

Maryland Energy Administration
STATEWIDE COMPETITIVE EmPOWER Clean Energy Communities
FY2015 Low-to-Moderate Income Grant Program

Application Instructions

Overview

In Fiscal Year 2015, the Maryland Energy Administration (MEA) has up to \$5.5 million, subject to funding availability, in EmPOWER Clean Energy Communities competitive grant funds to support innovative projects that improve buildings, neighborhoods or whole communities. Funding is provided through the Strategic Energy Investment Fund (SEIF) for entities that serve Maryland's low-to-moderate income households. In early 2015, the MEA anticipates issuing awards ranging from \$40,000 to \$1,000,000.

The EmPOWER Clean Energy Communities grants will be competitively awarded for energy efficiency projects that generate significant energy savings and pass the associated financial benefits on to Maryland's low-to-moderate income residents. **Projects that maximize energy savings and the number of low-to-moderate income residents served will receive grant funding priority.** The focus for this competitive program is to reach entire areas (buildings, neighborhoods or entire communities) with energy efficiency upgrades.

Funding from Other Sources

Grant funds may supplement financial assistance provided through other State, federal, or private programs, but it may not supplant other funding sources. While matching funds are not required, Grantees are encouraged to make a contribution in order to maximize the amount of energy savings achieved through the project. Matching funds may include:

- 1) Cash
- 2) In-kind services
- 3) Equipment, labor, or materials
- 4) EmPOWER Maryland energy efficiency utility incentives

EmPOWER Maryland incentives

As a result of the 2008 EmPOWER Maryland legislation, Maryland's five largest electric utilities offer incentives for a selection of energy efficiency measures. Each electric utility offers slightly different energy efficiency programs as outlined on their websites:

[Potomac Edison](#)

[BGE](#)

[Delmarva Power](#)

[Pepco](#)

[SMECO](#)

MEA strongly encourages grant applicants with a proposed project located in one of the electric utility's service territory to pursue the EmPOWER Maryland energy efficiency programs offered by the electric utility. These incentives should enable Grantees to expand the size of their respective energy projects, install more energy efficiency measures and/or serve more low-to-moderate income households.

Grantees with utility incentive program funding should note that:

- MEA will reimburse the Grantee for the cost of approved energy efficiency measures less the amount of the utility efficiency rebate.
- Grantees must share incentive information with MEA as part of the grant reporting process. This will enable MEA to ensure that energy savings estimates are not being double-counted towards the energy reduction goals established by the EmPOWER Maryland legislation.

All grant funding leveraged from sources other than MEA, including incentives obtained through participating electric utility rebate programs should be summarized in *Section 28: Total Funding Match/Leveraged Funds* of the grant application.

Grant Project Period

MEA anticipates that most grant agreements will be available for signature by February 2015. For planning purposes, MEA requests that **all construction activities be completed by November 1, 2015**, with all invoices and project reports submitted to MEA no later than December 1, 2015. Please note, however, work on the project should not begin prior to the execution of the grant agreement between the Grantee and MEA.

Eligible Applicants

The following organization types are eligible to receive funding through the FY2015 EmPOWER Clean Energy Communities Low-to-Moderate Income Grant Program:

- Local governments (counties and/or municipalities)
- Incorporated non-profit organizations

Non-profit organizations should include a description of the organization in the grant application. Additionally, proof of incorporation should be included as an attachment to the grant application.

Grant Income Requirements

Grant funds must be used to fund energy efficiency projects that benefit Maryland’s low-to-moderate income population. For the purposes of this application, low and moderate income households are defined as households with total household incomes that are less than 60% and 85%, respectively, of the median income for each Maryland County. Income limits can be found on the [Maryland Department of Housing and Community Development \(DHCD\) website](#). The 60% income limits can be found on pages 9 and 10, 85% income limits can be found on pages 17 and 18.

Examples:

	<u>60% AMI</u>	<u>85% AMI</u>
4 person household in Allegany County	\$44,640	\$ 63,250
2 person household in Anne Arundel County*	\$40,080	\$ 56,800

* Anne Arundel County is located in the Baltimore PMSA.

While grant applicants do not have to receive the energy benefits directly, **applications must clearly outline how low- or moderate-income Marylanders will benefit from the grant**. For instance, a non-profit organization could apply for a grant to make energy efficiency improvements in a senior living facility where residents are responsible for paying utility bills.

As part of the grant requirements, Grantees will be responsible for verifying that program participants are in compliance with the established income limits. *Section 40: Eligibility Verification* of the grant application requires grant applicants to describe the process that will be used to verify that all participants and/or beneficiaries comply with the low-to-moderate income requirements.

Allowable Grant Measures

The majority of grant funds should be used directly on energy efficiency measures, including the purchase and installation of machinery and/or equipment. A limited amount of grant funding may be used for the costs of technical assessments, licenses, engineering, and/or training, after MEA approval.

Grant Restrictions & Limitations

- The State of Maryland has adopted the 2012 International Energy Efficiency Code (IECC). All projects funded through the EmPOWER Clean Energy Communities grant program should comply with the 2012 IECC code.
- In general, MEA will not provide more than \$5,000 in grant funds per home energy retrofit. For home energy retrofits necessitating an HVAC upgrade, MEA will not provide more than \$8,000 in funds per home energy retrofit. Note that HVAC upgrades are not allowable in homes that have not been weatherized.
- For appliance replacements, all appliances funded under this grant must be ENERGY STAR qualified. MEA will not fund the replacement of any appliances for which the ENERGY STAR qualification is unavailable.
 - For any refrigerator replaced using EmPOWER Clean Energy Communities grant funding, the maximum reimbursable cost per ENERGY STAR refrigerator is \$800.
 - For water heaters, ENERGY STAR no longer qualifies electric tank water heaters and electric instantaneous water heaters. For this reason, MEA will not fund electric tank water heater or electric instantaneous water heater replacements. ENERGY STAR qualified heat pump water heaters and natural gas water heater replacements are still eligible for grant funding.
- For new home construction projects, MEA will fund only the incremental purchase cost of upgrading to a higher level of energy efficiency (i.e. MEA will cover the purchase cost of upgrading from a baseline efficiency heat pump (SEER 13) to a higher efficiency heat pump (SEER 14.5+)). MEA will not cover the cost of installing energy efficiency measures in new construction projects unless the Grantee can explain why the cost of installing the energy efficiency measure is more expensive than the costs of installing a baseline efficiency measure. For a new construction project, please provide MEA with cost estimates for both the energy efficient technology and the baseline efficiency technology in your grant application.
- To comply with the Strategic Energy Investment Fund statute, low income residents cannot be charged for participation in programs that receive EmPOWER Clean Energy Communities low-to-moderate income grant awards.
- Renewable energy technologies are not eligible for the EmPOWER Clean Energy Communities grant program. See the MEA website for information on other programs that provide commercial and residential renewable energy incentives.
- In general, MEA does not approve projects that involve fuel switching.

- Grantees should develop projects whose energy conservation measures (ECMs), in aggregate, have a simple payback that is less than 10 years. When a single measure is proposed, it should have a simple payback that is less than the anticipated equipment life.
- MEA encourages all applicants to focus on residential households that are ineligible for assistance through the Weatherization Assistance Program (WAP) or the EmPOWER Maryland Low Income Energy Efficiency Program (LIEEP) run by the Department of Housing and Community Development (DHCD).

Administrative Costs

Administrative costs are capped at a maximum of 10% of the grant award. MEA defines administrative costs to be non-energy related costs (such as rent, utilities, etc.).

If you plan to request administrative costs, please be sure to clearly identify the amount of administrative funds in *Section 33: Cost Breakdown* of the EmPOWER Clean Energy Communities grant application. In *Section 34: Administrative Costs* of the application, grant applicants should explain how administrative costs will be used in association with their proposed grant project.

Health and Safety Repairs

For projects involving whole home energy retrofits (such as Home Performance with ENERGY STAR projects), non-energy related health and safety repairs that enable energy efficiency upgrades are capped at \$1,000 per home. The cost of the health and safety repairs must be included in the \$5,000 per house maximum budget (or \$8,000 per home maximum budget for any home receiving an HVAC upgrade).

Grant Evaluation Criteria

In each county, proposals will be evaluated using three primary criteria:

- **Annual energy savings per dollar of MEA investment.** MEA is looking for projects that maximize potential electricity savings. (While other kinds of energy savings can increase an application's competitiveness, they are not as critical to the application's standing as estimated electricity savings.) If an applicant can access matching funds, the ratio of energy savings to dollar of MEA investment will improve.
- **Impact on Maryland's low-to-moderate income residents.** MEA is looking for projects that maximize the number of low-to-moderate income residents that can be served with EmPOWER Clean Energy Communities grant funding. MEA will evaluate this metric based on the number of low-to-moderate income individuals/households that will benefit from grant funds over a 15 year period, the standard life of many energy measures.

Formula: (# of households) * [(# of individuals/household)/(duration in home)] * 15 years

For example:

- An upgrade to a homeless shelter that is able to house 5 individuals with most people staying approximately one year will serve an estimated 75 individuals over the life of the project.

$$1 \text{ household} * [(5 \text{ individuals/household}) / (1 \text{ year})] * 15 \text{ years} =$$

75 individuals who benefit over the 15 year period

- An upgrade to a residential, privately owned home that contains a family of four will benefit four individuals (or 1 household) over the life of the project. It is assumed that the family will not relocate during this timeframe.

$$1 \text{ household} * [(4 \text{ individuals/household})/15 \text{ years}] * (15 \text{ years}) =$$

4 individuals who benefit over the 15 year period

- **Applicant's willingness and ability to deliver energy upgrades to households that are not eligible for assistance through other channels.** In particular, MEA is looking for applications that propose methods to target households unable to access the Department of Housing and Community Development's Weatherization Assistance Program (WAP) and EmPOWER Maryland Low Income Energy Efficiency Program (LIEPP) programs.

In addition to the primary criteria shown above, MEA will also consider the following secondary criteria:

- Best practices/showcase project: Does the project demonstrate energy efficiency best practices and have strong potential as a model for others?
- Project feasibility: Can the proposed project be completed in the available construction window?
 - The ability of project construction to be completed by November 1, 2015 with all invoices submitted to MEA by no later than December 1, 2015.
- Accuracy of energy savings and cost information for the project:
 - How accurate are the applicant's estimates?
 - Are assumptions behind the numbers clearly stated in a manner allowing the review team to evaluate the project?
- Innovative technologies: How creative and novel are the technologies employed in the proposed project?

MEA also reserves the right to select applications that will provide a broad diversity in the project portfolio. Factors such as energy measure type and geographic region will be considered.

Energy Savings Estimates

To be competitive, the application must include detailed energy savings estimates. To simplify energy savings calculations, MEA has developed some simple energy assumptions for residential energy projects using formulas outlined in the Mid-Atlantic Technical Reference Manual (TRM).¹ The residential energy assumptions are outlined on the following pages.

For commercial energy projects and for residential energy measures not quantified in this document, grant applicants can site alternative sources of energy estimates including, but not limited to energy audits completed by a qualified auditor, online calculators maintained by the U.S. Department of Energy (DOE), ENERGY STAR calculators, etc.

For all alternative energy savings estimates, please be sure to cite the source of your estimate and provide all necessary back-up documentation (e.g., website URLs, formulas, etc.).

¹ MEA's approximations of energy savings below are based on the Mid-Atlantic TRM [version 2](#) and [version 4](#), which were developed by the [Northeast Energy Efficiency Partnership \(NEEP\)](#) to standardize energy savings assumptions across the Mid-Atlantic region. MEA uses TRM formulas to develop a preliminary estimate of potential energy savings, which allows MEA to make an "apples to apples" comparison of proposed energy measures. If you have alternative energy savings calculations, please include these estimates as well, clearly describing their source.

Residential Energy Assumptions (based on the Mid-Atlantic Technical Reference Manual, versions 2 & 4)**Lighting & Appliance Measures**

Replacement of an incandescent bulb with a CFL:	$\Delta kWh/year = 30$
Replacement of an incandescent bulb with a Screw Based LED:	$\Delta kWh/year = 93.5$
Replacement of an existing refrigerator with an ENERGY STAR refrigerator	$\Delta kWh/year = 117$
Replacement of an existing clothes washer with an ENERGY STAR clothes washer:	
a) Using hot water produced by electricity:	$\Delta kWh/year = 153$
b) Using hot water produced by natural gas:	$\Delta MMBTU/year = 0.42$
c) Using hot water produced by oil:	$\Delta MMBTU/year = 0.05$
d) Using hot water produced by propane:	$\Delta MMBTU/year = 0.01$

HVAC Measures

Note that HVAC equipment cannot be proposed for unweatherized buildings. Applicants must provide proof of weatherization or propose weatherization as part of the retrofit project.

Replacement of an existing air conditioning unit with an ENERGY STAR AC unit:	$\Delta kWh/year = 101$
Replacement of an air source heat pump with an ENERGY STAR heat pump:	$\Delta kWh/year = 297$
Replacement of existing air conditioning with a Ductless Mini-Split Heat Pump:	$\Delta kWh/year = 1,450$
Replacement of an existing natural gas boiler with an ENERGY STAR gas boiler:	$\Delta MMBTU/year = 4.56$
Replacement of a gas furnace with an ENERGY STAR condensing gas furnace:	$\Delta MMBTU/year = 8.6$
Replacement of an existing room AC unit with an ENERGY STAR room AC unit:	$\Delta kWh/year = 121$
Installation of a programmable thermostat (fossil fuel heating savings only) ² :	$\Delta MMBTU/year = 3.41$
Duct sealing- cooling (central AC or heat pump):	$\Delta kWh/year = 212$
Duct sealing- heating (electric heat pump):	$\Delta kWh/year = 467$
Duct sealing – heating (electric resistance heat):	$\Delta kWh/year = 934$
Duct sealing- fossil fuel heating:	$\Delta MMBTU/year = 8.2$

Air Sealing Measures:

Air sealing – air conditioning savings:	$\Delta kWh/year = 309$
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² The TRM does not estimate energy savings associated with the use of programmable thermostats with electrical heating and/or cooling.

Air sealing- heat pump (heat only) savings:	$\Delta\text{kWh/year} = 943$
Air sealing- electric resistance heat savings:	$\Delta\text{kWh/year} = 1888$
Air sealing- fossil fuel heat savings:	$\Delta\text{MMBTU/year} = 9.76$

Attic/Roof/Ceiling Insulation Measures:

Attic/roof/ceiling insulation – air conditioning load savings:	$\Delta\text{kWh/year} = 28$
Attic/roof/ceiling insulation – electric heat pump load savings:	$\Delta\text{kWh/year} = 470$
Attic/roof/ceiling insulation – electric resistance heat load savings:	$\Delta\text{kWh/year} = 940$
Attic/roof/ceiling insulation – fossil fuel heat load savings:	$\Delta\text{MMBTU/year} = 4.86$

Water Related Measures:

Low flow showerhead:	
a) In a home with an electric domestic water heater:	$\Delta\text{kWh/year} = 168$
b) In a home with a fossil fuel domestic water heater:	$\Delta\text{MMBTU/year} = 0.75$
Faucet aerators:	
a) In a home with an electric domestic water heater:	$\Delta\text{kWh/year} = 29$
b) In a home with a fossil fuel domestic water heater:	$\Delta\text{MMBTU/yr} = 0.128$
Domestic hot water tank wrap ³ :	$\Delta\text{kWh/year} = 79$
Domestic hot water pipe insulation:	
a) In a home with an electric domestic water heater:	$\Delta\text{kWh/year} = 95$
b) In a home with a fossil fuel domestic water heater:	$\Delta\text{MMBTU/yr} = 0.425$
Installation of an ENERGY STAR high efficiency gas storage water heater:	$\Delta\text{MMBTU/year} = 3.0$
Installation of an ENERGY STAR gas condensing water heater:	$\Delta\text{MMBTU/year} = 5.9$
Installation of an ENERGY STAR whole home tankless water heater:	$\Delta\text{MMBTU/year} = 6.3$

Sample Energy Savings Calculations

A sample energy savings calculation using the provided residential energy savings assumptions is shown below. Each grant application should include a similar breakdown of estimated energy savings, by technology, in *Section*

³ In a home containing an electric hot water heater that is not already well insulated.

30: Annual Energy Savings. Lengthy calculations can be included as a separate attachment referenced in the application.

Example: A grant applicant proposes to complete a multi-family building upgrade. The applicant is aiming for more than 20% energy savings to have it qualify as a deep-energy retrofit.

- If the applicant has an audit, the saving determinations and baseline can be based on the audit – Please attach the audit to your application
 - If not, an audit will be the starting point should the applicant receive an award.
- The applicant does not have an audit and needs to determine a baseline for the energy savings
 - The applicant is able to provide at least the most recent (12) consecutive months of electric bills (Please submit the bills)
 - This determines the baseline from which the savings can be determined
 - Total annual energy consumption for last year
 - Total annual energy cost for last year
 - Annual utility rate used (for savings calculations)
 - The applicant is unable to submit a year’s worth of utility bills but is able to make an assumption on the buildings energy requirements
 - The assumption(s) should be clearly stated on the application
- The applicant is able determine that all building occupants meet the program’s income requirements.
 - In cases where not all of the buildings tenants meet the program income requirements –the upgrades on the eligible tenants can still save 20% of the buildings energy requirements and qualify as a deep energy retrofit
- The multi-family building has 10 units. The units have gas furnaces and water heaters:
 - All 10 in this hypothetical example fall within the program’s income requirements
- Each unit receives the same upgrades
 - *The measures shown below are for illustrative purposes only and may or may not result in a 20% energy savings reduction.*

For each electric home:

Air sealing – air conditioning savings: $\Delta\text{kWh/year} = 309$

Replacement of an existing room AC unit with an ENERGY STAR room AC unit: $\Delta\text{kWh/year} = 121$

Air sealing- heat pump (heat only) savings: $\Delta\text{kWh/year} = 943$

Low flow showerhead in a home with an electric water heater: $\Delta\text{kWh/year} = 168$

Faucet aerators in a home with an electric domestic water heater: $\Delta\text{kWh/year} = 29 * 2$ per home

Replacement of an incandescent bulb with a CFL: $\Delta\text{kWh/year} = 30 * 5$ CFLs/home

Total anticipated energy savings per home: $(309+943+168+29*2+30*5) = 1,628$ kWh/year

Total anticipated energy savings (entire project) $= 5 * 1628$ kWh = 8,140 kWh/year

Application Submission

Please use the grant application entitled “Statewide Competitive EmPOWER Clean Energy Communities FY2015 Low-to-Moderate Income Grant Program Application.” This document can be found on the [Maryland Energy Administration EmPOWER Clean Energy Communities Low-to-Moderate Income Grant Program webpage](#). Additional supporting documents should be attached as necessary.

Applications must be submitted electronically to the Maryland Energy Administration by **Friday, November 21, 2014.**

For any project occurring in multiple counties, a separate application must be submitted for each county. Combined applications for multiple counties will not be evaluated.

Instructions for Submitting Applications:

Applications should be submitted via email to the Maryland Energy Administration at **EmPOWERMD.LMI@sra.com.**

All applications should meet the following criteria:

- All files should be saved in PDF format.
- All files should be less than 10 MB in size. Files in excess of 10 MB may not be reliably delivered.
- If you submit your application in parts, please number your email submissions (Part 1 of 3, Part 2 of 3, etc.) so that we can ensure the entire application is received.
- Please be sure to include the name of the County in the email's subject line, followed by your organization's name (for example: "Garrett_Bright Start Foundation"). If you are sending documents in a series of emails, number the emails at the end of each subject line (i.e., "Garrett_Bright Start Foundation 1," etc.).

No applications will be accepted after the deadline.

You should receive an email from MEA's Technical Assistance Team confirming receipt of your application within one business day of submission. If you do not receive a confirmation email in that window, please contact Madeline_Koewler@sra.com to ensure that your application was received.

Grantee Responsibilities

Grant Agreement

Before starting work, each Grantee must first enter into a grant agreement with MEA. Depending on available funding levels and the type of measures proposed, grant applications may not be funded exactly as written in the Grantee's original proposal. MEA staff will work with the Grantee to develop a mutually agreeable scope of work that will be incorporated into the grant agreement.

Grant Reporting

Grantees are responsible for submitting the following reporting documents to the Maryland Energy Administration, as a condition of the grant award:

- 1) Grant timeline(s)
- 2) Monthly Grant Progress Reports
- 3) Monthly Energy Metrics Worksheet (when applicable)
- 4) Monthly Grant Expenditure Summary Report (when applicable)

Monthly Grant Progress Report

Once the grant agreement has been signed, Grantees are required to submit a grant progress report each month until all grant funds have been expended. Grant progress reports are due to MEA by the end of the month following the month covered (for example, the grant report for March 2015 should be submitted to MEA by April 30, 2015).

Monthly Energy Metrics Worksheet

For any month that a Grantee completes the installation of energy measures, the Grantee is required to complete the monthly energy metrics worksheet. The information submitted on this worksheet will enable MEA to estimate the energy savings associated with each project and count these energy savings towards the state's energy goals. MEA recommends that each potential Grantee reviews the attached Monthly Energy Metrics Worksheet in order to fully understand the energy reporting requirements of this grant program.

Monthly Grant Expenditure Summary Report

For any month in which a Grantee submits a reimbursement request to MEA, the invoice should be accompanied by the Monthly Grant Expenditure Summary Report. This report will detail how the Grantee calculated the reimbursement request.

Grant Invoicing

All EmPOWER Clean Energy Communities grants will be distributed through a reimbursement process. The Grantee must provide an invoice, as well as invoice supporting documentation (e.g., copies of receipts and invoices), to MEA in order to receive grant funds. Invoices must be submitted to MEA on Grantee letterhead or using the MEA-generated *Grantee Invoice Template*. The invoice should also list the Grantee's federal tax identification number and MEA grant number. Once all required invoice and reporting documentation has been received and approved by MEA, Grantees can expect to receive reimbursement in approximately 30 days.

Historic Preservation

In order to comply with the National Historic Preservation Act of 1966, all buildings (including individual homes) updated with an EmPOWER Clean Energy Communities low-to-moderate income grant must first be reviewed to ensure that the proposed grant project will not have any "adverse effects" on a historic property. MEA must have documentation from the Maryland Historical Trust, or other qualified historian or historic organization, showing that the proposed project will not adversely affect historic properties.

Additional information on the historic preservation review process can be found on the [Maryland Historical Trust's website](#).

Liability Insurance

Comprehensive third-party liability insurance, or its equivalent, will be required to be maintained for all work funded by grant funds. MEA must be named as an additional insured. The insurance provided should include, but not be limited to, insurance protecting MEA from bodily injury and property damage, including, but not limited to all workers' compensation insurance, and errors and omissions. All insurance certificates must be maintained in Grantee files and be made available upon request by MEA.

Licensing

Grantees must ensure that contractors working on projects funded under this program comply with all necessary state and local licensing requirements, including Maryland Home Improvement Commission (MHIC) licensing, as appropriate.

Procurement

To ensure that grant funds are properly used, MEA requests that each potential Grantee provide a brief summary of the organization's procurement policy and/or practices in *Section 38: Procurement Policy and/or Practices* of the grant application.

Additional Funds

If your organization has the capacity to deploy additional grant funding that may become available, please so indicate in Section 39 of the grant application. Please note that any additional funding must be used on projects that are consistent with your original grant application.

Grant Conditions

As a condition of the grant award, all grant recipients must agree to not discriminate in any manner against an employee or grant beneficiary because of race, color, religion, creed, age, sex, marital status, national origin, ancestry, or disability of a qualified individual with a disability.

Questions

Grant program questions should be directed to MEA Program Managers Alec Fields (afields@energy.state.md.us or 410-260-2630) or Dean Fisher (dfisher@energy.state.md.us or 410-260-2630).