



Mark Hand, Director
Matt Reis, Deputy Director

GreenGov Council

The GreenGov Council is chaired by the Department Secretaries of:
Conservation & Natural Resources, Environmental Protection, General Services



**Cindy Adams Dunn,
DCNR Secretary**



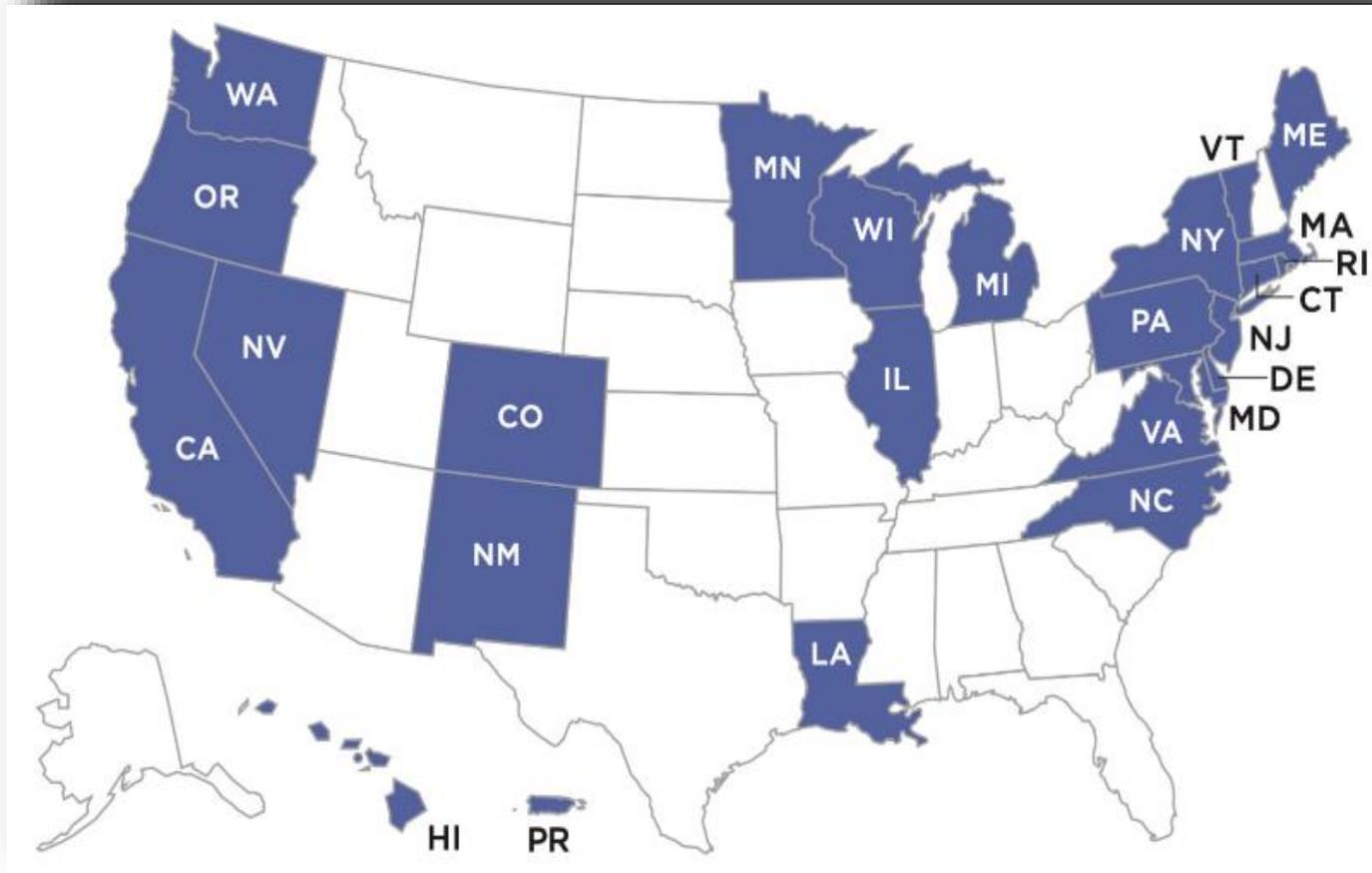
**Rich Negrin,
DEP Secretary**



**Reggie McNeil,
DGS Secretary**



US Climate Alliance – PA Participation



Pennsylvania has been a Member of the US Climate Alliance Since 2019:

www.usclimatealliance.org

With **25 Governor Signatories**, the Climate Alliance Agrees to Meet Climate Reduction Goals, Track and Report Progress and Accelerate Green Policies

Commonwealth Agency Goals – Lead-By-Example

“Encouraging the Incorporation of Environmentally Sustainable Practices into the Commonwealth’s Policy, Planning, Operations, Procurement, and Regulatory Functions”



Reduce	<ul style="list-style-type: none">• Overall energy consumption by 3% per year, and 21% by 2025 from 2017 levels;
Replace	<ul style="list-style-type: none">• 25% of the state passenger fleet with Battery Electric Vehicles and Plug-In Hybrid Electric Vehicles by 2025;
Procure	<ul style="list-style-type: none">• Renewable energy to offset at least 40% of the Commonwealth’s annual electricity, and/or directly purchase renewable power generation sited within PA;
Build	<ul style="list-style-type: none">• New buildings, major renovations, build to suit leased buildings to high-performance building standards.

Energy Reduction 2020/2021 – 2021/2022



FACILITIES
ENGINEERING
INSTITUTE

Commonwealth Energy Consumption FY2020/2021 - FY2021/2022

State Reporting Agency	Normalized Use MMBtu	Known Meter Count	% of Meters Reported	FY 2020 Baseline MMBtus	FY 2021 Current MMBtus	Change in Energy Usage	Change in CO2 Metric Tons
Dept of Corrections		333	94%	2,057,531	2,005,177	-2.5 %	-4,470
Dept of Human Services		100	91%	976,380	978,872	0.3 %	31
Dept of Military and Veterans Affairs		842	96%	484,090	499,170	3.2 %	798
Dept of General Services		69	94%	515,240	491,846	-4.5 %	-647
Dept of Transportation		3,567	92%	386,922	431,745	11.6 %	2,886
PA State Police		931	80%	125,163	133,838	6.9 %	351
Dept of Conservation and Natural Resources		1,979	95%	100,518	102,826	2.3 %	90
Dept of Labor and Industry		10	80%	60,457	59,619	-1.4 %	31
PA Fish and Boat Commission		94	89%	43,683	41,800	-4.3 %	-99
Dept of Agriculture		13	85%	44,988	40,434	-10.1 %	-252
Dept of Environmental Protection		124	93%	24,150	27,902	15.5 %	337
PA Historical and Museum Commission		149	92%	22,136	26,069	17.8 %	-568
PA Emergency Management Agency		13	92%	18,936	20,615	8.9 %	-111
Dept of Revenue		5	100%	11,711	13,611	16.2 %	-147
PA Game Commission		236	96%	12,745	12,798	0.4 %	13
Dept of Health		3	100%	9,436	9,835	4.2 %	-93
Total		8,468	92%	4,894,086	4,896,157	0.4%	-1,850

12%+ Reduction Maintained Since 2017

EV & EV Charging Infrastructure



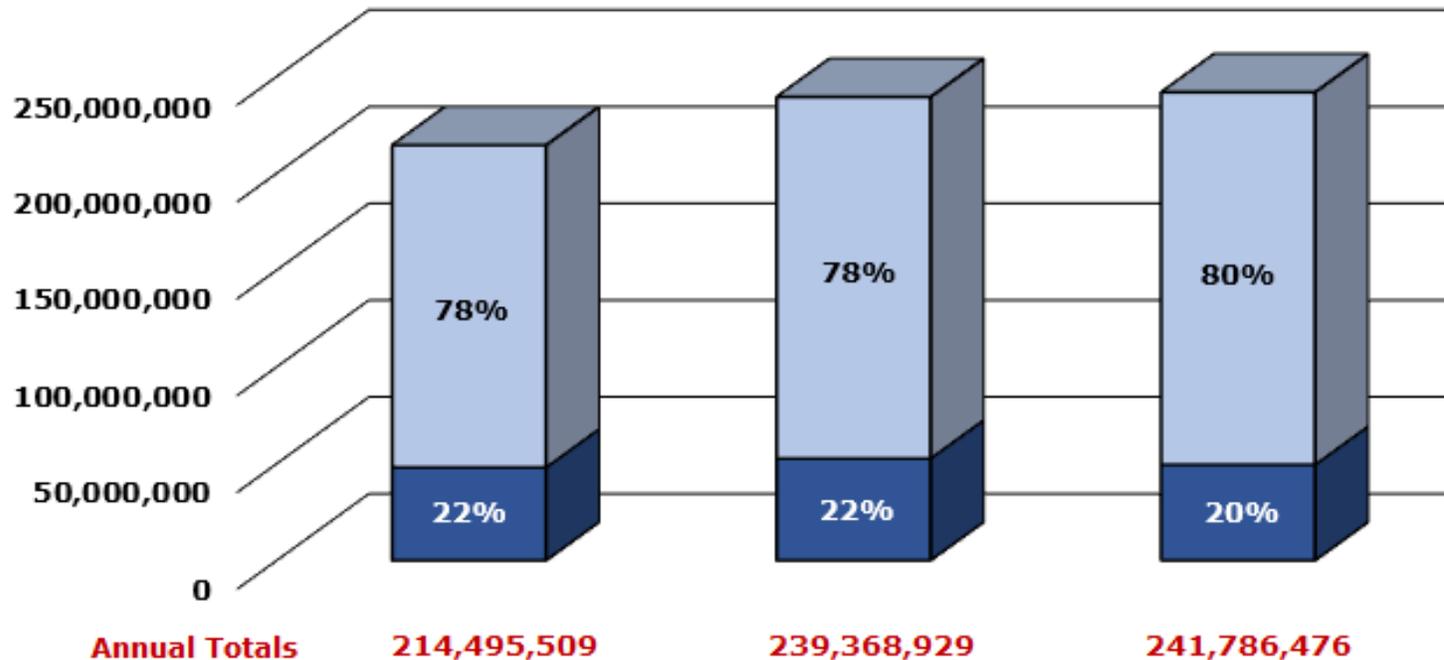
- **14% Additional High-Efficiency Vehicles on State Contract** 36 to 41 Models Available
- **27% of EV Goal Reached**, 263 Units of 971 (25% Passenger Fleet)

Overall EV Charging Plug Delivery Status	
Total Plug Heads Completed:	175
Total Plug Heads In Design and/or Construction:	327
Total Plug Heads in Future Planning:	85
Total Count Completed & Planned (Agency Use):	587
DCNR State Park Completed & Planned (Public Use):	128

- **175 EV Charging Plugs Delivered** with 300+ Planned in 2023
- **Electric Vehicle Supply Equipment (EVSE) Contract** Now Available through DGS Procurement

**Commonwealth Agency Vehicle Fleet
Annual VMT Comparison**

Vehicle Classification	Vehicle Miles Traveled		
	2020	2021	2022
Passenger* (Class 1-2)	48,070,127	52,674,806	49,455,037
All Remaining Vehicles (Through Class 8)	166,425,382	186,694,123	192,331,439



* Law enforcement vehicles & pickup trucks not included

"VMT Reduction & Electrification in the Heavier Vehicle Classes is a Great Opportunity for the Commonwealth"

Renewable Energy – Power Purchase Agreements

PA PULSE – Project to Utilize Light and Solar Energy

- **Provide for Nearly 50%** of State Government's Electricity – Construction in 2023!
- **191 Megawatts of Power** to 434 Accounts Across 16 Agencies
- **Reduction of 157,800 Metric Tons** of CO2 Emissions Annually

Now in Progress!

- **Site Occupancy Agreements** for Additional Solar Installations



High-Performance Building Construction

High-Performance Building Projects

- **40 Current Projects** Across Agencies
- **All Projects Meeting or Exceeding** GreenGov Performance Goals

High-Performance Building Delivery Guide

- **Outline Steps and Processes** to Deliver High-Performance Projects
- **Exceed Performance Goals** as Set Forth Through the GreenGov Program
- **Incorporate High-Performance Standards** (LEED, GreenGlobe, etc.)

***"Partnership with
DGS and Client
Agencies to Deliver
High-Performance
Buildings"***

GreenGov Agency Checklist – 2023 Reporting


Rev. 10/17/2022

GreenGov Agency Certification Checklist
Fiscal Year 2022-2023 Reporting

Agency Representative Sign-off: _____ Agency Executive Sign-off: _____

Points Applicable	Points Earned	Score
186	0	0%

Instructions:

- Review each measure and answer based upon actions of your Agency within the fiscal year of July 1, 2022 through June 30, 2023.
- As each measure is evaluated, begin with the following preface: **"Since July 2022, as an Agency have you..."**.
- The Checklist will automatically tally all points earned based upon measures applicable to your Agency.
- Once completed, type in your Agency sign-offs above and save the document with your Agency name in the title.
- Email the completed Checklist to: RA-GSGreenGov@pa.gov by Friday, August 25, 2023.

Scoring:

- Score will be based upon the percentage of "yes" answers to measures applicable to your Agency.
- For measures that do not apply to your Agency, select "not applicable".
- Green highlighted measures valued at 4 points are direct initiatives of the GreenGov Program.
- Blue highlighted measures valued at 4 points are direct initiatives of GreenGov Agency Focus Groups.

Contact GreenGov:
 Phone: 717-787-4967 Email: RA-GSGreenGov@pa.gov Web: dgs.pa.gov/GreenGov

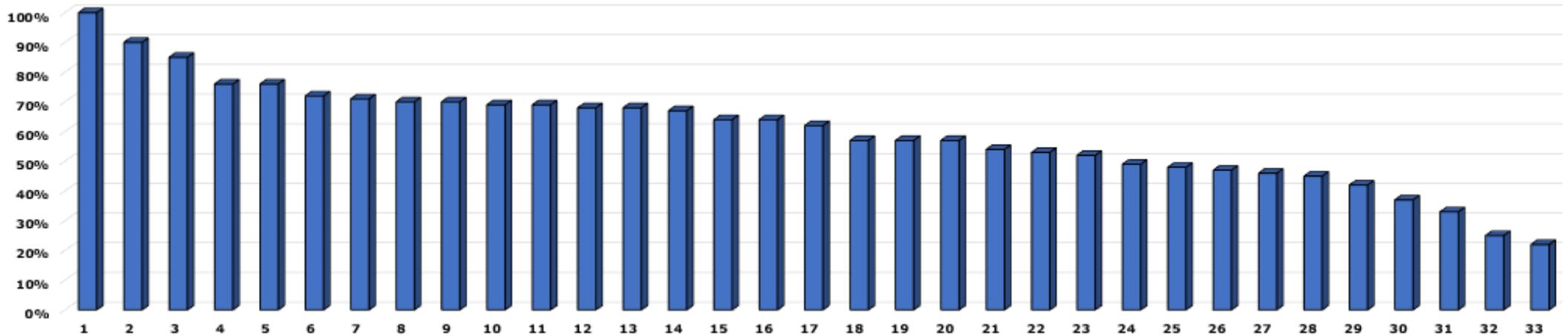
Since July 2022, as an Agency have you...

I Benchmarking and Evaluation						
1	Facility Benchmarking	Yes	No	N/A	Points Value	Points Earned
1 A	Maintained an inventory of all owned and leased buildings and square footage figures for use in DGS TRIRIGA & EnergyCAP systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 B	Developed, implemented, and maintained a written plan for your space portfolio to identify opportunities for consolidation of space leading to cost, energy and carbon footprint savings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	0
1 C	Participated in the Commonwealth Utility Benchmarking Initiative (CUBI) through the EnergyCAP Agency Workplan by assigning & maintaining "Agency Liaison", "Core User" and other roles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	0
1 D	Utilized EnergyCAP for the evaluation of utility bills regarding consumption trends, usage spikes, billing anomalies and established reduction targets for continued energy savings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	0
1 E	Established an Executive-level energy portfolio report for your agency's facilities through the EnergyCAP System?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 F	Participated in the High-Performance Lease Program through partnership with DGS Bureau of Real Estate, GreenGov and Lessor by conducting an energy audit and establishing energy efficiency goals in a lease facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	0
1 G	Worked with a Lessor to establish a utility bill tracking program for at least 1 facility that does not meet the 20k square foot and greater office space threshold for the High-Performance Lease Program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 H	Utilized the DGS Consulting Services (TQ 4400007410) to procure at least 1 ASHRAE Energy Audit and/or EnergyStar Building Certification within a facility owned or leased by your Agency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 I	Participated in the GreenGov Facility Energy Management System, (EnMS) in at least one facility as part of the development of the facility's comprehensive energy evaluation and action plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 J	Received Act 129 or other energy conservation or sustainability incentive program rebates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0
1 K	Achieved an overall 9% reduction of energy consumption within the past Fiscal Year (2022-2023) through the participation in energy reduction programs and delivery of energy-saving projects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	0
Points Total					29	0
2	Transportation Benchmarking	Yes	No	N/A	Points Value	Points Earned
2 A	Developed, implemented, and maintained executive-level fleet reports including, classification, mileage, consumption, emission and costs for the purposes of VMT reduction and fuel economy improvements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
2 B	Evaluated passenger vehicle assignments to identify ideal locations for the delivery of EV charging station projects as part of a high-efficiency vehicle fleet plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	0

- 2022-2023 Reporting Period, Marking **5 Years of the GreenGov Program!**
- **Benchmarking and Evaluation of Agency Efforts**
- Checklists Due **Friday, 8/25/2023**
- Overall Data to be Shared:
 - **Posted to GreenGov Website**
 - **GreenGov 2023 Annual Report**

GreenGov Agency Checklist – 100% Participation!

State Agencies	Turnpike Commission	Transportation	Banking and Securities	Corrections	Pub. School Employees Ret. Sys.	Office of Administration	Environmental Protection	Historical and Museum Comm.	Military and Veterans Affairs	Human Services	Department of State	Office of the Budget	General Services	State Police	Education	Labor and Industry	Drug and Alcohol Programs	Insurance Department	Conservation of Nat. Resources	Community and Economic Dev.	PA Emergency Management	State Fire Commission	General Counsel	Public Utility Commission	Revenue	Liquor Control Board	State Inspector General	Milk Marketing Board	Game Commission	Agriculture	Environmental Hearing Board	Aging	Health
Points Applicable	151	175	103	170	76	54	182	168	175	173	128	40	182	174	61	173	82	87	182	56	182	179	58	110	123	180	74	122	173	175	36	114	161
Points Earned	151	158	88	129	58	39	129	117	123	120	88	27	124	117	39	110	51	50	104	32	98	94	30	54	59	84	34	55	73	64	12	29	36
Score	100%	90%	85%	76%	76%	72%	71%	70%	70%	69%	69%	68%	68%	67%	64%	64%	62%	57%	57%	57%	54%	53%	52%	49%	48%	47%	46%	45%	42%	37%	33%	25%	22%



Highest Score: 100%

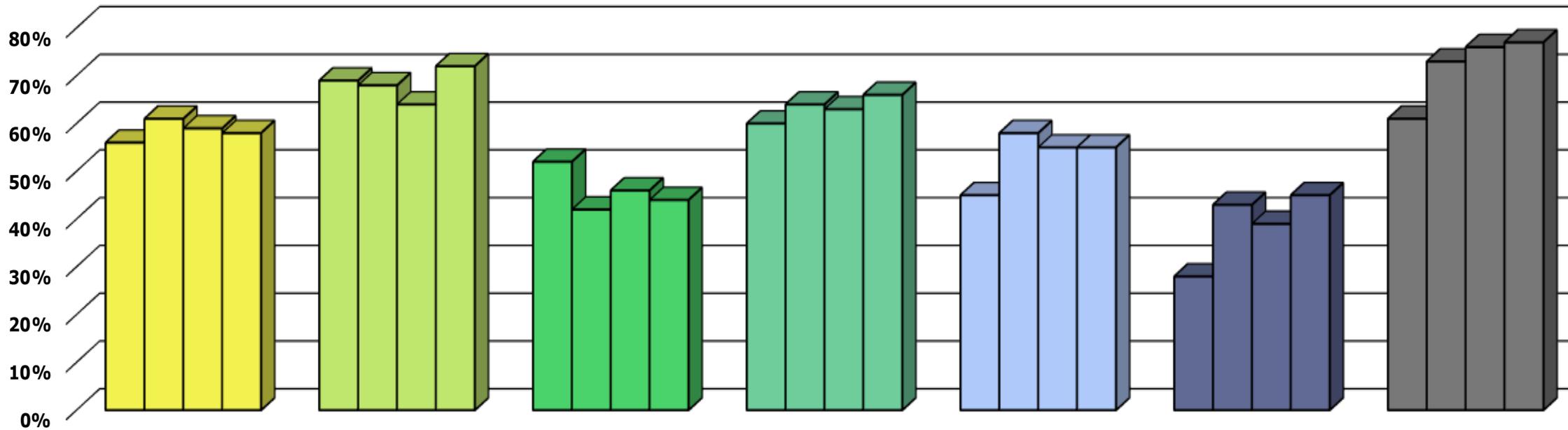
Lowest Score: 22%

2022 Average Score: 60%



GreenGov Agency Checklist – Scores 2019-2022

Category	Benchmarking & Evaluation				Buildings & Structures				Transportation				Products & Materials				Culture				Renewable Energy				Resilience			
Year	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
Percentage	56%	61%	59%	58%	69%	68%	64%	72%	52%	42%	46%	44%	60%	64%	63%	66%	45%	58%	55%	55%	28%	43%	39%	45%	61%	73%	76%	77%



Overall Averages

2019: 53% 2020: 61% 2021: 59% 2022: 60%

GreenGov Communications – Agency Successes



Annual Report



Pennsylvania GreenGov News

***"Agency Successes
& Lead-By-Example
Efforts Shared in
the GreenGov
Annual Report &
Newsletter"***

GreenGov Communications – Climate Resilience Network

PA Climate Change Mitigation & Resilience Network



"Climate Change Education & Action to Develop a Network of Pennsylvania Climate Leaders"

- Development of an Advisory Board of **Government & Business Leaders**
- Fostering **Peer-to-Peer Networking** for all Participants
- Increasing PA's Capacity to **Tackle Climate Change**
- **Multi-Agency Participation** through MOU Funding Support

GreenGov Communications – Sustainability Week



- **Sustainability Week**, Hosted Annually, First Week of October
- **Daily Messaging to All Employees** on Focused Sustainability Topics
- **Messaging Topics Include:**
 - Food Security, Local Foods & Purchasing
 - Sustainable Transportation
 - Climate Urgency & Action
 - Recycling and Food Waste Reduction
 - High-Performance Buildings

GreenGov Communications – Sustainability Week



- **Sustainability Summit**, October 3-7, 2022
- **Sharing Information** on Focused Sustainability Topics
- **Expert Speakers** as the Week's Kickoff
- **1,500+ Participants** in events throughout the week!

GreenGov Communications – Webinar Series 4

9/2/2022



GreenGov Council & Penn State Sustainability Institute's Sustainability Webinar Series 4

OVERVIEW:
The [GreenGov Council](#) and Penn State's [Sustainability Institute](#) are co-hosting our fourth monthly webinar series on various sustainability topics. All who are interested in expanding their knowledge of sustainability initiatives are invited to participate!
Our goal is to make this series a successful venture to support the commonwealth's progress in uplifting and delivering on sustainability initiatives. To that end, please forward this invitation along to all those who may be interested.

PURPOSE:
The series is intended to give participants opportunities to hear from subject matter experts and receive updates on each topic to enrich their knowledge while engaging in group conversations.
This series will also be a useful tool for agencies to explore options and develop sustainability initiatives while receiving credit within their [GreenGov Agency Certification Checklist](#) (Checklist) program areas. Specifically, the series supports Checklist efforts under the "Culture" category on Employee and Public Engagement (sections 13 and 14).

FORMAT:
In respect of attendee's time, the webinars will be hosted monthly and consist of a 30 minute presentation followed by a 15 minute question & answer session. All presentations will be held via Microsoft Teams webinars and participants should plan to connect utilizing their computers to view and engage.

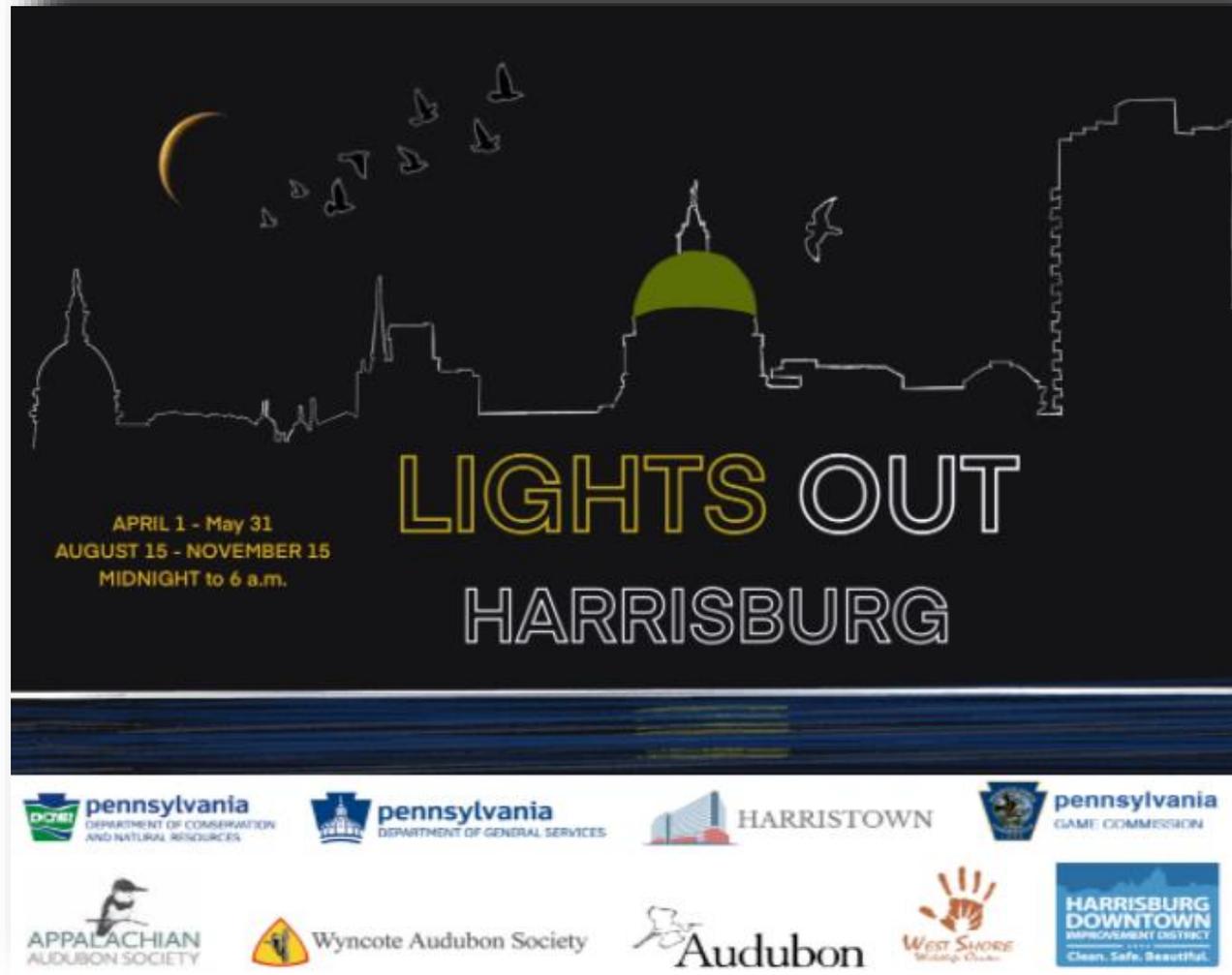
REGISTRATION:
All interested attendees are asked to complete this sign-up [survey](#) and indicate which presentations they plan to attend. The GreenGov Council will review the survey sign-up submissions and send out Microsoft Teams meeting calendar invitations to each interested participant for their selected webinars.
For any additional questions or comments, you may have regarding registration or webinar content, please contact the GreenGov Council.

Pennsylvania GreenGov Council
403 North Office Building | Harrisburg, PA 17120 | 717.787.4987 | dgs.pa.gov/greengov

- Partnership with the **Penn State Sustainability Institute**
- Presentations by **Subject Matter Experts**
- Webinars Hosted on a **Monthly Basis**
- 5th Webinar Series **Coming this Fall!**



GreenGov Communications – Lights-Out Initiative



- **National Program** with More than 40 Participating Cities
- **Exterior Lights Turned Off** During Bird Migration Seasons
- **Everyone Benefits!** Saving Birds, Energy & Money
- **Migration Seasons** April 1 – May 31, August 15 – November 15



GreenGov Program Area Focus Groups

**Sustainability
Teams**

**Utility
Management**

**EVs & EV
Charging**

**Green Facility
Management**

**Construction &
Leasing Specs**

**Products &
Materials**

***"Incorporating
Sustainability and
Resilience into
Commonwealth
Operations"***

Agency Sustainability Teams

MANAGEMENT DIRECTIVE

Commonwealth of Pennsylvania
Governor's Office

Title
Management Directive 720.05 Amended, Energy Management and Conservation in Commonwealth-Owned and Leased Facilities

Date
September 21, 2021

By Direction of


Curtis M. Topper, Secretary of General Services

Contact Agency
Department of General Services, GreenGov Council, Telephone 717.787.4987

This directive establishes policy and responsibilities for the management and conservation of energy in facilities owned and leased by the Commonwealth of Pennsylvania.

1. **PURPOSE.**
To establish policy and responsibilities to manage and conserve energy in all Commonwealth-owned and leased facilities to achieve overall annual energy consumption reduction goals as set forth in *Executive Order 2019-01 Commonwealth Leadership in Addressing Climate Change and Promoting Energy Conservation and Sustainable Governance*, providing cost savings and greenhouse gas emission reductions.
2. **SCOPE.**
This directive applies to all departments, offices, boards, commissions, and councils (hereinafter referred to as "agencies") under the Governor's jurisdiction that occupy space in Commonwealth-owned and leased facilities. The directive also applies to all legislative, judicial, and other independent agencies that occupy Commonwealth-owned and leased facilities controlled by the Department of General Services. Legislative, judicial, and other independent agencies that own or lease their own space should also consider complying with this directive for those facilities.
3. **OBJECTIVES.**
In order to improve energy efficiency of Commonwealth-owned and leased facilities as part of the overall 3% annual reduction of energy consumption stipulated in *Executive Order 2019-01 Commonwealth Leadership in Addressing Climate Change and Promoting Energy Conservation and Sustainable Governance*, agencies shall:
 - a. Utilize program and portfolio management tools including the:
 - (1) Commonwealth Utility Benchmarking Initiative,
 - (2) GreenGov Program,

"Energy Management and Conservation in Commonwealth-Owned Facilities"

- Management Directive 720.05 Revised & Modernized
- Includes Formation of Agency Sustainability Teams
- GreenGov Sustainability Teams Focus Group Serves as Executive Committee

Focus Group: Sustainability Teams

"Commonwealth's Working Group to Support Agency Sustainability Teams"

- **Identify Top Conservation Measures** for Rollout within Agency Operations
- **Develop Sustainability Education** including Messaging and Awareness
- **Share Conservation Strategies** to Measure Implementation and Successes of All Agencies



Focus Group: Sustainability Teams

"Join GreenGov for an Earth Day Litter Pick-Up at Riverfront Park"

- **Celebrate Earth Day** through Volunteering!
- **Join the Team at Harrisburg Riverfront Park** Saturday, April 22nd, 2023 @ 10:00 AM.
- **Beautify our Environment** and Lead by Example



**INVEST
IN OUR
PLANET**



pennsylvania
GREENGOV COUNCIL

Focus Group: Utility Management

- Maintain EnergyCAP **Agency Liaison** Roles
- Continue Enterprise-Wide Validated Utility Meters **Reporting at 90+%**
- Develop Agency EnergyCAP Teams through **Enhanced Training Opportunities**
- Gross Floor Area (GFA) and “Space Types” added for **Energy Use Intensity (EUI)**
- Future Goals: **EnergyStar Scores, Cost Avoidance & Energy Management Plans**

The Commonwealth's Utility Benchmarking Initiative is supported by EnergyCAP, a Pennsylvania registered veteran-owned small business.

ENERGYCAP®



Actual Use

Report-10 - Two-Year Comparison

Commodity one of Electric, Natural Gas

Topmost Cost Center Name equals DGS - Reporting

Account Name	Account Code	Actual Use (MMBtu)	Jul 2020 - Sep 2020	Jul 2021 - Sep 2021	% Difference
1 Tech Park - ELE	5149982011		7,966	5,318	-33.2 % ▼
Annex Complex - ELE	7459086015		5,841	4,932	-15.6 % ▼
Rachel Carson SOB - ELE	6088070004		5,018	4,465	-11.0 % ▼
State Hospital	411005349989		3,842	2,482	-35.4 % ▼
Veterinary Laboratory - ELE	4559086014		3,114	2,852	-8.4 % ▼
Agriculture Building - ELE01	7499086008		1,993	2,115	6.2 % ▲
Annex Complex NG	411005346258		1,873	344	-81.6 % ▼
Scranton SOB - ELE01	7299129004		1,720	1,699	-1.2 % ▼
Forster Street Office Building ELE01	6392068009		1,261	1,112	-11.9 % ▼
Agriculture Lab NG	411005345896		1,255	617	-50.8 % ▼
Bobali Warehouse - ELE	7791062048		1,000	1,030	3.0 % ▲
Public Works Complex - ELE01	6372068003		812	820	1.0 % ▲
Governor's Residence - ELE	7819078000		689	601	-12.7 % ▼
PA Justice Network ELE01	7479086002		471	321	-31.7 % ▼
State Records Center - ELE	7235127006		392	410	4.7 % ▲
625 Cherry St - NG	411003379095		237	107	-54.7 % ▼
Public Works Complex NG	411000805944		201	7	-96.4 % ▼
State Records Center - NG	411000574060		188	177	-5.8 % ▼
Agriculture Bldg - Penna Furnace_ELE03	100095037923		109	61	-44.2 % ▼
Forms & Publications Warehouse - ELE01	0442069007		90	84	-6.2 % ▼
Publication Building - ELE	1326068018		89	0	-100.0 % ▼

"Developing Executive-Level Energy Reports for Participating Agencies"

EV & EV Charging Agency Focus Group



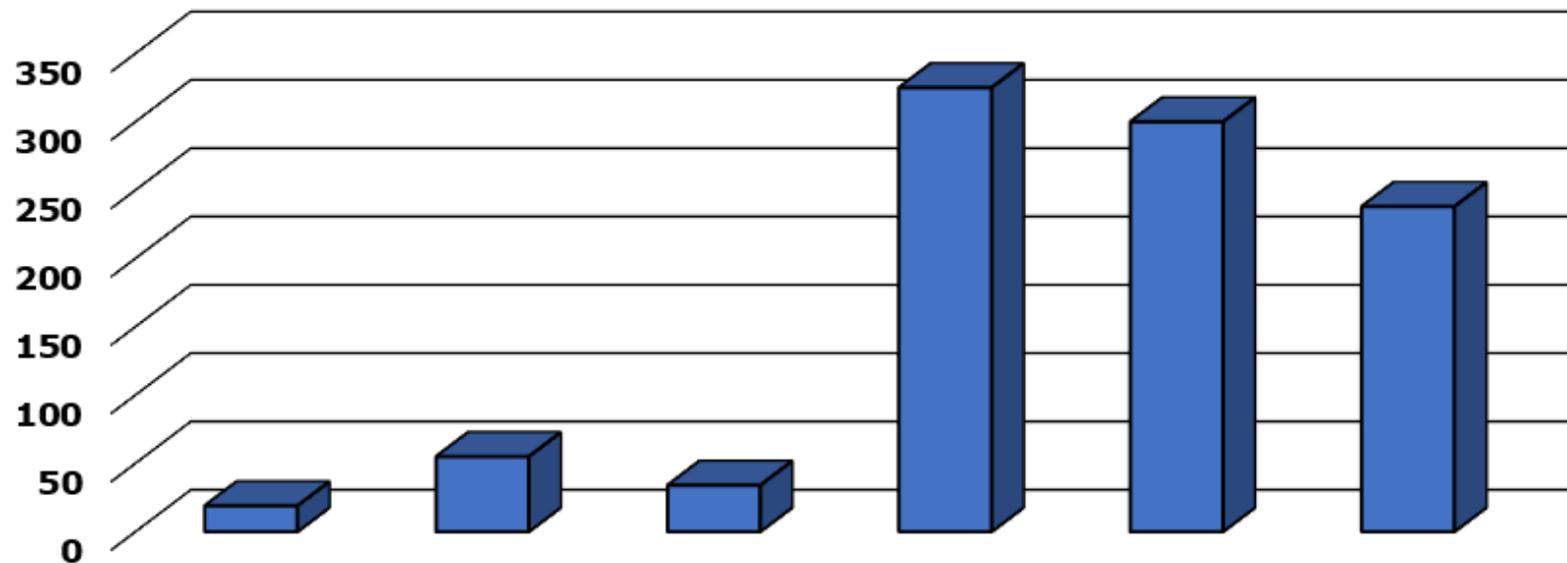
- **Develop Charging Delivery Tools** for the Procurement of Vehicle Chargers and Electric Vehicle Supply Equipment (EVSE)



- **Vehicle Charging Inclusion** into Facilities Projects to Grow Our Infrastructure (In-House, JOC, Capital)
- **Develop Educational Programs** to Familiarize Staff with EVs and their Benefits

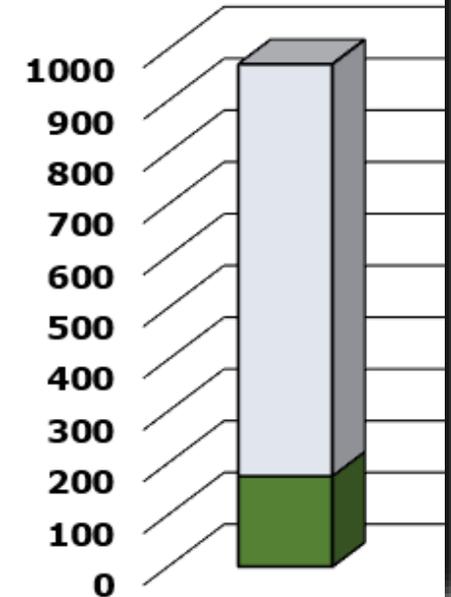
Charging Plug Annual Delivery Projected 971 Unit Goal

Year	2017-2020	2021	2022	2023	2024	2025
Count	19	55	34	325	300	238
Percentage Complete	2%	8%	11%	45%	75%	100%



EV Plug Delivery Status

Count	Percentage
175 of 971	18%



2023 – 300+ Plugs Planned!

Focus Group: Green Facility Management



50001 Ready
U.S. DEPARTMENT OF ENERGY

- **Comprehensive Energy Management Plans** for All Agency Facilities Based on ISO 50001 Standards
- **GESA Project Best Practices** for the Identification, Scoping, Administration and Delivery of Energy-Saving Projects

Focus Group: Green Facility Management

- **Utilizing Communications Strategies** Across Agencies for the Sharing of Best Practices:
 - Energy Management
 - Project Delivery
 - Sustainability Initiatives
- **Information Sharing Between Focus Groups** to Foster the Development of Long-Term Comprehensive Facility Portfolio Plans



Focus Group: Construction & Leasing Specs

"Development of High-Performance Building Plans"



- **Develop Sustainability Checklists** to Deliver High-Performance Projects
- **Educate on High-Performance Criteria:** Client Agencies, Partnering Firms & Stakeholders with support from Penn State University

Focus Group: Construction & Leasing Specs

"Development of a High-Performance Lease Initiative"



- Set Goals to Develop an **Energy-Efficient Lease Portfolio**
- **Provide Transparency** in Lease Performance through:
 - **Benchmarking & Auditing** of Facility Performance
 - **Identifying** Energy-Saving Project Opportunities
 - **Department of State Lease** now in Negotiations

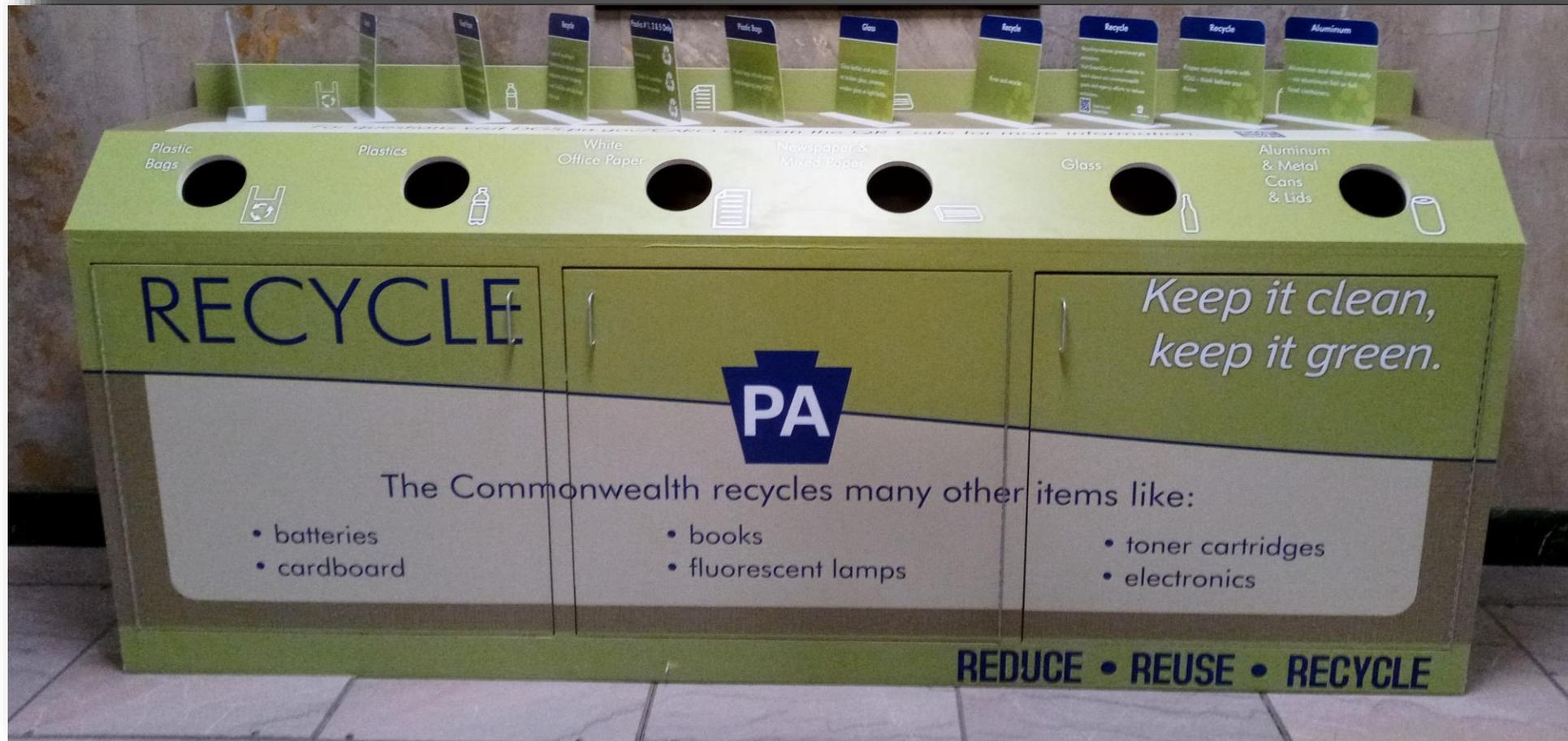
Focus Group: Products & Materials

- **Communications & Partnership** with the **Pennsylvania Recycling Markets Center**
- **Utilizing Recycled Plastics** in Roadways & Paving Projects Including **Ridley Creek State Park**
- **Exploring Opportunities** for the Installation of a **Mini-MRF** (Material Recovery Facility)
- **Recycling Additional Materials** such as the Incorporation of **Food Waste Programs**



Focus Group: Products & Materials

"Standardized Recycling Kiosk Model for use in Commonwealth Facilities"



Thank You!!



717-787-4987

RA-GSGreenGov@pa.gov

dgs.pa.gov/greengov