

MARYLAND STATE POLICE

Agency Climate Implementation Plan

Maryland Department of State Police

November 1, 2024





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Maryland Department of State Police Climate Implementation Plan required by Executive Order, “Leadership by State Government: Implementing Maryland's Climate Pollution Reduction Plan”

Part 1: Agency Actions Under the Climate Pollution Reduction Plan

Although MDSP was not named as one of the nine lead agencies in the Climate Pollution Reduction Plan, we are actively working to address climate change and ensure a just transition to a clean environment. MDSP continues to work closely with our state partners to work towards a zero-emission standard for heating equipment to reduce carbon pollution and improve air quality inside our buildings and the communities.

The Department's strategic goals and Facilities Master Plan are centered around providing modern public safety service for all Marylanders. We are bound by our oath to provide equitable service to all members of the community. In concert with the Moore/Miller administration, we will leave no one behind.

The MDSP created (2017) and renewed (2022) a Facilities Master Plan (FMP) which identified the needs and priorities of capital building projects projected over a rolling 10 year period. Facilities are a critical necessity in the support of the mission of the MDSP. They serve to provide functional space to sworn and civilian employees who are dedicated to the administration of law enforcement throughout the State of Maryland. Our facilities serve as the rally point for life saving emergency services for the citizens that live, work and travel through Maryland.

There are approximately 107 individual building structures that are either owned, leased,

or otherwise occupied by MDSP personnel statewide. These structures contain a wide range of offices, classrooms, training rooms, information technologies, radio dispatching, garages, holding cells, utilities, communication towers, property and evidence, warehousing, laboratories, aircraft hangers, and tactical equipment among many other functions. Maryland's Building Energy Performance Standards requires all buildings larger than 35,000 square feet to achieve zero net direct greenhouse gas emissions by 2040. Although no single building structure meets these thresholds, we are diligently working to make all our facilities as efficient as possible.

In many barrack assessments over the years, the need for replacement has been directly correlated to the age of the building. New contractual obligations for the design and construction of new and future facilities are impacted by environmental mandates from the Department of General Services (DGS) and the Maryland Department of the Environment (MDE).

MDSP, in partnership with DGS and MDE, continue to ensure our new buildings are designed to the most efficient and environmentally friendly standards. A key factor is to reduce or eliminate the use of fossil fuels and conforming to the most energy efficient standards. We construct each new facility to meet the International Green Construction Code (IGCC) or the Leadership in Energy and Environmental Design (LEED) certification at the Silver Level. Additionally, we have implemented the use of a Phase II Permit for stormwater discharge. This program aims to improve water quality by reducing the amount of pollutants that enter local waterways from stormwater runoff. Both of these same principles apply as it relates to our building repairs, maintenance and upgrades. Each year MDSP submits "project justifications" to DGS for those major repairs which fall under their purview. In light of Maryland's Climate Pollution Reduction Plan, MDSP will be evaluating all previously submitted DGS projects to ensure we are reducing greenhouse gas emissions.

MDSP recognizes and supports the need for zero-emission vehicles. As such we have been installing the necessary infrastructure to accommodate electric fleet vehicles at all our newly constructed barracks. This infrastructure consists of charging stations, in the secure parking areas of the barracks, for use by MDSP personnel and other state agencies. We are also installing the underground pathways for future expansion of additional charging stations in the public area of these locations. MDSP will also coordinate with DGS to begin the implementation of adding EV charging stations at some of our existing facilities. Although there are many challenges in electrifying the patrol fleet, we do feel there could be opportunities with our ancillary vehicles. There are several challenges related to achieving a zero emission patrol fleet. One specific challenge is battery life. All

MDSP patrol vehicles have emergency equipment (lights/siren), computers, cameras and radar which will significantly impact the battery life. They may also be called up to operate for long periods at idle as well as excessive periods of high speed and braking. Additionally, troopers on patrol work 8 to 10 hour shifts and may reside hours away from their duty assignment. Another challenge would be charging infrastructure at agency personnel's residences. Troopers take their assigned vehicle home and would need the ability to charge. These locations may consist of a single family dwelling, townhouse, apartment or condominium; some of which may not have the ability to handle the increased electric load or have room for a dedicated charging space.

Listed below are projects and their associated standards;

- Barrack C - Cumberland barrack is IGCC certified, completed in 2021.
- Barrack V - Berlin and Eastern Regional Forensic Laboratory is IGCC certified. This project began construction in January 2023 and is expected to be completed during the first quarter 2025.
- Tactical Services Building, in Howard County, is LEED certified. This project began construction in April 2024 and is expected to be completed during the third quarter of 2025.
- Barrack L- Forestville currently in the design phase. This will be one of the most advanced and efficient barracks in the State. This building will encompass all electric heating and HVAC as well as a green roof.
- Barrack Q- College Park will begin the design phase in FY26. The Department is committed to the reduction of Greenhouse Gas (GHG) emissions and will ensure this design factors in the most stringent of standards.

Building Automation Systems (BAS) are utilized at most of our facilities and are part of all current and future building projects. BAS systems monitor and control building systems, such as HVAC, lighting, security access and cameras, from a single interface. BAS systems improves building comfort and safety, reduces costs, and streamlines operations.

BAS automated notifications have allowed the Department to optimize efficiency when an outage or problem is detected. Generally, managers and technicians are able to diagnose and correct issues without having to travel to the site, thus helping to minimize vehicle miles traveled. This is particularly important due to the magnitude of approximately 107 buildings throughout the 12,407 square miles of Maryland. The added benefits of a BAS system reduces down time, provides real-time data and analytics to help building managers make informed decisions about maintenance and operation.

MDSP has implemented the use of variable air volume (VAV) systems in all newly

constructed facilities. VAV's is a type of heating, ventilation, and air-conditioning (HVAC) system that adjusts the amount and temperature of air to heat and cool buildings. VAV systems are more energy efficient than constant air volume (CAV) systems, which supply a constant airflow at varying temperatures.

During 2024, DGS approached MDSP about incentives from utility providers for LED lighting upgrades. These incentives allowed for the installation of all new interior and exterior lighting fixtures at twenty-two of our facilities. The electrical providers funded 78% of the overall project costs of \$844,000.

The MDSP will continue to work, both internally and externally with our partners, to identify appropriate funding sources to expand our climate reduction efforts.

Part 2: Recommending Actions to Address Climate Change

MDSP, will ensure our new buildings are designed to the most efficient and environmentally friendly standards, by the reduction in the use of fossil fuels. Conforming to meet the International Green Construction Code (IGCC) or the Leadership in Energy and Environmental Design (LEED) certifications, will further assist with the fight towards a cleaner environment. Currently, all MDSP facilities utilize fossil fuels such as diesel, propane or natural gas to power our emergency generators. As MDSP transforms our methodology to accomplish a green environment, we will evaluate and look for opportunities relating to back-up power. MDSP will review the Inflation Reduction Act to see if there are alternative solutions which would be feasible for our operations.

We will work closely with our DGS partners to review all previously submitted major repair projects (PJ's) to ensure we move towards an all-electric infrastructure.

MDSP will be installing the necessary infrastructure to accommodate electric fleet vehicles at all our newly constructed barracks. This infrastructure consists of charging stations, in the secure parking areas of the barracks as well as the underground pathways for future expansion of additional charging stations in the public area of these locations. MDSP will also coordinate with DGS to begin the implementation of adding EV charging stations at some of our existing facilities. Additionally, we will obtain training for our Automotive Services Specialists in zero-emission and hybrid vehicle maintenance.

MDSP has identified several deficiencies across the state relating to building controls.

These issues range from inoperable systems or those well past their life expectancy. We will evaluate and make the necessary repairs to the existing BAS systems and coordinate with DGS if those situations rise to their purview. MDSP will utilize VAV systems in all newly constructed facilities, which will assist to maximize the efficiency of these buildings.

MDSP will continue working with DGS and utility providers to identify additional funding and/or incentives related to energy conservation.

Part 3: Considering Greenhouse Gas Emissions Reductions and Impacts on Disproportionately Affected Communities

MDSP believes our new construction practices will minimize the impacts on those disproportionately affected communities especially in those areas with a “Climate Vulnerability Score” in the high to moderate levels. The Forestville and College Park barracks replacement projects, located in Prince George’s County, will bring state of the art technology with nearly an all electric infrastructure. The Forestville barrack is currently in the design phase and will incorporate a green roof. Green roofs significantly reduce stormwater runoff, filter pollutants from rainwater, provide shade, absorb heat, improve air quality and provide habitat for wildlife.

Part 4: Resources for Implementation

Implementing Maryland's Climate Pollution Reduction Plan

MDSP, in partnership with DGS will continue to improve upon each project to accomplish the goals and objectives in the reduction of GHG emissions.

As MDSP works through our master plan of building projects, we will work with the Department of Budget and Management (DBM) to acquire additional funding in order to support the goals and objectives of the Moore/Miller administration. For example, one way MDSP plans to maximize federal funding is through coordination with DBM to identify all projects eligible for Elective Pay tax credits, like electric vehicle supply equipment and electric vehicles.

Implementing this Climate Implementation Plan

MDSP will continue to request capital budget funding, consistent with the Climate Solutions Now Act goals, to achieve its Facilities Master Plan. We also continue to use operational budget funding, where feasible, to upgrade and replace existing fossil fuel systems. The MDSP does believe that both funding sources will need to be increased to achieve significant growth.

Part 5: Outcomes from Implementation

Building BAS systems will continue to assist the Department with fiscal savings. Utilizing HVAC building set points at a maximum +/- 3 degrees restricts employees to drastically adjust thermostat temperature on their own. It is also evident that the use of BAS systems impacts other agency and environmental concerns. In those cases where MDSP has a building which operates a BAS system, it is evident that it has impacted the Department in a positive manner. Having a technician diagnose and/or reset a system remotely saves time and eliminates the need to travel to the site, in turn reducing fuel consumption.

MDSP is confident that with the use of VAV's, our buildings will be much more efficient. VAV's installed in individual rooms and office space allows for individual temperature controls versus a conventional forced air system. As the temperature in the space approaches its set point, the dampers are able to automatically reduce airflow to closely match the actual load in the space. The result is precise temperature control and energy efficiency, because airflows are never higher than is actually required to keep the space comfortable. The equipment supplying the cooling and heating is also modulated to deliver only what is necessary to meet the building demands at that moment, saving energy by not over delivering capacity.

As of October 15, 2024, all but three locations have received new LED lighting. The remaining facilities are on schedule to be completed by the end of 2024. The improved efficiency of the LED technology will create a significant reduction in electricity being used at our facilities. This new technology will result in an estimated annual savings of \$136,000 and the reduction of 1,163,042 kilowatt hours of electricity used.