Department of General Services,
Office of Energy and Sustainability

Green Government Annual Report

FY 24

Montgomery County DEPARTMENT OF GENERAL SERVICES

DGS

Delivering Great Service!

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MESSAGE FROM MONTGOMERY COUNTY EXECUTIVE MARC ELRICH

I am proud to present the FY24 Green Government Report for Montgomery County. Over the past fiscal year, our County government has continued its unwavering commitment to reducing greenhouse gas (GHG) emissions, advancing energy efficiency, and implementing innovative sustainability projects. Montgomery County remains a national leader in environmental stewardship, and our progress reflects the dedication of our departments, staff and community to building a greener future.

Montgomery County has made significant strides in addressing the climate emergency, guided by our Climate Action Plan and supported by groundbreaking policies such as the Building Energy Performance Standard (BEPS) and Comprehensive Building Decarbonization legislation. These initiatives have enabled us to achieve the following milestones in FY24

- **GHG Emission Reductions:** County-owned facilities have reduced GHG emissions by 20% since FY17, even as the portfolio has grown by 8%. Overall, County operations, including facilities, fleet, streetlights, and traffic signals, have achieved a 12% reduction in GHG emissions since FY17.

- **Energy Efficiency Projects:** Completed 16 lighting and lighting controls (L&LC) projects and six monitoring-based commissioning (MBCx) projects, reducing electricity consumption by 7%-10% in targeted facilities.

- **Advanced Energy Projects:** Advanced the construction of microgrids at the 6th District Police Station, Public Safety Communications Center, and the Equipment Maintenance and Transit Operation Center (EMTOC). These projects integrate solar PV, battery storage, and EV charging infrastructure to enhance resiliency and reduce emissions.

- **Fleet Electrification:** Purchased 74 battery electric buses (BEBs), with the first 12 scheduled to begin service in early 2025. Additionally, secured funding for two hydrogen fuel cell electric buses as part of the EMTOC green hydrogen project.

- **Solar Energy Expansion:** Operated over 16 megawatts (MW) of solar PV across 16 County facilities, producing clean energy equivalent to powering over 800 homes annually. The County has another 6 MW under construction in FY24.

- **Water Conservation:** Reduced water use by 32.6 million gallons, saving $684,000 compared to the FY17 baseline, through plumbing upgrades and submetering programs.

- **Community Engagement:** Participated in the Montgomery County Energy Summit and GreenFest, engaging thousands of residents in sustainability initiatives and climate education.

MESSAGE FROM MONTGOMERY COUNTY EXECUTIVE MARC ELRICH

These achievements reflect our commitment to combating climate change and building a sustainable resilient future for Montgomery County. As we continue to implement innovative solutions, such as microgrids, resiliency hubs, and zero-emission fleet transitions, we are not only reducing our environmental footprint but also improving the quality of life for our residents.

Looking ahead, Montgomery Count will remain focused on achieving our ambitious goals of reducing GHG emissions by 80% by 2027 and 100% by 2035. With over 150 planned energy projects and continued investments in clean energy and electrification, we are well-positioned to lead the way in environmental stewardship.

I invite all residents, businesses, and organizations to join in this critical effort. Together, we can create a healthier, more resilient Montgomery County for generations to come. Thank you for your continued support and partnership in marking our community a model of sustainability.

Equipment Maintenance & Transit Operation Center (EMTOC) Microgrid

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OFFICE OF ENERGY & SUSTAINABILITY BACKGROUND

Scope

The Department of General Services (DGS) **Office of Energy and Sustainability** (OES) was established 2014 to develop plans, initiatives and actions to reduce environmental impacts (i.e., greenhouse gas "GHG" emissions) across County operations, and the **County building** and **fleet** portfolios. The OES FY2024 Annual Report summarizes FY2024 plans, initiatives, and actions by OES and the DGS **Division of Fleet Management Services** (DFMS) to reduce **County building** and **fleet** GHG emissions.

OES Response to County Priorities, Policies and Plans

Since September 2014, OES has taken the lead in implementing advanced energy projects and energy-efficiency projects that reduce County building GHG emissions.

Through the years, as Montgomery County priorities and policies change, so do OES plans, initiatives, and actions to reduce **County building** and **fleet** GHG emissions. These actions have positively impacted both the residents of Montgomery County and Government operations.

In December 2017, the Montgomery County Council adopted **Resolution 18-974**, Emergency Climate Mobilization. This resolution called upon the Federal Administration, the Congress, the State, and other local governments to join Montgomery County to use all available powers and resources to reduce GHG emissions by 80 percent by 2027 and 100 percent by 2035. As a result, OES' energy savings strategy accelerated efforts to 1) reduce GHG emissions and 2) implement cost-effective energy-efficiency and advanced projects that qualify for state Maryland Energy Administration (MEA) grants and electric utility incentives.

In December 2018, County Executive Marc Elrich identified "**A Greener County**" as one of seven Montgomery County priorities, "We recognize the urgency of global warming and will take concrete steps to address climate change. County government has committed to zero Greenhouse Gas emissions by 2035, an ambitious – but achievable – target. We will reduce our footprint by pursuing clean energy, energy efficiency, enhanced building design, reduction of waste, and developing a better transit system for our residents." This priority further underscored OES' efforts to develop effective plans, initiatives, and actions to reduce GHG emissions.

OES' plans, initiatives, and actions to reduce GHG emissions support four other County priorities: "A Growing Economy," "Easier Commutes," "Safe Neighborhoods," and an "Effective, Sustainable Government."

In June 2021, Montgomery County completed the strategic "**Climate Action Plan**" (CAP) to cut GHG emissions 80% by 2027 and 100% by 2035. OES and DFMS participated in the climate action planning process and continued to mobilize resources, develop initiatives, and take actions to align with the CAP.

In May 2022, County Executive Marc Elrich signed into law **Bill 16-21**, Building Energy Use Benchmarking and Performance Standards (BEPS), a significant step toward reducing County GHG emissions in the building sector.

In December 2022, the Montgomery County Council voted unanimously to pass **Bill 13-22**, Buildings – Comprehensive Building Decarbonization, which requires the County Executive to issue all-electric building standards for new construction by the end of 2026.

FY2024 OES plans, initiatives, and actions strive to align with Montgomery County **Resolution 18-974**- Emergency Climate Mobilization, **A Greener County** priority, the strategic **Climate Action Plan**, **Bill 16-21**- Building Energy Performance Standard, and the **Bill 13-22**- Buildings-Comprehensive Building Decarbonization.

Specifically, the County building energy savings plan is focused on 1) reducing GHG emissions 2) reducing **energy use intensity** to comply with the Montgomery County BEPS, and 3) reducing GHG emissions through "Decarbonization," eliminating fossil burning assets when feasible (i.e., natural gas boilers, water heaters, etc.) across County "Owned and DGS Managed" buildings greater than 25,000 gross square feet.

Resources - Funding, Staff, and County Contractors

Addressing County priorities and policies through strategic energy planning requires a data driven approach that optimizes resources; resources defined as **Funding**, **Staff,** and **County Contractors**.

FUNDING

OES is adept at creating new Capital Improvement Projects like the Exelon-Pepco Merger Fund CIP 362105 and AltaGas-WGL Merger Fund CIP 362106 and optimizing existing Energy Conservation CIP 507834. OES also leverages Power Purchase Agreements/ Private-Public Partnerships and captures Maryland Energy Administration (MEA) grants and electric utility incentives to offset GHG emission reducing initiatives.

New Capital Improvement Projects (CIP) - Exelon-Pepco Merger Fund CIP 362105 and

AltaGas-WGL Merger Fund CIP 362106 was negotiated during the Exelon-Pepco and AltaGas-WGL merger conversation with the Maryland Public Service Commission, OES was instrumental in assisting Montgomery County receive $13.2M dedicated to reducing electricity and natural gas use (GHG emissions).

Energy Conservation Capital Improvement Projects (CIP) 507834 - The project supports efforts yielding financial returns to the County or substantial progress towards established environmental goals through implementation of "**Energy Efficiency Projects**" and "**Advanced Energy Projects**." The County conducts energy assessments and other analyses to identify resources and cost savings opportunities in "**County buildings**" so as to provide data to prioritize project scheduling. In addition, the County is preparing a comprehensive "**County Building Energy Savings Plan**" with specific programs and actions to reduce the environmental footprint of County operations and reduce costs. This project will provide funds to target return on investment "**Energy Efficiency Projects**"; provide ancillary funds to support the installation of Solar Photovoltaic (PV) systems, installation of resilient facility microgrids and facility resiliency hubs on County facilities; augment other "**Energy Efficiency Projects**" (e.g., funding incremental costs of higher efficiency equipment); support energy and sustainability master planning for County facilities and operations, including facility benchmarking; leverage Federal, State, and local grant funding; and provide funds to leverage Public-Private Partnerships and third-party resources.

Power Purchase Agreements (PPA) and Private-Public Partnerships (P3) - OES has developed and negotiated Power Purchase Agreements via a P3 for "**Advanced Energy Projects**" (i.e., Solar PV, Microgrids, and Resiliency Hubs). PPA's via the P3 funding mechanism has resulted in some very impressive nationally recognized award-winning projects, such as like the Public Safety Headquarters Microgrid, Brookville Maintenance Facility "Smart Bus" Depot Microgrid, and the Montgomery County Animal Services and Adoption Center Microgrid.

MEA Grants and Electric Utility Incentives - OES has captured over **$13.7M** to help offset Advanced Energy Project and Energy-Efficiency Project costs. The grant and electric utility incentive capture initiative has resulted in some very impressive award-winning **Energy-Efficiency Projects**; like the soon to be named Ike Leggett Building Monitoring Based-Commissioning (MBCx) project, the Public Safety Headquarters Lighting & Lighting Controls (L&LC) project, and the Strathmore Concert Hall L&LC project.

STAFF

OES Chief Donald Scheuerman leads a team of two fulltime staff: Capital Project Manager Michael Yambrach and Energy Program Manager Chris "C.W." Weatherly. Together, they represent 56 years of project management experience overseeing hundreds of projects for Montgomery County DGS. These highly capable professionals are supported by two energy utility bill data processing specialists, Valerie Myers and Cindy Myers, who utilize the County's utility bill management software EnergyCAP to audit over 23,000 utility bills before payment processing. The Myers' "**Utility Bill Audit Process**" has resulted in capturing $4.8M in billing errors and water credits between FY14- FY24.

COUNTY CONTRACTORS

OES is adept at developing 1) Power Purchase Agreements, 2) Power Purchase Agreements (PPA)/ Private-Public Partnerships (P3) and developing and 3) Request for Proposals (RFPs) that lead to County contracts. OES administers and manages these contracts that supports efforts to reduce GHG emissions and operating costs.

Myers DB Management: A Montgomery County-based woman-owned small business is responsible for processing over 23,000 utility bills annually. Myers DB Management audits utility bills before payment processing, checks for billing errors, then interfaces with utility companies to correct billing errors- saving the County over $5M since FY14. Myers DB Management are funded via the NDA Utility operating budget.

EnergyCAP: The County's utility bill management software platform allows Myers DB Management to process and audit over 23,000 utility bills annually, as well as, providing utility data to identify potential energy-efficiency projects. Identified energy-efficiency projects when implemented often qualify for MEA grants and utility incentives AND reduce County building GHG emissions. EnergyCAP utility data is also used to track actual project savings against estimated project savings. EnergyCAP is funded via the NDA Utility operating budget.

RIFE International and Cenergetix: these two Montgomery County-based Minority, Female, Disabled (MFD) County lighting contractors have implemented 77 Lighting & Lighting Control (L&LC) projects (FY20- FY24) across County buildings totaling $6.34M project costs. The County offsets $0.25 project costs from MEA grants and electric incentives for every $1 spent on these projects. L&LC projects typically reduce County building electricity demand by 7%- 10% depending on hours of operation and wattage of replaced lighting fixtures.

Siemens: Siemens is the preferred Building Automation Systems (BAS) provider for Montgomery County. OES was instrumental in adding Monitoring Based Commissioning (MBCx) to the existing Siemens contract. MBCx uses BAS data to identify no-cost and low-cost energy-efficiency measures that when implemented remotely by the DGS **Automated Energy Management** team reduces County buildings GHG emissions and electricity consumption. MBCx measures are continually tracked to ensure savings persist over time without compromising occupant comfort. MBCx projects are for County buildings typically larger than 25,000 gross square feet and reduce County building electricity consumption by 7%- 10% depending on hours of operation and occupants comfort threshold. 100% of the $1M cost to implement MBCx were covered by MEA grants and electric utility incentives.

Tesla: OES' first foray into Advanced Energy Projects consisted of implementing Solar PV across every possible County building rooftop. The Solar PV rooftop projects were funded at no cost to the County via PPAs. Under the OES negotiated PPA, the County purchases a pre-determined amount of on-site Solar PV generated clean electricity at a highly favorable fixed rate (compared to the utility commodity rate) over the term of the contract.

Schneider Electric: The first two OES design, construction, operation, and maintenance Microgrids were implemented at Public Safety Headquarters (PSHQ) and the Montgomery County Correctional Facility (MCCF)- details can be found **here**. These nationally recognized award-wining Microgrid projects were funded at no cost the County via a **Power Purchase Agreements (PPA)/Private-Public Partnership (P3)** and were prioritized due to 1) the County's history with extended large-scale power grid outages due to major storms and 2) the County's GHG emission goal- 80% by 2027 and 100% by 2035.

AlphaStruxure: The nationally recognized award-wining **Brookville Maintenance Facility "Smart Bus" Depot** in Silver Spring is the most complex Microgrid project to date integrating 6.5 MW microgrid with on-site generation, electric bus charging, Solar PV canopies, and battery energy storage. The Microgrid was funded at no-cost to the County via a P3 between the County and AlphaStruxure. AlphaStruxure designs, builds, owns, operates, and maintains the Microgrid under a long-term Energy-as-a-Service (EaaS) contract with the County. AlphaStruxure is currently designing a Microgrid at the David F, Bone Equipment Maintenance & Transit Operation Center (EMTOC) in Gaithersburg.

GreenStruxure: The **Montgomery County Animal Services and Adoption Center (MCASAC) Microgrid** was funded at no-cost to the County via a P3 between the County and GreenStruxure. GreenStruxure designs, builds, owns, operates, and maintains the microgrid under a long-term EaaS contract with the County. The MCASAC Microgrid received notoriety November 2022 when a small plane crashed into high electrical power lines and shut down the entire region for many hours.

The MCASAC Microgrid immediately kicked in and continued operations without anyone noticing. GreenStruxure is currently designing Microgrids at the "Net Zero" 6th District Police Station, Public Safety Communications Center, and the much anticipated NetZero Holiday Park Senior Center.

Weigand Associates Inc. (WAI): WAI is a premier "Mechanical, Engineering, Plumbing" engineering firm under contract to DGS. WAI is a Montgomery County Minority, Female, Disabled (MFD) engineering firm experienced in benchmarking, Building Energy Performance Standards, and conducting "ASHRAE-Level-2 Energy Survey and Analysis." OES has tackled much of the low-hanging fruit; WAI ASHRAE Level-2 is County building specific and necessary to ensure resource optimization. ASHRAE Level-2 will identify for each County building over 25,000 gross square feet 1) advanced energy projects and energy-efficiency projects, 2) impact on BEPS and GHG emissions, and 3) project costs. ASHRAE-Level-2 Energy Survey and Analysis is defined in greater detail under "**DEFINITIONS**." Collaborative OES and WAI efforts will significantly impact future OES County Building Energy Savings Plans and be funded primarily through the Energy Conservation CIP 507834.

FY2024 STRATEGIC ENERGY PLAN
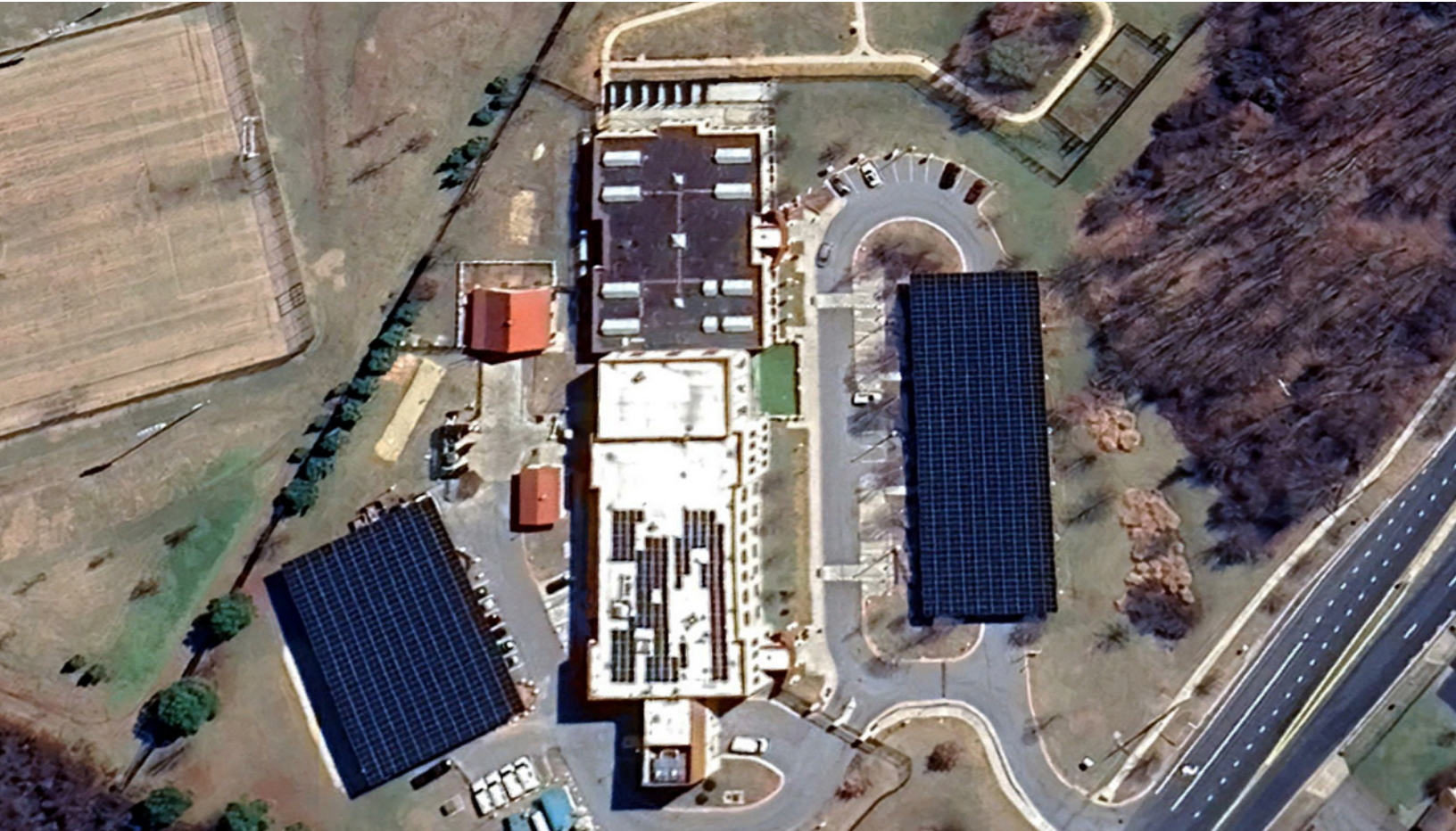
Montgomery County Animal Services and Adoption Center (MCASAC) Microgrid

Strategically applying resources saves time, money, and improves staff efficiency. The FY2024 strategic energy plan includes three components: the County Building Energy Plan, Advanced Energy Plan, and Fleet Energy Plan. Each aligns with the County's "**Climate Action Plan**."

FY2024 County Building Energy Plan

Previously, each County building "**energy unit savings plan**", and "**energy cost savings plan**" 1) aligned with changing County priorities, policies, and plans and 2) has been based on available resources (funding, staff, and available County contractors).

Actions taken in the FY2024 County Building Energy Plan resulted in the implementation and completion of projects identified in the "**FY2024 County Building Annual Report**."

FY2024 County Advanced Energy Plan

The OES County Advanced Energy Plan began in 2015 resulting in Tesla Solar PV projects - see **map here**. The 2016 County Advanced Energy Plan focused on more complex Advanced Energy Projects like the Public Safety Headquarters and Montgomery County Correctional Facility Microgrids - see **link here**. OES has since accelerated efforts completing more complex projects like the nationally recognized award-winning project Brookville Maintenance "Smart Bus" Depot Microgrid.

The FY2024 County Advanced Energy Plan includes the design of the "zero-net metering" Holiday Park Senior Center Microgrid, and the 6th District Police Station and Public Safety Communications Center Microgrids. Additionally, the multi-phased Microgrid at EMTOC. The EMTOC Microgrid project will be the largest transit depot Microgrid project in the United States.

Each Advanced Energy Plan and Advanced Energy Project has presented 1) lessons learned 2) what is technically feasible and 3) insights used to develop the recently released Microgrid/ Resiliency Hubs Request for Energy Proposal - see **link here**.

Actions taken in the FY2024 County Advanced Energy Plan resulted in the implementation and completion of projects and efforts identified in the "**FY2024 Advanced Energy Annual Report.**"

FY2024 County Fleet Energy Plan

The County Fleet Energy Plan is managed by the **Division of Fleet Management Services**; the Fleet energy plan strives to 1) align with Montgomery County priorities, policies, Climate Action Plan, and reports 2) identify resources (funding, staff, and County contractors) and 3) identify low-GHG emitting transportation options that reduce **County fleet** GHG emissions.

DFMS has taken actions to reduce Fleet energy consumption and meet the CAP GHG goals. DFMS has committed to purchasing zero-emission vehicles where they exist in the marketplace. As a result, DFMS has developed a strategy to address each vehicle classification in the County fleet.

TRANSIT

To address the zero-emission goals in the transit bus fleet, DFMS has worked in conjunction with Montgomery County Department of Transportation (MCDOT) to develop a "**Zero-Emission Bus Transition Plan**" that projects the transition of the bus fleet to 100% zero emissions ahead of the deadline listed in the CAP, provided funding commitment. FY2024 DFMS purchased 74 battery electric

buses (BEBs), the first 12 are scheduled to start revenue service in the 1st Quarter of 2025. The remaining buses will begin manufacturing in the 1st Quarter of 2025. The buses will replace model years 2009 - 2013 diesel and diesel hybrid buses. Additionally, 13 of the BEBs will be used for the new Great Seneca service that started in FY2024.

LIGHT-DUTY

In addressing the zero-emission goals in the light-duty administrative fleet DFMS has required that an EV be pursued as he primary option for any replacement or additional vehicle added to the County fleet. In order to mitigate the increased capital costs associated with the acquisition of EVs, DFMS initiated purchasing used EVs to take advantage of the rapid increase in depreciation costs associated with EVs. DFMS leveraged existing contracts to target low-mileage EVs as they were returned from lease allowing the County to purchase EVs for approximately 35% less than the price of a new vehicle while extending the purchasing power of funds previously approved for vehicle replacement. In vehicle classifications where there are currently no zero-emission options, DFMS purchases the option with the best fuel economy.

In 2024 Chevrolet introduced the Blazer as a pursuit-rated option for police service. As a result, DFMS will work in conjunction with Montgomery County Police Department to pilot EVs in police service. The pilot will explore EV vehicle performance in police service, as well as help identify future needs to aid in scaling the project to meet the County's environmental goals.

HEAVY EQUIPMENT

In FY2024 DFMS received its first two medium/heavy-duty electric vehicles (MHDEVs). To address the cost differential between MHDEVs and their internal combustion engine (ICE) counterparts, DFMS has aggressively pursued State and Federal grants. In FY2024 DGS was awarded a $1.5 million Federal grant to purchase 9 Medium/Heavy-duty electric trucks to deploy in the County fleet. Additionally, the grant includes an electric front-end loader. The front-end loader will be the 1st electric construction vehicle purchased by the County.

ELECTRIC VEHICLE CREDITS

As a part of the Infrastructure Recovery Act (IRA) local municipalities are eligible for credits for the purchase of zero-emission vehicles through the Internal Revenue Service (IRS). In 2024 DFMS applied for $524,684 in reimbursements from the IRS for zero-emissions vehicles purchased by the County.

The annual reports for FY2024 are broken out into three discrete annual reports:

A. FY2024 County Building Annual Report

B. FY2024 Advanced Energy Annual Report

C. FY2024 County Fleet Annual Report

These annual reports summarize DGS initiatives completed FY2024 that reduce County building and fleet GHG emission and environmental impacts.

FY2024 County Building Annual Report

This annual report summarizes **Energy-Efficiency Projects** completed FY2024 that reduce County GHG emission impacts.

LED Lighting and Lighting Controls Upgrades (L&LC): OES completed 16 total L&LC projects FY2024, 11 of which were at "BEPS" County owned and managed buildings (see table on next page).

L&LC projects are best suited for buildings with lighting and lighting controls older than 15 years. L&LC projects typically reduce building electricity consumption by 7%- 10% depending on hours of operation and wattage of replaced lighting fixtures.

County Building	BEPS Facility?
CIRCUIT COURT SOUTH TOWER	YES
DAMASCUS LIBRARY/SENIOR CENTER	YES
DFRS WAREHOUSE	YES
EAST COUNTY CRC	YES
LONE OAK CENTER	YES
M C CORRECTIONAL FACILITY	YES
MARILYN J PRAISNER CRC	YES
MID-COUNTY CRC	YES
PUBLIC SAFETY TRAINING ACADEMY	YES
STRATHMORE CONCERT HALL	YES
WHEATON RESCUE SQUAD R2	YES

Monitoring Based Commissioning (MBCx): OES completed FY2024 six MBCx projects- all "BEPS" County owned and managed buildings. MBCx projects are best suited for buildings larger than 25,000 gross square feet; MBCx typically reduces building electricity consumption by 7%- 10% depending on hours of operation and occupants comfort threshold.

County Building	BEPS Facility?
AFI/ BLACKBOX	YES
ANIMAL SHELTER	YES
GREY COURTHOUSE	YES
NORTH POTOMAC CRC	YES
PUBLIC SAFETY TRAINING ACADEMY	YES
VETERANS PLAZA CIVIC CENTER	YES

Building Automation System (BAS) Upgrades: DGS **Automated Energy Management** team and OES completed FY2024 three MBCx projects- all "BEPS" County owned and managed buildings. BAS upgrade projects are best suited for buildings larger than 25,000 gross square feet with fluctuating operating hours and large amounts of foot traffic; BAS upgrades typically reduce building electricity consumption by 7%- 10% and buildings natural gas consumption by 5%- 7% depending on hours of operation, age and efficiency of HVAC systems, and building envelop condition/ age.

County Building	BEPS Facility?
BRIG. GEN. CHARLES MCGEE LIBRARY	YES
HUNGERFORD OFFICE BUILDING	YES
UPCOUNTY REG. SERVICES CENTER	YES

FY2024 Advanced Energy Annual Report

This annual report summarizes **Advanced Energy Projects** completed FY2024 that reduce County buildings and sometimes County fleet GHG emission impacts.

Advanced Energy Projects are complex and may require over two years or more to design, build, and commission to complete. These projects face many obstacles that OES navigates; like special permitting, supply chain issues, and attaining electric utility "interconnect" agreement. Although these complications add months toward project completion, OES project management and contractors are experienced and adept at minimizing these challenges.

FY2024 Advanced Energy Project Status

- Completed 6 MW Solar PV at Oaks Landfill (4 MW "Community" Solar PV and 2 MW "County" Solar PV)

- In construction 6th District Police Station Microgrid

- In construction Public Safety Communication Center Microgrid

- In construction Phase 1 EMTOC Microgrid

- In design "zero-net metering" Holiday Park Senior Center Microgrid

- Conducted feasibility study for up to 60 MW of Solar/Hydrogen production at the Oaks Landfill

FY2024 County Fleet Annual Report

As a result of the CAP, DFMS has refocused its efforts to focus on zero-emission vehicles to meet the GHG emission goals expressed in the CAP to reduce GHG by 80% by 2027; 100% by 2035. Changes in federal requirements for diesel fuel has led to the blending of 5% biodiesel in regular on-road diesel leading to a higher level of biodiesel consumption without the additional cost typically associated with biodiesel leaving more operational funding to focus on zero-emission efforts.

OES is mandated to provide annually 1.) use of Biodiesel Fuels in County Vehicles, 2.) Results of the Sport Utility Vehicle Inventory, and 3.) Average fuel economy for passenger vehicles and light trucks in the County fleet FY2024.

FY2024 Use of Biodiesel Fuels in County Vehicles

Fuel Type	Gallons	Price/Gallon	Average Gallons per Vehicle
B5 DIESEL	2,894,287	$3.14	5,555

FY2024 Results of the Sport Utility Vehicle Inventory

Administrative	Count
CCT CIRCUIT COURT	1
DEP	17
DGS	18
DOT	35
HOUSING & COMMUNITY AFFAIRS	1
ABS	2
PERMITTING SERVICES	14
REC	1
RSC BETHESDA URBAN DISTRICT	1
RSC SILVER SPRING DISTRICT	1
TEBS-RADIO COMMUNICATION SERVICES	4
HHS PUBLIC HEALTH SERVICES	1
ADMIN TOTAL	**96**

FY2024 Average Fuel Economy for Passenger Vehicles and Light Trucks in the County Fleet

Administrative Fleet Average	Average MPG
SUVs	19
PICKUP TRUCKS	21
SEDANS	49
VANS	20
FLEET AVERAGE	**32**

FY2024 AWARDS, OUTREACH, AND REQUEST FOR PROPOSALS

OES and DFMS efforts to reduce **County building** and **County fleet** GHG emissions have been recognized through national awards, outreach opportunities, and lessons learned that lead to request for proposals and ultimately better contracts.

FY2024 National Awards

Montgomery County DOT Director Christopher Conklin accepts the award from Brandi Bird, American Public Transportation Association (APTA) Awards Committee member and strategic policy advisor. Calvin Jones, Chief of Fleet Management Services (far left). Michael Yambrach, Capital Project Manager, Office of Energy & Sustainability (next to Calvin).

Montgomery County Brookville "Smart Bus Depot" Microgrid project earned a 2024 "Pioneer Award for Mobility" award from the Solar Impulse Foundation.

Montgomery County received a 2024 Microgrid Knowledge (MGK) "Greater Good Award" for the installation of a microgrid/resiliency hub at the Bette Carol-Thompson Scotland Neighborhood Recreation Center in the historically Black community of Scotland. The award was presented to the County during the 2024 Microgrid Knowledge Conference in Baltimore- details **here**.

FY2024 Outreach

- OES Chief Don Scheuerman- "Microgrid" guest speaker 2024 Energy Summit

- OES Energy Program Manager Chris Weatherly- "Energy Audit" guest speaker 2024 Energy Summit

- OES Capital Energy Projects Manager, Michael Yambrach- 2024 APTA Awards

- OES Capital Energy Projects Manager, Michael Yambrach- 2024 World Energy Summit, San Francisco, CA

- DFMS Chief Calvin Jones- 2024 APTA Awards

- DFMS Chief Calvin Jones- 2024 Transit Association of Maryland Annual Conference

- DFMS Chief Calvin Jones- National Capital Region Bus Leaders Committee Annual Meeting

FY2024 Request for Proposals

- Utility Data Analyst Contract RFP- Awarded Contract

- Microgrid/Resiliency Hubs RFEP

- Utility Bill Management Software RFP

- Lighting Services RFP

- ENEGYSTAR Benchmarking and Energy Audits Task Order

FY2025 DGS INITIATIVES

Solar-powered EV charging station

- Issue ENEGYSTAR Benchmarking and Energy Audits Task Order

- Complete Lighting and Lighting Controls (L&LC) projects

- Complete Monitoring Based Commissioning (MBCx) projects

- Complete Building Automation System (BAS) projects

- Complete Holiday Park Senior Center Resiliency Hub/Microgrid

- Completed 6th District Police Station Microgrid

- Completed Public Safety Communication Center Microgrid

- Constriction "Phase 1" EMTOC Microgrid

- Order and receive 60 battery electric buses (BEBs)

- Order and receive two Fuel Cell Electric Buses (FCEBs)- the FCEBs were grant funded in

2022 and are a part of the EMTOC Microgrid green hydrogen project; ultimately powering 13 FCEBs. The FCEBs will increase the zero-emission bus fleet to 22% of the total Ride On bus fleet.

- Process over 23,000 utility bills

- Utility Bill Audit over 23,000 and capture savings from utility billing errors and water credits

- Capture grants and utility incentives

- Award Lighting Services RFP

- Award Microgrid/Resiliency Hubs RFEP

- Maintain analytical efforts to track and report on key performance measures

- Complete EV Charger Plan to install chargers at all County facilities

- Complete routing and load analysis to convert the Alcohol Beverage Services fleet of box trucks to electric

FY2015- FY2024 Energy Data Analytics

OES has collected energy data since FY2015 for the purpose of understanding what works and what can be replicated producing similar results. A data-driven approach standardizes and scales DGS efforts, making them repeatable and effective in competing for resources and achieving goals.

Continually analyzing energy data supports an environment of continual improvement and successful energy planning. OES utilizes County building energy data analytics to:

- Evaluate completed DGS initiatives that show energy savings. DGS initiatives with verified energy savings are then considered for implementation at other targeted County buildings.

- Compare **energy use intensity (EUI)** against like-for-like building types for County buildings larger than 25,000 gross square feet.

- Implement DGS initiatives at County buildings larger than 25,000 gross square feet with a high EUI compared to peers.

- Compete for resources.

- Better understand the consequences of cutting operation and maintenance costs.

FY2015- FY2024 Completed Projects

The following DGS Divisions, and Offices have completed 15 **Advanced Energy Projects** and 138 **Energy Efficiency Projects** across 53 County buildings between FY2015 and FY2024:

- **Division of Building, Construction, and Design (DBDC)**
  - 12 Building Envelop (B.E.) projects
  - 14 "**Energy Savings Performance Contracting**" (ESPC) projects

- **Division of Facilities Management**
  - 16 Building Automation System (BAS) upgrades
  - 30 HVAC (HVAC) projects. HVAC projects defined as Chillers, Boilers, Air Handling Units, Rooftop Packaged Units, and Water-Source Heat Pumps

- **Office of Energy & Sustainability**
  - 54 lighting and lighting controls (L&LC) upgrades
  - 12 Monitoring Based Commissioning (MBCx) projects
  - 10 Solar Rooftop projects
  - 4 Microgrids
  - One Resiliency Hub project.

FY2015- FY2024 Completed Energy Efficiency Projects by Fiscal Year

Fiscal Year	BAS	B.E.	EPC	HVAC	L&LC	MBCx	TOTAL
FY15	0	0	1	0	0	0	1
FY16	0	2	0	6	0	0	8
FY17	0	1	3	6	6	0	16
FY18	0	0	0	2	2	0	4
FY19	1	3	0	2	2	0	8
FY20	5	1	9	8	13	0	36
FY21	3	1	0	3	5	1	13
FY22	1	1	1	1	3	0	7
FY23	3	1	0	1	11	0	16
FY24	3	2	0	1	13	11	29
TOTAL	**16**	**12**	**14**	**30**	**54**	**12**	**138**

FY2015- FY2024 County Building Electric "GRID" Data

DGS currently owns and manages 66 electric "GRID" consuming County buildings. Electrifying County buildings through "Decarbonization," energy-efficiency, and advanced energy projects will take heightened importance toward achieving County GHG emission goals 80% by 2027 and 100% by 2035.

DGS has made great strides towards reducing electric "GRID" use at County buildings. However, as DGS reduces electric "GRID" use and GHG emissions at County buildings (see **green line** "Old" below), the County building portfolio continues to grow (see **bottom black bar graph** "New" below) to meet County population growth and diverse needs.

County Buildings Electric "GRID" Use MWh

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
All (red)	87,448	90,148	96,762	91,151	87,272	78,843	75,363	76,927	77,744	78,701
Old (green)	87,448	89,114	92,084	84,651	78,440	69,829	66,537	66,784	68,003	68,581
New (black)	0	1,034	4,678	6,500	8,832	9,014	8,826	10,143	9,741	10,120

■ New   —All   —Old
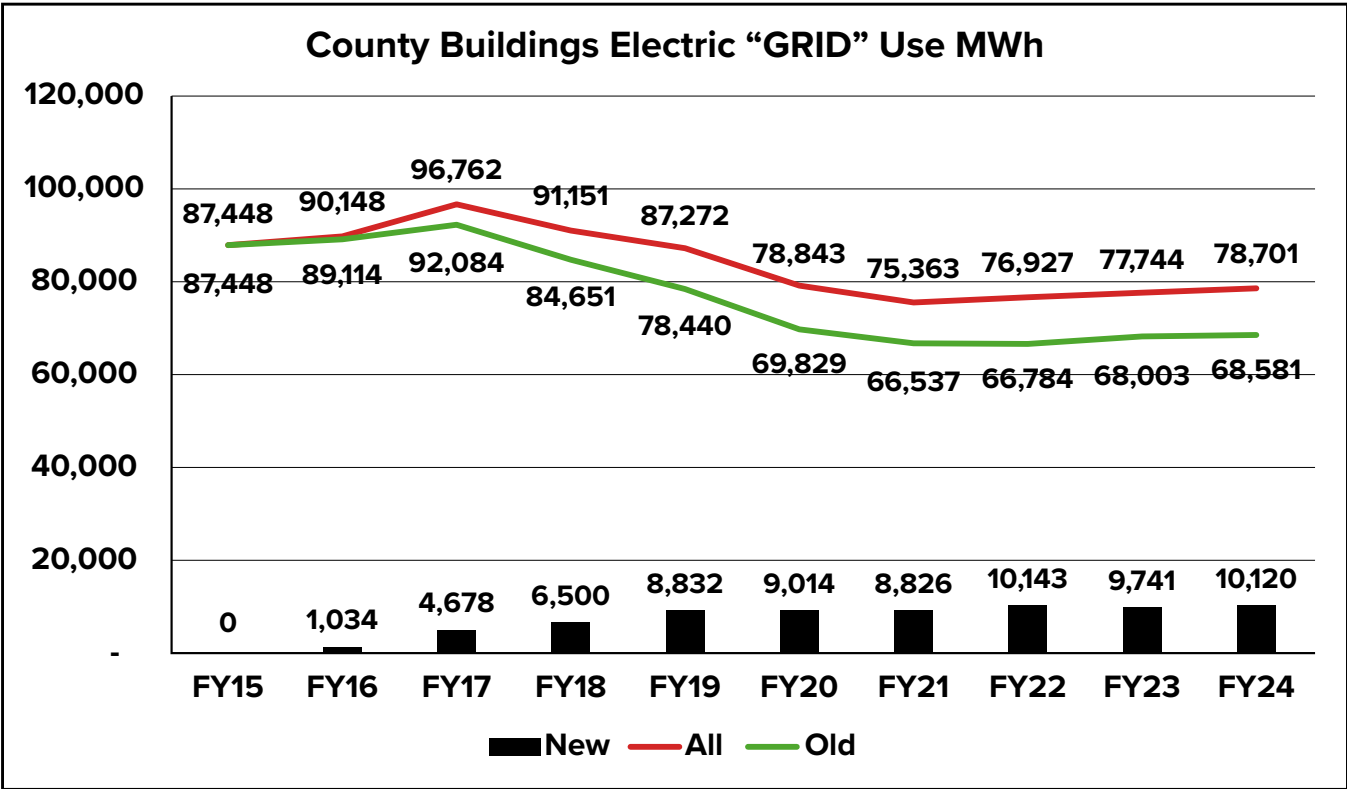
The above graphic represents all electric "GRID" use for County buildings that must comply with the Montgomery County Building Energy Performance Standard (BEPS) mandate.

All: The **top red line** represents electric grid use in MegaWatt hours (1,000 kWh) for ALL County buildings. This is the sum of "**BEPS Old**" and "**BEPS New**."

Old: The **green line** represents electric grid use in MegaWatt hours (1,000 kWh) for County buildings which are older than FY15.

New: The **bottom black bar graph** represents electric grid use in MegaWatt hours (1,000 kWh) for County buildings which are "New" or have been "Added" since FY15.

Montgomery County building portfolio has grown since FY2015, the following 12 County buildings are new, have been added, or have undergone a major renovation:

- Between FY15- FY17
  - DENNIS AVE HEALTH CENTER (New)
  - NORTH POTOMAC CRC (New)
  - PROGRESS PLACE (New)
  - PUBLIC SAFETY TRAINING ACADEMY (New)

- Between FY18- FY19
  - 2nd_DISTRICT_POLICE_STATION (New)
  - BETHESDA CHEVY CHASE RESCUE SQUAD R1 (New)
  - CASA DE MARYLAND WHEATON WORKER CENTER (Added)
  - GLEN ECHO PARK (Added)
  - LIQUOR WAREHOUSE (New)

- Between FY20- FY24
  - GREY COURTHOUSE (Major Renovation)
  - NEBEL STREET SHELTER (Added)
  - WHEATON LIBRARY AND RECREATION CENTER (New)

Electric 'GRID' use for older County buildings decreased by 18,867 MWh (21.6%) between FY2015 and FY2024, excluding the 12 new buildings added during this period.

The electric "GRID" reduction is more impressive when considering that nine Energy Efficiency Projects were completed between FY2015 and FY2016.

"Old" County Building Electric "GRID" Use MWh

FY	MWh
FY15	87,448
FY16	90,148
FY17	96,762
FY18	91,151
FY19	87,272
FY20	78,843
FY21	75,363
FY22	76,927
FY23	77,744
FY24	78,701
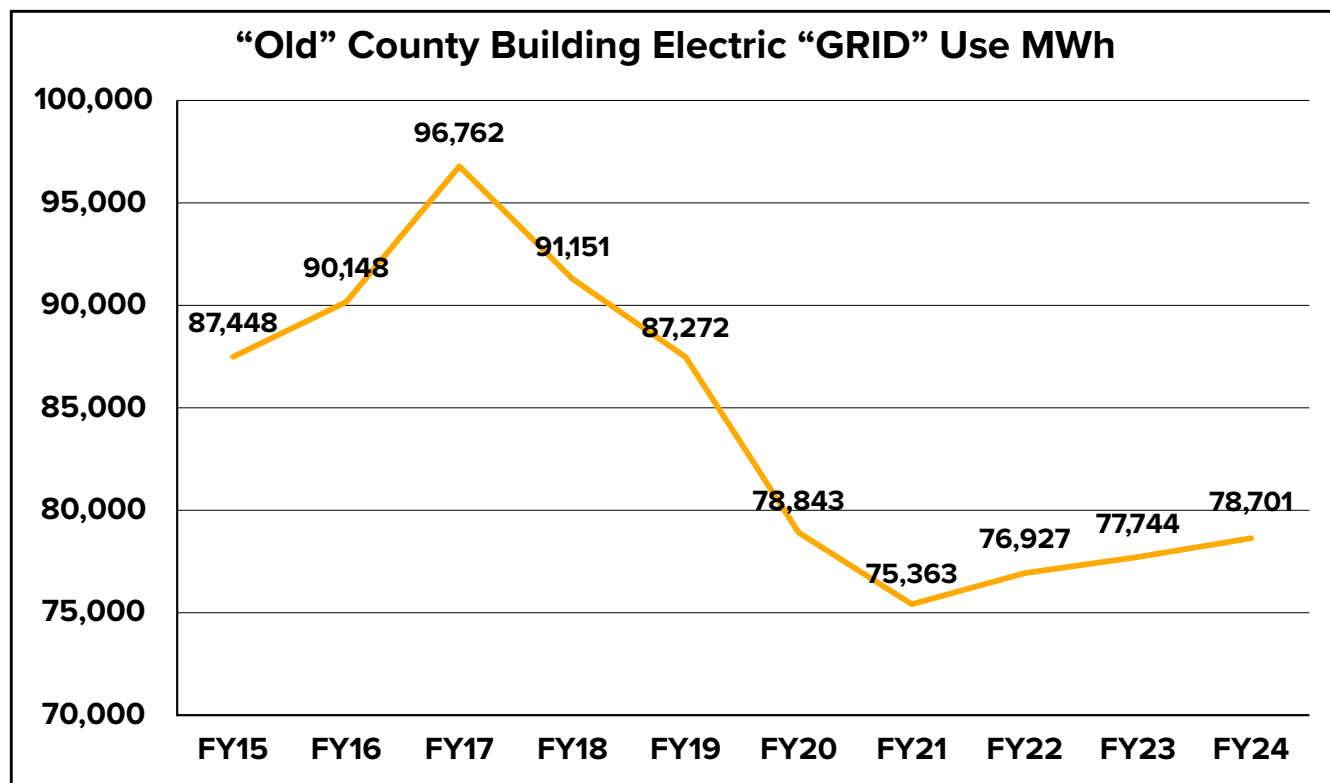
FY2015- FY2024 County Building Electric "SOLAR" Data

While **Energy Efficiency Projects** are effective; OES must accelerate efforts to implement more **Advanced Energy Projects** to meet County GHG emission goals.

OES **Advanced Energy Projects** were initiated FY2015 under the Tesla contract and began showing significant results FY2016. The 10 Solar PV projects across 10 County buildings average roughly 21,200 MWh over the last five years.

"Old" County Building Electric "SOLAR" Use MWh

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
MWh	-	531	1,788	3,808	9,147	21,763	22,384	21,982	19,548	20,079
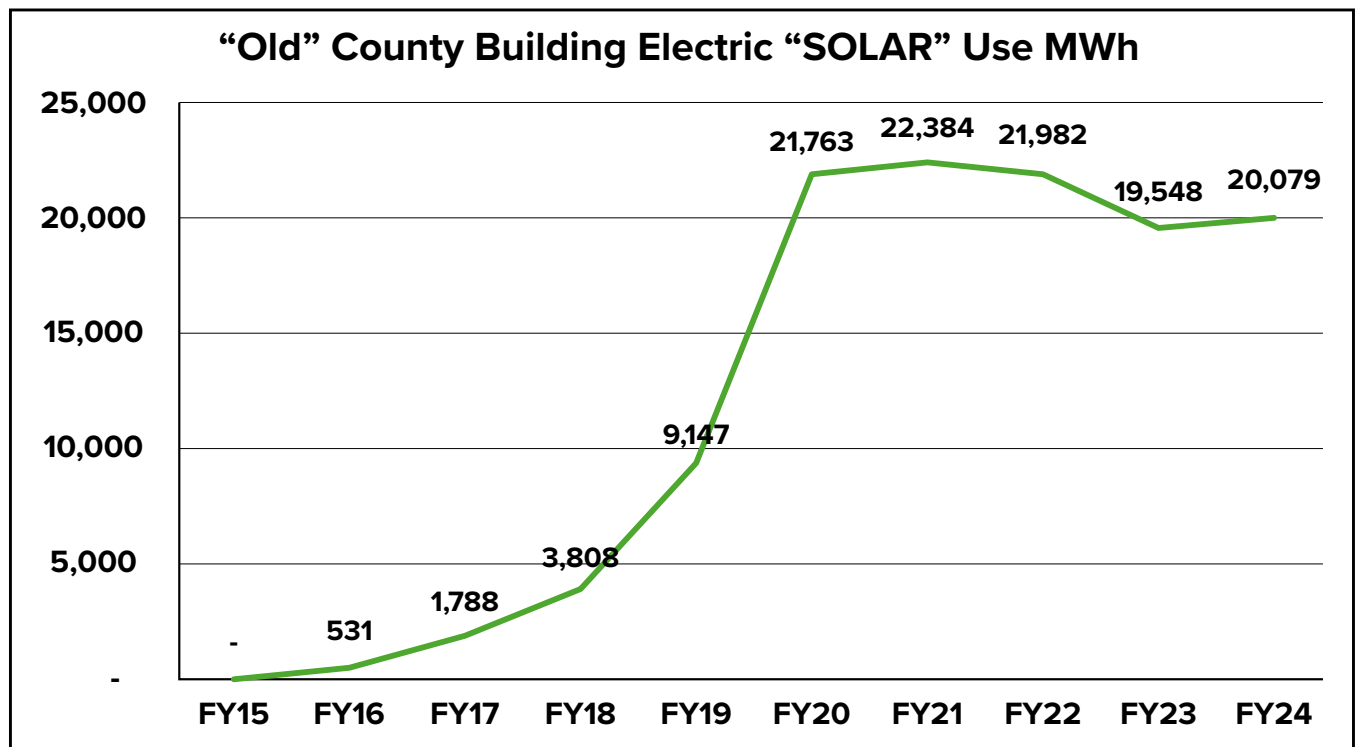
County Building	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
COUNCIL OFFICE BUILDING	0	0	14,157	36,107	28,135	37,401	36,920	36,530	34,324	31,632
GAITHERSBURG LIBRARY	0	60,138	254,435	249,969	151,879	253,985	255,457	253,466	237,213	242,483
HOLIDAY PARK SENIOR CENTER	0	0	0	394,560	-224,661	431,589	399,046	335,884	319,128	334,430
LIQUOR WAREHOUSE	0	388,135	1,124,757	1,102,088	414,180	902,698	977,414	1,203,470	1,226,322	1,180,009
M C CORRECTIONAL FACILITY	0	0	129,140	1,643,139	4,083,442	8,602,178	10,286,102	10,598,677	8,917,348	8,369,576
POTOMAC CRC	0	14,079	54,664	36,122	22,682	57,005	61,315	61,147	60,983	51,464
PUBLIC SAFETY HEADQUARTER	0	0	0	15,828	4,506,897	11,278,148	10,162,533	9,295,458	8,550,280	9,677,760
ROCKVILLE MEMORIAL LIBRARY	0	40,166	96,377	89,288	52,983	82,909	93,720	92,318	94,047	86,000
UPCOUNTY REGIONAL SERVICES CENTER	0	13,434	70,887	64,251	65,922	68,516	57,832	60,158	63,609	62,733
VETERANS PLAZA CIVIC CENTER	0	15,513	43,501	33,741	45,041	48,195	53,431	44,680	45,056	42,981
TOTAL	**0**	**531,367**	**1,787,918**	**3,808,093**	**9,146,501**	**21,762,624**	**22,383,771**	**21,981,789**	**19,548,310**	**20,079,069**

Summary

OES and DFMS continue to push the boundaries of what's possible given existing resources and emerging advanced energy technologies. On-site advanced energy projects are beginning to satisfy both County building and County fleet energy/electrification needs. This convergence between on-site County building and County fleet energy/electrification is conveyed in the Brookville Maintenance Facility "Smart Bus" Depot and the in design "Phase I" EMTOC project.

Each energy efficiency project and advanced energy project presents lessons learned. Lessons learned create industry leading requests for proposals (RFPs) that turn into industry leading contracts. OES is currently in process of awarding advanced energy project-related contract and hiring an additional Capital Project Manager to oversee these projects.

All efforts, data and information in this annual report is a culmination of lessons learned, applied resources, and group efforts between many County departments, agencies, DGS divisions and staff- all focused on reducing energy use, costs, and GHG emissions across County buildings and County fleet.
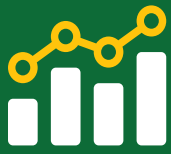
DEFINITIONS RELATED TO COUNTY BUILDINGS

1. **Advanced Energy Projects:** sometimes referred to as "Distributed Energy Resources" (DER), help supply the County with low or no carbon fueled electrical generating systems. These would include Solar Photovoltaic (PV) applications, Combined Heat and Power (CHP) generating systems, battery energy storage, microgrids at critical facilities, and infrastructure to support a non-carbon fueled transit fleet and resilience hubs.

2. **American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level-2: Energy Survey and Analysis** includes a complete description of the County building, including an equipment inventory, an energy balance, detailed energy savings and costs associated with each low-cost and no-cost measure, financial analysis of each recommended measure, identification and rough estimates of capital energy-related project costs and savings, and a recommended measurement and verification plan for each recommended energy-efficiency measure. The Level 2 audit is for larger buildings and strives to balance the need for engineering rigor with the need to keep auditing cost effective.

3. **Combined Heat and Power (CHP)** provide onsite electrical generation, generally at a lower cost than buying power from the electric grid. In addition, they also provide heat to use in other systems such as building heating and domestic hot water. When the heat from a CHP system is used, the system can be even more efficient. Common CHP systems can have an overall system efficiency of 70% or greater.

4. **County building** means a building which is a.) owned and managed by the County and b.) greater than 25,000 gross square feet.

5. **CRC:** Community Recreation Center

6. **MF:** Maintenance Facility

7. **County Building Energy Plan:** based on available resources to implement "DGS Initiatives" that strive to address an "Energy cost savings plan" and "Energy use savings plan" for each "County building" whenever feasible.

8. **Department of General Services (DGS)** is the Montgomery County department that provides building and fleet-related services for Montgomery owned and managed buildings and fleet vehicles.

9. **DGS Initiatives** are initiatives eligible for grants and utility incentives that reduce GHG emissions, reduce electricity use, and reduces a County buildings energy use intensity in support of Montgomery County Building Energy Performance Standard. Examples include **Advanced Energy Projects** like Solar PV, Microgrids, and Resiliency Hubs and **Energy-Efficiency Projects** like Lighting and Lighting Controls (L&LC), Building Automation System (BAS) upgrades, and Monitoring-Based Commissioning (MBCx).

10. **Electric all-in rate** means the cost of electricity which includes transmission, distribution, and other fees (i.e., EmPOWER-MD, Montgomery County Energy Tax).

11. **Energy baseline** means the amount of energy consumed each year by a county building based on historical metered data, engineering calculations, submetering of buildings or energy consuming systems, building load simulation models, statistical regression analysis, or any combination of those methods.

12. **Energy cost savings plan** means a plan to reduce a county building's energy costs, including related operation and maintenance costs.

13. **Energy Efficiency Projects** utilizes a systemic energy data driven process to identify and implement cost-effective energy-efficiency projects like 1.) lighting and lighting controls (L&LC) upgrades, building automation system (BAS) upgrades, and Monitoring-Based Commissioning (MBCx). These projects strive to attain a less than 5-year simple payback after incentives while supporting the County's GHG emission goals.

14. **ENERGY STAR** rating means the ENERGY STAR rating developed by the federal Environmental Protection Agency which reflects a building's energy efficiency.

15. **Energy use intensity (EUI)** is the amount of energy a building consumes per unit of floor area, essentially measuring how much energy a building uses relative to its size, typically expressed as kBtu per square foot per year (kBtu/ft^2/yr) and used as a key indicator of a building's energy efficiency; a lower EUI indicates better energy performance.

16. **Energy unit savings plan** means a plan to reduce the amount of energy used by a county building, as measured in kilowatt hours.

17. **Greenhouse gas emissions (GHG)** refers to the release of gases into the atmosphere, like carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O), which trap heat and contribute to the greenhouse effect, causing global warming and climate change; these gases are primarily emitted through human activities like burning fossil fuels, agriculture, and industrial processes.

18. **kBtu** is an abbreviation for kilo British thermal units, a unit of measurement for heat energy. One kBtu is equal to 1,000 British thermal units (Btu).

19. **Kilowatt hours (kWh)** is the unit of measure for electricity.

20. Microgrids are standalone on-site power generation systems that allow critical operations to run independently of the power grid. Combining technologies such as Solar PV, standalone generators including Combined Heat and Power (CHP) generation systems. Microgrids may also include battery energy storage and advanced controllers with built in cyber-security. Microgrids allow facilities to run uninterrupted during storms and other major power outages.

21. **Site Energy Use Intensity (EUI)** Montgomery County uses site energy use intensity as the measurement for its BEPS program. This is the amount of energy used per square foot, represented as kBtu/ft2.

DEFINITIONS RELATED TO COUNTY VEHICLES.

1. **B20** means a biodiesel blend of 20% biodiesel and 80% petroleum diesel fuels.

2. **Biodiesel** means any biomass-based diesel fuel certified by the Environmental Protection Agency.

3. **Biodiesel** blend means a blend of biodiesel fuel, designated BXX, where XX represents the volume percentage of biodiesel fuel in the blend

4. **Car share program** means a program that allows County employees to conduct County business using motor vehicles which: a.) are owned or leased by the County; and b.) County residents and businesses can lease when they are not being used for County business.

5. **County fleet** means all passenger vehicles and light trucks owned or leased by the County.

6. **County vehicle** means any motor vehicle owned or leased by the County.

7. **Diesel fuel** means a distillate fuel for use in diesel engines.

8. **Fuel economy** means the federal Environmental Protection Agency's combined (city and highway) fuel economy estimate for a vehicle

9. **Light truck** means a motor vehicle with a gross vehicle weight of less than 8,500 pounds which is: a.) designed primarily for transporting property; b.) designed primarily for transporting persons and has a capacity of more than 12 persons; or c.) available with special features that enable off-road operation or use.

10. **Miles per gallon** means the distance traveled in a vehicle powered by one gallon of fuel

11. **Passenger vehicle means** a motor vehicle, except a light truck or motorcycle, designed to carry no more than 12 persons.

12. **Public safety vehicle means** a motor vehicle whose primary purpose is patrol, transport, emergency response, or another purpose that requires specialized equipment or capabilities, which is used by a.) the Department of Police; b.) the Fire and Rescue Service; c.) the Department of Correction and Rehabilitation; or d.) any other County department or agency.
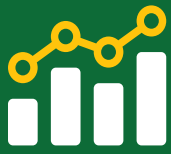
COUNTY BUILDING ELECTRIC "GRID" USE KWH DATA FY15-FY19

County Building Electric "GRID" Use (kWh) FY15-FY19 (Yellow highlights = new or added)

County Building	FY15	FY16	FY17	FY18	FY19	Change FY 18 to FY 19%
2ND DISTRICT POLICE STATION	0	0	0	258,679	662,798	156.2%
3RD DISTRICT POLICE STATION	595,760	610,160	674,772	634,228	696,110	9.8%
5TH DISTRICT POLICE STATION	380,000	417,760	468,960	440,480	464,000	5.3%
AFI/BLACKBOX	2,223,281	2,225,658	2,077,501	2,054,116	1,956,938	-4.7%
ANIMAL SHELTER	288,300	2,071,800	2,069,722	2,182,711	2,170,454	-0.6%
BETHESDA CHEVY CHASE CENTER	891,796	838,331	872,386	863,633	872,013	1.0%
BETHESDA CHEVY CHASE RESCUE SQUAD R1	0	0	0	0	435,281	
BETHESDA COMPLEX	1,022,064	1,038,613	1,092,867	1,050,520	983,034	-6.4%
BLACK ROCK CENTER FOR THE ARTS	750,144	772,608	775,872	526,848	312,384	-40.7%
BRIG. GEN. CHARLES MCGEE LIBRARY	107,400	1,456,560	1,611,280	1,770,372	1,827,749	3.2%
BROOKVILLE MF-BLDG A.	453,520	309,600	439,266	457,255	453,949	-0.7%
BROOME SCHOOL	982,500	2,241,720	1,047,662	832,510	729,579	-11.4%
CASA DE MARYLAND WHEATON WORKER CENTER	0	0	0	1,547	17,407	1,025.2%
CIRCUIT COURT SOUTH TOWER	2,614,160	2,729,987	2,698,180	2,643,480	2,574,125	-2.6%
COUNCIL OFFICE BUILDING	5,331,996	4,896,562	5,189,538	5,003,188	4,545,155	-9.2%
DAMASCUS CRC	519,360	469,641	507,648	443,712	518,976	17.0%
DAMASCUS LIBRAY/ SENIOR CENTER	601,320	680,400	617,040	494,640	392,880	-20.6%
DENNIS AVE HEALTH CENTER	0	381,383	774,000	891,626	985,917	10.6%

County Building	FY15	FY16	FY17	FY18	FY19	Change FY 18 to FY 19%
DETENTION CENTER	275,424	191,142	207,605	203,981	262,394	28.6%
DFRS WAREHOUSE	177,040	192,142	207,605	203,981	262,391	-9.3%
EAST COUNTY CRC	514,052	474,459	525,467	443,453	395,543	-10.8%
EMTOC FLEET AND TRANSIT	2,893,332	3,354,336	3,799,078	3,952,366	4,026,060	1.9%
FIRE STATION #01	605,120	555,200	614,292	550,959	546,960	-0.7%
FIRE STATION #02	266,488	260,424	293,974	296,955	299,560	0.9%
FIRE STATION #03	312,000	336,960	333,440	346,232	339,238	-2.0%
GAITHERSBURG HIGHWAY DEPOT	504,236	517,866	557,546	534,462	624,427	16.8%
GAITHERSBURG LIBRARY	649,050	747,200	556,800	513,280	679,680	32.4%
GERMANTOWN INDOOR SWIM CENTER	2,730,600	2,589,700	2,711,700	2,736,466	2,581,598	-5.7%
GERMANTOWN LIBRARY	1,151,353	1,067,398	1,327,339	761,883	199,557	-73.8%
GLEN ECHO PARK	0	0	0	0	1,777,123	-
GWENDOLYN COFFIELD CRC	361,040	440,640	474,064	472,786	462,835	2.1%
HOLIDAY PARK SENIOR CENTER	535,040	551,840	513,120	359,680	373,400	5.2%
HUNGERFORD OFFICE BUILDING	1,278,866	1,203,793	1,275,266	1,363,281	1,308,268	-4.0%
IKE LEGGETT EXECUTIVE OFFICE BUILDING	14,328,113	13,055,898	14,142,219	14,525,215	13,853,703	-4.6%
IMAGINATION STAGE	1,155,200	1,221,440	1,248,160	1,150,806	1,209,792	5.1%
JUVENILE ASSESSMENT CENTER	655,440	633,120	604,790	578,660	518,608	-10.4%
KENNEDY SHRIVER AQUATIC CENTER	2,536,985	2,713,041	3,805,203	2,228,847	2,036,261	-8.6%
LIQUOR WAREHOUSE	0	652,280	2,173,058	2,185,621	2,668,019	22.1%
LONE OAK CENTER	103,840	99,200	261,165	446,832	465,543	4.2%
LONG BRANCH SENIOR CENTER	412,800	410,258	425,600	396,771	498,390	25.6%
M C CORRECTIONAL FACILITY	5,475,279	5,287,609	5,311,779	4,518,382	3,840,061	-15.0%

County Building	FY15	FY16	FY17	FY18	FY19	Change FY 18 to FY 19%
MARILYN PRAISNER CRC	520,779	531,505	494,793	455,275	418,927	-8.0%
MARTIN LUTHER KING JR SWIM CENTER	1,490,400	1,490,700	1,610,129	1,563,663	1,310,745	-16.2%
MID-COUNTY CRC	657,680	646,160	656,785	618,094	663,455	7.3%
NORTH POTOMAC CRC	0	0	649,038	659,756	707,570	7.2%
OLNEY SWIM CENTER	1,744,016	1,171,531	1,082,214	934,574	1,002,078	7.2%
PICCARD OFFICE BUILDING	1,589,880	1,663,514	1,488,448	1,014,870	994,593	-2.0%
POTOMAC CRC	870,388	659,255	586,195	641,435	608,265	-5.2%
PRE-RELEASE CENTER	2,125,003	1,700,230	1,154,200	749,551	759,313	1.3%
PROGRESS PLACE	0	0	494,578	981,083	975,943	-0.5%
PUBLIC SAFETY COMMUNICATION CENTER	3,199,616	3,209,051	3,222,938	3,389,167	3,218,575	-5.0%
PUBLIC SAFETY HEADQUARTERS	2,125,003	1,700,230	1,154,200	749,551	759,313	1.3%
PUBLIC SAFETY TRAINING ACADEMY	0	0	1,235,956	2,181,388	1,909,634	-12.5%
ROCKVILLE MEMORIAL LIBRARY	1,849,520	1,621,120	1,563,360	1,553,370	1,574,744	2.7%
SILVER SPRING HEALTH CENTER	569,167	512,456	576,324	443,831	461,461	4.0%
STRATHMORE CONCERT HALL	4,565,419	4,000,800	4,398,085	3,949,468	4,431,519	12.2%
UPCOUNTY REGIONAL SERVICES CENTER	1,848,084	1,926,534	1,879,174	1,878,695	1,831,753	-2.5%
VETERANS PLAZA CIVIC CENTER	770,400	889,280	797,120	879,840	895,840	1.8%
WAREHOUSE - DFRS	536,372	855,690	1,054,923	1,080,003	1,116,628	3.4%
WAREHOUSE CENTER	33,737	34,190	32,537	32,465	44,270	36.4%
WHEATON RESCUE SQUAD R2	43,800	38,100	34,842	39,202	30,917	-21.1%
WHITE OAK CRC	808,200	775,800	803,188	705,624	767,599	8.8 %
TOTAL	**87,447,666**	**90,147,941**	**96,761,613**	**91,151,418**	**87,271,724**	**-4.3%**

COUNTY BUILDING ELECTRIC "GRID" USE KWH DATA FY20-FY24

County Building Electric "GRID" Use (kWh) FY20-FY24

County Building	FY20	FY21	FY22	FY23	FY24	Change FY 23 to FY 24%
2ND DISTRICT POLICE STATION	660,135	686,657	686,454	650,562	667,706	2.60%
3RD DISTRICT POLICE STATION	620,122	623,797	586,053	580,704	567,166	-2.30%
5TH DISTRICT POLICE STATION	420,000	401,440	454,080	442,400	403,680	-8.80%
AFI/BLACKBOX	1,796,793	1,526,934	1,762,205	1,675,234	1,655,717	-1.2%
ANIMAL SHELTER	2,072,760	1,988,413	1,984,523	1,793,752	2,038,200	13.60%
BETHESDA CHEVY CHASE CENTER	837,046	806,138	796,694	809,903	758,899	-6.30%
BETHESDA CHEVY CHASE RESCUE SQUAD R1	346,325	370,867	373,570	348,245	372,541	7.00%
BETHESDA COMPLEX	673,894	693,189	760,979	740,624	698,534	-5.70%
BLACK ROCK CENTER FOR THE ARTS	284,352	57,024	0	210,816	783,936	271.90%
BRIG. GEN. CHARLES MCGEE LIBRARY	1,739,718	1,745,561	1,390,274	1,188,635	1,346,142	13.30%
BROOKVILLE MF-BLDG A.	373,948	428,893	437,176	403,043	423,227	5.00%
BROOME SCHOOL	955,216	960,085	1,052,044	1,002,128	1,032,901	3.10%
CASA DE MARYLAND WHEATON WORKER CENTER	18,194	14,384	20,226	20,804	20,240	-2.70%
CIRCUIT COURT SOUTH TOWER	2,567,419	2,468,816	2,413,220	2,420,858	2,468,065	2.0%
COUNCIL OFFICE BUILDING	4,123,673	4,045,022	4,324,775	3,918,316	3,777,391	-3.60%
DAMASCUS CRC	470,016	420,216	535,488	405,504	407,424	0.50%
DAMASCUS LIBRAY/SENIOR CENTER	356,160	214,560	18,480	20,591	343,501	1568.20%
DENNIS AVE HEALTH CENTER	983,603	993,058	983,998	925,785	757,164	-18.20%

County Building	FY20	FY21	FY22	FY23	FY24	Change FY 23 to FY 24%
DETENTION CENTER	277,911	321,943	481,039	1,628,641	1,668,458	2.40%
DFRS WAREHOUSE	209,584	178,646	191,425	259,402	323,672	24.80%
EAST COUNTY CRC	425,497	418,357	380,016	371,994	269,677	-27.50%
EMTOC FLEET AND TRANSIT	3,811,914	4,185,199	3,429,395	3,840,671	3,881,045	1.10%
FIRE STATION #01	523,348	530,656	553,557	571,382	575,376	0.70%
FIRE STATION #02	279,999	289,592	256,027	253,743	254,457	0.30%
FIRE STATION #25	170,480	290,064	320,935	308,456	303,390	-1.60%
FIRE STATION #32	360,481	378,583	420,111	397,652	428,026	7.60%
GAITHERSBURG HIGHWAY DEPOT	504,236	517,866	557,546	534,462	624,427	16.8%
GAITHERSBURG LIBRARY	619,200	588,320	470,240	429,600	442,080	2.90%
GERMANTOWN INDOOR SWIM CENTER	2,372,692	2,212,479	2,460,326	2,501,560	2,636,463	5.40%
GERMANTOWN LIBRARY	69,006	0	192	0	683,180	
GLEN ECHO PARK	1,283,551	995,589	1,186,822	1,212,131	1,292,260	6.60%
GREY COURTHOUSE	0	75,542	1,002,133	1,044,289	1,101,603	5.50%
GWENDOLYN COFFIELD CRC	426,906	420,217	354,691	334,551	349,749	4.50%
HOLIDAY PARK SENIOR CENTER	158,240	165,760	195,200	178,240	153,120	-14.10%
HUNGERFORD OFFICE BUILDING	1,225,046	1,068,398	1,118,307	1,012,233	820,517	-18.90%
IKE LEGGETT EXECUTIVE OFFICE BUILDING	12,951,488	11,794,308	11,717,808	11,296,762	11,455,631	1.40%
IMAGINATION STAGE	978,402	841,488	1,131,925	1,293,449	1,199,788	-7.20%
JUVENILE ASSESSMENT CENTER	572,844	508,912	545,776	349,254	318,783	8.70%
KENNEDY SHRIVER AQUATIC CENTER	2,133,958	2,150,005	2,302,964	2,165,233	1,990,284	-8.10%
LIQUOR WAREHOUSE	2,002,841	1,460,381	1,011,582	532,110	727,253	36.70%
LONE OAK CENTER	396,824	349,231	362,999	408,387	341,401	-16.40%

County Building	FY20	FY21	FY22	FY23	FY24	Change FY 23 to FY 24%
LONG BRANCH SENIOR CENTER	324,785	378,166	333,194	279,956	283,045	1.10%
M C CORRECTIONAL FACILITY	3,137,582	2,974,445	2,969,094	3,699,604	4,115,135	11.20%
MARILYN PRAISNER CRC	425,752	451,502	459,235	457,977	434,308	-5.20%
MARTIN LUTHER KING JR SWIM CENTER	1,027,038	956,400	976,500	1,142,700	986,700	-13.70%
MID-COUNTY CRC	526,156	443,657	449,971	530,093	594,742	12.20%
NEBEL STREET SHELTER	0	19,595	250,458	377,432	394,552	4.50%
NORTH POTOMAC CRC	639,596	548,302	589,663	693,342	700,454	1.00%
OLNEY SWIM CENTER	854,713	786,750	837,237	777,982	791,771	1.80%
PICCARD OFFICE BUILDING	871,780	849,743	848,725	845,381	874,506	3.40%
POTOMAC CRC	518,925	534,573	564,593	430,903	380,743	-11.60%
PRE-RELEASE CENTER	645,831	459,138	618,814	557,851	704,917	26.40%
PROGRESS PLACE	928,115	869,230	918,677	888,411	882,497	-0.70%
PUBLIC SAFETY COMMUNICATION CENTER	3,008,088	2,894,736	2,841,922	2,664,916	2,573,751	-3.40%
PUBLIC SAFETY HEADQUARTERS	1,769,532	2,365,024	1,939,852	2,800,785	1,786,330	-36.20%
PUBLIC SAFETY TRAINING ACADEMY	2,196,549	2,394,875	2,657,663	2,711,291	2,851,283	5.20%
ROCKVILLE MEMORIAL LIBRARY	1,085,205	822,900	857,649	948,255	918,611	-3.10%
SILVER SPRING HEALTH CENTER	467,146	408,729	433,850	417,028	403,957	-3.10%
STRATHMORE CONCERT HALL	4,216,391	3,654,341	4,033,705	3,873,588	3,673,156	-5.20%
UPCOUNTY REGIONAL SERVICES CENTER	1,664,571	1,560,451	1,620,250	1,427,348	1,450,371	1.60%
VETERANS PLAZA CIVIC CENTER	917,760	812,000	827,680	875,200	853,920	-2.40%
WAREHOUSE - DFRS	1,019,846	992,219	842,335	839,588	819,179	-2.40%
WAREHOUSE CENTER	66,430	88,263	94,768	134,638	100,353	-25.50%

County Building	FY20	FY21	FY22	FY23	FY24	Change FY 23 to FY 24%
WHEATON LIBRARY AND RECREATION CENTER	594,484	945,782	1,051,007	1,029,852	1,052,595	2.20%
WHEATON RESCUE SQUAD R2	51,679	35,263	31,593	33,650	60,576	80.00%
WHITE OAK CRC	642,225	889,142	758,201	756,653	701,017	-7.40%
TOTAL	78,842,715	75,362,687	76,926,685	77,744,027	78,700,795	1.20%
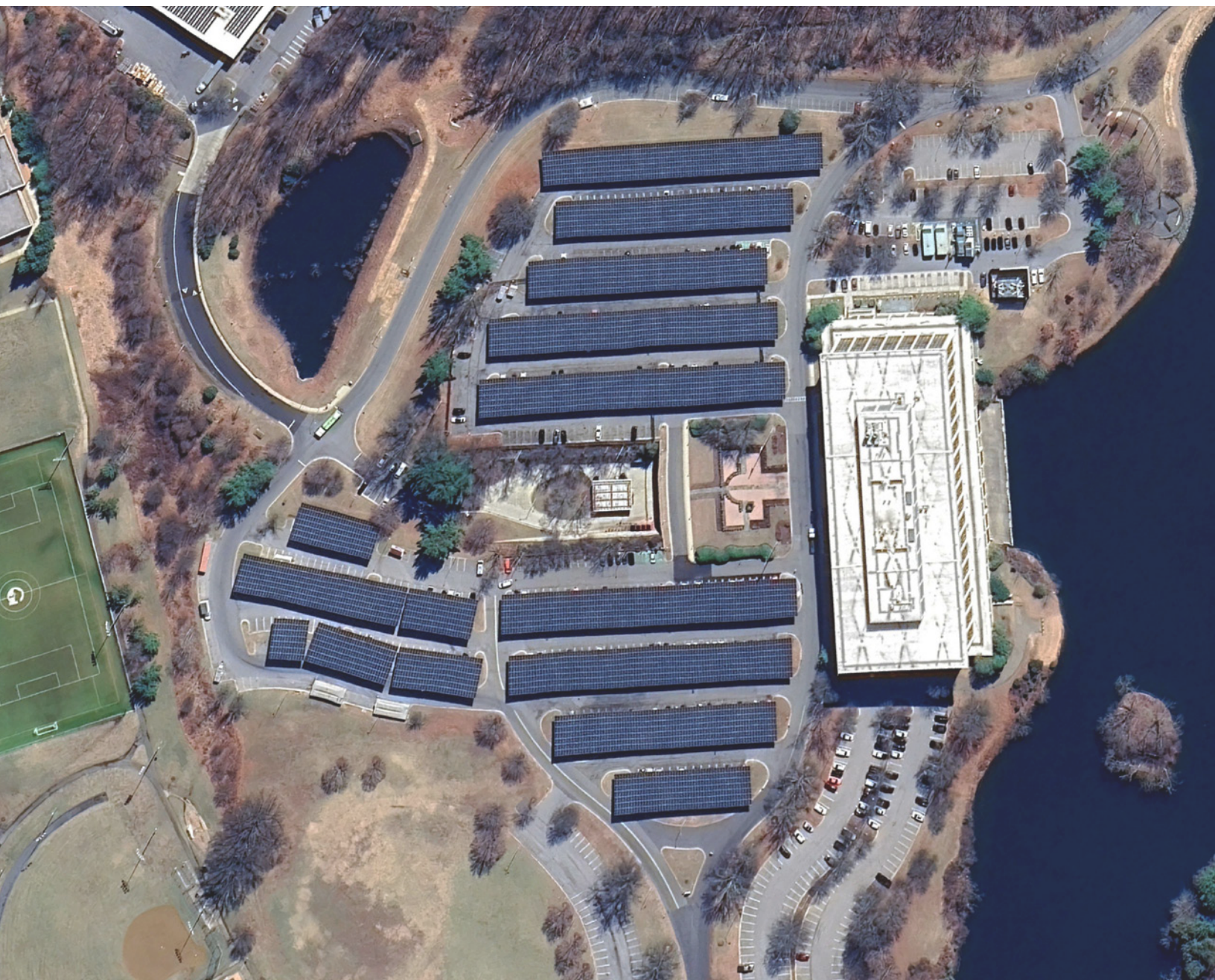
OFFICE OF ENERGY AND SUSTAINABILITY
DEPARTMENT OF GENERAL SERVICES

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