



# MARYLAND GREEN PURCHASING

2022 | Annual Report of the Maryland Green Purchasing Committee



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# MESSAGE FROM THE SECRETARY



Dear Members of the Legislature:

I am honored to present the Maryland Green Purchasing Committee's FY 2022 Annual Report. Each year, DGS submits a report to the Legislature on the State's environmentally preferable purchasing activities.

This year marked a transitional one, after the two-year COVID pandemic, State employees began the return to their offices. While purchasing habits have certainly changed through the years, we are still happy to report that in FY 2022, the State procured **\$49,983,826** in environmentally preferable products and services, including renewable energy, green commodities such as office supplies, IT, food service ware, appliances, lighting, and electric vehicles and charging stations. DGS is excited to head this critical statewide program that leverages the purchasing power of State government for the good of all of Maryland.

As the program continues to grow, it is crucial our staff are knowledgeable in all things green purchasing. For the first time, the Committee partnered with Maryland Procurement Academy to offer a formal specialization in environmentally preferable procurement. This certificate program builds upon the foundational green purchasing classes to ensure that we have "Green Purchasing Specialists" (GPSs) throughout State government, all of whom are working to advance green procurement. Training a workforce that is green purchasing literate and developing subject matter experts in the State will ensure that our program is strong for years to come.

I am also proud to report that our program has established Maryland as a national leader among our peers. This year Maryland's Green Purchasing Committee received commendation from the Northeast Recycling Council for its overall leadership in environmental sustainability. We were honored with an award recognizing that leadership from the Sustainable Purchasing Leadership Council, for making the "Best Business Case" for sustainable purchasing. Please read on to learn the myriad ways the Green Purchasing Committee works to ensure Maryland state's procurements are responsible and sustainable.

A handwritten signature in blue ink that reads "Ellington E. Churchill, Jr." The signature is written in a cursive style.

Ellington E. Churchill, Jr.

Secretary, Department of General Services

# FY 2022 Impact Report

**\$3,008,973** Saved



**428,743**  
Cars Removed  
for 1 Year

**2,207,080** tons of  
CO2e Avoided

**41** GWh of  
Electricity Saved

**3,408**  
Homes' Annual  
Energy Use



**383**  
Tractor Trailers'  
Weight

**15,303** tons of  
Material Conserved

**30,656,142** gallons of  
Water Conserved

**46**  
Olympic  
Swimming Pools



**309**  
Homes'  
Annual Waste

**633** tons of  
Waste Avoided

**2,771** tons of  
Pollution Reduced



# WHY IT MATTERS



Green Purchasing is a concrete action that all of us can undertake to improve the environment for future generations.

- Tom Hickey, USM Designee



Green Purchasing will sustain that which is currently unsustainable.

- Melane Botlz, MDH Member



The work that the Committee has done in creating energy-efficient standards for electronic & IT products is extremely beneficial for the State.

- Michael Leahy, DoIT Designee



Green Purchasing in Maryland goes beyond fulfilling regulatory requirements and is important for enhancing quality of life and improving our shared environmental resources.

- Eddie Lukemire, MDOT Designee



Green Purchasing gives us the chance to bring balance back into the way we consume and show respect for our world.

- Kshirajaa Ramesh, Staff

Green Purchasing provides interlinking benefits and is essential to ensuring a sustainable environment, new job opportunities, and a healthy public.  
- Sam Linton, Staff



Green Purchasing means voting with your dollars – for the State, we’re voting for a future with less greenhouse gas emissions, less waste, and less pollution.  
- Carissa Ralbovsky, DBM Member



Green purchasing is exciting because of the collective impact we can make by leveraging the State’s purchasing power to ensure that Maryland is doing its part to address climate change and ensure a sustainable future for our children.  
- Emily Soontornsaratool, DGS Designee



Green Purchasing reduces our carbon footprint and saves money in the long run.  
- Joanna Kille, Treasurer’s Office Designee



Green Purchasing is important because we are public servants but also citizens of Maryland. We owe it to ourselves and our fellow citizens to procure in a manner that reduces the impact on the natural treasures that Marylanders and her visitors enjoy, so that future generations can also enjoy them for years to come.  
- Amanda Hutchinson, MDE Designee



Green Procurement is important because it promotes the sustainability of our natural environment and the State’s investment.  
- Devin Neil, DGS Member





## 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.”

The Green Maryland Act of 2010 established the Maryland Green Purchasing Committee to administer the state’s Environmentally Preferable Purchasing Program. The Committee is composed of 10 statutory agency members and is chaired and staffed by the Department of General Services (see Appendix B). 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.

Maryland’s program is bolstered 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.*

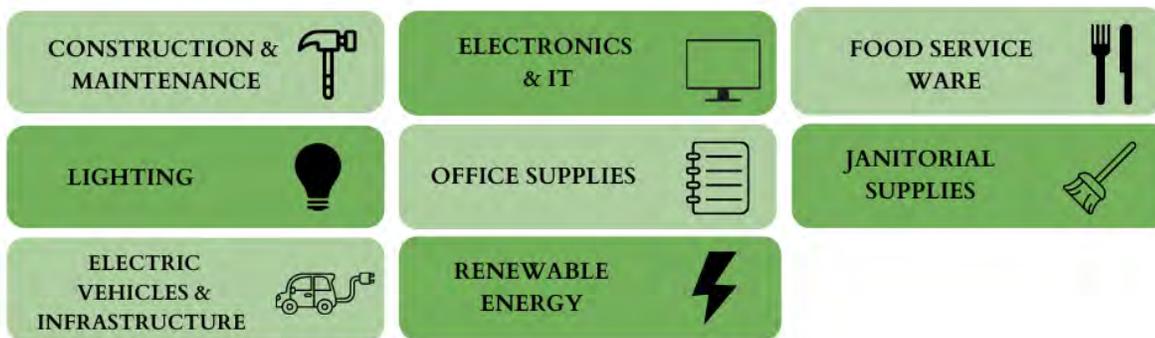
The Maryland Green Purchasing Committee advances environmentally preferable (or green) purchasing through training, outreach, coordination with other state entities, and by developing and published environmentally preferable specifications for agencies to use in their procurements.





# MARYLAND'S FY 2022 GREEN SPEND

In FY 2022, Maryland spent \$49.9 million on environmentally preferable commodities. Maryland's total green spend is comprised of expenditures from Statewide Contracts, individual Agency contracts, renewable energy, and EV Charging Infrastructure and is spread across the following eight commodity categories:



## Green Spend on Statewide Commodity Contracts

Statewide Contracts in high impact categories make up a significant portion of Maryland's green purchases. In FY 2022, the State of Maryland spent **\$21.9 million** on products offered on statewide contracts and utilized by State agencies, higher education institutions, and local governments across Maryland.

Statewide green spend for electronics and IT fluctuated this year with vendors reporting fewer purchases of imaging equipment, computers, tablets, and laptops – the main source of green electronic and IT spend. Instead, an analysis of IT purchases showed increased spend in electronic accessories such as headsets and cameras. At the time of purchase, the Green Purchasing Committee had not yet established environmental requirements for these product types. However, since then, the Committee approved and published an updated Electronics & IT specification that adds TCO Certified as an approved ecolabel for IT products. The addition of this highly respected certification, which covers items such as headsets and projectors in addition to standard electronic and IT products, will increase the number of eligible products available to Maryland.

### **Green Spend on Agency Commodity Contracts**

While most agencies purchase off statewide contracts for commodities tracked by the Green Purchasing Committee, agencies may choose to enter into their own agreements with vendors. These 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. Agencies may also choose to use their purchase cards (i.e., credit cards) to buy products outside of contracts altogether; this may occur if a product is needed urgently and there is not enough time to execute a new procurement contract.

To better understand these types of purchases and their environmental impact, the Green Purchasing Committee requests Agencies to submit green purchasing reports on any environmentally preferable purchases made on agency contracts or through their purchase cards. In FY 2022, 11 agencies provided detailed green purchasing reports identifying a total agency green spend of **\$9.2 million**.

### **Renewable Energy**

The State purchases renewable power from two large wind installations and a solar installation, utilizing three 20-year Power Purchase Agreements (PPAs): Mount St. Mary's Solar; Pinnacle Wind; and Roth Rock Wind. In FY 2022, the State of Maryland spent **\$14.7 million** on 157,946 MWh of renewable energy which accounted for 11% of the electricity for State operations.

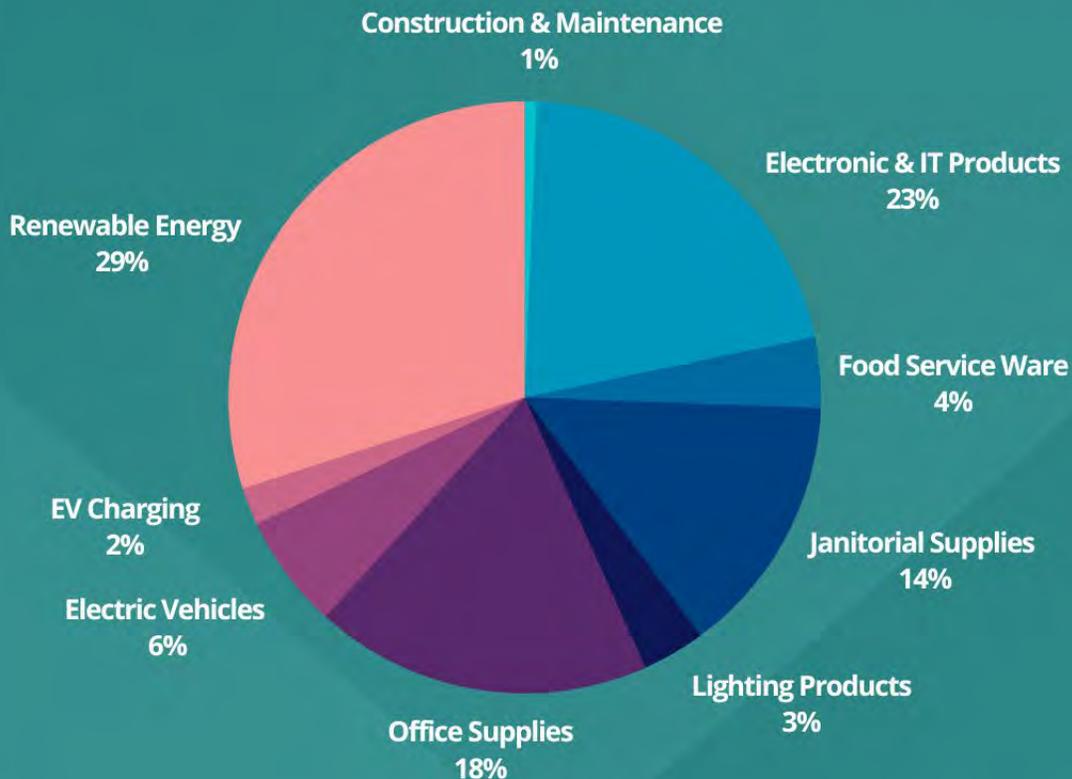
### **Electric Vehicles and Charging Stations**

In FY 2022, the State of Maryland purchased 90 new electric vehicles amounting to **\$3 million**. The State also installed 146 charging ports costing **\$1 million** to support the State's 130 electric vehicles in the State fleet.

# FY 2022 Green Spend

SPEND TYPE	AMOUNT
STATEWIDE GREEN SPEND	\$21,996,259
AGENCY GREEN SPEND	\$9,221,210
RENEWABLE ENERGY	\$14,701,095
ELECTRIC VEHICLES (EVs)	\$3,065,262
EV CHARGING INFRASTRUCTURE	\$1,000,000
<b>TOTAL</b>	<b>\$49,983,826</b>

## Commodity Breakdown



	Emissions Avoided/ Resources Saved	Pollutants & Toxic Materials Avoided	Dollars Saved
<b>Electric Vehicles</b>	2,041,384 tons of CO2e	29 tons of SO2 1323 tons of NOX 1125 tons of VOCs 63 tons of PM2.5	<i>Cost Savings Expected in the Future</i>
<b>Green Electronics &amp; IT</b>	22 GWh of Electricity 4,513 tons of CO2e 6,379 tons of Material 3,402,552 gallons of Water	2 tons of Toxic Substances  27 tons of Hazardous Waste	\$1,875,790
<b>High Yield &amp; Reman Cartridges</b>	56 tons of CO2e  123 tons of Material	<i>Unable to be Estimated at this Time</i>	\$212,734
<b>LED Lighting</b>	9 GWh of Electricity  7,070 tons of CO2e	5 tons of SO2 3 tons of NOX .5 tons of PM2.5	\$920,449
<b>Recycled Paper</b>	7 GWh of Electricity 13,487 tons of CO2e 8,485 ton of Material 27,253,590 gallons of Water	3 tons of SO2 30 tons of PM2.5 1 ton of HAPs	
<b>Recycled Products (Non-Paper)</b>	4 GWh of Electricity 411 tons of CO2e 316 tons of Material	<i>Unable to be Estimated at this Time</i>	
<b>Renewable Energy</b>	140,160 tons of CO2e	96 tons of SO2 64 tons of NOX 2 tons of VOCs 9 tons of PM2.5	

# Statewide Spend

VENDOR	PRODUCT CATEGORY							GREEN SPEND	TOTAL SPEND	PERCENT GREEN
										
Acme			X					\$26,045	\$429,941	6%
AJ Stationers			X	X		X		\$291,999	\$1,213,282	24%
ATS		X						\$11,431,994	\$22,250,019	51%
BISM				X		X		\$7,184,549	\$9,963,818	72%
Canon		X						\$1,238,754	\$1,288,507	96%
Cartridge Plus						X		\$7,932	\$20,144	39%
CDW-G		X						\$7,416	\$38,785	19%
Daly		X						\$214,340	\$1,116,371	19%
Eldsi		X						\$177,362	\$396,448	45%
Fastenal	X			X				\$14,092	\$31,106	45%
FPC			X					\$1,761,854	\$4,020,507	44%
Graybar					X			\$1,547,105	\$2,088,504	74%
MCE						X		\$5,595,875	\$50,200,000	11%
RGH		X	X	X		X		\$872,423	\$2,909,809	30%
Ricoh		X				X		\$179,068	\$179,068	100%
Rudolph's		X	X	X		X		\$1,671,680	\$6,379,050	26%
Sharp		X						\$716,207	\$865,638	83%
Toshiba		X						\$3,124	\$3,124	100%
W.W. Grainger	X	X		X	X	X		\$469,536	\$18,766,364	3%
Xerox		X						\$16,901	\$16,901	100%
<b>TOTAL</b>								<b>\$21,996,259</b>	<b>\$122,177,385</b>	<b>18%</b>

# Agency Green Spend

STATE AGENCY	PRODUCT CATEGORY						GREEN SPEND
							
Bowie State University		X	X	X		X	\$ 4,610,239
Coppin State University						X	\$ 332
Dept. of Aging		X				X	\$ 790
Dept. of Public Safety & Correctional Services	X	X		X			\$ 148,412
State Department of Education				X			\$932,848
Port Administration		X					\$23,113
Motor Vehicle Administration						X	\$ 462
Towson University	X	X	X				\$ 357,176
University of MD: College Park		X				X	\$2,821,408
University of MD: Global Campus	X	X		X	X		\$ 321,782
University of Baltimore		X		X		X	\$ 4,647
<b>TOTAL</b>							<b>\$ 9,221,210</b>

*To see aggregate green spend numbers for all state agencies, see page 44.*

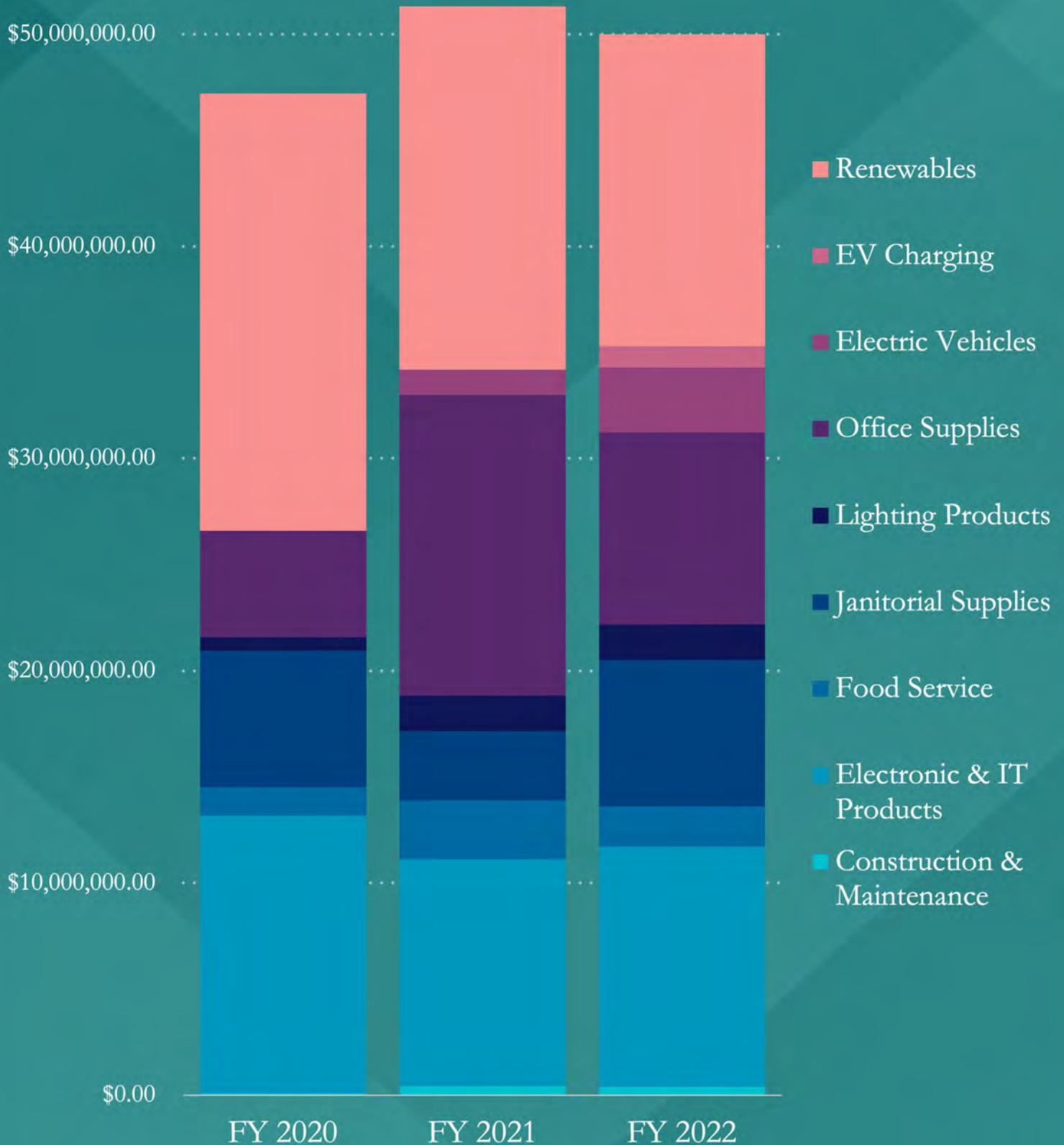
## Renewable Energy

Power Purchase Agreement	Total Generation (MWh)	Total Spend
Mount St. Mary's - Solar	19,448	\$4,323,629
Pinnacle - Wind	112,827	\$7,898,140
Roth Rock - Wind	25,671	\$2,479,326
<b>Total</b>	<b>157,946</b>	<b>\$14,701,095</b>

## EV Charging

**146** new charging ports added over **26** sites

# Green Spend Over Time





# EMBEDDING SUSTAINABILITY INTO STATE PROCUREMENT

In FY 2022, the Green Purchasing Committee focused on four main strategies to better integrate sustainability into Maryland procurement: Addressing Compliance, Increasing Stakeholder Engagement, Improving Accessibility, and Expanding Educational Opportunities.

## Compliance

Maryland has a strong legislative and regulatory foundation that requires State Agencies to procure environmentally preferable products. Still, it is important to audit and ensure that requirements are being followed. Last year, the Green Purchasing Committee recognized and then worked to close the gap in awareness regarding procurement requirements. To ensure improved compliance, the following steps were taken by the Green Purchasing Committee in FY 2022:

- Include specific requirements in green specifications
- Audit compliance gaps
- Block and substitute non-compliant products

## Inclusion of Legislative and Regulatory Requirements in Green Specifications

Maryland’s green purchasing program is grounded in legislative and regulatory requirements which guide the State’s purchases – what we can and cannot buy. Additionally, each legislative session sees the passage of new bills that affect the state’s purchasing practices. The FY 2022 session saw the passage of 6 new bills that outline new or updated purchasing requirements for State agencies.

While beneficial for the health and well-being of our environment and our residents, the ever-changing nature of legislative and regulatory requirements creates a complex arena for procurement officers and vendors to navigate. The Green Purchasing Committee discovered that, due to the large number of requirements, a blanket statement on compliance in lieu of specific language is included in solicitations:

*“By submitting a Bid in response to this IFB, the Bidder, if selected for award, agrees that it will comply with all Federal, State, and local laws applicable to its activities and obligations under the Contract.”*

As a result, vendors and procurement officers are frequently unaware of what State agencies are permitted to purchase. To rectify this issue, the Green Purchasing Committee includes a comprehensive list of statutory and regulatory requirements in each green specification distinct to each product or service category.

## Audit of Existing Compliance Gaps in Our Procurements

In FY 2022, the Green Purchasing Committee staff conducted an audit of State purchases across seven targeted commodity categories. This audit focused primarily on material and certification requirements for purchases. As a result of this audit, the Committee identified non-compliant purchases in three categories:



Food Service Ware: As of October 2021, the purchase and sale of expanded polystyrene food service ware were prohibited. However, in Spring 2022, the State of Maryland was still purchasing expanded polystyrene food service ware.



Office Supplies: Maryland is required to procure paper products with a minimum of 80% post-consumer recycled content; if products meeting this recycled content percentage are not available, then purchases must comply with the EPA’s Comprehensive Procurement

Guidelines. As of FY 2022, Maryland was purchasing paper products with 0% recycled content.



Electronic and IT Products: Maryland is required to purchase EPEAT rated Silver and Gold IT products in the following categories: Computers and Laptops, Monitors and Displays, Imaging Equipment, and Televisions. Servers are required to be a minimum of EPEAT rated Bronze. However, Maryland has continued to purchase products in these categories that are unrated.

### **Blocking and Substitution of Non-Compliant Products on Vendor Catalogs**

Green Purchasing Committee staff engaged vendors to block non-compliant products in these categories from their online catalogs and sales platforms. While expanded polystyrene food service ware and virgin copy paper products were removed from sale, it is far more challenging to remove non-EPEAT rated products. The Green Purchasing Committee will work with vendors to develop a comprehensive list of compliant Electronic and IT products that state purchasers can then use to buy off.

## **Removing Non-Compliant Products**



*Expanded polystyrene food ware and virgin copy paper were removed entirely from vendor sales platforms.*

## Engagement

Since 2019, Maryland's Green Purchasing Program has focused heavily on outreach to grow awareness on green purchasing requirements and programmatic actions. Outreach is an ongoing effort due to staff turnover, new requirements, new contracts, and other factors.

Two key audiences were targeted to ensure a successful green purchasing program: State agency staff (procurement officers and purchasers); and vendors. In FY 2021, Green Purchasing staff focused on agency engagement, conducting 13 one-on-one sessions with executive Agencies. In FY 2022, Green Purchasing staff focused on vendor engagement through similar coaching efforts.

## Vendor Survey

At the start of FY 2022, the Green Purchasing team conducted a survey to identify what State vendors knew about green purchasing. With 500 respondents, primarily from small businesses, Green Purchasing staff discovered that, though interested in learning more, most state vendors had minimal knowledge of Maryland's Green Purchasing program or how to integrate sustainability within their own businesses.

## Vendor One-on-Ones

In response to the vendor survey and previously identified gaps in engagement and compliance, Green Purchasing staff focused first on outreach to existing statewide vendors. Staff conducted one-one sessions with 10 vendors:

1. Maryland Correctional Enterprises (MCE)
2. Blind Industries & Services of Maryland
3. AJ Stationers
4. Rudolph's Supply
5. RGH
6. Cartridge Plus
7. Grainger
8. Seaboard Asphalt
9. FPC Distribution
10. ACME Paper and Supply

These one-on-one sessions focused primarily on compliance with statutory and regulatory requirements, the promotion of green products, and green purchasing reports. As a result of these sessions, several outstanding compliance issues were resolved, and new green purchasing guides were developed.

## Vendor-Led Presentations

The Green Purchasing Committee has welcomed statewide vendors with existing contracts to present on their sustainability practices during GPC Quarterly meetings. This opportunity allows vendors to directly

engage with procurement officers, state purchasers, and Green Purchasing committee members. Vendor presentations include:

- *Chemical Free Landscape Practices on State Grounds*– Kevin Wengernuk, KW Landscaping
- *The FY 2023 Green Purchasing Catalog* – Nicole Copeland, MCE
- *Finding Green Products* – Jacob Harrison, Grainger
- *Choosing Green Products* – Gerard Robinson and Cliff Griffin of RGH & Jake Swenson of Staples

## **GPC-Led Presentations**

Green Purchasing Staff was invited to present at Maryland’s 6th Annual Small Business Summit and at the Maryland Public Purchasing Association’s annual conference. Through these external-facing events, the Green Purchasing Committee engaged procurement professionals and vendors on the importance of green purchasing.

## **Accessibility**

As the State greens an increasing number of contracts, it is crucial that state employees can easily find and purchase green products. However, with a diverse set of vendors, it can be confusing for purchasers to navigate varying e-commerce platforms. Adding to the confusion, vendor standards for what they consider to be “green” can differ from Maryland’s green requirements. To simplify green purchasing for the end purchaser, Committee staff engaged vendors in the development of green purchasing guides, whether digital, print, or accessible directly on the e-commerce platform.

## **Green Purchasing Guides**

Maryland’s Green Purchasing Committee has worked tirelessly over the past few years to ensure that state purchasers have access to a variety of green commodities for purchase. However, it is important to ensure that purchasers can find and buy those greener products. To make it easier for purchasers to do this, the Committee has partnered with statewide vendors to develop and promote green purchasing guides.

### **Blind Industries and Services of Maryland (BISM)**

BISM’s green purchasing guide covers two main categories: Office Supplies and Janitorial Products. Available in print or digital formats, this guide is easy-to-use and allows purchasers to take advantage of the green products offered by the State’s preferred provider. In FY 2022, the BISM green purchasing guide was updated to include detailed information on the recycled content of each product.

# BISM's Green Purchasing Guide

## Buying Green Products on Maryland's Contract with BISM

### Shop Green in Maryland

Blind Industries & Services of Maryland (BISM) offers a variety of environmentally preferred products and is dedicated to developing additional environmentally safe items to achieve a better, GREENER tomorrow.



### How can I buy green products from BISM?

Go to [www.bism.org/state](http://www.bism.org/state)  
or Call our Customer Care Team at 410-737-2600



### "Green Certified"

For over a decade, BISM has been working to provide environmentally focused products to Maryland. Every item on this list is Green! Check below for items with Green Seal, EcoLogo & FSC Certifications. And look for our complete Master List at [www.bism.org/state](http://www.bism.org/state)



## Every Purchase Makes A Difference!

Product	Eco-Labels & Certifications	BISM #
<b>Office Supplies</b>		
Copy Paper, 8.5" x 11"	50% Recycled/50% Post-Consumer	10610-50
5" x 8" Glue Top, Ruled White	50% Recycled/30% Post Consumer	10101-031103
8.5" x 11" Glue Top, Ruled White	50% Recycled/30% Post Consumer	10101-032103
8.5" x 14" Glue Top Paper Pad	50% Recycled/30% Post Consumer	10101-033103
5" x 8" Tape Top, Ruled White	50% Recycled/30% Post Consumer	10102-051103
5" x 8" Tape Top, Ruled Canary	50% Recycled/30% Post Consumer	10102-051113
8.5" x 11.75" Tape Top, Ruled White	50% Recycled/30% Post Consumer	10102-052103
8.5" x 11.75" Tape Top, Ruled Canary	50% Recycled/30% Post Consumer	10102-052113
8.5" x 14" Tape Top, Ruled White	50% Recycled/30% Post Consumer	10102-053103
8.5" x 14" Tape Top, Ruled Canary	50% Recycled/30% Post Consumer	10102-053113

## Maryland Correctional Enterprises (MCE)

The MCE sales catalog includes an entire section on environmentally preferable products. A new feature debuted by MCE in FY 2022; the catalog now includes a “Shop now” button that takes users directly to the product’s online portal for easy purchase.

# Snapshot of MCE’s Catalog

**Systems** | **Environmentally Preferred Products**

These product lines are available in a wide variety of sizes to meet your needs and can be spaced planned by our design team. Contact your account rep for further information.

### **VOLUTION MODULAR DESKING**

VOLUTION is a freestanding desk system with a vast array of sizes, shapes, colors, and features. Beyond the simple rectangular work surface, Volution gives the end user the choice of many transition, peninsula and corner work surfaces. In addition, various conference ends and transactional work surfaces can be added. VOLUTION can also be used with most panel systems.



**SCS**certified  
INDOOR AIR QUALITY  
GREEN SOURCE  
GREENGUARD  
GREENSTAR

**SHOP NOW**

### **SYSTEMS XXI MODULAR OFFICE**

SYSTEM XXI offers a vast array of office settings from basic workstations to managerial offices to receptionist stations to multi-unit team pods. This system provides a comfortable, ergonomic work area while utilizing the least amount of floor space and remaining adaptable to change.



**SCS**certified  
INDOOR AIR QUALITY  
GREEN SOURCE  
GREENGUARD  
GREENSTAR

**SHOP NOW**

### **POWERWORKS MODULAR SYSTEMS**

POWERWORKS was developed with the worker in mind - the worker whose needs constant change. A tile system to channel power throughout the workstation is the premise behind POWERWORKS. It supports the altering of entire configurations without disturbing adjacent panels or power and data cables. Stackable panel sections are easily connected to monolithic or segmented panels for personal privacy as required. POWERWORKS is strong and sturdy, and best of all, cost-effective.



**SCS**certified  
INDOOR AIR QUALITY  
GREEN SOURCE  
GREENGUARD  
GREENSTAR

**SHOP NOW**

### **AMBERG MODULAR DESKING SYSTEM**

AMBERG is a steel desk system whose flexibility adapts to the needs of the user. This versatile line allows its users to arrange the system in the manner in which best suits them. The AMBERG line includes desks, returns, bridges, credenza corner units, privacy screens, modesty panels, pedestals, overhead storage units and additional accessories.



**SCS**certified  
INDOOR AIR QUALITY  
GREEN SOURCE  
GREENGUARD  
GREENSTAR

**SHOP NOW**

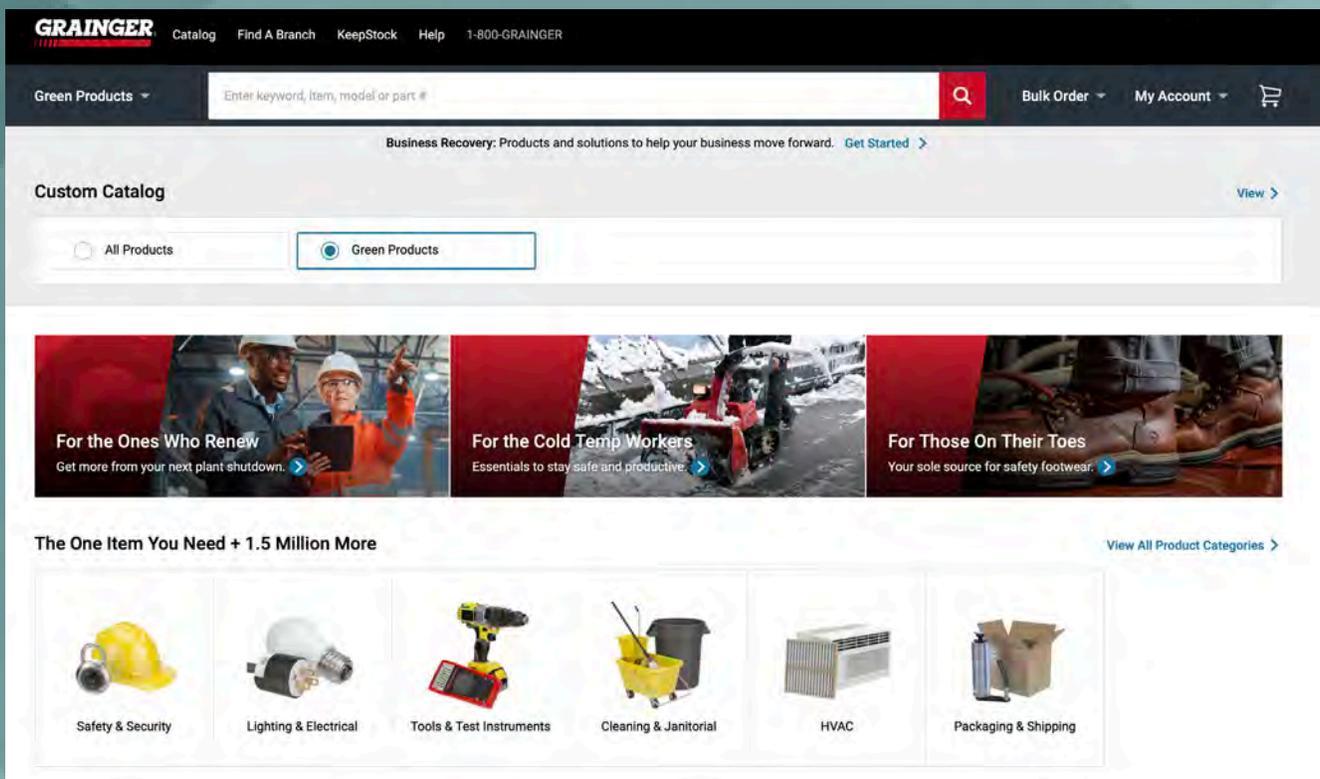
www.mce.md.gov | 410.540.5400

Certification Information: Refer to page 253

## Grainger

Grainger worked closely with Green Purchasing staff to identify all products that meet Maryland’s green purchasing requirements. These products were then tagged with a custom logo that displays on the product portal. Grainger also created a custom filter for “Green Products;” when this filter is active, all product searches will display only products that meet Maryland requirements.

# Grainger’s Custom Catalog for Green Products



Grainger products that meet Maryland’s environmental requirements are marked with this green logo.

## RGH

Green Purchasing staff worked closely with RGH and Staples to develop green purchasing shopping lists. Lists have been developed for frequently purchased categories such as paper and IT and will be updated regularly to ensure products Maryland's environmental requirements. The shopping lists are accessible on the home page of the e-commerce site once users are logged in to their State account.

# RGH's Eco-Friendly Shopping Lists

Select a list (26 lists)

Search lists

- ECO-Toner**  
33 items | Updated 11/9/22 | SHARED
- ECO-Business tools**  
16 items | Updated 11/3/22 | SHARED
- ECO-Colored copy paper**  
20 items | Updated 11/3/22 | SHARED
- ECO-Copy paper**  
13 items | Updated 11/3/22 | SHARED
- ☆ **ECO-Hand soap**  
9 items | Updated 11/2/22 | SHARED
- ☆ **ECO-Hand sanitizers**  
7 items | Updated 11/2/22 | SHARED
- ☆ **ECO-Food service ware**  
20 items | Updated 11/2/22 | SHARED
- ☆ **ECO-Lead writing**  
3 items | Updated 11/2/22 | SHARED
- ☆ **ECO-Ink writing**  
16 items | Updated 11/2/22 | SHARED
- ☆ **ECO-Laser printers**  
5 items | Updated 11/2/22 | SHARED
- ☆ **ECO-Inkjet printers**  
5 items | Updated 11/2/22 | SHARED
- ☆ **ECO-Faxes and scanners**  
2 items | Updated 11/2/22 | SHARED

**ECO-Business tools** 16 items / Shared

Search for items | Show filters

Add to cart | Print labels

- 1  **15% off**  
**Staples Desktop/Handheld Stapler, 20 Sheet Capacity, Black and Gray (40897)**  
Item #: 327002 | Model #: ST54050 | CIN #: 327002  
Added to list on 11/2/2022  
CORE ITEM  
ECO ID
- 1  **34% off**  
**Westcott KleenEarth 8" Stainless Steel Standard Scissors, Pointed Tip, Black (41418/13039)**  
Item #: 711770 | Model #: 41418/13039 | CIN #: 711770  
Added to list on 11/2/2022  
CORE ITEM  
ECO ID
- 1  **26% off**  
**Saunders Plastic Clipboards, Letter Size, Red/Black/Blue, 3/Pack (22601)**  
Item #: 24411029 | Model #: SAU22601 | CIN #: 24411029  
Added to list on 11/2/2022  
CORE ITEM  
ECO ID

## Green Lighting: Purchasing Guide

In response to popular demand, the Green Purchasing Committee worked with Alicia Culver of the Responsible Purchasing Network to develop a green purchasing guide for lighting products. The guide showcases how to find green lighting products available on different statewide contracts as well as take-back and recycling programs for lighting.

# Green Purchasing Guide for Lighting

**Maryland Green Purchasing Guide**  
**LED Lighting Equipment**  
May 2022

### INTRODUCTION

One of the most practical sustainability strategies available to public agencies to protect human health and the environment while saving money is to replace conventional lighting equipment – including incandescent, fluorescent, and high-intensity discharge (HID) – with LED luminaires, retrofit kits, and replacement lamps. Because LEDs are highly energy efficient, they can significantly reduce electricity consumption and greenhouse gas emissions. They also minimize replacement and disposal costs because they last a very long time – up to 10 years – and are free of toxic mercury.

This guide is designed to make it easy to:

- identify high-performance LED lighting equipment on Maryland's Statewide Contracts – preferably products with a third-party certification (e.g., ENERGY STAR or DesignLights Consortium (DLC));
- specify high-performance LED lighting equipment when drafting contracts; and
- understand how LED lighting equipment will help the State of Maryland protect human health and the environment while saving money.

### MARYLAND STATEWIDE CONTRACTS OFFERING LEDs

**Electrical, Lighting, Data Communications and Security Products: BPO No. 001B8400425**

- **Vendor:** Graybar Electric Co. (410) 342-5500, ext. 3127
- **Sample Brands:** Acuity/Halophane/Juno/Lithonia, Columbia Lighting, Cooper, Dual-Lite, Eaton, GE Current, Kichler, Philips/Signify/Day-Brite, Progress Lighting, RAB, Westinghouse

**Facility Maintenance, Repair and Operations (MRO) Products: BPO No. 001B9400021**

- **Vendor:** Fastenal (507) 494-3225
- **Sample Brands:** Acuity/Lithonia, Dual-Lite, Eaton, Hubbell/Columbia, MaxLite, Philips/Signify, Satco

**Facility Maintenance, Repair and Operations (MRO) Products: BPO No. 001B9400023**

- **Vendor:** Grainger (410) 391-9000
- **Sample Brands:** Ability One, Acuity/Juno/Lithonia, GE Current, Lumapro, MaxLite, Philips/Signify, Sylvania/LEDVance

**Facility Maintenance, Repair and Operations (MRO) Products: BPO No. 001B9400024**

- **Vendor:** MSC Industrial Supply Company (410) 644-1313
- **Sample Brands:** AbilityOne, Acuity/Lithonia, Cooper, Eiko, GE Lighting, Hubbell, Hyllite LED, Philips/Signify, Sylvania/LEDVance

1

## **Purchaser Training**

The Green Purchasing Committee partnered with BISM to host a [training](#) for purchasers on how to buy green office supplies. Held on January 19, 2022, this virtual event attracted over 120 participants and showed attendees how to find and purchase green office supplies.

## **Green Only Contract**

Maryland's Green Purchasing staff participated in the development of a multi-state purchasing contract for green Janitorial Supplies. This contract, hosted by Massachusetts and is available to Maryland, Connecticut, New Hampshire, New York and Rhode Island. While Maryland is required to buy its janitorial supplies from BISM, which offers a variety of green janitorial products, other products like specialty cleaners and vacuums are not included in our preferred provider provisions. These supplies can instead be purchased on this green only contract. This contract will be available for state purchasers in FY 2023.

## **Education**

Because Maryland is required by statute to buy green, procurement officers must understand how to integrate green purchasing within the procurement process.

### **Procurement Academy**

Since 2020, all Maryland procurement professionals must complete Procurement Academy, a formal credentialing program for new and existing procurement professionals. The program includes a two-hour training session on the fundamentals of green purchasing as it applies to the procurement officer. Green Purchasing staff held 4 sessions training 154 procurement officers in FY 2022.

### **Green Purchasing Specialization – Pilot Training**

In addition to the existing Green Purchasing module within the Procurement Academy, Committee staff developed a voluntary Green Purchasing Specialization pilot program to provide further training for interested procurement officers. Eligible participants must have received their Certified Maryland Procurement Officer designation prior to entering the pilot program.

This live training contained 4 two-hour modules held weekly during July 2022. The program focused on climate literacy, the green marketplace, Maryland laws and regulations, and how to green a contract. To earn their Specialization, procurement officers had to attend every module, participate in breakout groups, complete homework assignments, and pass the final exam with a score of 80% or higher. Nineteen

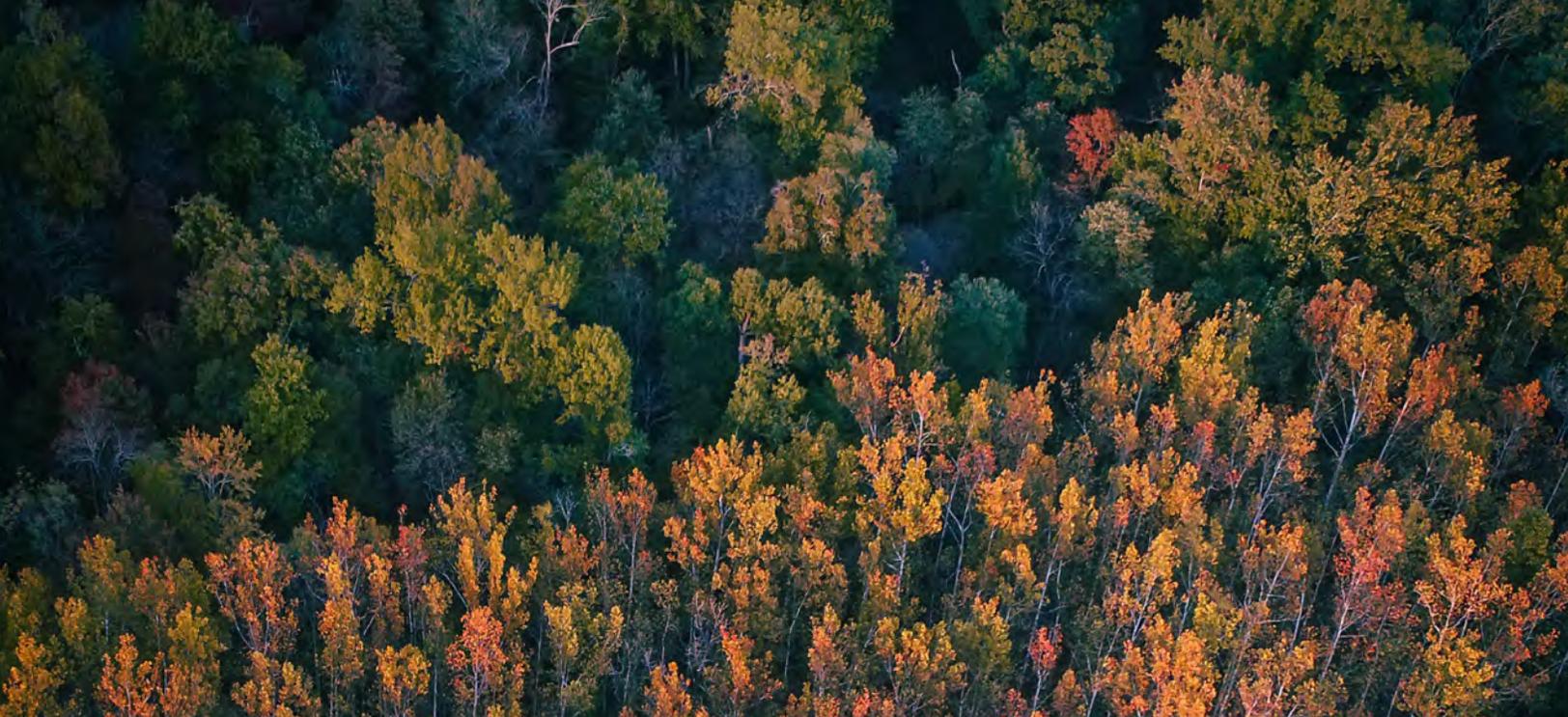
Certified Procurement Officers successfully passed and now frequently field questions from within their agency on green purchasing topics and are seen as sustainability leaders within the State.

**Maryland Green Purchasing Specialists:**

- Melane Boltz, CMPO + GPS - MDH
- Deborah Cook-Slade, CMPO + GPS - DHS
- Sabrina Fields, CMPO + GPS - MDH
- Richard Gilmore, CMPO + GPS - DNR
- Shirelle Green, CMPO + GPS - DHS
- Monica Hariri, CMPO + GPS - MDH
- Nakia Howell, CMPO + GPS - MDH
- Wendy Nabb, CMPO + GPS - MDH
- Cathie Nash, CMPO + GPS - DJS
- Victoria Nellis, CMPO + GPS - Judiciary
- Mark Rosenbaum, CMPO + GPS - DGS
- Marsha Rowe, CMPO + GPS - Treasurer’s Office
- Amanda Sadler, CMPO + GPS - DHCD
- Xylene Sanders, CMPO + GPS -DPSCS
- Matthew Smith, CMPO + GPS - DGS
- Henry ThorStraten, CMPO + GPS - DHS
- Yolanda Waugh, CMPO + GPS - DHS
- Krystal White, CMPO + GPS - DPSCS
- Carol Wilson, CMPO + GPS - MDH

# First Cohort of the Green Purchasing Specialists





## PROGRAM GROWTH

Maryland's Green Purchasing program has grown year-over-year, and FY 2022 is no exception. We were excited to expand our team and build out resources for our stakeholders and partners.

### Welcome to New Staff

In July 2022, Sam Linton joined DGS's Office of Energy and Sustainability as the Green Purchasing Data Coordinator. In this role, Sam will support green purchasing and sustainability initiatives. Sam has a professional background in stormwater management, environmental restoration, and community outreach. He holds a degree from James Madison University in Integrated Science & Technology.

### Environmentally Preferable Specifications

One of the most important functions of the Green Purchasing Committee is to approve and publish environmentally preferable specifications for state agencies to use. These specifications set minimum environmental requirements for commodities and services procured by the State. Once approved and published, per statute, these specifications must be included in all relevant commodity and service solicitations. In FY 2022, the Committee approved and updated 1 specification and published 6 new specifications:

1. HVAC Equipment (updated) – *Includes energy efficiency and climate friendly refrigerant requirements.*
2. Landscaping Plants – *Prohibits the installation of invasive plants and prioritizes the use of natives.*

3. EV Chargers – *Includes energy efficiency and technical requirements.*
4. Antifreeze – *Requires the purchase and use of reclaimed (recycled) antifreeze.*
5. Office Waste and Recycling Containers – *Includes recycled content requirements based on material and type.*
6. Janitorial Supplies – *Requires the use of environmental certifications for cleaners and includes recycled content requirements.*
7. Flooring – *Includes recycled content and environmental certification requirements based on material and type.*

## Greened Contracts

The Committee worked to ensure that environmentally preferable purchasing language and green specifications were integrated in 2 statewide contracts and 6 agency contracts. The following table features the product categories in which the contracts were greened.

Bus Fare Machines	Energy efficiency recommendations were included.
Electronics & IT	EPEAT requirements were included in 3 solicitations.
EV Charging Stations	Environmentally preferable specification was included.
Pest Management	Integrated pest management principles and requirements were included.
Janitorial Services	Environmentally preferable specification was included.
Shell Eggs	Environmentally preferable specification was included.

6 contract categories that were addressed for environmentally preferable purchasing considerations in FY 2022.

## Tools and Resources

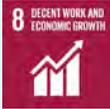
Information on Maryland’s Green Purchasing Program is hosted on the website for the Department of General Services at <https://dgs.maryland.gov/Pages/GreenPurchasing/index.aspx>.

In FY 2022, the Committee initiated Phase III of its website overhaul by adding new resources and updating out-of-date information. Six new web pages were added to ensure vital information was easily accessible to State employees and vendors:

1. Resources for Vendors
2. Tracking Progress & Measuring Success
3. FAQs
4. Green Purchasing Guides (office supplies, janitorial, lighting)
5. Specification Index
6. Agency Recognition

## Key Performance Indicators

The Committee uses Key Performance Indicators (KPIs) based on the UN's Sustainable Development Goals (UN SDGs) to evaluate our program. Because the UN SDGs are an internationally recognized standard of measure, the GPC can benchmark our progress against the efforts of other local governments, here in the U.S. and around the world.

	FY 2022	FY 2021	UN SDGs
<b>Program Focused</b>			
<i>Contract Integration</i>			
Specifications Approved and Published (No.)	7	6	  
Contract Solicitations Greened (No.)	8	14	
<i>Training</i>			
Vendor Outreach and Training (Hours)	17.25	4	  
Agency Outreach and Training (Hours)	19	21.25	
Procurement Officers Trained (No.)	154	119	
<i>Communication &amp; Outreach</i>			
GPC Website Visits (No.)	7,437	5,854	
Newsletter Engagement Rate	59%	67%	
Newsletter Subscriptions (New FY-to-Date)	245	240	
<i>Leadership &amp; Recognition</i>			
Awards Received (No.)	4	2	  
Partnerships Developed (No.)	2	3	
<b>Product Focused</b>			
<i>Financial</i>			
Cost savings (USD)	\$3,008,973	\$1,194,650	 
Total Green Spend (USD)	\$49,983,826	\$51,578,245	

	FY 2022	FY 2021	UN SDGs
<b><i>Energy</i></b>			
Electricity Savings (MWh)	41,000	10,974	 
Renewable Energy Purchased (MWh)	157,946	170,455	
<b><i>Emissions</i></b>			
GHG Emissions Reductions (Tons)	2,207,080	128,894	 
EV Projects Completed (No. of Ports)	146	21	  
Electric vehicles Purchased (No.)	90	40	
<b><i>Water</i></b>			
Water Saved (Gallons)	30,656,142	12,607,529	
<b><i>Natural Resources</i></b>			
Material Conservation (Tons)	15,303	3,075	  
State Surplus Property Program (USD)	\$1,224,676.00	\$863,322.00	
<b><i>Pollution</i></b>			
Hazardous Air Pollutant Reduction (Tons)	1.5	0.45	 
Other Air Pollutants (Tons)	2,769	257	
<b><i>Waste</i></b>			
Municipal Solid Waste Reduction (Tons)	606	187	  
Hazardous Solid Waste Reduction (Tons)	27	0.5	
E-Waste Recycled Responsibly (USD)	\$1,648,511.00	\$1,470,037.00	



## A SHIFT TO ELECTRIC

Maryland continued to grow its electric fleet and stand up more charging infrastructure to support it. Specifically, Maryland:

- Added 95 Electric Vehicles or EVs, including 90 zero emission vehicles (ZEVs) and 5 plug-in hybrid vehicles (PHEVs) to the State's fleet
- Installed 64 EV charging ports across state facilities
- Hired 2 full time staff to support DGS's new EV infrastructure program

Since FY 2020, Maryland has leveraged Strategic Energy Investment Fund (SEIF) funds through the Maryland Energy Administration to procure EVs and PHEVs when replacing State fleet vehicles. The FY 2022 budget required that EVs comprise 25% of the State's passenger vehicle purchases. The State purchased 90 battery electric vehicles, or ZEVs, and 5 PHEVs to replace light duty fleet vehicles such as sedans and SUVs due for replacement.

In FY 2022, DGS managed a total of 26 EV charging projects that collectively add 146 charging ports. These projects include those installed by the utilities (BGE and Delmarva), included in DGS capital projects, or were funded and managed through the DGS EV infrastructure Program. Fourteen of those projects--64 charging ports-- are completed, activated, and open for use. An additional 55 ports are in the construction process.

## EV Ambassadors

Also, this year, the DGS Electric Vehicle Infrastructure team launched the Maryland EV Ambassadors -- an internal community of E-mobility users, champions, and enthusiasts open to all levels and agencies in the state of Maryland. The purpose of the group is to enable knowledge sharing, improve the charging experience, and promote the benefits of transportation electrification.

The EV Ambassadors planned a Maryland Drives Electric event for National Drive Electric Week in September at MDA headquarters in Annapolis. The event was open to the public and promoted Maryland's fleet transition to electric vehicles (EV) and the installation of charging stations across the state. Participants had the opportunity to view a BGE charging station demonstration, test drive an EV, talk to EV owners about their experiences, and see over 8 different EV models, including the first Capitol Police electric patrol vehicle.

The Maryland Drives Electric event was a follow up to the EV Ambassadors' inaugural event, a Drive Electric Earth Day celebration, at Baltimore's State Center Complex in April. The event included an employee Ride & Drive to familiarize State employees with the new EVs in the fleet, driving an EV, and using the newly installed charging stations.

## Maryland Drives Electric 2022





## RE-USE & RECYCLING

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 also eases unnecessary burdens on the State budget. By avoiding both the cost of buying new as well as disposal costs, Maryland can shift those dollars to serve more important projects.

### 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.

#### State Surplus Property Program

The State Surplus Property Program is responsible for the management of excess and unneeded State-owned property. The Inventory Standards and Support Services Division determines the appropriate disposition method and ensures useful items are reused whenever possible. In FY 2022, **\$1,224,676** worth of property was reassigned to other state agencies and \$8,510,244 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 **\$46,592,645** worth of property through online auctions, including 824 state vehicles and pieces of equipment.

### Electronics Recycling

Also vital to a successful circular economy is the ability 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. Moreover, 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.

In FY 2022, IT products valued at **\$1,648,511** were responsibly recycled through the electronics recycling program.

### 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 a variety of commodities no longer needed by the Federal Government. This property is then distributed to state agencies, local governments, and other organizations within Maryland. In FY 2022, the program managed the distribution of property valued at **\$18.8 million**, which resulted in savings by reducing the need to buy new products while at the same time kept these products out of the landfill.

ORGANIZATION	ITEM(S) DONATED	DONATION VALUE
DGS	Office furniture	\$205,691.94
State Government	Exercise Equipment, furniture, Aircraft, Utility Cart & TV Monitors	\$446,020.88
Local Government	Computers, furniture	\$25,246.00
Volunteer Fire Departments	Exercise equipment, furniture, boots	\$18,609.98
Non-Profit Organizations	Furniture, Equipment, Medical Supplies, Vehicles	\$18,035,674.74
Schools	Computers, furniture	\$151,637.47
<b>TOTAL</b>		<b>\$18,882,881.01</b>

## Promoting Markets for Recycled Content

In FY 2022, 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.

In FY 2022, Maryland undertook several actions to promote recycling markets:

- **Developed and Published Four New Specifications** which included minimum recycled content requirements for commodities:
  - 1) Antifreeze
  - 2) Flooring and Adhesives
  - 3) Janitorial Supplies
  - 4) Office Waste and Recycling Containers
- **Created a Purchaser Training** for identifying office supplies with recycled content.
- **Coordinated with Statewide Vendors** to develop new tools for purchasers to find sustainable products, including those with recycled content.
- **Serve as a Member on MDE's Task Force for the Development of Recycling Markets** in accordance with House Bill 164, Chapter 289 Laws of 2021.



# LEADERSHIP & RECOGNITION

Over the past few years, the Green Purchasing Committee’s success in furthering environmentally preferable purchasing has been increasingly recognized at a national scale.

## Awards

The State of Maryland, through the Maryland Green Purchasing Committee, was the proud recipient of four awards in 2022 for Maryland’s leadership in sustainability.

### **Sustainable Purchasing Leadership’s Council Award**

Maryland’s Green Purchasing Committee was the recipient of the 2021 SPLC Leadership Award in the category of Best Business Case. This award recognizes an organization that best demonstrates the business value generated by green purchasing.





## NERC's Environmental Leadership Award

The conservation of resources and the reduction of landfill waste have long been pillars of Maryland's Green Purchasing Program. Maryland's green purchasing program furthers NERC's mission to minimize waste, conserve natural resources, and advance a sustainable economy by addressing the State's procurement processes and the impacts of our supply chain. As a result of the program's accomplishments, the GPC received an Environmental Leadership Award in the Public Sector category from Northeast Recycling Council (NERC).

## EPEAT Purchaser Award

For the third year in a row, Maryland received an EPEAT purchaser award. However, it is the first time that Maryland earned a Three Star EPEAT Purchaser award (1 star for each category, with the most recent star for the purchase of EPEAT certified servers). The Global Electronics Council is a non-profit organization dedicated to the design, manufacture, and procurement of sustainable IT products.



## State Electronics Challenge

Since 2019, the State of Maryland has been awarded annually with Silver level recognition in the State Electronics Challenge. The State Electronics Challenge is hosted by the Northeast Recycling Council, Inc. (NERC) with funding from the U.S. Environmental Protection Agency.

## Partnerships

### Action Team on Sustainable Office Supplies

GPC Staff Kshirajaa Ramesh was an active member of Sustainable Purchasing Leadership Council's (SPLC) "Sustainable Office Supplies" action team from July 2021-August 2022. This team called for collective action for sustainable office supplies, engaging private and public sector leaders as well as prominent members of industry and subject matter experts. Together, the team developed an environmentally preferable office supplies specification that can be used by any procurement entity in North America. To learn more about this effort and view the final specifications, visit the [SPLC website](#). The action team concluded with a webinar, accessible [here](#).

### Multi-State Purchasing Contract for Green Janitorial Supplies

Maryland also participated as a sourcing team member on Massachusetts's FAC118 Multi-State Procurement for Environmentally Preferable Janitorial Supplies from April 2021- July 2022. In addition to Massachusetts and Maryland, this team included members from Connecticut, New Hampshire, New York, and Rhode Island. The team developed a new environmentally preferable janitorial supplies specification for use in the contract. The Green Purchasing Committee then tailored the specification to meet Maryland's needs.

### SPLC Peer Learning Circle

Green Purchasing Committee staff are active participants in a SPLC's Peer Learning Circle. This group meets monthly and includes state and local representatives of sustainable procurement from across the country. The Peer Learning Circle gives its members a chance to learn from the successes and challenges of their peers while identifying opportunities for collective action.

## Leading the Way

As Maryland's Green Purchasing Program has grown, so has the State's reputation as a leader in sustainable purchasing. Maryland is featured prominently on the National Association of State Procurement Professional's (NASPO) website, referenced frequently in the organization's page for [sustainability](#). Maryland's Green Purchasing Program was also showcased in [NASPO's Earth Day 2022](#) blog post, "Save Some Money and Save the Earth" for its accomplishments in quantifying the cost savings associated with sustainable procurement.

The Committee's 2021 webinar on Saving Money by Buying Green served as inspiration for a similar training program hosted by Massachusetts in 2022. It is exciting to see Maryland's Green Purchasing program pave the way for sustainability in the public sector.



## LOOKING AHEAD

Maryland's Green Purchasing Committee is always finding new ways to improve the State's environmentally preferable procurement practices, and FY 2023 will be no different.

As we look forward to the new year, Maryland's Green Purchasing Program will continue to push for climate action while promoting public health and supporting the State budget. To prepare for the new year, the Green Purchasing Committee held Learn and Plan events for its members to *Learn* from other great sustainability leaders while *Planning* for FY 2023. The Committee invited guest speakers from Fairfax County and Baltimore County to present on their initiatives, success stories, and challenges. The Committee drew inspiration from these stories to develop the following goals for Fiscal Year 2023:

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**



# ACKNOWLEDGEMENTS

This Annual Report was authored and designed by Kshirajaa Ramesh, Emily Soontornsaratool, and Sam Linton. Thank you to all Green Purchasing Committee members for their input and edits. Special thanks to the following individuals for their efforts: Rohit Choudhary, Hilal Efe, Ellen Robertson, Kathryn Wilson, Rose Odametey, and Korin Sharp.

Cover image licenses for this report were sourced from Adobe Stock.

# 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>1</sup>
- Olympic Sized Swimming Pool holds 660,430 gallons of water.<sup>2</sup>
- 18-wheeler (tractor trailer) weighs 267 lbs.<sup>3</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

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<sup>1</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>2</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>3</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)

years. However, since LEDs typically last 5-10 years, the benefits provided below 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 emissions of CO<sub>2</sub> and other pollutants. Benefit calculations were made using EPA's [AVoided Emissions and geneRation Tool](#).

### 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>4</sup> and a Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT study<sup>5</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 calculator](#) 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 three subcategories: 1) corrugated container; 2) uncoated freesheet; and 3) bathroom/kitchen tissue. Products categorized as uncoated freesheet include copy paper, paper post-its, paper notebooks, and paper desk pads. Benefits were calculated using the [Environmental Paper Network calculator](#).

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<sup>4</sup> <https://docplayer.net/11672387-The-carbon-footprint-of-remanufactured-versus-new-mono-toner-printer-cartridges.html>

<sup>5</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	
Department of General Services (Chair)	Ellington Churchill, Jr. Secretary	Rod Johnson, CMPO Strategic Sourcing Manager <a href="mailto:Rod.Johnson@Maryland.gov">Rod.Johnson@Maryland.gov</a>
	Emily Soontornsaratool (Designee) Chief, Sustainability <a href="mailto:Emily.Soontornsaratool@maryland.gov">Emily.Soontornsaratool@maryland.gov</a>	Devin Neil Legislative Assistant <a href="mailto:Devin.Neil@maryland.gov">Devin.Neil@maryland.gov</a>
	Kshirajaa Ramesh (Staff) Sustainability Officer <a href="mailto:Kshirajaa.Ramesh@maryland.gov">Kshirajaa.Ramesh@maryland.gov</a>	Ellen Robertson Legislative Liaison <a href="mailto:Ellen.Robertson@maryland.gov">Ellen.Robertson@maryland.gov</a>
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## 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 “Other Verified Green Spend” column.

Agency	Agency Green Spend	Statewide Green Spend	Total Green Spend	Total Commodity Spend	% Green
Baltimore City Community College		\$4,258.85	\$4,258.85	\$3,674,573.00	0.12%
Board of Contract Appeals		\$181.64	\$181.64	\$4,991.00	3.64%
Board of Nursing		\$3,965.86	\$3,965.86	\$83,344	4.76%
Board of Public Works		\$47.04	\$47.04	\$22,211.00	0.21%
Bowie State University	\$4,610,238.87	\$17,163.18	\$4,627,402.05	\$11,839,798.00	39.08%
Comptroller of Maryland		\$166,258.26	\$166,258.26	\$3,172,969.00	5.24%
Coppin State University	\$332.40	167,280.54	\$167,612.94	\$3,679,767.00	4.55%
Department of Aging	\$789.74	\$4,983.83	\$5,773.57	\$48,557.00	11.89%
Department of Agriculture		\$22,230.57	\$22,230.57	\$3,381,249.00	0.66%
Department of Budget and Management		\$9,603.30	\$9,603.30	\$252,533.00	3.80%
Department of Commerce		\$7,916.00	\$7,916.00	\$133,878.00	5.91%
Department of Disabilities		\$2,049.30	\$2,049.30	\$86,048.00	2.38%
Department of Environment		\$5,234.72	\$5,234.72	\$1,398,344.00	0.37%
Department of General Services		\$301,104.95	\$301,104.95	\$1,843,542.00	16.33%

Department of Health		\$1,622,049.63	\$1,622,049.63	\$199,437,737.00	0.81%
Department of Housing and Community Development		\$29,731.26	\$29,731.26	\$567,344.00	5.24%
Department of Human Services		\$897,295.08	\$897,295.08	\$18,577,744.00	4.83%
Department of Information Technology		\$6,602.02	\$6,602.02	\$10,082,676.00	0.07%
Department of Juvenile Services		\$525,427.80	\$525,427.80	\$7,691,068.00	6.83%
Department of Natural Resources		\$227,289.04	\$227,289.04	\$12,963,151.00	1.75%
Department of Planning		\$10,143.00	\$10,143.00	\$188,188.00	5.39%
Department of Public Safety and Correctional Services	\$148,412.30	\$5,284,272.59	\$5,432,684.89	\$98,145,249.00	5.54%
Department of State Police		\$214,289.59	\$214,289.59	\$10,573,781.00	2.03%
Department of Transportation		\$1,280,745.19	\$1,280,745.19	\$68,591,293.00	1.87%
Department of Veterans Affairs		\$14,559.57	\$14,559.57	\$1,503,175.00	0.97%
Executive Department - Governor		\$60,849.25	\$60,849.25	\$228,632.00	26.61%
Frostburg State University		\$1,904.85	\$1,904.85	\$4,258,702.00	0.04%
Governor's Office of Crime Prevention, Youth, and Victim Services		\$2,873.29	\$2,873.29	\$113,573.00	2.53%
Judiciary		\$482,751.24	\$482,751.24	\$17,782,657.00	2.71%
General Assembly		\$66.67	\$66.67	\$2,765,219.00	0%
Maryland 529		\$260.40	\$260.40	\$30,250.00	0.86%

Maryland Aviation Administration		\$735,409.35	\$735,409.35	\$10,989,878.00	6.69%
Maryland Commission on Civil Rights		\$1,972.09	\$1,972.09	\$89,591.00	2.20%
Maryland Department of Emergency Management		\$422.26	\$422.26	\$184,720.00	0.23%
Maryland Department of Labor		\$107,646.24	\$107,646.24	\$4,685,093.00	2.30%
Maryland Environmental Service		\$160,225.90	\$160,225.90	\$8,910,758.00	1.80%
Maryland Food Center Authority		\$1,023.73	\$1,023.73	\$109,850.00	.93%
Maryland Higher Education Commission		\$2,051.25	\$2,051.25	\$33,199.00	6.18%
Maryland Institute for Emergency Medical Services Systems		\$5,348.29	\$5,348.29	\$1,007,503.00	0.53%
Maryland Insurance Administration		\$23,778.16	\$23,778.16	\$416,276.00	5.71%
Maryland Lottery and Gaming Control Agency		\$11,963.32	\$11,963.32	\$646,390.00	1.85%
Maryland Port Administration	\$23,112.57	\$277,440.93	\$300,553.50	\$3,459,000.00	8.69%
Maryland Public Broadcasting Commission		\$920.42	\$920.42	\$1,700,411.00	0.05%
Maryland School for the Deaf		\$31,309.22	\$31,309.22	\$2,175,011.00	1.44%
Maryland Stadium Authority		\$86,082.78	\$86,082.78	\$1,326,425.00	6.49%
Maryland State Library		\$569.72	\$569.72	\$84,063.00	0.68%
Maryland State Retirement and Pension Systems		\$26,228.78	\$26,228.78	\$640,968.00	4.09%
Maryland Tax Court		\$534.50	\$534.50	\$14,301.00	3.74%

Maryland Transit Administration		\$154,529.18	\$154,529.18	\$7,060,475.00	2.19%
Maryland Transportation Authority		\$602,291.54	\$602,291.54	\$13,104,337.00	4.60%
Military Department		\$148,270.78	\$148,270.78	\$1,243,049.00	11.93%
Motor Vehicle Administration	\$462.43	\$283,843.52	\$284,305.95	\$6,950,718.00	4.09%
Office of Administrative Hearings		\$17,698.35	\$17,698.35	\$364,814.00	4.85%
Office of People's Counsel		\$1,044.75	\$1,044.75	\$85,486.00	1.22%
Office of the Attorney General		\$21,333.90	\$21,333.90	\$489,204.00	4.36%
Office of the Public Defender		\$30,948.16	\$30,948.16	\$979,590.00	3.16%
Office of the Register of Wills		\$16,461.21	\$16,461.21		
Office of the State Prosecutor		\$423.30	\$423.30		
Property Tax Assessment Appeals Boards		\$352.73	\$352.73	\$4,036.00	8.74%
Public Service Commission		\$23,261.87	\$23,261.87	\$227,004.00	10.25%
Salisbury University		\$120,812.88	\$120,812.88	\$12,285,684.00	0.98%
Secretary of State		\$250.18	\$250.18	\$40,685.00	0.61%
State Archives		\$33,641.90	\$33,641.90	\$306,766.00	10.97%
State Board of Elections		\$2,693.03	\$2,693.03	\$14,257,789.00	0.02%
State Department of Assessments and Taxation		\$33,570.42	\$33,570.42	\$260,181.00	12.90%

State Department of Education	\$932,848.00	\$184,537.02	\$1,117,385.02	\$4,495,042.00	24.85%
State Ethics Commission		\$1,959.48	\$1,959.48	\$4,041	48.49%
State Highway Administration		\$302,696.13	\$302,696.13	\$25,608,491.00	1.18%
State Treasurer's Office		\$5,340.86	\$5,340.86	\$557,341.00	0.96%
The Secretary's Office (MDOT TSO)		\$203.48	\$203.48	\$1,418,394.00	0.01%
Towson University	\$357,175.76	\$87,732.48	\$444,908.24	\$34,492,873.00	1.29%
University of Baltimore	\$4,647.35	\$63,677.45	\$68,324.80	\$3,619,697.00	1.89%
University of Maryland Baltimore County		\$464,175.15	\$464,175.15	\$23,366,622.00	1.99%
University of Maryland Center for Environmental Science		\$3,938.15	\$3,938.15	\$1,907,729.00	0.21%
University of Maryland Eastern Shore		\$64,179.63	\$64,179.63	\$7,007,594.00	0.92%
University of Maryland Global Campus	\$ 321,782.19	\$209.43	\$321,991.62	\$2,859,243.00	11.26%
University of Maryland, Baltimore Campus		\$21,143.51	\$21,143.51	\$64,145,186.00	0.03%
University of Maryland, College Park Campus	\$2,821,408.09	\$279,706.03	\$3,101,114.12	\$101,729,303.00	3.05%
University System of Maryland		\$153,394.50	\$153,394.50	\$271,842,622.00	0.06%
Workers' Compensation Commission		\$13,642.02	\$13,642.02	\$157,752	8.65%



## Maryland Green Purchasing Committee

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

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