

Multifamily Performance Program

Program Guidelines

For Multifamily Building Solutions Providers

July 2023



NYSERDA

Table of Contents

List of Tables	iii
List of Figures	iii
1 Multifamily Performance Program Overview	1
2 General Requirements	2
2.1 Multifamily Performance Program Rules.....	2
2.2 Deadlines.....	4
3 Eligibility	4
3.1 Eligibility Requirements	4
3.2 Large Project Pre-approval	7
3.3 Definition of a Project	8
3.4 Coordination with other NYS Energy Efficiency Programs	8
3.5 Contact Information.....	11
4 Incentives	12
4.1 Base Incentives.....	12
4.2 Performance Payment (Stage 4)	13
4.3 Incentive Cap.....	13
5 Application	13
5.1 Application Documents and Processing.....	13
5.2 Energy Use Baseline	14
5.3 Scoping Session	15
5.4 Application Approval.....	15
6 Stage 1: Building Analysis and Savings Verification and Information Tool (SAV-IT)	15
6.1 Overview	15
6.2 Auditing Requirements	16
6.3 Work Scope Development	17
6.4 Modeling Requirements	24
6.5 Simulation Guidelines	24
6.6 Quality Control.....	25
6.7 Stage 1 Deliverables.....	25
6.8 Stage 1 Approval	26
7 Stages 2 and 3: Construction Phase	26
7.1 Provider Responsibilities.....	26
7.2 Changes to the Scope of Work.....	27
7.3 Stage 2: Midpoint Construction Complete	27
7.4 Stage 2 Deliverables.....	28

7.5	Stage 2 Approval	28
7.6	Stage 3: 100 Percent Construction Complete.....	28
8	Site Inspection.....	30
8.1	Provider Responsibilities.....	30
8.2	Statement of Substantial Completion.....	33
9	Stage 4: Performance Payment	34
9.1	Overview	34
9.2	Performance Payment Analysis	35
9.3	Non-Achieving Projects.....	35
9.4	Stage 4 Deliverables.....	35
9.5	Stage 4 Approval	36
	Appendix A: Consolidated List of Deliverables	A-1
	Appendix B: Data Submittal Requirements	B-1
	Appendix C: Summary of Changes	C-1

List of Figures

Figure 1-1. Multifamily Performance Program At-A-Glance.....	2
Figure 3-1. Definition of a Project.....	8

List of Tables

Table 3-1. Affordability Eligible Proxies	5
Table 3-2. Program Interactions	11
Table 4-1. Incentive Schedule	12
Table 4-2. Incentive Payment Schedule.....	12
Table 5-1. Application Package Requirements	14
Table 6-1. Minimum Performance Standards for Existing Buildings	21
Table 7-1. Scope Change Deliverables	27
Table 7-2. Stage 2 Deliverables	28
Table 7-3. Stage 3 Deliverables	29
Table 9-1. Stage 4 Deliverables	35

1 Multifamily Performance Program Overview

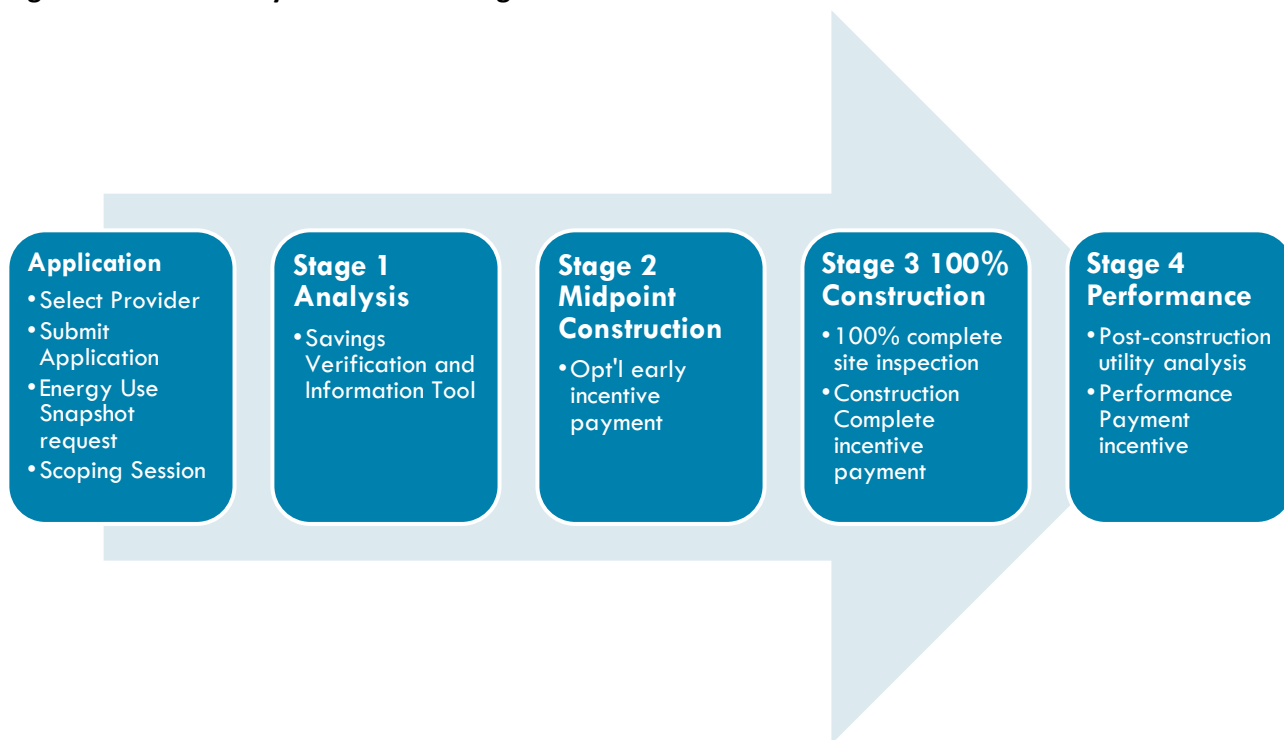
NYSERDA's Multifamily Performance Program (MPP) helps developers, building owners, and their representatives plan and implement energy efficiency projects within existing multifamily buildings.

MPP participants select and work with a technical service provider (provider) who is an approved member of the NYSERDA Multifamily Building Solutions Network. Participants choose the provider with whom they want to work and providers shepherd projects from beginning to end, performing, or overseeing, all of the program's technical service requirements.

MPP focuses on improving the energy usage of existing multifamily buildings by a minimum of 15 percent. As shown in Figure 1.1, plans follow a specific process:

- **Plan.** The building owner works with a provider to conduct an energy audit using industry best practices and standards. The provider identifies improvements that will reduce the building's site energy consumption by at least 15 percent. Building owners can choose which improvements they would like to install, provided the overall work scope meets or exceeds 15 percent. The results of this planning phase are submitted to NYSERDA using the program's Savings Verification and Information Tool.
- **Install.** The provider conducts limited construction oversight and inspection services during installation of the improvements identified in the project's approved work scope. The provider is not responsible for installing the measures but is responsible for ensuring installation is properly completed.
- **Measure.** One year after construction completion, the project's energy performance is analyzed. If actual performance meets or exceeds the program's target, building owners are eligible to receive a final performance payment incentive.

Figure 1-1. Multifamily Performance Program At-A-Glance



2 General Requirements

2.1 Multifamily Performance Program Rules

The following rules apply to all projects accepted under MPP. This list focuses on programmatic requirements and is not intended to cover all the program's eligibility requirements as listed in the remainder of this document, the Terms and Conditions, and/or the provider agreement. Addenda may be developed to supersede, clarify, or expand on program rules presented in this or other program documents. Addenda may be accessed at the MPP Provider Portal or by contacting: multifamilyprograms@nyserda.ny.gov

All references to the performance target refer to the minimum percent reduction required by MPP, which is 15 percent of site energy savings.

1. When assembling a scope of work in the Savings Verification and Information Tool (SAV-IT), the following performance target criteria must be met:
 - The SAV-IT must identify a scope of work that will achieve a minimum 15 percent site energy use reduction for the project.
 - If the NYSERDA-approved SAV-IT indicates there are insufficient opportunities in the project to achieve the minimum performance target, the participant is ineligible to receive any incentives.

2. Providers must use the utility baseline provided via NYSERDA's Energy Use Snapshot service.
 - The pre-construction utility baseline will be provided by NYSERDA and must be used in the SAV-IT.
 - The pre-construction utility baseline may be requested by the provider up to 12 months prior to application approval.
 - NYSERDA will provide the post-construction utility baseline, which will be the basis for determining if a building is eligible to receive a performance payment in stage 4.
3. Providers must perform improvement analyses, including cost and savings projections:
 - Measured savings calculations for energy efficiency must adhere to the technical standards of the provider's professional certification (AEE CEM, AEE CEA, or BPI MFBA).
 - Energy efficiency measures installed and functional within 12 months prior to NYSERDA approving an application may be included in the SAV-IT to contribute to the 15 percent performance target. The cost of these previously installed measures must be excluded from the incentive cap that limits NYSERDA's incentives under MPP.
 - Submetering may only be included as an eligible measure if the project has a Public Service Commission (PSC) case number. The measure will not be installed until final PSC Order indicating approval is provided.
4. Milestones:
 - Stage 1 deliverables must be submitted within 90 calendar days of NYSERDA's application approval. Projects that do not meet this deadline may be terminated from the program and unpaid incentives forfeited.
 - Stage 2 is an optional stage. The deliverables can be submitted at a midpoint in construction completion, provided the construction is at least 30 percent complete.
 - Stage 3 deliverables must be submitted within two years of NYSERDA's application approval. Projects that do not meet this deadline may be terminated from the program and unpaid incentives forfeited.
 - Stage 4 performance payment submittals are due within 14 months of the stage 3 submittal to NYSERDA. Projects that do not meet this deadline may be terminated from the program and unpaid incentives forfeited.
 - The deadlines in stages 1, 3, and 4 can only be extended by a physical letter or emailed request from the provider to the project's NYSERDA Project Manager that is approved in writing by NYSERDA.
5. Any changes to the approved work scope that alter the project's percent savings reduction or adds or removes measures must be submitted as a revision to the SAV-IT via a scope change request. The project must continue to meet the minimum performance target of 15 percent.

6. The audit must be conducted or supervised by a certified energy professional (AEE CEM, AEE CEA, or BPI MFBA) and the audit must be conducted in accordance with the certification's standards. This individual may be directly employed by, or a subcontractor to, the provider responsible for the project. At any time, NYSERDA or its agents may request proof of the auditor certification.
7. All recommended and installed improvements must comply with the Minimum Performance Standards for MPP (Table 6-1).

2.2 Deadlines

Provider performance is tracked to determine rate of compliance with program deadlines. NYSERDA expects projects to meet the following guidelines for deliverables. The provider is responsible for ensuring their projects move through stages 1, 2, and 3 in a timely manner to meet the two-year construction completion deadline. SAV-IT revisions:

- Should be submitted to NYSERDA within 30 days of receiving NYSERDA comments.
- Are expected to be limited to one revision per project.

3 Eligibility

3.1 Eligibility Requirements

This section provides the requirements for establishing a project. At the onset of their relationship with a potential program participant, providers should determine whether a property is eligible for MPP.

The following list of eligible property types is not comprehensive. Special circumstances may be reviewed on a case-by-case basis. Contact NYSERDA at MultifamilyPrograms@nyserda.ny.gov for a review.

3.1.1 System Benefits Charge

All buildings within a project must pay into the New York State System Benefits Charge (SBC) fund or the Clean Energy Fund (CEF) on their electric utility bill.

3.1.2 Project Size and Building Characteristics

The project must be a multifamily, residential building(s) with five or more units in each building. Projects larger than 500 units or multiple projects comprised of a campus larger than 500 units require pre-approval from NYSERDA. See section 3.2 for details and instructions.

3.1.3 Construction Type

Buildings may contain nonresidential commercial space if that space does not consist of more than 50 percent of the gross heated square footage of the entire building.

3.1.4 Market Type (Affordable vs. Market-Rate)

NYSERDA defines affordable housing as projects in which at least 25 percent of the units are, or are expected to be, occupied by households earning not more than 80 percent of the area or State median income, whichever is higher. All other properties are considered market rate and ineligible for MPP.

Affordable housing documentation must be submitted with the application package. There are three ways to qualify a project for affordable housing incentives:

1. Proxy: NYSERDA allows certain proxies to represent compliance with the definition previously mentioned. Table 3-1 lists eligible proxies and supporting documentation.

Table 3-1. Affordability Eligible Proxies

Eligibility Proxy	Details	Documentation Required
US HUD, USDA-RD, and other Federally Regulated LMI Housing	Properties that receive subsidies from 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: Section 8 Contract Sections 202, 236, 811 Public Housing Authorities	Copy of the HUD contract or contract award notice.
NYS HCR-Regulated Affordable Housing	Properties with subsidized mortgages or contracts that place them under the regulatory control of HCR may be defined as LMI, based on household income criteria detailed in the HCR contract or award.	Copy of HCR contract or contract award notice.
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.	Copy of tax credit award notice from HCR or HPD.
NYCHPD-Regulated LMI Housing (or similar local housing agencies)	Properties with loans, mortgages, or deeds of purchase (HDFC incorporation) from NYCHPD or similar local housing agencies may be defined as LMI, based on household income criteria detailed in the award documentation.	Documentation of current mortgage, loan closing, HDFC incorporation, or deeds.
SONYMA Mortgage Insurance	Properties subsidized for low- to moderate-income multifamily residents with SONYMA subsidized financing through the HFA.	Copy of loan closing/mortgage insurance award documents.

Table 3-1 continued

Participation in NYS HFA's 80/20 Program or similar HFA-regulated offerings	Properties that have been accepted into the HFA's 80/20 Program, or similar HFA-regulated offering, may be defined as LMI based on household income criteria detailed in the contract or award.	Copy of the award letter or HFA contract documents.
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.	Copy of the award letter or HDC contract documents.
Weatherization Assistance Program	Properties that have fulfilled the eligibility requirements for the Weatherization Assistance Program.	Letter from the Weatherization Agency confirming the project's income eligibility.
Mitchell-Lama Buildings	Properties that are currently NYS or NYC supervised Mitchell-Lama buildings.	Copy of NYSHCR or NYCHPD contract or recent annual report confirming active Mitchell-Lama status.

2. **Rent Roll:** This type of qualification may be used by projects that do not meet the proxy requirements or resident income requirements. Applications must include the annual rent, size, and occupancy for each apartment in the property. Twenty-five percent of the units must have a calculated household income not 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 Provider Portal for determining Rent Roll income eligibility. The Rent Roll method may not be combined with the Resident Income method.
3. **Resident Income:** This type of qualification may be used by projects that do not meet the proxy or Rent Roll requirements. This method requires the submission of signed Resident Income Certification forms with supporting documentation for 25 percent of a project's units. See the Resident Income Certification Instructions and related forms (available on the Provider Portal). The Resident Income method may not be combined with the Rent Roll method.

3.1.5 Extent of Renovation

MPP will accept renovations to existing structures defined as changes, additions, or deletions to any system or process that impacts an existing building's energy consumption and/or cost not defined as new construction or substantial renovations (gut rehabs).

Substantial Renovations (gut rehabs) are not eligible for MPP. These types of projects may be eligible for incentives through other NYSEDA or utility programs serving new construction buildings. Substantial renovations are defined as one of the following types of projects:

- 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.

Contact the New Construction Team at NYSEDA (NewConstructionProgram@nyserda.ny.gov) for more information about new construction programs for multifamily buildings.

3.1.6 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 MPP. Supportive housing, single room occupancy (SRO) facilities, and senior living residences that do not include nursing or hospitalization amenities are typically eligible for MPP. Supportive housing is defined as residences that are owned and operated by nonprofit organizations. Tenants are individuals and families who require 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 group includes people who have been homeless, have histories of substance abuse, are coping with mental illness, have chronic physical illness, are young adults aging out of foster care, are homeless veterans, or are grandparents raising grandchildren.

3.2 Large Project Pre-approval

To manage funding availability, large projects over 500 units will require NYSEDA pre-approval before applying to MPP. Providers considering large projects for MPP must send an email to MultifamilyPrograms@nyserda.ny.gov containing the following information:

- Project name
- Project address or utility territory
- Number of buildings
- Number of units
- Affordability proxy

NYSEDA will review the information and determine potentially available funding based on the size of the project. NYSEDA will then contact the provider regarding how to move forward.

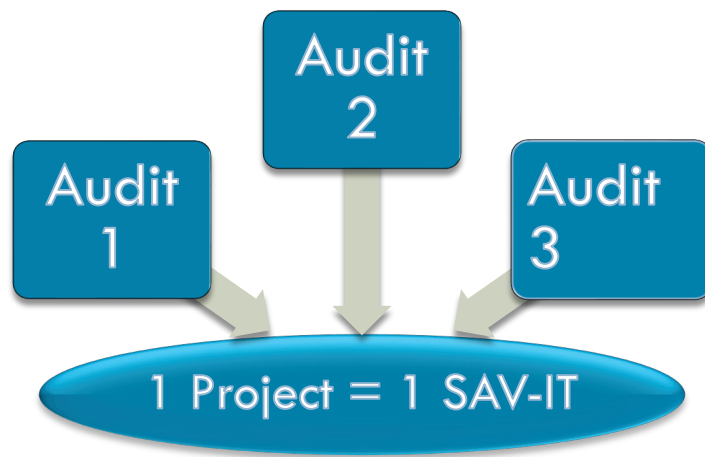
3.3 Definition of a Project

An MPP project is defined as a building or group of buildings where energy audits are performed by a provider for a single program participant. The provider will develop one SAV-IT per project.

One project can include multiple buildings with multiple energy audits.

- Project can consist of multiple buildings.
- One MPP application is allowed per project.
- One SAV-IT is allowed per project.
- One SAV-IT can include multiple buildings.
- One SAV-IT can include multiple energy audits.

Figure 3-1. Definition of a Project



3.4 Coordination with other NYS Energy Efficiency Programs

Energy efficiency programs in New York State are regularly updated. While the information presented in this section is current per the release date of these guidelines, please contact multifamilyprograms@nyscrda.ny.gov if you have a question about how MPP coordinates with other energy efficiency or clean energy programs.

3.4.1 Coordination with other NYSERDA Programs

MPP may be combined with NYSERDA's Flexible Technical Assistance (FlexTech), On-site Energy Manager (OsEM) and Real Time Energy Manager (RTEM) programs without reducing the incentive payment associated with MPP. MPP incentives may continue to be used for implementation while other NYSERDA programs may be leveraged for technical assistance, energy master planning and/or energy monitoring.

- Flexible Technical Assistance (FlexTech)—NYSERDA provides cost-shared technical assistance, such as an energy study. The resulting final report from the energy study may be used to inform the development of the MPP Savings Verification and Information Tool (SAV-IT).

- On-site Energy Manager (OsEM)—NYSERDA subsidizes the cost of a dedicated on-site energy manager to develop energy master plans and identify utility or State funding opportunities to support energy efficiency work.
- Real Time Energy Management (RTEM)—NYSERDA cost shares the installation cost of a cloud-based energy management system and a five-year service contract in order for building owners to learn how their building is performing in real-time, detect equipment failures, and uncover opportunities to optimize the building's energy use. To layer the cost-share from RTEM with the incentives from MPP, the potential energy savings associated with the RTEM project cannot count towards the performance target presented in the MPP project.

Providers are encouraged to leverage these respective programs to maximize the value for the building owner.

3.4.2 AMP, ResTech, GEPP, and MPP Existing Buildings Versions 1-8

Projects that participated in NYSEDA's Assisted Multifamily Program (AMP), Residential Technical Assistance (ResTech), or MPP EB Versions 1—8.1 and received funding must fulfill their current contract before applying to Version 9. Projects participating in MPP EB Versions 1—8.1 that have not received funding may terminate their contract and reapply to Version 9. These reapplication projects will not retain their previous funding, but they can apply for Version 9 funding.

3.4.3 Coordination with NYSEDA On-Site Generation Programs

Projects participating in MPP may participate in both MPP and one or several of the NYSEDA on-site generation programs including solar electric and others. Projects can choose one of two methods to combine programs.

3.4.3.1 *Method 1: Including On-Site Generation Measures*

Projects can include the energy savings and measure costs from the on-site generation systems, and they may contribute to the 15 percent performance target and the total project costs. The incentives received from other NYSEDA programs will be deducted from the total eligible MPP incentives.

Any project that has an on-site behind-the-meter solar photovoltaic system or a combined heat and power (CHP) system during the baseline must refer to appendix B for additional data submittal requirements.

3.4.3.2 Method 2: Excluding On-Site Generation Measures

Projects can exclude the on-site generation systems from the SAV-IT scope of work. In this method, the energy savings and measure cost will not contribute to the 15 percent performance target and the total project costs. The incentives received from other NYSEDA programs will not be deducted from the total eligible MPP incentives. Projects must follow the guidance in section 6.3 for how to exclude measure savings to ensure separate reporting of energy savings for MPP measures from the on-site generation programs measures.

3.4.4 Coordination with Utility Program Incentives

Projects that received utility program incentives for energy efficiency measures installed and functional within 12 months prior to NYSEDA's application approval may include those measures in the project's MPP scope of work. The energy savings and cost of the measures may contribute to the 15 percent performance target and the total project costs. The utility incentive will be deducted from the total eligible MPP incentive.

3.4.5 Coordination with Weatherization Assistance Program

Projects that participate in the Weatherization Assistance Program (WAP) concurrently with their participation in MPP may include the WAP measures in the project's MPP scope of work. The energy savings and costs of the measures may contribute to the MPP 15 percent performance target and the total project costs. The WAP funds invested in the project will not be deducted from the MPP incentive, but the combination of MPP incentives and WAP funds cannot exceed 100% of the total project cost.

3.4.6 Coordination with New York State and New York City Affordable Housing Agencies via IPNA

Nearly all the multifamily financing programs of the NYC Housing Preservation and Development and NYC Housing Development Corporation require the Integrated Physical Needs Assessment (IPNA) to be completed. Multifamily financing programs under the New York State Homes and Community Renewal also use the IPNA. The IPNA Standard requires IPNA Providers to complete and document the outcomes of both a physical needs assessment and an energy audit and provide recommendations. Information from the IPNA may be used to inform the development of the MPP SAV-IT. The MPP incentives are additive with funding provided by the affordable housing agencies.

Table 3-2. Program Interactions

Coordination with Previously Installed Measures and Other Energy Efficiency Programs			
	Measure savings may be used to reach Performance Target	Measure costs may be included in Incentive Cap	Incentive Adjustments
Previously Installed Measures (see Program Rule 3 in section 2.1)	Yes	No	N/A
Utility Programs	Yes	Yes	Utility Incentives are deducted from eligible MPP Incentive
Other NYSERDA Programs (on-site generation) – Method 1	Yes	Yes	Other Program incentives are deducted from eligible MPP Incentive
Other NYSERDA Programs (on-site generation) – Method 2	No	No	N/A
WAP concurrently with MPP	Yes	Yes	Combination of MPP & WAP funds cannot exceed 100% of total project costs

3.5 Contact Information

Email all application, intake, and eligibility questions to MultifamilyPrograms@nyserda.ny.gov

A project case manager is assigned upon application approval to coordinate all project-related tasks. All correspondence and questions about a project after an application approval email is received must be directed to the project's case manager. Contact information will be provided upon assignment. Email all project submittals to MultifamilyPrograms@nyserda.ny.gov

4 Incentives

4.1 Base Incentives

Projects are eligible to receive financial assistance through a schedule of incentives. This schedule is subject to modification. Incentives are distributed via the schedule of payments in Table 4-2.

Table 4-1. Incentive Schedule

Projected Energy Savings Target	Total Incentive (per unit)	Base Incentive (per unit)	Performance Payment (per unit)
15% - 24%	\$700	\$650	\$50
25% - 29%	\$800	\$750	\$50
30% - 34%	\$1,000	\$950	\$50
35% +	\$1,500	\$1,200	\$300

Table 4-2. Incentive Payment Schedule

The following payment schedule applies to all MPP projects.

Projected Energy Savings Target	Stage 1* Analysis (per unit)	Stage 2 Construction Management (per unit)	Stage 3 Construction Complete (per unit)	Stage 4 Performance Payment (per unit)
15% - 24%	\$200	\$125	\$325	\$50
25% - 29%	\$200	\$175	\$375	\$50
30% - 34%	\$200	\$275	\$475	\$50
35% +	\$200	\$500	\$500	\$300

- * If the NYSERDA-approved SAV-IT indicates that there are insufficient opportunities in the project to achieve the minimum performance target, the participant will be paid the lesser of stage 1 payment or 25percent of the cost of the SAV-IT services provided by the Multifamily Performance Provider as documented in the executed contract between the provider and the participant or \$5,000.

4.2 Performance Payment (Stage 4)

All projects are eligible to receive a performance payment in addition to the base incentive. The projected energy reduction from the SAV-IT must determine the project's performance payment tier in accordance with Table 4-1. If a project's one-year, post-construction analysis demonstrates an actual energy reduction within the project's original tier, the project will receive a performance payment equal to that tier's amount. If the analysis demonstrates actual savings greater than the project's original tier, the performance payment will be at the original tier's amount. If the analysis demonstrates actual savings, less than the project's original tier, but at least 15 percent, the performance payment will be at the new tier's amount. If the analysis demonstrates actual savings less than 15 percent, the project will not receive a performance payment. Refer to section 9.4 for more information on deliverables.

4.3 Incentive Cap

NYSERDA incentives will not exceed 50 percent of the total costs of eligible measures. For the purposes of calculating the incentive cap, the total project cost includes the total cost of improvements in the proposed SAV-IT. The following are not included in the total project cost for the purposes of calculating the incentive cap: previously installed measures, provider fees for delivering required program services, and construction management fees.

5 Application

Before submitting a project application package to NYSERDA for a potential participant, the provider should work with the potential participant to determine eligibility and potential incentives as outlined in sections 3 and 4. The provider is expected to take the lead role in the project application process.

5.1 Application Documents and Processing

Upon identifying an eligible project, the provider (in consultation with the participant) should submit an application to MPP. The application package consists of the following deliverables:

Table 5-1. Application Package Requirements

Current versions of these forms may be found on the MPP Provider Portal.

Project Information Form	Use this form to help gather basic information about the project. (Does not need to be submitted with the online application.)
Terms and Conditions	This is the contract where the participant accepts the rules and requirements of MPP.
W-9	Establishes the Federal Tax Identification Number of the participant.
Affordable Housing Documentation	Required for all projects.
Energy Use Snapshot Request (if applicable)	This package of materials allows NYSERDA to establish the project's energy use baseline. Projects are required to use NYSERDA's baseline as a basis for energy savings calculations. A new Energy Use Snapshot request is not required if a project submitted a request prior to MPP application submission and the baseline energy use that was established was within two years of application approval.

5.1.1 Application Submittal

NYSERDA uses an online application submittal system called CRIS (Comprehensive Residential Information System). Providers receive a CRIS login and password upon approval to join the Multifamily Building Solutions Network as well as attending a mandatory provider orientation.

5.1.2 Terms and Conditions

Providers are required to keep an original signed copy of the terms and conditions for seven years for each project. Signed originals need not be sent to NYSERDA, but providers must keep them on file.

5.2 Energy Use Baseline

Projects participating in MPP must also apply to NYSERDA's Energy Use Snapshot service. Information from the report generated by NYSERDA's Energy Use Snapshot service must be used as a basis for energy savings calculations in the SAV-IT. A new Energy Use Snapshot request is not required if a project submitted a request prior to MPP and the baseline energy use that was established was within two years of application approval. Refer to the Energy Use Snapshot service section on the Provider Portal for more information.

5.3 Scoping Session

Upon application acceptance, the project case manager will schedule a scoping session with the participant and provider. The scoping session may be either in-person meetings or conference calls. The intent of the scoping session is to establish participant interest, identify likely energy efficiency measures, review the program's requirements and responsibilities, and determine sources of potential funding. Knowledgeable representatives of both the provider and participant are required to attend the scoping session.

Providers are required to submit a set of photographs illustrating existing building conditions for scoping sessions conducted off-site or by conference call.

5.4 Application Approval

Upon completion of a successful scoping session, NYSERDA issues an application approval to the provider and participant. The application approval is an email including the incentive award letter as an attachment. Projects that proceed with development of the SAV-IT prior to receipt of NYSERDA's application approval do so at their own risk.

6 Stage 1: Building Analysis and Savings Verification and Information Tool (SAV-IT)

6.1 Overview

Upon application approval, the provider will work with the participant to complete the stage 1 submittal, including the SAV-IT. The SAV-IT is a spreadsheet workbook that serves as the primary vehicle for providing detailed information about the project. All projects are required to use the SAV-IT. It may not be used as a means of cost or savings estimation. It must only be used as a place for providers to record their outside custom energy savings calculations. Providers enter the site energy savings based on their custom energy savings calculations. Providers must refer to the Simulation Guidelines, found on the Provider Portal, for acceptable energy savings ranges and analysis.

The SAV-IT is located on the provider portal. Providers should always use a new workbook from the Provider Portal for each new project. The development process consists of the following:

- Completing a comprehensive building audit.
- Calculating the proposed energy savings for each improvement.
- Completing the SAV-IT workbook.
- Reviewing proposed scope of work with participant.
- Finalizing all required documentation and submit it to NYSERDA.

The complete SAV-IT summarizes the results of a comprehensive building audit and represents the work scope that the participant is willing to undertake.

A building audit is a necessary first step, but is only one component of the SAV-IT. After the building audit is complete, a work scope is developed that incorporates the participant's financial and contracting abilities. These post-audit components of the SAV-IT are critically important and must be developed in close consultation with the participant to ensure that the project moves through to construction.

Most importantly, the SAV-IT helps to educate both the participant and NYSERDA. It also standardizes information, data, and documentation across the entire program and from provider to provider.

The SAV-IT components are:

- Energy-use baseline (provided by NYSERDA).
- Existing and post-retrofit building energy use.
- Existing conditions.
- Complete descriptions of all improvements to be installed.
- Cost effectiveness calculations.
- Quality control analysis of all inputs to the SAV-IT.

6.2 Auditing Requirements

This section describes the requirements for completing a comprehensive building audit of an MPP project. The requirements in this section must be followed for the SAV-IT to be approved.

The comprehensive building audit(s) is (are) to be conducted or supervised by a certified energy professional (AEE CEM, AEE CEA, or BPI MFBA) and in accordance with the certification's standards. Any instrumented testing must use equipment that is built for the tolerances required, accurate, and verified in calibration.

The provider may conduct the audit directly or use a subcontractor to perform the audit on the provider firm's behalf. All requirements outlined in this section must be adhered to by providers and their subcontractors. It is the provider's responsibility to oversee their subcontractors and ensure their compliance with all program rules.

6.2.1 Documentation and Data Entry

All building information collected via on-site observation, surveys, and performance testing must be documented and serve as a reference for data entry into an energy analysis tool. It is recommended the auditor who performs the on-site audit be responsible for entering building data into the analysis tool, as much of the data entry requires interpretation of occupant/management responses to queries, visual indicators of systems performance, and analytical performance testing. As an example, the overall efficiency of the distribution system is based on occupant comfort, system design and controls, insulation levels, and system leakage. In cases where field staff and modelers are distinct functions, it is important for the field auditor to take detailed notes, so interpretative information can be transferred.

Photo documentation is a required part of stage 1 documentation and must consist of a representative sample of the existing conditions of the project. It is important to include photo documentation of existing conditions that will be updated through the scope of work or that diverge from what would be expected in a normal building. As an example, if a baseline assumption of a building model shows a very high-infiltration rate that will be reduced with air sealing, a photo is required to document the source of such high-baseline infiltration.

6.3 Work Scope Development

The scope of work, as presented in the SAV-IT, should consist of energy savings measures. Possible energy saving measures include air source heat pumps, geothermal systems, submetering, and on-site generation improvements (photovoltaics, wind) may contribute to the 15 percent energy reduction target. Measures must meet all program rules and requirements to be eligible for incentives. The recommended scope of work should be developed in consultation with the participant and should meet the participant's financial and implementation goals for the property.

6.3.1 Utility Cost Analysis

Providers are required to provide energy costs for the purposes of calculating the annual cost savings of the proposed measures. When reporting energy cost, the provider should use a blended rate analysis in the SAV-IT. Estimated useful life (EUL) for proposed equipment is based on the Technical Resources Manual (TRM).

6.3.2 Cost Estimation

The projected cost of installing measures relies on estimates based on previous experience and knowledge of current pricing of building materials, equipment, and labor. Although there are likely other costs associated with installing measures, these can usually be aggregated into a simple percent increase above the estimated cost of materials and labor. The provider portal contains "Tech Tips" with guidance and best practices for construction cost estimating.

6.3.3 Health and Safety Measures

The program intends to ensure that energy-related health and safety measures are addressed, even if they do not lead to fuel, electricity, or monetary savings. Where health and safety issues are identified through the building audit process, the provider has an obligation to inform participants and to encourage them to address these issues prior to the completion of the specified work scope. Special attention should be paid to situations where building code violations are uncovered.

Health and safety improvements with no associated energy savings may not be included in the MPP scope of work.

6.3.4 Operation and Maintenance (O&M) Savings

Cost savings associated with reduced O&M expense can be difficult to predict and quantify and should be claimed only in cases where solid documentation can be provided to substantiate the savings estimate.

An example might involve the removal of a central boiler plant and replacement with building-based boilers. If the central plant involved underground distribution of heated water or steam and the underground piping was in a deteriorated condition, annual repairs could be regular and expensive. In such a case, it may be reasonable to quantify the savings associated with no longer needing to maintain the underground distribution piping based on historical costs for such maintenance and repair.

If O&M savings are claimed, calculations and documentation must be included in the SAV-IT as an outside calculation.

6.3.5 Excluding On-Site Generation

The following instructions are specifically for projects that choose to exclude on-site generation systems that are receiving incentives under NYSERDA on-site generation programs such as NY-Sun, Solar Thermal, etc. This guidance addresses a methodology to avoid over-estimation of energy savings or over-payment of incentives for measures installed under a combination of programs. The intent is to separate reporting of energy savings for MPP measures from the on-site generation program measures. Please refer to section 3.4 for rules on how to include on-site generation in the work scope.

1. Application.

If you know you will be participating in a NYSERDA on-site generation program at the time of application, indicate that in the notes section of the application.

2. Scoping Session.

If you know you will be participating in a NYSERDA on-site generation program at the time of the scoping session, let your project manager know during the scoping session. Any project that has an on-site behind-the-meter solar photovoltaic system or a combined heat and power (CHP) system during the baseline must refer to appendix B for additional data submittal requirements.

3. Savings Verification and Information Tool (SAV-IT): Stage 1.

Energy savings from on-site generation measures that are receiving incentives under other NYSERDA programs may NOT contribute to the 15 percent minimum savings target. Do not include these measures in the SAV-IT or any calculations.

4. Construction Period: Stages 2-3.

On-site generation measures need not be reported on site inspection requests. MPP site inspections will not address these measures. Use the requirements of the other NYSERDA programs to determine how to handle site inspections for those measures.

5. Post-Construction: Stage 4.

MPP compares one year of pre-construction energy use to one year of post-construction energy use to determine eligibility for receiving the stage 4 payment. The energy savings generated from on-site generation measures must be removed from this calculation to provide a true comparison of pre-to-post energy savings for only MPP measures.

Each on-site generation program has a monitoring and verification (M&V) period ranging from two to three years after installation. The M&V documentation available will differ between the on-site generation programs. Refer to individual NYSERDA on-site generation program guidance for specific requirements. MPP Stage 4 submittals must include documentation of actual on-site generation energy production and savings, and those savings must be subtracted from the MPP savings. Please refer to appendix B for further documentation requirements.

It is understood that each project has its own timeline for installation of MPP and on-site generation program measures. Consult with your project manager early to discuss installation schedules and how they will affect the stage 4 requirements.

6.3.6 Minimum Performance Standards

All recommended improvements shall comply with the Minimum Performance Standards where applicable.

The provider is responsible for ensuring that all performance assumptions made in the comprehensive energy audit are translated into bid and construction documents. A work scope should contain performance specifications or references to the specifications for the materials and equipment to be installed. Additionally, the work scope should include enough information about installation standards to ensure that competitive bidding is fair in scope and pricing and that potential contractors understand the importance of performance contracting.

The Minimum Performance Standards are a requirement for all projects. Please speak with program staff if there is difficulty complying with a specific standard. The Minimum Performance Standards for MPP are included in the following pages. These standards, as shown in Table 6-1, establish the measure-by-measure parameters that apply only to those building components or systems for which recommended improvements are proposed. For projects where one of the specific components is recommended within the proposed energy efficiency work scope, this component must at least meet the indicated performance requirements.

These Minimum Performance Standards are also intended to:

- Ensure that buildings are built to the requirements of specific, applicable codes.
- Provide a reference for providers to describe what will be required to participate in MPP.
- Promote the installation of ENERGY STAR® appliances, lighting, and equipment where available.
- For current NYS code and supplements, including the Energy Conservation Construction Code of New York State (ECCC NYS), and an easy guide to the specific code requirements mentioned below please refer to the Code Reference Guide available on the provider portal.

Table 6-1. Minimum Performance Standards for Existing Buildings

RECOMMENDED MEASURE	MINIMUM PERFORMANCE STANDARD
	Recommended measures shall AT LEAST meet each of these requirements for each indicated measure or system, including BPI, Inc. Technical Standards for MFBA or applicable local, State, or national codes, whichever is more stringent. For building components or systems not addressed in this document, the recommended measure must meet or exceed applicable local, State, or national code.
Appliances	
Appliances	Appliances shall be ENERGY STAR® labeled.
Refrigerators and Air Conditioning Units	Refrigerators and air conditioning units must be removed and decommissioned in compliance with EPA Clean Air Act and other relevant NY State regulations.
Domestic Hot Water	
Domestic Hot Water Heating System	All DHW piping in mechanical rooms and all accessible DHW piping in unconditioned spaces shall be insulated to ECCC NYS.
Domestic Hot Water Boiler System	Replacement domestic hot water heating plant(s) shall be ENERGY STAR® labeled. For systems where the ENERGY STAR® label is not available, the specified heating plant(s) shall have a minimum rated efficiency no less than that required by ECCC NYS.
Domestic Hot Water Temperature	The temperature of DHW delivered to the apartments shall not exceed 125°F when measured at the tap.
DHW Fixture Flow Rates	Faucets and showerheads must not exceed the flow rates specified in current NYS code and supplements.
Envelope	
Windows and Exterior Doors	Specified windows and doors shall be ENERGY STAR® labeled and comply with ECCC NYS.
Heating	
Boiler and Furnace Systems	Atmospherically vented gas furnaces and boilers shall not be specified.
	All steam, hot water, and cooling system piping in mechanical rooms and all accessible steam, hot water, and cooling system piping in unconditioned spaces shall be insulated to ECCC NYS.

Table 6-1 continued

RECOMMENDED MEASURE	MINIMUM PERFORMANCE STANDARD
Heating System Efficiency	Replacement heating plant(s) smaller than 300,000 Btu/hr shall be ENERGY STAR® labeled. Boiler systems (hot water and steam) larger than 300,000 Btu/hr input shall have a minimum rated efficiency no less than that required by the ECCC NYS. For all other systems where the ENERGY STAR® label is not available, the specified heating plant(s) shall have a minimum rated efficiency no less than that required by the ECCC NYS.
Steady State Efficiency Testing	Replacement condensing boilers shall submit steady state efficiency testing for high and low fire.
Condensing Boilers	Condensing boiler systems shall be designed, installed, and operated in a manner to minimize return water temperature.
Condensing Furnaces	Condensing furnaces shall be installed with electronically commutated motors (ECMs).
Owner's Manual	When replacing HVAC systems and equipment provide an owner's manual that contains (at a minimum) the following: <ul style="list-style-type: none"> • Results of steady state efficiency test at high and low fire. • As-built equipment and control cut sheets. • Statement of the system's Sequence of Operations.
Heat Pumps	Equipment with a capacity of 65,000 Btu/hr or less shall be listed on the NEEP Cold Climate ASHP Specification Listing. Equipment with a capacity of more than 65,000 Btu/hr shall comply with ECCC NYS minimum efficiencies.
Heating System Combustion Air Intake	When replacing the heating plant, provide a motorized damper on the outside "free air" louver and wire it to the burner ignition OR ensure the mechanical room (unconditioned space) is compartmentalized from rest of building/conditioned spaces.
Thermostats	Any thermostat installed in an apartment must be ENERGY STAR® labeled.
Distribution System Replacements	When replacing existing distribution systems or installing new systems, terminal heating, and cooling distribution, equipment serving an apartment shall be controlled by a thermostat(s) located within the same apartment as per ECCC NYS. When replacing existing distribution systems, terminal heating and cooling distribution equipment must be separated from the riser or distribution loop by a control valve, or terminal distribution pump, so that heated or cooled fluid is not delivered to the apartment distribution equipment when there is no call from the apartment thermostats.
Cooling	
Room Air Conditioners	Room air conditioners shall be ENERGY STAR® labeled (for all model sizes covered by the ENERGY STAR® label).
	Air conditioning units must be removed and decommissioned in compliance with EPA Clean Air Act and other relevant New York State regulations.

Table 6-1 continued

RECOMMENDED MEASURE	MINIMUM PERFORMANCE STANDARD
Packaged Terminal Air Conditioners	Equipment shall be ENERGY STAR® labeled (for all model sizes covered by the ENERGY STAR® label). Where sizing does not allow ENERGY STAR® labeling, equipment shall comply with ECCC NYS minimum efficiencies.
Chillers	Equipment shall meet the requirements of ECCC NYS.
Lighting	
Lighting - General	Removed fluorescent lamps and ballasts must be disposed of in an environmentally sensitive manner, adhering to a relevant local, State and national codes.
Lighting Controls	When replacing or upgrading lighting, occupant sensor controls must be installed in storage closets, compactor rooms, common area bathrooms, etc., as required by ECCC NYS. When replacing or upgrading lighting in hallways, stairwells, lobbies, laundry rooms, and other common area spaces, controls must be provided as required by ECCC NYS.
Fluorescent Lighting	Fluorescent lighting, including linear fluorescent lamps and compact fluorescent lamps shall not be specified. All new lighting shall be LED.
Exit Signs	All exit signs shall be specified LED (not to exceed 5W per face) or photo luminescent and shall conform to local building code. Fixtures located above stairwell doors and other forms of egress shall contain a battery back-up feature.
Exterior Lighting	Exterior lighting shall have an efficacy of greater than or equal that specified in ECCC NYS. Fixtures must include automatic switching on timers or photocell controls except fixtures intended for 24-hour operation, required for security, or located on apartment balconies.
Other Measures	
Motors	All replacement or newly installed three phase motors 1 HP or larger shall be NEMA Premium efficiency or greater. Motors that are packaged as an integral component of mechanical equipment are exempt from this requirement.

6.4 Modeling Requirements

Providers are only required to use approved simulation software to model energy savings if the project will be projecting more than 40 percent energy savings. A list of approved software can be found in the simulation guidelines. NYSERDA Multifamily Performance Program staff will not provide assistance with software-related questions or model troubleshooting.

Although an energy model is not required for projects projecting less than 40 percent energy savings, calculations of projected savings must be submitted for review at the request of MPP staff.

6.4.1 Side Calculations

The modeling software must be used to calculate savings for all measures that can be simulated by that software. Some energy improvements cannot be calculated by the modeling software. For such measures, providers may perform side calculations to analyze those improvements.

6.4.2 Modeling Software Requirements

New analytical tools may be applied to the program by submitting an application describing tool capabilities and demonstrating compliance with the listed program requirements. Based on a program review, the tool may be accepted for use on one or several pre-approved pilot projects. Deliverables for projects that are not identified as pilot projects prior to preparing the comprehensive energy assessment and that utilize software not approved for use in the program will not be accepted. Only analytical tools that satisfy the requirements outlined below may be used.

- Compliance with ASHRAE 90.1 Appendix G simulation and documentation requirements, or Approval for EAct Federal Tax Deductions, or DOE approval for use in Weatherization Assistance Program for multifamily buildings.
- Support of systems and configurations that are typical for multifamily buildings in the northeastern United States.
- Support of Multifamily Performance Program business process and reporting requirements.
- Availability of technical support, training, and/or user manual and documentation.
- Built-in troubleshooting tools and errors/warnings reports.
- Integrated support for evaluation of design alternatives (improvements).

6.5 Simulation Guidelines

Providers are required to calculate savings for all projects as per the technical standards in the simulation guidelines. The simulation guidelines are found in a separate document that contains a methodology for energy simulation and model calibration (if applicable). The document must be used to evaluate energy reduction measures and to calculate the projected savings and cost-effectiveness of recommendations included in the SAV-IT.

The simulation guidelines serve as a resource to ensure that:

- Consistent simulation methodology is used from provider to provider and from building to building.
- Energy simulation and model calibration best practices are followed.
- Modeling assumptions are within reasonable ranges.
- Savings projections are realistic.

6.6 Quality Control

NYSERDA conducts quality control reviews of all submittals. Additionally, the SAV-IT contains quality control flags identifying measures that fall outside the range of typical measures costs and typical measure savings based on previous multifamily installations and industry standards. NYSERDA reserves the right to request further information about savings calculations and measure costs, calculation, and model updates, etc. Final approval of the SAV-IT is at the discretion of the reviewer.

Providers are subject to the terms and conditions of the provider application including the Provider Status Designation Policy. Providers must conduct a comprehensive review of their deliverables and are responsible for the accuracy, timeliness, and completeness of submittals. Providers who repeatedly provide false, inaccurate, or incomplete information to MPP will be subject to the appropriate disciplinary action as defined in the Provider Status Designation Policy.

6.7 Stage 1 Deliverables

Stage 1 submittals are due within 90 calendar days following the application approval email sent after the scoping session. The participant and provider are notified of this date when the application approval is issued.

Required deliverables include:

- Savings Verification and Information Tool (SAV-IT)
- Provider contract
- Photographs

Incomplete submittals will be returned without review. The filename convention must be followed. File submissions that do not adhere to the filename convention will be returned to the provider without review. Due to the volume of projects participating in MPP and documents required, strict adherence to the filename convention is required. It allows NYSERDA to manage document revisions and maintain accurate project files. Providers are urged to develop a similar requirement internally that aligns with the requirements set forth for this program.

Table 6-2. Stage 1 Deliverables

Document	Filename Convention	Example
SAV-IT	Project Name - SAVIT_rev0.xls	NY Apts - SAVIT_rev0.PDF
Provider-Participant Contract	Project Name - Provider Contract.PDF	NY Apts - Provider Contract.pdf
Photographs (using Template)	Project Name - Photos.pdf	NY Apts - Photos.pdf

Upon resubmission of project documents, the next revision number must be applied to all deliverables (e.g., Rev0 becomes Rev1). See appendix A for a complete list of deliverables.

6.8 Stage 1 Approval

The following procedure explains each step of the SAV-IT approval process. The SAV-IT must be approved before the project can continue to construction.

1. The Provider submits stage 1 deliverables and all associated files to NYSERDA for review. Email all project submittals to MultifamilyPrograms@nyserda.ny.gov
2. NYSERDA completes a technical and financial review with three options for response:
 - Approved as Noted: Stage 1 deliverables are approved as proposed.
 - Revise and Submit: The project is not ready to be approved as proposed. Comments are returned to the provider and participant, with direction to resubmit. The revised SAV-IT must be submitted within 30 days.
 - If the resubmittal meets program requirements and addresses comments, the SAV-IT is approved.
 - If the resubmittal does not present an approvable project as directed in the review comments, it will be returned to the provider for correction and the provider's performance file will be noted.
 - Rejected: Deliverables contain serious deficiencies and do not meet program requirements.
 - NYSERDA will notify the participant and provider to seek mutually acceptable terms for a fundable project. This discussion occurs primarily with the participant, with input from the provider. NYSERDA may choose to allow resubmittal of the stage 1 deliverables as a result of this discussion.
 - If no agreement is reached, the project is rejected and its participation in MPP is terminated.
3. Once the stage 1 deliverables are approved, NYSERDA issues a notice to proceed to construction. The notice to proceed will include an email that the SAV-IT has been received and approved and that the project may now proceed to installation of the improvements detailed in the SAV-IT. An additional email will be sent that includes a supplemental incentive award letter specifying the project's maximum performance payment.

7 Stages 2 and 3: Construction Phase

Stage 2 approval is an optional early incentive for projects. Stage 3 approval is required for all projects.

7.1 Provider Responsibilities

Energy saving measures must be implemented per the approved SAV-IT. Providers must remain engaged with the project through the construction phase. Providers are expected to maintain a high level of interaction with the participant during the development of the scope and construction to ensure the scope of work is installed on schedule and in accordance with the SAV-IT.

Providers should work with participants and design engineers to develop specifications and contracts that address the documentation needs of MPP. For example, a contract for insulation contractors may include a requirement for photo documentation at various stages of installation.

Providers should review equipment submittals from installing contractors before construction begins to ensure that the installed work meets the intent of the SAV-IT. Submittals may consist of equipment cut sheets, product literature, etc., specifying make/model and energy-related characteristics (for example, kilowatt-hours/year for refrigerators). Ideally, the submittal should also reference the SAV-IT requirements for the equipment and compare them to the proposed equipment to be installed.

7.2 Changes to the Scope of Work

Any changes in the approved work scope that affect the overall project savings, or the measures identified in the approved SAV-IT, must be communicated to NYSERDA. Scope changes may occur at any time after the approval of the SAV-IT. The revised scope of work must meet all rules and requirements for MPP, including energy savings targets. If a change to the scope of work results in a project not meeting all the rules and requirements, the project will be terminated, and any unpaid incentives shall be forfeited.

Participants cannot start or continue work on the revised measure(s) until they receive approval from NYSERDA.

7.2.1 Scope Change Document Submission

The following documents are required for consideration of scope changes:

1. Scope Change Cover Sheet
2. Revised SAV-IT

The following filename convention must be followed:

Table 7-1. Scope Change Deliverables

Document	Filename Convention	Example
Scope Change Cover Sheet	Project Name – Scope Change #.pdf	NY Apts – Scope Change 1.pdf
SAV-IT	Project Name – SAVIT_rev#.xls	NY Apts – SAVIT_rev3.xls

7.3 Stage 2: Midpoint Construction Complete

Projects are eligible to receive a portion of the project’s total construction incentive prior to construction completion. The midpoint construction complete incentive is available to projects that have installed at least 30 percent of the energy savings.

7.3.1 Midpoint Construction Complete

Midpoint construction complete is defined as any point in construction where at least 30 percent of the energy savings as recorded in the SAV-IT are installed and saving energy.

7.4 Stage 2 Deliverables

Stage 2 deliverables must be submitted to NYSERDA after the Provider has verified completion of energy improvements, in accordance with the SAV-IT.

- Inspection Request Workbook
- Photo documentation of installed measures
- Additional measure documentation as required by section 8

The Filename Convention must be followed:

Table 7-2. Stage 2 Deliverables

Document	Filename Convention	Example
Inspection Request	Project Name – Midpoint Complete Request_rev0.xls	NY Apts Midpoint Inspection Request_rev0.xls
Photo Documentation	Project Name – Photos _100%.pdf	NY Apts – Photos_100%.pdf
Measure Documentation	Project Name - (per section 8.4)	NY Apts – Boiler cut sheets.pdf

7.5 Stage 2 Approval

The following procedure explains each step of the stage 2 approval process.

1. The provider submits stage 2 deliverables and all associated files to NYSERDA for review. Email all project submittals to MultifamilyPrograms@nyserda.ny.gov.
2. NYSERDA reviews the documents and, if necessary, schedules a site inspection. NYSERDA reserves the right to conduct a field inspection if it is deemed necessary.
3. The site inspection or desk review occurs.
4. NYSERDA reviews results of the inspection and determines if the project achieved the milestone. If achieved, NYSERDA approves the stage 2 incentive and begins the payment process. If not achieved, the provider will be required to address action items until milestone is approvable.

7.6 Stage 3: 100 Percent Construction Complete

Stage 3 is 100 percent construction complete, meaning that all the energy improvements are installed and functional (or capable of functioning) to the intent of the measures described in the SAV-IT. An improvement is considered installed when it adheres to the American Institute of Architects (AIA) definition of substantial completion, which is the “stage in the progress of the work when the work or designated portion thereof is sufficiently complete in accordance with contract documents so that the owner can occupy or utilize the work for its intended use.” For energy savings measures, the “intended use” is to generate the proposed level of energy savings. All measures must be installed per these guidelines, including the Minimum Performance Standards, and as outlined by the approved SAV-IT. There is no verification of savings (i.e., utility bill analysis) associated with 100 percent completion.

7.6.1 Stage 3 Deliverables

Stage 3 deliverables must be submitted to NYSERDA after the provider has verified completion of energy improvements, in accordance with the intent of the SAV-IT. Incomplete submissions will be returned to the provider without review.

The following deliverables are required for stage 3 approval:

- Inspection Request workbook
- Photo Documentation
- Common Area Data Release Authorization Forms (DRAFTs)
- Additional measure documentation as required by section 8

The filename convention must be followed.

Table 7-3. Stage 3 Deliverables

Document	File Name Convention	Example
Inspection Request	Project Name – 100% Inspection.xls	NY Apts – 100% Inspection_rev0.xls
Photo Documentation	Project Name – Photos _100%.pdf	NY Apts – Photos_100%.pdf
Measure Documentation	Project Name – (per section 8.4)	NY Apts – Boiler cut sheets.pdf
Common Area DRAFTs	Project Name – DRAFTs	NY Apts – DRAFTs

7.6.2 Stage 3 Approval

The following procedure explains each step of the 100 percent construction complete approval process.

1. The provider submits stage 3 deliverables and all associated files to NYSERDA for review. Email all project submittals to MultifamilyPrograms@nyserda.ny.gov
2. NYSERDA reviews the documents and, if complete, schedules a site inspection. On a case-by-case basis, if the provider submits quality inspection documentation, NYSERDA will waive the 100 percent field inspection and will instead conduct a desk review. The building owner can request a final field inspection if they choose.
3. The site inspection or desk review occurs.
4. NYSERDA reviews results of the inspection and determines if the project achieved the milestone.
5. If achieved, NYSERDA approves the stage 3 incentive and begins the payment process. If not achieved, the provider will be required to address action items until milestone is approvable.

8 Site Inspection

8.1 Provider Responsibilities

Providers are not responsible for installing the measures outlined in the approved SAV-IT. Providers are responsible for the following:

- Verifying that work is installed according to the scope of work described in the approved SAV-IT and as per the program's Minimum Performance Standards.
- Gathering and submitting appropriate measure documentation.
- Completing and submitting the inspection workbook.

Providers must refer to the *Standards and Quality Assurance Checklist Specifications* document for measure specific requirements. The document can be found on the provider portal.

8.1.1 Verification of Completed Work

Providers are required to verify the installation of measures with one of the following:

- Performing an on-site inspection of installed measures or
- Obtaining a Statement of Substantial Completion from the installation contractor or other qualified representative. See section 8.2 for more information.

If providers conduct an on-site inspection, the required sampling protocols are outlined in the table below.

Table 8-1. Verification of Completed Work

Measure Type	Equipment Covered	Sampling Requirements*
Appliances	Refrigerators, dishwashers, and compactors, etc.	<ul style="list-style-type: none">• Inspect 10% of appliances of each type and size, but no fewer than five appliances of each type. Sample must be random and statistically representative.
Lighting	All lighting including common area, in-unit, exterior, and lighting controls.	<ul style="list-style-type: none">• Inspect all unique common areas (basements, lobbies) and a representative 20% sample (minimum five) of similar, or repetitive, areas (stairwells and stairwell landings, corridors, trash chute rooms, etc.).• Inspect 10% of apartments to include, at a minimum, one representative apartment from each line. A minimum of five apartments must be visited.

Table 8-1 continued

Measure Type	Equipment Covered	Sampling Requirements*
Envelope	Roof insulation, attic insulation and, cavity insulation.	<ul style="list-style-type: none"> Each unique roof or cavity assembly shall be inspected. For example, if unique sections of the building are constructed differently, all distinct areas must be inspected. If insulation specifications are different for different areas, each different specification shall be inspected. Sampling may be used to inspect roof or cavity assemblies that are consistent throughout large sections of the building. At each stage of the inspection process, a minimum of 20% of total roof and cavity area must be inspected for each unique roof and cavity type. Problems with installations found during random inspections will require an expanded sample. An interim inspection (prior to area being enclosed) is required when insulated area will be inaccessible after completion.
Envelope	Exterior windows, sliding glass doors.	<ul style="list-style-type: none"> At least 10% of new windows (minimum 10) shall be inspected and shall include, at a minimum, one of each different type of window installation based on different window types (fixed, double hung, etc.) and different energy performance specifications. The sample set shall include, at a minimum, the inspection of new windows in one representative apartment from each line.
Envelope	Exterior and interior doors opening onto common areas	<ul style="list-style-type: none"> Verify proper installation of 50% of all new common area exterior doors. Inspect 10% of new apartment exterior doors (minimum of five) where garden style apartments exist.
Envelope	Weatherstripping, caulk, thermal barriers, and stops	<ul style="list-style-type: none"> For elements that provide central services to the building (e.g., entry doors, central duct chases, utility service penetrations, etc.) a minimum 50% sample shall be inspected. For elements that are repeated throughout the building or occur in every living unit (e.g., windows, wall/floor connections, air conditioner sleeves, etc.) a minimum 10% sample shall be inspected. A minimum of five apartments must be visited. Where general in-unit air sealing was specified in the SAV-IT, the sample set shall be representative of the variety of apartment types in the building, including end/corner units and inside units; top-floor, middle-floor, bottom-floor units; and at least one unit of each size/type (studios, 1-bed, etc.).
HVAC & DHW	Boilers and furnaces	<ul style="list-style-type: none"> All primary equipment (boilers, etc.) should be inspected. A representative sample of 10% of in-unit terminal devices (radiators, unit heaters, etc.) with a minimum of five apartments must be visited.
HVAC & DHW	Common area and apartment cooling equipment; ventilation and heat recovery	<ul style="list-style-type: none"> All primary equipment (chillers, air handling units, central fans, HRVs, etc.) should be inspected. A representative sample of 10% of in-unit terminal devices (fan coils, PTACs, room air conditioners, roof fans, etc.) with a minimum of five apartments must be visited.

Table 8-1 continued

Measure Type	Equipment Covered	Sampling Requirements*
HVAC & DHW	Domestic hot water systems	<ul style="list-style-type: none"> All primary equipment (boilers, hot water heaters, etc.) should be inspected. A minimum of two faucets should be tested for water temperature.
HVAC & DHW	Pipe Insulation, Duct Insulation	<ul style="list-style-type: none"> Each unique device assembly shall be inspected. For example: DHW pipes, heating pipes, and ductwork should all be inspected independently. Sampling may be used to inspect device assemblies that are consistent throughout large sections of the building. At each stage of the inspection process, a minimum of 20% of total insulated area must be inspected for each unique device type. An interim inspection (prior to area being enclosed) is required when insulated area will be inaccessible after completion.
HVAC & DHW	Low-flow aerators and low-flow showerheads	<ul style="list-style-type: none"> A representative sample of 10% of all installed aerators and low-flow devices is required. A minimum of five apartments must be visited. Sample must be random and statistically representative.
Other	Energy Management Systems, Building Management Systems	<ul style="list-style-type: none"> Visually inspect a representative sample of 20% of the installed monitoring points.

* Note, problems with installations found during random inspections will require an expanded sample to determine the extent of the problem.

8.1.2 Measure Documentation

A cut sheet must be provided for each product installed as part of the scope of work. At a minimum, the cut sheet must show the manufacturer, model number, and any relevant energy rating information. The specific model installed must be clearly marked on the cut sheet.

When applicable, The *Standards and Quality Assurance Checklist Specifications* lists other measure-specific documentation requirements such as proof of system testing, etc.

8.1.3 System Testing

System testing can be performed by the installing contractor, the provider, the participant, or another third party. The individual conducting the specific testing shall be appropriately qualified and trained in the test or have proven experience and expertise. If completion is documented by someone other than the provider, the provider shall submit a Statement of Substantial Completion signed by the individual who performed the system testing.

8.1.4 Inspection Workbook

The Inspection Workbook is used to aggregate final installation details of a project. Providers must complete and submit the workbook to reflect as-built conditions, including measure specific tabs. The measure specific tabs request information such as equipment make and model, nameplate efficiencies, quantities, and locations of installed equipment, insulation thickness and R-value, etc. It is recommended that providers reference the Inspection Workbook prior to going on-site as to avoid missing information. All sections of the Inspection Workbook should be filled out completely for each measure.

8.1.5 Photographs

Providers are required to submit photo documentation of installed equipment. Accurate photo documentation is essential for program quality control and allows the option for inspection desk reviews. The program requires providers to inspect and submit separate documentation for each project. Photos must be detailed and clear enough to allow program staff to confidently confirm the measure is installed and operating as intended in the approved SAV-IT. Photos or on-site indications of incomplete work or improperly installed measures will require follow up photos demonstrating correct installation. The following are recommendations and requirements for photo documentation.

- All photos must be clear with readable labels or nameplates.
- Measurement photos must show the item being measured by the proper measurement tool (measuring tape, depth gauge, etc.).
- Appliance and equipment photos must include readable photos of the product label(s) and photo(s) showing the quantity installed.
- Insulation photos must clearly show insulation type, thickness, R-value, and proper installation including an overview photo showing insulation location (interior, exterior, etc.).
- Lighting fixture photos must represent all installed lighting fixtures, show the lamp/LED installed, nameplate or wattage of lamp, and ENERGY STAR label, if applicable.

8.2 Statement of Substantial Completion

The installation contractor or other qualified representative must complete the Statement of Substantial Completion. When submitting a signed Statement of Substantial Completion, the provider is still responsible for performing the necessary due diligence to ensure that the Statement of Substantial Completion is accurate and complete. The exact steps taken to gain this assurance will depend on the measure installed and the provider's experience working with the installation contractor. Steps for due diligence can include, but are not limited to, requesting to see contractor field notes and checklists, random sampling to compare the statement to what is seen on site during an inspection, asking the installation contractor for their quality control techniques.

A signed Statement of Substantial Completion is defined as a written and signed statement from the installing contractor, the general contractor, the commissioning agent, or another third-party inspector. The Statement of Substantial Completion must confirm that the specified measures are fully installed and fulfilling its intended use. For energy efficiency measures, the intended use is to generate the proposed level of energy savings.

Unless based on industry-standard document such as AIA's G702, this statement must be on the contractor's letterhead, must include all the information described below, and must cover 100% of the installation.

1. Information Required in the Statement of Substantial Completion

- Statement must be made on contractor/agent's letterhead.
- Statement must contain the name and address of the project.
- Statement must contain the name and contact information of the individual completing the statement.
- Statement must confirm that all fixtures and equipment have been installed and tested to demonstrate confirmation with all construction specifications.
- Individual's signature and date signed.

In some cases, there may be documents already in use by the contractor or participant that satisfy some or all the requirements of the signed Statement of Substantial Completion. In such cases, it is sufficient to submit a copy of such documents in lieu of a separate Statement of Substantial Completion. If there are specific submission requirements for the Statement of Substantial Completion that are not included in the proxy documents, such as are listed in the measure-specific documentation requirements elsewhere in this document, then additional documentation should be submitted with the proxy documents as attachments.

2. Approved Proxy Documents for Statement of Substantial Completion

- AIA Documents G702 (application and certification for payment) and G703 (application and certification for payment continuation sheet).

The provider should contact the project's case manager if there is documentation used for a specific project that the provider believes satisfies some or all the requirements for a Statement of Substantial Completion, but it is not currently listed as an eligible proxy.

9 Stage 4: Performance Payment

The performance payment is an incentive available to projects that achieve at least 15% verifiable energy savings. Post-retrofit utility data is compared to pre-retrofit data to determine actual energy savings in the projects.

9.1 Overview

The incentives discussed in section 4 identify the maximum performance payment for which a project would be eligible. The tier is determined by the energy reduction target proposed in a project's SAV-IT, which sets the maximum incentive a project can receive under the performance payment.

If a project achieves energy savings within their projected tier or higher one year following the stage 3 submittal, they will receive the performance payment for their projected tier. For example, if the approved SAV-IT for a project shows a 15% energy savings and the post-construction utility data analysis shows the project as actually having 34% energy savings, the project will be paid at the Tier 1, 15% level.

If achieved savings fall into a lower tier, the project will receive the performance payment associated with that lower tier. If they achieve savings less than Tier 1, a project will have six months to achieve a minimum of Tier 1 savings and resubmit a request. Please refer to section 9.3.

9.2 Performance Payment Analysis

The performance payment analysis repeats the utility bill analysis initially performed for the SAV-IT, but it uses 12 months of post-construction data. The post-retrofit monitoring period is the 12-month period following the stage 3 submittal. NYSERDA will perform the utility bill analysis. The performance payment is based on verifying savings realized by the project as compared to projections from the initial SAV-IT with preconstruction data.

9.3 Non-Achieving Projects

If a project does not achieve a minimum of 15% (Tier 1) energy savings after 12 months, the provider may request a six-month extension to allow additional energy saving measures or commissioning to be implemented by the owner to contribute to the savings reduction. When performing the utility bill analysis, NYSERDA will only use the most recent 12 months of energy use and disregard the initial six months of post-construction energy use.

9.4 Stage 4 Deliverables

NYSERDA will initiate the stage 4 process approximately 12 months after the submittal of stage 3 documents. NYSERDA will send a performance payment worksheet to the provider to confirm the utility accounts in use at the building and to clarify any changes in the building that would affect the energy use analysis (e.g., changes in tenant vacancy rates). Stage 4 submittals are due within 14 months of the stage 3 submittal to NYSERDA. If an extension is granted, the deliverables must be submitted within 20 months of stage 3 submittal to NYSERDA. Required deliverables include:

- Performance payment worksheet
- Bulk fuel delivery data for the entire post-construction period.

The filename convention must be followed.

Table 9-1. Stage 4 Deliverables

Document	File Naming Convention	Example
Utility bill analysis request package	Project Name – Utility bill analysis request.zip	NY Aps – Utility bill analysis request.zip
Performance Payment Worksheet	Project Name – PP Worksheet.xls	NY Apts – PP Worksheet.xls

9.5 Stage 4 Approval

The following procedure explains each step of the performance payment approval process.

1. NYSERDA will contact the provider prior to the performance payment due date to confirm building and utility information.
2. The provider replies to request and if necessary, obtains data required for NYSERDA to perform the utility bill analysis. The data must be from the 12-month period starting upon one full month of metered utility data following the Stage 3 submittal to NYSERDA.
3. The Provider completes and submits the performance payment worksheet and associated deliverables to NYSERDA.
4. NYSERDA reviews documentation, completes utility bill analysis, and calculates achieved savings:
 - If analysis shows the performance payment is achieved, the payment process will begin, and the project is closed.
 - If the project achieves an energy savings less than 15%, the project is eligible to request a six-month extension to achieve savings of at least 15%. Providers will have to resubmit the performance payment documentation when 6 months have passed.
5. If the project does not achieve a minimum of 15% energy savings after the six-month extension, the project is ineligible for the performance payment. The project is closed.

Appendix A: Consolidated List of Deliverables

	Document	Filename Convention	Example
Application	Terms and Conditions	Project Name – Terms and Conditions.pdf	NY Apts – Terms and Conditions.pdf
	W-9	Project Name – W-9.pdf	NY Apts – W-9.pdf
	Affordable Housing Documentation	Project Name - * (as appropriate)	NY Apts – NYSDHCR Contract.pdf
Stage 1	Savings Verification and Information Tool	Project Name – SAVIT_rev0.xls	NY Apts – SAVIT_rev0.PDF
	Provider-Participant Contract	Project Name – Provider Contract.PDF	NY Apts – Provider Contract.pdf
	Photographs (multiple in zip file or Photo Template)	Project Name – Photos.zip Project Name – Photos.pdf	NY Apts – Photos.zip NY Apts – Photos.pdf
Stage 2	Midpoint Complete Verification Workbook	Project Name – Midpoint Complete Verification.xls	NY Apts – Midpoint Complete Verification_rev0.xls
	Measure Documentation:	Project Name - * (per Site Inspection Protocols)	NY Apts – Boiler cut sheets.pdf NY Apts – Blower Door.pdf
	Photo Documentation	Project Name – Photos _100%.pdf	NY Apts – Photos_100%.pdf
Scope Change	Scope Change Cover Sheet	Project Name – Scope Change #.pdf	NY Apts – Scope Change 1.pdf
	SAV-IT	Project Name – SAVIT_rev#.xls	NY Apts – SAVIT_rev3.xls
Stage 3	Site Inspection Request	Project Name – 100% Inspection.xls	NY Apts – 100% Inspection_rev0.xls
	Photo Documentation	Project Name – Photos _100%.pdf	NY Apts – Photos_100%.pdf
	Common Area DRAFTs	Project Name – Common Area DRAFTs	NY Apts – Common Area DRAFTs.pdf
	Measure Documentation:	Project Name - * (per Site Inspection Protocols)	NY Apts – Boiler cut sheets.pdf NY Apts – Blower Door.pdf
Stage 4	Utility Bill Analysis Request	Project Name – Utility Bill Analysis Request.zip	NY Apts – Utility Bill Analysis Request.zip
	Performance Payment Worksheet	Project Name – Performance Payment_rev#.pdf	NY Apts – Performance Payment_rev0.pdf

Appendix B: Data Submittal Requirements

Data submittal requirements for solar photovoltaics and combined heat and power (CHP) systems.

When a building installs a new solar PV or CHP system while participating in MPP, monitoring equipment shall be specified and installed as described in [NYSERDA's *Monitoring and Data Collection Standard for Distributed Energy Resource \(DER\) Systems*](#) (January 2020).

B.1 On-Site Solar PV

Projects with on-site, behind-the-meter solar photovoltaic system during the baseline and/or performance period, are required to submit the following additional site data.

B.1.1 Solar PV system monitoring

The following daily values from the solar PV monitoring system shall be made available to NYSERDA:

1. Total electricity produced per day by the installed solar PV system, in kWh.
2. The date of production for each daily kWh value.

If a PV solar system has a functioning internet connection that uploads daily solar production values in kWh to an internet-based monitoring system, the Participant and Provider shall assure that NYSERDA is provided with log-in access to obtain system production values during the monitored baseline and/or performance period.

B.1.2 Utility data associated with solar PV systems

A signed Data Release Authorization Form (DRAF) for the electric utility meter is required so NYSERDA can obtain electricity consumption data recorded by the utility meter (in kWh), as well as the data for excess on-site solar electricity generation that is exported to the utility grid (in kWh).

If NYSERDA is unable to independently obtain kWh values for both consumption and export of electricity, the Participant and Provider shall ensure NYSERDA is provided with copies of the monthly billing invoices from any utility meter that is connected to on-site, behind-the-meter generation solar, for all months during the monitoring period.

The kWh value for consumption and export can be reported as two separate values, or as a single net sum of both values (in kWh). All kWh data must be clearly labeled as being either consumption-only, export-only, or the net sum of consumption and export.

The following values from the utility company shall be made available to NYSERDA, for each billing cycle during the monitoring period:

1. Account number
2. Service address
3. Billing period start date
4. Billing period end date (i.e., the meter reading date)
5. Type of meter reading (i.e., actual, estimated)

6. Net sum value, in kWh, of the total consumption and export of electricity during the billing period, or
 - Total consumption, in kWh, during the billing period
 - Total exported generation, in kWh, during the billing period

B.1.3 Combined Heat and Power (CHP) Systems

Projects with a CHP system during the baseline and/or performance period are required to submit the following additional daily values from the installed CHP monitoring system:

1. Total electricity produced per day by the installed CHP system, in kWh.
2. Total useful heat recovery from the CHP system, per day, that was measured as being delivered to heating or DHW systems serving the multifamily facility; reported in kBtu.
3. Total unused heat recovery from the CHP system, per day; reported in kBtu. This is recovered heat that was measured as being unused by the multifamily facility and rejected to the atmosphere through dump radiators.
4. Total input fuel used by the CHP system, per day; measured in either cubic feet, CCF, Therms or kBtu (Site Energy values). Specify the unit of measure used.
5. The date of measurement for each of the values listed.

Quantification of parasitic loads is optional but highly recommended. If parasitic loads are not measured, then these parasitic loads will necessarily be included in the overall measurement of whole-building energy consumption during the performance period and will, therefore, reduce the measured percent site energy savings achieved.

Please refer to NYSERDA's *Monitoring and Data Collection Standard for Distributed Energy Resource (DER) Systems* (January 2020) for best practices on measuring the CHP system data required by MPP, including parasitic loads.

Appendix C: Summary of Changes

The following is a summary of changes made to the Program Guidelines from Version 8.1. This list is not intended to be an exhaustive list of each document change, but to highlight substantive programmatic changes. Providers should familiarize themselves with the entire Program Guidelines.

Entire Document

- Changed references from source energy to site energy.

Section 3.1

- Added Clean Energy Fund (CEF) as eligible.
- Added Weatherization as eligible affordability proxy.

Section 3.4

- Updated coordination with other NYSDERDA and statewide programs.

Section 4

- Removed 40+% incentive tier.
- Updated incentive payment schedule.

Section 5.3

- Added photograph requirement for Scoping Session.

Section 6.3

- Updated Minimum Performance Standards.

Section 6.4

- Added Modeling requirements.

Section 7.3

- Adjusted 50% construction completion requirement to a midpoint construction completion requirement.
- Updated 50% deliverable requirements. Removing Construction Manager requirement.

Section 8

- Updated language regarding Program field inspections requirements. Consolidated table and requirements to align with *Standards and Quality Assurance Checklist Specifications*.

Section 8.3

- Removed section.

Section 9.4 & 9.5

- Updated and clarified performance payment process.

Appendix B

- Updated deliverable requirements.



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