Maryland Energy Administration

Resilient Maryland Grant
Awardee Listing Fiscal Year 2021 (FY21)

The Maryland Energy Administration (MEA) is pleased to announce the FY21 Resilient Maryland Awardees. A description of each is provided in the list below.

Applicant	County	Amount
City of Frostburg	**Allegany**	**$100,000**

The City of Frostburg, located in Western Maryland, will use its $100,000 award to conduct feasibility analysis, planning, and design of a community microgrid to serve critical city infrastructure that includes public safety and potential emergency shelters as well as the water supply and wastewater systems. This microgrid will primarily consider solar PV and battery energy storage systems as well as an energy management system. The project will explore an innovative solution to bolstering the resilience of water systems, which is crucial for the life and safety of Frostburg residents given the remote sources of water which require pumping up and down a mountain. The project also draws upon successes and lessons learned from a microgrid under analysis at Frostburg State University which received an inaugural Resilient Maryland award last year.

Mayor & City Council of Baltimore	**Baltimore City**	**$100,000**

The Mayor and City Council of Baltimore will use its $100,000 award to conduct feasibility analysis, planning, and design of a campus microgrid to serve its downtown municipal campus consisting of 14 city buildings that provide essential city services core to functionality of government and society, such as but not limited to: key emergency services, police, and fire services. Microgrid components considered will be combined heat and power (CHP), numerous solar PV systems cited on individual buildings operating under a universal power purchase agreement (PPA), electric vehicle charging, and battery energy storage.

Little Chicks, LLC	**Queen Anne's**	**$20,000**

Little Chicks, LLC will use its $20,000 award to conduct feasibility analysis, planning, and design of a resilient facility power system (RFPS) for its poultry farm operation in Centreville, MD. This project will study a system that will provide a sustainable, reliable source of energy that shields the farm against catastrophic loss of chickens as the result of a power outage. The project holds high potential to serve as a model for other poultry operations in Maryland. The proposed RFPS will consider solar PV, battery energy storage, and microgrid power controls. The project is also seeking capital support funding through the United States Department of Agriculture Rural Energy for America Program.

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Meritus Medical Center, Inc. — Washington — $100,000

Meritus Medical Center, Inc. will use its $100,000 award to conduct feasibility analysis, planning, and design of a campus microgrid to serve its hospital and associated medical campus in Hagerstown, MD. Meritus Medical Center is one of the largest healthcare providers in Western Maryland; it provides 277 beds with over 300 physicians offering over 30 specialized medical services to patients. Hospitals and medical facilities are critical, life-sustaining services that cannot be subject to power outage situations, as this presents an immediate threat to the lives, health, and safety of hospital patients, staff, and visitors. The Meritus medical system also employs over 3,000 Marylanders residing in Washington County, which is vital to a region with a disproportionately high number of individuals designated as low-to-moderate income (LMI). The proposed microgrid will consider solar PV arrays and battery energy storage with integrated electric vehicle charging, and a CHP system to safeguard baseload.

Town of Poolesville — Montgomery — $24,000

The Town of Poolesville will use its $24,000 award to conduct feasibility analysis, planning, and design of an innovative network of solar PV and battery storage streetlight pole-mounted nanogrids to power public streetlights and to-be-installed public wifi hotspots. This project presents a unique opportunity to explore an innovative resilient energy configuration for infrastructure that is core to public safety and societal function that also proposes to increase access to internet service for Poolesville residents. Pooelsville is also pursuing this project to enhance sustainability and energy affordability for its streetlighting. The project will also include conversion from inefficient lighting to LED, presenting a substantial opportunity to increase efficiency in tandem with integrating a clean and resilient energy source. This analysis will also provide MEA with unique, granular-level insight to a model that holds replicability and scalability potential for other jurisdictions that have similar streetlighting upgrade models.

University of Maryland — Howard — $100,000

The University of Maryland will use its $100,000 award to conduct feasibility analysis, planning, and design of a Campus Microgrid to serve its Central Maryland Research and Education Center in Clarksville, MD. The CMREC is home to critical agricultural research projects that study nutrient management, insect pest management, wetlands, thermodynamics, honeybee management, dairy cattle nutrition, among many others. The priorities in this project are safeguarding the lives and safety of the animal herds and personnel at the facility; increasing its energy savings, optimization of energy use, and improving power quality; and reducing greenhouse gas emissions. The anticipated microgrid configuration will consider solar PV, CHP, solid and liquid anaerobic digestion of organic waste to create biogas, and the integration of an energy management system.

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Town of Williamsport **Washington** **$100,000**

The Town of Williamsport will use its $100,000 award to conduct feasibility analysis, planning, and design of a community microgrid for its most critical facilities. Examples include a water treatment facility, emergency services, traffic signal lights and streetlighting, and a nursing home community. The town is powered by its municipally-owned utility grid, which gives it the unique opportunity to include this microgrid in its grid modernization plan. MEA sees high potential for replicability and scalability for other municipally-owned utilities, which typically do not have the capital needed to plan and implement the replacement and installation of new grid infrastructure. The study would also include the identification and prioritization of critical load pockets while balancing geographically-ideal locations for community solar PV systems. Energy storage integration will also be analyzed. MEA will obtain highly valuable information about municipal utility grid modernization from the results of this study.

Jefferson Ruritan Club **Frederick** **$22,000**

The Jefferson Ruritan Club will use its $22,000 award to conduct feasibility analysis, planning, and design of a resilient facility power system to serve its meeting hall as well as two outbuildings. Part of the meeting hall also serves as the Jefferson Volunteer Fire Company's station. The Jefferson Ruritan Club is a community service organization that has made many contributions to the town of Jefferson such as assuming responsibility for street light electric bills, provided college scholarships, and helped offset town costs for its fire trucks. The club seeks funding for this microgrid project not only to bolster the energy resilience of the facilities but also to create a safe community location for residents to congregate during grid outage and emergency situations; adding a resiliency hub element to the microgrid itself. The anticipated microgrid will consider solar PV and battery energy storage systems, as well as the possible integration of CHP and/or conventional energy generation sources. This project also holds replicability potential for other small, rural communities seeking similar resilient power solutions for emergency services that can double as community resiliency hubs.