating project's components and systems. Results of testing and verification must be documented in the ENERGY STAR MFHR Testing & Verification Worksheets (included in the Modified Prescriptive Path Calculator) and ENERGY STAR MFHR Photo Template. The Testing & Verification Protocols and Photo Template can be obtained from the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_guidance.

7.3 Quality Control Processes

NYSERDA and its designees may perform two different types of quality control on each MF NCP project: technical reviews and site inspections. This section explains how these apply to projects following the Modified Prescriptive Path.

7.3.1 Technical Reviews

The technical review process occurs at the Modified Prescriptive Path Calculator and As-Built Milestones of each Modified Prescriptive Path project. The intent is to provide a thorough technical review of the submittal package and to verify compliance with the Modified Prescriptive Path Requirements (Attachment C). The NYSERDA-designated MFNCP Technical Reviewer will focus on identifying errors within the Modified Prescriptive Path Calculator. Failure to meet the Modified Prescriptive Path Requirements may result in termination of the project.

At the Modified Prescriptive Path Calculator Milestone, the Technical Reviewer may review all inputs made in the Modified Prescriptive Path Calculator to determine that they are complete and reasonable.

Additionally, the Technical Reviewer may verify that all requirements listed in the Modified Prescriptive Path Requirements have been met.

At the As-Built Milestone, the Technical Reviewer may also review the Modified Prescriptive Path Calculator in comparison to the ENERGY STAR MFHR Photo Template to ensure that all submittal documents reflect the actual and installed conditions.

If the submittal package for any Milestone is not accepted, NYSERDA or NYSERDA's designated MF NCP Technical Reviewer may provide comments in a review document identifying the issues of each revision. The Primary Energy Consultant should review all comments, and find and correct the errors causing each identified issue or explain why an identified issue is justified. When all issues are resolved, the Primary Energy Consultant should respond to the Technical Reviewer's comments in the review document and include it in the next revision of the submittal package.

All Primary Energy Consultants are expected to QC their work and submit high-quality and fully completed tools and documents. Primary Energy Consultant status may be affected if a good-faith effort is not made. If at any time during the technical review process the NYSERDA or its designee deems the submittal package as incomplete or missing information, the submittal package will be rejected and sent back to the Primary Energy Consultant to resubmit.

7.3.2 Site Inspections

Open Wall inspections may be performed by a NYSERDA-designated MF NCP Site Inspector on all Modified Prescriptive Path projects.

Applicant and Primary Energy Consultant representatives are required to attend these site inspections. These representatives must have detailed knowledge of the project and must also be prepared to answer any project-related questions that arise.

The Applicant must submit the Open Wall Submittal Package in the portal to the NYSERDA Project Manager and Project Coordinator at least two weeks prior to the achievement of the Open Wall Milestone. The Applicant must remain in communication with the construction site superintendent or construction manager regarding the construction schedule and any anticipated deviations that may affect the inspection.

The timing of the Open Wall Milestone is based on the type of installed above-grade wall insulation:

- Exterior insulation: Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Insulated concrete form (ICF): Inspection should occur when approximately 30% of windows have been installed. This allows the Site Inspector to view cross sections of the above-grade wall assemblies at window rough openings, as well as air-sealing details at installed windows.
- Exterior Insulation and Finishing Systems (EIFS): Inspection should occur when 30% of the EIFS has been installed.
- Interior insulation only: Inspection should occur when 30% of insulation is installed and visible.
- Exterior insulation with interior insulation: Inspection should occur when 30% of interior insulation is installed and visible.

- Pre-fabricated exterior wall assemblies and modular construction: Inspection should occur when 30% of the pre-fabricated assemblies have been installed on-site. The Primary Energy Consultant may need to visit the pre-fabrication facility to complete required testing and verification. The Primary Energy Consultant must provide photo documentation of components that will not be visible during the Open Wall inspection.

The Applicant must contact the NYSERDA-designated liaison early in construction to determine the Open Wall Milestone for projects with above-grade wall insulation types or combinations not listed here.

If the Applicant fails to submit the Open Wall Submittal Package at least two weeks prior to the achievement of the Open Wall Milestone or the Primary Energy Consultant/Applicant is unresponsive to attempts to schedule the Open Wall inspection, the project will be required to expose sections of walls for inspection and all remaining incentive payments will be in jeopardy.

The Site Inspector may ask to see the construction drawings while on site to verify any component listed on the Open Wall Checklist that the Site Inspector cannot inspect because either it has been covered or installation has not commenced.

For any completed component no longer visible during the inspection (below-grade exterior insulation, roof insulation, pre-fabricated assembly items, etc.), the Primary Energy Consultant must submit photographs using the ENERGY STAR MFHR Photo Template before the Site Inspection Report can be approved.

The Site Inspector may inspect all installed measures from the Modified Prescriptive Path Calculator, as well as all installed Modified Prescriptive Path Requirements (Attachment C). The Site Inspector may develop a report detailing the Open Wall inspection findings, which the NYSERDA-designated liaison will submit in the portal. The report may contain Additional Requirements or Action Items for measures and prerequisites or requirements. Additional Requirements can be resolved at the As-Built submittal. Action Items must be resolved before the Open Wall Incentive can be paid. The report will provide an explanation of what is required to resolve Additional Requirements and Action Items.

If severe violations of the Modified Prescriptive Path Requirements are discovered during this inspection, NYSERDA and the Site Inspector reserve the right to request that the Applicant instruct the construction team to remove sections of sealed walls to fully inspect insulation and air sealing components. Additionally, NYSERDA and its representatives reserve the right to require a second Open Wall inspection to take place once all the required corrections are complete.

Failure to meet the requirements of this Open Wall inspection will result in termination of the project.

7.4 Additional Requirement

7.4.1 ENERGY STAR Benchmarking

NYSERDA requires benchmarking for all MoPP projects. Building performance is as much a function of proper building management as the energy conservation measures incorporated into the structure. Therefore, after completing MF NCP, the developer or building owner must commit to benchmarking their building in Portfolio Manager.

Portfolio Manager is an online, interactive energy management tool that allows Applicants to measure and track their building's energy and water consumption, identify investment priorities, and verify

improvements over time. Multifamily housing communities can use Portfolio Manager to track weather-normalized energy use intensity (EUI), energy costs, greenhouse gas emissions, and water consumption. For more information on how to use Portfolio Manager, see the Portfolio Manager Quick Start Guide document at the following ENERGY STAR website:

https://www.energystar.gov/index.cfm?c=bldrs_lenders_raters.nh_mfhr_benchmarking.

To accomplish this goal, the developer, building owner, or an entity working on their behalf must have the capability to evaluate the utility consumption of the residential-associated spaces independent of any commercial/retail space. These non-residential associated parts of the building shall be separately metered (or sub-metered) for electricity, gas, fuel oil, water, steam, and hot water for domestic and/or space heating purposes. The developer or building owner should also work with tenants to secure consumption information. If the building is direct-metered for utilities to the apartments, the building owner must secure signed releases from individual apartment occupants to allow for benchmarking. In addition, the building owner must provide a signed release for the common area/whole-building utility meters. All data uploaded to Portfolio Manager is strictly confidential and only used to estimate the energy performance of the whole building, not of individual apartments.