



# MARYLAND GREEN PURCHASING

2025 | Annual Report of the Maryland Green Purchasing Committee



# A Message from the Secretary

Dear Honorable Members of the Maryland General Assembly:

I am honored to present the FY 2025 Annual Report of the Maryland Green Purchasing Committee.

As leaders of the Green Purchasing Committee, the Department of General Services (DGS) leads environmentally preferable purchasing activities for the state. This statewide program plays a critical role in meeting the Moore-Miller Administration goals to combat climate change, protect Maryland's environment and natural resources, and be the most climate-friendly state in the country.

By leveraging the purchasing power of our state government, we can minimize our impact on the environment, public health and the climate.

This year, the program continued to demonstrate the benefits of green procurement for all Marylanders. I am proud to report that as a result of our efforts, the Committee documented \$80.4 million in green procurement, avoiding harmful impacts of conventional purchases and translating into tangible benefits for Marylanders including:

- 146,660 tons of greenhouse gas reductions (CO<sub>2</sub>e)
- 39,532,346 gallons of water conserved
- 1,187 tons of waste avoided
- 178 tons of pollution reduced
- \$3,337,907 in cost savings

The Green Purchasing Committee remains committed to making our communities greener and cleaner for all.

Sincerely,



Atif Chaudhry  
Secretary, Maryland Department of General Services



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# FY 2025 Impact Report

*In FY 2025 the State of Maryland procured \$80,448,731 in environmentally preferable products and services, avoiding harmful impacts of conventional purchases. Those procurements translate into tangible benefits to the citizens of Maryland.*

\$3,337,907 Saved



29,632 Cars  
Removed from  
the Road  
(equivalency)

146,660 tons of CO<sub>2</sub>e  
Avoided

59 GWh of Electricity  
Saved

4,935 Homes'  
Annual Energy  
Use  
(equivalency)



286 Tractor  
Trailers' Weight  
(equivalency)

11,445 tons of Material  
Conserved

39,532,346 gallons of  
Water Conserved

60 Olympic  
Swimming Pools  
(equivalency)



588 Homes'  
Annual Waste  
(equivalency)

1,187 tons of Waste  
Avoided

178 tons of Pollution  
Reduced





# Introduction

Environmentally preferable purchasing, also called “Green Purchasing,” is the procurement or acquisition of goods and services that have a lesser or reduced effect on human health and the environment when compared with competing goods or services that serve the same purpose.

The Green Maryland Act of 2010 established Maryland’s Green Purchasing Program as well as the Maryland Green Purchasing Committee to administer the program. The Committee is composed of 12 statutory agency members and is chaired and staffed by the Department of General Services.

The Committee holds regular quarterly meetings which are open to the public in accordance with the Maryland Open Meetings Act, as well as several working meetings throughout the year. A list of all Committee Designees and Participants is included in Appendix B.

The Maryland Green Purchasing Committee advances environmentally preferable (or green) purchasing through training, outreach, coordination with other state entities, and by developing and publishing environmentally preferable specifications for agencies to use in their procurements.

Maryland’s program is strengthened by statutory requirements for the State to buy green:

*All procurement agencies shall purchase environmentally preferable products and services unless purchasing environmentally preferable products and services would limit or supersede any requirements under any provision of law or result in the purchase of products and services that:*

- (1) Do not perform adequately for the intended use;*
- (2) Exclude adequate competition; or*
- (3) Are not available at a reasonable price in a reasonable period of time.<sup>1</sup>*

The Committee is required to report annually to the Legislature. This report allows us to document the progress of Maryland’s Green Purchasing Program.

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<sup>1</sup> State Finance & Procurement Article § 14-410(f)  
*Maryland Green Purchasing Annual Report 2025*



# Maryland’s FY 2025 Green Spend

In FY 2025, Maryland spent \$80.8 million on environmentally preferable products and services. Maryland’s green spend consists of green spend through statewide contracts, agency independent green purchases, renewable energy, and electric vehicles (EVs) and charging infrastructure. The Green Purchasing Committee (GPC) tracks that spend from data submitted by vendor reports for key statewide contracts as well as agencies.

<b>Spend Type</b>	<b>Amount</b>
Statewide Contracts	\$44,226,092
Agency Green Spend	\$13,275,587
Renewable Energy	\$20,021,114
Electric and Hybrid Vehicles	\$1,925,940
EV Charging Infrastructure	\$1,000,000
<b>Total</b>	<b>\$80,448,731</b>

### Green Spend on Statewide Commodity Contracts

The Green Purchasing Program tracks spend on statewide contracts in key high impact categories. These contracts are managed by the Maryland Department of General Services (DGS) Office of State Procurement and open for all state purchasing entities to utilize. Purchases made through statewide contracts make up a significant portion of Maryland’s green spending. In FY 2025, the State of Maryland spent \$44.2 million on green products and services offered on statewide contracts utilized by State agencies, higher education institutions, and local governments across Maryland.

## Statewide Contract Spend

Vendor	Product Category						Green Spend	Total Spend	Percent Green
									
Acme			X				\$76,700	\$264,464	29.00%
AJ Stationers			X	X		X	\$102,486	\$337,876	30.33%
ATS		X					\$24,041,840	\$42,878,495	56.07%
Blind Industries (BISM)				X		X	\$9,686,483	\$13,624,329	71.10%
Canon		X					\$919,616	\$919,616	100.00%
Cartridge Plus						X	\$21,227	\$58,780	36.11%
CDW-G		X					\$638	\$638	100.00%
Daly		X					\$494,123	\$2,208,853	22.37%
ELDSI		X					\$118,153	\$228,934	51.61%
Fastenal	X			X			\$80,104	\$2,645,488	3.03%
FPC Holdings/Brady Plus			X				\$218,585	\$790,989	27.63%
Grainger	X	X	X	X	X	X	\$578,914	\$1,055,981	54.82%
Graybar					X		\$2,625,436	\$9,441,161	27.81%
MCE				X		X	\$2,339,484	\$9,632,470	24.29%
RGH Enterprises Inc		X	X	X		X	\$820,419	\$2,838,854	28.90%
Ricoh		X					\$285,076	\$285,076	100.00%
Rudolph's Office and Computer		X	X	X		X	\$1,528,873	\$5,511,099	27.74%
Sharp		X					\$257,329	\$334,844	76.85%
Toshiba		X					\$960	\$960	100.00%
Xerox		X					\$29,643	\$73,063	40.57%
<b>TOTAL</b>							<b>\$44,226,092</b>	<b>\$93,131,971</b>	<b>47.49%</b>

Maryland utilizes preferred providers including Blind Industries and Services of Maryland (BISM) for items such as office supplies and janitorial supplies and Maryland Correctional Enterprises (MCE) for furniture, signage and more.

## Green Spend on Agency Commodity Contracts

While most agencies use statewide contracts to purchase commodities, which are tracked by the Green Purchasing Committee, agencies may choose to enter into their own agreements with vendors. These agreements, reported here as agency contracts, offer the buying agency greater flexibility in their purchases. For instance, specialized agencies like the Department of Health need to procure medical goods that other agencies do not require. Agencies may also choose to use their purchase cards (i.e., credit cards) for small purchases made outside of contracts altogether; this may occur if a product is needed urgently and there is not enough time to create and execute a new procurement contract.

To better understand these types of purchases and their environmental impact, the Green Purchasing Committee requests that agencies submit green purchasing reports on any environmentally preferable purchases made on agency contracts or through their purchase cards. In FY 2025, 27 agencies provided detailed green purchasing reports identifying a total agency green spend of \$13.3 million. This spend was reported in a number of categories, including construction & maintenance, IT products, foodservice ware, janitorial supplies, lighting, office supplies, landscaping supplies, and various services. The table below provides a list of agencies that reported green spend in at least one category.

### Agency Level Contract Reporters

Agency	Agency
Bowie State University	Maryland State Retirement and Pension System
Coppin State University	Maryland Transit Administration
Department of Aging	Maryland Transportation Authority
Department of Budget & Management	Military Department
Department of Environment	Motor Vehicle Administration
Department of General Services	State Board of Elections
Department of Housing & Community Development	State Department of Education
Department of Natural Resources	MDOT – The Secretary’s Office
Department of Public Safety & Correctional Services	Towson University
Department of Transportation (MDOT)	University of Baltimore
Department of Veterans & Military Families	University of Maryland, College Park
Maryland Aviation Administration	University of Maryland, Baltimore Campus
Maryland Port Administration	University of Maryland, Global Campus
Maryland Stadium Authority	

For a breakdown of all state agency green spend, please see Appendix C.

## Renewable Energy

The State purchases renewable power from two utility scale wind installations and one solar installation, utilizing three 20-year Power Purchase Agreements (PPAs): Mount St. Mary's Solar; Pinnacle Wind; and Roth Rock Wind. In FY 2025, the State of Maryland spent \$20,021,114 on 244,600 MWh of renewable energy which accounted for approximately 10% of the electricity for State operations.

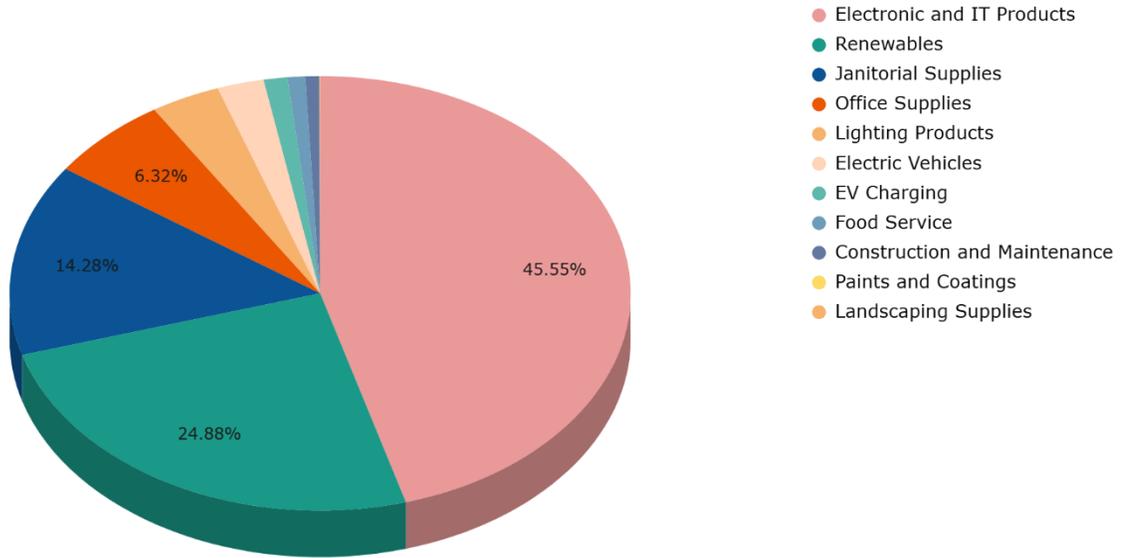
Project	Total Generation (MWh)	Total Cost (\$)
Mount St. Mary's - Solar	18,255	\$4,056,727
Pinnacle - Wind	199,488	\$13,205,118
Roth Rock - Wind	26,857	\$2,759,269
<b>FY2025 Totals</b>	<b>244,600</b>	<b>\$20,021,114</b>

## Electric Vehicles and Charging Stations

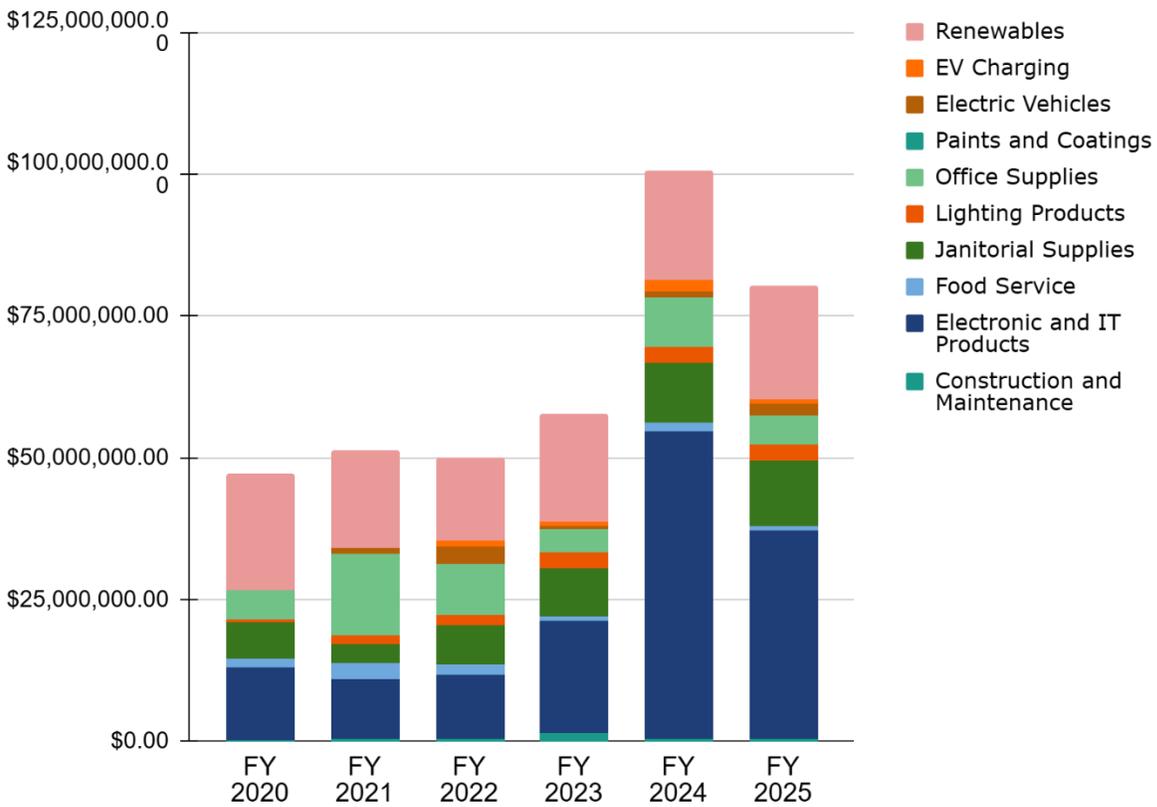
In FY 2025, the state replaced 45 internal combustion engine vehicles with battery electric vehicles that have no tailpipe emissions. These additions bring the State's total electric fleet vehicle total to 195 battery electric vehicles, 61 plug-in hybrids, and 256 hybrids. It is anticipated that EV numbers will continue to grow in FY 2026 to meet the requirements of Climate Solutions Now Act.

DGS, responsible for installing EV charging to support the state's electric fleet, encumbered \$1 Million for charging infrastructure. Vehicle and charging station procurements are supported by Strategic Energy Investment Funds (SEIF), through the Maryland Energy Administration.

## FY 2025 Green Spend by Commodity



## Green Spend Over Time FY2025



# Benefit Calculations for FY 2025 Green Spend

Green Purchasing activities provide benefits for the health and wellbeing of the planet and all living things. Below is a snapshot of health, environmental, and cost benefits of the state’s FY 2025 green spend.

	Emissions Avoided / Resources Savings	Pollutants & Toxic Materials Avoidance	Cost Savings
Electric Vehicles	2,200 tons of CO2e	.03 tons of SO2 1.49 tons of NOX 1.21 tons of VOCs .07 tons of PM2.5	Cost Savings Expected in the Future
Green Electronics & IT	37 GWh of Electricity 8,409 tons of CO2e 4,174 tons of Material 16,614,308 gallons of Water	3 tons of Toxic Substances 35,715 lbs. of Hazardous Waste	\$2,148,103
High Yield & Remanufactured Ink Cartridges	35 tons of CO2e 76 tons of Material	Unable to be estimated at this time	\$143,752
LED Lighting	9.3 GWh of Electricity 6,230 tons of CO2e	2.6 tons of SO2 2.4 tons of NOX .4 tons of PM2.5	\$1,106,934
Recycled Paper	5 GWh of Electricity 10,835 tons of CO2e 22,918,038 gallons of Water	2.7 tons of SO2 10.14 tons of PM2.5 1.24 ton of HAPs	
Recycled Products (Non-Paper)	6.5 GWh of Electricity 670.9 tons of CO2e 484 tons of Material	Unable to be estimated at this time	
Renewable Energy	118,280 tons of CO2e	49 tons of SO2 43 tons of NOX 2 tons of VOCs 7 tons of PM2.5	



# Program Activities

The Green Purchasing Committee identified seven goals for FY 2025 and carried out numerous activities in support of those goals.

## Goal 1: Establish a robust library of specifications

In FY 2025, the GPC approved and published seven specifications, covering 74 product types, and a new specification template.

- Appliances (updated)
- Batteries & Battery Chargers
- Electronics & IT (updated)
- Landscaping Supplies (updated)
- Paper
- Plumbing and Water Fixtures (updated)
- Toner

In response to HB772, certain products sold within the State must meet certain efficiency requirements. To that requirement, the GPC updated the applicable specifications to ensure that the additional certification is required for the appropriate products. This update included the Appliances, Landscaping Supplies, and Plumbing and Water Fixtures specifications.

The GPC developed the Batteries & Battery Chargers, Paper, and Toner specifications to make finding requirements for common products easier. Additionally, the GPC also developed a new specification template to make navigating the requirements easier for State employees.

## Goal 2: Communicate the benefits of green purchasing



For the sixth year in a row, the state of Maryland was recognized with an EPEAT Purchaser Award from the Global Electronics Council. The award recognizes Maryland’s procurement of IT products with the EPEAT ecolabel, which addresses sustainability across the electronics life cycle, from materials extraction to end-of-life: Climate Change, Chemicals of Concern, Circularity and Sustainable Use of Resources, and Responsible Sourcing. The Global Electronics Council is a non-profit organization dedicated to the design, manufacture, and procurement of sustainable IT products.

## Goal 3: Continue to provide training and learning opportunities

The Green Purchasing Committee held numerous training and learning events for state employees in FY 2025. Green Purchasing staff continue to serve as instructors for Green Purchasing foundations training, which is a mandatory component of the **Certified Maryland Procurement Officer** program offered through Maryland Procurement Academy. In FY 2025, 66 state procurement professionals received green purchasing training through the CMPO program. This training covers the fundamentals of green purchasing including green purchasing requirements in Maryland and GPC issued specifications.

The **Maryland Green Purchasing Specialist** program was offered for a fourth year in a row, offering state procurement officers across state agencies the opportunity to become certified green purchasing subject matter experts. In September 2025, 23 procurement officers graduated with their Green Purchasing Specialist certification, joining the 63 who earned theirs in previous classes. To earn the certification, procurement staff had to have already earned their CMPO designation, as well as complete 13.5 hours of live training and pass an exam. Topics included climate literacy, ecolabels and certifications, lifecycle considerations, and practicing how to green sample contracts.

In April 2025, Maryland Environmental Service and Prince George’s County hosted the Green Purchasing Committee for an organics compost facility tour. GPC members were able to observe the facility’s recycling operations.



DGS and the Green Purchasing Committee celebrated **Earth Day** with an employee event. The event included an EV charging station demonstration, vendor booths featuring green products and organizations, EV trivia and games, and several of the state’s EV fleet. Attendees were able to test drive passenger EVs as well as try out micro-mobility solutions such as e-bikes and scooters. In conjunction with the Earth Day event, DGS and the Green Purchasing Committee hosted a clothing and textile drive that collected approximately 1200 lbs. of material that were diverted from the landfills.

In FY25, the GPC continued to offer in-depth specification training. The specifications covered this fiscal year were Integrated Pest Management, Landscaping Services, Electronics and IT, and Janitorial Supplies. These webinars provide an opportunity for users to learn how to implement the requirements listed in the GPC specifications and provide an opportunity to have questions answered.

The Green Purchasing Committee also developed and launched a Green Procurement Card training in FY25. This training covered the basic legislation related to green purchasing, how to find specific product requirements, and provided examples of how to find green products with popular vendors. The goal of this training was to help State purchasers identify green options for day-to-day supply needs.

Additional training and speaking engagements included:

- Doing Green Business with Maryland presentation at the **Maryland Business Opportunities Summit**
- Green Purchasing Basics presentation with **Zero Waste Baltimore**.
- Spoke on panels as part of the sessions:
  - *The Role of Lifecycle Analysis in Certification and Green Procurement* during the **Northeast Recycling Council annual conference**
  - *Effective Data-Driven Procurement Strategies* during the **Maryland Recycling Network annual conference**.
  - *Beating the Heat: Maximize Your Refrigerants Capabilities* during the U.S. Department of Energy's **Better Buildings, Better Plants Summit**.
- Presented on Maryland's Green Purchasing Specialist program with the Maryland Procurement Academy during a webinar hosted by the Sustainable Purchasing Leadership Council and the National Institute of Governmental Purchasing.

## Goal 4: Recognize agencies for their green purchasing successes

Recognizing state agencies for their success helps to reward high performers, incentivize further achievements, and promote agencies as models and resources for others to learn from.

In order to recognize the green purchasing efforts of state agencies, the GPC highlighted agencies in the November, February, and May Green Purchasing quarterly meetings for data compliance and for their green spend percentages. Agencies were also recognized via the GPC's quarterly e-newsletter.

All CMPO Green Purchasing Specialists are publicly listed on DGS' website. This brings attention to their important achievement, as well as showcases the subject matter experts that can be a resource to other agency staff.

## Goal 5: Simplify the green purchasing process for procurement staff & purchasers

The best way to ensure that green procurement becomes the default procurement activity is to simplify and automate the process whenever possible. The GPC worked with the Office of State Procurement to ensure that green purchasing was represented in their online resources for procurement officers, and to outline a process for appropriate review and inclusion. This process includes the green purchasing checklist requirement, and guidance documents on how to address green purchasing throughout the procurement process. The checklist requirement was reintroduced in November 2024, and 62 checklists were submitted through the rest of FY25.

The GPC continues to improve the way that specifications are published to be easily identified by agency procurement staff. To support this effort, requirements for three common product categories were removed from larger specifications and moved to stand alone specifications. This allows State purchasers to find requirements for batteries, paper, and toner quickly and easily.

Green Purchasing staff also provided support to procurement officers by meeting individually upon request in order to explain or answer questions related to green purchasing specifications and requirements.

## Goal 6: Promote the development of recycled content markets

In FY 2025, Maryland prioritized the purchase of products containing recycled material to support recycling markets. Recycled content products play an important role in the diversion of waste from landfills and help conserve our natural resources. By choosing recycled content over virgin material, Maryland can ensure that its demand for new products is aligned with the State’s vision for a sustainable and healthy future for all.

The GPC developed and published the paper and paper products specification which include minimum recycled content requirements for different types of paper products.

The GPC also continues to provide guidance on the purchasing of office supplies and promotional materials, including guidance for recycled content in paper marketing materials, water bottles, and reusable tote bags.

DGS also continues to manage the State’s e-waste through responsible recycling. It is vital to a successful circular economy to recover materials that can be remanufactured or recycled into new products, reducing the need for virgin material. Because electronics are manufactured with materials that are both valuable and potentially hazardous to the environment, their proper disposal is critical.

When electronic waste (e-waste) is improperly managed, there can be consequences for the local environment and the public health of those managing the e-waste – especially if proper safety protocols are not followed. To address these concerns, Maryland requires that e-waste be processed by a certified e-Stewards or R2 recycler.

## **Goal 7: Continue to engage and support vendors to increase awareness and compliance**

A strong collaborative partnership between the GPC and the vendors who serve state agencies is critical to advancing green purchasing in Maryland. Green Purchasing staff regularly meets with vendors to provide one on one coaching on green purchasing requirements and opportunities for vendors to green their practices.

In FY 2025, the GPC worked with the following statewide vendors:

- FPC/Brady Plus
- Maryland Correctional Enterprises
- Dell
- Fastenal
- Grainger

Green Purchasing staff also met with vendors looking to do business with the state to provide guidance on green requirements and how they may be incorporated into contracts. Staff also met with representatives from ecolabels, and non-profits to identify opportunities for collaboration and expansion.

# Promoting Re-Use

DGS manages the acquisition and utilization of surplus property through two statewide programs: the State Surplus Property Program and the Federal Surplus Property Program. These programs are excellent examples of the circular economy in action and support Maryland’s role as a responsible steward of both taxpayer dollars and our natural environment.

When Maryland reduces the number of new items purchased, keeps items in use or extends their life, and responsibly manages the end life of the products consumed, waste is minimized, and our environmental footprint shrinks. Extending the useful life of products not only eases unnecessary burdens on the State budget, but also diverts waste from Maryland’s landfills. By avoiding both the cost of a purchase as well as disposal costs, Maryland can shift those dollars to serve other purposes.

## State Surplus Property Program

The State Surplus Property Program is responsible for the management of excess and unneeded State-owned property. The DGS Inventory Standards and Support Services Division determines the appropriate disposition method and ensures useful items are reused whenever possible.

In FY 2025, **over \$1.6 Million** worth of property was reassigned to other state agencies and \$19 Million was donated to local jurisdictions and non-profit organizations who could give the items a second life. Most items were disposed of through online auction, thereby lengthening the lifespan of the product, while also bringing funds back to the State. The division sold over \$56 Million worth of property through online auctions, including 684 state vehicles and pieces of equipment. The division also authorized state agencies to recycle over \$4 million worth of property; reducing the numbers of items being set to the landfill.

## Federal Surplus Property Program

The Federal Surplus Property Program, administered by DGS, ensures that federal property can be re-utilized by state, local and non-profit organizations. Through this program, the state acquires furniture, electronics, vehicles, other tools, machinery, and equipment no longer needed by the Federal Government. This property is then distributed to state agencies, local governments, and other organizations within Maryland.

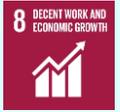
In FY 2025, the program managed the distribution of property valued at \$11.9 Million, which resulted in savings by reducing the need to buy new products while at the same time keeping these products out of the landfill.

FY 25 FEDERAL SURPLUS PROPERTY DONATIONS (JULY 2023-JUNE 2024)		
Organization Type	Items Donated	Donation Value
Small Business (8a)	Furniture, Equipment	\$264,597.00
MD State Agencies	Furniture, Equipment, Trailers, Vehicle, Aircraft	\$251,402.00
Nonprofit Organizations	Equipment, Furniture, Computers, Tablets, Printers, iPhones, Van, Truck, Trailer, Forklift, Passenger Motors, Humvees,	\$10,100,379.00

	School Supplies, Stationery, Storage Container, Utensils, Lawn Mowers, kitchen equipment, medical supplies	
Volunteer Fire Departments	Furniture	\$100,958.00
Veteran-Owned Small Business (VOSB)	Printers, Pelican Cases, Equipment, Laptop Cases, Computers, Phones, Stationery, Passenger vehicle, iPhones, medical supplies	\$162,097.00
Educational	Furniture, Equipment, School Supplies	\$16,769.00
Total		\$11,896,202.00

# Measuring Success

The GPC uses Key Performance Indicators (KPIs) based on the [UN's Sustainable Development Goals](#) to evaluate the success of our program.

	FY 2025	FY 2024	UN SDGs
<b>Program Focused</b>			
<i>Contract Integration</i>			
Specifications Approved and Published (No.)	7	11	  
Contract Solicitations Greened (No.)	24	9	
<i>Training &amp; Outreach</i>			
Vendor Outreach and Training (Hours)	36	26	  
Agency Outreach and Training (Hours)	69	40	
Procurement Officers Trained (No.)	89	106	
<b>Product Focused</b>			
<i>Financial</i>			
Cost savings (USD)	\$3,337,907	\$7,102,049	 
Total Green Spend (USD)	\$80,448,731	\$100,811,525	
<i>Energy</i>			
Electricity Savings (MWh)	58,625	86,966	 
Renewable Energy Purchased (MWh)	244,600	230,397	
<b>Product Focused</b>			
<i>Emissions</i>			
GHG Emissions Reductions (Tons)	146,660	149,752	 
EV Projects Completed (No. of Ports)	123	63	  
Electric vehicles Purchased (No.)	45	20	
<i>Water</i>			

	FY 2025	FY 2024	UN SDGs
Water Saved ( <i>Gallons</i> )	39,532,346	28,800,804	
<b><i>Natural Resources</i></b>			
Material Conservation ( <i>Tons</i> )	11,445	28,031	  
State Surplus Property Program ( <i>USD</i> )	~\$20,600,000	~\$1,000,000	
<b><i>Pollution</i></b>			
Hazardous Air Pollutant Reduction ( <i>Tons</i> )	1.24	0.52	 
Other Air Pollutants ( <i>Tons</i> )	178	286	
<b><i>Waste</i></b>			
Municipal Solid Waste Reduction ( <i>Tons</i> )	1,187	1,454	  
Hazardous Solid Waste Reduction ( <i>Tons</i> )	18	90	



## Looking Ahead

The Maryland Green Purchasing Program looks forward to future growth while continuing to pursue established goals:

1. Continue building out a robust library of specifications
2. Communicate the benefits of green purchasing
3. Expand training and learning opportunities
4. Recognize agencies for their green purchasing successes
5. Simplify the green purchasing process for procurement staff and purchasers
6. Promote the development of recycled content markets
7. Continue to engage and support vendors to increase awareness and compliance

# Appendices

## A. Reporting Methodology

### Standards for Environmentally Preferable Products

The Green Purchasing Committee utilized standardized vendor reporting templates, created for Maryland by RPN, to collect data quarterly from targeted vendors with statewide contracts. For the purposes of reporting, the Maryland Green Purchasing Committee uses a [strict set of criteria](#) for products to be counted as green and included in green spend figures.

All tonnage values in this report are in U.S. Short Tons. All values are rounded to the nearest whole number.

### Benefits Calculation Methodology

#### 1. Benefits Equivalencies

Equivalency calculations for energy savings and greenhouse gas reductions were made using the [EPA's Greenhouse Gas Equivalencies Calculator](#). Additional assumptions for equivalencies are based off of EPEAT benefit calculators and are as follows:

- Annual Municipal Solid Waste estimate is 4,100 lbs. per household per year.<sup>2</sup>
- Olympic Sized Swimming Pool holds 660,430 gallons of water.<sup>3</sup>
- 18-wheeler (tractor trailer) weighs 80,000 lbs.<sup>4</sup>

#### 2. LED Lighting

By choosing LEDs instead of incandescent, halogen, fluorescent and high-intensity discharge (HID) lighting products, the State substantially lowered its electricity bills, reduced its greenhouse gas (GHG) emissions, and protected the health of its workers and the environment by preventing exposure to toxic mercury.

Environmental and cost benefits have been estimated for LED lighting by determining lamp wattage, wattage of CFL being replaced (if unable to be identified, 50% energy savings is assumed), and the associated wattage savings. The value for total wattage saved was then multiplied by the State's cost of electricity per kWh to determine total cost savings. Additional benefits from the purchase of LED luminaires are anticipated (e.g., reduction in mercury exposure) but were unable to be quantified at this time. Benefits were calculated for 7 years. However, since LEDs typically last 5-10 years, the benefits provided may only represent a fraction of total energy and cost savings.

#### 3. Renewable Energy

By purchasing renewable energy, the State of Maryland was able to lower its CO2 emissions and other pollutants. Benefit calculations were made using EPA's [Avoided Emissions and Generation Tool \(AVERT\)](#).

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<sup>2</sup> EPA, *Advancing Sustainable Materials Management: 2014 Tables and Figures*.

[https://www.epa.gov/sites/production/files/2016-11/documents/2014\\_smm\\_tablesfigures\\_508.pdf](https://www.epa.gov/sites/production/files/2016-11/documents/2014_smm_tablesfigures_508.pdf)

U.S. Census Bureau, *America's Families and Living Arrangement: 2016: Average Number of People per Household Table AVG1*. <https://www.census.gov/data/tables/2016/demo/families/cps-2016.html>

<sup>3</sup> Patagonia Alliance, *How Much Water Does an Olympic Sized Swimming Pool Hold?*

<http://www.patagoniaalliance.org/wp-content/uploads/2014/08/How-much-water-does-an-Olympic-sized-swimming-pool-hold.pdf>

<sup>4</sup> U.S. Department of Transportation, *Compilation of Existing State Truck Size and Weight Limit Laws Report to Congress*.

[https://ops.fhwa.dot.gov/freight/policy/rpt\\_congress/truck\\_sw\\_laws/index.htm](https://ops.fhwa.dot.gov/freight/policy/rpt_congress/truck_sw_laws/index.htm)

#### 4. Zero Emission Vehicles (ZEVs)

The procurement of ZEVs lowers the State's carbon footprint by reducing tailpipe emissions. Benefit calculations were made using Maryland Department of the Environment's benefit analysis.

#### 5. High Yield + Remanufactured Cartridges

High yield and remanufactured ink and toner Cartridges provide the dual benefit of greenhouse gas (GHG) reductions and the conservation of primary resources. Estimates for GHG reduction and resource conservation were sourced from the Centre for Remanufacturing and Reuse's study *The Carbon Footprint of Remanufactured versus New Mono-Toner Cartridges*<sup>5</sup> and a Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT study<sup>6</sup> on the reuse of toner cartridges.

High yield cartridges manufactured by HP typically provide a page yield between 1.8 – 2.5x a conventional cartridge; HP is the primary manufacturer of high yield cartridges purchased by the State of Maryland. For these benefit calculations, a value of 2x was used when comparing high yield and conventional cartridges. By doing so, we can assume that the purchase of a single high yield cartridge provided a GHG and resource savings of one standard yield cartridge. The benefits of purchasing a remanufactured high yield cartridge were calculated by summing the benefits provided by purchasing a standard yield remanufactured cartridge and a high yield cartridge. Cost savings were estimated at a conservative rate of 15% for high yield products, 30% for remanufactured products, and 45% for remanufactured high yield products.

#### 6. Electronics & IT

The State of Maryland considers IT to be green if servers are certified EPEAT Bronze and if computers and displays, imaging equipment, televisions, and mobile phones are EPEAT certified Silver or Gold. A lifecycle approach is used to estimate the benefits of purchasing and using EPEAT products compared to non-EPEAT products. The analysis captures environmental impacts associated with raw material extraction, component, and product manufacturing and energy consumed during product use. These benefit calculations were made using the [Global Electronic Council's EPEAT Benefits Calculators](#) for imaging equipment, servers, and computers and displays.

#### 7. Recycled Paper Products

Maryland was able to successfully calculate the benefits associated with buying recycled paper in different subcategories: coated freesheet, corrugated container, linerboard, paperboard (coated unbleached kraft and solid bleached sulfate), tissue, uncoated freesheet. Products categorized as uncoated freesheet include copy paper, paper post-its, paper notebooks, envelopes and paper desk pads. Benefits were calculated using the [Environmental Paper Network calculator](#).

#### 8. Recycled Non-Paper Products

Maryland was able to successfully calculate the benefits associated with buying recycled non-paper products including plastic, metal, and mixed material content. Benefits of recycled non-paper products were calculated by using the [EPA Recycled Content \(ReCon\) Tool \(version 5\)](#).

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<sup>5</sup> <https://docplayer.net/11672387-The-carbon-footprint-of-remanufactured-versus-new-mono-toner-printer-cartridges.html>

<sup>6</sup> Study: Reuse of Toner Cartridges Reduces Emissions, <https://www.umsicht.fraunhofer.de/en/press-media/press-releases/2019/interseroh-toner-cartridges.html>

## B. Green Purchasing Committee Membership

Department	Members/Designees & Participating Staff	
<p><b>Department of General Services (Chair)</b></p>	<p>Atif Chaudhry Secretary</p> <p>Victoria Nellis, CPPB, NIGP-CPP, CMPO+GPS (Designee) Green Purchasing Program Manager <a href="mailto:Victoria.Nellis@maryland.gov">Victoria.Nellis@maryland.gov</a></p>	<p>Sam Linton, CMPA (Staff) Green Purchasing Data Coordinator <a href="mailto:Sam.Linton@maryland.gov">Sam.Linton@maryland.gov</a></p>
<p><b>Department of Budget and Management</b></p>	<p>Joseph Consoli (Designee) Fleet &amp; Travel Administrator <a href="mailto:Joseph.Consoli@maryland.gov">Joseph.Consoli@maryland.gov</a></p>	
<p><b>Department of Commerce</b></p>	<p>Rachel Cruse (Designee) Procurement Supervisor <a href="mailto:Rachel.Cruse1@maryland.gov">Rachel.Cruse1@maryland.gov</a></p>	
<p><b>Department of Education</b></p>	<p>Jeremy Wilson (Designee) Business Services Coordinator, Office of Procurement and Contract Management <a href="mailto:Jeremy.Wilson@maryland.gov">Jeremy.Wilson@maryland.gov</a></p>	
<p><b>Department of Environment</b></p>	<p>Acacia Laing (Designee) Business Liaison <a href="mailto:Acacia.Laing@maryland.gov">Acacia.Laing@maryland.gov</a></p>	<p>Josey Schwartz (Designee) Climate Change Program <a href="mailto:Josey.Schwartz@maryland.gov">Josey.Schwartz@maryland.gov</a></p>
<p><b>Department of Health</b></p>	<p>Dionne Washington, CMPO + GPS (Designee) Deputy Director, Office of Contract Management &amp; Procurement <a href="mailto:Dionne.Washington@maryland.gov">Dionne.Washington@maryland.gov</a></p>	
<p><b>Department of Information Technology</b></p>	<p>Keasha Brown (Designee) Senior Director, Strategic Sourcing <a href="mailto:Keasha.Brown@maryland.gov">Keasha.Brown@maryland.gov</a></p>	
<p><b>Department of Natural Resources</b></p>	<p>Tracy Bees (Designee) Socioeconomic Programs and Compliance Administrator <a href="mailto:Theresa.Bees1@maryland.gov">Theresa.Bees1@maryland.gov</a></p>	
<p><b>Department of Public Safety and Correctional Services</b></p>	<p>Lynna Atkins (Designee) Procurement Officer <a href="mailto:Lynna.Atkins@maryland.gov">Lynna.Atkins@maryland.gov</a></p>	<p>Joana Y. Pei Associate Director, Office of Procurement Services <a href="mailto:Joana.Pei@maryland.gov">Joana.Pei@maryland.gov</a></p>
<p><b>State Treasurer</b></p>	<p>Cissy Blasi (Designee) Deputy Treasurer for Operations <a href="mailto:cblasi@treasurer.state.md.us">cblasi@treasurer.state.md.us</a></p>	

<p><b>Department of Transportation</b></p>	<p>Eddie Lukemire (Designee)  Program Manager  <a href="mailto:ELukemire@mdot.maryland.gov">ELukemire@mdot.maryland.gov</a></p>	
<p><b>University System of Maryland</b></p>	<p>Thomas P. Hickey (Designee)  Director of Procurement and Real Property Initiatives  <a href="mailto:THickey@usmd.edu">THickey@usmd.edu</a></p>	<p>Patricia Watson  Director of Sustainability  Towson University  <a href="mailto:pwatson@towson.edu">pwatson@towson.edu</a></p>

## C. Agency Green Spend Report

The below table shows agency level green purchasing expenditures. When agencies are procuring green products or services outside of statewide contracts, that amount is included in the “Agency Green Spend” column.

Agency	Agency Green Spend	Statewide Green Spend	Electric & Hybrid Vehicle Spend	Total Green Spend	Total Commodity Spend	% Green
Alcohol, Tobacco, and Cannabis Commission		\$14,545		\$14,545.00	\$228,712.00	6.36%
Baltimore City Community College		\$51,229		\$51,229.00	\$5,619,772.00	0.91%
Board of Contract Appeals		\$166		\$166.00	\$1,407.00	11.80%
Board of Nursing					\$55,720.00	0.00%
Board of Public Works		\$4,262		\$4,262.00	\$10,791.00	39.50%
Boards, Commissions, and Offices		\$165		\$165.00	\$45,608	0.36%
Bowie State University	\$ 303,848	\$120,292		\$424,139.97	\$10,267,551.00	4.13%
Canal Place Preservation and Development				\$0.00	\$35,443.00	0.00%
Chesapeake College		\$3,939		\$3,939.00		
Comptroller of Maryland		\$129,304		\$129,304.00	\$8,877,380.00	1.46%
Coppin State University	\$ 48,060	\$166,633		\$214,693.45	\$2,954,015.00	7.27%
Department of Aging	\$ 12,998	\$51,912		\$64,910.16	\$219,869.00	29.52%
Department of Agriculture		\$23,250	\$72,378.00	\$95,628.00	\$1,687,918.00	5.67%
Department of Budget and Management	\$ 280	\$269,211		\$269,491.00	\$478,400.00	56.33%
Department of Commerce		\$145,297		\$145,297.00	\$172,794.00	84.09%

Department of Disabilities		\$29,814		\$29,814.00	\$72,794.00	40.96%
Department of Environment	\$ 83,960	\$123,487		\$207,447.00	1,424,401.00	14.56%
Department of General Services	\$ 4,968	\$1,881,067		\$1,886,034.87	\$1,928,426.00	97.80%
Department of Health		\$5,318,466	\$50,090.00	\$5,368,556.00	\$199,668,481.00	2.69%
Department of Housing and Community Development	\$ 8,178,165	\$107,722	108,567.00	\$8,394,454.00	593,739.00	1413.83%*
Department of Human Services		\$3,536,941	\$86,279.00	\$3,623,220.00	\$7,014,710.00	51.65%
Department of Information Technology		\$4,919,071		\$4,919,071.00	\$16,049,151.00	30.65%
Department of Juvenile Services		\$624,082	\$303,413.00	\$927,495.00	\$10,392,619.00	8.92%
Department of Natural Resources	\$ 2,315	\$387,914		\$390,229.00	\$15,115,990.00	2.58%
Department of Planning		\$6,724		\$6,724.00	\$283,501.00	2.37%
Department of Public Safety and Correctional Services	\$ 33,779	\$10,122,864	1,182,745.00	\$11,339,388.00	83,094,397.00	13.65%
Department of Transportation	\$ 277,574	\$243,190		\$520,764.00	\$63,242,704.00	0.82%
Department of Veterans and Military Families	\$ 46,666	\$14,976		\$61,642.00	\$1,161,149	5.31%
Executive Department - Governor		\$6,213		\$6,213.00	\$308,845.00	2.01%
Frostburg State		\$598,346		\$598,346.00	\$7,018,946.00	8.52%
General Assembly (Legislative Branch)		\$81,604		\$81,604.00	\$5,895,986.00	1.38%
Governors Office of Crime Control & Prevention		\$8,338		\$8,338.00	\$51,956.00	16.05%
Interagency Comm. For Public School Construction		\$7,083		\$7,083.00	\$63,108.00	11.22%
Judiciary		\$237,394		\$237,394.00	\$17,447,932.00	1.36%

Maryland Aviation Administration	\$ 152,456	\$1,975,286	\$2,127,742.00	7,574,893.00	28.09%
Maryland Center for School Safety		\$260	\$260.00	\$36,200.00	0.72%
Maryland Commission on Civil Rights		\$374	\$374.00	\$49,060.00	0.76%
Maryland Department of Emergency Management		\$5,130	\$5,130.00	\$316,287.00	1.62%
Maryland Department of Labor		\$365,216	\$365,216.00	\$7,431,269.00	4.91%
Maryland Energy Administration		\$3,257	\$3,257.00	\$118,568.00	2.75%
Maryland Environmental Service		\$48,146	\$48,146.00	\$11,436,080.00	0.42%
Maryland Food Center Authority		\$750	\$750.00	\$168,000.00	0.45%
Maryland Health Benefit Exchange		\$227	\$227.00	\$89,493.00	0.25%
Maryland Higher Education Commission		\$35,448	\$35,448.00	\$229,920.00	15.42%
Maryland Institute for Emergency Medical Services Systems		\$13,531	\$13,531.00	\$411,215.00	3.29%
Maryland Insurance Administration		\$153,046	\$153,046.00	\$535,523.00	28.58%
Maryland Lottery and Gaming Control Agency		\$153,216	\$153,216.00	\$486,757.00	31.48%
Maryland Office of Tourism Development		\$12,885	\$12,885.00		
Maryland Port Administration	\$ 10,379	\$1,165,098	\$1,175,477.00	2,118,674.00	55.48%
Maryland Public Service Commission		\$41,439	\$41,439.00	\$1,295,725.00	3.20%
Maryland Public Television		\$22,827	\$22,827.00	\$166,884.00	13.68%
Maryland School for the Deaf		\$81,670	\$81,670.00	\$1,309,407.00	6.24%
Maryland Stadium Authority	\$39,896	\$230,321	\$270,216.46	1,927,533.00	14.02%
Maryland State Archives		\$8,320	\$8,320.05	\$376,772.00	2.21%

Maryland State Library Agency		\$6,380		\$6,380.42	\$45,747.00	13.95%
Maryland State Retirement and Pension System	\$1,382	\$29,916		\$31,297.71	\$1,298,158.00	2.41%
Maryland Tax Court				\$0.00	\$14,213.00	0.00%
Maryland Transit Administration		\$1,025,380	\$50,090.00	\$1,075,470.07	\$7,328,025.00	14.68%
Maryland Transportation Authority		\$464,391		\$464,390.67	\$14,475,554.00	3.21%
Military Department	\$ 83,960	\$154,337		\$238,296.87	882,121.00	27.01%
Morgan State University		\$453,942		\$453,941.99	\$19,290,891.00	2.35%
Motor Vehicle Administration	\$ 116,135	\$384,968		\$501,102.96	3,542,031.00	14.15%
Office of Administrative Hearings		\$51,904		\$51,903.99	\$372,205.00	13.95%
Office of the Attorney General		\$47,302		\$47,301.56	\$467,264.00	10.12%
Office of the People's Counsel		\$4,264		\$4,264.12	\$90,493	4.71%
Office of the Public Defender		\$182,549		\$182,548.72	\$2,375,769.00	7.68%
Office of the Register of Wills		\$93,883		\$93,882.50		
Office of the State Prosecutor		\$624		\$624.05	\$69,376.00	0.90%
Property Tax Assessment Appeals Boards				\$0.00	\$12,060.00	0.00%
Salisbury University		\$1,409,329		\$1,409,329.29	\$13,018,184.00	10.83%
Secretary of State		\$2,407		\$2,407.15	\$107,081.00	2.25%
St. Mary's College of Maryland		\$100,431		\$100,431.49	\$5,422,469.00	1.85%
State Board of Elections	\$197,883	\$155,176		\$353,059.11	5,798,252.00	6.09%
State Department of Assessments and Taxation		\$46,290		\$46,290.00	351,227.00	13.18%

State Department of Education	\$56,737	\$616,397	\$673,133.85	1,543,964.00	43.60%	
State Ethics Commission		\$453	\$453.37	\$9,834.00	4.61%	
State Highway Administration		\$477,478	\$72,378.00	\$549,855.96	\$25,909,706.00	2.12%
State Police		\$1,229,953	\$1,229,953.18	\$16,057,348.00	7.66%	
State Treasurer's Office		\$16,490	\$16,490.15	\$375,719.00	4.39%	
The Secretary's Office (MDOT-TSO)	\$ 10,621		\$10,621.00	\$2,293,821.00	0.46%	
Towson University	\$750,473	\$1,138,465	\$1,888,938.21	37,473,502.00	5.04%	
University of Baltimore	\$29,675	\$74,381	\$104,056.83	5,509,694.00	1.89%	
University of Maryland Baltimore	\$488,700	\$520,252	\$1,008,951.78	80,091,730.00	1.26%	
University of Maryland Baltimore County		\$89,290	\$89,290.00	\$34,620,043.00	0.26%	
University of Maryland Center for Environmental Science		\$7,559	\$7,558.69	\$1,566,746.00	0.48%	
University of Maryland College Park	\$2,316,664	\$648,995	\$2,965,659.26	137,018,471.00	2.16%	
University of Maryland Eastern Shore		\$856,136	\$856,135.97	13,392,451.00	6.39%	
University of Maryland Global Campus	\$ 28,012	\$5,832	\$33,844.32	5,990,348.00	0.56%	
University System of Maryland		\$279,853	\$279,853.00	\$332,161,598.00	0.08%	
Unknown Agency		\$80,104	\$80,104.00			
Worker's Compensation Commission		\$19,033	\$19,033.00	\$157,752.00	12.07%	

\* Totals are based on State funds received by agencies. Agency received federal grant that was used for Green IT products – allowing for green spend totals above total State funds received.



# Maryland Green Purchasing Committee

Web: <https://dgs.maryland.gov/Pages/GreenPurchasing/index.aspx>

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