

OREGON HOUSING & COMMUNITY SERVICES

MULTIFAMILY

Energy Program

Program Manual

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The Program Manual is a working document and program staff reserves the right to update, change and revise the document to clarify program rules and requirements. Program staff will release updated versions on a quarterly basis (if applicable).



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Program Terms & Definitions

The following is a brief list of program terms and definitions included in this manual.

- ◆ *Oregon Housing & Community Services' Multifamily Energy Program*: Referred to as OR-MEP throughout this document (the program is formerly known as the Low-Income Weatherization Program).
- ◆ *Participant*: The entity applying to OR-MEP for their multifamily project and the recipient of program incentives.
- ◆ *OR-MEP Energy Advisor*: The OR-MEP program staff assigned to each project who is the main point of contact for the Participant and any members of the project team throughout a project's participation in OR-MEP from enrollment to completion.
- ◆ *Independent Third Party*: A licensed architect (RA), engineer (PE), or certified energy professional (ex: OHCS Approved Utility Allowance contractor, BPI-MFBA, CEM) who can provide technical assistance, verification and/or energy modeling services for the Participant.

Program Summary

Oregon Housing & Community Services' (OHCS) Multifamily Energy Program (OR-MEP) promotes and facilitates energy-efficient design in affordable multifamily housing through design assistance, cash incentives, coordination with other regional programs, and education opportunities. Projects may apply for OR-MEP funding to upgrade *Existing Building* or *New Construction* projects.

The purpose of the OR-MEP funding is to reduce energy use and heating costs for low income Oregonians through energy efficiency improvements.

TRC implements, oversees, provides technical assistance, and coordinates this program on OHCS' behalf.

Program Contact

For more information about OR-MEP contact:

Phone: 503-505-6787
Email: OHCSMultifamilyEnergy@trccompanies.com
Website: www.oregonmultifamilyenergy.com

Applicant Eligibility Requirements

General Eligibility

- ◆ Eligible applicants include nonprofit organizations, for-profit businesses, and local government entities including, but not limited to, cities, counties, housing authorities, nonprofit community organizations, regional or statewide nonprofit entities and private individuals or corporations.
- ◆ Existing or New Construction affordable multifamily properties with five (5) or more apartments per building are eligible to participate including low-rise, mid-rise and high-rise multifamily buildings. OR-MEP staff will consider campuses of duplexes, triplexes, and quadplexes on a case-by-case basis.
- ◆ Projects must be in Oregon and must receive electric service from Portland General Electric or Pacific Power.
- ◆ Projects must be heated by a hard-wired electrical heating system to qualify for program funding.
- ◆ To meet affordability requirements, the residents residing in at least 50% of the dwelling units must be at or below 80% AMI (area median income) and these units must remain affordable for a period of 10 years, unless superseded by other department funding resource requirements.
- ◆ The program can only provide incentives for measures that result in electric savings.

Participation Requirements

The following list outlines general program requirements, which all Participants shall review prior to participating in OR-MEP. For detailed requirements and program process, refer to the subsequent sections.

- ◆ Meet all State and local building code, inspection and permitting requirements.
- ◆ Ensure that only licensed contractors complete construction work.
- ◆ Submit a complete and accurate application package, review OR-MEP feedback on building design, successfully complete OR-MEP staff technical review, and receive final enrollment approval. Approval must take place prior to any measure installation.
- ◆ The Participant agrees not to apply for, nor accept incentives from multiple utilities or utility-sponsored energy efficiency programs for the same electricity savings.
- ◆ Incentive payments are available only to the parties named on the Program Application.
- ◆ The program has limited funds and will reserve incentives based upon the order projects complete the enrollment process (including completing an application package and successfully completing pre-approval). The program will prioritize available Program funding in the following manner:
 - First priority will go to successful applicants in department NOFA processes.
 - Second priority will go to department bond program applicants. Related funding awards will require 60 years affordability and, depending upon the combination of involved funds, limit qualified tenants to not more than 50% or 60% AMI.
 - Third priority will go to unsuccessful NOFA applicants.
 - Final priority will go towards Program Applicants that do not fall into subsections above.

- ◆ The funding for this program is limited and not all Participants are guaranteed program participation. Incentives are reserved in the order complete application packages are received and approved for incentive reservation by OR-MEP staff.

Non-Qualifying Facilities

If you are uncertain about the eligibility of your project, please contact OR-MEP staff. The following are example project types that do not qualify for OR-MEP incentives and services:

- ◆ **Single-family homes, duplexes and townhouses:** the program will evaluate campus projects of attached residences with four units or less, including duplexes, triplexes, and fourplexes, on a case-by-case basis.
- ◆ **Mixed Use:** If a building is mixed use (e.g. includes both multifamily residential spaces and commercial office or retail spaces), then only residential areas may be eligible for incentives for energy efficiency upgrades.
- ◆ **Projects that do not receive electric service from Portland General Electric or Pacific Power:** A project must have an active electric account with Portland General Electric or Pacific Power.

Definition of a Project

The program considers a project one building or a group of buildings on a property. The Participant will develop one application for each project. Each building in a project must adhere to the requirements of the program pathway chosen. Projects may include residential dwelling units and any space providing support services for residents at the property.

Technical Assistance

The program recommends that all projects engage an independent third party who can provide technical assistance, verification and/or energy modeling services. OR-MEP staff is available on a limited basis to provide technical assistance to projects. Please contact program staff at OHCSMultifamilyEnergy@trccompanies.com to learn more.

Incentive Caps

The program caps incentives at \$200,000 per project. The Oregon Housing Stability Council reserves the right to review any project that meets or exceeds this threshold. The program may award incentives above the cap on case-by-case basis, when the project team demonstrates maximum electric savings and if adequate resources are available.

Application Deadlines

Funding for this program is limited and the program does not guarantee access to OR-MEP funding for all Participants. The program reserves Incentives in the order that OR-MEP staff receive and review complete application packages. Projects applying for OHCS NOFA or Bond funding must submit a complete application package and scope of work to OR-MEP staff 21 days prior to the NOFA or Bond application deadline.

Installation and Construction Deadlines

At incentive reservation, OR-MEP staff and the project team will determine a custom construction completion deadline for each project. **If projects fail to meet the completion deadline identified in the Incentive Reservation Letter, or a one-time approved extension deadline, this failure may result in significant changes to the final incentive amount (including void of incentive reservation).**

To best manage program volume, and serve the low-income multifamily market equitably, OR-MEP staff relies on continual progress of each project in the program. OR-MEP staff will communicate regularly with the Participant during construction to ensure the project remains on schedule. This includes, and is not limited to, quarterly email notifications. The Participant must update OR-MEP staff on project changes.

The construction deadlines for the program are as follows:

- ◆ **Existing Buildings:** All projects must complete construction within 18 months of enrollment.
- ◆ **New Construction:** All projects must complete construction within 36 months of enrollment.

Existing Conditions Assessment

For Existing Building projects, existing conditions shall be demonstrated in accordance with the Sampling Protocols summarized below.

Verification

At project completion, an independent third party must complete the Measure Verification form to certify energy measures are installed according to program specifications in order to request eligible incentives. The independent third party shall complete verification in accordance with the Sampling Protocols summarized below.

Sampling Protocol

OR-MEP requires the following sampling protocol for existing conditions assessment in Existing Building projects and verification for both Existing Building and New Construction projects. These protocols have been adapted from the [RESNET Guidelines for Multifamily Energy Ratings](#) (*Refer to Sampling section, p.52*).

Unit Sampling

The independent third party shall inspect the first seven (7) apartment units, and then perform verification at a minimum ratio of one (1) out of seven (7) apartment units in the project. Sampled units shall be representative of the variety of apartment types in the project including: end/corner and inside units; top-floor, middle-floor, bottom-floor units; and at least one unit of each type (i.e: studios, 1-bed, 2-bed, etc.). For projects less than 7 units, all units must be verified.

The independent third party shall increase the sampling set if inconclusive and/or inconsistent findings occur. (*Refer to RESNET Guidelines for more details*)

For projects with multiple buildings, at least one unit in each unique building type shall be verified.

Common Area Sampling

The independent third party shall meet the following requirements for sampling of common area spaces:

- ◆ **Unique Area Sample Size:** The independent third party shall inspect 100 percent of unique common area spaces such as basements, lobbies, etc.

- ◆ **Repetitive Area Sample Size:** The independent third party shall inspect a representative 20 percent sample (with a minimum of five areas) of similar or repetitive areas such as stairwells and stairwell landings, corridors, trash chute rooms, etc.

PROGRAM STRUCTURE

OR-MEP supports two types of multifamily projects: [Existing Buildings \(EB\)](#) and [New Construction \(NC\)](#).

Both include three participation pathways noted in Figure 1. Each pathway is suited for varying scopes of work. Incentives for each pathway escalate to reward comprehensive improvements and design strategies.

Projects interested in a specific pathway should reference that specific section within this Program Manual.

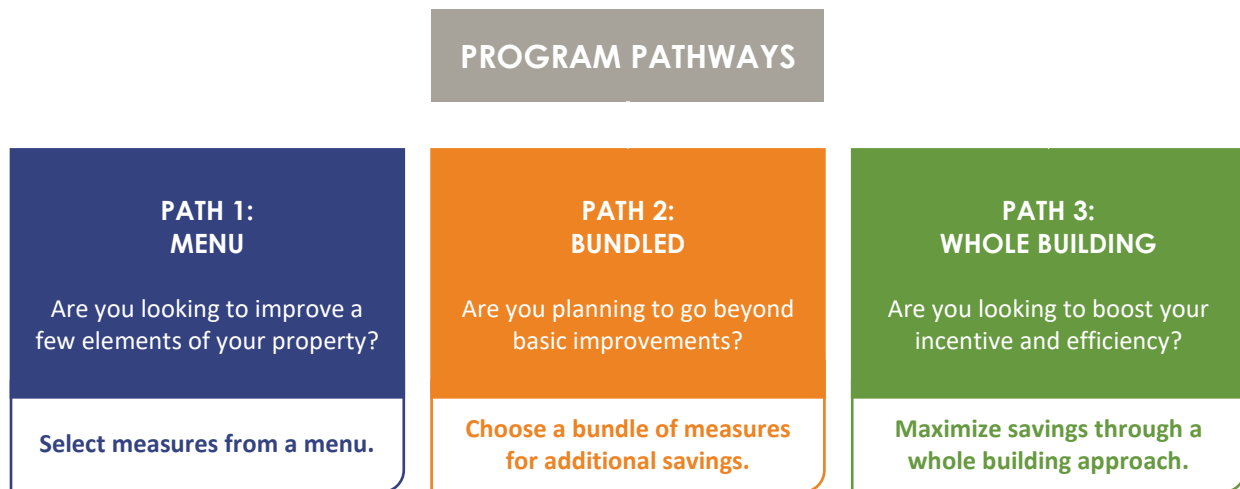


Figure 1: OR-MEP Pathways

Figure 2 below outlines the overall program process. This diagram details the different stages of the program, estimated timelines, and responsibilities at each stage for the Participant’s project team and the OR-MEP program team.



Figure 2: Program Process Flow and Documentation Requirements

Existing Buildings (EB)

Existing Building projects are existing structures where energy efficiency upgrades are completed.

OR-MEP staff will evaluate existing buildings that involve substantial renovation on a case-by-case basis to determine whether it falls under the program's *Existing Building* component or *New Construction* component. This will be determined based on applicable permits the project is required to obtain for code compliance.

There are three pathways offered in the Existing Building component, each suited for varying scopes of work. The incentives and requirements in each pathway escalate to reward more comprehensive design strategies.

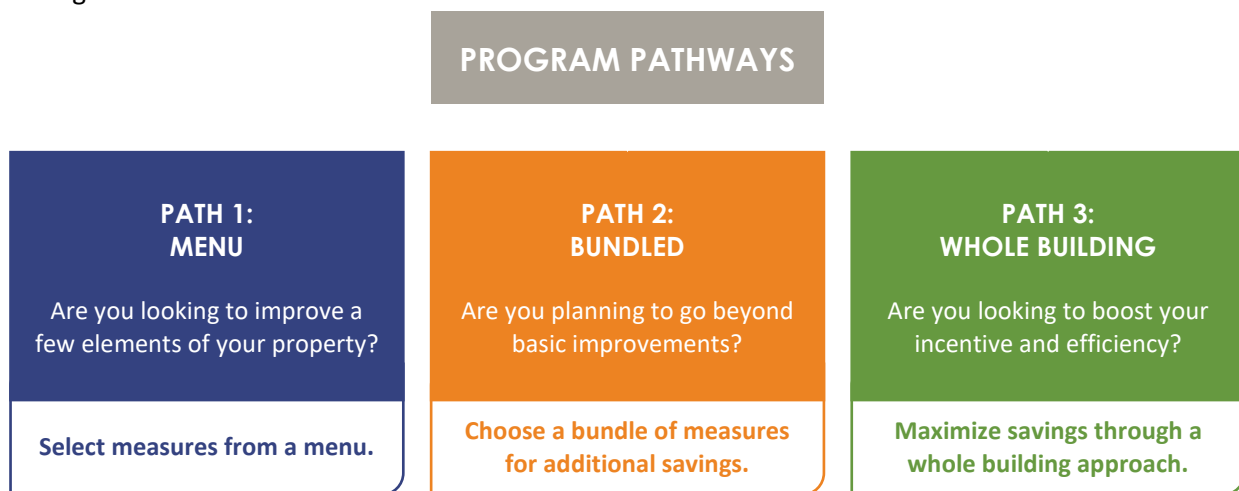


Figure 3: OR-MEP Pathways

EB - Menu Path

General Requirements

The Menu Path is targeted to projects only interested in specific measure upgrades. The project team must meet the following requirements to qualify for incentives:

- ◆ Participants must choose at least **one** energy efficiency upgrade to qualify for Menu Path incentives. The list of eligible measures listed in Figure 5, the *Existing Building Measure Menu*. These predefined measures are proven cost-effective measures with deemed savings already associated with each measure. Savings calculations are not required in this pathway.
- ◆ Each measure has minimum efficiency requirements. All requirements must be met to qualify for incentives.

Incentives

Each measure in the *Existing Building Measure Menu* is assigned points. The program has determined the points for each measure for the measure unit defined relative to each individual measures savings and costs.

The incentive structure for Menu Path is as follows:

PATHWAY	INCENTIVE RATE
EB - Menu Path	\$60 per point

Figure 4: Existing Building Menu Path Incentive

Incentives for Menu Path measures are calculated as follows:

$$\begin{aligned}
 &\text{Measure 1:} && \text{Measure Quantity (units as defined in Measure Menu)} \times \text{Points per Measure Unit} \\
 &\text{Measure 2:} && \text{Measure Quantity (units as defined in Measure Menu)} \times \text{Points per Measure Unit} \\
 \hline
 &\text{MENU PATH INCENTIVE TOTAL:} && \text{Total Points} \times \$60 / \text{point}
 \end{aligned}$$

Incentives are capped at \$200,000 per project.

Example: A Menu Path project with twenty (20) apartment units is installing new efficient packaged terminal heat pumps and refrigerators in each apartment unit. The project is eligible for incentives totaling \$8,100.

MEASURE	QUANTITY	POINTS PER UNIT	TOTAL POINTS	TOTAL INCENTIVE
Packaged Terminal Heat Pump	20	10.0	200.0	\$12,000
Refrigerators	20	0.75	15.0	\$900
MENU PATH TOTAL			215.0	\$12,900

Figure 5: Example Existing Building Menu Path Incentive

Figure 6: Existing Building Measure Menu

MEASURE CATEGORY	MEASURE NAME	MEASURE LOCATION	UNITS	POINTS / UNIT	MINIMUM EFFICIENCY REQUIREMENTS
Envelope	Windows	Whole Building	100 SF of window area	12.00	Single-pane or double-pane window replacement only. Minimum Efficiency: U value 0.27 or lower.
Envelope	Low-E Storm Windows	Whole Building	100 SF of window area	6.0	Installation of Low-E storm window to existing single-pane wood frame windows, single-pane metal frame windows, or double-pane metal frame windows.
Envelope	Attic/Ceiling Insulation	Whole Building	100 SF of insulation	0.50	Existing condition must be R-18 or less. Installed insulation must be minimum R-49, or fill attic space.
Envelope	Wall Insulation	Whole Building	100 SF of insulation	1.0	Existing condition must be R-6.5 or less. Installed insulation must be minimum R-11, or fill wall cavity.
HVAC	Ductless Heat Pump (DHP)	In Unit	each	22.00	Installation of DHP with minimum efficiency of HSPF 10.0 or greater. Must replace electric resistance heat.
HVAC	Packaged Terminal Heat Pump (PTHP)	In Unit	each	10.00	Installation of PTHP with minimum efficiency of 3.0 COP (heating) / 9.8 EER (cooling). Must replace electric resistance heat.
HVAC	Smart Thermostat	In Unit	each	1.50	Installation of seven day programmable or learning-based scheduling thermostat that can be accessed remotely (i.e. Wi-Fi enabled, smartphone, or other network enabled device)
DHW	Heat Pump Water Heater	In Unit	each	8.50	Heat pump water heaters must meet ENERGY STAR specifications OR be an eligible model in NEEA's Northern Climate Specification Tier 1,2, or 3.
DHW	Low Flow Showerheads	In Unit	each	0.25	Eligible for electric DHW systems only. Installed showerhead must be at least 1.5 GPM.
DHW	Low Flow Aerators	In Unit	each	0.25	Eligible for electric DHW systems only. Installed faucet aerator must be at least 1.5 GPM in kitchen and 1.0 GPM in bath.
DHW	Thermostatic Shower Restriction Valve	In-Unit	each	0.25	Installation of a thermostatic shower restriction valve, with or without a low flow showerhead. Valve should activate (restrict water flow) when shower temperature reaches approximately 95°F.
Appliances	Refrigerators	In Unit	each	0.75	Installation of ENERGY STAR refrigerator.
Appliances	Common Area Clothes Washers	Common Area	each	5.50	Installation of front load electric clothes washer in multifamily common area. Must be ENERGY STAR qualified, or MEF 2.2 or greater.

MEASURE CATEGORY	MEASURE NAME	MEASURE LOCATION	UNITS	POINTS / UNIT	MINIMUM EFFICIENCY REQUIREMENTS
Lighting	In-Unit LED Fixtures	In Unit	each	0.50	Installation of integrated LED fixture within an apartment replacing an existing hardwired incandescent lamp.
Lighting	Common Area LED Fixtures	Common Area	each	0.50	Installation of LED T8 fixture, replacing T12 or T8 fluorescent fixture. OR Installation of integrated LED fixture in common area replacing an existing hardwired incandescent lamp.
Lighting	LED Exit Sign	Common Area	each	1.00	Installation of LED exit sign, replacing incandescent or fluorescent exit sign.
Lighting	Common Area Lighting Controls/Sensors	Common Area	each	0.50	Sensors must be hardwired and control interior lighting in common areas
Lighting	LED Exterior Wall Pack	Exterior	each	1.00	Installation of LED exterior wall pack (attached to residential building), Must replacing HID or incandescent lighting. Must include photo sensors to prevent daylight operation.

Participation Process

To participate in the Menu Path, pre-approval is required. An application must be submitted and approved before any measure is installed. Each project will be assigned an OR-MEP Energy Advisor, who will work with the Participant from the enrollment stage through the installation completion stage.

The Menu Path participation process includes the following steps:

1. **ENROLLMENT PACKAGE:** Participant submits complete enrollment package. OR-MEP Energy Advisor will review and confirm project is eligible for participation in OR-MEP. A complete package includes:
 - ◆ **Program Application**
 - ◆ **Proof of Utility Provider**
 - ◆ **Proof of Affordability**
 - ◆ **Form W-9**
2. **TECHNICAL REVIEW:** OR-MEP Energy Advisor will review the proposed work scope and confirm all measures selected meet program requirements.

The Participant must submit the following:

- ◆ **Energy Efficiency Plan (EEP) Worksheet:** The EEP is a program-specific Excel spreadsheet that summarizes measures, savings, and eligible incentives for projects. Projects pursuing the Menu Path, should complete the Menu Path sections of the workbook. Contact OR-MEP staff for instructions on completing and obtaining the EEP worksheet.
 - ◆ **Specification Sheets:** For all applicable measures, manufacturer specification sheets must be submitted. The minimum efficiency requirements noted in Figure 5, the *Existing Building Measure Menu*, for any measure pursued must be noted in the specification sheets submitted for verification.
 - ◆ **Construction Drawings / Work Scope Specifications:** For all applicable envelope measures, (attic / ceiling insulation) construction drawings or work scope specifications detailing the proposed measure work scope must be submitted.
 - ◆ **Photos (pre-install existing conditions):** Photos of all existing conditions (including measure nameplate data when available) must be submitted prior to installation of any new measure or equipment.
3. **APPROVAL:** When a project passes technical review, the OR-MEP Energy Advisor will notify the Participant, and will detail the project's approved measure and eligible incentive in the *Incentive Reservation Letter*. Once this approval is received, the Participant may move forward with installation of approved measures.

The OR-MEP Energy Advisor will communicate regularly with the Participant during construction to ensure the project remains on schedule to receive program incentives. This will include quarterly email notifications and reminders. The Participant must update the OR-MEP Energy Advisor on project changes including the following:

- ◆ **Changes in energy measures:** Participants must notify OR-MEP staff of any changes to the energy measures that may affect the building energy use; these changes could significantly impact a project's program eligibility and final incentive amount.
 - ◆ **Changes in construction schedule:** The Participant must notify OR-MEP staff of any construction schedule changes or delays. OR-MEP staff will update the project records to reflect revised construction start and completion dates. All projects must complete construction by the custom project completion date detailed in the *Incentive Reservation Letter*, or within 18 months of enrollment; whichever comes first. If a project's estimated completion date falls outside of this timeframe, the Participant must immediately contact OR-MEP staff to assess the impact to the reserved incentives.
4. **VERIFICATION:** When installation of approved measures is complete, the Participant must submit the following documents. The OR-MEP Energy Advisor will review to ensure the installed measures are installed as proposed.
- ◆ **Photos (post-install conditions):** Photos of all installed measures must be submitted. Photos should clearly show equipment name plates, make/model number, levels of insulation, etc.
 - ◆ **Invoices:** Invoices detailing total cost of the installed measures must be submitted. Total measure costs must be greater than the project's eligible incentive.
 - ◆ **Measure Verification Form:** An independent third party must complete this program form to certify energy measures have been installed according to program specifications to request eligible incentives. The independent third party shall complete verification in accordance with the Sampling Protocols summarized earlier in this program manual on page 4.
5. **ON-SITE INSPECTION (CASE BY CASE):** On-site inspections by OR-MEP staff are completed at random. To ensure installation quality and compliance with rebate requirements, OR-MEP reserves the right to inspect any project at any time. The OR-MEP Energy Advisor will work with the Participant to schedule these on-site verifications.
6. **PAYMENT:** After OR-MEP staff approves the project completion documentation, OHCS staff will issue the incentive check(s) to the Participant listed on the application. The letter of completion will be sent to the entire project team.

EB - Bundled Path

General Requirements

The Bundled Path is targeted for projects interested in multiple measure upgrades. The program has designed flexible bundles to suite varying scopes.

The project team must meet the following requirements to qualify for incentives:

- ◆ Participants can select any bundle listed in the Figure 7, the *Existing Building Bundles*. *Note: Projects may pursue only one bundle in the Bundled Path. OR-MEP recommends projects interested in larger scopes of work follow the Whole Building Path.*
- ◆ Participants must choose from a list of eligible measures listed in Figure 5, the *Existing Building Measure Menu*, to qualify for Bundled Path incentives. These predefined measures are proven cost-effective measures with deemed savings already associated with each measure. Savings calculations are not required in this pathway.
- ◆ Each measure has specific minimum efficiency requirements. All requirements must be met to qualify for incentives.

Bundle Name	Measures Requirements
The “Lighting” Bundle	<i>Choose at least <u>three</u> lighting upgrades from Existing Building Measure Menu</i>
The “Unit Turnover” Bundle	<i>Choose at least <u>three</u> in-unit upgrades from Existing Building Measure Menu</i>
The “DHW” Bundle	<i>Must include following measures from Existing Building Measure Menu:</i> <ul style="list-style-type: none"> ▪ Heat Pump Water Heaters ▪ Low Flow Showerheads ▪ Low Flow Aerators
The “Envelope” Bundle	<i>Must include following measures from Existing Building Measure Menu:</i> <ul style="list-style-type: none"> ▪ Windows ▪ Attic/Ceiling Insulation ▪ Wall Insulation
The “Smart Apartment” Bundle	<i>Must include following measures from Existing Building Measure Menu:</i> <ul style="list-style-type: none"> ▪ Ductless Heat Pump ▪ Smart Thermostat
Build Your Own Bundle (BYOB)	<i>Choose at least <u>three</u> measures in <u>two</u> different upgrade categories from Existing Building Measure Menu</i>

Figure 7: Existing Building Bundles

Incentives

Each measure in the *Existing Building Measure Menu* is assigned points. The program has determined the points for each measure based on the measure unit defined relative to each individual measures savings and costs.

The incentive structure for Bundled Path is as follows:

PATHWAY	INCENTIVE RATE
EB – Bundled Path	\$70 per point

Figure 8: Existing Building Bundled Path Incentive

Incentives for Bundled Path measures are calculated as follow:

Measure 1: Measure Quantity (units as defined in Measure Menu) X Points per Unit
 Measure 2: Measure Quantity (units as defined in Measure Menu) X Points per Unit
 Measure 3: Measure Quantity (units as defined in Measure Menu) X Points per Unit
BUNDLED PATH INCENTIVE TOTAL: Total Points X \$70 /point

Incentives are capped at \$200,000 per project.

Example: A Bundled Path project with fifty (50) apartment units is pursuing the “Unit Turnover” Bundle, with the following measures installed in each unit. The project is eligible for incentives totaling \$7,875.

MEASURE	QUANTITY	POINTS PER UNIT	TOTAL POINTS	TOTAL INCENTIVE
Refrigerators	50	0.75	37.5	\$2,625
Low Flow Showerheads	50	0.25	12.5	\$875
Low Flow Aerators	50	0.25	12.5	\$875
In-Unit LED Fixture	100	0.5	50.0	\$3,500
BUNDLED PATH TOTAL			112.5	\$7,875

Figure 9: Example Existing Building Bundled Path Incentive

Participation Process

To participate in the Bundled Path, pre-approval is required. An application must be submitted and approved before any measure is installed. Each project will be assigned an OR-MEP Energy Advisor, who will work with the Participant from the enrollment stage through the installation completion stage.

The Bundled Path participation process includes the following steps:

1. **ENROLLMENT PACKAGE:** Participant submits complete enrollment package. OR-MEP Energy Advisor will review and confirm project is eligible for participation in OR-MEP. A complete package includes:
 - ◆ **Program Application**
 - ◆ **Proof of Utility Provider**
 - ◆ **Proof of Affordability**
 - ◆ **Form W-9**
2. **TECHNICAL REVIEW:** OR-MEP Energy Advisor will review the proposed work scope and confirm all measures selected meet program requirements.

The Participant must submit the following:

- ◆ **Energy Efficiency Plan (EEP) Worksheet:** The EEP is a program developed Excel spreadsheet that summarizes measures, savings, and eligible incentives for projects. Projects pursuing the Bundled Path, should complete the Bundled Path sections of the workbook.
 - ◆ **Specification Sheets:** For all applicable measures, manufacturer specification sheets must be submitted. The minimum efficiency requirements noted in the *Existing Building Measure Menu* for any measure pursued must be noted in the specification sheets submitted for verification.
 - ◆ **Construction Drawings / Work Scope Specifications:** For all applicable envelope measures, (attic / ceiling insulation) construction drawings or work scope specifications detailing the proposed measure work scope must be submitted.
 - ◆ **Photos (pre-install existing conditions):** Photos of all existing conditions must be submitted prior to installation of any new equipment.
3. **APPROVAL:** When a project passes technical review, the OR-MEP Energy Advisor will notify the Participant, and will detail the project's approved measure and eligible incentive in the *Incentive Reservation Letter*. Once this approval is received, the Participant may move forward with installation of approved measures.

The OR-MEP Energy Advisor will communicate regularly with the Participant during construction to ensure the project remains on schedule to receive program incentives. This will include quarterly email notifications and reminders. The Participant must update the OR-MEP Energy Advisor on project changes including the following:

- **Changes in energy measures:** Participants must notify OR-MEP staff of any changes to the energy measures that may affect the building energy use; these changes could significantly impact a project's program eligibility and final incentive amount.
 - **Changes in construction schedule:** The Participant must notify OR-MEP staff of any construction schedule changes or delays. OR-MEP staff will update the project records to reflect revised construction start and completion dates. All projects must complete construction by the custom project completion date detailed in the *Incentive Reservation Letter*, or within 18 months of enrollment; whichever comes first. If a project's estimated completion date falls outside of this timeframe, the Participant must immediately contact OR-MEP staff to assess the impact to the reserved incentives.
4. **VERIFICATION:** When installation of approved measures is complete, the Participant must submit the following documents. The OR-MEP Energy Advisor will review to ensure the installed measure were installed as proposed.
- **Photos (post-install conditions):** Photos of all installed measures must be submitted. Photos should clearly show equipment name plates, make/model number, levels of insulation, etc.
 - **Invoices:** Invoices detailing total cost of the installed measures must be submitted. Total measure costs must be greater than the project's eligible incentive.
 - **Measure Verification Form:** An independent third party must complete this program form to certify energy measures have been installed according to program specification in order to request eligible incentives. The independent third party shall complete verification in accordance with the Sampling Protocols summarized earlier in this program manual on page 4.
5. **ON-SITE INSPECTION (CASE BY CASE):** On-site inspections by OR-MEP staff are completed at random. To ensure installation quality and compliance with rebate requirements, OR-MEP reserves the right to inspect any project at any time. The OR-MEP Energy Advisor will work with the Participant to schedule these on-site verifications. The Participant must provide access to the building for OR-MEP staff to complete these inspections.
6. **PAYMENT:** After OR-MEP staff approves the project completion documentation, OHCS staff will issue the incentive check(s) to the Participant listed on the application. The letter of completion will be sent to the entire project team.

EB - Whole Building Path

General Requirements

The Whole Building Path is targeted for projects interested in comprehensive energy upgrades and in need of a whole building energy assessment to identify energy efficiency measure opportunities.

The project team must meet the following requirements to qualify for incentives:

- ◆ Participants must work with an independent third party, hired at the discretion of the Participant, to complete energy savings calculations through an approved energy modeling software. This independent third party must do an onsite assessment according to industry standards, such as Building Performance Institute’s (BPI) Multifamily Standards. The independent third party shall complete the onsite assessment in accordance with the Sampling Protocols summarized earlier in this program manual on page 4. OR-MEP staff is available on a limited basis to provide technical assistance to projects. Please contact program staff at OHCSMultifamilyEnergy@trccompanies.com to learn more.
- ◆ The project team must document existing conditions and capture these conditions in an energy model to establish a proper baseline to calculate energy savings.
- ◆ OR-MEP can only provide incentives for improvements that contribute to electric savings.

Incentives

There are three incentive tiers in the Whole Building Path. Each tier is based on percent electric savings over existing conditions. The higher the savings achieved, the higher the project incentive.

The incentive tiers are as follows:

TIER	SAVINGS THRESHOLD	INCENTIVE
Tier 1	≥ 20% kWh savings compared to existing conditions	\$0.80 / kWh saved
Tier 2	≥ 25% kWh savings compared to existing conditions	\$0.90 / kWh saved
Tier 3	≥ 30% kWh savings compared to existing conditions	\$1.00 / kWh saved

Figure 10: Existing Building Whole Building Path Incentive Tiers

Incentives for Whole Building Path are calculated as follow:

$$\% \text{ Savings Incentive Tier Rate (\$/kWh)} \times \text{Total kWh Savings}$$

Incentives are capped at \$200,000 per project.

Example: A Whole Building Path project with eighty (80) apartment units is achieving 120,000 kWh in total savings, equivalent to 20% kWh saving compared to existing conditions. The project is eligible for Tier 1 incentives. The project is eligible for incentives totaling \$96,000.

TIER	% SAVINGS	kWh SAVINGS	INCENTIVE per KWH	TOTAL INCENTIVE
Tier 1	20%	120,000	\$0.80	\$96,000
WHOLE BUILDING PATH TOTAL				\$96,000

Figure 11: Example Existing Building Whole Building Path Incentive

Participation Process

To participate in the Whole Building Path, pre-approval is required. An application must be submitted and approved before any measure is installed. Each project will be assigned an OR-MEP Energy Advisor, who will work with you from the enrollment stage through the installation completion stage.

The Whole Building Path participation process includes the following steps:

1. **ENROLLMENT PACKAGE:** Participant submits complete enrollment package. OR-MEP Energy Advisor will review and confirm project is eligible for participation in OR-MEP. A complete package includes:
 - **Program Application**
 - **Proof of Utility Provider**
 - **Proof of Affordability**
 - **Form W-9**
2. **TECHNICAL REVIEW:** OR-MEP Energy Advisor will review proposed work scope and confirm all measures selected meet program requirements.

The Participant must submit the following:

- **Energy Efficiency Plan (EEP) Worksheet:** The EEP is a program developed Excel spreadsheet that summarizes measures, savings, and eligible incentives for projects. Projects pursuing the Whole Building Path, should complete the Whole Path sections of the workbook.
 - Note: Onsite assessments completed by the Participant’s independent third party are required for all projects participating in the Whole Building Path. The EEP workbook includes a section where existing conditions gathered from this onsite assessment must be detailed.

- **Energy Model:** The Participant must submit the modeling files used to calculate savings summarized in the Energy Efficiency Plan. Any OHCS approved energy analysis tool is acceptable for calculating savings. OHCS has reviewed and approved the following tools for multifamily use: EnergyPro (mid-rises only), TREAT, DOE-2, TRACE, HAP, REM/Rate, REM/Design, and eQuest.
 - **External Calculations (if applicable):** For measures that cannot be modeled in the approved energy modeling software, external engineering calculations may be submitted instead, typically as spreadsheets or industry specific tools. Applicants should consult with OR-MEP staff prior to using any external calculation methods for pre-approval of the general method and for technical assistance with alternate calculation options.
 - **Specification Sheets:** The project must submit specification sheets for any energy saving equipment included in the work scope. Examples include domestic hot water equipment, heating and cooling equipment, windows, and ventilation equipment. Specification sheets must document make, model, and efficiency specifications.
 - **Construction Drawings / Work Scope Specifications:** The project's construction plans must include at minimum the building floor plan, elevations, and mechanical plan. Additional plan sheets will be required when applicable to the project scope, such as roofing/attic plans, duct design, or electrical plans.
 - **Photos (pre-install existing conditions):** Photos of all existing conditions must be submitted prior to installation of any new measure.
3. **APPROVAL:** When a project passes technical review, the OR-MEP Energy Advisor will notify the Participant, and will detail the project's approved measure and eligible incentive in the *Incentive Reservation Letter*. Once this approval is received, the Participant may move forward with installation of approved measures.

The OR-MEP Energy Advisor will communicate regularly with the Participant during construction to ensure the project remains on schedule to receive program incentives. This will include quarterly email notifications and reminders. The Participant must update the OR-MEP Energy Advisor on project changes including the following:

- **Changes in energy measures:** Participants must notify OR-MEP staff of any changes to the energy measures that may affect the building energy use; these changes could significantly impact a project's program eligibility and final incentive amount.
- **Changes in construction schedule:** The Participant must notify OR-MEP staff of any construction schedule changes or delays. OR-MEP staff will update the project records to reflect revised construction start and completion dates. All projects must complete construction by the custom project completion date detailed in the *Incentive Reservation*

- Letter*, or within 18 months of enrollment; whichever comes first. If a project's estimated completion date falls outside of this timeframe, the Participant must immediately contact OR-MEP staff to assess the impact to the reserved incentives.
4. **VERIFICATION:** When installation of approved measures is complete, the Participant must submit the following documents. The OR-MEP Energy Advisor will review to ensure the installed measures are installed as proposed.
 - **Energy Efficiency Plan (EEP) Worksheet:** The Participant's independent third party must complete an onsite verification confirming all measures are installed as proposed. In the EEP, the Whole Building Path verification sections must be completed confirming this verification was completed. Any discrepancies between what was proposed versus verified should be noted.
 - **Photos (post-install conditions):** Photos of all installed measures must be submitted. Photos should clearly show equipment name plates, make/model number, levels of insulation, etc.
 - **Invoices:** Invoices detailing total cost of the installed measures must be submitted. Total measure costs must be greater than the project's eligible incentive.
 - **Measure Verification Form:** An independent third party must complete this program form to certify energy measures have been installed according to program specification in order to request eligible incentives. The independent third party shall complete verification in accordance with the Sampling Protocols summarized earlier in this program manual on page 4.
 5. **ON-SITE INSPECTION (CASE BY CASE):** On-site inspection by OR-MEP staff are completed at random. To ensure installation quality and compliance with rebate requirements, OR-MEP reserves the right to inspect any project at any time. The OR-MEP Energy Advisor will work with the Participant to schedule these on-site verifications. The Participant must provide access to the building for OR-MEP staff to complete these inspections.
 6. **PAYMENT:** After OR-MEP staff approves the project completion documentation, OHCS staff will issue the incentive check(s) to the Participant listed on the application. The letter of completion will be sent to the entire project team.

Technical Reviews Quality Assurance Process

The intent of the Technical Review is to provide a thorough review of the submittal documents and verify the project's projected energy savings. Projects that do meet the minimum energy savings targeted outlined in Figure 10, the *Existing Building Whole Building Path Incentive Tiers* cannot be incentivized through the Whole Building Path and can opt to participate in either the Menu or Bundled Path.

OR-MEP Energy Advisors will work with the Participant's licensed energy consultant to complete the Technical Review. If a submittal is not accepted, the OR-MEP Energy Advisor will provide comments in a review document identifying the issues of each submittal revision. The licensed energy consultant should review all comments, and find and correct the errors causing each identified issue or explain why an identified issue is justified. OR-MEP Energy Advisors are always available to provide one-on-one technical support with the Participant's licensed energy consultant to discuss and resolve any issues identified in the Technical Review.

It is the licensed energy consultant responsibility to identify any modeling issues causing the identified issues and to resolve them. OR-MEP staff are available to provide any needed technical assistance if the licensed energy consultant is having difficulties.

All participating projects are expected to review their work and to submit a high-quality model along with fully completed tools and documents. If at any time during the Technical Review process the OR-MEP Energy Advisor deems the submittal as incomplete or missing information, the submittal will be rejected and sent back to the Participant/ licensed energy consultant to resubmit.

New Construction (NC)

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

Existing buildings that involve substantial renovation will be evaluated on a case by case basis to determine whether it falls under the program's Existing Building component or New Construction component. This will be determined based on any applicable permits the project is required to obtain for code compliance.

There are three pathways offered in the New Construction component, each suited for varying scopes of work. The incentives and requirements in each pathway escalates to reward more comprehensive design strategies.

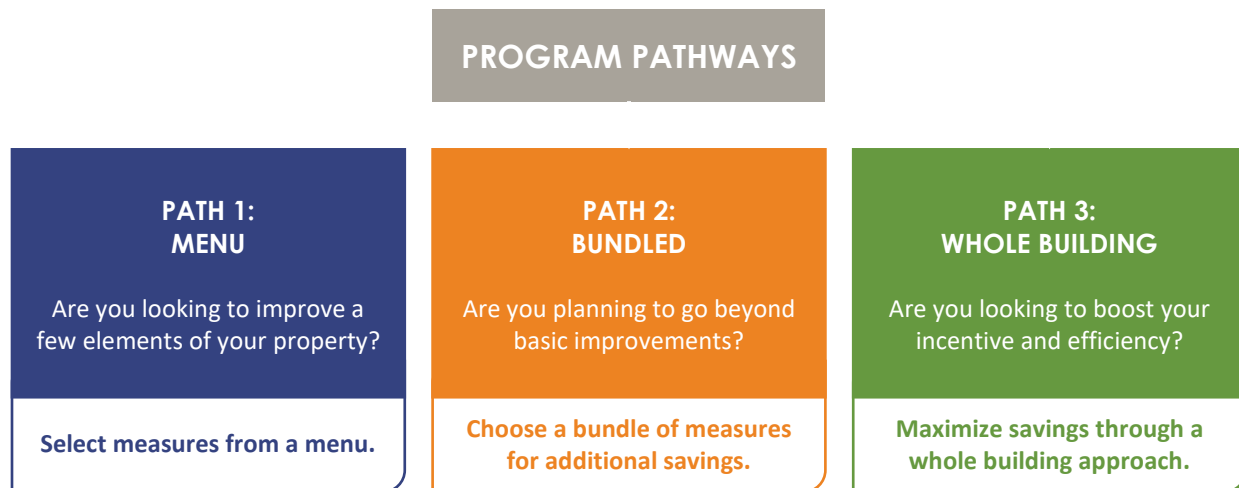


Figure 12: OR-MEP Pathways

NC - Menu Path

General Requirements

The menu path is targeted for projects only interested in specific equipment measures.

The project team must meet the following requirements to qualify for incentives:

- ◆ Participants must choose at least **two** energy efficiency upgrades to qualify for Menu Path incentives. The list of eligible measures listed in **Error! Reference source not found.**, *New Construction Measure Menu*. These predefined measures are proven cost-effective measures with deemed savings already associated with each measure. Savings calculations are not required in this pathway.
- ◆ Each measure has specific minimum efficiency requirements. All requirements must be met to qualify for incentives.

Figure 13: New Construction Measure Menu

MEASURE CATEGORY	MEASURE NAME	MEASURE UNIT	POINTS PER UNIT	MINIMUM EFFICIENCY REQUIREMENTS
HVAC	High Efficiency Heating System (PTHP or DHP)	per apt unit	5.0	<u>PTHP</u> : Minimum HSPF of 9.0 and SEER of 15.0. <u>DHP</u> : Minimum HSPF of 11.2 and SEER of 22.4.
HVAC	Efficient HVAC Fan Motors	per apt unit	0.5	All fans used for heating, cooling, or ventilation must meet at least one of the following: 1. A rated CFM/W of no less than 3.5 for range hoods and in-line fans and 6.0 for bathroom and utility fans. 2. Served by electronically commutated (brushless) motors (ECM) For fans attached to motors over 1 HP, a Fan Efficiency Grade (FEG) of 71 or higher.
HVAC	Efficient Balanced Ventilation	per apt unit	4.5	Ventilation systems must meeting all of the following requirements: - sized per ASHRAE 62.2 for apartments and ASHRAE 62.1 for common areas - balanced ventilation - non-pressurized corridors
HVAC	Smart Thermostat Controls	per apt unit	0.5	Installation of seven day programmable or learning-based scheduling thermostat that can be accessed remotely (ex: Wi-Fi enabled, smartphone, or other network enabled device)
Envelope	High Performance Envelope	per apt unit	6.0	Envelope performance must meet the following maximums: 1. Opaque walls and fenestration, total UA: U-0.071 2. Roofs, Flat: U-0.023 OR Roofs, Sloped: U-0.017 All envelope assemblies must be detailed to reduce thermal bridging, with minimum R-5 continuous insulation.
Envelope	Efficient Windows	per apt unit	1.5	Minimum U-0.27 and SHGC-0.35
Envelope	Reduced Infiltration	per apt unit	2.0	Envelope infiltration rate must not exceed 0.4 cfm/sf of envelope area, when tested at 75 Pascals (or 0.3 cfm/sf at 50 Pa).
DHW	Heat Pump Water Heater	per apt unit	3.5	Heat pump water heaters must meet ENERGY STAR specifications OR be an eligible model in NEEA's Northern Climate Specification Tier 1,2, or 3.
DHW	Low Flow Fixtures	per apt unit	0.25	Lavatory and kitchen faucets: no greater than 1.5 GPM. Showerheads: no greater than 2.0 GPM.

MEASURE CATEGORY	MEASURE NAME	MEASURE UNIT	POINTS PER UNIT	MINIMUM EFFICIENCY REQUIREMENTS
Appliance & Lighting	ENERGY STAR Appliances	per apt unit	1.0	All appliances installed in building shall be ENERGY STAR certified, where applicable, including refrigerators, dishwashers, and clothes washers.
Appliance & Lighting	High Efficiency Interior Lighting (Apts & Common Area)	per apt unit	0.75	<p><u>Apartments:</u> All hardwired lighting shall be provided by LED sources or other light sources with efficacy of no less than:</p> <ul style="list-style-type: none"> - 100 lumens per watt for lamps over 15 watts; - 90 lumens per watt for lamps over 7 watts to 15 watts; and - 60 lumens per watt for lamps 7 watts or less. <p><u>Common Area:</u> The total installed LPD in common areas shall no exceed 0.43 W/sf</p>
Appliance & Lighting	Common Area Lighting Controls	per apt unit	0.5	<p><u>Occupancy controls:</u> (automatic on/off) capable of reducing the lighting power of lobbies, corridors, stairways, and other circulation paths by no less than 50% after 15 minutes of non-occupancy.</p> <p><u>Vacancy controls:</u> (manual on/off, automatic off) for all non-circulation common area spaces over 50 sf.</p>
Appliance & Lighting	High Efficiency Exterior Lighting	per apt unit	0.5	All luminaires with a total fixture wattage over 50W used for exterior lightings shall have a total efficacy no less than 100 lumens/W including light sources, drivers, and ballasts.

Incentives

Each measure in the *New Construction Menu Path* is assigned points. The program has determined the points for each measure based on the measure unit defined relative to each individual measures savings and costs.

The incentive structure for Menu Path is as follows:

PATHWAY	INCENTIVE RATE
NC – Menu Path	\$60 per point

Figure 14: New Construction Menu Path Incentive

Incentives for Menu Path measures can be calculated as follow:

$$\text{Measure Quantity (units as defined in Measure Menu)} \times \text{Points per Unit} \times \$60/\text{point}$$

Incentives are capped at \$200,000 per project.

Example: A Menu Path project with fifty (50) apartment units is installing new efficient ductless heat pumps and heat pump water heaters in each apartment unit. The project is eligible for incentives totaling \$25,500.

MEASURE	QUANTITY	POINTS PER UNIT	TOTAL POINTS	TOTAL INCENTIVE
High Efficiency Ductless Heat Pump (DHP)	50	5.0	250.0	\$15,000
Heat Pump Water Heater	50	3.5	175.0	\$10,500
MENU PATH TOTAL			425	\$25,500

Figure 15: Example New Construction Menu Path Incentive

Participation Process

To participate in the Menu Path, pre-approval is required. An application must be submitted and approved before any measure is installed. Each project will be assigned an OR-MEP Energy Advisor, who will work with the Participant from the enrollment stage through the installation completion stage.

The Menu Path participation process includes the following steps:

- 1. ENROLLMENT PACKAGE:** Participant submits complete enrollment package. OR-MEP Energy Advisor will review and confirm project is eligible for participation in OR-MEP. A complete package includes:
 - ◆ Program Application
 - ◆ Proof of Utility Provider
 - ◆ Proof of Affordability
 - ◆ Form W-9

2. **TECHNICAL REVIEW:** OR-MEP Energy Advisor will review proposed work scope and confirm all measures selected meet program requirements.

The Participant must submit the following:

- ◆ **Energy Efficiency Plan (EEP) Worksheet:** The EEP is a program developed Excel spreadsheet that summarizes measures, savings, and eligible incentives for projects. Projects pursuing the Menu Path, should complete the Menu Path sections of the workbook.
 - ◆ **Specification Sheets:** Manufacturer specification sheets must be submitted. The minimum efficiency requirements noted in the Figure 10, the *New Construction Menu Path Measures*, for any measure pursued must be noted in the specification sheets submitted for verification.
3. **APPROVAL:** When a project passes technical review, the OR-MEP Energy Advisor will notify the, and will detail the project's approved measure and eligible incentive in the *Incentive Reservation Letter*. Once this approval is received, the Participant may move forward with installation of approved measures.

The OR-MEP Energy Advisor will communicate regularly with the Participant during construction to ensure the project remains on schedule to receive program incentives. This will include quarterly email notifications and reminders. The Participant must update the OR-MEP Energy Advisor on project changes including the following:

- ◆ **Changes in energy measures:** Participants must notify OR-MEP staff of any changes to the energy measures that may affect the building energy use; these changes could significantly impact a project's program eligibility and final incentive amount.
 - ◆ **Changes in construction schedule:** The Participant must notify OR-MEP staff of any construction schedule changes or delays. OR-MEP staff will update the project records to reflect revised construction start and completion dates. All projects must complete construction by the custom project completion date detailed in the *Incentive Reservation Letter*, or within 36 months of enrollment; whichever comes first. If a project's estimated completion date falls outside of this timeframe, the Participant must immediately contact OR-MEP staff to assess the impact to the reserved incentives.
4. **VERIFICATION:** When installation of approved measures is complete, the Participant must submit the following documents. The OR-MEP Energy Advisor will review to ensure the installed measures are installed as proposed.
 - ◆ **Photos (post-install conditions):** Photos of all installed measures must be submitted. Photos should clearly show equipment name plates, make/model number, levels of insulation, etc.

- ◆ **Measure Verification Form:** An independent third party must complete this program form to certify energy measures have been installed according to program specification in order to request eligible incentives. The independent third party shall complete verification in accordance with the Sampling Protocols summarized earlier in this program manual on page 4.
5. **ON-SITE INSPECTION (CASE BY CASE):** On-site inspections by OR-MEP staff are completed at random. To ensure installation quality and compliance with rebate requirements, OR-MEP reserves the right to inspect any project at any time. The OR-MEP Energy Advisor will work with the Participant to schedule these on-site verifications.
 6. **PAYMENT:** After OR-MEP staff approves the project completion documentation, OHCS staff will issue the incentive check(s) to the Participant listed on the application. The letter of completion will be sent to the entire project team.

NC - Bundled Path

General Requirements

The Bundled Path is targeted for projects interested in multiple measure upgrades. The program has designed flexible bundles to suite varying scopes of works and needs.

The project team must meet the following requirements to qualify for incentives:

- ◆ Participants can select any bundle listed in Figure 16 , the *New Construction Bundles*. *Note: Projects may pursue only one bundle in the Bundled Path. OR-MEP recommends projects interested in larger scopes of work follow the Whole Building Path.*
- ◆ All measures in each bundle must be included in project to be eligible for incentive¹. These predefined measures are proven cost-effective measures with deemed savings already associated with each measure. Savings calculations are not required in this pathway.
- ◆ Each measure has specific minimum efficiency requirements. All requirements must be met to qualify for incentives.

Bundle Name	Measures Requirements
HVAC Bundle	<i>Choose at least <u>three</u> HVAC measures from New Construction Measure Menu</i>
Envelope Bundle	<i>Must include following measures from New Construction Measure Menu:</i> <ul style="list-style-type: none"> ▪ High Performance Envelope ▪ Efficient Windows ▪ Reduced Infiltration
DHW Bundle	<i>Must include following measures from New Construction Measure Menu:</i> <ul style="list-style-type: none"> ▪ Heat Pump Water Heaters ▪ Low Flow Fixtures
Appliance & Lighting Bundle	<i>Choose at least <u>three</u> appliance and lighting measures from New Construction Measure Menu</i>
Build Your Own Bundle (BYOB)	<i>Choose at least <u>three</u> measures in <u>two</u> different measure categories from New Construction Measure Menu</i>

Figure 16: New Construction Bundles

¹ If a measure within a bundle is not applicable for a project and the Participant recommends that the measure be exempted from bundle, please contact OR-MEP staff to discuss.

Incentives

Each measure in the *New Construction Bundles* is assigned points. The program has determined the points for each measure for the measure unit defined relative to each individual measures savings and costs.

The incentive structure for Bundled Path is as follows:

PATHWAY	INCENTIVE RATE
NC – Bundled Path	\$70 per point

Figure 17: New Construction Bundled Path Incentive

Incentives for Bundled Path measures are calculated as follow:

Measure 1: Measure Quantity (units as defined in Measure Menu) X Points per Unit
 Measure 2: Measure Quantity (units as defined in Measure Menu) X Points per Unit
 Measure 3: Measure Quantity (units as defined in Measure Menu) X Points per Unit
BUNDLED PATH INCENTIVE TOTAL: Total Points X \$70 /point

Incentives are capped at \$200,000 per project.

Example: A Bundled Path project with fifty (50) apartment units is pursuing the “Envelope Bundle”, with the following measures installed in each unit. The project is eligible for incentives totaling \$33,250.

MEASURE	QUANTITY	POINTS PER UNIT	TOTAL POINTS	TOTAL INCENTIVE
High Performance Envelope	50	6.0	300.0	\$21,000
Efficient Windows	50	1.5	75.0	\$5,250
Reduced Infiltration	50	2.0	100.0	\$7,000
BUNDLED PATH TOTAL			475.0	\$33,250

Figure 18: Example New Construction Bundled Path Incentive

Participation Process

To participate in the Bundled Path, pre-approval is required. An application must be submitted and approved before any measure is installed. Each project will be assigned an OR-MEP Energy Advisor, who will work with the Participant from the enrollment stage through the installation completion stage.

The Bundled Path participation process includes the following steps:

1. **ENROLLMENT PACKAGE:** Participant submits complete enrollment package. OR-MEP Energy Advisor will review and confirm project is eligible for participation in OR-MEP. A complete package includes:
 - ◆ **Program Application**
 - ◆ **Proof of Utility Provide**
 - ◆ **Proof of Affordability**
 - ◆ **Form W-9**
2. **TECHNICAL REVIEW:** OR-MEP Energy Advisor will review proposed work scope and confirm all measures selected meet program requirements.

The Participant must submit the following:

- ◆ **Energy Efficiency Plan (EEP) Worksheet:** The EEP is a program developed Excel spreadsheet that summarizes measures, savings, and eligible incentives for projects. Projects pursuing the Bundled Path, should complete the Bundled Path sections of the workbook.
 - ◆ **Specification Sheets:** For all applicable measures, manufacturer specification sheets must be submitted. The minimum efficiency requirements noted in Figure 16, the *New Construction Bundles*, for any measure pursued must be noted in the specification sheets submitted for verification.
 - ◆ **Construction Drawings / Work Scope Specifications:** Construction drawings or work scope specifications detailing the proposed measure's minimum efficiency compliance must be submitted.
3. **APPROVAL:** When a project passes technical review, the OR-MEP Energy Advisor will notify the Participant, and will detail the project's approved measure and eligible incentive in the *Incentive Reservation Letter*. Once this approval is received, the Participant may move forward with installation of approved measures.

The OR-MEP Energy Advisor will communicate regularly with the Participant during construction to ensure the project remains on schedule to receive program incentives. This will include quarterly email notifications and reminders. The Participant must update the OR-MEP Energy Advisor on project changes including the following:

- **Changes in energy measures:** Participants must notify OR-MEP staff of any changes to the energy measures that may affect the building energy use; these changes could significantly impact a project's program eligibility and final incentive amount.
 - **Changes in construction schedule:** The Participant must notify OR-MEP staff of any construction schedule changes or delays. OR-MEP staff will update the project records to reflect revised construction start and completion dates. All projects must complete construction by the custom project completion date detailed in the *Incentive Reservation Letter*, or within 36 months of enrollment; whichever comes first. If a project's estimated completion date falls outside of this timeframe, the Participant must immediately contact OR-MEP staff to assess the impact to the reserved incentives.
4. **VERIFICATION:** When installation of approved measures is complete, the Participant must submit the following documents. The OR-MEP Energy Advisor will review to ensure the installed measure were installed as proposed.
- **Photos (post-install conditions):** Photos of all installed measures must be submitted. Photos should clearly show equipment name plates, make/model number, levels of insulation, etc.
 - **Testing & Verification Documentation:** For any measures that requires testing, testing results must be provided showing as built conditions meet measure requirements for a 10% representative sample of apartment units.
 - For Balanced Ventilation measure, submit Testing and Balancing (TAB) reports
 - For Reduced Infiltration measure, submit blower door testing.
 - **Measure Verification Form:** An independent third party must complete this program form to certify energy measures have been installed according to program specification in order to request eligible incentives. The independent third party shall complete verification in accordance with the Sampling Protocols summarized earlier in this program manual on page
5. **ON-SITE INSPECTION (CASE BY CASE):** On-site inspections by OR-MEP staff are completed at random. To ensure installation quality and compliance with rebate requirements, OR-MEP reserves the right to inspect any project at any time. The OR-MEP Energy Advisor will work with the Participant to schedule these on-site verifications. The Participant must provide access to the building for OR-MEP staff to complete these inspections.
6. **PAYMENT:** After OR-MEP staff approves the project completion documentation, OHCS staff will issue the incentive check(s) to the Participant listed on the application. The letter of completion will be sent to the entire project team

NC - Whole Building Path

General Requirements

The Whole Building Path is targeted for projects only interested in comprehensive energy upgrades and in need of a whole building energy assessment to identify energy efficiency measure opportunities. The project team must meet the following requirements to qualify for incentives:

- ◆ Participants must work with an independent third party, hired at the discretion of the Participant, to complete energy savings calculations through an approved energy modeling software.
- ◆ The baseline energy use modeled should follow the energy code requirements of the specific project as follows:
 - Low-rise projects, 3 stories or less, will typically follow Oregon Residential Specialty Code which align with IECC.
 - Mid- and high-rise project, 4 stories and greater, will typically follow Oregon Energy Efficiency Specialty Code for commercial projects, which aligns with ASHRAE 90.1
 - Projects should model the baseline using the code version accepted at time of permit approval.
- ◆ OR-MEP can only provide incentives for design improvements that contribute to electric savings.

Incentives

There are three incentive tiers in the Whole Building Path. Each tier is based on percent electric savings over existing conditions. The higher the savings achieved, the higher the incentive the project is eligible for.

The incentive tiers are as follows:

TIER	SAVINGS THRESHOLD	INCETNIVE
Tier 1	≥ 20% kWh savings compared to code baseline	\$0.80 / kWh saved
Tier 2	≥ 25% kWh savings compared to code baseline	\$0.90 / kWh saved
Tier 3	≥ 30% kWh savings compared to code baseline	\$1.00 / kWh saved

Figure 19: New Construction Whole Building Path Incentive Tiers

Incentives for Whole Building Path are calculated as follow:

$$\% \text{ Savings Incentive Tier Rate (\$/kWh)} \times \text{Total kWh Savings}$$

Incentives are capped at \$200,000 per project.

Example: A Whole Building Path project with eighty (80) apartment units is achieving 96,000 kWh in total savings, equivalent to 20% kWh saving compared to existing conditions. The project is eligible for Tier 1 incentives. The project is eligible for incentives totaling \$76,800.

TIER	% SAVINGS	kWh SAVINGS	INCENTIVE per KWH	TOTAL INCENTIVE
Tier 1	20%	96,000	\$0.80	\$76,800
WHOLE BUILDING PATH TOTAL				\$76,800

Figure 20: Example New Construction Whole Building Path Incentive

Participation Process

To participate in the Whole Building Path, pre-approval is required. An application must be submitted and approved before any measure is installed. Each project will be assigned an Energy Advisor, who will work with you from the enrollment stage through the installation completion stage.

The Whole Building Path participation process includes the following steps:

7. **ENROLLMENT PACKAGE:** Participant submits complete enrollment package. OR-MEP Energy Advisor will review and confirm project is eligible for participation in OR-MEP. A complete package includes:
 - **Program Application**
 - **Proof of Utility Provider**
 - **Proof of Affordability**
 - **Form W-9**
8. **TECHNICAL REVIEW:** OR-MEP Energy Advisor will review proposed work scope and confirm all measures selected meet program requirements.

The Participant must submit the following:

- **Energy Efficiency Plan (EEP) Worksheet:** The EEP is a program developed Excel spreadsheet that summarizes measures, savings, and eligible incentives for projects. Projects pursuing the Whole Building Path, should complete the Whole Building Path sections of the workbook.
- **Energy Model:** The Participant must submit the modeling files used to calculate savings summarized in the Energy Efficiency Plan. Any OHCS approved energy analysis tool is acceptable for calculating savings. OHCS has reviewed and approved the following tools for multifamily use: EnergyPro (mid-rises only), TREAT, DOE-2, TRACE, HAP, REM/Rate, REM/Design, and eQuest.
- **External Calculations (if applicable):** For measures that cannot be modeled in the approved energy modeling software, external engineering calculations may be submitted instead,

- typically as spreadsheets or industry specific tools. Applicants should consult with OR-MEP staff prior to using any external calculation methods for pre-approval of the general method and for technical assistance with alternate modeling options.
- **Specification Sheets:** The project must submit specification sheets for any energy saving equipment included in the work scope. Examples include domestic hot water equipment, heating and cooling equipment, windows, and ventilation equipment. Specification sheets must document make, model, and efficiency specifications.
 - **Construction Drawings / Work Scope Specifications:** The project's construction plans must include at minimum the building floor plan, elevations, and mechanical plan. Additional plan sheets will be required when applicable to the project scope, such as roofing/attic plans, duct design, or electrical plans.
9. **APPROVAL:** When a project passes technical review, the OR-MEP Energy Advisor will notify the Participant, and will detail the project's approved measure and eligible incentive in the *Incentive Reservation Letter*. Once this approval is received, the Participant may move forward with installation of approved measures.

The OR-MEP Energy Advisor will communicate regularly with the Participant during construction to ensure the project remains on schedule to receive program incentives. This will include quarterly email notifications and reminders. The Participant must update the OR-MEP Energy Advisor on project changes including the following:

- **Changes in energy measures:** Participants must notify OR-MEP staff of any changes to the energy measures that may affect the building energy use; these changes could significantly impact a project's program eligibility and final incentive amount.
 - **Changes in construction schedule:** The Participant must notify OR-MEP staff of any construction schedule changes or delays. OR-MEP staff will update the project records to reflect revised construction start and completion dates. All projects must complete construction by the custom project completion date detailed in the *Incentive Reservation Letter*, or within 36 months of enrollment; whichever comes first. If a project's estimated completion date falls outside of this timeframe, the Participant must immediately contact OR-MEP staff to assess the impact to the reserved incentives.
10. **VERIFICATION:** When installation of approved measures is complete, the Participant must submit the following documents. The OR-MEP Energy Advisor will review to ensure the installed measures were installed as proposed.
- **Energy Efficiency Plan (EEP) Worksheet:** The Participant's independent third party must complete an onsite verification confirming all measures are installed as proposed. In the EEP, the Whole Building Path verification sections must be completed confirming this verification was completed. Any discrepancies between what was proposed versus verified should be noted.

- **Photos (post-install conditions):** Photos of all installed measures must be submitted. Photos should clearly show equipment name plates, make/model number, levels of insulation, etc.
- **Measure Verification Form:** An independent third party must complete this program form to certify energy measures have been installed according to program specification in order to request eligible incentives. The independent third party shall complete verification in accordance with the Sampling Protocols summarized earlier in this program manual on page 4.

11. ON-SITE INSPECTION (CASE BY CASE): On-site inspection by OR-MEP staff are completed at random. To ensure installation quality and compliance with rebate requirements, OR-MEP reserves the right to inspect any project at any time. The OR-MEP Energy Advisor will work with the Participant to schedule these on-site verifications. The Participant must provide access to the building for OR-MEP staff to complete these inspections.

12. PAYMENT: After OR-MEP staff approves the project completion documentation, OHCS staff will issue the incentive check(s) to the Participant listed on the application. The letter of completion will be sent to the entire project team.

Technical Reviews Quality Assurance Process

The intent of the Technical Review is to provide a thorough review of the submittal documents and verify the project's projected energy savings. Projects that do not meet the minimum energy savings targeted outlined in Figure 17, the *New Construction Whole Building Path Incentive Rates* cannot be incentivized through the Whole Building Path, and can opt to participate in either the Menu or Bundled Path.

OR-MEP Energy Advisors will work with the Participant's licensed energy consultant to complete the Technical Review. If a submittal is not accepted, the OR-MEP Energy Advisor will provide comments in a review document identifying the issues of each submittal revision. The licensed energy consultant should review all comments, and find and correct the errors causing each identified issue or explain why an identified issue is justified. OR-MEP Energy Advisors are always available to provide one-on-one technical support with the Participant's licensed energy consultant to discuss and resolve any issues identified in the Technical Review.

It is the licensed energy consultant responsibility to identify any modeling issues causing the identified issues and to resolve them. OR-MEP staff are available to provide any needed technical assistance if the licensed energy consultant is having difficulties

All participating projects are expected to review their work and to submit a high-quality model along with fully completed tools and documents. If at any time during the Technical Review process the OR-MEP Energy Advisor deems the submittal as incomplete or missing information, the submittal will be rejected and sent back to the Participant/ licensed energy consultant to resubmit.