

FY22 Resilient Maryland

Award Recipients - Round 1

Awardee County Award Amount

WSSC Montgomery \$100,000

The Washington Suburban Sanitary Commission ("WSSC") Potomac Water Filtration Plant located in Potomac, MD provides potable water supply to residential and commercial customers in Montgomery and Prince George's Counties. This highly critical public infrastructure is necessary for the protection of life, health, and safety of Marylanders as well as for a functioning society in both normal and emergency situations. The availability of potable water supply is important to all communities, however those particularly experiencing socioeconomic and environmental vulnerabilities have significantly fewer options if water becomes unavailable and would be disproportionately impacted. WSSC will use its Resilient Maryland funds to complete a feasibility analysis and preconstruction planning deliverables for a solar PV, battery energy storage, and natural gas backup generation microgrid to safeguard its operations.

Allegany College Allegany \$100,000

Allegany College is a public college offering two-year undergraduate programs with a main campus located in Cumberland, MD. The college typically enrolls over 3,200 students. It specifically offers career preparation programs, credit transfer programs that comprise the first two years of bachelor's degrees, and continuing education courses. Allegany College tailors its offerings to meet the economic and cultural needs of the Western Maryland region and immediate surrounding communities. It will use its Resilient Maryland funds to complete a feasibility analysis and preconstruction planning deliverables for a microgrid to serve its Cumberland campus. Technologies under consideration include solar photovoltaics (PV), battery energy storage, electric vehicle charging, combined heat and power (CHP), anaerobic digestion for the creation of biogas, and absorption. Securing the health and safety of its students, faculty, administrators, and the surrounding community as well as the operational integrity of the institution during emergency situations and utility grid outages are its prime motivators for microgrid consideration. The potential for energy savings, power quality improvement, overall energy optimization, and enhanced sustainability are also desired outcomes of the potential microgrid.



<u>Awardee</u> <u>County</u> <u>Award Amount</u>

AquaCon Maryland, LLC Caroline \$100,000

AquaCon Maryland, LLC (AquaCon) is an aquaculture business planning the construction and operation of a land-based, industrial-scale salmon production facility on Maryland's Eastern Shore in Federalsburg. A recirculating aquaculture system (RAS) will raise the salmon through complete lifecycles. RAS technology recycles the water it uses in a closed system with limited external water exchange. AquaCon will use its Resilient Maryland funds to complete a feasibility analysis and preconstruction planning deliverables for a microgrid to power and bolster the resiliency and sustainability their operations. Technologies under consideration include solar PV, battery energy storage, CHP that utilizes biogas produced onsite from the anaerobic digestion of the biosolid wastes and/or woody biomass, and absorption chilling. The continuous and uninterrupted supply of power to the RAS is necessary for salmon survival, which helps prevent catastrophic losses of salmon population that would disrupt regional food supply chains and substantial financial distress to AquaCon.

Montgomery County, MD Montgomery \$100,000

Montgomery County, MD owns and operates its Equipment Maintenance and Transit Operations Center ("EMTOC") in Derwood, MD. It plans to transition the onsite bus fleet to zero emissions by replacing the current fleet with battery electric and/or fuel cell buses. Many Montgomery County residents rely on bus transportation to commute to and from their workplaces and other locations for daily necessities, and therefore the sustainability and resilience of this service is crucial to the community and environment. The County will use its Resilient Maryland award to complete a feasibility analysis and preconstruction deliverables for a microgrid to power the site as well as deliver the energy necessary for the bus fleet. Technologies under consideration include solar PV, battery energy storage, CHP, electrolysis systems, hydrogen storage tanks, pumps, and other ancillary equipment.

Capitol Technology University Prince George's \$43,100

Capitol Technology University ("CTU") is an independent, nonprofit university located in Laurel, MD on a 52-acre campus. It provides degrees and certifications in engineering, computer simulation, information technology, and technology management. CTU will use its Resilient Maryland funds to complete a feasibility analysis and preconstruction deliverables for a microgrid to serve buildings on its campus that house administrative offices, a library, classrooms, and instruction labs. The benefits a microgrid would provide to the campus include bolstered resilience to power outages, enhanced sustainability, enhanced energy efficiency, revenue from grid services, and the potential to house community members during emergency situations and extended power outages. Many different technologies are proposed to be studied, including solar PV, wind turbines, battery energy storage, thermal storage, electrolysis, CHP, fuel cells, and others.



<u>Awardee</u> <u>County</u> <u>Award Amount</u>

Frederick County, MD Frederick \$25,000

Frederick County, MD will use its Resilient Maryland award to plan and design a resilient facility power system for a recently purchased building that will become a permanent location for several critical County departments, which include emergency communication services, its Interagency Information Technologies Center, and other County operations that serve its citizens. It has also served and will continue to serve as a COVID-19 vaccination site. The building originally served as a processing center, call center, and data center for United Healthcare and Mid Atlantic Medical Services, LLC (MAMSI). Frederick County is pursuing a resilient facility power system to power the facility and shield these critical county operations from utility disruptions and disaster situations. Technologies under consideration include solar PV, battery energy storage, and backup diesel generation.

SEE FOLLOWING PAGE FOR ROUND 2 AWARDEES



FY22 Resilient Maryland

Award Recipients - Round 2

<u>Awardee</u> <u>County</u> <u>Award Amount</u>

City of Cumberland Allegany \$100,000

The City of Cumberland ("the City," "Cumberland") serves as the County Seat of Allegany County. It has a permanent population of over 19,000 residents according to the 2020 Census. It is located along the Potomac River and is part of the Interstate 68 Corridor, and as a result is considered a regional business and commercial center for Western Maryland. About twenty-four percent (24%) of Cumberland's population live below the poverty line. This is nearly double the national average of 12.3%, which means that the community faces disproportionate socioeconomic challenges and vulnerabilities. The City will use its \$100,000 in Resilient Maryland planning funds to conduct a feasibility analysis and complete preconstruction planning deliverables for a microgrid to bolster the resilience of its wastewater system and two (2) to three (3) City buildings that provide emergency services. Technologies under consideration include solar PV, wind turbines, battery energy storage, electric vehicle charging, combined heat and power (CHP), the recommissioning of an anaerobic digester, and absorption chilling. This project carries a critical public safety significance. Access to potable water and sustaining emergency services are core to societal stability and continuity. Additionally, Cumberland residents who are experiencing socioeconomic vulnerabilities and challenges would be disproportionately impacted by lack of these resources. Supporting the analysis of this project will help define resilience solutions for the entire City, which can also help deliver on enhancing energy equity.

Bowie State University

Prince George's

\$100,000

Bowie State University ("BSU") is a nationally-accredited four-year Master's (Comprehensive) University that offers Master's degrees and Ph.D. degrees located in Prince George's County, in the City of Bowie. It is also a Historically Black College / University ("HBCU"). BSU had a 2019 enrollment of 6,171 students, comprised of 5,227 undergraduate students and 834 graduate students. It is the oldest Historically Black Institution ("HBI") of the four (4) HBIs located in Maryland, established in 1865. The student body is predominantly African American. BSU is committed to its mission of "providing access to higher education for underrepresented populations, with a commitment to reach a diverse student population." It will use its \$100,000 Resilient Maryland funding to conduct a feasibility analysis and complete preconstruction planning deliverables for a campus microgrid to bolster the resilience of critical university loads throughout various buildings



and enhance its sustainability, part of its 2020 – 2030 Facilities Master Plan and updated Climate Action Plan. Technologies under consideration include solar PV, wind turbines, battery energy storage, electric vehicle charging, CHP, anaerobic digestion, a heat recovery steam generator ("HRSG"), and absorption chilling. BSU also seeks to integrate the microgrid analysis into its academic offerings, providing students with the opportunity to receive hands-on training for careers in the clean energy economy.

Groundswell, Inc. Montgomery \$159,065

Groundswell, Inc. ("Groundswell") is a 501(c)(3) nonprofit, "whose mission is building community power." It develops clean energy programs that help reduce energy burden, provides comprehensive enrollment and support programs for energy customers, and is a leader on pioneering research and demonstration projects. Groundswell will use its \$159,065 Resilient Maryland award to complete a comprehensive project with Montgomery County to conduct a countywide analysis on potential sites to serve as resiliency hubs, with special focus on communities with Marylanders experiencing low-tomoderate income, communities located in Equity Emphasis Areas (defined by the Metropolitan Washington Council of Governments), and communities located in areas disproportionately vulnerable to climate change. Up to twenty (20) Resiliency Hubs across the County will be studied, and feasibility analyses and preconstruction planning deliverables will be produced for the most viable locations. This project replicates Groundswell's FY20 Resilient Maryland project in which they conducted these same types of studies for twenty-six (26) prospective Resiliency Hubs in Baltimore City's most vulnerable communities. This analysis is crucial for emergency planning and will demonstrate that the networked Resiliency Hub model is both replicable and scalable.