

MULTIFAMILY PERFORMANCE PROGRAM



NEW CONSTRUCTION COMPONENT



Program Guidelines

Version 4.2

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Introduction

THE MULTIFAMILY PERFORMANCE PROGRAM

NYSERDA's Multifamily Performance Program ("Program") is a comprehensive Program that addresses the needs of the multifamily sector by working with developers, building owners, and their representatives ("Participants") to improve the energy efficiency, health, safety, and security of residential buildings with five (5) or more residential units.

The Program consists of the *New Construction* and the *Existing Buildings* components, serving all combinations of market-rate and low- to moderate-income projects through a common process and a varying schedule of incentives. This document refers only to the New Construction component; a similar document exists for the Existing Buildings component of the Program.

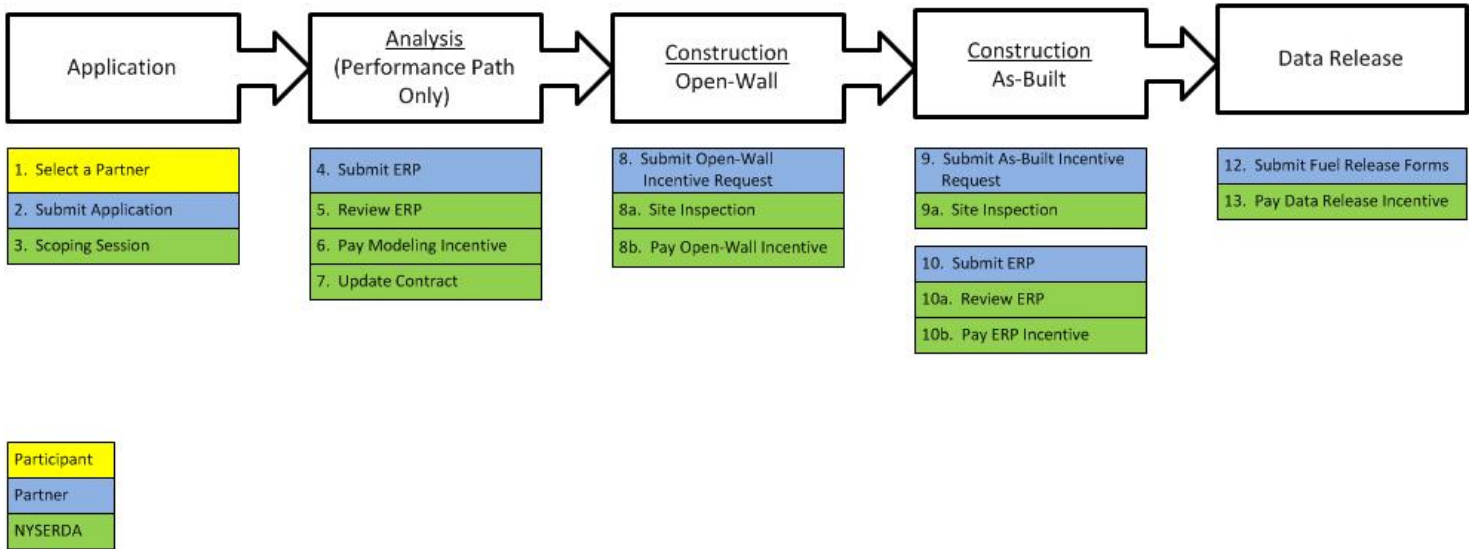
This Program relies on a network of building performance specialists with a demonstrated ability to provide multifamily building performance services. These professionals are identified as Multifamily Performance Partners (herein referred to as "Partner"), and afforded the privileges and incentives outlined in the *Partnership Agreement* and its attachments. The Program will work to achieve the following NYSERDA goals:

1. Create a market-based network of building performance specialists capable of delivering services to developers, building owners, and their representatives;
2. Facilitate access to capital for comprehensive energy and energy-related improvements;
3. Reduce the burden imposed by energy consumption and other utility-related costs, with a significant emphasis on providing this benefit to low- to moderate-income residents while maintaining or improving the health, safety, and security of the multifamily buildings;
4. Reduce the multifamily sector's contribution to the system peak demand; and
5. Promote the ENERGY STAR® label.

The New Construction component serves multifamily buildings of five (5) or more residential units for all buildings with four or more stories. This Component will address the needs of new construction and gut rehabilitation projects by providing assistance to improve the energy efficiency, health, safety, and security of these projects as they are planned, designed, and constructed. This Component uses a set of protocols that lead a multifamily project to achieve a predetermined energy performance target. Following these protocols entitles the Participant to

receive NYSERDA incentives and may entitle the building to receive the ENERGY STAR label from the U.S. Environmental Protection Agency (EPA).

Multifamily Performance Program At-A-Glance



Program Rules

REQUIREMENTS FOR PARTICIPATING IN THE NEW CONSTRUCTION COMPONENT, THE DEVELOPMENT OF THE ENERGY REDUCTION PLAN, AND THE IMPLEMENTATION & SITE INSPECTION OF MEASURES.

The following Program Rules must be adhered to by all projects accepted into this Program. This list focuses on programmatic requirements and is not intended to cover all Program eligibility requirements as listed in the remainder of this document, the Terms and Conditions and its Exhibits, and/or the Partnership Agreement.

1. When assembling the set of measures to be included in the list of recommended Energy Reduction Measures, the following criteria must be met:
 - a. **Performance Target:**

When following the Performance Path, a 15% energy cost reduction must be achieved in comparison to ASHRAE 90.1-2007 Appendix G. However, if a complete Energy Reduction Plan is submitted that does not project a 15% performance target, the Participant may still be eligible for the Modeling Incentive.
 - b. **Total Resource Cost:**
 - i. Only measures that pass the Total Resource Cost test with a ratio of 1.0 or greater may receive Energy Efficient Portfolio Standard (EEPS) funding and;
 - ii. The total scope of EEPS-eligible measures must also pass the TRC test when program costs are added (\$0.22 per EEPS Incentive \$).
 - c. **Savings-To-Investment Ratio:**

The entire scope of work must have an SIR \geq 1.0. The project cost used in this cost-effectiveness evaluation must include the fees charged by the Partner to provide the Program services, any associated feasibility studies and/or design fees, and the incremental costs of the proposed measures. Measures that are not cost effective individually may be included in the project scope of work if the overall SIR \geq 1.0.
 - d. **Minimum Performance Standards:**

All projects must at least comply with the Program's *Minimum Performance Standards*. In certain circumstances and for legitimate reasons, a project may be unable to comply with a specific requirement of the Program's *Minimum*

Performance Standards. Waivers are issued on a project-by-project basis and must be approved by NYSERDA in order to receive incentives and by the EPA in order to receive the ENERGY STAR® label.

2. At time of application, projects must choose to adhere to one of the following two paths. Projects applying to the Program after loan closing has occurred, and/or after construction on the project has begun, do not have a choice and are only eligible for the Prescriptive Path.
 - a. **Prescriptive Path:**
 - i. If the project is following the Prescriptive Path, it will not be required to model the building to prove compliance with the 15% performance target. Instead, compliance will be satisfied by meeting all the requirements of the Prescriptive Path.
 - ii. Projects following the Prescriptive Path are required to adhere to all *Minimum Performance Standards, Prescriptive Path Requirements, and Testing and Verification Protocols.*
 - b. **Performance Path:**
 - i. An improvement analysis, including incremental cost and savings projections, must be performed with approved modeling software so as to form a whole-building analysis of the proposed building in comparison to a reference building based on ASHRAE Standard 90.1-2007 Appendix G and NYSERDA's *Simulation Guidelines.*
3. **Milestones:**
 - a. For projects following the Performance Path, the proposed *Energy Reduction Plan* must be submitted no later than 30 days after the Department of Buildings' final new building approval of architectural and MEP plans, or by October 31, 2011, whichever occurs first.
 - b. For projects following the Prescriptive Path or the Performance Path, the Exhibit C must be submitted on or before November 30, 2011.
 - c. Missed deadlines will result in the immediate termination of a project.
4. **Incentive Caps:**
 - a. NYSERDA will not provide incentives that exceed 100% of the estimated project cost, as indicated in the most recent, approved *Energy Reduction Plan*. These estimated project costs include the fees charged by the Partner to provide the Program services, any associated feasibility studies and/or design fees, and the incremental costs of the proposed measures.
 - b. Maximum incentives may also be capped based on the specific sources of funding for which the project is eligible.

- i. EEPS sources of funding are limited by the cost of the measures that pass the TRC test. EEPS electric funds are limited to only electric measures that pass the TRC test. EEPS gas funds are limited to gas measures that pass the TRC test.
- ii. System Benefits Charge (SBC) and Regional Greenhouse Gas Initiative (RGGI) funding is limited to measures that are part of a scope of work that collectively have an SIR of 1.0 or greater.

1. Application

APPLYING TO THE PROGRAM

Prior to submitting an Application Package to NYSERDA, Partners are required to work with the potential Participant to determine eligibility and incentives as outlined in the following section. The Partner is expected to take the leading role in this process.

1.1. Establishing a Project

At the onset of their relationship with a potential Program Participant, Partners should determine whether a property is eligible for the Program and which incentive is applicable (affordable vs. market-rate). This section provides the requirements for establishing a project and defining its market status.

1.1.1. Eligibility Requirements

Participation in the Program is based on the following criteria:

A. Project Size & Building Characteristics

The project must be a multifamily, residential building(s) with five (5) or more units.

Projects larger than 500 units require pre-approval from NYSERDA.

Low-Rise buildings (under four stories) shall first apply to NYSERDA's ENERGY STAR Homes Program. The ENERGY STAR Homes staff will determine if the project is appropriate for that program. If not accepted into that program, the project will be referred to the Multifamily Performance Program.

B. Construction Type

Buildings may contain non-residential commercial space if that space does not consist of more than 50% of the gross heated square footage of the entire building.

C. Extent of Renovation

The New Construction component will accept both new construction and substantial renovation, or gut rehabilitation, as defined below:

NEW CONSTRUCTION: Defined as a new building, or portion within a new building where a licensed professional architect or engineer has prepared and certified the building plans.

SUBSTANTIAL RENOVATIONS (GUT REHAB): Defined as 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.

D. Intended Use

The intended use of the building must be for residential purposes. Commercial facilities, such as motels/hotels, group homes, dormitories, shelters, monasteries, nunneries, assisted living facilities and nursing homes are typically not eligible for the Program. Single Room Occupancy (SRO) facilities and senior living residences that do not include nursing or hospitalization amenities are typically eligible for the Program.

This is not a comprehensive list of property types that are eligible for the Program. Special circumstances may be reviewed on a case-by-case basis.

E. Gas Funding

To be eligible to receive gas funds, the project must be designed and built to use firm gas.

1.1.2. Definition of a Project

For the New Construction component of this Program, a project is defined as a building or group of identical buildings. The Partner will develop one Energy Reduction Plan per project. Each building in a project must adhere to the requirements of one of the approved Paths (Performance or Prescriptive) and requires its own Testing and Verification. Any group of buildings that includes more than one type of building requires a separate model for each type. Such projects should submit an Application and Terms and Conditions for each building type to help offset the additional Partner fees for modeling each type of building.

1.1.3. Determining Market Type

NYSERDA defines Affordable Housing as projects in which at least 25% of the units are or are expected to be occupied by households earning no more than 80% of the State or Area Median Income. All other properties are considered Market Rate.

A. **Affordable Housing** - Affordable housing documentation must be submitted as soon as possible and prior to the Modeling Incentive submittal. There are two ways to qualify a project for Affordable Housing incentives:

i. **Proxy** – NYSERDA allows certain proxies to represent compliance with this definition. Please see the table below for approved proxies.

ELIGIBILITY PROXY	DETAILS	TYPE OF DOCUMENTATION
1. HUD-Regulated Affordable Housing	Properties that receive one of the following subsidies from HUD are defined as low-income: <ul style="list-style-type: none"> • Section 8 Contract • Sections 202, 236, 811 • Public Housing Authorities 	Provide a copy of the HUD contract or contract award notice.
2. DHCR-Regulated Affordable Housing	Buildings with subsidized mortgages or contracts that place them under the regulatory control of DHCR may be defined as low-income.	Provide a copy of DHCR contract or contract award notice.
3. Low Income Housing Tax Credits	Properties that receive tax credits for at least 50% of its units are defined as low-income.	Submit a copy of tax credit award notice from DHCR or HPD.
4. HPD-Regulated Affordable Housing (or other local housing agency)	Properties with loans, mortgages, or deeds of purchase (HDFC incorporation) from HPD or other local housing agencies may be defined as low-income.	Provide documentation of current mortgage, loan closing, HDFC incorporation, or deeds.
5. SONYMA mortgage insurance	Properties subsidized for low- to moderate-income multi-family residents with SONYMA subsidized financing through the HFA are defined as low-income.	Provide a copy of loan closing/mortgage insurance award documents.
6. Participation in the Weatherization Assistance Program	Properties that have fulfilled the eligibility requirements for the Weatherization Assistance Program are defined as low-income.	Provide a copy of a letter from the Weatherization Agency confirming the project’s income eligibility.
7. Participation in HFA’s 80/20 Program	Properties that have been accepted into the Housing Finance Agency’s 80/20 Program are defined as low-income.	Provide a copy of the award letter or HFA contract documents.
8. Participation in HDC’s 80/20 or Mixed Income Programs	Properties that have been accepted into the New York City Housing Development Corporation’s 80/20 Program or Mixed Income Program are defined as low-income.	Provide a copy of the award letter or HDC contract documents.

ii. **Rent Roll** – *This applies only to gut-rehab, Affordable Housing projects that do not meet the proxy requirements.* The Rent Roll method may not be combined with the Resident Income method.

Applicants must submit the annual rent, size and occupancy for each apartment in the property. Twenty-five percent of the units must have a calculated household income no more 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 on the Partner Portal for determining Rent Roll income eligibility.

- iii. *Resident Income – This applies only to gut-rehab, Affordable Housing projects that do not meet the proxy requirements.* This method requires the submission of signed Resident Income Certification forms with supporting documentation for 25% of a project’s units. See the *Resident Income Certification Instructions* & related forms (available on the Partner Portal). The Resident Income method may not be combined with the Rent Roll method.

B. Market-Rate Housing

Projects that do not qualify for Affordable Housing incentives as outlined above are considered Market-Rate.

1.2. Incentives

Every project in the Multifamily Performance Program is eligible to receive financial assistance through a schedule of Performance Incentives. There are also optional incentives for which projects may be eligible. These optional incentives are in addition to the Performance Incentives.

The Modeling Incentive is divided into *Affordable Housing* or *Market-rate Housing* incentive schedules. Projects that meet the Affordable Housing criteria are eligible for the Affordable Housing incentive schedule. All other projects would be eligible for the Market-rate Housing incentive schedule.

1.2.1. Performance Incentives

NYSERDA will provide the following performance incentives. In no case shall the NYSERDA incentive exceed 100% of the total project costs of the project minus the costs of any measures not meeting a $TRC \geq 1$ (for EEPS funded projects), as defined below. The total project cost is the Partner’s fees associated with delivering the Program’s required services, plus the incremental cost of the measures in the proposed *Energy Reduction Plan*.

Incentive Schedule

	AFFORDABLE HOUSING	MARKET-RATE HOUSING
MODELING PAYMENT		
Performance Path	\$20,000	\$15,000
Prescriptive Path	N/A	N/A
Is payable upon approval of the Proposed <u>Energy Reduction Plan</u> and associated documents. The list of required documents and additional information is located in Program Guidelines Section 3. <i>Modeling Payment is available for Performance Path projects only.</i>		
OPEN-WALL PAYMENT	\$1.00/ghsf*	
Is payable upon approval of the Open-Wall Inspection. The list of required documents and additional information is located in Program Guidelines Section 3.		
AS-BUILT PAYMENT	\$0.50/ghsf* minus 10% retainage	
Is payable upon approval of the As-Built <u>Energy Reduction Plan</u> (<i>Performance path projects only</i>) and the As-Built Site Inspection. The list of required documents and additional information is located in Program Guidelines Section 3.		
DATA RELEASE PAYMENT	10% retainage held from As-Built Payment	
Is payable upon receipt of the Fuel Release Forms as detailed in the Application. The list of required documents and additional information is located in Program Guidelines Section 3.		

*ghsf – Gross heated square footage of residentially associated space based on the Proposed Energy Reduction Plan or as revised in the As-Built Energy Reduction Plan.

1.2.2.  Green Affordable Housing Component Incentives

Affordable Housing projects in the New Construction component that are interested in pursuing LEED® Silver Certification or higher may be eligible for additional incentives. These projects need to submit a separate proposal meeting the requirements presented in the Green Affordable Housing component guidelines. These proposals will be periodically evaluated and the top proposals competitively selected for these additional incentives, which are in addition to the Performance Incentives indicated for the New Construction component. The deliverables indicated in the table below are in addition to those required by the New Construction component for each payment.

Green Affordable Housing Incentive Schedule

	AFFORDABLE BUILDINGS
LEED DESIGN PAYMENT	\$0.35/ghsf* and \$275 / unit
The registration of the project with the US Green Building Council. The results of the LEED Preliminary Rating indicating the project's anticipated achievement LEED Silver Certification or better.	
LEED CONSTRUCTION PAYMENT	For attaining the final LEED Certification levels as follows
	LEED Silver Certification = \$0.10/ghsf* minus 10% retainage
	LEED Gold Certification = \$0.25/ghsf* minus 10% retainage
	LEED Platinum Certification = \$0.50/ghsf* minus 10% retainage
LEED's confirmation of completion and submission of all required documentation.	
LEED CERTIFICATION PAYMENT	10% retainage held from payment #3
LEED Certification.	

1.2.3. Advanced Measure Incentives

The Program does not offer advanced measure incentives. Projects may be able eligible to participate in other NYSERDA programs that provide incentives for advanced measures.

Advanced measures, including cogeneration, photovoltaics, wind, and submetering (or other measures that generate electricity or re-allocate electricity use), may not contribute to the 15% energy reduction target.

1.3. Application Documents and Processing

Upon identifying an eligible project, the Partner (in consultation with the Participant) should submit an Application to the Program.

1.3.1. Application Package Contents

A *complete* Application Package for the New Construction component consists of the following documents:

Project Information Form - identifies basic information about the project plus attachments.

Terms and Conditions - an acknowledgement by the Program Participant of the rules and requirements of the program.

W-9

Affordability Housing Documentation (if applicable)

Upon receipt and review of the Application, NYSERDA will schedule a Scoping Session with the Participant and their Partner.

1.3.2. Completion Instructions

This Section assists Partners in completing the Application Package. Please use the following process and requirements for completing and submitting the Application Package.

1. *Review the Participant's documentation for completeness.* Check the Project Information Form, Terms and Conditions, W-9, and Affordable Housing documentation (if applicable) for completeness and accuracy.
2. *Start an electronic application.* Log into the CRIS database using your Partner login and password. Enter Project information from the *Project Information Form*.
3. *Complete your electronic application.* Upload the *Terms and Conditions*, *W-9*, and Affordable Housing documentation (if applicable).
4. *The CRIS database will acknowledge your complete application via email.*
5. *NYSERDA will review the application.* NYSERDA will contact you and the Participant to confirm application receipt and schedule a scoping session.

Please note the following requirements:

- The name of the Participant, number of units and market type must be consistent between the *Project Information Form* and the *Terms and Conditions* agreement.
- The Participant on the W-9 must be consistent with the *Project Information Form* and the *Terms and Conditions* agreement.
- The name of the Participant must be complete, including the company designation (Inc., Co., LLC, LP, etc.).
- A legal signatory for the Participant must sign the *Terms and Conditions* agreement.

1.3.3. Application Package Submission

The Application Package must be submitted online via the CRIS Database.

Submission of a completed application does not entitle the Participant to program participation.

1.3.4. Contact Information

Specific procedures are in place to field questions regarding all aspects of the Program. Please see below for contact information.

A. Eligibility, Intake and Application Inquiries

A team of individuals review applications and respond to application-, eligibility- and intake-related inquiries. These types of inquiries should be directed to NYSERDA at:

MultifamilyPrograms@nyserda.org

B. Project Inquiries

The TRC Case Manager coordinates all project-related responsibilities and is assigned upon application approval. All correspondence about a project after an Application Approval Letter has been received must be directed to the project's TRC Case Manager. Contact information will be provided upon assignment.

1.4. Scoping Session

Upon acceptance into the Program, the NYSERDA Project Manager will schedule a scoping session with the Participant, the Design Team, and Partner. The intent of the Scoping Session is to establish Participant interest, identify likely energy efficiency measures, review program requirements and responsibilities, and determine sources of potential funding.

The Scoping Session will also identify additional documents which need to be completed in order to establish the project in NYSERDA's financial systems. These documents include:

- Electronic Funds Transfer form
- Additional Documentation, as necessary

Knowledgeable representatives from both the Partner and Participant are required to attend the scoping session.

2. Performance Path

REQUIREMENTS

The following section describes the requirements of the Performance Path for the New Construction component.

2.1 Submittal Requirements

For each project, the Partner is required to submit documentation to their TRC Case Manager in order for the Participant to get paid NYSERDA incentives. These submittals will be reviewed by TRC and NYSERDA, and the incentives will only be paid if these submittals are approved by NYSERDA. There are four main submittals that are detailed below. All documents listed below must be submitted for the milestone to be considered complete.

2.1.1 Modeling Incentive

The first NYSERDA incentive is available to the Participant when the project has reached design completion. The submittal must show that the project achieves the 15% performance target. Additionally, the project must either meet the *Minimum Performance Standards* or have obtained a waiver for those components of the Standards that will not be met.

The Modeling Submittal must be submitted within 30 days after the Department of Buildings' final new building approval of architectural and MEP plans, or by October 31, 2011, whichever occurs first. The Department of Buildings approval shall be submitted to the project's TRC Case Manager upon receipt, but no later than with the Open-Wall Submittal.

Deliverables

- Participant-Partner Contract (*signed by both parties*)
- Proposed *ERP Tables*
- MPS Checklist (signed)*
- Baseline Cost Estimator (if used)*
- Modeling files
- Request for Payment (signed)*
- Completed *EFT Bank Information and Authorization Form*
- Department of Buildings' final new building approval of architectural and MEP plans (*if available at the time of submittal*)

Upon NYSERDA approval of the Modeling Incentive, NYSERDA will forward the Exhibit C to the Participant for signature, which must be completed and returned prior to the Open Wall Incentive or November 30, 2011, whichever occurs first.

2.1.2 Open Wall Incentive

The second NYSERDA incentive is available to the Participant when the project has an executed Exhibit C and an approved Open-Wall Phase Site Inspection performed by NYSERDA or TRC staff. The Partner is to notify the Case Manager that construction is approaching this milestone at least two weeks ahead of time in order to properly schedule an inspection. The Open-Wall phase is post-insulation and pre-drywall and is used to ensure proper air sealing, insulation installation, and window installation. Additionally, the project must either meet the *Minimum Performance Standards* or have obtained a waiver for those components of the Standards that will not be met.

Deliverables

- Open-Wall Site Inspection Request*
- MPS Checklist (signed)*
- Request for Payment (signed)*
- Department of Buildings' final new building approval of architectural and MEP plans (*if not previously submitted*)

2.1.3 As-Built Incentive

The third NYSERDA incentive is available to the Participant when the building has been built and the Partner has produced the necessary models and reports that represent the as-built building. The submittal must show that the project has achieved the 15% performance target. If the as-built project does not achieve the 15% performance target, please discuss this with the TRC Case Manager prior to submittal. The project must also either meet the *Minimum Performance Standards* or have obtained a waiver for those components of the Standards that have not been met. Additionally, in order to complete the third Incentive Milestone, the project must have an approved As-Built Inspection performed by NYSERDA or TRC staff.

Deliverables

- As-Built ERP Tables*
- Photo Template*
- MPS Checklist (signed)*
- Baseline Cost Estimator (if used)*
- Modeling files
- As-Built Site Inspection Request*
- Request for Payment (signed)*

2.1.4 Data Release Incentive

The fourth NYSERDA incentive is available to the Participant when the building has been built and the Fuel Release Forms for the common areas and a sample of the apartments have been submitted. For details on the sampling required for the apartments, consult the project's *Terms and Conditions*.

Deliverables

- Data Release Authorization Forms (executed)*
 - All common areas of the building
 - A 10% apartment sample, minimum five apartments
 - Of the 10% apartment sample, at least 1 apartment of each type
- List of each apartment number and type (e.g., studio, large 1 bedroom)
- Request for Payment (signed)*

2.2 Energy Reduction Plan Tables

The *Energy Reduction Plan Tables* spreadsheet is a comprehensive tool detailing the information regarding the recommended scope of work and the achievement of the 15% Performance Target. This Excel spreadsheet's many tabs have three different functions: some tabs are intended to report information to NYSERDA and the EPA; some tabs intended to assist the Partner in analyzing model outputs; and some tabs are used to results of the *Testing & Verification Protocols*. There is extensive linking between the tabs in this document to reduce the amount of data entry required of the Partner. Because of this, completion of all tabs is required to ensure the spreadsheet works properly.

2.2.1. ERP Table Tabs

- All cells that require the Partner to input information are colored blue.
 - Complicated tabs have numbered instructions on how to properly fill in the required information. Additionally, there are instruction tabs with further information.
 - For the Modeling Payment submittal, the grey tabs, as indicated below, must be completed. Exception: If the project uses software tool other than eQUEST, the *Results from eQUEST* tab need not be completed.
 - For the As-Built Payment submittal, the entire spreadsheet must be completed.
- A. *Introduction Tab (yellow)*: Provides general information on completing the *ERP Tables* spreadsheet.
- B. *Basic Info Tab (grey)*: This tab is used to report basic building information. This tab should be filled out first and is linked elsewhere in the spreadsheet.
- C. *Model Inputs Tab (grey)*: This tab is used to report how the baseline and proposed buildings were modeled. Follow the formatting guidelines presented as comments (red corners) where available.
- D. *Reporting Summary Tab (grey)*: enter general information about the project, the model and specifics about the ASHRAE compliant components of the Baseline Building and the energy efficient components in the Proposed Design.
- E. *Detailed Measures Tab (grey)*: This worksheet should be a summary of all Energy Reduction Measures, their savings and their costs. It is used to determine the cost effectiveness for each recommended measure and for the project as a whole.

- F. *Results from eQuest Tab (grey)*: For eQuest users only, this worksheet is based upon the Parns.csv file that is generated upon simulation of your building. If those results are pasted into this worksheet, according to the directions, a significant amount of this workbook will autofill.
- G. *T&V Worksheets (the remainder of the tabs)*: After the final plan review confirms all recommendations have been integrated into the construction documents, the *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 and/or energy modeling assumptions to be confirmed, and any additional relevant information identified during the plan review. Once completed, they are used to document that each MPS and each measure included in the As-Built Building meets all requirements and follows *T&V Protocols*.

2.3 Minimum Performance Standards

The Program includes a set of *Minimum Performance Standards* that must be followed for all projects following the Performance Path. These Standards provide the minimum level of efficiency for each of the major end use categories. Though this Program is performance-based and does allow trade-offs between various building components, these Standards provide a lower limit to the trade-offs for many building components

2.3.1 Minimum Performance Standards Waiver Request

In certain circumstances and for legitimate reasons, a project may be unable to comply with a specific requirement of the Program's *Minimum Performance Standards*. Waivers are issued on a project-by-project basis and must be approved by NYSERDA in order to receive incentives, and by the EPA in order to receive the ENERGY STAR® label. As soon as a Partner is aware that a *Minimum Performance Standard Waiver* is needed on a project, they should initiate the following steps:

1. Submit, via email, a waiver request to the TRC case manager. A waiver request should include the following information:
 - a) Name of the project for which the waiver is submitted
 - b) Reference to the section of the Minimum Performance Standard they are asking to waive
 - c) Details on a specific product that would satisfy the Minimum Performance Standard requirement, which was considered for this project, including key properties (U-value & SHGC, efficiency rating, minimum available size, etc.), cost, manufacturer, and model number

- d) Details and key properties for the component that they propose to use instead
 - e) (if applicable) Savings/payback/SIR for both the product that complies with the Minimum Performance Standard and the proposed product as compared to the baseline model. A general analysis of the product's metrics is not sufficient
 - f) Other reasons justifying the request, such as product appearance, maintenance, durability, availability, etc.
2. NYSERDA will determine whether the waiver is justifiable. The Partner will receive an email with the final determination. Should the waiver be approved, this email will suffice for the Partner to proceed with the project.
 3. While preparing the *Exhibit C*, the Partner will include language that recognizes the waiver. This language should take the form of "This project is exempt from the requirement in the *Minimum Performance Standards* of [enter specific requirement].

When the *Exhibit C* is fully executed, this language will formally revise the terms of the *Terms and Conditions* and the project will not be required to comply with that section of the *Minimum Performance Standards*.

2.4 Software Requirements

Modeling software used to determine the performance rating for projects in the New Construction component must satisfy the requirements outlined in ASHRAE 90.1-2007 Appendix G simulation and documentation requirements, as modified in the *Simulation Guidelines*. Please refer to the Partner Portal for an up-to-date list of tools that are approved for use in the program.

Partners or software vendors who believe that they have an analytical tool that satisfies the requirements above but that is not yet approved for use in the program should submit a *Multifamily Performance Program Modeling Software Application* to TRC describing the tool capabilities and demonstrating compliance with the listed program requirements. If the software is to be used for New Construction projects only, the Partner or software vendor need only complete Appendix A of this document.

2.5 Simulation Guidelines

The *Simulation Guidelines* is a companion document to ASHRAE 90.1-2007 and ASHRAE 90.1 - Appendix G and contains program requirements to assist Partners in developing the Baseline Building Design, Proposed Building Design, and As-Built models for each project. The intent of these guidelines is to:

- Facilitate consistent modeling among different modelers;

- Facilitate consistent modeling of baseline components not mentioned in Appendix G;
- Establish modeling protocols for measures that ASHRAE 90.1 leaves to the rating authority to determine; and
- Ensure that modeling results are used to drive the energy-efficient design process.

If an energy conservation measure is included in the model that is not addressed in the *Simulation Guidelines* or ASHRAE 90.1-2007 - Appendix G, the Partner is required to clearly document their assumptions and calculations. Each measure not included in the guidelines is subject to approval of NYSERDA/TRC.

2.5.1 *Simulation Guidelines Appendix spreadsheet (optional)*

The Program provides the *Simulation Guidelines Appendix* spreadsheet to assist the Partners in calculating the inputs needed to model their projects in eQUEST or similar modeling tools. This spreadsheet is optional and does not need to be submitted to TRC/NYSERDA unless specifically requested.

2.6 Estimated Incremental Cost Guidelines

The *Estimated Incremental Cost Guidelines* are meant to assist the Partner in calculating the incremental costs of the project's recommended measures. This document presents a comprehensive methodology to determine the incremental costs between the proposed design and the established baseline using generally accepted costing approaches (e.g. cost-estimating manuals such as RS Means) for the baseline buildings.

2.6.1 *Baseline Cost Estimator (optional)*

The Program also provides the *Baseline Cost Estimator* spreadsheet to assist the Partner in calculating the baseline costs of each Energy Reduction Measure. The *Estimated Incremental Cost Guidelines* explains how and when to use this spreadsheet

2.7 Testing and Verification Protocol

The *Testing and Verification Protocols* are mandatory requirements for the inspection, testing, and verification of components related to the building's energy performance. All inspections and diagnostic tests described within these protocols are required for each of the energy-related components and systems that exist in the participating building. The Partner is responsible for ensuring that all inspections and diagnostic tests are

performed on the building, whether they perform the inspections and tests themselves or they ensure the inspections and tests are performed by outside qualified personnel. If it is decided to have someone other than the Partner perform these tasks, the Partner is still responsible for ensuring all inspections and tests are completed as required by the *Testing and Verification Protocols*, all *T&V Worksheets* are still completed, and a Statement of Substantial Completion is submitted, if applicable. Results of inspections must be documented in the *T&V Worksheets* and *Photo Template*, as described in the *Testing and Verification Protocols*, and submitted with the As-Built Incentive submittal. These inspections must be conducted throughout the project construction phase at a time that is best suited to determine whether the energy efficiency element is installed to specification.

2.8 Site Inspections

In addition to the inspections required to be performed by the Partner per the *Testing and Verification Protocols*, site inspections are also performed by a Program Site Inspector. This Site Inspector may be a staff member of TRC, TAITEM (the Quality Assurance Contractor), or NYSERDA.

Partner and Participant 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.

During these inspections, the Program Site Inspector will be verifying that the work meets all *Minimum Performance Standards* and matches the information presented in the *ERP Tables* (for Performance Path projects) or *Performance Path Calculator* (for Prescriptive Path projects).

The results of these inspections, including any issues or concerns, will be documented in a Site Inspection Report by the Program Site Inspector and will be returned to the Partner.

For Performance Path projects, if the inspection identifies inconsistencies between the building construction and the information provided in the project's Exhibit C, but all Minimum Performance Standards are still met, the Partner will be required to update their model to reflect the actual building construction to ensure Program compliance is still being met. NYSERDA/TRC has the right to either release payment prior to the updates, or to withhold payment until the model is updated and compliance is shown.

If Minimum Performance Standard violations are discovered during this inspection that will not be corrected by the Participant, the Partner may choose to submit a *Minimum Performance Standard Waiver* to waive that specific requirement. If the waiver is denied, the project will either need to make the change, or it will be terminated.

2.8.1 Open-Wall Site Inspection

Partners must submit their Open-Wall Submittal to their TRC Case Managers at least two weeks prior to the walls being closed to allow for the inspection to be scheduled and completed; three weeks notification is preferred. During this two- to three-week period, the Partner must maintain knowledge of open-wall status to ensure that a compliant open wall inspection can be conducted. Specifically, the Partner should remain in communication with the lead construction person regarding the anticipated construction schedule, any changes to the construction schedule, and any deviations that the construction management team may see as forthcoming.

At the time of the inspection, a minimum of 20% of all exterior and interior walls must be exposed in order to inspect the pipe insulation, roof insulation, wall insulation, and air sealing details to ensure they meet both the *Minimum Performance Standards* and the information presented in the *ERP Tables* (for Performance Path projects) or *Performance Path Calculator* (for Prescriptive Path projects).

If severe violations are discovered during this inspection, TRC/NYSERDA reserves the right to request that the partner instruct the construction team to remove sections of previously sealed walls or cut open sections of these walls in order to fully inspect insulation and air sealing measures. Additionally, TRC/NYSERDA has the right to require that a second open-wall inspection be conducted once all of the required corrections have been made and are ready for re-inspection.

If insufficient notice is provided to schedule and perform the open-wall inspection, or if the Partner does not inform their TRC Case Manager of the open-wall phase at all, or if the Partner/Participant 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. Failure to meet the requirements of this Open-Wall Site Inspection will result in termination of the project.

2.8.2 As-Built Site Inspection

The *As-Built Site Inspection Request* form must be submitted along with the other required documentation for the As-Built Submittal. As-Built Inspections will not normally be performed prior to the submittal of the entire As-Built Submittal package.

2.9 ENERGY STAR® Benchmarking

Although an eligible building may earn the ENERGY STAR based on the requirements of the New Construction component, building performance is as much a function of proper building management as the energy conservation measure incorporated into the structure. Therefore, after earning the ENERGY STAR for the project, the developer/manager must commit to benchmarking their building in Portfolio Manager for a period of two years in order to maintain their listing on the ENERGY STAR website.

Portfolio Manager is an online, interactive energy management tool that allows Participants 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 - Multifamily Housing Quick Reference Guide](#) document.

To accomplish this goal the developer/manager or an entity working on their behalf, must be capable of evaluating the utility consumption of the residential-associated spaces independent of any commercial/retail space. These nonresidential 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. Also, they should 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 building as a whole, not of individual apartments.

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

3. Prescriptive Path

REQUIREMENTS

The following section describes the requirements of the Prescriptive Path for the New Construction component.

3.1 Submittal Requirements

For each project, the Partner is required to submit documentation to their TRC Case Manager in order for the Participant to get paid NYSERDA incentives. These submittals will be reviewed by TRC and NYSERDA and the incentives will only be paid if these submittals are approved by NYSERDA. There are three main submittals that are detailed below. All documents listed below must be submitted for the milestone to be considered complete.

Upon completion of the design, please notify your TRC Case Manager. NYSERDA will then forward the Exhibit C to the Participant for signature, which must be executed prior to the Open Wall Incentive payment or November 30, 2011, whichever comes first.

3.1.1. Open Wall Incentive

For the Prescriptive Path, the first NYSERDA incentive is available to the Participant when the project has an approved Open-Wall Phase Site Inspection to be performed by NYSERDA or TRC staff. The Partner is to notify the Case Manager that construction is approaching this milestone at least two weeks ahead of time in order to properly schedule an inspection. The Open Wall phase is post-insulation and pre-drywall and is used to insure proper air sealing, insulation installation, and window installation. The project must also either meet the *Minimum Performance Standards* or have obtained a waiver for those components of the Standards that have not been met.

Deliverables

- Participant-Partner contract (*signed by both parties*)
- Prescriptive Path Calculator*
- Open-Wall Site Inspection Request*
- MPS Checklist (signed)*
- Request for Payment (signed)*

- Completed *EFT Bank Information and Authorization Form*

3.1.2. As-Built Incentive

The second NYSERDA incentive is available to the Participant when the building has been built and the Partner has produced the necessary models and reports that represent the as-built building. The submittal must show that the project has complied with all Prescriptive Path requirements. The project must also either meet the *Minimum Performance Standards* or have obtained a waiver for those components of the Standards that have not been met. Additionally, in order to complete the As-Built Incentive Milestone, the project must have an approved As-Built Inspection to be performed by NYSERDA or TRC staff.

Deliverables

- As-Built Prescriptive Path Calculator*
- Photo Template*
- MPS Checklist (signed)*
- As-Built Site Inspection Request*
- Request for Payment (signed)*

3.1.3. Data Release Incentive Deliverables

The third NYSERDA incentive is available to the Participant when the building has been built and the Fuel Release Forms for the common areas and a sample of the apartments have been submitted. For details on the sampling required for the apartments, consult the project's *Terms and Conditions*.

Deliverables

- Data Release Authorization Forms (executed)*
 - All common areas of the building
 - A 10% apartment sample, minimum five apartments
 - Of the 10% apartment sample, at least 1 apartment of each type
- List of each apartment number and type (e.g., studio, large 1 bedroom)
- Request for Payment (signed)*

3.2 Prescriptive Path Requirements

In addition to the *Minimum Performance Standards*, projects participating in the *Prescriptive Path* must also adhere to the Prescriptive Path Requirements, as indicated in the *Prescriptive Path Requirements* document.

3.3 Prescriptive Path Calculator

In lieu of submitting the ERP Tables, Prescriptive Path projects must submit the *Prescriptive Path Calculator*. This calculator includes a checklist where the Partner and Participant confirm that all Prescriptive Path Requirements are met. It also calculates estimated savings and costs based on project-specific data. These calculations are used for NYSERDA reporting only.

3.3.1. Prescriptive Path Calculator Tabs

- A. *Prescriptive Path Checklist*: This tab outlines the Prescriptive Path Requirements 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.
- B. *Savings*: This tab calculated the savings, costs, and cost effectiveness of each measure and the project as a whole, based on Program-wide assumptions. No information should be changed in this sheet, and is for informational purposes only.
- C. *T&V Worksheets*: After the final plan review confirms all recommendations have been integrated into the construction documents, the *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 MPS, Prescriptive Path requirement, and each measure included in the As-Built Building meets all requirements and follows *T&V Protocols*.

3.4 Testing and Verification Protocols

The *T&V Protocols* are mandatory requirements for the inspection, testing, and verification of components related to the building's energy performance. All inspections and diagnostic tests described within these protocols are required for each of the energy-related components and systems that exist in the participating building. Results of inspections must be documented and kept on record with the building file by the Energy Consultant and provided to the Program Administrator and/or EPA, at the completion of construction. These inspections should be conducted throughout the

project construction phase at a time that is best suited to determine whether the energy efficiency element is installed to specification.

3.5 Site Inspections

In addition to the inspections required to be performed by the Partner per the *Testing and Verification Protocols*, site inspections are also performed by a Program Site Inspector. This Site Inspector may be a staff member of TRC, TAITEM (the Quality Assurance Contractor), or NYSERDA.

Partner and Participant 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.

During these inspections, the Program Site Inspector will be verifying that the work meets all *Minimum Performance Standards* and matches the information presented in the *ERP Tables* (for Performance Path projects) or *Performance Path Calculator* (for Prescriptive Path projects).

The results of these inspections, including any issues or concerns, will be documented in a Site Inspection Report by the Program Site Inspector and will be returned to the Partner.

If Minimum Performance Standard violations are discovered during this inspection that will not be corrected by the Participant, the Partner may choose to submit a *Minimum Performance Standard Waiver* to waive that specific requirement. If the waiver is denied, the project will either need to make the change, or it will be terminated.

3.5.1. Open-Wall Site Inspection

Partners must submit their Open-Wall Submittal to their TRC Case Managers at least two weeks prior to the walls being closed, to allow for the inspection to be scheduled and completed; three weeks notification is preferred. During this two- to three-week period, the Partner must maintain knowledge of open-wall status to ensure that a compliant open wall inspection can be conducted. Specifically, the Partner should remain in communication with the lead construction person regarding the anticipated construction schedule, any changes to the construction schedule, and any deviations that the construction management team may see as forthcoming.

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Performance Path projects) or *Performance Path Calculator* (for Prescriptive Path projects).

If severe violations are discovered during this inspection, TRC/NYSERDA reserves the right to request that the partner instruct the construction team to remove sections of previously sealed walls or cut open sections of these walls in order to fully inspect insulation and air sealing measures. Additionally, TRC/NYSERDA has the right to require that a second open-wall inspection be conducted once all of the required corrections have been made and are ready for re-inspection.

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3.5.2. As-Built Site Inspection

The *As-Built Site Inspection Request* form must be submitted along with the other required documentation for the As-Built Submittal. As-Built Inspections will not normally be performed prior to the submittal of the entire As-Built Submittal package.

3.6 ENERGY STAR Benchmarking

Although an eligible building may earn the ENERGY STAR based on the requirements of the New Construction component, building performance is as much a function of proper building management as the energy conservation measure incorporated into the structure. Therefore, after earning the ENERGY STAR for the project, the developer/manager must commit to benchmarking their building in Portfolio Manager for a period of two years.

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To accomplish this goal, the developer/manager, or an entity working on their behalf, must be capable of evaluating the utility consumption of the residential-associated

spaces independent of any commercial/retail space. These nonresidential 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. Also, they should 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 building as a whole, not of individual apartments.

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

4. Gut Rehab Projects

REQUIREMENTS

The Multifamily Performance Program – New Construction component serves new construction as well as gut rehab projects. For this Program, gut rehab projects are defined as 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.

In general, gut rehab projects have the same requirements, must follow the same protocols, and receive the same incentives as new buildings in the New Construction component. A few exceptions include:

- Gut rehabs must meet the *Minimum Performance Standards* only on the systems and components that are being affected by the proposed work;
- ASHRAE 90.1-2007 Appendix G specifies that gut rehabs may use the existing envelope, as it exists prior to any work, as the baseline envelope design. More information regarding the modeling of gut-rehab projects is included in the *Simulation Guidelines*.

Gut rehabs that choose to follow the Prescriptive Path are required to meet all of the same requirements as new buildings in this component, detailed in Chapter 3.