

Maryland Smart Energy Communities (MSEC) Fiscal Year 2021 Program Awardees

Existing MSEC Communities

Anne Arundel County – \$55,000

Anne Arundel County's project involves a continuation of its lighting retrofit efforts that began in 2018 and aims to replace outdated fluorescent lighting in all the County's facilities. This year the project focuses on the Anne Arundel County Police Headquarters building in Millersville, MD, which will involve replacing all interior lighting with LEDs and installing automatic lighting controls. The project is expected to reduce annual electricity consumption by 109,210 kWh and produce annual savings of roughly \$11,000.

Baltimore City #1 - \$55,000

The City's Department of General Service (DGS) received awards for three different projects. Project #1 involves installing solar gain control window film on the south side of the Benton Building, as well as performing air sealing in the west stairwell and exit corridor. It is expected that these simple efficiency measures will result in annual energy savings of 2,047 MMBtus (Million British Thermal Units, equivalent to roughly 600,000 kWh) and cost savings of \$42,089 per year.

Baltimore City **#2** – \$55,000

Project #2 involves the purchase of seven solar-powered, battery operated light towers to replace a comparable number of diesel-powered towers currently utilized for a variety of municipal functions, including: construction, city services, emergencies, polling stations, COVID testing, and food distribution sites. It is expected that this project will result in an annual reduction of approximately 1,042 gallons of diesel fuel and provide annual savings of roughly \$5,524.

Baltimore City #3 - \$20,187

The third Baltimore City DGS project involves retrofitting the lighting systems and tuning up the HVAC system at the City's Southeast Community Action Center, home of the Mayor's Office of Children & Family Success and an emergency cooling center during summer heating emergencies. It is expected that these efficiency measures will result in annual energy savings of 44,584 kWh and cost savings of \$4,387 per year.

Capitol Heights (Prince George's County) - \$15,000

The Town of Capitol Heights will utilize MSEC funding to support the purchase of two electric vehicles (EVs) (at \$7,500 each) for its code enforcement department. The Town will purchase EVs with ranges over 200 miles minimum. The Town will retire two older gas-powered vehicles (GPVs) resulting in expected reduction of annual petroleum fuel consumption of 785 gallons and cost savings of \$1,962.

Charles County **#1** – \$55,000

Charles County will leverage MSEC funding for a portion of the cost of ongoing lighting upgrades to its many facilities. This year the County requests support to retrofit lighting systems at its Capital Clubhouse recreation center facility. It is anticipated that this project will reduce annual electricity consumption by roughly 233,685 kWh, resulting in savings of \$23,094.



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Charles County #2 – \$55,000

Charles County will also utilize MSEC support to retrofit lighting systems at its District 3 Sheriff's Office facility in Waldorf, MD. It is anticipated that this project will reduce annual electricity consumption by roughly 146,205 kWh, resulting in savings of \$14,721.

Cottage City (Prince George's County) – \$3,750

The Town of Cottage City will use MSEC funding to support the purchase of a "Trikke" (three-wheeled) electric scooter for its Police Department. The total area of the Town is approximately 0.25 square miles. The Police Department believes in community policing and has focused on patrolling the community on bike and on foot. The scooter travels up to 37 miles per hour (mph) and can run 30 miles on a single charge. Having a very small area to patrol, the Town will replace one GPV from the Police Fleet, reducing annual petroleum fuel consumption by approximately 1,040 gallons and saving \$2,600 annually.

Frostburg #1 (Allegany County) - \$55,000

The Town of Frostburg is approved for MSEC funding for two projects that will work together in reducing the Town's carbon footprint. The first project involves replacing out-of-date pumps at its Centennial Hill Sewage Pumping Station. The new pumps would reduce electricity consumption at the station by roughly 87,000 kWh/year, saving the Town \$5,400 annually.

Frostburg #2 (Allegany County) - \$16,777

The second Frostburg project involves installing a 1.5 KW solar PV system at the pumping station that will provide additional power for the station's smaller electrical components. The system will produce roughly 2,000 kWh annually and be tied to a battery storage system that can be accessed for power back-up in times of grid outages. While MSEC has not funded a solar plus battery project before, the Review team thought this project merited approval because it is tied to the pump upgrade project in a forward-looking manner that considers resilience of essential services while introducing clean energy into the equation.

Gaithersburg (Montgomery County) - \$55,000

Gaithersburg will use MSEC funding to support the upgrade of 565 street lights throughout the City. The project is expected to reduce electricity consumption by approximately 129,302 kWh annually, saving the City \$12,930 per year in costs.

Greenbelt #1 (Prince George's County) - \$13,500

The City of Greenbelt has two projects approved for MSEC funding. The first is to support the purchase of an EV (MSEC maximum contribution of \$7,500), as well as a charging station (MSEC maximum contribution of \$6,000). The City will retire an older GPV, resulting in reduced fuel consumption of 720 gallons and annual savings of \$1,800.



Greenbelt #2 (Prince George's County) - \$40,880

Greenbelt will also receive support to retrofit the lighting systems at its Municipal Building with LED fixtures. This project follows on from numerous other successful energy efficiency projects installed by Greenbelt with funding from the MSEC program. It is anticipated that this project will reduce annual electricity consumption by roughly 88,148 kWh, resulting in annual savings of \$10,578.

Hagerstown (Washington County) - \$39,816

The City of Hagerstown aims to retrofit all its streetlights. For this year's MSEC-supported effort, the City plans to retrofit 38 street lights with LED fixtures, resulting in a consumption reduction of approximately 23,965 kWh annually, saving the City roughly \$2,032 in annual costs.

Howard County - \$34,000

Howard County has applied for funding to support the incremental costs of purchasing five EVs for its administrative fleet. Five GPVs will be replaced and given to the County's Fire & Rescue division for occupant extraction training, thereby reducing potential emissions were the vehicles otherwise sold and kept in operation. Expected benefits for these five EVs include fuel reduction of 1,272 gallons and cost savings of \$7,790 annually (including operations and maintenance).

Montgomery County – \$7,500

Montgomery County has been approved for funding to support the purchase of a "pilot police [electric] vehicle, in a law enforcement application to a) fully examine EV implementation challenges in a public safety role, and to b) develop solutions that support full-scale EV deployment in the public safety fleet." Once the police EV is prepared and tested for active duty, it will replace an older police GPV that will then be retired, resulting in reduced annual fuel consumption of 1,152 gallons and cost savings of \$2,880.

Rockville (Montgomery County) – \$35,000

The City of Rockville's project involves upgrading all interior lighting fixtures in the second-floor offices of City Hall with LEDs and includes occupancy controls and sensors. Reduction of annual electricity consumption is expected to reach 51,608 kWh, saving roughly \$6,192 in annual costs.

Salisbury (Wicomico County) – \$55,000

The City of Salisbury is approved for funding to continue work supported by previous MSEC grants to replace all its city street lights with LED fixtures. This year's effort involves retrofitting another 132 fixtures around the City. Annual electricity consumption is expected to be reduced by 99,531 kWh, saving the City roughly \$7,330 in annual electricity and maintenance costs.

Taneytown #1 (Carroll County) - \$28,965

The City of Taneytown received two awards: the first in order to retrofit the lighting system at its football field at the public Memorial Park. It is expected that annual energy reductions will be approximately 35,460 kWh and cost savings will be \$4,026.



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Taneytown #2 (Carroll County) - \$8,811

Taneytown will also utilize MSEC funding to replace the HVAC/heat pump units at the Memorial Park Field House facility that serves the public ball fields. This project will provide roughly \$460 in annual cost savings and reduce electricity consumption by 4,200 kWh.

The Taneytown projects were awarded (even though the payback for the HVAC system is lengthy and the energy savings are not significant) because the HVAC project works in concert with the football field lighting retrofit, taking a holistic approach to upgrading the entire public facility. [*Note*: The "Mid-Atlantic Technical Reference Manual, version 9" assumes a maximum life of 15 years for the outdoor lighting, to account for remodeling effects, and a 15 year anticipated equipment life for the HVAC system as well. When the anticipated energy benefits and costs of both projects are bundled together, these projects meet the Program's cost effectiveness criteria, having a combined simple payback of less than nine years.]

Thurmont (Frederick County) – \$15,000

The Town of Thurmont will utilize MSEC funding to support the purchase of two EVs (at the maximum program contribution of \$7,500 each vehicle). The Town will replace two older GPVs thereby reducing fuel consumption by approximately 450 gallons per year and resulting in roughly \$15,000 in cost savings over the lifetime of the new EVs.

Welcome New MSEC Community

Poolesville (Montgomery County) - up to \$40,000

The Town of Poolesville agrees to adopt energy efficiency and renewable energy policies, to complete an energy baseline and an action plan, in accordance with requirements for participating in the MSEC program and receiving funds for energy projects. The Town proposes to utilize MSEC funding in order to complete an energy baseline; to consider a retrofit of its streetlights; to assess the efficacy of solar technologies for powering streetlights and/or parking canopies; and to determine options for battery storage at its Public Works facility.

* Note, New MSEC communities adopt energy policies and produce energy plans first, so their project details are not available at this time.

** Awarded funding may differ from actual disbursements based on the community's ability to spend the grant money on the eligible award.