

# **MEEHA EmPower Program Guidance**

## **1/1/2025**

The Maryland Department of Housing and Community Development (DHCD) is administering the MEEHA EmPower Program for the 2024-2026 Program Cycle. DHCD accepts funding requests for projects seeking funds for energy conservation or decarbonization measures (ECMs). Starting on January 1st, 2025, projects applying to receive MEEHA funds will use this guidance to determine measure eligibility and the maximum funding amount for each measure.

### **EmPower Rehabilitation Projects:**

Projects that include both rehabilitation and new construction units in the scope of work can receive MEEHA Rehabilitation funding for the rehabilitation units and New Construction funding for the new construction units.

Projects must complete an energy audit by an energy professional from DHCD's Qualified Energy Professionals (QEP) List that is approved to complete energy audits for the program. QEPs must perform comprehensive, unbiased, whole building energy audits in full compliance with program guidance. In the case that this guidance conflicts with previously stated program guidance, this guidance takes precedence.

QEPs must perform energy audits in accordance with current BPI Multifamily Building Analyst standards. This includes inspecting a sample of units based on the total unit count, including one representative dwelling unit from each unique unit type, as defined in BPI's Technical Standards for the Multifamily Building Analyst Professional<sup>1</sup>. Variations in basic floor plan layout, HVAC type, space or water heating fuel source, or location within the building shall cause the dwelling unit to be considered a unique type. The sample shall include a representative 10 percent of all dwelling units; or a minimum of 5 units, whichever is greater. In projects with 100 units or greater, where evaluation shows little variation between similar units, the sample size may be reduced to no fewer than 10 units. In most cases, no more than 20 units should require inspection. However, if results are inconsistent, additional units must be sampled.

QEPs must confirm that the estimated post-retrofit condition of the project will meet current ASHRAE ventilation standards. When requested, QEPs must provide building ventilation recommendations that align with current building ventilation standards and take into account the recommended scope of work. QEPs must submit ASHRAE ventilation calculations to DHCD upon request.

QEPs must consider all feasible energy saving opportunities and complete a MEEHA Funding Request by entering the recommended energy conservation measures (ECMs) into DHCD's

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<https://www.bpi.org/sites/default/files/Technical%20Standards%20for%20the%20Multifamily%20Building%20Analyst%20Professional.pdf>

Hancock Mobile Intake Tool (MINT)<sup>2</sup>. MINT is currently under development and plans to be fully operational in 2025. Prior to MINT's "Go-Live" date, QEPs must use DHCD's Rehab Funding Request Form to create and submit funding requests. The funding request is completed and submitted on behalf of the project owner and must have the owner's approval. Measure costs must be identified for each ECM utilizing actual contractor bids prepared by the owners' selected contractor(s) and must include cost of materials, equipment, and installation.

ECMs will be entered into MINT or the Rehab Funding Request Form separately for measures associated with a residential utility meter and commercial utility meter. ECMs must be labeled indicating the location, measure type, efficiency and capacity (if applicable).

The MEEHA EmPower program can fund electrification measures in projects that show a reduction in total utility costs. Additional funding for costs related to electrification (i.e. electric panel upgrades) can also be funded. Additional electrification funding cannot exceed 10% of total energy efficiency funding.

At least one authentic picture of the existing condition uniquely identifying the equipment and its location for each recommended ECM must be provided to DHCD. An additional picture showing the model and serial number of the existing condition is required for all measures that have model or serial numbers. Pictures of model and/or serial numbers must be legible. Typically no more than 2 or 3 pictures will be needed for each ECM. More information and examples can be found in Appendix C "MEEHA Photo Guidance" below.

Additional project information is required to be entered into the Building Information's Notes section of MINT or the Rehab Funding Request. The following information must be provided for each project:

- Building Type
- Building Age
- Number of Units
- Number of Buildings
- Electric and Gas Metering Structure (Master Metered or Individually Metered)
- Square Feet of Residential Space
- Square Feet of Commercial Space (Excluding Garage/Parking Area)
- Quantity of Inspected Units
- Date of Energy Audit
- Additional Information

Additional information is required for each measure and must be stated in the notes section for that measure. The additional required information is stated below in each measure section. DHCD may also request additional clarifying information during the project review.

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<sup>2</sup> MINT is under development and plans to be fully operational in 2025. There will be a separate MINT Guide once it is operational.

System efficiencies may be degraded from nameplate specifications. Degraded values must fall within the Measure Specification Parameters stated in Appendix A “Measure Specification Parameters”. Sources used to determine degraded values must be cited in the measure’s notes.

Some measures stated below are mandatory and must be included. A waiver for mandatory measures may be granted on a case by case basis.

**Air Sealing:** Air sealing is mandatory. The project must make all reasonable efforts to reduce air leakage. After the retrofit is complete, the project must meet ASHRAE ventilation requirements. If mechanical ventilation is needed for the project to achieve compliance with ASHRAE ventilation requirements, the QEP must recommend the appropriate mechanical ventilation to achieve compliance.

Locations of typical air sealing opportunities are as follows in their respective locations:

| Measure                    | Existing Condition               | Recommended Condition   | Maximum Funding Amount                        |
|----------------------------|----------------------------------|---|---|
| In Unit Air Sealing        | No Effective Air Sealing Present | Locations:<br><ul style="list-style-type: none"> <li>- Plumbing penetrations</li> <li>- Electrical penetrations (light switches, electric plugs, other junction boxes)</li> <li>- Mechanical penetrations (PTHP openings, exhaust fans)</li> <li>- Around duct registers</li> <li>- Accessible gap along base of drywall to floor</li> <li>- Weatherstripping of all exterior doors</li> <li>- Gaps around fenestration trim</li> </ul> | \$250/unit                                    |
| Exterior Mechanical Closet | No Effective Air Sealing Present | Locations:<br><ul style="list-style-type: none"> <li>- Around ducting</li> <li>- Plumbing penetrations</li> <li>- Other penetrations in exterior walls</li> </ul>   | \$150/unit                                    |
| Attic Air Sealing          | No Effective Air Sealing Present | Locations:<br><ul style="list-style-type: none"> <li>- Plumbing or electrical penetrations in the attic floor</li> <li>- Top plates</li> <li>- Chases or bulkheads</li> <li>- Junctions where dissimilar building materials meet</li> <li>- Other penetrations to the building shell found in the attic</li> </ul>  | Low to mid rise or garden style<br>\$250/unit |
|                            |                                  |   | Townhouse or Detached House<br>\$700/unit     |

**Air Sealing Measure Notes Must State:**

- All locations of recommended air sealing actions
- Average volume of treated space (i.e. dwelling unit)
- If air leakage testing was performed or if air leakage values were estimated
- If the project requires mechanical ventilation to achieve ASHRAE ventilation requirements after the recommended air sealing scope of work has been completed
- Reasons why Air Sealing was not recommended in the building information notes section when Air Sealing is not recommended

**Appliances:** Appliance replacement measures are optional based on the QEP's recommendations.

Bath and kitchen fans or whole unit dehumidifiers can be replaced if they are shown to have an energy savings. If no bath or kitchen fan exists, they can be funded as a Health and Safety measure if they are needed to achieve ASHRAE ventilation requirements. Kitchen and bathroom exhaust fans must vent to the exterior of the building envelope and outside the attic space.

Maximum funding amounts below are per appliance.

| Measure                         | Existing Condition  | Minimum Recommended Efficiency Specification   | Maximum Funding Amount |       |
|---------------------------------|---------------------|--|------------------------|-------|
| Bathroom Exhaust Fan            | 2 CFM/W or less     | Energy Star Certified  | \$300                  |       |
| Bathroom Exhaust Fan w/controls | 2 CFM/W or less     | Energy Star Certified with Controls  | \$325                  |       |
| Kitchen Exhaust Fan             | 2 CFM/W or less     | Energy Star Certified  | \$300                  |       |
| Clothes Washer                  | 5 years old or more | Energy Star Certified and at least 25% more efficient rating (IMEF, IWF) than existing | \$500                  |       |
| Clothes Dryer                   | 5 years old or more | Energy Star Certified and at least 25% more efficient rating (CEF) than existing       | \$500                  |       |
| Refrigerator                    | 5 years old or more | Energy Star Certified and at least 25% more efficient rating (kWh/yr) than existing    | 10-14 CF               | \$650 |
|                                 |                     |  | 14.1-18 CF             | \$700 |
|                                 |                     |  | 18.1-22 CF             | \$750 |
| Dishwasher                      | 5 years old or more | Energy Star Certified and at   | \$500                  |       |



|                            |   |  |         |
|----------------------------|---|--|---------|
|                            |   | least 25% more efficient rating (kWh/yr) than existing |         |
| Induction Range            | Gas range or cooktop (Electrification Only) | Induction Range or Cooktop                             | \$600   |
| Elevator Motor or Controls | If no soft start controls exist             | Geared/Gearless Regenerative; Gearless Nonregenerative | \$2,000 |
| Vending Miser              | If no miser exists                          | Miser  | \$300   |

**Appliance Measure Notes Must State:**

- Source used to determine existing condition specifications
- Nameplate efficiency for appliance measures if the efficiency specification has been derated
- Ventilation settings needed to meet ASHRAE standards for mechanical ventilation requirements
- Heating fuel for clothes dryer measures

**Domestic Hot Water (DHW):** Existing water heaters past their expected useful life must be replaced.

Maximum funding amounts below are per appliance.

| Measure                  | Existing Condition | Minimum Recommended Efficiency Specification | Size              | Maximum Funding Amount |
|--------------------------|--------------------|--|-------------------|------------------------|
| Electric Water Heater    | 0.9 EF or less     | 0.92 UEF                                     | 39 Gal or less    | \$700                  |
|                          |                    |  | 40-49 Gal         | \$750                  |
|                          |                    |  | 50-79 Gal         | \$800                  |
|                          |                    |  | 80 Gal or greater | \$850                  |
| Heat Pump Water Heater   | 1.0 EF or less     | 2.8 UEF                                      | 49 Gal or less    | \$2,200                |
|                          |                    | 3.0 UEF                                      | 50-79 Gal         | \$2,600                |
|                          |                    | 3.0 UEF, 3.0 COpH                            | 80 Gal or greater | \$3,000                |
| Natural Gas Water Heater | 0.8 EF or less     | 0.81 UEF                                     | 79 gal or less    | \$400                  |
| Natural Gas Water Heater | 0.8 EF or less     | 0.86 UEF / 95 TE                             | 80 gal or greater | \$400                  |
| Kitchen Faucet Aerator   | 2 GPM or greater   | 1.5 GPM                                      |                   | \$5                    |
| Bath Faucet Aerator      | 1.5 GPM or greater | 1.0 GPM                                      |                   | \$5                    |
| Showerhead               | 2.0 GPM or greater | 1.5 GPM                                      |                   | \$25                   |

DHW Measure Notes Must State:

- Source used to determine existing condition specifications for DHW measures
- Nameplate efficiency for DHWs if the DHW efficiency specification has been derated
- Draw pattern (high, med, low, very low) and First Hour Rating
- If DHW is a central system, include the total number of dwellings served by the DHW
- State if flow rate was tested or nameplate efficiency was used for aerators and showerheads

**Fenestration:** Exterior window or door replacement measures are optional based on the QEP's recommendations. Square footage of windows and glass doors must be measurements of glazing only, and not include the framing.

| Measure       | Existing Condition                   | Minimum Recommended Efficiency Specification                         | Maximum Funding Amount |
|---------------|--------------------------------------|--|------------------------|
| Exterior Door | R-3 or less                          | R-5 (door assembly)  | \$450/ea               |
| Window        | 0.4 U-value and 0.45 SHGC or greater | Energy Star or equivalent windows, 0.25 U-value and 0.4 SHGC or less | \$20/sq ft             |

Fenestration Measure Notes Must State:

- Source used to determine existing condition specifications and area measurements for window measures
- Framing material for window measures
- Efficiency ratings of the HVAC system(s) for window measures if HVAC systems are not recommended to be replaced
- Door area (sq ft)

**HVAC:** The replacement of space heating and cooling equipment is mandatory if the existing equipment is past its expected useful life. All space heating and cooling equipment must be evaluated for capacity reduction based on post retrofit conditions. Demand/load calculations must be submitted to DHCD upon request. HVAC equipment cannot increase in size without written approval from DHCD.

Duct systems must be evaluated. Accessible ducts must be sealed, including ducts that exist outside the building envelope. Projects may request funding to use Aeroseal to seal the entire system's ducts when recommended by the QEP.

Maximum funding amounts below are per equipment unless otherwise stated.

| Measure                | Existing Condition         | Minimum Recommended Efficiency Specification | Size | Maximum Funding Amount |
|------------------------|----------------------------|--|------|------------------------|
| Packaged Terminal Heat | 2.8 COP and 10 EER or less | 3.0 COP, 10.8 EER                            |      | \$3,000                |

|  |   |                       |                    |         |
|--|---|-----------------------|--------------------|---------|
| Pump   |   |                       |                    |         |
| Split System Heat Pump                         | 13 SEER and 7.5 HSPF or less or electric resistance       | 15.2 SEER2, 6.9 HSPF2 | 18K BTU            | \$5,875 |
|  |   |                       | 24K BTU            | \$6,000 |
|  |   |                       | 30K BTU            | \$6,125 |
|  |   |                       | 36K BTU            | \$6,250 |
|  |   |                       | 42K BTU            | \$6,375 |
|  |   |                       | 48K BTU or greater | \$6,500 |
|  | 15 SEER and 7.9 HSPF or less or electric resistance       | 17.1 SEER2, 7.2 HSPF2 | 18K BTU            | \$6,875 |
|  |   |                       | 24K BTU            | \$7,000 |
|  |   |                       | 30K BTU            | \$7,125 |
|  |   |                       | 36K BTU            | \$7,250 |
|  |   |                       | 42K BTU            | \$7,375 |
|  |   |                       | 48K BTU or greater | \$7,500 |
| Mini-Split Heat Pump                           | 15 SEER / 12 EER, 7.9 HSPF or less or electric resistance | 17.1 SEER2, 7.2 HSPF2 | 18K BTU            | \$7,750 |
|  |   |                       | 24K BTU            | \$8,000 |
|  |   |                       | 30K BTU            | \$8,250 |
|  |   |                       | 36K BTU            | \$8,500 |
|  |   |                       | 42K BTU            | \$8,750 |
|  |   |                       | 48K BTU or greater | \$9,000 |
|  | 16 SEER / 14 EER, 8.5 HSPF or less or electric resistance | 19 SEER2, 7.6 HSPF2   | 18K BTU            | \$8,250 |
|  |   |                       | 24K BTU            | \$8,500 |
|  |   |                       | 30K BTU            | \$8,750 |
|  |   |                       | 36K BTU            | \$9,000 |
|  |   |                       | 42K BTU            | \$9,250 |
|  |   |                       | 48K BTU or greater | \$9,500 |
| Combination Space and Water Heating Gas Boiler | 82 AFUE or 0.8 EF or less                                 | 90 AFUE or .86 UEF    |                    | \$2,000 |
| Gas Furnace                                    | 82 AFUE or less   | 90 AFUE               |                    | \$1,500 |
| Condensing Unit                                | 13 SEER or less   | 15.2 SEER2            | 18K BTU            | \$1,875 |
|  |   |                       | 24K BTU            | \$2,000 |
|  |   |                       | 30K BTU            | \$2,125 |
|  |   |                       | 36K BTU            | \$2,250 |
|  |   |                       | 42K BTU            | \$2,375 |
|  |   |                       | 48K BTU or greater | \$2,500 |

|                          |   |   |                    |           |
|--------------------------|---|---|--------------------|-----------|
|                          | 15 SEER or less                         | 17.1 SEER2                                    | 18K BTU            | \$2,875   |
|                          |   |   | 24K BTU            | \$3,000   |
|                          |   |   | 30K BTU            | \$3,125   |
|                          |   |   | 36K BTU            | \$3,250   |
|                          |   |   | 42K BTU            | \$3,375   |
|                          |   |   | 48K BTU or greater | \$3,500   |
| Duct Sealing             | No existing or ineffective duct sealing | Seal all accessible ducts with mastic sealant |                    | \$3/ln ft |
| Duct Sealing (Aeroseal)  | No existing or ineffective duct sealing | 8% total system leakage                       |                    | \$600     |
| Smart Thermostat         | Analog or programmable thermostat       | Smart thermostat                              |                    | \$200     |
| Variable Frequency Drive | Drive is not variable frequency         | Variable Frequency Drive                      |                    | \$1,500   |

**HVAC Measure Notes Must State:**

- Nameplate efficiency for HVAC systems if the HVAC system efficiency specification has been derated
- Source used to determine existing condition specifications for HVAC system replacements
- Heating and cooling capacities for HVAC system replacements
- Average age of HVAC systems for HVAC system replacements
- Square footage of area the HVAC system heats or cools for HVAC system replacements
- HVAC efficiency ratings, capacity, and ducting insulation levels for duct sealing measures
- State if systems were tested for leakage or if an estimated value was used for duct sealing measures
  - If systems were tested, average test results must be stated
- HVAC efficiency ratings and capacity for smart thermostat measures if HVAC is not recommended to be replaced
- Variable Frequency Drives: include the fluid type and nominal horsepower

**Insulation:** Insulation measures in accessible gabled attics are mandatory if the existing insulation level is below R-19. Funding will not be provided for attic or roof insulation levels above R-60.

Crawlspace and basement rim joist and ceiling and wall insulation is mandatory if no insulation exists in the location of the building shell (thermal boundary). QEPs may recommend

encapsulating crawlspaces that are currently vented based on the existing conditions and industry best practices.

All insulation materials must not contain formaldehyde if the formaldehyde:

- Was intentionally added
- Is present in the product at greater than 0.1% by weight

Spray foam insulation must be continuous and achieve the minimum required R-value on all intended covered surfaces. Spray foam insulation must cover all joist and framing members on the surface it is insulating.

Duct insulation measures on accessible ducts that exist outside the building envelope are mandatory where no insulation exists or existing insulation is not effective.

Minimum efficiency specifications for the recommended condition in these locations are stated in the table below.

| Insulation Measure Location    | Existing Condition | Minimum Recommended Efficiency Specification |
|--------------------------------|--------------------|--|
| Gabled Attic                   | R-38 or less       | Minimum R-49                                 |
| Flat Roof                      | R-25 or less       | Minimum R-30                                 |
| Above Grade Wall               | R-10 or less       | Minimum R-19                                 |
| Below Grade Wall               | R-10 or less       | Minimum R-12                                 |
| Rim Joist                      | R-10 or less       | Minimum R-19                                 |
| Crawlspace or Basement Ceiling | R-10 or less       | Minimum R-30                                 |
| Duct Insulation                | R-5 or less        | Minimum R-8                                  |
| Pipe Insulation                | R-3 or less        | Minimum R-6                                  |

Costs for each type of insulation are stated in the table below.

| Measure                        | Insulation Level | Maximum Funding Amount |
|--------------------------------|------------------|------------------------|
| Blown-in Insulation            | R-18 and below   | \$1.50/sq ft           |
|                                | R-19 - 29        | \$2.15/sq ft           |
|                                | R-30 - 37        | \$2.75/sq ft           |
|                                | R-38 - 48        | \$3.25/sq ft           |
|                                | R-49 - 60        | \$3.50/sq ft           |
| Batt Insulation                | R-11             | \$1.35/sq ft           |
|                                | R-13             | \$1.90/sq ft           |
|                                | R-19             | \$2.35/sq ft           |
|                                | R-30 - 60        | \$2.95/sq ft           |
| Spray Foam or Rigid Insulation | 2"               | \$4.50/sq ft           |
|                                | 3"               | \$5.75/sq ft           |
| Duct Insulation                | R-8              | \$3.00/ln ft           |
| Pipe Insulation                | R-6              | \$1.50/ln ft           |

Insulation Measure Notes Must State:

- Scope of work for all insulation measures
- Insulation type, thickness, and R-value per inch for all insulation measures
- Roof type for attic insulation measures
- Heating system equipment type if HVAC is not recommended to be replaced
- Pipe diameter, pipe material, and application (DHW, hydronic space heating, steam space heating) for pipe insulation measures

**Lighting:** Lighting measures must show a minimum 25% improvement in energy specification. The location of each lighting ECM must be stated in the measure description. (Example: "Kitchen Ceiling Lighting Replacement", "Bathroom Vanity Lighting Replacement", "Entry/Foyer Lighting Replacement", "Exterior Entry Way Lighting Replacement", etc.)

Lighting sensor funding can only be provided for measures located in common areas.

| Measure         | Existing Condition        | Minimum Recommended Efficiency Specification | Maximum Funding Amount |
|-----------------|---------------------------|--|------------------------|
| Lighting        | Non-LED Lighting          | LED Screw or Pin Base Bulbs                  | \$10                   |
|                 |                           | LED Fixtures 29W or less                     | \$20                   |
|                 |                           | LED Fixtures 30-54W                          | \$40                   |
|                 |                           | LED Fixtures 55-89W                          | \$50                   |
|                 |                           | LED Fixtures 90W or above                    | \$100                  |
| T-Type Lighting | Non-LED Bulbs or Fixtures | T-Type LED Bulbs                             | \$25                   |
| Lighting Sensor | No Sensor                 | Sensor (Occupancy, Photocell, Timer, etc.)   | \$30                   |

Lighting Measure Notes Must State:

- Changes in the quantity of lamps including lighting measures going from lamp fixtures to integrated LED fixtures as well as measures where the new lighting fixtures will have fewer bulbs than existing fixtures
- Hours of use per year for all lighting measures
- Number of lamps being controlled by the lighting sensor and average wattage per lamp for sensor measures

**Miscellaneous/Other:** Projects are eligible to receive incentives for the Energy Audit, Health and Safety, Incidental Repair, and Electrification Cost measures. Incentives for the energy audit are released no earlier than the first construction draw which must include energy conservation measures. Incentives for energy conservation or direct greenhouse gas reductions can be requested as an “Other” measure. Funding for “Other” measures is determined on a case by case basis.

Health and Safety and Incidental Repair measures are approved on a case by case basis. Projects can request Incidental Repair funding for work that is required to install or protect a program funded energy savings measure. Projects can request Health and Safety funding if the measure shows it will prevent issues regarding indoor air quality (IAQ), mold, etc.

Costs associated with electrification measures can be funded. The funding amount cannot exceed 10% of the total funding amount of energy efficiency measures. Electrification Costs measure descriptions must state the action that requires additional costs to be incurred by the project.

Maximum amounts available for Energy Audit, Health and Safety, and Incidental Repair measures are as follows.

| Measure Category   | Measure  | Maximum Funding Amount                       |       |
|--------------------|--|--|-------|
| Energy Auditor Fee |  | \$4,000                                      |       |
| Other              | Energy Efficiency or Greenhouse Gas Reduction Measure Not Stated Above   | Determined on a Case by Case Basis           |       |
| Incidental Repair  | Electrical Repairs   | Up to 10% of Energy Efficiency Funding Total |       |
|                    | Plumbing Repairs   |  |       |
|                    | Carpentry Repairs  |  |       |
|                    | Exterior Wall Repairs  |  |       |
|                    | Interior Wall Repairs  |  |       |
|                    | Floor Repair   |  |       |
|                    | Install Access (Attic, Kneewall, Crawlspace)   |  |       |
|                    | Other  |  |       |
| Health and Safety  | ERV/HRV  | Up to 10% of Energy Efficiency Funding Total |       |
|                    | Fan Timer/Controls   |  |       |
|                    | Exhaust Vent/Flue Pipe Repair  |  |       |
|                    | Exterior Vent Termination  |  |       |
|                    | Exhaust Vent Insulation  |  |       |
|                    | Supply Air Vent Installation   |  |       |
|                    | Vapor Barrier  |  |       |
|                    | Asbestos Remediation   |  |       |
|                    | Other  |  |       |
|                    | Bathroom Exhaust Fan (If needed to achieve ASHRAE ventilation compliance and no existing ventilation)            | Energy Star Certified                        | \$300 |
|                    | Bathroom Exhaust Fan w/controls (If needed to achieve ASHRAE ventilation compliance and no existing ventilation) | Energy Star Certified w/Controls             | \$325 |
|                    | Kitchen Exhaust Fan (If needed to achieve ASHRAE ventilation   | Energy Star Certified                        | \$300 |



|                       |  |  |       |
|-----------------------|--|--|-------|
|                       | compliance and no existing ventilation)  |  |       |
|                       | Dehumidifier   | Energy Star Certified (must be hard wired)   | \$430 |
| Electrification Costs | Costs Associated With Electrification (Planning, Permitting, Electric System Upgrades, etc.) | Up to 10% of Energy Efficiency Funding Total |       |

Miscellaneous/Other Measure Notes Must State:

- A description of each Other, Incidental Repair, or Health and Safety measure
- The associated energy conservation measure must be stated for each Incidental Repair measure
- The reason for Health and Safety measures (i.e. to meet ASHRAE requirements, to control humidity, etc.)
- The Energy Auditor Fee measure must include the name of the energy auditor and the date of the energy audit
- GHGRP funding details and requirements can be found below in the GHGRP section

### **EmPower New Construction Projects:**

Projects that include both new construction and rehabilitation units in the scope of work can receive MEEHA New Construction funding for the new construction units and Rehab funding for the rehabilitation units.

Projects that are considered Gut Rehabilitation or Change in Use by DHCD's Rental Lending Programs are eligible for New Construction funding. Projects are eligible to receive new construction funding for the number of new construction units.

New Construction projects can receive funds for achieving specific energy efficiency certifications. Projects must submit a New Construction Funding Request Form signed by a Qualified Energy Professional. By signing the New Construction Funding Request Form, the QEP attests that the project has been designed to achieve the anticipated building certification(s) prior to the commitment of funds.

During construction, the project must provide field reports as requested to show compliance with building certification(s) to DHCD. At the substantial completion or conclusion of the project, building certification modeling files or reports must be provided to DHCD.

Funding for new construction projects is cumulative and projects may receive funding for multiple certifications. Funding is released at project milestones after submitting a requisition form attesting to the progress towards energy certifications for the project, and after DHCD Project Manager inspection and approval. 30% of total funds are released at 30% completion, 30% of total funds at 60% completion, and 40% of total funds at substantial (100%) completion.

| <b>Measure</b>                             | <b>Maximum Funding Amount</b> |
|--|-------------------------------|
| Energy Star New Construction Certification | \$700/Unit                    |
| Energy Star NextGen Certification          | \$600/Unit                    |
| Zero Energy Ready Home Certification       | \$1,500/Unit                  |
| Passive House Certification                | \$1,500/Unit                  |

## **Greenhouse Gas Reduction Program (GHGRP) Projects:**

Projects can request GHGRP funding for the electrification of fossil fuel equipment in eligible projects. Projects can also request funding for incidental repairs or electrical upgrades associated with electrification measures, energy efficiency improvements, and alternative energy generating systems.

Eligible projects include:

- Individual buildings that are at least 35,000 gross square feet (excluding the parking garage)
- Two or more buildings with a gross floor area with at least 35,000 sq ft (not including parking garages) that are served in whole or in part by the same electric or gas meter or are served by the same heating or cooling system or systems, which is not a district energy system

GHGRP can fund up to \$15,000 per unit, not exceeding \$1,250,000 per project.

Projects must follow MDE or EPA guidelines to create the project portfolio in Energy Star Portfolio Manager. The project's Portfolio Manager account must be shared with the Department at application.

Projects must complete and submit the GHGRP section of the Rehab Funding Request Form. Additional information about the required Rehab Funding Request Form can be found in Appendix B.

It is recommended to have a certified electrical engineer or licensed electrician evaluate potential service changes to a property considering electrification.

## Appendix A:

### Measure Specification Parameters

Measure specification parameters are being implemented for energy savings calculation inputs in MINT. All MINT inputs for specific equipment must fall within the ranges stated below. Inputs must be based on existing conditions found by the energy auditor during the energy audit.

There may be situations where the existing condition input falls outside the stated input parameter range. In this situation, the Auditor may use an input outside of the stated range but must also state the condition causing the situation in the measure notes in MINT, including a detailed description of why this input is outside the parameter range. DHCD will review the description of the situation and will approve or deny the input change.

The following table is a list of measures and their acceptable high and low input ranges. The table also states the typical or average input based on historical program results.

| Measure Category      | Measure   | Input     | Parameter High       | Typical Input or Average Value | Parameter Low                 |
|-----------------------|---|-----------|----------------------|--------------------------------|-------------------------------|
| <b>Heating System</b> | Gas Furnace   | AFUE      | Nameplate Efficiency | 2.0 AFUE reduction             | 5.0 AFUE reduction            |
|                       | Heat Pump (Heat)                                    | HSPF      | Nameplate Efficiency | 1.4 HSPF reduction             | 1.7 HSPF reduction            |
|                       | Electric Resistance Heat (PTAC, Baseboard, Furnace) | COP       | 1                    | 0 reduction                    | 0 reduction                   |
|                       | PTHP (heating)                                      | COP       | Nameplate Efficiency | 0.4 COP reduction              | 0.5 COP reduction             |
| <b>Cooling System</b> | Split System Condensing Unit                        | SEER, EER | Nameplate Efficiency | 2 EER or 2.3 SEER reduction    | 2.5 EER or 2.8 SEER reduction |
|                       | PTAC (cooling)                                      | SEER, EER | Nameplate Efficiency | 2 EER or 2.3 SEER reduction    | 2.5 EER or 2.8 SEER reduction |
| <b>DHW</b>            | Electric DHW  | EF, UEF   | Nameplate Efficiency | 0.01 EF/UEF reduction          | 0.03 EF/UEF reduction         |
|                       | Gas DHW   | EF, UEF   | Nameplate Efficiency | 0.02 EF/UEF reduction          | 0.05 EF/UEF reduction         |
|                       | Instantaneous Gas DHW                               | EF, UEF   | Nameplate Efficiency | 0.02 EF/UEF reduction          | 0.05 EF/UEF reduction         |

|  |  |     |       |       |      |
|--|--|-----|-------|-------|------|
| <b>Annual<br/>Lighting<br/>Run Times<br/>by<br/>Location</b> |  |     |       |       |      |
|  | Exterior (commercial)                        | hrs | 8,670 | 3,650 | 730  |
|  | Exterior (residential)                       | hrs | 4,380 | 365   | 182  |
|  | Kitchen (residential)                        | hrs | 3,650 | 1,095 | 365  |
|  | Bathroom (residential)                       | hrs | 1,825 | 912   | 365  |
|  | Living / Dining Room<br>(residential)        | hrs | 2,920 | 1,095 | 365  |
|  | Hallway / Foyer<br>(residential)             | hrs | 2,920 | 1,095 | 1365 |
|  | Range (in kitchen)<br>(residential)          | hrs | 1,460 | 365   | 182  |
|  | Closet (used by<br>tenant) (residential)     | hrs | 1,095 | 365   | 182  |
|  | Closet (not used by<br>tenant) (residential) | hrs | 365   | 182   | 91   |

## **Appendix B:**

### **Rehab Funding Request Form (Excel Sheet) Guidance**

The below guidance provides QEPs with information needed to successfully submit a Rehab Funding Request Form.

- All recommended ECM's must be entered into the Rehab Funding Request Form.
- The top section states project information including project name, address, QEP, Electric and Gas Utility Provider
- There is a section for Building Information Notes. This section must be completed with the following information including any additional information that may be helpful for the funding request review:
  - Building Type
  - Building Age
  - Square Footage of Project
  - Number of Units
  - Number of Buildings
  - Electric and Gas Metering Structure (Master Metered or Individually Metered)
  - Square Feet of Residential Space
  - Square Feet of Commercial Space (Excluding Garage/Parking Area)
  - Quantity of Inspected Units
  - Date of Energy Audit
  - Additional Information
- All ECM's must adhere to the MEEHA Measure Specifications Parameters ( Appendix A)
- The Funding Request Form is split into two main sections, EmPower funded measures and GHGRP funded measures
  - Requests for all EmPower funded measures must be entered in the EmPower section
  - Requests for all GHGRP funded measures must be entered in the GHGRP section
- The EmPower measures section is split into residential and commercial sections
  - ECM's must be entered in the appropriate section respective to the utility meter affected by the ECM
    - Measures in residential spaces in an individually metered building affect a residential meter and must be entered in the residential section
    - Measures in common area spaces in an individually metered building affect a commercial meter and must be entered in the commercial section
    - Measures in residential spaces in a master metered building affect a commercial meter and must be entered in the commercial section
    - Shell measures in common area spaces that affect residential meters, such as attic air sealing or insulation, must be entered in the residential and commercial sections
      - Measure quantities for measures that affect both residential and commercial utility meters must be proportional to the quantity of residential and commercial sq ft
  - ECM's must meet the existing and recommended criteria as stated in the MEEHA Program Guidance document
  - ECM's must be listed as separate ECM's if the recommended ECM specifications, sizing, or capacity is different

- o Location of each lighting ECM must be stated in the Measure Description
  - Example: Kitchen Ceiling Lighting Replacement, Bathroom Vanity Lighting Replacement, Entry/Foyer Lighting Replacement, etc.
- o Provide measure notes in the Rehab Funding Request as required by the Program Guidance document.
- o Clearly identify and describe ECM assumptions for the Funding Request inputs in measure notes (Column L-N)
  - Example: attic fiberglass batt insulation measured R-30, downgraded to R-28 using the BPI Batt insulation effectiveness chart based on installation quality
- o Total Measure Cost (Column I) must be identified for each ECM utilizing actual contractor bids prepared by the owners' selected contractor(s)
  - Total Costs may include cost of materials, equipment, and installation
- o In cases where diagnostic testing is required to determine building ventilation recommendations, the results of diagnostic testing must be input into the measure's notes in the Funding Request.
- GHGRP funding can be used for costs associated with electrification measures in eligible buildings
  - o GHGRP project eligibility:
    - Single buildings with a gross floor area above 35,000 sq ft (not including parking garages)
    - Two or more buildings with a gross floor area above 35,000 sq ft (not including parking garages) that are served in whole or in part by the same electric or gas meter or are served by the same heating or cooling system or systems, which is not a district energy system
  - o Eligible measures include but are not limited to:
    - Electrical infrastructure upgrades
    - Engineering design fees specific to electrification efforts
    - Permitting costs specific to the electrification efforts
    - Equipment replacement (HVAC, DHW, Cooking Equipment)
  - o Maximum funding for GHGRP measures:
    - \$15,000 per unit
    - \$1,250,000 per project

## Appendix C

### MEEHA Photo Guidance

This photo guidance provides guidelines and examples of the required photos for measures to be funded by the MEEHA programs. Photo submissions must be in the form of individual photos in a zipfile or PDF document, organized by measure category.

#### Building Elevation

Provide a clear photo of the building(s) exterior that shows the building type, exterior cladding, and attic type.

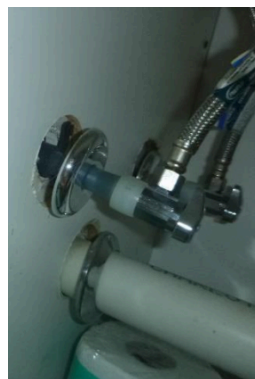


#### Air Sealing

If diagnostic testing was conducted, provide a photo of the set up (blower door or duct blaster) and the manometer reading.

##### In-Unit Air Sealing

- Plumbing penetrations
- Electrical penetrations (light switches, electric plugs, other junction boxes)
- Mechanical penetrations (PTHP openings, exhaust fans)
- Around duct registers
- Accessible gap along base of drywall to floor
- Weatherstripping of all exterior doors
- Gaps around fenestration trim





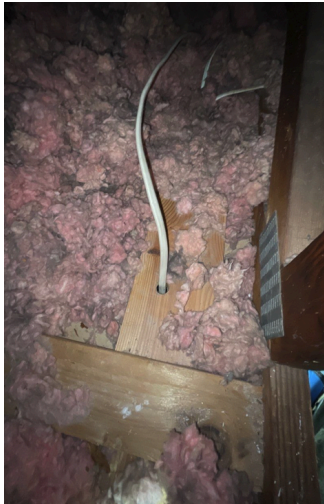
### Exterior Mechanical Closet Air Sealing

- Around ducting
- Plumbing penetrations
- Other penetrations in exterior walls



### Attic Air Sealing

- Plumbing or electrical penetrations in the attic floor
- Top plates
- Chases or bulkheads
- Other penetrations to the building shell found in the attic
- Elevator shafts



## Appliances

A photo of the appliance and the nameplate showing the model and serial numbers is required for all appliance measures.

### Exhaust Fans



### Clothes Washer / Dryer

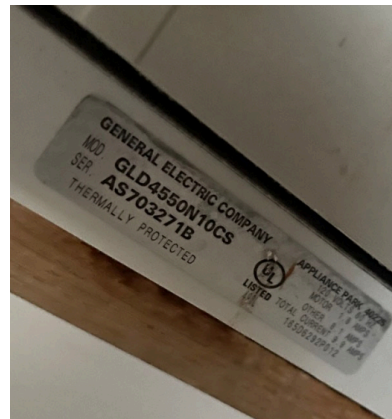


### Refrigerator





Dishwasher



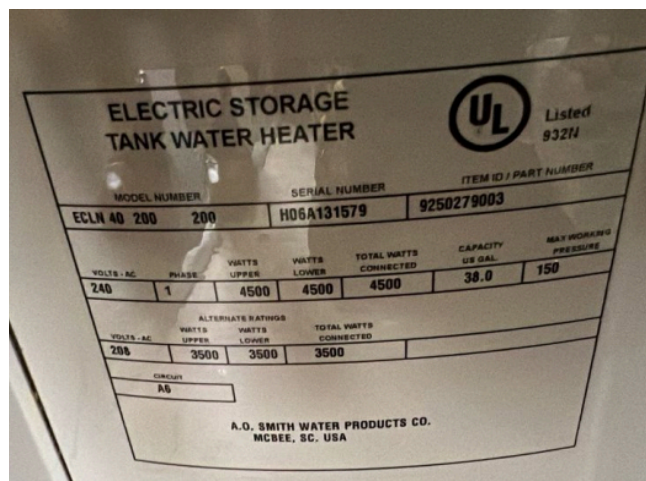
Vending Miser



## Domestic Hot Water

A photo of the water heating system, aerator, or showerhead and the nameplate (if applicable) showing the model and serial numbers is required for all domestic hot water measures.

Water Heater



Aerator



Showerhead



## Fenestration

Photos of doors and windows are required. Window pictures must show the frame type.

Doors



Window



## HVAC

A photo of the heating and/or cooling system and the nameplate showing the model and serial numbers is required for all HVAC system replacement measures. A picture of the thermostat is required for thermostat measures. Pictures showing duct leakage locations are required for duct sealing measures.

### Split system Air Handling Unit



### Split System Condensing Unit



### Thermostat



### Duct Sealing





## Insulation

Photos of the existing insulation type and thickness are required.

### Attic Floor



### Crawlspace Wall



### Pipe Insulation



## Lighting

Photos of the fixture in the space, and a close up of the bulb are required. If possible, the picture should show the wattage if stated on the bulb.

