



Maryland
Energy
Administration

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
Mary Beth Tung, Director

Notice of Grant Availability
Data Center Energy Efficiency Grant Program FY19 Grant Program

Program Description: The Maryland Energy Administration's Data Center Energy Efficiency Grant Program (DCEEG) will provide grants on a **competitive basis** to encourage the implementation of **cost effective** energy efficiency technologies in data centers throughout Maryland. The program is open to all commercial, industrial, state/local government, or non-profit data centers in Maryland with an overall data floor facility size of at least 2,000 square feet or data centers being newly constructed with a planned data floor facility size of at least 2,000 square feet. For the purposes of this program, a data center is defined as a facility used to house only computers, server and networking systems, IT components, and supporting infrastructure.

Program Goal: The Maryland Energy Administration is seeking innovative energy efficiency solutions to reduce electrical usage in data centers and improve existing data center overall Power Usage Effectiveness (PUE)¹, which is the ratio of total facilities energy to IT equipment energy, as defined by The Green Grid². The program intends to increase the cost competitiveness of Maryland's data centers by reducing facility operating costs through energy savings.

Program Budget: Up to \$500,000 is available for this Program in fiscal year 2019, subject to availability.

Grant Award Amount: Grant awards are anticipated to range from \$20,000 to \$200,000. For existing construction, grants are designed to cover up to 50% of the net customer cost (up to \$200,000) after other incentives and grants have been applied. For new construction, grants will cover up to 50% of the incremental cost between a baseline measure and an energy efficient measure. Baseline measures are defined as those energy measures which meet the minimum requirements in the local jurisdiction building code or the ASHRAE 90.4 data center standard.

Eligible Applicants: Any existing or new construction commercial, industrial, state/local government or non-profit data center located within the State of Maryland with an overall data floor facility size at least 2,000 square feet. Stand-alone, in-house, and embedded data centers are eligible.

Application Deadlines: MEA will be accepting applications until 11:59 PM EST, December 22, 2018.

¹ https://datacenters.lbl.gov/sites/default/files/WP49-PUE%20A%20Comprehensive%20Examination%20of%20the%20Metric_v6.pdf

² The Green Grid Association is a non-profit consortium of end users, policy makers, technology providers, and utility companies focused on resource efficiency in information technology and data centers.

Type of Grant Program: Competitive. Subject to funding availability and restrictions, grants will be awarded to eligible applicants based upon a competitive review against other applications as well as on the applications ability to meet the grant requirements and criteria found below.

Program Eligibility Requirements:

At a minimum, each proposed project must:

- Be located in Maryland;
- Be located in a data center with a data floor facility size of at least 2,000 square feet;
- Be able to identify and monitor data facility Power Usage Effectiveness (PUE)
 - In addition, the applicant must submit a PUE report or estimate;
- Submit an energy analysis or energy savings calculations;
- Submit utility bills or sub-meter data for the proposed project facility;
- Be cost effective, which means that the project’s lifetime net energy benefits are at least equal to the cost of the project;
- Reduce the facility’s aggregate annual energy consumption for the whole building or treated data center space within a building by at least 10%;
- Be undertaken by a commercial, industrial, state/local government, or non-profit entity; and,
- Consist of at least two (2) or more measures that can be fully installed by July 30, 2020.

To be considered for grant award, an application must be complete, accurate, and signed by the applicant or authorized representative of the applicant. In addition, the Applicant must be in good standing in the State of Maryland. For Certificate of Status information, please see the [Maryland State Department of Assessments and Taxation webpage](#).

Program Evaluation Criteria:

MEA will assess qualifying applications for award based on the following competitive evaluation criteria: Demonstration of energy efficiency best practices or innovative technology.

- Cost effectiveness in combination with energy savings. *Projects shall have a simple payback period less than the average useful life of installed measures. MEA may evaluate cost effectiveness per measure and in aggregate.*
- Project feasibility. *Successful applicants will demonstrate that the project can be completed by July 30, 2020.*
- Energy savings: *Applicant’s must demonstrate the project will reduce the facility’s aggregate annual energy consumption for the whole building or treated data center space within a building by at least 10%.*
- Completeness, accuracy, and reasonableness of energy savings and cost estimates. *All cost estimates and electricity savings projections are subject to review and approval by MEA.*
- Completeness of application including the submission of all required attachments and supplemental documentation
- Diversity of energy efficiency measures. *Projects must consist of two or more measures. Measures may include, but are not limited to, the following:*
 - *Server Virtualization*

- *Air Flow Optimization*
- *Server decommissioning and consolidation*
- *Aisle Containment*
- *Heating, ventilation, and air conditioning (HVAC) upgrades*
- *Motors and variable frequency drives (VFDs)*
- *Uninterruptible power supply (UPS) upgrades*
- *Building Management Software and Energy Analytics*
- *Lighting*
- *Sensors*
- *Building Insulation and envelope improvements*

Applications that include a full energy audit report will be looked upon more favorably during the award process. Additionally, projects that demonstrate strong showcasing potential or projects that implement an innovative element may be given preference during the award process. MEA also reserves the right to select applications that allow for a broad diversity in the project portfolio including, but not limited to, geographical diversity.

Restrictions, Requirements, and Limitations:

- Applicants selected for an award under this Program shall be required to submit an IRS W9 form to MEA prior to entering into a Grant Agreement. Instructions regarding W9 submission to MEA will be provided to successful applicants with the notice of grant award.
- To receive a grant, a successful applicant must enter into a Grant Agreement with MEA by no later than April 15, 2019.
- Any project that starts construction prior to the effective date of the Grant Agreement will be ineligible for grant funding. Construction activities are defined as purchasing, ordering, or installing equipment.
- Prior to the start of construction, selected projects must be reviewed to ensure that no historic property will be adversely impacted. Projects that are found to adversely impact historic properties are not eligible for this Program.
- Projects that reduce electricity use solely by switching fuels are not eligible for funding.
- MEA reserves the right to obligate all or none of the fiscal year 2019 *MEA Data Center Energy Efficiency Grant Program* budget, based on the quality and eligibility of applications submitted to MEA.
- Representatives of MEA must be allowed sufficient access to the building to monitor compliance, perform an energy audit, and/or verify installation and measure savings.
- The Maryland Energy Administration showcases selected projects to demonstrate how MEA energy programs are benefiting Maryland residents and businesses. If selected for award, please note that the MEA grant agreement will contain participation requirements for project showcasing.
- Any grant payment is contingent upon inspection of the completed project and compliance with all program requirements and Terms and Conditions.

- Businesses must be in good standing in the State of Maryland. For Certificate of Status information please see the Maryland State Department of Assessments and Taxation webpage.
- The business owner or an authorized representative of the applicant must sign the application and is responsible for submitting all program invoices and reporting.

Required Application Documents:

- MEA application: Please note that the name on the MEA Application must match the name and address listed on the applicant's W9 form
- Applicant's W9
- A copy of the initial utility program application (if applying to local utility program)
- Contractor bid(s)
- Data Center Energy Audit, DC Profiler Report, or similar document demonstrating verifiable cost and energy savings
- For new construction, a document detailing the cost-estimates of baseline equipment (ASHRAE 90.4 or local jurisdiction building code requirement) and incremental cost difference of proposed system
- Most recent Power Usage Effectiveness Report or Data Center Profiler (DC Pro) PUE Estimate
- Project timeline
- Most recent (12) consecutive months of electric bills and / or sub-meter data.

For more information or assistance, please visit the DCEEG webpage or contact Rory Spangler at Rory.Spangler@Maryland.gov. Applications should be submitted online.