#### OFFICE OF THE SECRETARY OF STATE

SHEMIA FAGAN SECRETARY OF STATE





#### **ARCHIVES DIVISION**

STEPHANIE CLARK DIRECTOR

800 SUMMER STREET NE SALEM, OR 97310 503-373-0701

# NOTICE OF PROPOSED RULEMAKING

**INCLUDING STATEMENT OF NEED & FISCAL IMPACT** 

**CHAPTER 813** 

OREGON HOUSING AND COMMUNITY SERVICES DEPARTMENT

**FILED** 

04/27/2023 3:01 PM ARCHIVES DIVISION SECRETARY OF STATE

FILING CAPTION: Updating the Oregon Multifamily Energy Program Manual.

LAST DAY AND TIME TO OFFER COMMENT TO AGENCY: 05/31/2023 5:00 PM

The Agency requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.

CONTACT: Tim Clark Oregon Housing and Community Services Filed By: 503-559-2918 725 Summer St NE, Suite B Joy Aldrich

timothy.i.clark@hcs.oregon.gov Salem,OR 97301 Rules Coordinator

HEARING(S)

Auxiliary aids for persons with disabilities are available upon advance request. Notify the contact listed above.

DATE: 05/23/2023

TIME: 11:00 AM - 11:30 AM

OFFICER: Tim Clark

**HEARING LOCATION** 

ADDRESS: Oregon Housing and Community Services, 725 Summer St NE, Suite B, Salem, OR 97301

REMOTE MEETING DETAILS

MEETING URL: Click here to join the meeting

PHONE NUMBER: 669-900-9128 CONFERENCE ID: 89831262711

#### **NEED FOR THE RULE(S)**

To update the policies and instructions for this program that are outlined in the Multifamily Energy Program Manual, which was previously dated September 3, 2019.

#### DOCUMENTS RELIED UPON, AND WHERE THEY ARE AVAILABLE

Multifamily Energy Program Manual Draft

#### STATEMENT IDENTIFYING HOW ADOPTION OF RULE(S) WILL AFFECT RACIAL EQUITY IN THIS STATE

A Diversity, Equity, and Inclusion (DEI) Advisory Council hosted by a third-party facilitator, which includes diverse representation from each of the primary stakeholder groups that are influenced by OR-MEP policies and procedures, was utilized for their input, expertise, and knowledge.

FISCAL AND ECONOMIC IMPACT:

There is no anticipated fiscal or economic impact beyond the positive impact expected on residents of the multifamily dwellings benefiting from this program.

#### COST OF COMPLIANCE:

(1) Identify any state agencies, units of local government, and members of the public likely to be economically affected by the rule(s). (2) Effect on Small Businesses: (a) Estimate the number and type of small businesses subject to the rule(s); (b) Describe the expected reporting, recordkeeping and administrative activities and cost required to comply with the rule(s); (c) Estimate the cost of professional services, equipment supplies, labor and increased administration required to comply with the rule(s).

There is no anticipated cost of compliance for state agencies, local government, or public members. The impacts upon small businesses are expected to be positive; impact by promoting energy-efficient design in affordable multifamily housing will result in residents having more income to spend due to reduced energy bills. There are no other expected costs incurred for reporting, administrative, or personal services and supplies related to complying with the rules.

#### DESCRIBE HOW SMALL BUSINESSES WERE INVOLVED IN THE DEVELOPMENT OF THESE RULE(S):

A culturally and ethnically diverse coalition including small business owners were consulted for the creation of the new scoring system that we will use to use rank OR-MEP projects for funding instead of the current first come first served method being used at this time.

#### WAS AN ADMINISTRATIVE RULE ADVISORY COMMITTEE CONSULTED? NO IF NOT, WHY NOT?

Consulting with a culturally and ethnically diverse coalition occurred, looking at the larger picture of the program and its implementation. Future consultation will occur with the new DEI Advisory Council.

#### HOUSING IMPACT STATEMENT:

These rules do not affect the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single-family dwelling on that parcel.

AMEND: 813-206-0000

RULE SUMMARY: Establishes the program, its funding source, and its purpose.

**CHANGES TO RULE:** 

813-206-0000

Program Administration, Authority ¶

OAR 813-206-0000 through 813-206-0070 chapter 813, division 206 addresses protocols, standards, and requirements with respect to the Oregon Multifamily Energy Program (the "Program"), the purpose of which is to address energy efficiency needs of low-income households in multifamily housing. Additional policies and instructions for this program are outlined in the Oregon Housing and Community Services' Multifamily Energy Program Manual dated September 3April 21, 201923 incorporated herein by this reference ("Manual"). Other applicable policies, standards, and requirements are contained in the department's descriptive and procedural rules found in Division 1, in the department's general rules found in Division 5, and in the department's general procedures for public contracts and procurements found in Division 6. The department allocates funds for this program to eligible affordable multifamily rental housing developments ("Projects") through developers and owners of such projects. Program funds are made available to the department from SB 1149 Electricity Public Purpose Charge account established in ORS 757.612(3)(b)(C) for this and other purposes under ORS 757.612(3)(b)(C).

Statutory/Other Authority: ORS 456.555

Statutes/Other Implemented: ORS 458.505, ORS 757.612

RULE ATTACHMENTS DO NOT SHOW CHANGES. PLEASE CONTACT AGENCY REGARDING CHANGES.



# MULTIFAMILY Energy Program

# **Program Manual**

**DRAFT: April 21, 2023** 

September 3, 2019 DRAFT April 21, 2023

Version Nnumber 1.2 2023.0

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).





503-505-6787 OHCSMultifamilyEnergy@trccompanies.com

www.oregonmultifamilyenergy.com

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# **Summary of Changes**

This is a summary of changes since version 1.2, published September 3, 2019.

#### **Manual Version Number**

◆ Version numbering convention update to program calendar year (YYYY) and iteration number (#) in the form of: YYYY.#.

#### **General Eligibility**

◆ Expanded eligibility to duplex, triplex, and quadplex projects where five or more buildings are on one site.

#### **Participation Requirements**

- Updated funding prioritization process to introduce new Open Enrollment process.
- Removed requirement that enrollment approval must take place prior to any measure installation.
- ◆ Removed requirement to submit invoices at completion.

#### Existing Buildings (EB) and New Construction (NC)

◆ Updated manual organization to minimize repetition of process for each program pathway.

#### **EB and NC Measure Tables**

- Removed the points structure and updated structure to list incentives per defined measure unit.
- Updated measures table, incentives, and requirements.
  - Introduced tiered incentives by efficiency to windows, insulation, HVAC equipment, and heat pump water heaters.
  - Added option to add one measure from outside the standard measure table, called Tailored Measure.
  - Added ENERGY STAR window air conditioner (AC) incentives.
  - Added higher tier incentives for ductless heat pumps installed in rural areas.
  - EB only: removed Low-E Storm Windows measure.
  - NC only: Added separate category for central heat pump water heaters.
  - NC only: Separated seven-day programmable thermostat from smart connected thermostat
  - NC only: Disaggregated envelope measure to each envelope component, including continuous insulation as a separate measure from the wall insulation measure.
- ◆ Introduced higher incentives for ductless heat pumps installed in rural areas. The increased incentives will in part offset the higher cost of installation in rural areas with limited access qualified contractors and higher cost of equipment.
- ◆ Streamlined Bundled Path requirements to provide flexibility. Removed pre-made bundle options. Projects pursuing Bundled Path may select three or more measures from any category to qualify for higher incentives.

#### Wildfire Resiliency and Smart Homes bonus incentives

- New bonus offerings for energy efficiency measures that also have wildfire resiliency and smart homes benefits. The Wildfire Resiliency bonus incentives are designed to help protect the health and homes of Oregonians in the face of common wildfire-related risks. These measures not only improve indoor air quality during wildfire season, but also help make buildings more resilient, all while offering energy saving benefits year-round.
- ◆ Included additional information for wildfire resiliency and smart homes measures in manual appendix.

# **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 (e.g., x: 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. The Oregon Housing & Community Services' (OHCS) Multifamily Energy Program (OR-MEP) is a community-focused program that incorporates energy-efficient design in affordable multifamily housing. The program offers program participants resources including design assistance, cash incentives, coordination with other regional programs.

The purpose of OR-MEP funding is to reduce energy burden¹ for low-income residents of Oregon through energy efficiency improvements and education in both Existing Buildings and New Construction. The program targets to benefit residents who are navigating low income, people of color, those who are disproportionately impacted, those customers for whom English is not their first language, those living in rural communities. Program participants may apply for OR-MEP funding to upgrade Existing Building or New Construction projects.

<sup>&</sup>lt;sup>1</sup> Energy burden is defined as the percent of household income spent on energy bills. Energy burden is a key component to determining if a housing unit is affordable. The most commonly used metric is that an affordable energy burden must be no higher than six percent of the household's income.

(https://www.oregon.gov/energy/Get-Involved/Documents/2018-BEEWG-Ten-Year-Plan-Energy-Burden.pdf)

The OR-MEP Diversity, Equity, and Inclusion (DEI) Coalition will analyze, recommend, and influence changes to OR-MEP to make the program more accessible. The OR-MEP DEI Coalition is team of community members from across the state to help OR-MEP incorporate diversity, equity, and inclusion in the program design, understand barriers to participation, and recommend modifications to the program and policies.

To deliver OR-MEP, OHCS works with a program implementation team, including TRC, Dragonfly Consulting, Encolor, Elevate Energy, and Unrooz Solutions. The program team implements, oversees, provides technical assistance, and coordinates the program on OHCS' behalf.

### **Program Contact**

For more information about OR-MEP contact:

Phone: 503-505-6787

Email: OHCSMultifamilyEnergy@trccompanies.com

Website: <a href="www.oregonmultifamilyenergy.com">www.oregonmultifamilyenergy.com</a>

# **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. Campus of five or more duplexes, triplexes, and quadplexes are also eligible. 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 utilitysponsored energy efficiency programs for the same electricity savings <u>unless approved by</u> program staff.
- Incentive payments are available only to the parties named on the Program Application.
- ◆ Funding for this program is limited and the program does not guarantee access to OR-MEP funding for all Participants. To apply to OR-MEP, projects must submit an application during the OR-MEP Open Enrollment -application period. OR-MEP Open Enrollment rounds are scheduled to be open twice annually. Applications in response to the Open Enrollment are reviewed and competitively ranked. Applications that have the highest scores within each set-aside category will be recommended for funding as allocated resources allow. Projects that are selected for funding are then eligible to enroll in the OR-MEP to reserve incentives. To stay updated when OR-MEP Open Enrollment dates are released, sign up for the OR-MEP newsletter at: https://us1.list-

manage.com/subscribe?u=b48cdcec4f9441b3fbd6a4467&id=169e22420foregonmultifamilyen ergy.com. 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 funding. 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 of four or less structures: Exception: As noted in above in the General Eligibility section, the program will evaluate campuses of fourfive or more projects structures of attached residences, each with four units or less, including duplexes, triplexes, and fourplexes, on a case by case basisare eligible.
- <u>Commercial Space within Mixed Use Building</u>: 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: An existing building project must have an active electric account or be eligible for electric service with Portland General Electric or Pacific Power. New construction project must be located in a site that is eligible for electric service with Portland General Electric or Pacific Power.



### **Definition of a Project**

The program considers defines a pproject as 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 provided 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 <a href="https://orcho.org/physiol/">OHCSMultifamilyEnergy@trccompanies.com</a> 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.

### **Open Enrollment Application Deadlines**

Funding for this program is limited and the program does not guarantee access to OR-MEP funding for all Participants. To apply to OR-MEP, projects must submit an application during the OR-MEP Open Enrollment period. OR-MEP Open Enrollment rounds are scheduled to be open twice annually. Applications in response to the Open Enrollment are reviewed and competitively ranked. Applications that have the highest scores within each set-aside category will be recommended for funding as allocated resources allow. Projects that are selected for funding are then eligible to enroll in the OR-MEP to reserve incentives.

To stay updated on when OR-MEP Open Enrollment dates are released, sign up for the OR-MEP newsletter at: https://us1.list-manage.com/subscribe?u=b48cdcec4f9441b3fbd6a4467&id=169e22420f 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-cancellation 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 and milestone meetings. 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 <u>RESNET Guidelines for Multifamily Energy Ratings</u> (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 <u>seven (7)</u> 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 Program STRUCTURE 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 <u>more</u> comprehensive improvements and design strategies.

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

<u>Figure 4</u>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.

#### **PROGRAM PATHWAYS**

#### PATH 1: MENU

Are you looking to improve a few elements of your property?

Select one toor two measures from a table of measures

# PATH 2: BUNDLED

Are you planning to go beyond basic improvements?

Select three or more measures from a table of

# PATH 3: WHOLE BUILDING

Are you looking to boost your incentive and efficiency?

Maximize savings with energy modeling

Figure 1: OR-MEP Pathways

#### **Participation Process**

To participate in the Existing Buildings or New Construction offering, Participant must apply during the OR-MEP Open Enrollment period. OR-MEP Open Enrollment rounds are scheduled to be open twice annually. Applications submitted during Open Enrollment are reviewed and competitively ranked. Applications that have the highest scores within each set-aside category will be recommended for funding as allocated resources allow. Projects that are selected for funding are then eligible to enroll in the OR-MEP to reserve incentives. To stay updated when OR-MEP Open Enrollment dates are released, sign up for the OR-MEP newsletter at: oregonmultifamilyenergy.com

<u>Each approved project will be assigned an OR-MEP Energy Advisor, who will work with the Participant</u> from the enrollment stage through the installation completion stage.

#### The participation process includes the following steps:

- 1. ENROLLMENT PACKAGE: Participant submits complete enrollment package. A complete package includes:
  - **♦** Signed Acceptance Letter
  - Proof of Utility Provider
  - ◆ Proof of Affordability (if not applying for other OHCS funding)
  - ♦ Form W-9
- 2. SCOPE OF WORK PACKAGE: Participant submits complete scope of work package. OR-MEP Energy Advisor will review and confirm specifications are eligible for the requested incentives. A complete package includes:
  - ◆ Energy Efficiency Plan (EEP) Worksheet: The EEP is a program-specific Excel spreadsheet that summarizes measures, savings, and eligible incentives for projects. Projects should complete the Path sections of the workbook for which they are applying. 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. Menu and Bundled Path projects must meet minimum efficiency requirements noted in Figure 6: Existing Building Measure TableFigure 6: Existing Building Measure Table. 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 of pre-install existing conditions (EB Only): Photos of all existing conditions (including measure nameplate data when available) must be submitted prior to installation of any new measure or equipment.
    - Whole Building Path Only: 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 (Whole Building Path Only): 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, eQuest, and IES-VE.
  - ♠ External Calculations (Whole Building Path Only): 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 preapproval of the general method and for technical assistance with alternate calculation options.

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*.

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.
  - ◆ 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 6.
- 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.

#### **Wildfire Resiliency and Smart Homes Bonus**

In recent years, Oregon has suffered from the effects of climate change in the form of wildfires, destroying structures and spreading smoke throughout the state with devastating health impacts. To

prepare affordable multifamily homes to better protect or shelter residents from wildfire and smoke, OR-MEP is offering bonus incentives for energy efficient features that are also more fire resistant or promote higher air quality in homes.

Additionally, technology is quickly advancing, and smart homes technologies are proven to simplify and promote additional energy savings by influencing behavior. OR-MEP is providing bonus incentives for smart homes technology to promote installation and consideration of new technology as well as the infrastructure to provide these conveniences.

All participants pursuing the Menu, Bundled, or Whole Building Path are eligible for bonuses for which the minimum requirements are met. The bonus incentives may be layered on top of other measures. The sum of the standard pathway incentives and the bonus incentives must not exceed \$200,000, or the total installed cost of measures in the OR-MEP scope of work.

<u>Error! Reference source not found.</u>Bonus incentives available for Existing Buildings are listed in figure 2 below, and New Construction are listed in figure 3.

	MEASURE	EXISTING CONDITION REQUIREMENTS	MINIMUM EFFICIENCY REQUIREMENTS	EXISTING BUIDINGS INCENTIVE
Smart Homes	Energy Monitor	No energy monitor	Whole home energy consumption monitor with hard wired display	<u>\$350/unit</u>
ERV/HRV with 1.4 CFM/W or less		ERV/HRV must be compatible and equipped with HEPA filter (H13-H14 rating or MERV >=17)	\$100/each	
	<u>Triple Pane</u> <u>Windows</u>	Single-pane or double-pane window.	Windows must be triple paned	\$9/sf fenestration
<u>Wildfire</u> <u>Resiliency</u>	Fire Resistant Attic Insulation	Existing condition must be R- 18 or less.	<u>Class A fire-resistant mineral wool</u> <u>or polyiso insulation with minimum</u> <u>R-49 or fill attic space</u>	\$1/sf insulation
	<u>Vented to</u> <u>Unvented Attic</u>	Existing condition must be a vented attic.	Air seal attic at roofline so entire attic is within the thermal boundary	<u>\$0.50/sf attic</u> <u>floor</u>
	Fire Resistant Continuous Wall Insulation	Existing cavity insulation must be R-6.5 or less.	Class A fire-resistant mineral wool or polyiso continuous insulation with an R-value of R-4 or higher in all exterior walls	\$1/sf insulation

Figure 2: Existing Building Bonus Enhancement Incentives

	<u>MEASURE</u>	<u>REQUIREMENT</u>	NEW CONSTRUCTION INCENTIVE
Smart Homes	Energy Monitor	Whole home energy consumption monitor with hard wired display	\$200/unit
	ERV/HRV with HEPA Filter	ERV/HRV must be compatible and equipped with HEPA filter (H13-H14 rating or MERV >=17)	<u>\$100/DU</u>
<u>Wildfire</u> <u>Resiliency</u>	Triple Pane Windows	Windows must be mostly triple paned with an area weighted average U-value of U-0.22	<u>\$100/DU</u>
	<u>Fire Resistant Attic</u> <u>Insulation</u>	<u>Class A fire-resistant mineral wool or polysio</u> <u>insulation with minimum R-49 or fill attic space</u>	<u>\$100/DU</u>

<u>Unvented Attic</u>	Air seal attic at roofline so entire attic is within the thermal boundary	\$100/DU
Fire Resistant Continuous Wall Insulation	Class A fire-resistant mineral wool or polyiso continuous insulation with an R-value of R-4 or higher in all exterior walls	\$100/DU

Figure 3: New Construction Bonus Enhancement Incentive

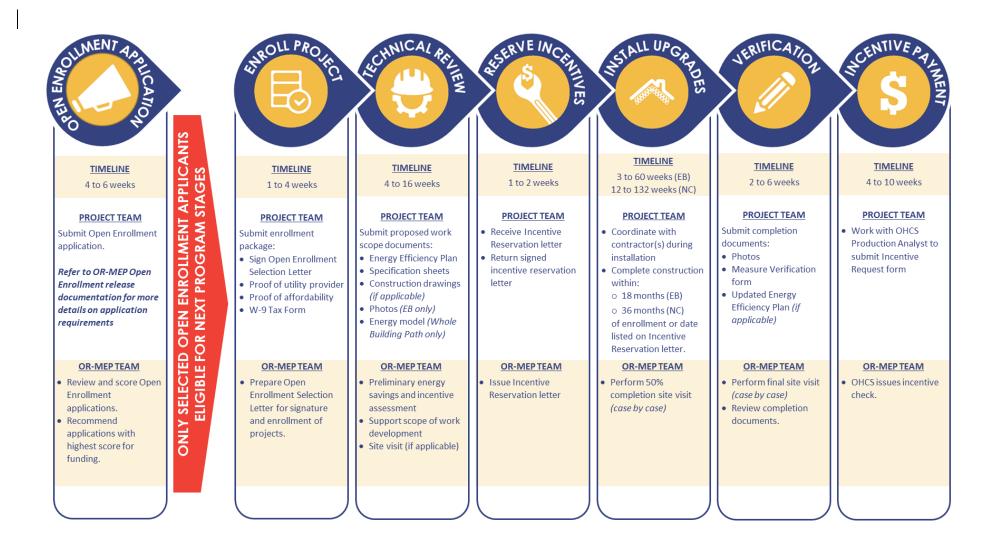


Figure 4422: Program Process Flow and Documentation Requirements

# **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. Menu and Bundled Ppath incentives are in Figure 5 Existing Building Measure Table.

#### **PROGRAM PATHWAYS**

#### PATH 1: MENU

Are you looking to improve a few elements of your property?

Select one toor measures two
measures from a menutable
of measures

# PATH 2: BUNDLED

Are you planning to go beyond basic improvements?

Select three or more measures from a table of measures

# PATH 3: WHOLE BUILDING

Are you looking to boost your incentive and efficiency?

Maximize savings with energy modelingthrough a whole building approach.

Figure 533: OR-MEP Pathways

#### EB - Menu Path

#### **General Requirements**

The Menu Path is targeted to projects only interested in specific measure <u>limited</u> 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. <u>Custom s</u>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 incentives. The program has determined the points incentives 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:

MENU PATH INCENTIVE TOTAL:		Total Points X \$60 /point
Measure Unit		
Measure 2: Measure Quantity (units as defined in Measure Menu	X	Incentives Points per
Measure Unit		
Measure 1: Measure Quantity (units as defined in Measure Menu	<del>-X</del>	<u>Points Incentives per</u>

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

<u>Example</u>: 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<u>15,000</u>.

MEASURE	QUANTITY	POINTS INCENTIVES PER UNIT	TOTAL INCENTIVE
<del>Packaged Terminal Heat</del> <del>Pump</del>	<del>20</del>	<del>10.0\$700</del>	\$1 <u>4</u> 2,000
Refrigerators	<del>20</del>	<del>\$50</del> 0.75	\$ <del>900<u>1,000</u></del>
	ME	NU PATH TOTAL	\$1 <u>52,0</u> 900

#### **Existing Buildings Measure Table**

<u>Projects participating in the Menu and Bundled path must select measures meeting the requirements listed in Figure 6: Existing Building Measure Table-Figure 6: Existing Building Measure Table.</u>

#### **Tailored Measure**

Participants interested in pursuing energy efficiency measures outside of those offered in the measure table can pursue one (1) custom measure by selecting the Tailored Measure option. Through this option, the participant can work closely with their Energy Advisor to receive incentives for a measure by

calculating the savings specific to their project. The measure must meet the requirements of the program, including but not limited to:

- Lead to electric savings.
- ◆ Residents are the primary users of the equipment and space.
- ◆ Have proven, quantifiable energy savings potential (e.g., Regional Technical Forum, Department of Energy, ENERGY STAR etc.)

#### Measures that are a good fit for include:

- ◆ Innovative measures with proven energy savings potential
- ◆ Equipment used in a manner or application that is significantly different from the intent of the measure options (e.g., HPWH serving exclusively the laundry room hot water demand)

#### To qualify for a Tailored Measure incentive:

- 1. Discuss your interest to pursue a tailored measure with your Energy Advisor during enrollment.
- 2. In the EEP, Project Info tab, select the project type and the program pathway. Tailored Measure tab will populate.
- 3. Navigate to the Tailored Measure tab and complete the Measure Feasibility section. Submit the EEP to your Energy Advisor. Your Energy Advisor will determine the eligibility and feasibility of your proposed Tailored Measure and provide next steps.

#### Incentive

Tailored measures are eligible for \$0.70/kWh of estimated annual energy savings.

<u>Figure 6 below is a summary of Menu and Bundled path incentives and technical requirements for Existing Buildings project</u>

Figure 665: Existing Building Measure Table Figure 6: Existing Building Measure Menu

MEASURE CATEGORY	MEASURE NAME	MEASURE LOCATION	UNITS	POINTS / UNIT	MINIMUM EFFICIENCY REQUIREMENTS
<del>Envelope</del>	Windows	Whole Building	100 SF of window area	<del>12.00</del>	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	<del>6.0</del>	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	<del>Whole</del> 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	<del>Whole</del> Building	100 SF of insulation	<del>1.0</del>	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)	<del>In Unit</del>	each	<del>22.00</del>	Installation of DHP with minimum efficiency of HSPF 10.0 or greater. Must replace electric resistance heat.
HVAC	Packaged Terminal Heat Pump (PTHP)	<del>In Unit</del>	each	<del>10.00</del>	Installation of PTHP with minimum efficiency of 3.0 COP (heating) / 9.8 EER (cooling). Must replace electric resistance heat.
HVAC	Smart Thermostat	<del>In Unit</del>	each	<del>1.50</del>	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	<del>In Unit</del>	each	<del>8.50</del>	Heat pump water heaters must meet ENERGY STAR specifications OR be an eligible model in <u>NEEA's Northern</u> <u>Climate Specification</u> Tier 1,2, or 3.
DHW	Low Flow Showerheads	<del>In Unit</del>	each	0.25	Eligible for electric DHW systems only. Installed showerhead must be at least 1.5 GPM.
DHW	<del>Low Flow Aerators</del>	<del>In Unit</del>	each	<del>0.25</del>	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	<del>In-Unit</del>	each	<del>0.25</del>	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	<del>In Unit</del>	each	0.75	Installation of ENERGY STAR refrigerator.

<del>Appliances</del>	Common Area Clothes Washers	Common Area	each	<del>5.50</del>	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	<del>POINTS /</del> <del>UNIT</del>	MINIMUM EFFICIENCY REQUIREMENTS
Lighting	In-Unit LED Fixtures	<del>In Unit</del>	each	0.50	Installation of integrated LED fixture within an apartment replacing an existing hardwired incandescent lamp.
Lighting	Common Area LED Fixtures	Common Area	<del>each</del>	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	<del>LED Exit Sign</del>	<del>Common</del> <del>Area</del>	each	1.00	Installation of LED exit sign, replacing incandescent or fluorescent exit sign.
Lighting	Common Area Lighting Controls/Sensors	<del>Common</del> A <del>rea</del>	each	0.50	Sensors must be hardwired and control interior lighting in common areas
<b>Lighting</b>	LED Exterior Wall Pack	Exterior	<del>each</del>	<del>1.00</del>	Installation of LED exterior wall pack (attached to residential building), Must replacing HID or incandescent lighting. Must include photo sensors to prevent daylight operation.

ME/	ASURE CATEGORY	MEASURE NAME	MENU PATH INCENTIVE	BUNDLED PATH INCENTIVE	EXISTING CONDITION REQUIREMENTS	MINIMUM EFFICIENCY REQUIREMENTS
		Windows U-0.3 - 0.28	<u>\$6/sf</u>	<u>\$7/sf</u>	Single-pane or double-pane window.	Minimum Efficiency: U value 0.3 - 0.28
		Windows U-0.27 - 0.25	\$7.50/sf	\$8.50/sf	Single-pane or double-pane window.	Minimum Efficiency: U value 0.28 - 0.25
	Windows	Windows U ≤ 0.24	<u>\$9/sf</u>	\$10/sf	Single-pane or double-pane window.	Minimum Efficiency: U value 0.24 or lower
		WILDFIRE RESILIENCY BONUS: Triple Pane Windows	<u>\$10,</u>	<u>/sf*</u>	Single-pane or double-pane window.	Windows must be triple paned
au au		Attic/Ceiling Insulation R-38, or fill attic space	<u>\$0.15/sf</u>	\$0.20/sf	Existing condition must be R-18 or less.	Installed insulation must be minimum R-38, or fill attic space.
Envelope		Attic/Ceiling Insulation R-49	\$0.30/sf	<u>\$0.35/sf</u>	Existing condition must be R-18 or less.	Installed insulation must be minimum R-49 or better.
Enve	Attic/Ceiling Insulation	WILDFIRE RESILIENCY BONUS: Fire Resistant Attic Insulation	<u>\$1/sf*</u>		Existing condition must be R-18 or less.	Class A fire-resistant mineral wool or polyiso insulation with minimum R-49 or fill attic space.
		WILDFIRE RESILIENCY BONUS: Vented to Unvented Attic	\$0.50/sf attic floor*		Existing attic must be a vented.	Air seal attic at roofline so entire attic is within the thermal boundary.
		Wall Cavity Insulation	\$0.60/sf	\$0.70/sf	Existing condition must be R-6.5 or less.	Installed insulation must be minimum R-11 or fill wall cavity.
	Wall Insulation	Wall Cavity and Continuous Insulation	<u>\$3/sf</u>	\$3.50/sf	Existing condition must be R-6.5 or less.	Installed insulation must be minimum R-11, or fill wall cavity, Plus R-3 continuous insulation
		WILDFIRE RESILIENCY BONUS: Fire Resistant Continuous Insulation	<u>\$1/</u>	<u>'sf*</u>	Existing condition must be R-6.5 or less.	Class A fire-resistant mineral wool or polyiso continuous insulation with an R-value of R-4 or higher in all exterior walls
		DHP HSPF 9-11	\$1,300/each	\$1,800/each	Must replace electric resistance heat.	Installation of DHP with minimum efficiency of HSPF 9, up to 11.
AC	Ductless Heat Pump	DHP HSPF >=11	\$1,500/each	\$2,000/each	Must replace electric resistance heat.	Installation of DHP with minimum efficiency of HSPF 11 or greater
	Ductless Heat Pump (DHP)	RURAL: DHP HSPF 9-11	\$1,800/each	\$2,300/each	Must replace electric resistance heat and be located in a rural region as defined by OHCS	Installation of DHP with minimum efficiency of HSPF 9, up to 11.
		RURAL: DHP HSPF >=11	\$2,000/each	\$2,500/each	Must replace electric resistance heat and be located in a rural region as defined by OHCS	Installation of DHP with minimum efficiency of HSPF 11 or greater

MEA	SURE CATEGORY	MEASURE NAME	MENU PATH INCENTIVE	BUNDLED PATH INCENTIVE	EXISTING CONDITION REQUIREMENTS	MINIMUM EFFICIENCY REQUIREMENTS
	Packaged Terminal Heat Pump (PTHP)	Packaged Terminal Heat Pump (PTHP)	\$600/each	\$700/each	Must replace electric resistance heat.	Installation of PTHP with minimum efficiency of 3.0 COP (heating) / 9.8 EER (cooling).
	Thermostat	<u>Programmable</u> <u>Thermostat</u>	\$30/each	<u>\$35/each</u>	Must replace temperature based or on/off thermostat	Installation of seven-day programmable thermostat
		Smart Thermostat	\$90/each	\$100/each	Must replace temperature based or on/off thermostat	<u>Learning-based scheduling thermostat that can be</u> <u>accessed remotely (i.e. smartphone or other</u> <u>network enabled device)</u>
	Energy Monitor	SMART HOME BONUS: Whole Home Energy Monitor	<u>\$350/each*</u>		No energy monitor	Installation of a whole home energy monitor with hard wired display.
-	Bathroom Exhaust Fan	Efficient Bathroom Exhaust Fan	\$60/each	<u>\$70/each</u>	1.4 CFM/W or less	ENERGY STAR rated bathroom fan, or 2.8 CFM/W or better
	<u>ERV/HRV</u>	Spot or In-unit ERV/HRV	\$270/each	\$300/each	1.4 CFM/W or less	Energy or Heat Recovery Ventilation (ERV/HRV) with minimum of 80% recovery efficiency installed in unit. Must be sized per ASHRAE 62.2 for apartments.
		Common Area or Shared ERV/HRV	\$1.50/CFM	\$1.75/CFM	1.4 CFM/W or less	Energy or Heat Recovery Ventilation (ERV/HRV) with minimum of 80% recovery efficiency that is shared between multiple units, serving common areas, or the whole building. Must be sized per ASHRAE 62.2 for apartments and ASHRAE 62.1 for common areas.
		WILDFIRE RESILIENCY BONUS: ERV/HRV with HEPA Filter	\$100/each*		1.4 CFM/W or less	ERV/HRV must be compatible and equipped with HEPA filter (H13-H14 rating or MERV >=17)
	Window AC	ENERGY STAR Window AC	\$60/each	\$70/each	Non-ENERGY STAR window AC or no cooling in unit	ENERGY STAR rated window AC unit
<u>DHW</u>	<u>Heat Pump Water</u> <u>Heater</u>	NEEA Tier 1 or equivalent	\$500/each	\$650/each	Electric resistance water heater	Heat pump water heaters must be an eligible model in NEEA's Northern Climate Specification Tier 1 or EF 2.0 or better.
		NEEA Tier 3 or equivalent	\$600/each	\$650/each	Electric resistance water heater	Heat pump water heaters must be an eligible model in NEEA's Northern Climate Specification Tier 3 or EF 2.6 or better.
		NEEA Tier 4 or equivalent	<u>\$700/each</u>	<u>\$750/each</u>	Electric resistance water heater	Heat pump water heaters must be an eligible model in NEEA's Northern Climate Specification Tier 4 or EF 3.0 or better.

MEA	ASURE CATEGORY	MEASURE NAME	MENU PATH INCENTIVE	BUNDLED PATH INCENTIVE	EXISTING CONDITION REQUIREMENTS	MINIMUM EFFICIENCY REQUIREMENTS	
	Central Heat Pump Water Heater	Central HPWH	\$300/ dwelling unit (DU)**	\$400/ dwelling unit (DU)**	Electric resistance water heater	EF 2.0 or greater	
	Low Flow Showerheads and Aerators	Low Flow Showerheads and Bathroom/Kitchen Fixtures	<u>\$15/DU</u>	\$20/DU	2 GPM or greater	<ul> <li>Eligible for electric DHW systems only.</li> <li>1.5 GPM showerheads</li> <li>1.5 GPM kitchen aerator</li> <li>1.0 GPM bathroom aerator</li> </ul>	
	Drain Water Heat Recovery	<u>Drain Water Heat</u> <u>Recovery</u>	<u>\$60/each</u>	<u>\$70/each</u>	No drain water heat recovery	Install drain water heat recovery in minimum of 1 shower.	
	Refrigerators	ENERGY STAR Refrigerator	<u>\$43/each</u>	<u>\$50/each</u>	Non-ENERGY STAR refrigerator	Installation of ENERGY STAR refrigerator.	
Appliances	Dishwasher	ENERGY STAR Dishwasher	\$30/each	<u>\$35/each</u>	Non-ENERGY STAR dishwasher	Installation of ENERGY STAR dishwasher.	
	In-unit Clothes Washer	ENERGY STAR In-Unit Clothes Washer	<u>\$30/each</u>	<u>\$35/each</u>	Non-ENERGY STAR clothes washer	Installation of ENERGY STAR in-unit clothes washer, or MEF 2.2 or greater. Dryer with moisture sensing recommended.	
	Common Area Clothes Washer	ENERGY STAR Common Area Clothes Washers	\$300/each	\$350/each	Non-ENERGY STAR clothes washer	Installation of front load electric clothes washer in multifamily common area. Must be ENERGY STAR qualified, or MEF 2.2 or greater. Dryer with moisture sensing recommended.	
	<u>Lighting</u>	In-Unit LED Fixtures	<u>\$30/each</u>	<u>\$35/each</u>	Incandescent or fluorescent lamp.	Installation of integrated LED fixture within an apartment	
ब्र		Common Area LED Fixtures	\$60/each	\$70/each	Incandescent or fluorescent lamp	Installation of LED T8 fixture, replacing T12 or T8 fluorescent fixture. OR Installation of integrated LED fixture in common area	
 Lighting		LED Exit Sign	\$30/each	\$35/each	Incandescent or fluorescent exit sign	Installation of LED exit sign	
		Common Area Lighting Controls/Sensors	<u>\$60/each</u>	<u>\$70/each</u>	On/off toggle switch	Sensors must be hardwired and control interior lighting in common areas	
		LED Exterior Wall Pack	\$60/each	\$70/each	Must replace HID or incandescent lighting.  Must include photo sensors to prevent  daylight operation	Installation of LED exterior wall pack (attached to residential building) Must include photo sensors to prevent daylight operation.	
Tailored Measure\$0.70/kWhMust be an energy efficiency measure no Contact program staff for guidance.						ered by standard incentives. Preapproval required.	

<sup>\*</sup>Wildfire Resiliency and Smart Home bonus incentives may be combined with related standard measure incentives.

\*\*Central HPWH incentives are capped at the installed cost

#### **EB - Menu Path**

#### **General Requirements**

The Menu Path is targeted to projects only interested in limited 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 6: Existing Building Measure Table Figure 6: Existing Building Measure Table. These predefined measures are proven cost-effective measures with deemed savings already associated with each measure. Note: Consider adding a third measures to qualify for higher incentives through the Bundled Path.
- - —Each measure has minimum efficiency requirements. All requirements must be met to qualify for incentives.
- **♦**

#### **Incentives**

Each measure in the *Existing Building Measure Table* is assigned incentives. The program has determined the incentives for each measure for the measure unit relative to the savings and costs of each measure.

Incentives for Menu Path measures are calculated as follows:

Measure 1: Measure Quantity (units as defined in Measure Menu) X Incentives per Measure Unit
Measure 2: Measure Quantity (units as defined in Measure Menu) X Incentives per Measure Unit
MENU PATH INCENTIVE TOTAL:

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 \$15,000.

MEASURE	QUANTITY	INCENTIVES PER UNIT	TOTAL INCENTIVE
Packaged Terminal Heat Pump	<u>20</u>	<u>\$700</u>	<u>\$14,000</u>
Refrigerators	20	<u>\$50</u>	\$1,000
		MENU PATH TOTAL	<u>\$15,000</u>

Figure 776: Example Existing Building 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 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 <u>multiple three or more</u> 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-three or more measures listed in the Figure 6: Existing Building Measure TableFigure 6: Existing Building Measure TableFigure 5 Existing Building Measure TableFigure 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.

**\_**\_\_\_

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

#### **Incentives**

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

The incentive structure for Bundled Path is as follows:



Figure 8: Existing Building Bundled Path Incentive

Incentives for Bundled Path measures are calculated as follow:

Measure 1: Unit	Measure Quantity (units as defined in Measure MenuTable) - X - Incentives Points per
Measure 2: Unit	Measure Quantity (units as defined in Measure MenuTable) - X - Incentives Points per
Measure 3: Unit	Measure Quantity (units as defined in Measure MenuTable) - X -Incentives-Points per

#### **BUNDLED PATH INCENTIVE TOTAL:**

Total Points Incentives X

<del>\$70 /point</del>

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

<u>Example</u>: A Bundled Path project with fifty (50) apartment units is <u>pursuing the "Unit Turnover"</u> <u>Bundle, withinstalling</u> the following measures <u>installed</u> in each unit. The project is eligible for incentives totaling \$7,87527,500.

<u>MEASURE</u> MEASURE	QUANTITYQ UANTITY	PER UNITPOINTS PER UNIT	TOTAL INCENTIVET OTAL POINTS	MEASURET OTAL INCENTIVE
RefrigeratorsRefrigerator	<u>50</u> 50	<u>\$50</u> 0.75	<u>\$2,500</u> 37.5	Refrigerators \$2,625
Low Flow Showerheads and AeratorsLow Flow Showerheads	<u>50</u> 50	<u>\$17.50</u> 0.25	\$ <u>875</u> 12.5	Low Flow Showerhead s and Aerators\$87

In Unit LED Fixture Unit LED Fixture	100100	\$350.5	\$3,50050.0 \$10,375112.	Fixture \$3,50 0 \$7,875
FanLow Flow Aerators	<u>50</u> 50	<del>370</del> 0.23	<del>93,300</del> 12.3	Fan\$875
<del>Bathroom Exhaust</del>	5050	<del>\$700.25</del>	\$ <del>3,50012.5</del>	Bathroom Exhaust

MEASURE	QUANTITY	INCENTIVES PER UNIT	TOTAL INCENTIVE
<u>Refrigerators</u>	<u>50</u>	<u>\$50</u>	<u>\$2,500</u>
Windows U ≤ 0.24	2,000	<u>\$109</u>	\$20 <del>18</del> ,000
Bathroom Exhaust Fan	<u>50</u>	<u>\$70</u>	<u>\$3,500</u>
In-Unit LED Fixture	<u>100</u>	<u>\$35</u>	<u>\$3,500</u>
	BUNDLI	ED PATH TOTAL	\$2 <mark>97,500</mark>

Figure 887: Example Existing Building Bundled Path Incentive with No Bonus

Figure 9: Example Existing Building Bundled Path Incentive

Example: A Bundled Path project with fifty (50) apartment units is installing the following measures in each unit including two bonus measures. The project is eligible for incentives totaling \$29,500.

<u>MEASURE</u>	QUANTITY	INCENTIVES PER UNIT	TOTAL INCENTIVE
<u>Refrigerators</u>	<u>50</u>	<u>\$50</u>	<u>\$2,500</u>
Windows U ≤ 0.24	2,000	<u>\$10</u>	\$20,000
Bathroom Exhaust Fan	<u>50</u>	<u>\$70</u>	<u>\$3,500</u>
In-Unit LED Fixture	<u>100</u>	<u>\$35</u>	<u>\$3,500</u>
Fire Resiliency Bonus: Triple Pane Windows	<u>1,500</u>	<u>\$10</u>	<u>\$15,000</u>
Smart Homes Bonus: Energy Monitor	<u>50</u>	<u>\$350</u>	<u>\$17,500</u>
		BUNDLED PATH TOTAL	<u>\$62,000</u>

Figure 998: Example Existing Building Bundled Path Incentive with Bonus Incentives

### **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 64. 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 are capped at \$200,000 per project.



#### **Incentives**

There are three incentive tiers in the Whole Building Path. Each tier is based on percent of electric savings over compared to 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 1010910: Existing Building Whole Building Path Incentive Tiers

Incentives for Whole Building Path are calculated as follow:

## % Savings Incentive Tier Rate (\$/kWh) - X Total kWh Savings + Bonus Incentives

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

<u>Example</u>: A Whole Building Path project with eighty (80) apartment units is achieving 120,000 kWh in total savings, equivalent to 20% kWh savings compared to existing conditions. The project is eligible for Tier 1 incentives. <u>The project is also eligible for 2,500 sf of Fire Resistant Fire-Resistant Continuous Wall Insulation bonus.</u> The project is eligible for incentives totaling \$96,08,500.

TIER	% SAVINGS	kWh SAVINGS	INCENTIVE per KWH	TOTAL INCENTIVE
Tier 1	20%	120,000	\$0.80	\$96,000
Bonus Category		Quantity	Incentive Per Unit	Bonus Incentives
Fire Resistant Continuou	ıs Wall Insulation	<u>2,500 sf</u>	<u>\$1/sf</u>	<u>\$2,500</u>
	\	WHOLE BUILDIN	IG PATH TOTAL	\$9 <mark>86,<u>5</u>0</mark> 00

Figure <u>111110</u>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.
  - <u>Note</u>: 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: Existing Building Whole Building Path Incentive TiersFigure 10: Existing Building Whole Building Path Incentive TiersFigure 9: Existing Building Whole Building Path Incentive TiersFigure 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 <u>licensed Ee</u>nergy <u>Ce</u>onsultant 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 <u>to inform</u> revision. The <u>licensed energy Energy consultant should review all comments, and comments and find and correct the errors causing each identified issue or explain why an identified issue is justified. OR-MEP Energy Advisors are <u>always</u> available to provide one-on-one technical support with the Participant's <u>licensed-Eenergy Ce</u>onsultant to discuss and resolve any issues identified in the Technical Review.</u>

It is the <u>licensed eEnergy Cconsultant's</u> responsibility to identify any modeling issues causing the <u>identified</u> issues <u>identified</u> and to resolve them. OR-MEP staff are available to provide any needed technical assistance if the <u>licensed-Eenergy Cconsultant</u> 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 eEnergy Ceonsultant 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.

OR-MEP staff will evaluate existing buildings that involve substantial renovation to determine whether it falls under the program's Existing Building component offering or New Construction component offering. 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. Menu and Bundled path incentives are in *Figure 13 New Construction Measure Table*.

## **PROGRAM PATHWAYS**

#### PATH 1: MENU

Are you looking to improve a few elements of your property?

Select one to two measures from a table of measures Select measures from a menu-

#### PATH 2: BUNDLED

Are you planning to go beyond basic improvements?

Select three or more measures from a tatable of ble of measuresChoose a

# PATH 3: WHOLE BUILDING

Are you looking to boost your incentive and efficiency?

Maximize savings with energy modeling Maximize savings through a whole building

Figure 12111012: OR-MEP Pathways

#### **New Construction Measure Table**

<u>Projects participating in the Menu and Bundled path must select measures meeting the requirements listed in Figure 13 New Construction Measure Table.</u>

#### **Tailored Measure**

<u>Participants interested in pursuing energy efficiency measures outside of those offered in the measure table can pursue one (1) custom measure by selecting the Tailored Measure option. Through this option,</u>

the participant can work closely with their Energy Advisor to receive incentives for a measure by calculating the savings specific to their project. The measure must meet the requirements of the program, including but not limited to:

- ◆ Lead to electric savings
- ◆ Residents are the primary users of the equipment and space
- ◆ Have proven, quantifiable energy savings potential (e.g. Regional Technical Forum, Department of Energy, ENERGY STAR etc.)

#### Measures that are a good fit for include:

- ♦ Innovative measures with proven energy savings potential
- ◆ Equipment used in a manner or application that is significantly different from the intent of the measure options (e.g., HPWH serving exclusively the laundry room hot water demand)

#### To qualify for a Tailored Measure incentive:

- 1. Discuss your interest to pursue a tailored measure with your Energy Advisor during enrollment.
- 2. In the EEP, Project Info tab, select the project type and the program pathway. Tailored Measure tab will populate.
- 3. Navigate to the Tailored Measure tab and complete the Measure Feasibility section. Submit the EEP to your Energy Advisor.
- 4. Your Energy Advisor will determine the eligibility and feasibility of your proposed Tailored Measure and provide next steps.

#### Incentive

Tailored measures are eligible for \$0.70/kWh of estimated annual energy savings.

<u>Figure 6 below is a summary of Menu and Bundled path incentives and technical requirements for New Construction projects.</u>

## Figure 131413: New Construction Measure Table

MEASURE CATEGORY	MEASURE NAME	MEASURE UNIT	POINTS PER Unit	MINIMUM EFFICIENCY REQUIREMENTS
HVAC	High Efficiency Heating System (PTHP or DHP)	<del>per apt</del> <del>unit</del>	<del>5.0</del>	PTHP: Minimum HSPF of 9.0 and SEER of 15.0.  DHP: Minimum HSPF of 11.2 and SEER of 22.4.
HVAC	Efficient HVAC Fan Motors	<del>per apt</del> <del>unit</del>	<del>0.5</del>	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	<del>per apt</del> <del>unit</del>	4 <del>.5</del>	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	<del>per apt</del> <del>unit</del>	<del>0.5</del>	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	<del>per apt</del> <del>unit</del>	<del>6.0</del>	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.
<b>Envelope</b>	Efficient Windows	<del>per apt</del> <del>unit</del>	<del>1.5</del>	Minimum U-0.27 and SHGC-0.35
Envelope	Reduced Infiltration	<del>per apt</del> <del>unit</del>	<del>2.0</del>	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	<del>per apt</del> <del>unit</del>	<del>3.5</del>	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	<del>per apt</del> <del>unit</del>	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	<del>per apt</del> <del>unit</del>	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)	<del>per apt</del> <del>unit</del>	<del>0.75</del>	Apartments: All hardwired lighting shall be provided by LED sources or other light sources with efficacy of no less than:  - 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.  Common Area: The total installed LPD in common areas shall no exceed 0.43 W/sf
Appliance & Lighting	Common Area Lighting Controls	<del>per apt</del> <del>unit</del>	<del>0.5</del>	Occupancy controls: (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.  Vacancy controls: (manual on/off, automatic off) for all non-circulation common area spaces over 50 sf.
Appliance & Lighting	High Efficiency Exterior Lighting	<del>per apt</del> <del>unit</del>	<del>0.5</del>	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.

	Measure Category	<u>MEASURE</u> <u>NAME</u>	MENU PATH INCENTIVE	BUNDLED PATH INCENTIVE	MINIMUM EFFICIENCY REQUIREMENTS
		DHP HSPF 9-11	\$400/Dwelling Unit (DU)	\$450/Dwelling Unit (DU)	Minimum HSPF of 9
AC	Ductless Heat Pump (DHP)	DHP HSPF >=11	<u>\$450/DU</u>	<u>\$500/DU</u>	Minimum HSPF of 11
	buctiess neat rump (bnr)	RURAL: DHP HSPF 9 – 11	\$900/DU	<u>\$950/DU</u>	Minimum HSPF of 9.
		RURAL: DHP HSPF ≥ 11S	<u>\$950/DU</u>	\$1,000/DU	Minimum HSPF of 11.

	Measure Category	<u>MEASURE</u> <u>NAME</u>	MENU PATH INCENTIVE	BUNDLED PATH INCENTIVE	MINIMUM EFFICIENCY REQUIREMENTS
	Package Terminal Heat Pump (PTHP)	High Efficiency PTHP	\$300/DU	\$350/ DU	Minimum 3.0 COP/9.8 EER
	Efficient Exhaust Fan	Efficient Bathroom Exhaust Fan	\$60/DU	<u>\$70/DU</u>	ENERGY STAR rated bathroom exhaust or 2.8 CFM/W or greater
		Spot or In-unit ERV/HRV	\$125/DU	<u>\$150/DU</u>	Energy or Heat Recovery Ventilation (ERV/HRV) with minimum of 60% recovery efficiency installed in unit. Must be sized per ASHRAE 62.2 for apartments.
	<u>ERV/HRV</u>	Common Area or Shared ERV/HRV	\$0.85/CFM	\$1/CFM	Energy or Heat Recovery Ventilation (ERV/HRV) with minimum of 60% recovery efficiency that is shared between multiple units, serving common areas, or the whole building. Must be sized per ASHRAE 62.2 for apartments and ASHRAE 62.1 for common areas.
		WILDFIRE RESILIENCY BONUS: ERV/HRV with HEPA Filter	<u>\$100/</u>	<u>'DU*</u>	ERV/HRV must be compatible and equipped with HEPA filter (H13-H14 rating or MERV >=17)
	Window AC	ENERGY STAR Window AC	\$60/DU	<u>\$70/DU</u>	ENERGY STAR Rated Window AC
		7-day Programmable Thermostat	\$30/DU	<u>\$35/DU</u>	Installation of seven day programmable thermostat
	<u>Thermostat</u>	Smart Thermostat Controls	<u>\$90/DU</u>	\$100/DU	Learning-based scheduling thermostat that can be accessed remotely (i.e. Wi-FI enabled, smartphone, or other network enabled device)
	Energy Monitor	SMART HOME BONUS: Whole Home Energy Monitor	<u>\$200/</u>	<u>'DU*</u>	Installation of a whole home energy monitor with hard wired display.
		Cavity Insulation	<u>\$60/DU</u>	<u>\$70/DU</u>	R-23 Cavity Insulation
odc	Wall Insulation	Continuous Insulation	\$250/DU	\$300/DU	R-23 Cavity Insulation plus R-3 Continuous Insulation
Envelop	Envel	WILDFIRE RESILIENCY BONUS: Fire Resistant Continuous Insulation	<u>\$100/DU*</u>		Class A fire-resistant mineral wool or polyiso continuous insulation with an R-value of R-4 or higher in all exterior walls
	Attic Insulation	10% Better Than Code	\$120/DU	\$150/DU	Insulation Entirely Above Deck - R35 (U0.028)  Metal Building - (U-0.033)  Attic - R53 (U-0.019)

<u>N</u>	<u> Neasure Category</u>	<u>MEASURE</u> NAME	MENU PATH INCENTIVE	BUNDLED PATH INCENTIVE	MINIMUM EFFICIENCY REQUIREMENTS
		20% Better Than Code	<u>\$180/DU</u>	\$200/DU	Insulation Entirely Above Deck - R-38 (U0.026)  Metal Building - (U-0.03)  Attic - R60 (U-0.017)
		WILDFIRE RESILIENCY BONUS: Unvented Attic	<u>\$100</u> /	<u>/DU*</u>	Air seal attic at roofline so entire attic is within the thermal boundary
		WILDFIRE RESILIENCY BONUS: Fire Resistant Attic Insulation	<u>\$100)</u>	<u>/DU*</u>	Class A fire-resistant mineral wool or polysio insulation with minimum R-49 or fill attic space
		Windows U-0.3 – 0.28	\$60/DU	<u>\$70/DU</u>	Minimum Efficiency: U value 0.3 - 0.28
	<u>Windows</u>	Windows U-0.27 - 0.25	<u>\$90/DU\$</u>	\$100/DU	Minimum Efficiency: U value 0.28 - 0.25
		Windows U ≤ 0.24	<u>\$120/DU</u>	\$150/DU	Minimum Efficiency: U value 0.24 or lower
		WILDFIRE RESILIENCY BONUS: Triple Pane Windows	<u>\$100</u> /	<u>/DU*</u>	50% or more of the windows must be triple paned with an area weighted average U-value of U-0.22
		NEEA Tier 1	<u>\$450/DU</u>	<u>\$500/DU</u>	Heat pump water heaters must be an eligible model in NEEA's Northern Climate Specification Tier 1 or EF 2.0 or better.
	In-Unit Heat Pump Water <u>Heater</u>	NEEA Tier 3	\$500/DU	\$550/DU	Heat pump water heaters must be an eligible model in NEEA's Northern Climate Specification Tier 3 or EF 2.6 or better.
DHW		NEEA Tier 4	<u>\$550/DU</u>	\$600/DU	Heat pump water heaters must be an eligible model in NEEA's Northern Climate Specification Tier 4 or EF 3.0 or better.
	NEW: Central Heat Pump Water Heater	Central HPWH	<u>\$350/DU</u>	\$400/DU (Up to Full Installed Cost)	Central HPWH EF 2.0 or better.
	<u>DHW</u>	Low Flow Fixtures	<u>\$15/DU</u>	<u>\$20/DU</u>	Lavatory and kitchen faucets: no greater than 1.5 GPM. Showerheads: no greater than 2.0 GPM.
<b>시</b> 이	Energy Star Appliances	ENERGY STAR Refrigerators	<u>\$45/DU</u>	<u>\$50/DU</u>	Installation of ENERGY STAR certified refrigerator

Measure Category	<u>MEASURE</u> <u>NAME</u>	MENU PATH INCENTIVE	BUNDLED PATH INCENTIVE	MINIMUM EFFICIENCY REQUIREMENTS
	ENERGY STAR Clothes Washers (Common Area & In-Unit)	\$60/DU	<u>\$70/DU</u>	Installation of ENERGY STAR certified clothes washer. May be common area or in-unit
	ENERGY STAR Dishwasher	\$30/DU	<u>\$35/DU</u>	Installation of ENERGY STAR certified dishwasher
	High Efficiency Interior Lighting (Common Area & In- Unit)	<u>\$30/DU</u>	\$35/DU	Install LED fixtures
<u>Lighting</u>	Common Area Lighting Controls	<u>\$30/DU</u>	<u>\$35/DU</u>	Occupancy controls: (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.  Vacancy controls: (manual on/off, automatic off) for all non-circulation common area spaces over 50 sf.
	High Efficiency Exterior Lighting	\$30/DU	<u>\$35/DU</u>	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.
<u>Tailored Measure</u>		<u>\$0.70</u>	<u>/kWh</u>	Must be an energy efficiency equipment not covered by standard incentives. Preapproval required. Contact program staff for guidance.

<sup>\*</sup>Wildfire resiliency and Smart Home bonus incentives may be combined with any standard measure incentives.

## 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 one energy efficiency upgrades to qualify for Menu Path incentives. The list of eligible measures listed in Figure 13 New Construction Measure Table. These predefined measures are proven cost-effective measures with deemed savings already associated with each measure. Savings calculations are not required in this pathway. Note: Consider adding a third measures to qualify for higher incentives through the Bundled Path.
- ◆ Each measure has specific minimum efficiency requirements. All requirements must be met to qualify for incentives
- ◆ Incentives are capped at \$200,000 per project.

#### **Incentives**

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

The incentive structure for Menu Path is as follows:

PATHWAY	INCENTIVE RATE
NC – Menu Path	<del>\$60 per point</del>

Figure 14: New Construction Menu Path Incentive

Incentives for Menu Path measures can be calculated as follows:

Measure 1: Measure Quantity (units as defined in Measure Menu) X Incentives per Measure Unit
Measure 2: Measure Quantity (units as defined in Measure Menu) X Incentives per Measure Unit

MENU PATH INCENTIVE TOTAL: Measure Quantity (units as defined in Measure Menu) X

Points per Unit X \$60/point

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

<u>Example</u>: A Menu Path project with <u>fifty twenty</u> (5020) apartment units is installing new efficient ductless heat pumps and <u>Tier 3</u> heat pump water heaters in each apartment unit. The project is eligible for incentives totaling \$25,50017,000.

<u>MEASURE</u>	QUANTITY	INCENTIVES PER UNIT	TOTAL INCENTIVE
DHP HSPF >=11	<u>20</u>	<u>\$360</u>	<u>\$7,200</u>
<b>HPWH: NEEA Tier 3</b>	<u>20</u>	\$490 <del>560</del>	<u>\$9,800</u>
	1	MENU PATH TOTAL	<u>\$17,000</u>

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

Figure <u>14151415</u>: 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 must choose at least three energy efficiency upgrades to qualify for Bundled Path incentives. The list of eligible measures listed in Figure 132, the New Construction Measure Table. These predefined measures are proven cost-effective measures with deemed savings already associated with each measure. Note: OR-MEP recommends projects interested in larger scopes of work follow the Whole Building Path.
- ◆ Each measure has minimum efficiency requirements. All requirements must be met to qualify for incentives.
- ◆ Incentives are capped at \$200,000 per project. 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 incentive². 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		
LIVAC Bundle	Choose at least three HVAC measures from New		
HVAC Bundle	Construction Measure Menu		
	Must include following measures from New		
	Construction Measure Menu:		
Envelope Bundle	High Performance Envelope		
	Efficient Windows		
	Reduced Infiltration		
	Must include following measures from New		
DHW Bundle	Construction Measure Menu:		
<del>DHW Bunale</del>	Heat Pump Water Heaters		
	-Low Flow Fixtures		
Analianas O Liebtina Donalla	Choose at least three appliance and lighting measure		
Appliance & Lighting Bundle	from New Construction Measure Menu		

<sup>&</sup>lt;sup>2</sup> 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.

Build Your Own Bundle (BYOB)

Choose at least three measures in two different
measure categories from New Construction Measure
Menu

**Figure 16: New Construction Bundles** 

#### **Incentives**

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

The incentive structure for Bundled Path is as follows:

PATHWAY	INCENTIVE RATE
NC - Bundled Path	<del>\$70 per point</del>

Figure 17: New Construction Bundled Path Incentive

Incentives for Bundled Path measures are calculated as follows:

Measure Quantity (units as defined in Measure	Table)	X Incentives per Unit
Measure Quantity (units as defined in Measure	Table)	X Incentives per Unit
Measure Quantity (units as defined in Measure	Table)	X Incentives per Unit
CENTIVE TOTAL:		<b>Total Incentives</b>
Measure Quantity (units as defined in Measure	Menu)	X Points per Unit
Measure Quantity (units as defined in Measure	Menu)	X Points per Unit
Measure Quantity (units as defined in Measure	Menu)	X Points per Unit
CENTIVE TOTAL.	Total D	oints X \$70 /point
	Measure Quantity (units as defined in Measure Measure Quantity (units as defined in Measure CENTIVE TOTAL:  Measure Quantity (units as defined in Measure	Measure Quantity (units as defined in Measure Menu) Measure Quantity (units as defined in Measure Menu) Measure Quantity (units as defined in Measure Menu)

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

<u>Example</u>: 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 \$313,2500.



High Performance Envelope Attic Insulation; 10% Better Than Code	50	<del>300.0</del> \$140	\$ <u>7</u> 21,000
Efficient WindowsCentral HPWH	50	<del>75.0</del> \$420	\$ <del>5,250</del> 21,000
Reduced Infiltration Efficient Exhaust Fans	50	<del>100.0</del> \$70	\$ <del>7,000</del> 3,500
	BUNDLED PA	ATH TOTAL475.0	\$31 <del>3</del> , <del>25</del> 500
BUNDLED PATH TOTAL		4 <del>75.0</del>	<del>\$33,250</del>

Figure <u>151615</u>18: Example New Construction Bundled Path Incentive <u>with No Bonus</u>

Example: A Bundled Path project with fifty (50) apartment units is pursuing the following measures installed in each unit including a bonus measure. The project is eligible for incentives totaling \$36,500.

<u>MEASURE</u>	QUANTITY	INCENTIVES PER UNIT	TOTAL INCENTIVE
Attic Insulation; 10% Better Than Code	<u>50</u>	<u>\$140</u>	<u>\$7,000</u>
Central HPWH	<u>50</u>	<u>\$420</u>	<u>\$21,000</u>
Efficient Exhaust Fans	<u>50</u>	<u>\$70</u>	<u>\$3,500</u>
Fire Resistant Attic Insulation	<u>50</u>	<u>\$100</u>	<u>\$5,000</u>
	BUNDLE	D PATH TOTAL	<u>\$36,500</u>

Figure 16: Example New Construction Bundled Path Incentive with a Bonus 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 are capped at \$200,000 per project.
- **♦**

#### **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	INCE <del>TN</del> NTIVE
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 <u>1716</u>19: New Construction Whole Building Path Incentive Tiers

Incentives for the Whole Building Path are calculated as follow:

## % Savings Incentive Tier Rate (\$/kWh) X Total kWh Savings + Bonus Incentives

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

<u>Example</u>: 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
	V	VHOLE BUILDIN	IG PATH TOTAL	\$76,800

Figure <u>1817</u>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 <u>not</u> meet the minimum energy savings targeted outlined in Figure 177, the *New Construction Whole Building Path Incentive Rates\_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 <a href="Energy Consultant">Energy Consultant</a> 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 <a href="Energy Consultant licensed energy consultant">Energy Consultant licensed energy consultant</a> should review all <a href="Comments">comments</a>, and comments and find and correct the errors causing each identified issue or explain why an identified issue is justified. OR-MEP Energy Advisors are <a href="always-available">always-available</a> to provide one-on-one technical support with the Participant's <a href="Energy Consultant licensed energy consultant">Energy Consultant licensed energy consultant</a> to discuss and resolve any issues identified in the Technical Review.

It is the <u>Energy Consultant's licensed energy consultant</u> 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 <u>IEnergy Consultant icensed energy consultant</u> 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/ Energy Consultant licensed energy consultant to resubmit.

# **Appendix A: Bonus Enhancement Incentives**

New Construction and Existing Buildings projects that qualify for incentives through the Menu, Bundled, or Whole Building Paths are eligible to add Bonus Enhancement Incentives to incorporate smart homes and wildfire resiliency components to their buildings.

## **Smart Homes**

Smart technologies are quickly changing the way people interact with their homes, particularly to automate energy saving behaviors that used to require some expertise and substantial effort to sustain. Recent and ongoing advancements in smart controls have lowered the cost of smart technologies, while also diminishing the learning curve, making them more accessible to a wider range of individuals.

#### **Energy Monitor**

Home energy monitoring equipment displays real-time electric consumption data and, in some cases, smart capabilities to identify opportunities to reduce energy use. These devices are typically connected to the electric panel and display consumption information in a designated display. Home energy monitoring reduces energy consumption by 10-15%.

To qualify for this bonus, projects must install an energy monitoring device that monitors the electric consumption of the whole unit in real time and displays consumption data on a hardwired display that is easily accessible by the tenants.

## **Wildfire Resiliency**

Oregonians have had to face historic environmental challenges in recent years that have amplified the need to bolster the health and resiliency of homes. In 2020, Oregon faced one of the most devastating wildfire seasons in its history, with over a million acres burned and 4,000+ homes destroyed in its wake. The health of countless Oregonians was likewise impacted by the diminished air quality during the fivemonth long wildfire season and has spurred initiatives to mitigate these risks moving forward. These wildfire-focused measures and bonus incentives are designed to help address the health and resiliency needs of Oregonians considering the wildfire risks we continue to face.

Indoor air quality (IAQ) is one of the most critical features of a healthy home. Poor IAQ is not only associated with serious short and long-term risks to occupants' health, but also contributes to issues such as mold which can threaten a building's integrity. In Oregon, the challenge of maintaining IAQ is exacerbated by wildfires, which are projected to become more frequent in years to come. Heat and Energy Recovery Ventilators are not only invaluable in improving IAQ year-round but can be particularly effective at filtering out smoke during peak wildfire season when equipped with an appropriate HEPA filter.

The resiliency of the building structure itself – its ability to withstand extreme heat conditions and prevent smoke infiltration – is also of paramount importance in securing the health and safety of Oregonians and their homes. Unvented attics, triple pane windows, and fire-resistant insulation are some of the measures that can be taken to protect against smoke infiltration and mitigate the greatest risks to a building and its occupants in the event of a wildfire.

#### **ERV/HRV** with HEPA Filter

High Efficiency Particulate Air (HEPA) filters are designed to remove 99.97% of any airborne particles with a size of 0.3+ microns, including dust, pollen, mold, bacteria etc. They are also the most effective air cleaning tool for removing smoke particulates, making them the ideal choice when compared to other types of air purifiers on the market. HEPA filters installed as part of an ERV/HRV assembly offer these advanced air purification capabilities with the added benefit of energy savings associated with a balanced air recovery system. Moreover, the heat and humidity balancing functions of ERVs serve as excellent ventilators and deterrents for air-quality related health risks.

For an **Existing Building** project to qualify for this bonus incentive, the existing conditions must include mechanical ventilation of 1.4 CFM/W or less, and the new ERV/HRV installed must be compatible and equipped with a HEPA filter (H13-H14 grade or Minimum Efficiency Reporting Value (MERV) ≥ 17). Filters with H grades H12 or lower (MERV 16 or lower) and products marketed as "HEPA-like" or "HEPA-style" do not meet the same efficiency standards and do not qualify for this bonus incentive. Project teams will be responsible for verifying that the ventilator selected is compatible with HEPA filters; this is typically specified in the product's spec sheet.

For a **New Construction** project to qualify for this bonus incentive, the ERV/HRV installed must be compatible and equipped with a HEPA filter (H13-H14 grade or MERV >=17). Filters with H grades H12 or lower (MERV 16 or lower) and products marketed at "HEPA-like" or "HEPA-style" do not meet the same efficiency standards and do not qualify for this bonus incentive. Project teams will be responsible for verifying that the ventilator selected is compatible with HEPA filters; this is typically specified in the product's spec sheet.

### **Triple Pane Windows**

Triple pane windows provide an improved barrier between the interior and exterior of a home, decreasing air leakage and significantly improving energy conservation. The inclusion of tempered glass in the assembly has the added benefit of making windows up to four times more resistant to breakage due to radiant heat, flame exposure, and wind-blown embers.

For an **Existing Building** project to qualify for this bonus incentive, existing conditions must include single or double pane windows, and the project must install triple paned windows.

For a **New Construction** project to qualify for this bonus incentive, 50% or more of the windows installed must be triple paned with an area weighted average U-value of U-0.22.

#### **Fire Resistant Attic Insulation**

Where some insulation may melt and allow smoke to pass through into the house in the event of a fire, various types of fire-resistant options have been developed to withstand these extreme conditions without compromising on the energy efficiency benefits of insulation year-round. Two of the most promising materials in this effort are mineral wool and Polyisocyanurate (Polyiso) insulation. Both materials are known for their excellent fire-resistant properties.

For an **Existing Building** project to qualify for this bonus incentive, the existing attic insulation must be R-18 or less, and new Class A fire-resistant mineral wool or polyiso insulation with minimum R-49 (or fill attic space) must be installed.

For a **New Construction** project to qualify for this bonus incentive, Class A fire-resistant mineral wool or polyiso insulation with minimum R-49 (or fill attic space) must be installed.

#### **Vented to Unvented Attic**

Attic entry points for embers and flames are the greatest source of risk to a building during wildfires. Unvented attics not only mitigate the risk of embers entering through vents, but also greatly improve the energy efficiency of a building by moving the thermal boundary to the roof, allowing attic ductwork to operate in a conditioned space and greatly reducing the energy demands of HVAC systems. The air barrier created through attic sealing likewise reduces humidity by preventing warm moist air from units below from entering the attic and condensing on the sheathing. As such, attic sealing is an excellent measure for hardening properties against wildfires and protecting occupants from humidity (i.e., mold) and air quality (i.e., smoke infiltration) related health risks.

For an **Existing Building** project to qualify for this bonus incentive, the attic must be converted from vented to unvented; it must be air sealed at the roofline so that it is within the thermal boundary of the building.

For a **New Construction** project to qualify for this bonus incentive, the attic must be air sealed at the roofline so that it is within the thermal boundary of the building.

### **Fire Resistant Continuous Wall Insulation**

Where some insulation may melt and allow smoke to pass through into the house in the event of a fire, various types of fire-resistant options have been developed to withstand these extreme conditions without compromising on the energy efficiency benefits of insulation year-round. Two of the most promising materials in this effort are mineral wool and Polyisocyanurate (Polyiso) insulation. Both materials are known for their excellent fire-resistant properties.

For an **Existing Building** project to qualify for this bonus incentive, Class A fire-resistant mineral wool or polyiso continuous insulation with an R-value of R-4 or higher must be installed in all exterior walls.

For a **New Construction** project to qualify for this bonus incentive, Class A fire-resistant mineral wool or polyiso continuous insulation with an R-value of R-4 or higher must be installed in all exterior walls.