MARYLAND GREEN PURCHASING

2021 | 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 FY 2021 Annual Report of the Maryland Green Purchasing Committee. As you know, the Committee was established in 2010 by the Green Maryland Act, and the Maryland Department of General Services is proud to lead the efforts as Chair of this critical program.

The State of Maryland has a responsibility to limit the environmental and carbon footprint of its purchases–for the good of the planet and the people. With its purchasing power, the State has the unique opportunity to signal to the market that sustainability is the future.

FY 2021 was by all accounts an unusual year due to the COVID-19 pandemic and the related shift in procurement priorities. However, while Maryland battled the coronavirus, the threat of climate change continued to grow. With these dual crises in mind, the Green Purchasing Committee's focus centered around the State budget, public health, and the climate.

The Committee not only delivered on every one of its goals for the year, we also addressed -- for the first time -- cost savings associated with green purchasing. Through a well-attended live webinar, which is available on General Services' YouTube page, and a published fact sheet, the Committee targeted common misconceptions about the cost of environmentally preferable products. We will continue to prove that being good stewards of our budget and being good stewards of the Earth go hand in hand.

Despite the challenges of the past year, I am happy to report that the Green Purchasing Committee was able to build on its success and grow into a nationally recognized, award-winning program. Through the Committee's efforts, the State procured **$51.3 million** in environmentally preferable products and services in FY 2021. In the following pages, you will see the Green Purchasing Committee's tremendous commitment to ensuring a cleaner, greener, and healthier Maryland.

Ellington E. Churchill, Jr.

Ellington E. Churchill, Jr.

Secretary, Department of General Services

FY 2021 GOALS + OUTCOMES

Increase Training Opportunities

5
Procurement Academy Classes

119
Procurement Officers Trained

Improve Vendor & Agency Reporting

4
Reporting Info Sessions

New Guidance; Updated Framework & Template

Support Statewide EV Goals

40
Zero Emission Vehicles Purchased

21
Charging Ports Installed

Boost Contract Integration

6
New or Updated Specifications

14
Greened Contracts

Deploy Energy & Cost Savings Guidance

Saving Money by Buying Green Factsheet & Webinar

120+
Webinar Participants

Expand the Website

7
New Webpages

5
New Tools/Resources

Grow Outreach

250+
Newsletter Recipients

13
Agency One-on-One Sessions

HOW WE ADD VALUE

$1,194,650
Saved

10.97
Electricity Savings
(gWh)

128,894
GHG Reductions
(Tons)

186.80
Solid Waste Reduced
(Tons)

3,075.4
Material Conserved
(Tons)

12,607,529
Water Saved
(Gallons)

Equivalent to

937
Houses' Annual
Energy Use

25,430
Cars Removed from
Road for 1 Year

91
Houses' Annual
Waste

77
18- Wheelers
(Tractor Trailer)

19
Olympic
Swimming Pools

INTRODUCTION

Background

Environmentally preferable purchasing (EPP) — also known as "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."[1]

Maryland is notable for its collaborative inter-agency Committee model for administering an environmentally preferable purchasing program. The Maryland Green Purchasing Committee (GPC) was established by the Green Maryland Act of 2010. It is composed of 10 statutory agency members and is chaired and staffed by the Department of General Services.

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[1] State Finance and Procurement Article §14-410

Quarterly GPC meetings are open to the public in accordance with the Maryland Open Meetings Act. Working meetings are held more frequently and are open to all State agencies. A list of all Committee members is included in Appendix B.

Regulation 21.11.07.09 establishes the requirement that Maryland buy environmentally preferable products and services, stating:

> *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.*

This report, submitted annually to the Legislature, documents the progress of Maryland's Environmentally Preferable Purchasing Program – from the successes achieved to the opportunities that still await us.

It's Good for Us.
It's Good for the Planet.
It's the Law.

Priorities and Actions

The COVID-19 pandemic overshadowed the year as Maryland declared a State of Emergency and State Employees transitioned to telework. Fewer people in the office coupled with the urgent need for expanded medical care transformed State spending. Concurrently, there was a growing concern that the pandemic would place undue strain on the State budget. While this prediction did not materialize, at the time, agencies began to focus on minimizing expenses.

Yet, as the State grappled with the coronavirus, the Earth continued to warm. The 2021 IPCC report, called a "code red for humanity" by the UN Secretary General[2], warned that we are already facing the consequences of climate change.[3] In Maryland, climate change impacts have materialized in the form of land loss as the sea rises, sunny-day flooding, and extreme storms. Unless we drastically reduce greenhouse gas levels in the atmosphere, these occurrences will only grow in strength and frequency.

As the administrator of the State's environmentally preferable purchasing program, the Green Purchasing Committee had the unique ability to address all three areas of concern – budgetary stress, the health crisis, and climate change – which in turn were reflected in our priorities and actions for FY 2021.

FY21 Priorities

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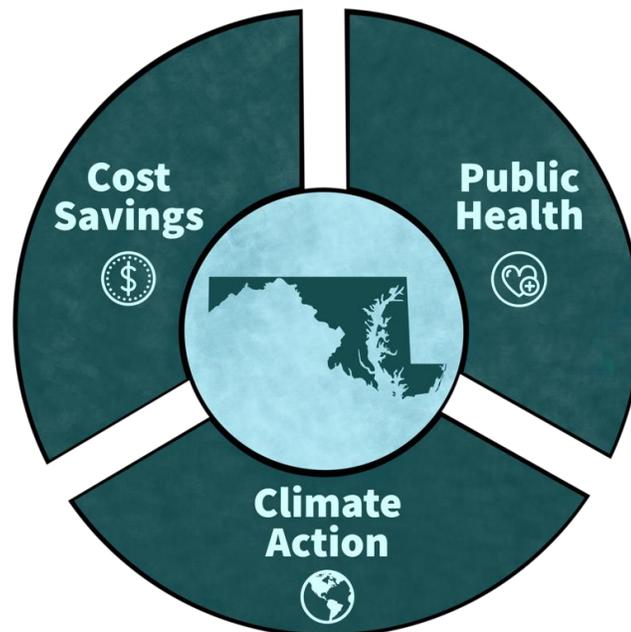
[2] United Nations, *Secretary General Calls Latest IPCC Report 'Code Red for Humanity,' Stressing 'Irrefutable' Evidence of Human Influence.* https://www.un.org/press/en/2021/sgsm20847.doc.htm
[3] IPCC, *AR6 Climate Change 2021: The Physical Science Basis.* https://www.ipcc.ch/report/ar6/wg1/
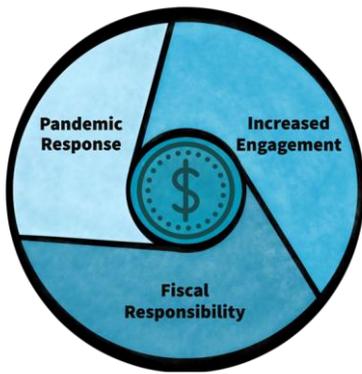
Cost Savings:

While fiscal responsibility has always been a core principle of the Committee, the urgency of the pandemic and fears of budgetary stress drove the Committee to consider other cost saving opportunities available through green purchasing.
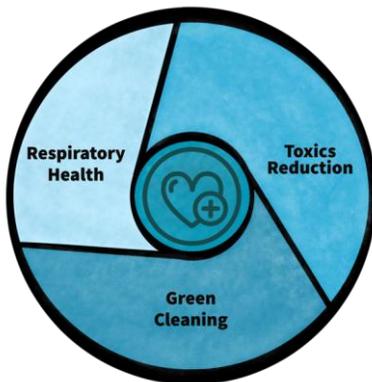
Public Health:

Health and environmental issues have always been closely tied. However, with the rise of the coronavirus this connection was made all the more apparent. Pollution, for example, not only affects flora and fauna, but also weakens the human immune system and increases the risk of adverse health outcomes.[4] Additionally, the expanded emphasis on cleaning and disinfection highlighted the need for products and protocols that would ensure worker safety and health.

Climate Action:

To maintain a stable climate, we require a two-pronged approach: 1) the curtailment of greenhouse gas emissions; and 2) the recapture of those gases that have already been released. While electrification or improvements in efficiency contribute to a reduction in emissions, protecting ecosystems such as old-growth forests ensure the survival of nature's carbon sinks.

On the following page are examples of the actions taken by the Green Purchasing Committee in each of these priority areas.

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[4] UC Berkeley, *Air Pollution Alters Immune Function, Worsens Asthma Symptoms.* https://news.berkeley.edu/2010/10/05/asthma/

FISCAL RESPONSIBILITY

Life Cycle Cost Analysis

Analysis Integrated into Statewide Contracts for Lighting & Snow/Ice Control

PANDEMIC RESPONSE

Development of Cost Savings Factsheet in Response to Budgetary Constraints

INCREASED ENGAGEMENT

Saving Money by Buying Green Webinar

Cost Savings Guidance Integrated in Training Modules

RESPIRATORY HEALTH

Training on Green Cleaning Supplies

Janitorial Supplies Spec in Progress

TOXICS REDUCTION

Toxics in Packaging Prohibitions

Avoidance of Hazardous Materials

GREEN CLEANING

Janitorial Services Spec

Janitorial Services Contracts Greened

GHG REDUCTIONS

Fleet Vehicle Electrification

Climate Friendly Refrigerants

RESOURCE CONSERVATION

Water & Energy Efficiency in Specs

Buy Recycled & Sustainable Sourcing

EXPANDED AWARENESS

Procurement Academy

Local/National Presentations

WHY BUY GREEN?

Beyond the dollar costs that we see on a receipt, there are also societal costs associated with the things we buy. Greenhouse gas emissions, resource depletion, pollution, and impacts to public health may not be accounted for in our budget, but they matter too.

Climate

Each phase of a product's lifecycle results in the emission of greenhouse gases. In fact, around 20% of global carbon emissions are tied to the supply chains of multinational companies.[5] By carefully managing the types of products that are purchased, we can take climate action. Moreover, by choosing products that consume fewer virgin resources, we can also protect nature's ability to sequester carbon.

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[5] CDP, *New Report Shows Just 100 Companies are Source of Over 70% of Emissions.* https://www.cdp.net/en/articles/media/new-report-shows-just-100-companies-are-source-of-over-70-of-emissions

Thus, the Maryland Green Purchasing Committee's climate strategy prioritizes the procurement of products that possess at least one of the following attributes:

1. Sustainably Sourced Material Inputs
2. Responsibly Manufactured with Resource Efficiency Considerations
3. Resource Efficiency during Usage
4. Extended Life
5. Produce Less Waste at End-of-Life

Health

Environmental health and human health are closely intertwined. Thus, by acting in the best interest of our own health and well-being, we will also be safeguarding natural systems. For instance, the curtailment of fossil fuels also contributes to an improvement in air quality through the reduction of sulfur dioxide (SO2)[6] and nitrogen oxide (NOx)[7] emissions - both of which can damage respiratory health. The table below showcases some of the health considerations for each phase of a product's life cycle.

Life Cycle Phase	Health Consideration
Material Extraction & Manufacture	Unless properly managed, material extraction and product manufacturing can result in air pollution and water contamination and thereby affect the health of the local community.
Shipping & Distribution	High vehicular traffic areas experience higher air and noise pollution rates - simply because more cars are on those roads. Unfortunately, disenfranchised and low-income communities in Maryland are also often located in these high traffic areas making this not only a topic for public health, but for environmental justice and equity as well.
Usage	Products containing VOCs, asthamagens, etc. will emit these chemical compounds throughout their lifecycle (in higher strength when new and in decreasing quantity over time). The same is true of cleaning and disinfection products. These compounds directly impact respiratory and dermal health.
End-of-Life	If a product is improperly disposed, that product's materials can leach into the environment. This is especially of concern when a product contains hazardous substances such as mercury or lead which have serious health implications.

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[6] EPA, *Sulfur Dioxide Basics*. https://www.epa.gov/so2-pollution/sulfur-dioxide-basics
[7] EPA, *Basic Information about NO2*. https://www.epa.gov/no2-pollution/basic-information-about-no2

Cost Savings

One of the most common myths associated with green purchasing is that it will cost more. However, this assumption is far from the truth.

Energy and water efficient products are environmentally preferable because they consume less water (which is increasingly considered to be a non-renewable resource) and/or less energy (and thereby emit less greenhouse gas emission). These products also inherently provide cost savings because, as with any resource, their consumption comes with a cost.

To learn more about the cost saving opportunities that come with green purchasing, review the Green Purchasing Committee's factsheet and webinar on Saving Money by Buying Green.

More detailed benefits from Maryland's green purchasing activities in FY 2021 are presented in the table on the following page.

Over 120 participants attended the live virtual training "Saving Money by Buying Green" held on February 24th, 2021. Alicia Culver of the Responsible Purchasing Network joined Emily Soontornsaratool and Kshirajaa Ramesh to discuss strategies for finding and documenting cost saving strategies and results through the procurement of environmentally preferable products and services.

|	Emissions Avoided/ Resources Conserved	Pollutants & Toxic/ Hazardous Materials Avoided	Lifetime Cost Savings
LED Lamps	911 tons of CO_2 1.18 gWh of Electricity	1,394 lbs. of SO_2 874 lbs. of NOx	$ 711,640
Renewable Energy	121,501 tons of CO_2	91 tons of SO_2 59 tons of NOx	
Zero Emission Vehicles	1,188 tons of CO_2	SO2 and NOx unable to be quantified at this time.	Cost savings expected in the future.
High Yield & Remanufactured Ink & Toner Cartridges	45 tons of GHGs 95 tons of Primary Resources	Pollution avoidance unable to be quantified at this time.	$ 159,629
Electronics & IT	796 tons of GHGs 7.5 gWh of Electricity 109 tons of Material 4.4 million gallons of Water	.5 tons of Hazardous Waste 1,665 lbs. of Toxic Substances	$323,381
Recycled Paper Products	4,453 tons of GHGs 2.29 gWh of Electricity 316 acres of Forests 8.2 million gallons of Water	81 lbs. of VOCs .45 tons of Hazardous Air Pollutants 8,684 milligrams of Mercury	

MARYLAND'S FY 2021 GREEN SPEND

In FY 2021, Maryland spent $51,278,245 on environmentally preferable products, including appliances, construction and maintenance products, electronic and IT equipment, food service ware, lighting, office supplies, renewable energy, and zero emission vehicles.

Construction & Maintenance	Electronics & IT	Food Service Ware	Janitorial Supplies	Lighting	Office Supplies	Paints & Coatings	Renewable Energy	Zero Emission Vehicles
-HVAC systems -Plumbing -Power tools -Snow & ice control	-Computers & laptops -Imaging equipment -Monitors & displays -Servers	-Dishware -Storage ware -Towels & napkins -Utensils	-Cleaners, disinfectants -Pads, towels -Tissues -Soap	-Bulbs & tubes -Lighting signage	-Batteries -Cartridges & toners -Furniture -Paper supplies -Writing tools	-Adhesives -Brushes & rollers -Seals	-Solar energy -Wind energy	-Battery electric vehicles
$407,156	$10,688,070	$2,792,901	$3,267,190	$1,653,021	$14,165,799	$6,808	$17,112,866	$1,184,433

Maryland's Total Green Spend by Year
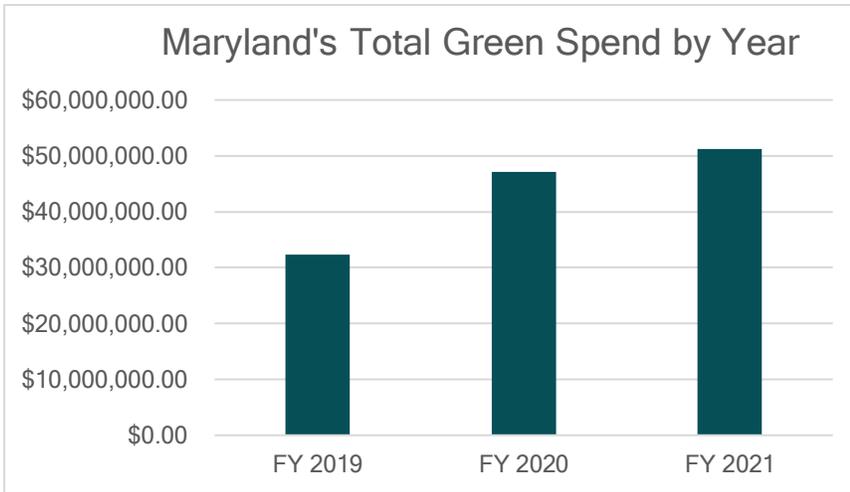
The Committee's outreach to vendors resulted in more green spend data from IT vendors and other key statewide contract vendors. This year, the Committee has included expenditures for zero emission vehicles, to capture the increase in this area as the State electrifies its fleet.

The greatest green purchasing expenditure categories include renewable energy, office supplies, and electronics & IT products; altogether these three categories account for 82% of the green spend in Maryland in FY 2021.

FY 2021 Green Spend by Category
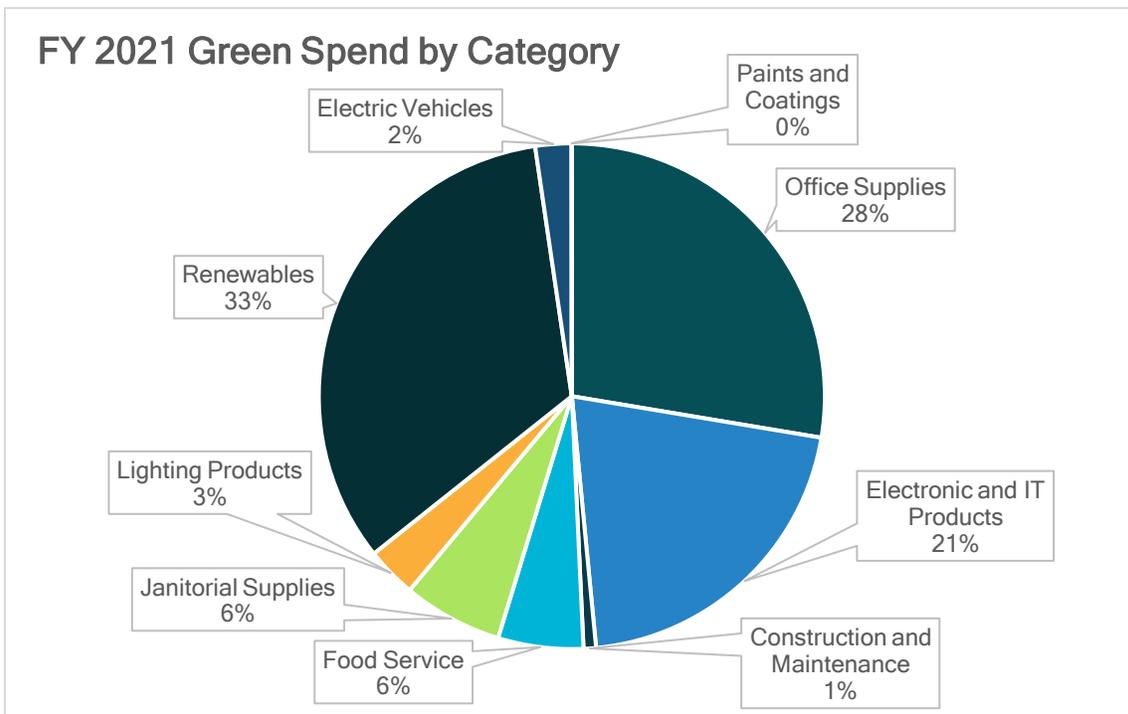
Green Spend on Statewide Contracts

Statewide Contracts in high impact categories make up a significant portion of Maryland's green purchases. In FY 2021, the State of Maryland spent **$27,672,352** on products and services offered on statewide contracts administered by the Office of State Procurement and utilized by State agencies, higher education institutions, and local governments across Maryland.

Vendor	Product Category							Total Spend	Total Green Spend	% Green Spend
	🔧	🖥	🍴	🧹	💡	📄	🪣			
AJ Stationers			x	x		x		$341,283	$113,298	33.20%
ATS*		x						$23,666,351	$2,603,651	11.00%
Blind Industries of Maryland (BISM)				x		x		$5,826,237	$3,077,173	52.82%
Canon		x						$1,470,138	$1,205,943	82.03%
Cartridge Plus						x		$153,476	$47,564	30.99%
CDW-G		x						$964,599	$274,070	28.41%
Daly		x						$1,315,188	$635,327	48.31%
ELDSI		x						$53,627	$16,188	30.19%
Fastenal	x			x				$64,091	$14,557	22.71%
FPC			x					$3,889,881	$2,756,610	70.87%
Graybar					x			$2,645,275	$1,495,369	56.53%
Maryland Correctional Enterprises (MCE)						x		$50,176,058	$11,436,865	22.79%
RGH Enterprises Inc/ Staples		x		x		x		$2,225,581	$658,828	29.60%
Ricoh		x						$424,810	$192,965	45.42%
Rudolph's Office and Computer			x	x		x		$5,325,895	$1,837,543	34.50%
Sharp		x						$736,162	$631,007	85.72%
Toshiba		x						$11,467	$11,467	100.00%
W. W. Grainger	x	x		x	x	x	x	$8,684,550	$568,271	6.54%
Xerox		x						$95,656	$95,656	100.00%
Sum								$108,070,322	$27,672,352	25.61%

FY 2021 Verified Green Spend on Key Statewide Contracts, by Vendor

Blind Industries and Services of Maryland (BISM) serves as one of Maryland's preferred providers of paper and janitorial products. An early adopter of green cleaning products, BISM worked with Maryland over the past decade to sustainably source cleaners and disinfectants with Green Seal and Ecologo certifications. Today, BISM provides **over $3 million** in environmentally preferable products to Maryland State agencies.

Renewable Energy

Maryland procures its energy commodities through a unique inter-agency collaboration, managed by DGS and the University System of Maryland. Through this initiative, 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 2021, the State of Maryland spent **$17.1 million** on renewable electricity. Renewable energy accounted for 12% of the electricity for State operations in FY 2021. These purchases helped the State meet its Renewable Portfolio Standard (RPS) obligation; however, it is anticipated that additional purchases will be required to meet new, higher RPS requirements for this calendar year and in the future. DGS is exploring options for purchasing additional renewable energy moving forward.

PPA	Total Generation (MWH)	Total Spend ($)
☀ Mount St. Mary's	20,213	$4,497,393
🌬 Pinnacle[8]	126,515	$10,376,049
🌬 Roth Rock	23,727	$2,239,424
	170,455	$17,112,866

1 FY 2021 Generating Clean Horizons - Renewable energy generation and expenditures

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[8] Pinnacle generation reduced due to April through June outage for repowering project to install upgraded turbines.

Electric Vehicles

In FY 2021, Maryland promoted fleet electrification through the:

- Establishment of **state-wide contracts** for EV charging infrastructure;
- Procurement of **40 zero emission vehicles** including sedans and SUVs (to arrive in FY 2022); and
- Construction and opening of **21 EV charging ports** across six sites.

In FY 2021, Maryland ramped up its fleet electrification activities to support the State's greenhouse gas reduction goals. To this end, the State has started to replace eligible State fleet vehicles with internal combustion engines with battery Electric Vehicles (EVs) which produce no tailpipe emissions. Vehicles are eligible for replacement when they reach 10 years of age or 100,000 miles.
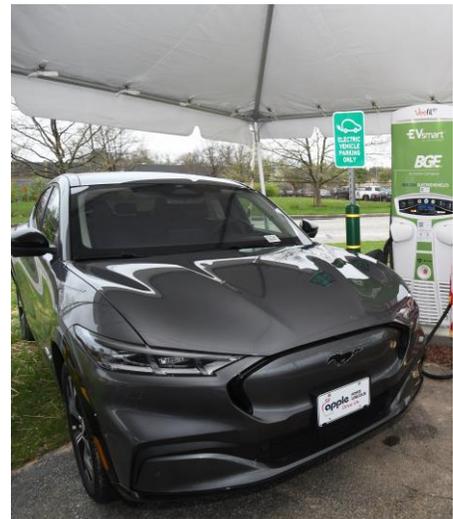
As EVs are added to the State's vehicle fleet, State facilities will need adequate charging infrastructure in place to support them. DGS is taking the lead in establishing a Statewide EV Infrastructure Strategy and installing charging equipment at State-owned facilities. EV Stakeholder update meetings are held monthly to share information about current and upcoming EV charging projects and other relevant information. DGS coordinates these efforts with the Departments of Budget and Management, Environment, Transportation, and the Maryland Energy Administration.

Governor Larry Hogan, Treasurer Nancy Kopp join BGE and State agency staff to commemorate the opening of two DC Fast Chargers at the Essex/Rosedale District Court in April 2021. Photo credit: Executive Office of the Governor.

FY 2022 will see a significant increase in both electric vehicles and charging infrastructure. DGS has established an EV Infrastructure Charging Program which includes three staff. Additionally, $1 Million was allocated to DGS in the FY22 Supplemental Budget for the installation of charging infrastructure at State facilities.

More information about EVs is available on the Green Purchasing website.

DGS and BGE staff join a ribbon cutting for the opening of charging stations at 100 Community Place in Crownsville Maryland.

Electric Vehicles on Statewide Contracts

Nissan Leaf
Access Contract Here

Mustang Mach-E
Access Contract Here

Chevrolet Bolt
Access Contract Here

State Agency Green Purchasing

In FY 2021, the Green Purchasing Committee worked with State Agencies to establish a reporting framework for submitting their green purchasing spend data to Department of General Services in compliance with State Finance & Procurement Article §14-405. DGS held two agency information sessions and issued guidance around agency reporting on the Green Purchasing Committee website.

As a result of this work, the Green Purchasing Committee was able to verify additional State spend on environmentally preferable products of $5,308,595. This represents the first time the Committee has been able to document spending by State Agencies outside of large key Statewide contracts. A table of green spend by agency is included in Appendix C.

It should be noted that statutory reporting deadlines were difficult for many of the agencies to meet due to the quick turnaround from the fiscal year closing. The Committee will continue to work with agencies and vendors to improve data collection processes in FY 2022.

EMBEDDING SUSTAINABILITY INTO STATE PROCUREMENT

The Committee acknowledges that mandates alone don't ensure green purchasing success. For the past couple of years, the Committee focused on ensuring that sustainability is baked into the process of State procurement. In FY 2021, this work included the provision of: live training, practical tools, and support on key Statewide contracts. In addition, the Committee expanded outreach and improved engagement.

Training

Maryland Procurement Academy

In FY 2021, Maryland's Office of State Procurement launched the Maryland Procurement Academy to train and certify public procurement professionals across the State of Maryland. Since then, the Committee has delivered five training classes (1.5 - 2 hours each) on the basics of green purchasing to **119 procurement professionals**.

The Green Purchasing Training was developed with the goal of empowering procurement officers to conduct green procurements. As such, by the end of the course, participants should, at a minimum, be able to:

1. Explain what green purchasing is and why it matters;
2. Identify the signs of greenwashing; and
3. Locate and use green purchasing resources.

Students of Procurement Academy must complete pre-reading assessments, post-assessment quizzes, and a final exam in order to be certified as a procurement officer in the State of Maryland. By investing in the growth and development of current and future procurement officers, Maryland is able to ensure a trained and agile workforce.

Green Cleaning in the Time of COVID-19

While green cleaning has always been an issue of interest to the Green Purchasing Committee, the pandemic pushed this issue to the fore. As the use of cleaning, disinfection, and sanitation supplies surged, it became increasingly important that the products used to control the coronavirus also protected worker health and safety. The Green Purchasing Committee partnered with the Responsible Purchasing Network (RPN) to educate State employees on the importance of green cleaning products and where to find these products on Statewide contracts.

Buy Recycled

The procurement of products with recycled content is becoming an increasingly popular strategy to spur recycling markets, protect natural resources, and reduce greenhouse gas emissions. To capitalize on this trend, the Green Purchasing Committee hosted a training with the Northeast Recycling Council (NERC) and Baltimore County's Bureau of Solid Waste Management – Recycling Division.

Tools & Resources

The online information hub for green purchasing is hosted on the website for the Department of General Services at https://dgs.maryland.gov/Pages/GreenPurchasing/index.aspx.

In FY 2021, the Committee completed Phase II of its web presence overhaul by adding new resources and updating out-of-date information. Seven new web pages were added to ensure vital information was easily accessible to State employees; website additions included targeted pages for Procurement Staff, Purchasers, and Agency Reporting Designees.

Several practical tools and resources were also developed to provide helpful information and guidance to state agencies:

- Step-by-Step Guide to Green Purchasing
- Approved Environmental Standards and Certifications
- Guidance on Agency Reporting
- "General" Specification
- Agency Green Purchasing Reporting Template

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. In FY21, the Committee approved and published 6 specifications:

- Snow & Ice Control (updated)
- Electronic + IT Products (updated)
- Appliances (updated)
- Plumbing & Other Water-Using Products (new)
- HVAC Systems (updated)
- Janitorial Services (updated)
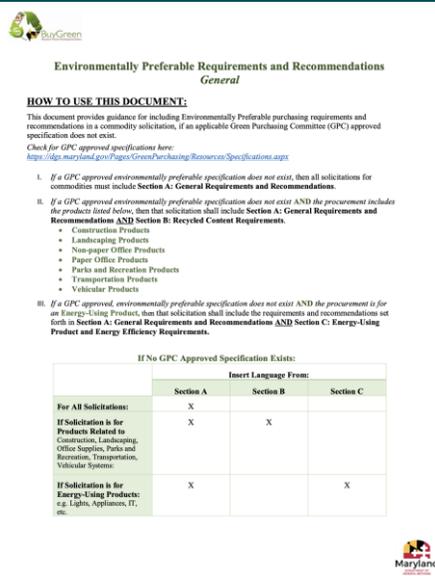
Greened Contracts

The Committee worked to ensure that environmentally preferable purchasing language, including requirements, recommendations, and reporting requirements, were integrated in 13 statewide contracts and 1 agency level contract. The following table features the product categories in which the contracts were greened.

Antifreeze	Requirements for recycled antifreeze were included.
Bus Fare Machines	Energy efficiency recommendations were included.
Disposable Food Service Ware	Environmentally preferable food service ware specification was included. Green items were added to the bid list.
Janitorial Services	Environmentally preferable janitorial services specification included in 10 solicitations.
Lighting	Environmentally preferable lighting specification was included.

5 contract categories that were addressed for environmentally preferable purchasing considerations in FY 2021.

In many instances, this was the first time that a contract was "greened" in the State of Maryland. To ensure that this process was smooth for both procurement officers and vendors, Green Purchasing staff participated in pre-bid conferences whenever possible. The Green Purchasing Committee also coordinated closely with the Office of State Procurement to include standardized green purchasing language in the statewide Request for Proposal (RFP) and Invitation for Bid (IFB) templates. By doing so, the Committee could guarantee that green language would be included in future solicitations.

Outreach and Engagement

Agency One-on-One Sessions

The State of Maryland had already experienced more than three months of telework by the beginning of the fiscal year (July 2020). To promote continued engagement, Committee staff organized individual sessions (13 in total) with member agencies. These discussions were used to assess the state of green purchasing at the agency level, identify obstacles hindering integration with procurement (e.g. absence of leadership support, lack of awareness, etc.), and determine opportunities for improvement and collaboration.

One of the ideas that came to fruition from the Agency One-on-One sessions was the development of a green purchasing newsletter.

Buy Green – The Newsletter

The Green Purchasing Committee developed and released the first issue of a quarterly newsletter in spring of 2021. With an audience ranging from state employees and vendors to interested organizations around the country, this newsletter covers the most recent developments in Green Purchasing, features spotlights on selected topics, and serves as a reminder that green purchasing is a required activity in the State of Maryland.

Earth Day Pledge

Unlike previous years when the Green Purchasing Committee organized an Earth Day event for State Employees, the Committee pivoted its efforts and created a pledge campaign for Earth Day 2021. The pledge asked participants to commit to buying green in 2021 in order to preserve the world's natural resources and green spaces, protect wildlife and their habitats, and keep the Earth alive for future generations. Pledgees then received a Buy Green badge which they could use to promote Earth Day on social media. View the full pledge here.

TOWARDS A CIRCULAR ECONOMY

A circular economy "is an industrial system that is restorative or regenerative by intention and design."[9] Re-use, refurbishing, recycling, and responsible end of life management are important elements of a circular economy and are critical for a stable climate. When Maryland reduces its use of resources, keeps items in use or extends their life, and responsibly manages the end life of the products we consume, we can also minimize waste and shrink our environmental footprint.
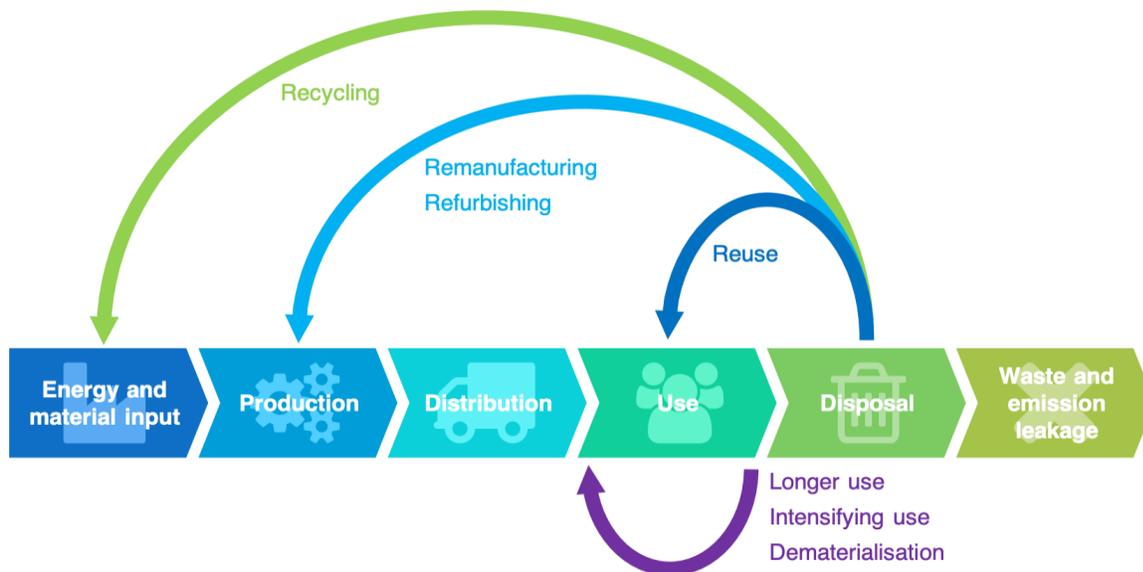
Geissdoerfer, M., Pieroni, M.P., Pigosso, D.C. and Soufani, K., CC BY 4.0 via Wikimedia Commons

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[9] World Economic Forum, *From Linear to Circular - Accelerating a Proven Concept,* https://reports.weforum.org/toward-the-circular-economy-accelerating-the-scale-up-across-global-supply-chains/from-linear-to-circular-accelerating-a-proven-concept/

Re-use

Extending the useful life of products is not only fiscally responsible, but also diverts waste from Maryland's landfills. By avoiding both disposal costs and the need to procure new products, Maryland can shift those dollars to serve other, more critical projects.

DGS manages the acquisition and utilization of surplus property through two statewide programs. These programs enable the State of Maryland's active participation in the circular economy and support its role as a responsible steward of both taxpayer dollars and environmental resources.

State Surplus Property Program

The State Surplus Property Program is responsible for the disposition of excess property that is no longer needed by the State. The Inventory Standards and Support Services Division determines the appropriate disposition method and ensures useful items are reused whenever possible.

In FY 2021, $863,322 worth of property was transferred to other state agencies and $239,528 was donated to local jurisdictions and non-profit organizations so items could be re-utilized.

IT products valued at $1,470,037 were responsibly recycled through the electronics recycling program. 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 $26,264,048 worth of property through online auctions, including 732 state vehicles and pieces of equipment.

FY 2021 State Surplus Property Disposal

- Electronics Recycling 5%
- Landfill 10%
- Donation to Local Govs and Non-profits 1%
- Donation to State Agencies 3%
- Online Auction 81%
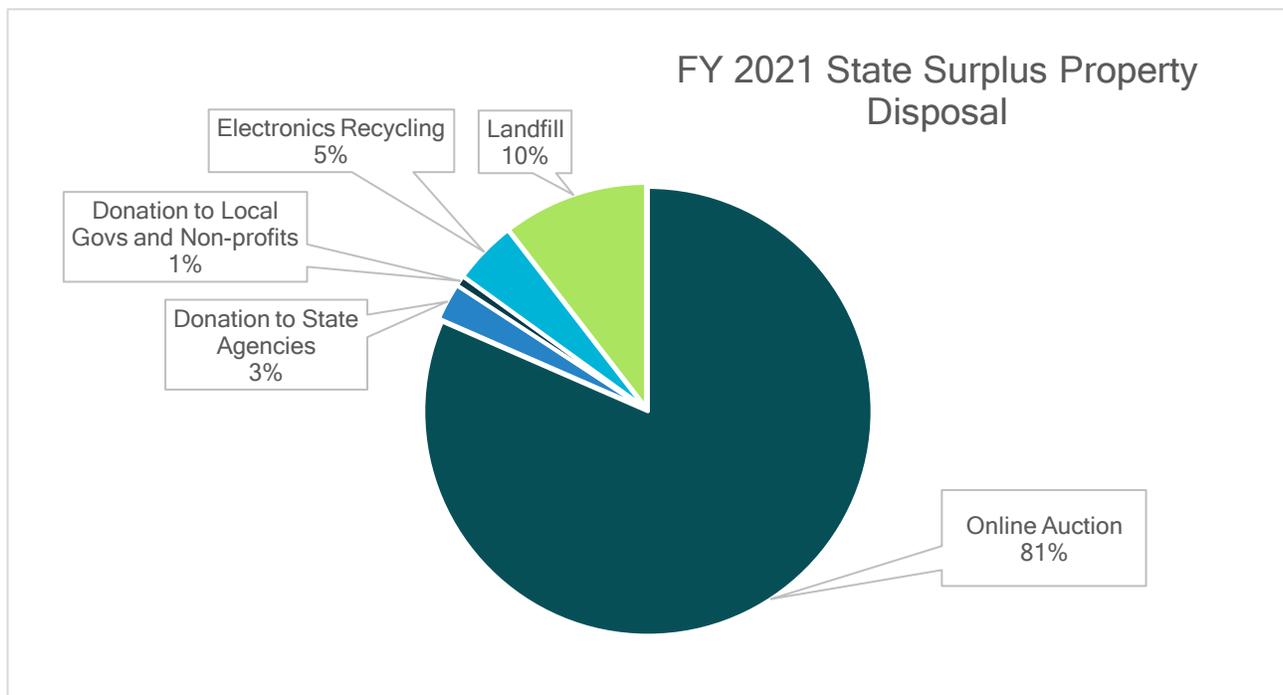
Federal Surplus Property Program

Through the Federal Surplus Property Program, the State acquires surplus furniture, electronics, vehicles, and 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 in Maryland.

In FY 2021, the program managed the distribution of property valued at $2.7 million. All items were free of charge to state agencies and local governments and organizations but resulted in comparable savings by reducing the need to buy new products.

ORGANIZATION	ITEM(S) DONATED	DONATION VALUE
DGS	Forklift, office furniture, IT equipment	$305,328.74
State Government	Office furniture, charter bus	$35,000.00
Local Government	Furniture, appliances	$51,311.00
Local Organizations	Furniture, IT equipment, vehicles, exercise equipment, kitchen equipment, granite	$2,214,778.65
Schools	Furniture, IT equipment, vehicle, medical equipment, and supplies	$114,973.15
TOTAL		$2,721,391.54

Electronics Recycling

Another important aspect of a circular economy is the ability to recover materials that may be remanufactured or recycled into new products, reducing the need for virgin products. Moreover, because electronics are manufactured with raw 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 repercussions for local ecosystems and the health of developing countries that might be on the receiving end of the e-waste. To address these concerns, Maryland requires that e-waste be processed by a certified e-Stewards or R2 recycler. In calendar year 2020, Maryland responsibly recycled 2,800 items through its electronics recycling program.

Promoting Markets for Recycled Content

Other raw materials such as paper and resins may also be recycled into new products, thereby keeping them from entering the waste stream. By purchasing products made with recycled content, the State can support the development of markets for products containing recycled materials.

In FY 2021, DGS became one of the first public sector entities to become a "Government Recycling Demand Champion" with the Northeast Recycling Council (NERC) and committed to increase our purchases of items containing recycled content.

House Bill 164 (cross filed as Senate Bill 116) was introduced in the 2021 legislative session and signed into law in May 2021. The law, which goes into effect on October 1, 2021, requires the Department of the Environment to promote the development of markets for recycled materials and recycled products in Maryland.

The Green Purchasing Committee will support these efforts by promoting the purchase of items containing recycled content, ensuring recycled content requirements are included in our specifications, coordinating with the Department of the Environment on training opportunities, and sharing data on the State's purchase of products with recycled content.

930 tons
of Recycled Content Purchases

2,872 tons
of Wood Saved from Consumption through the Purchase of Recycled Paper

6 tons
of Primary Resources Conserved through the Purchase of Remanufactured Cartridges

LEADERSHIP AND 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 two awards in 2021 for Maryland's procurement of sustainable electronics and Information Technology (IT). Sustainable IT provides the dual benefits of saving the State money through reduced utility costs associated with energy efficiency gains and protecting the environment through natural resource management.

Emily Soontornsaratool, DGS GPC Designee and Kshirajaa Ramesh, Committee Staff hold Maryland's 2021 green purchasing awards.

State Electronics Challenge

In March 2021, the State of Maryland received, for the second consecutive year, a Silver award for its procurement of sustainable IT and responsible end-of-life management in 2019. The State

Electronics Challenge is hosted by the Northeast Recycling Council, Inc. (NERC) with funding from the U.S. Environmental Protection Agency.

EPEAT Purchaser Award

In July 2021, the State of Maryland, again for the second consecutive year, was honored with an EPEAT (Electronic Product Environmental Assessment Tool) Purchaser Award for excellence in purchasing sustainable electronics and IT in 2020. The Global Electronics Council is a non-profit organization dedicated to the design, manufacture, and procurement of sustainable IT products.

Presentations

SPLC: Integrating the Guidance - Climate Friendly Refrigerants

Kshirajaa Ramesh, key staff of the Green Purchasing Committee, served as a panelist on SPLC's webinar *Climate Friendly Refrigerants: The Role of Procurement.* She provided an overview of Maryland's environmentally preferable purchasing program and the State's approach to regulating Hydrofluorocarbons (HFCs) and integrating guidance on climate friendly refrigerants into specifications.

Healthy Babies Bright Futures: Justifying Sustainability through Cost Savings

Kshirajaa was also a panelist on the Healthy Babies Bright Futures webinar *Sustainable Procurement in the Time of COVID.* Around the country, sustainability programs were impacted as the pandemic put a strain on organizational budgets. Accordingly, Kshirajaa's presentation focused on justifying sustainability and green purchasing initiatives through the cost savings opportunities these programs provide.
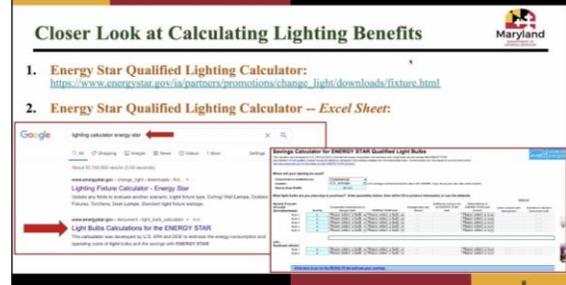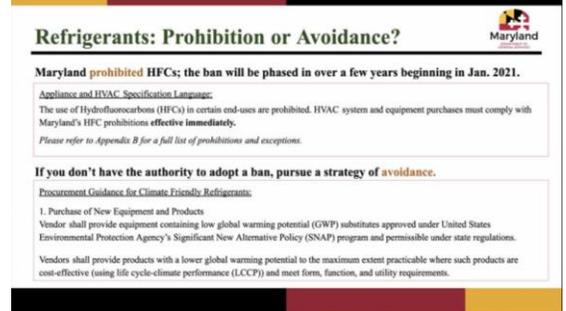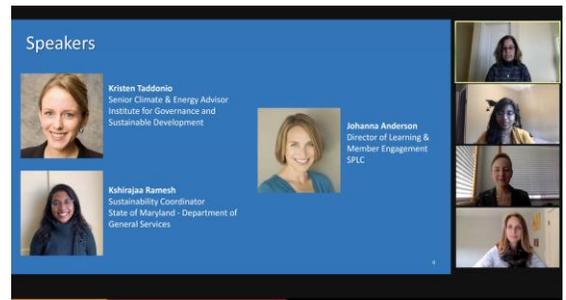
The Green Purchasing Committee's Designee, Emily Soontornsaratool, is a recurring presenter at the Office of State Procurement's monthly Procurement Advisory Group meetings as well as the Procurement Improvement Council (PIC). These meetings are used to discuss current procurement issues and provide training, best practices, and guidance to the senior procurement officers across the State, so they may disseminate necessary information to procurement staff.

Partnerships

NERC: Government Recycling Demand Champion

In July 2020, the Department of General Services, became a Government Recycling Demand Champion. This initiative, hosted by NERC, requires participants to prioritize the purchase of products with post-consumer plastic resin over virgin material in order to stimulate the recycling market.

Sustainable Purchasing Leadership Council (SPLC) SP3, Coaching Graduate

The Green Purchasing Committee underwent coaching through the Strategic Program Planning Process (SP3) with SPLC. This 6-month program helped the Committee focus on the development of: 1) Vision and Goals; 2) Metrics for Program Evaluation; and 3) Strategies for Successful Deployment.

SPLC Refrigerants Action Team Member

The Committee Staff was an active member of SPLC's "Climate Friendly Refrigerants Action Team" from February – September 2020. This team was tasked with creating guidance on the purchase of equipment that avoids refrigerants with high global warming potentials (GWP). Procurement Recommendations for Climate Friendly Refrigerants can be accessed here.

GEC Labor & Human Rights Workgroup Member

From July of 2020 to April of 2021, Committee staff was also as a member of the Global Electronic Council's (GEC) Labor and Human Rights Workgroup. Participants worked to update GEC's *Purchasers Guide for Addressing Labor and Human Rights Impacts in Technology Procurements*; this guide can be accessed here.

Governor's Summer Internship Program Mentor
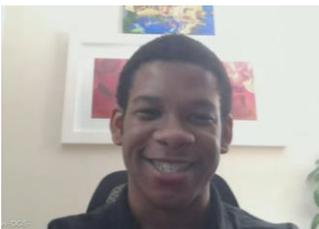
Through the 2021 Governor's Summer Internship Program, the Green Purchasing Committee's designee served as a mentor to Delharty Manson, a rising senior at the College of William and Mary. Delharty's projects focused on the vendor community and the ways in which the Committee can support and recognize them for their sustainability efforts.

LOOKING AHEAD

Maryland will continue to prioritize green purchasing strategies that support our priorities of addressing the climate emergency, promoting public health and saving the State money. At the same time, the Green Purchasing Committee will continue to push for ways to grow and improve upon the State's environmentally preferable purchasing program.

The Committee has determined a number of goals for FY 2022:

1. Establish a **robust library of specifications**
2. Continue regular ongoing **training** for procurement staff
3. **Recognize agencies** for their green purchasing successes
4. **Promote green contracts** to State agencies, and counties/municipalities
5. Develop **Key Performance Indicators (KPI's)** to measure the success of our program
6. **Engage vendors** to increase awareness and compliance
7. Explore how to **support and engage small and disadvantaged businesses**
8. **Demonstrate the value of green purchasing** through increased promotion and communications of benefits

ACKNOWLEDGEMENTS

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 in FY 2021.

For the purposes of reporting, the Maryland Green Purchasing Committee uses the below criteria for products to be counted as green and included in green spend figures.

Products must possess one or more of the following ecolabels found in the table on the next page for their respective categories, or meet one of the following standards:

Construction & Maintenance	• Meet or exceed the applicable U.S. Environmental Protection Agency's Comprehensive Procurement Guideline (EPA CPG). • Where an EPA CPG does not exist for a product category, that product must contain a minimum of 30% post-consumer recycled content (PCRC) or 50% total recycled content (TRC).
Energy	• Energy derived from renewable sources such as wind or solar.
Food Service Ware	• Where an EPA CPG does not exist for a product category, that product must contain a minimum of 30% post-consumer recycled content or 50% total recycled content.
Janitorial Supplies	• Where an EPA CPG does not exist for a product category, that product must contain a minimum of 30% PCRC or 50% TRC.

Lighting Products	• Light emitting Diodes (LEDs) that meet one of the following standards:
	  ○ On the US Department of Energy and Environmental Protection Agency's criteria for use of the ENERGY STAR® trademark label;
	  ○ On the DesignLights Consortium® (DLC) Qualified Products List (QPL)

Office Supplies	• Toner and ink cartridges labeled as Remanufactured or High Yield. • Rechargeable Batteries. • Powered by renewable energy (e.g. solar powered calculators). • Where an EPA CPG does not exist for a product category, that product must contain a minimum of 30% PCRC or 50% TRC. • FSC certified copy paper, paper towels, and toilet paper must also meet recycled content requirements.

	Construction & Maintenance	Electronic & IT Products	Food Service Ware	Janitorial Supplies	Lighting Products	Office Supplies	Paints & Coatings
Biodegradable Products Institute			BPI	BPI			
Business and Industry Furniture Manufacturers Association Level						level	
Carpet and Rug Institute (CRI) Green Label Plus	CRI PLUS			CRI PLUS			
Clear Roads Qualified Product List	CLEAR ROADS						
Compost Manufacturers Alliance			CEDAR GROVE				
Cradle to Cradle (Silver or Higher)	cradle to cradle			cradle to cradle		cradle to cradle	cradle to cradle
DesignLights Consortium					DLC		
ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR	ENERGY STAR
EPEAT (Bronze if Server, Silver and Gold for all other categories)		epeat				epeat	
EPA CPG	EPA		EPA	EPA		EPA	EPA
Fair Trade Certified			FAIRTRADE			FAIRTRADE	
Forest Stewardship Council			FSC	FSC		FSC	
Green Seal	Green Seal			Green Seal		Green Seal	Green Seal
Greenwise or Greenwise Gold							green WISE
MPI Green Performance Standards (e.g., Extreme Green, GPS-1, GPS-2)							MPI GREEN
Rainforest Alliance			Rainforest Alliance			Rainforest Alliance	
Safer Choice	SAFER CHOICE		SAFER CHOICE	SAFER CHOICE		SAFER CHOICE	
Scientific Certification Systems Indoor (SCS) Advantage Gold or FloorScore						SCS INDOOR ADVANTAGE GOLD	SCS INDOOR ADVANTAGE GOLD
UL ECOLOGO	UL ECOLOGO		UL ECOLOGO	UL ECOLOGO		UL ECOLOGO	UL ECOLOGO
UL GREENGUARD	UL ECOLOGO						
UL GREENGUARD Gold				UL ECOLOGO		UL ECOLOGO	UL ECOLOGO
WaterSense Certified	WaterSense		WaterSense				

Green Purchasing Committee Approved Third Party Ecolabels and certifications

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.[10]
   - Olympic Sized Swimming Pool holds 660,430 gallons of water.[11]
   - 18-wheeler (tractor trailer) weighs 267 lbs.[12]

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 lamps* by determining lamp wattage, wattage of CFL being replaced, 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 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 CO2 and other pollutants. Benefit calculations were made using EPA's AVoided Emissions and geneRation Tool (AVERT).

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[10] EPA, *Advancing Sustainable Materials Management: 2014 Tables and Figures.*
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

[11] 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

[12] 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

4. Zero Emission Vehicles (ZEVs)

The procurement of ZEVs lowers the State's carbon footprint by reducing tailpipe emissions. Benefit calculations were made using the DOE's Alternative Fuels Data Center (AFDC) tool for [Vehicle Costs](#). The most common ZEV purchased by the State is the Chevrolet Bolt. This car served as the baseline for the AFDC tool and was compared to the Chevrolet Spark to calculate carbon emissions savings.

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*[13] and a Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT study[14] 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.

Additionally, 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

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[13] https://docplayer.net/11672387-The-carbon-footprint-of-remanufactured-versus-new-mono-toner-printer-cartridges.html

[14] *Study: Reuse of Toner Cartridges Reduces Emissions,* https://www.umsicht.fraunhofer.de/en/press-media/press-releases/2019/interseroh-toner-cartridges.html

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.

B. Green Purchasing Committee Membership

Department	Members/Designees & Participating Staff
Department of General Services (Chair)	Ellington Churchill, Jr. Secretary Emily Soontornsaratool (Designee) Chief, Sustainability Emily.Soontornsaratool@maryland.gov Kshirajaa Ramesh (Staff) Sustainability Officer Kshirajaa.Ramesh@maryland.gov Mike Myers Associate Director of Procurement Mike.Myers@maryland.gov Ellen Robertson Legislative Liaison Ellen.Robertson@maryland.gov Matthew Smith Procurement Officer Matthew.Smith2@maryland.gov
Department of Budget and Management	Joseph Consoli (Designee) Fleet & Travel Administrator Joseph.Consoli@maryland.gov
Department of Commerce	Brenda Lee (Designee) Director of Contracts and Procurements Brenda.Lee@maryland.gov
Department of Environment	Dinesh Gandhi (Designee) Procurement Officer Dinesh.Gandhi@maryland.gov Jane Noble Procurement Officer Jane.Noble@maryland.gov

	Christy Bujnovszky Recycling Unit Christy.Bujnovszky@maryland.gov
Department of Health	Jim Beauchamp (Designee) Director, Office of Contract Management & Procurement jim.beauchamp@maryland.gov
Department of Information Technology	Lance Schine (Designee) Deputy Secretary Lance.Schine@maryland.gov
Department of Natural Resources	Mary Huffman (Designee) Procurement Specialist II Mary.Huffman@maryland.gov
Department of Public Safety and Correctional Services	Joseph Eccleston (Designee) Procurement Administrator josepho.eccleston@maryland.gov
State Treasurer	Joanna Kille (Designee) Board of Public Works Liaison JKille@treasurer.state.md.us
Department of Transportation	Eddie Lukemire (Designee) Program Manager ELukemire@mdot.maryland.gov
University System of Maryland	Thomas P. Hickey (Designee) Director of Procurement and Real Property Initiatives THickey@usmd.edu

C. Agency Green Spend Reports

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	Green Spend on Statewide Contracts	Other Verified Green Spend	Total Green Spend
Administrative Hearings	$40,110.30		$40,110.30
Aging	$10,833.53	$10,270.00	$21,103.53
Agriculture	$16,088.48		$16,088.48
Archives			$0.00
Attorney General's Office	$27,877.80		$27,877.80
Aviation Administration	$524,740.10		$524,740.10
Board of Contract Appeals	$254.18		$254.18
Board of Public Works	$242.88		$242.88
Bowie State University	$30,621.48	$2,063,422.56	$2,094,044.04
Budget & Management	$10,760.94		$10,760.94
Commerce	$8,486.99		$8,486.99
Comptroller	$179,434.58		$179,434.58
Coppin State University	$4,546.53	$1,358,630.53	$1,363,177.06
Disabilities	$9,005.96		$9,005.96
Division of Rehabilitation Services	$2,827.26		$2,827.26
Education	$73,794.42	$484,861.94	$558,656.36
Energy Administration	$62.84		$62.84
Environment	$34,652.02		$34,652.02
Environmental Service	$79,561.85		$79,561.85
Food Center Authority	$99.96		$99.96
Frostburg State University	$9,987.86		$9,987.86

Agency	Green Spend on Statewide Contracts	Other Verified Green Spend	Total Green Spend
General Services	$425,015.19		$425,015.19
Governor's Office of Crime Control & Prevention	$505.99	$1,434.02	$1,940.01
Health	$1,275,425.95		$1,275,425.95
Higher Education Commission	$12,729.85		$12,729.85
Housing & Community Development	$19,810.72		$19,810.72
Human Services	$752,411.38		$752,411.38
Information Technology	$7,713.41		$7,713.41
Insurance Administration	$49,058.65		$49,058.65
Judiciary	$164,719.59		$164,719.59
Juvenile Services	$197,929.40		$197,929.40
Legislative Services	$31,094.00		$31,094.00
Lottery	$13,297.31		$13,297.31
Maryland Supplemental Retirement Plans	$1,902.79		$1,902.79
Military	$65,784.62		$65,784.62
Morgan State University	$46,899.11		$46,899.11
Motor Vehicle Administration	$78,857.84		$78,857.84
Natural Resources	$133,776.59		$133,776.59
Office of the People's Counsel	$2,370.24		$2,370.24
Planning	$3,361.46		$3,361.46
Port Administration	$749,415.36	$16,456.70	$765,872.06
Public Defender	$163,725.55		$163,725.55
Public Safety & Correctional Services	$4,157,047.77		$4,157,047.77
Public Service Commission	$46,548.40	$23,828.86	$116,925.66
Public Television	$7,623.59		$7,623.59
Retirement Agency	$39,985.18		$39,985.18

Agency	Green Spend on Statewide Contracts	Other Verified Green Spend	Total Green Spend
Salisbury University	$44,169.08		$44,169.08
School for the Deaf	$2,629.38		$2,629.38
Secretary of State	$9,144.59		$9,144.59
Stadium Authority	$2,955.24		$2,955.24
State Board of Elections	$2,549.17	$22,139.54	$24,688.71
State Department of Assessment & Taxation	$16,236.89		$16,236.89
State Highway Administration	$290,657.78		$290,657.78
State Police	$105,331.17		$105,331.17
State Treasurer	$321.77		$321.77
Towson University	$35,258.79	$636,297.99	$671,556.78
Transit Administration	$181,002.12		$181,002.12
Transportation	$512,091.29		$512,091.29
Transportation Authority	$430,682.31		$430,682.31
University of Baltimore	$12,776.90		$12,776.90
University of MD Baltimore	$382,481.49		$382,481.49
University of MD Baltimore County	$9,230.69	$213,264.52	$222,495.21
University of MD College Park	$140,727.64		$140,727.64
University of MD Eastern Shore	$122,883.47		$122,883.47
University of MD Global Campus	$1,054.42	$477,987.87	$479,042.29
University System of MD	$33,882.22		$33,882.22
Veterans Administration	$19,017.35		$19,017.35

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Maryland Green Purchasing Committee

Web: https://dgs.maryland.gov/Pages/GreenPurchasing/index.aspx
Email: DGS.BuyGreen@maryland.gov