

Decarbonization Work with the State of Maryland



AECOM's detailed and actionable energy advisory work will help Maryland reach their goal of reducing greenhouse gas emissions by 60% by 2031 and net-zero by 2045.

Clients

Maryland Department of the Environment, Maryland Energy Administration, and Maryland Environmental Services

Location

Statewide, Maryland, USA

Contract Value

USD 469K

Years

2023-present

More Information: AskEnvironment@aecom.com

Project Overview

AECOM supported the State of Maryland's decarbonization work through multiple projects, including conducting analysis for the Building Energy Transition Implementation Task Force, developing the report for the Task Force to Study Solar Incentives, conducting research on expansion of geothermal and solar energy sources, and assessing barriers and costs to the deployment of electric vehicle charging infrastructure. This work will help support Maryland's goals to increase renewable energy and decrease greenhouse gas emissions across all sectors.

Client Benefits

Maryland has an ambitious goal of reducing its greenhouse gas emissions by 60% by 2031 and attaining a net-zero economy by 2045. AECOM's multitude of work with MDE and MEA will help to reduce the state's emissions by assessing the building stock and providing recommendations to decarbonize, providing guidance on energy policy and obtaining funding, revising the GHG measurement program, and increasing access to electric vehicles and solar and geothermal energy sources. These projects will help to contribute to Maryland's decarbonization goal and create a more resilient and equitable state.

Work Performed

MARYLAND DEPARTMENT OF THE ENVIRONMENT

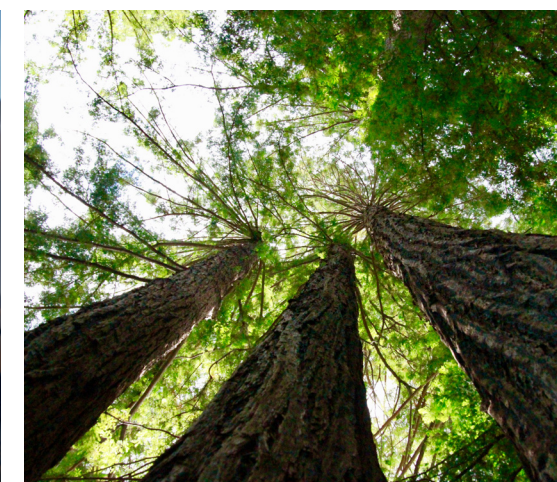
With the Maryland Department of the Environment (MDE), AECOM provided technical advisory and analysis services to the Building Energy Transition Implementation Task Force, which recommended programs, policies, and incentives aimed at decarbonizing and electrifying the buildings sector and provided a report to the Governor and General Assembly. Throughout this project, the AECOM team analyzed the building stock across the state, along with the current fuel types for HVAC and water heater models, to understand the feasibility and cost of decarbonizing and electrifying these structures by 2040-2050. Finally, the team performed a funding gap analysis and provided recommendations to build programs, policies, and incentives to close the funding gap for decarbonizing the building stock.

MARYLAND ENERGY ADMINISTRATION

For the Maryland Energy Administration (MEA), AECOM provided energy policy advisory services to enhance Maryland's energy initiatives and provided assistance in pursuing and complying with federal funding opportunities for energy programs. This work supports MEA's goal of providing a reliable, resilient, and equitable energy grid in Maryland.

Greenhouse Gas (GHG) Emissions

AECOM supported MEA on evaluating and revising their current greenhouse gas (GHG) measurement program to determine whether it fulfilled MEA's upcoming needs and goals, and for consistency with other state agency programs. The GHG emissions avoided are funded through their Strategic Energy Investment Fund programs, which aim to decrease GHG emissions from pre-program levels to work towards the State's goal of reducing GHG emissions by 60% by 2031.



Decarbonization Work with the State of Maryland *(continued)*



Geothermal

AECOM assessed the State's capability to expand the use of geothermal systems and analyzed the associated cost to do so. This included developing a report on the electrical grid impact of ground source heat pump technologies and modeling electricity use data across the year to make a recommendation on the implementation of ground source heat pumps.

Task Force to Study Solar Incentives

For MEA's solar task force, AECOM provided data compilation, analysis, and synthesis of findings of impacts or potential impacts of incentives for the development of solar PV generation assets. AECOM developed a detailed report on the findings and recommendations for solar PV deployment in the state, which included peer state comparisons including tax, incentives, land use, and permitting policies, as well as strategies to increase low-to-moderate income (LMI) customer access to solar and increase MBE participation in the workforce.

Multifamily EV

AECOM assessed the barriers and costs of deploying EV charging infrastructure at multi-family housing units, particularly in disadvantaged communities. AECOM developed a detailed report on the findings and recommendations for requiring new and existing multifamily residential buildings to include EVSE-installed or EV-ready parking spaces. These findings included equity mapping of charging infrastructure throughout the state, cost estimates to install charging infrastructure, a forecasted EV demand model, and payment option best practices.

Grant Application Writing Support

AECOM provided federal grant application writing support to MEA for the Bipartisan Infrastructure Law Section 40401(d) – Formula Grants to States and Indian Tribes for Preventing Outages and Enhancing the Resilience of the Electric Grid (Grid Resilience Grants) and the Energy Efficiency and Conservation Block Grant Program (EECBG). For both grant applications, AECOM developed detailed grant application checklists inclusive of all grant application materials, originators, reviewers, due dates, and other resources to manage grant application development and document compilation schedules. For the Grid Resilience Grants application, AECOM developed the program narrative, budget justification, and public meeting presentation materials. As a result, MEA was awarded \$8.7 million in grid resilience funding from the U.S. Department of Energy in 2023. For EECBG, AECOM developed the Energy Efficiency Conservation Strategy, as well as provided a comprehensive peer review of regional peer states which included best practices for EECBG programming, project examples, and impacts of past programming. MEA was awarded \$2,101,450 for the ten largest counties and ten largest cities and towns in the state for energy planning and strategy development, decarbonization strategy development, and expansion or revisions of existing energy plans and strategies as well as to fund community energy liaison to assist local governments in the development of energy efficiency and decarbonization strategies.

