Page **1** of **23**

**FY19 Clean Energy Communities**

**Low-to-Moderate Income Grant Program**

Application Form

**APPLICATION DEADLINE: FRIDAY, OCTOBER 26, 2018**

Please review the [FY19 LMI Grant Application Instructions](FY19%20LMI%20Grant%20Program%20Application%20Instructions.docx) and fill out each section with the requested information. Writing “See attachment” is not an acceptable substitute for providing the information herein.

**Has your organization ever performed whole building upgrades with the Maryland Energy Administration Low-to-Moderate Income (LMI) Grant Program in a prior fiscal year?** [ ]  Yes [ ]  No

**Part A: Organization and Contact Information**

|  |
| --- |
| 1. **Name of Applicant Organization (Must be the full legal name of the organization as it appears on the IRS W9 tax form.)**
 |
|  |
| 1. **Street Address**
 | 1. **Mailing Address (if different than physical location)**
 |
|  |  |
| 1. **Authorized Representative**

(The individual who would sign a Grant Agreement, if selected for award) | 1. **Individual Preparing Application**
 |
| **Name:** Click or tap here to enter text.**Title:** Click or tap here to enter text.**Phone:** Click or tap here to enter text.**Email:**  Click or tap here to enter text. | **Name:** Click or tap here to enter text.**Title:** Click or tap here to enter text.**Phone:** Click or tap here to enter text.**Email:**  Click or tap here to enter text. |
| 1. **Point of Contact**

(The individual who would manage the grant on a day-to-day basis) | 1. **Legal Counsel Responsible for Grant Review (FOR LOCAL GOVERNMENTS ONLY – Nonprofits skip to 8.)**
 |
| **Name:** Click or tap here to enter text.**Title:** Click or tap here to enter text.**Phone:** Click or tap here to enter text.**Email:**  Click or tap here to enter text. | **Name:** Click or tap here to enter text.**Title:** Click or tap here to enter text.**Phone:** Click or tap here to enter text.**Email:**  Click or tap here to enter text. |
| 1. **Does your organization have a Federal Tax Identification Number?** (If selected for a grant award, this number will need to be provided prior to grant execution. The Federal Tax ID and organization name must match what is listed on your organization’s IRS W9 form.)
 | 1. [**U.S. Congressional District and MD Legislative District**](http://mdelect.net/)where work is to be performed. Enter address and click “Find.” Your U.S. Congressional district will be shown on the left side of the screen as “U.S. Representative (Maryland District #).” Your Maryland Legislative district will be shown on the left side of the screen as “State Senator (District #).” Do not include any letters in these numbers (E.g. “1A” should be listed as “01.”)
 |
| [ ]  **Yes** [ ]  **No** | **U.S. Cong. District:** Choose an item.**MD Leg. District:** Choose an item. |
| 1. **Maryland region in which work will occur** (Please select **only one** region. Projects in multiple regions will require separate applications for each. In addition, please select all counties in which work will be done under this application. See map of regions in [FY19 LMI Grant Program Application Instructions.)](file:///C%3A/Users/Sam/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/2E1FMFJD/FY19LMI-Grant%20Program%20Application%20Instructions%20Final%209_5_18.docx)
 |
| [ ] **Central Region** [ ]  Baltimore County[ ]  Carroll County[ ]  Cecil County[ ]  Harford County[ ]  Howard County[ ]  Montgomery County[ ] **Southern Region**[ ]  Anne Arundel County[ ]  Calvert County[ ]  Charles County[ ]  Prince George’s County[ ]  St. Mary’s County | [ ] **Eastern Region** [ ]  Caroline County[ ]  Dorchester County[ ]  Kent County[ ]  Queen Anne’s County[ ]  Somerset County[ ]  Talbot County[ ]  Wicomico County[ ]  Worcester County | [ ] **Western Region**[ ]  Allegany County[ ]  Frederick County[ ]  Garrett County[ ]  Washington County[ ] **Baltimore City** |
| 1. **Organization Overview:** Please provide MEA with a brief description (500 words or less) of your organization’s mission and/or purpose, as well as an overview of your organizational structure. **If applicable, please provide a link to your organization’s website.**
 |
|  |
| 1. **Proof of Incorporation:** Proof of incorporation is required for all nonprofit organizations. Local governments do not need to provide proof of incorporation.
 |
| **Proof of incorporation for the applicant organization has been attached to this application.**[ ] Yes [ ] No [ ] N/A (Local Governments Only) |

# **Part B: Proposed Project**

|  |
| --- |
| 1. **Total LMI Grant Program Request (All inclusive, including Health & Safety and Indirect Costs)**
 |
|  **$** |
| 1. **Total Funding Match/Leveraged Funds** Please list all funding matches (dollars, labor, supplies, administrative support, etc.) provided by the applicant organization or any other organization other than MEA that is helping to fund the proposed energy efficiency project. *Note: Matching funds are not required for this grant program.*
 |
| **Does your electric utility offer an incentive program for energy efficiency improvements?**[ ] Yes [ ] No*Check**the offerings of your utility at the appropriate website:* [ ] [Baltimore Gas & Electric (BGE)](http://www.bgesmartenergy.com/residential) [ ] [Potomac Edison](https://www.firstenergycorp.com/save_energy/save_energy_maryland.html)[ ] [Pepco](https://www.pepco.com/WaysToSave/ForYourHome/Pages/Maryland.aspx) [ ] [SMECO](https://www.smeco.coop/~/link.aspx?_id=2322BEE44EE44469BB5D13B7F2AD884A&_z=z) [ ] [Delmarva](https://www.delmarva.com/WaysToSave/ForYourHome/Pages/Maryland.aspx) [ ] [Washington Gas](https://www.washingtongas.com/home-owners/savings/rebates) [ ] Other (Specify): Click or tap here to enter text.**Have you secured leveraged funding from a utility incentive program?**[ ] Yes [ ] No*If yes: Which utility? Select all that apply.*☐Baltimore Gas & Electric (BGE) [ ] Potomac Edison[ ] Pepco [ ] SMECO [ ] Delmarva [ ] Washington Gas [ ] Other (Specify): Click or tap here to enter text.*What is the incentive amount?* Click or tap here to enter text.**Have you applied to a utility incentive program but are unsure if you will receive funding?**[ ] Yes [ ] No*If yes: Which utilities? Select all that apply.*[ ] Baltimore Gas & Electric (BGE) [ ] Potomac Edison[ ] Pepco [ ] SMECO [ ] Delmarva [ ] Washington Gas [ ] Other (Specify): Click or tap here to enter text. *What is the potential incentive amount?* Click or tap here to enter text. *If approved, what is the expected award date?* Click or tap to enter a date.**Do you intend to leverage non-utility funding sources (e.g. donations, private grant funds) for this project?**[ ] Yes [ ] No*If yes, report all:*

|  |  |  |
| --- | --- | --- |
| **Funding Source** | **Description of Funding** | **Amount ($)** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| **TOTAL** |  |

Please attach each application, award letter, or other documentation related to utility and other incentive programs for which you’ve applied or been awarded.[ ]  I affirm that documentation is attached to this application. |
| 1. **Project Description:** Please answer the following questions about your proposed project(s). The summary should include a detailed description of your proposed energy efficiency and/or weatherization measures. If your project is occurring in multiple locations, please clearly describe the work that will be occurring in each location. While developing your project, please review the [FY19 LMI Grant Program Application Instructions.](file:///C%3A/Users/Sam/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/2E1FMFJD/FY19LMI-Grant%20Program%20Application%20Instructions%20Final%209_5_18.docx)

**This section must be completed and should not state “see attachment.”** |
| **A. Will your proposed project consist mainly of residential Whole Home/Whole Building upgrades?**[ ]  Yes [ ]  No*Whole Home/Whole Building upgrades consist of performing an energy audit on the residential home or building and then installing the most cost-effective energy efficiency and weatherization measures to achieve an aggregate 10-or-fewer-year simple payback. Examples of installed measures are LED light bulbs, ENERGY STAR certified appliance upgrades, insulation improvements, air sealing, etc. This was previously known as the “Home Performance with ENERGY STAR” or “HPwES” model under previous cycles of the LMI Program.***B. i. If you answered “yes” to the question above, please indicate approximately how many homes/buildings you plan to upgrade?** *Note: Please be as accurate as possible with your response as MEA will use this information to assess Applicant’s grant potential and will expect the Applicant to complete the level of work described.* **ii. If you answered “no” to the question above, please provide a detailed summary of your proposed project below.****C. Have you already had an energy audit performed?** [ ]  Yes [ ]  No*If yes, attach a copy of the audit report.* |
| 1. **Application Exercise**: The Application Exercise (Exercise) is intended to provide a problem-solving element to the LMI application, which evaluates the applicant’s abilities related to building audits and building science. The purpose of using the Exercise is to evaluate the applicant’s approach to delivering cost-effective efficiency upgrades.

You **must complete all sections of the application exercise that pertain to your project type**. Prior to completing this exercise, each applicant is encouraged to review [the FY19 LMI Grant Program Application Instructions](file:///C%3A/Users/Sam/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/2E1FMFJD/FY19LMI-Grant%20Program%20Application%20Instructions%20Final%209_5_18.docx). An applicant’s responses to these questions will be used to evaluate the applicant’s understanding of efficiency measures and LMI program policies, as well as be used to evaluate the applicant’s ability to cost effectively deliver energy efficiency upgrades.  |
| Click the link below to access the Application Exercise. Again, please be sure to complete each section that pertains to your project type. [Go to Application Exercise](#_Part_C:_Application_1) |
| 1. **Impact on Low-to-Moderate Income Marylanders:** Please include an estimate of the number of low-to-moderate income individuals and/or households that will benefit from this project over a fifteen-year period (this is the anticipated life of many potential energy efficiency measures). MEA looks at two housing categories: temporary housing (high turnover with a low length of residence, such as a homeless shelter) and permanent housing (single-family homes where the family is not expected to relocate within the next 15 years).

**Formula for Temporary Housing:** $$\# of homes/units × \frac{\# of LMI individuals per home}{years in home \left(must be < 15 years\right)} ×15 years$$ **Formula for Permanent Housing (residents not expected to relocate in the next 15 years):**$\# of homes/units × \frac{\# of LMI individuals per home}{years in home} ×15 years$ See page 7 of the FY19 LMI Grant Program Application Instructions for a detailed example.**This section must be completed and should not state “see attachment.”** |
| Please show your calculations:Click or tap here to enter text. Insert the calculated number of LMI **Marylanders** that would benefit directly from this project.Please describe how LMI Marylanders would benefit: |
| 1. **Priority Funding Areas:** The State of Maryland gives priority to projects occurring in Priority Funding Areas. According to the [Maryland Department of Planning (MDP) website](http://planning.maryland.gov/Pages/default.aspx), Priority Funding Areas are existing communities and places where local governments want State investment to support future growth. The following areas qualify as Priority Funding Areas:
* **Every municipality, as they existed in 1997**
* **Areas inside the Washington Beltway (I-495) and the Baltimore Beltway (I-695)**
* **Areas already designated as enterprise zones, neighborhood revitalization areas, heritage areas, and existing industrial land**

See the [map of Priority Funding Areas](http://data.imap.maryland.gov/datasets/maryland-priority-funding-areas), including a search by address box, on the MDP website. |
| **Will your proposed project, in full or in part, occur in an area designated for Priority Funding?**[ ] Fully within a PFA [ ] Partially within a PFA [ ] Not within a PFA |
| 1. **Indirect Costs as defined by 2 CFR § 200.56:**

Indirect costs for an applicant that is tax exempt under § 501(c)(3), (4), or (6) of the Internal Revenue Code, and has negotiated and received an indirect cost rate under a direct federal award or from a nonfederal entity, will be allowed as outlined in §2-208(b)(1) of the State Finance and Procurement Article. Indirect costs for any other non-profit organization applicant or a local government applicant will be allowed up to a maximum of 10% of the grant award. MEA will use the definition of indirect costs provided in OMB Uniform Guidance, 2 CFR § 200.56.**2 CFR § 200.56:** “*Indirect (F&A) costs means those costs incurred for a common or joint purpose benefitting more than one cost objective, and not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved. To facilitate equitable distribution of indirect expenses to the cost objectives served, it may be necessary to establish a number of pools of indirect (F&A) costs. Indirect (F&A) cost pools must be distributed to benefitted cost objectives on bases that will produce an equitable result in consideration of relative benefits derived.”****This section must be completed and should not state “see attachment.”*** |
| **Do you plan to request reimbursement of indirect costs if you are awarded a grant?** [ ]  **Yes** [ ]  **No****Pursuant to § 2-208(b)(1) of the State Finance and Procurement Article, if a Grantee will be requesting reimbursement of indirect costs at a rate negotiated and received under a direct federal award or from a nonfederal entity, upon being selected for a grant award, Grantee shall submit to MEA its federally negotiated cost rate agreement or other documentation of its indirect cost reimbursement rate.** **NOTE: ALL GRANT AWARDS ARE ALL INCLUSIVE AND WILL NOT PROVIDE FOR ANY COSTS IN EXCESS OF THE TOTAL GRANT AMOUNT.** |
| 1. **Project Timeline:** In the second column of the table below, please list the expected completion date for each project milestone. Assume that **April 1, 2019** is the earliest that your potential grant funds will be available. Construction and installation of your project must be completed by **August 1, 2020,** with final reports and invoices submitted to MEA by **September 1, 2020.** Draft the project timeline accordingly to comply with this timeframe, taking into consideration scheduling concerns that may impact your organization (facility schedules, holidays, weather, etc.), as well as equipment and material lead times.

**This section must be completed and should not state “see attachment.”** |
|

|  |  |
| --- | --- |
| **Project Milestone** | **Expected Completion Date** |
| Receive Potential Grant Agreement from MEA | **April 1, 2019 (Earliest)** |
| Construction Work Begins | Click or tap here to enter text. |
| Work 50% Complete | Click or tap here to enter text. |
| Complete Construction & Installation | Click or tap here to enter text.**(No later than August 1, 2020)** |
| Submit Final Reports to MEA | Click or tap here to enter text.**(No later than September 1, 2020)** |

 |
| 1. **Procurement Policy and/or Practices:** Briefly describe your organization’s procurement policy for obtaining contractors, materials, etc. If your organization does not have a formalized procurement policy, explain how you would identify contractors and vendors to provide goods and services, should you receive a grant award from MEA.
 |
|  |
| 1. **Will your organization perform the work on your proposed project, or will you hire (a) contractor(s)?**
 |
| [ ] Hire Contractor(s) [ ] Perform Work In-house**If you selected “Hire Contractor(s)” and already have a contractor in mind, please explain how you procured that contractor and your organization’s business affiliation with them, if any such relationship is present:** |
| 1. **Project Scalability:** If the Grant Award is not as much as the requested amount or, in the alternative, is more than the requested amount (additional funding becomes available), is your organization interested and capable of scaling your project larger or smaller accordingly? ( Scaling a project as used here means increasing or decreasing the number of homes, buildings, or weatherization/energy efficiency measures based on funding availability.)
 |
| [ ] Yes [ ] No**Comments:** Click or tap here to enter text. |
| 1. **Eligibility Verification (Individual Participants):** If your organization is awarded a Low-to-Moderate Income Energy Efficiency Grant, describe the process that will be used to verify that each participant/beneficiary meets the low-to-moderate income requirements as outlined in Section 2 of the [FY19 LMI Grant Program Application Instructions.](file:///C%3A/Users/Sam/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/2E1FMFJD/FY19LMI-Grant%20Program%20Application%20Instructions%20Final%209_5_18.docx)

**This section must be completed and should not state “see attachment.”** |
|  |

# **Part C: Application Exercise**

**Objective**:

The Application Exercise (Exercise) is intended to provide a problem-solving element to the LMI application, which evaluates the applicant’s abilities related to building audits and building science. The purpose of using the Exercise is to evaluate the applicant’s approach to delivering cost-effective efficiency upgrades.

**Instructions**:

Prior to completing this exercise, each applicant is encouraged to review the [FY19 LMI Grant Program Application Instructions.](file:///C%3A/Users/Sam/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/2E1FMFJD/FY19LMI-Grant%20Program%20Application%20Instructions%20Final%209_5_18.docx)  An applicant’s responses to these questions will be used to evaluate the applicant’s understanding of energy efficiency measures and LMI program policies, as well as be used to evaluate the applicant’s ability to cost effectively deliver energy efficiency upgrades.

LMI projects generally fall into 3 main project types: 1) Whole Building Residential Retrofits; 2) New Construction with Incremental Efficiency Upgrades, and 3) Upgrades to Commercial Building Types serving LMI Populations. Only the sections of the Exercise relevant to your project type, as defined in the table below, need to be completed.

If you are uncertain as to which project type your project falls under, please contact MEA Program Managers Dean Fisher (Phone: 410-537-4068) or David Giusti (Phone: 410-537-4072).

|  |  |
| --- | --- |
| **Project Type** | **Exercise Sections to Complete** |
| Whole Building Residential Retrofits | Sections 1, 2, 3, 4 |
| New Construction with Incremental Efficiency Upgrades | Sections 1, 2, 5 |
| Upgrades to Commercial Buildings | Sections 1, 2, 6 |

## **Section 1: Program Goals**

*“The LMI Program encourages innovative ideas directed at helping communities, neighborhoods, or entire buildings take advantage of economies of scale.”*

1. Does your proposal achieve economies of scale (yes/no)? If yes, please explain briefly.
2. Does your proposal contain innovative technologies (yes/no)? If yes, what are these technologies?

## **Section 2: Eligibility and Terms**

1. True / False: Homes that have already been weatherized must have received weatherization measures within the last five years to be eligible for an HVAC replacement.

 [ ] True

 [ ] False

1. True / False: Low income residents cannot be charged for participation in any program that receives SEIF funding.

 [ ] True

 [ ] False

1. True/False: Renewable energy technologies are eligible for the Program.

 [ ] True

 [ ] False

1. True / False: For residentially metered buildings, Grantees should develop projects whose energy conservation measures, in aggregate, have a simple payback that is less than 15 years.

 [ ] True

 [ ] False

1. True / False: The maximum reimbursable cost per ENERGY STAR certified refrigerator is $1,000 for a Whole Building Residential Retrofit project under the Program.

 [ ] True

 [ ] False

## **Section 3: Energy Savings Estimates Table (for Whole Building Retrofit Projects)**

Please complete the table below to provide an estimate of the amount of energy that will be saved annually through your proposed whole building retrofit project by the appropriate unit (e.g., kWh, therms, gallons). Use the table below to calculate potential energy savings based on the estimated savings () provided for each measure, based on hypothetical energy savings derived from the mid-Atlantic TRM and fill in the Energy Savings Estimates table related to costs, savings, and payback.

The energy saved through your project is a key review criterion for funding consideration, so please do your best to show accurate energy savings data.

For any residential energy measures not included in the list below, an applicant should use energy estimates from qualified auditors, online calculators maintained by the U.S. Department of Energy (DOE), ENERGY STAR calculators, etc. For fuel oil and/or propane measure upgrades please assume natural gas for the purposes of this exercise.

*\*For the purpose of this exercise, when completing the last table, Total Energy Savings Estimates, please incorporate all costs, including any “Health and Safety” and “Indirect” costs.*

**Lighting & Appliance Measures**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **Unit** | $$∆$$ | **# per home** | **# of homes** | **Natural Gas Savings (therms/year)** | **Electricity Savings (kWh/year)** |
| Replacement of an incandescent bulb with a CFL | $$∆kWh/year$$ | 30 |  |  | N/A |  |
| Replacement of an incandescent bulb with a LED | $$∆kWh/year$$ | 93.5 |  |  | N/A |  |
| Replacement of existing refrigerator with an ENERGY STAR refrigerator | $$∆kWh/year$$ | 117 |  |  | N/A |  |
| Replacement of existing clothes washer with an ENERGY STAR clothes washer: |  |  |  |  |  |  |
| a) Using hot water produced by electricity | $$∆kWh/year$$ | 153 |  |  | N/A |  |
| b) Using hot water produced by natural gas | $$∆ therms/year$$ | 0.42 |  |  |  | N/A |
| Replacement of an existing clothes dryer with an ENERGY STAR clothes dryer | $$∆kWh/year$$ | 176.3 |  |  | N/A |  |
| Replacement of an existing dishwasher with an ENERGY STAR dishwasher | $$∆kWh/year$$ | 37 |  |  | N/A |  |
| **Total Lighting & Appliance Savings** |  |  |  |  |  |  |

**HVAC Measures**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **Unit** | $$∆$$ | **# per home** | **# of homes** | **Natural Gas Savings (therms/year)** | **Electricity Savings (kWh/year)** |
| Replacement of an existing air conditioning unit with an ENERGY STAR AC unit | $$∆kWh/year$$ | 101 |  |  | N/A |  |
| Replacement of an air source heat pump with an ENERGY STAR heat pump | $$∆kWh/year$$ | 297 |  |  | N/A |  |
| Replacement of existing air conditioning with a Ductless Mini-Split heat pump | $$∆kWh/year$$ | 1450 |  |  | N/A |  |
| Replacement of an existing natural gas boiler with an ENERGY STAR gas boiler: | $$∆therms/year$$ | 45.6 |  |  |  | N/A |
| Replacement of a gas furnace with an ENERGY STAR condensing gas furnace | $$∆therms/year$$ | 86 |  |  |  | N/A |
| Replacement of an existing room AC unit with an ENERGY STAR room AC unit | $$∆kWh/year$$ | 121 |  |  | N/A |  |
| Replacement of an existing bath exhaust fan with an ENERGY STAR bath exhaust fan | $$∆kWh/year$$ | 34.5 |  |  | N/A |  |
| Replacement of an existing ceiling fan with an ENERGY STAR ceiling fan | $$∆kWh/year$$ | 88.5 |  |  | N/A |  |
| Installation of a programmable thermostat (natural gas heating savings only) :  | $$∆therms/year$$ | 34.1 |  |  |  | N/A |
| Duct sealing – cooling (central AC or heat pump) | $$∆kWh/year$$ | 212 |  |  | N/A |  |
| Duct sealing – heating (electric heat pump) | $$∆kWh/year$$ | 467 |  |  | N/A |  |
| Duct sealing – heating (electric resistance heat) | $$∆kWh/year$$ | 934 |  |  | N/A |  |
| Duct sealing – natural gas heating | $$∆therms/year$$ | 82 |  |  |  | N/A |
| **Total HVAC Savings** |  |  |  |  |  |  |

**Air Sealing Measures**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **Unit** | $$∆$$ | **# per home** | **# of homes** | **Natural Gas Savings (therms/year)** | **Electricity Savings (kWh/year)** |
| Air sealing- air conditioning savings | $$∆kWh/year$$ | 309 |  |  | N/A |  |
| Air sealing- heat pump (heat only) savings | $$∆kWh/year$$ | 943 |  |  | N/A |  |
| Air sealing- electric resistance heat savings | $$∆kWh/year$$ | 1888 |  |  | N/A |  |
| Air sealing- natural gas savings | $$∆therms/year$$ | 97.6 |  |  |  | N/A |
| **Total Air Sealing Savings** |  |  |  |  |  |  |

**Attic/Roof/Ceiling Insulation Measures**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **Unit** | $$∆$$ | **# per home** | **# of homes** | **Natural Gas Savings (therms/year)** | **Electricity Savings (kWh/year)** |
| Attic/roof/ceiling insulation- air conditioning load savings | $$∆kWh/year$$ | 28 |  |  | N/A |  |
| Attic/roof/ceiling insulation- electric heat pump load savings | $$∆kWh/year$$ | 470 |  |  | N/A |  |
| Attic/roof/ceiling insulation- electric resistance heat load savings | $$∆kWh/year$$ | 940 |  |  | N/A |  |
| Attic/roof/ceiling insulation- natural gas savings | $$∆therms/year$$ | 48.6 |  |  |  | N/A |
| **Total Attic/Roof/Ceiling Insulation Savings** |  |  |  |  |  |  |

**Crawl Space Insulation Measures**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **Unit** | $$∆$$ | **# per home** | **# of homes** | **Natural Gas Savings (therms/year)** | **Electricity Savings (kWh/year)** |
| Crawl Space Insulation and Encapsulation – electric heat | $$∆kWh/year$$ | 1040 |  |  | N/A |  |
| Crawl Space Insulation and Encapsulation – natural gas heat | $$∆therms/year$$ | 127 |  |  |  | N/A |
| **Total Crawl Space Insulation Savings** |  |  |  |  |  |  |

**Water Related Measures**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Measure** | **Unit** | $$∆$$ | **# per home** | **# of homes** | **Natural Gas Savings (therms/year)** | **Electricity Savings (kWh/year)** |
| Low flow showerhead |  |  |  |  |  |  |
| 1. In a home with an electric domestic water heater
 | $$∆kWh/year$$ | 168 |  |  | N/A |  |
| 1. In a home with a natural gas domestic water heater
 | $$∆therms/year$$ | 7.5 |  |  |  | N/A |
| Faucet aerators |  |  |  |  |  |  |
| 1. In a home with an electric domestic water heater
 | $$∆kWh/year$$ | 29 |  |  | N/A |  |
| 1. In a home with a natural gas domestic water heater
 | $$∆therms/year$$ | 12.8 |  |  |  | N/A |
| Domestic hot water tank wrap | $$∆kWh/year$$ | 79 |  |  | N/A |  |
| Domestic hot water pipe insulation |  |  |  |  |  |  |
| 1. In a home with an electric domestic water heater
 | $$∆kWh/year$$ | 95 |  |  | N/A |  |
| 1. In a home with a natural gas domestic water heater
 | $$∆therms/year$$ | 42.5 |  |  |  | N/A |
| Installation of an ENERGY STAR high efficiency gas storage water heater | $$∆therms/year$$ | 30 |  |  |  | N/A |
| Installation of an ENERGY STAR gas condensing water heater | $$∆therms/year$$ | 59 |  |  |  | N/A |
| Installation of an ENERGY STAR whole home tankless water heater | $$∆therms/year$$ | 63 |  |  |  | N/A |
| **Total Water Related Energy Savings** |  |  |  |  |  |  |

**Total Energy Savings Estimates**

|  |  |
| --- | --- |
| **Total Requested Grant Award from MEA (including any Health & Safety and Indirect Costs)** |  |
| **Total Number of Homes Upgraded**  |  |
| **Total Natural Gas Savings (therms/year)**Sum from above tables |  |
| **Total Natural Gas Cost Savings ($/year)**Assume ($1.13/therm) |  |
| **Total Electricity Savings (kWh/year)**Sum from above tables |  |
| **Total Electricity Cost Savings ($/year)**Assume $0.14/kWh |  |
| **Simple Payback (Years)**Divide Total Grant Request by Total Energy Savings for Electricity and Natural Gas |  |

## **Section 4: Whole Building Residential Retrofits Exercise (for Whole Building Residential Retrofit Projects)**

Below is a description of a sample residential home. Please use the specifications and details in the building description below to answer the questions that follow.

**Building Description**:

* Building type: single family detached
* Building size and foundation: 1,800 ft2, 2-story with 24’ x 37.5’ footprint
* Building foundation: basement; unfinished
* Envelope:
	+ Attic insulation: 6” fiberglass batt only
	+ Above-grade exterior walls: 2x4 framing; insulation quantity unknown
	+ Windows: double pane, wood frame, in good working condition
	+ Basement rim joist: open, no insulation
	+ Infiltration: preliminary blower door test = 15 ACH50
* HVAC:
	+ Heating system: 3-year-old, 80 AFUE natural gas-fired furnace with a dedicated flue pipe.
	+ Cooling system: 3-year-old, 13 SEER split system A/C
	+ Ducts: central forced-air duct system with supplies to all bedrooms and living spaces; 1 central return each floor; ducts located in attic with poor air sealing and without insulation in spots
* Lighting:
	+ 8 permanent fixtures with incandescent bulbs installed
	+ 2 T12 light fixtures
* Appliances:
	+ Refrigerator and dishwasher (both greater than 10 years old)
* Water heating:
	+ Water heater is natural gas-fired tank water heater, approx. 15 years old
	+ Water heater is atmospherically vented and located in the basement in a small closet without louvered doors
	+ Hot water pipes are uninsulated
* Plumbing fixtures:
	+ Standard flow shower heads (2) and bathroom faucets (2)
* Incidental repair needs:
	+ Roof leak into the attic which is wetting the insulation
	+ Loose bricks on front stoop
	+ Non-working bath exhaust fan
	+ Detached downspout wetting basement foundation walls and insulation
	+ Broken window pane in bedroom
	+ Non-operational CO detector
	+ Deteriorated flooring in hallways and kitchen

**Questions**:

1. Which of the following Energy Efficiency Measures would most likely be cost effective in this home, meaning a simple payback < 10 years for the individual measure, based on the audit information? Check all measures that would be cost effective.

[ ]  Replacing incandescent light bulbs with LEDs

[ ]  New 90 AFUE furnace

[ ]  New 15 SEER A/C system

[ ]  Adding Hot water pipe insulation

[ ]  Adding low flow showerheads (2) and faucet aerators (2)

[ ]  Increasing attic insulation up to R-49

[ ]  Installing motion-sensor light switches throughout the home

[ ]  New ENERGY STAR certified refrigerator

[ ]  New ENERGY STAR certified dishwasher

[ ]  Installing duct insulation and duct air sealing

[ ]  Replacing windows

[ ]  Envelope air sealing

[ ]  Addition of window A/C units in upstairs bedrooms

[ ]  Adding insulation to basement rim joist

[ ]  Replacing T12 fixtures with T8 fixtures

1. Which of the following health and safety-related repairs would be allowable ***under the LMI program***? Check all that apply.

[ ]  Roof leak into the attic which is wetting the insulation

[ ]  Loose bricks on front stoop

[ ]  Non-working bath exhaust fan

[ ]  Detached downspout wetting basement foundation walls and insulation

[ ]  Broken window pane in bedroom

[ ]  Non-operational CO detector

[ ]  Deteriorated flooring in hallways and kitchen

1. Would this house require a combustion safety test?

[ ]  Yes

[ ]  No

1. Are there any areas of concern for combustion safety in this home? Yes/No. Please explain.

[ ]  Yes

[ ]  No

Please explain your reasoning: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Assuming that the work scope would include the following energy efficiency measures (EEMs) for each 1,800 ft2 home and that a $100,000 grant was available, please answer the following questions. Note that MEA will use this response to evaluate Applicant’s potential grant amounts.

EEMs:

* Replacing gas water heater with a new ENERGY STAR certified, natural gas 40-gallon tank water heater
* Replacing eight (8) incandescent light bulbs with an equivalent number of LEDs
* Increasing attic insulation up to R-49 from R-19 over 900 ft2
* Replacing the existing refrigerator with a new ENERGY STAR certified refrigerator
* Duct sealing and addition of R-8 duct insulation
* Envelope air sealing
* Adding R-19 insulation to basement rim joist over 120 lineal feet
* Replacing two (2) T12 fixtures with an equivalent number of T8 fixtures

5A. Estimated retrofit cost per house of ***LMI program funds***: \_\_\_\_\_\_\_\_\_\_\_

* Applicants are encouraged to consider economies of scale in their response
* Applicants should factor outside funding sources into their response. The response should only indicate the amount of LMI program funds, which could be reduced if an Applicant is leveraging funds from another source.

5B. Hypothetical number of homes that your organization would be able to upgrade (100,000 divided by line 5A), based on the example home described in item 5 above: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the approximate magnitude of annual energy savings, per house, that you might expect from implementing the work scope described in Question 5? Check one.

[ ]  Electricity Savings: 25 kWh/year; Natural Gas Savings: 2,500 therms/year

[ ]  Electricity Savings: 20,500 kWh/year; Natural Gas Savings: 8 therms/year

[ ]  Electricity Savings: 1,000 kWh/year; Natural Gas Savings: 100 therms/year

## **Section 5: Allowable Costs for New Construction (Incremental Efficiency Upgrade Projects)**

Please review the Incremental Cost Allowances Schedule below. For the proposed incremental cost project for which you are submitting an application, please complete the far-right column in this table by entering the dollar amount being proposed for each measure. For example, if an upgrade to a heat pump water heater is being proposed for 4 new homes, the applicant would enter $2,800 in the row for heat pump water heaters. This information will be based on the incremental energy upgrades envisioned as part of your project. Please note that any claimed incremental costs must be reduced by any utility incentives that are being utilized for the same system or equipment.

| Efficiency Upgrade | Baseline Efficiency Level | Upgraded Efficiency Level | Incremental Cost Allowance | # of Units | Total $ Amount Proposed (for all homes) |
| --- | --- | --- | --- | --- | --- |
| Envelope Measures |  |  |
| Above Grade Wall Insulation | R-20 2x6 batts | Closed cell spray polyurethane foam (SPF) insulation in 2x6 cavity (R6/inch) | $0.11/SF of above-grade wall area (excluding openings) |  |  |
| Water Heating |  |  |
| Heat Pump Water Heater | 0.95 EF electric resistance storage tank (federal min.) | ENERGY STAR certified heat pump water heater | $700 |  |  |
| Gas Tank Water Heater | 0.62 EF gas storage tank water heater (federal min.) | ENERGY STAR certifiedgas storage tank water heater | $50 |  |  |
| Gas Tankless Water Heater | 0.62 EF gas storage tank water heater (federal min.) | ENERGY STAR certifiedgas tankless water heater | $300 |  |  |
| HVAC |  |  |
| High Efficiency Heat Pump | SEER 14; HSPF 8.2(federal min.) | ENERGY STAR certified air source heat pump | $380 |  |  |
| Gas/Propane Furnace | 0.80 AFUE (federal min.) | ENERGY STAR certified gas/propane furnace | $500 |  |  |
| Ductless mini-splits | SEER 14HSPF 8.2(federal min.) | Mini-Split heat pump System with minimum 20 SEER, 12.5 EER and (for heat pumps) 10 HSPF | $750 for a single zone system$1000 (total) if multiple zones are used |  |  |
| Appliances |  |  |
| Washing Machine | Standard | ENERGY STAR certified | $100  |  |  |
| Clothes Dryer | Standard | ENERGY STAR certified | $180 |  |  |
| Dishwasher | Standard | ENERGY STAR certified | $50 |  |  |
| Bath Exhaust Fans | Standard | ENERGY STAR certified | $15 per fan |  |  |
| Ceiling Fans | Standard | ENERGY STAR certified | $20 per fan |  |  |
| Refrigerator | Standard | ENERGY STAR certified | $50 |  |  |

Please complete this table based on the prior table and additional information about your organization’s proposed incremental cost project.

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Requested Grant Award (Including Indirect Costs)** |  | **Total Requested Incremental Costs (LMI funds only, based on schedule)** |  |
| **# of Homes** |  | **Total LMI Funds per House** |  |

## **Section 6: Upgrades to Commercial Buildings**

For upgrades to commercial buildings that serve LMI populations, please describe each of the efficiency measure(s) to be implemented. This description should include:

* Specifications for the new energy efficiency measure(s)
* Specifications for the system(s) being replaced
* Estimated energy savings, with explanation of the calculation method that was used. If an audit has been completed, please attach.
* Simple Payback calculation

**Part D: Agreement to Terms, Conditions, and Signature**

**By signing and dating this application, I certify that I agree to the following terms and conditions:**

1. I understand that applications are accepted and grants are awarded on a competitive basis. **Applications must be submitted electronically to MEA’s technical assistance contractor at** **MEALMI@newportpartnersllc.com** **no later than Friday, October 26th, 2018 by 11:59 P.M. Eastern Daylight Time. If submitting the application via U.S. mail or in-person, it must be delivered to MEA by close of business (5:00 P.M. Eastern Daylight Time) on Friday, October 26th, 2018.** Paper applications should be addressed to:

Maryland Energy Administration
Attn: LMI Program – FY19 Application
1800 Washington Boulevard, Suite 755
Baltimore, MD 21230
2. I certify that the building(s) to be upgraded under my proposed project are located in the State of Maryland.
3. I understand that this application does not guarantee that I will be awarded a grant for the proposed energy efficiency project.
4. To be eligible for grant funding, I understand that the equipment **may not** be purchased or installed before my organization has an executed Grant Agreement with MEA.
5. I give permission to MEA or its representative(s) to use photos of my facility, and data presented in my final energy evaluation or audit report for marketing, publicity, and advertising purposes. MEA and its representatives, subject to the requirements of the Maryland Public Information Act, §10-611 et seq. of the State Government Article, will not divulge any confidential information or trade secrets.
6. Under penalties of perjury, I certify that the Applicant Organization will be able to provide a Federal Tax ID number should it be selected for an award; it is not subject to backup withholding because: (a) it is exempt from backup withholding, or (b) it has not been notified by the Internal Revenue Service (IRS) that it is subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified it that it is no longer subject to backup withholding.
7. I certify that I am a U.S. citizen or other U.S. person (as defined in IRS Form W-9).
8. Grants issued by the State of Maryland may be taxable. As the Maryland Energy Administration is unable to give tax advice, any tax-related questions should be directed to a qualified tax professional.
9. I will allow authorized representatives of the FY19 Clean Energy Communities Low-to-Moderate Income Grant Program access to my facility in order to conduct energy audits, site inspections, or measurement & verification activities. If selected for an award, I understand that the MEA grant agreement will contain participation requirements for project showcasing.
10. I understand that the program terms and conditions are subject to change at the sole discretion of MEA.
11. I understand that any grant payment will be contingent upon MEA acceptance and/or inspection of the equipment installed.
12. I agree to indemnify the State for any losses or damages, except to the extent that the losses or damages arise from the sole negligence or willful misconduct of a representative of the State.
13. MEA and its contractors make no representation or warranty, and assume no liability with respect to quality, safety, performance, or other aspect of any design, system, or appliance installed pursuant to this application, and expressly disclaim any such representation, warranty, or liability.
14. I certify that I am an authorized signatory for the Applicant Organization.

 **Authorized Applicant Signature**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 *Typing your name constitutes a signature*

 **Name and Title (Please Print): Click or tap here to enter text.**

 **Organization Name: Click or tap here to enter text.**

 **Date: Click or tap to enter a date.**