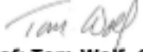




Mark Hand, Director
Matt Reis, Assistant Director

Executive Order 2019-01 – GreenGov Council

Executive Order Commonwealth of Pennsylvania Governor's Office

Subject: Commonwealth Leadership in Addressing Climate Change and Promoting Energy Conservation and Sustainable Governance	Number: 2019-01
 By Direction of: Tom Wolf, Governor	Date: January 8, 2019

- WHEREAS, the Constitution of Pennsylvania protects the Commonwealth's citizens' rights to life, liberty, possessing and protecting property, and happiness. Further, the Constitution of Pennsylvania and various other laws also preserve the Commonwealth's citizens' right to clean air, pure water, and the preservation of the natural, scenic, historic and aesthetic values of the environment; and
- WHEREAS, the Commonwealth government has long protected, valued, and recognized these rights, specifically under *Executive Orders: 1973-9 Environmental Protection by State Agencies; 1980-3 Life Cycle Costing; 1998-1 Governor's Green Government Council; 2002-8 Governor's Interagency Task Force on Energy; and 2004-12 Energy Management and Conservation in Commonwealth Facilities*; and
- WHEREAS, climate change impacts in Pennsylvania are real and continue to put Pennsylvanians at risk: in recent years, extreme weather and natural disasters have become more frequent and more intense. Like many areas of the United States, Pennsylvania is expected to experience higher temperatures, changes in precipitation, and more frequent extreme weather events and flooding because of climate change in the coming decades; and
- WHEREAS, the Commonwealth is committed to further reducing its net greenhouse gas emissions which, left unchecked, would create a high risk of irreversible, widespread, severe climate impacts in the Commonwealth and beyond; and
- WHEREAS, as a major energy provider, Pennsylvania can take steps to continue to reduce emissions in the power sector, increase reliance on clean energy and improved energy efficiency, and continue reductions of potent greenhouse gasses such as methane; and
- WHEREAS, as a major transportation hub, Pennsylvania can take steps to increase reliance on low-carbon transportation solutions, and reduce emissions from the transportation fleet; and

Executive Order 2019-01
Establishes the Goal Strive to
Achieve a **26% Reduction of Net
Greenhouse Gas Emissions
Statewide by 2025**, and an 80%
Reduction of Net Greenhouse Gas
Emissions by 2050

GreenGov Council

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

**Secretary Curt Topper,
DGS**



**Secretary Patrick McDonnell,
DEP**



**Secretary Cindy Adams Dunn,
DCNR**



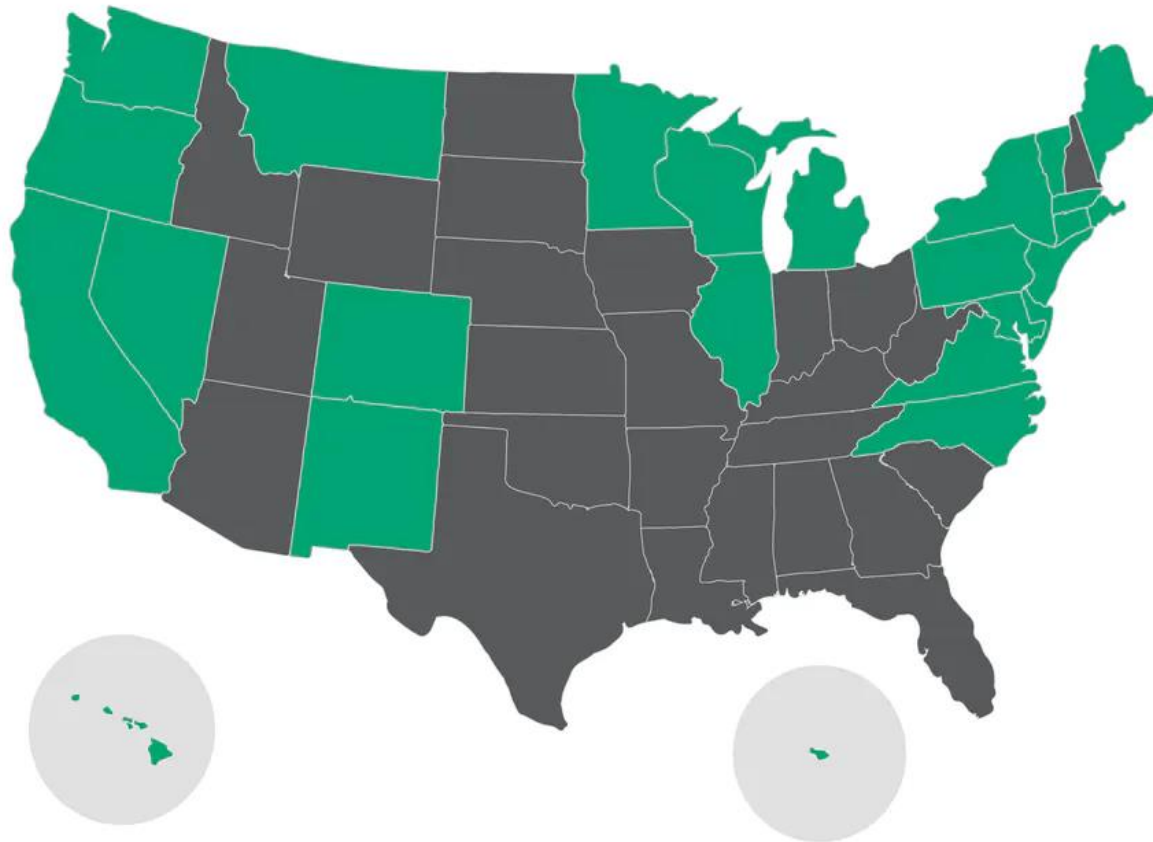
GreenGov Council Mission

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



- Collaboration for the development of **Best Practice** models within energy-consuming business areas
- **Continuous Improvement** in efficiency and performance within state agencies and governmental operations
- Identify **Energy-Saving Opportunities** through benchmarking within all program areas

US Climate Alliance



In April 2019, Governor Wolf
Joined the US Climate Alliance:
www.usclimatealliance.org

The US Climate Alliance now has
24 Governor Signatories
Agreeing to Meet Climate
Reduction Goals, Track and
Report Progress and Accelerate
Green Policies

Commonwealth Agency Responsibilities

"Incorporation of Environmentally Sustainable Practices into Policy, Planning, Operations, Procurement, and Regulatory Functions"

- **Work Collaboratively** to create best practice models for energy conservation and management
- **Develop Policies** to achieve the Commonwealth's performance goals
- **Seek to Implement** cost-effective conservation, sustainability, and efficiency strategies
- **Complete & Submit** a GreenGov Agency Certification Checklist annually

Commonwealth Agency Goals – Lead-By-Example

Reduce

- Overall energy consumption by 3% per year, and 21% by 2025 from 2017 levels;

Replace

- 25% of the state passenger fleet with Battery Electric Vehicles and Plug-In Hybrid Electric Vehicles by 2025;

Procure

- Renewable energy to offset at least 40% of the Commonwealth's annual electricity, and/or directly purchase renewable power generation sited within PA;

Build

- New buildings, major renovations, build to suit leased buildings to high-performance building standards.

Energy Reduction 2018/2019 – 2019/2020 6.2%!



FACILITIES
ENGINEERING
INSTITUTE

Commonwealth Energy Consumption FY2018-2019 - FY2019-2020

State Reporting Agency	Normalized Use (MMBtu)	Known Meter Count	% of Meters Reported	FY 2018 Baseline MMBtus	FY 2019 Current MMBtus	Energy Reduction	Metric Tons CO2 Reduction
Dept of Corrections		273	87%	1,939,596	1,783,745	-8.0%	12971
Dept of Human Services		78	81%	775,220	716,738	-7.5%	4715
Dept of General Services		78	91%	672,511	602,995	-10.3%	6534
Dept of Military and Veterans Affairs		790	93%	634,146	704,713	11.1%	3513
Dept of Transportation		3,382	82%	366,759	334,103	-8.9%	2762
PA State Police		1,124	87%	134,491	132,848	-1.2%	113
Dept of Conservation and Natural Resources		1,925	82%	103,807	89,691	-13.6%	1418
Dept of Labor and Industry		11	91%	63,864	47,772	-25.2%	858
Dept of Agriculture		11	73%	48,345	32,739	-32.3%	1033
PA Fish and Boat Commission		93	85%	44,525	41,886	-5.9%	235
PA Emergency Management Agency		12	50%	26,131	20,109	-23.0%	592
Dept of Environmental Protection		121	78%	24,017	22,887	-4.7%	95
PA Historical and Museum Commission		147	92%	23,515	21,601	-8.1%	170
PA Game Commission		228	79%	12,911	12,681	-1.8%	52
Dept of Revenue		7	29%	10,845	11,170	3.0%	8
Dept of Health		3	100%	9,688	9,803	1.2%	(3)
		8,283	84%	4,890,370	4,585,481	-6.2%	35,067

Renewable Energy – Power Purchase Agreements

PA PULSE – Project to Utilize Light and Solar Energy

- **Provide for Nearly 50%** of State Government's Electricity!
(Sited Within 6 PA Counties)
 - **191 Megawatts of Power** to 434 Accounts Across 16 Agencies
 - **Reduction of 157,800 Metric Tons** of CO2 Emissions Annually
- Coming Soon!!**
- **Site Occupancy Agreements** for Additional Solar Installations



Renewable Energy – Procure 40% Annually



Partner Name	Annual Green Power Usage (kWh)	GP % of Total Electricity Use	Industry	Green Power Resources
1. Google LLC	7,914,747,101	93%	Technology & Telecom	Solar, Wind
2. Microsoft Corporation	6,684,879,000	100%	Technology & Telecom	Small-hydro, Solar, Wind
3. Intel Corporation	5,022,773,872	100%	Technology & Telecom	Various
48. City of Austin, TX	325,278,315	100%	Govt. (Local, Municipal)	Wind
49. Commonwealth of Pennsylvania	322,933,000	40%	Govt. (State)	Various
50. Lockheed Martin	322,000,000	22%	Industrial Goods & Srvcs.	Biomass, Solar, Wind
51. Capital One	316,333,986	100%	Banking & Fin. Srvcs.	Wind

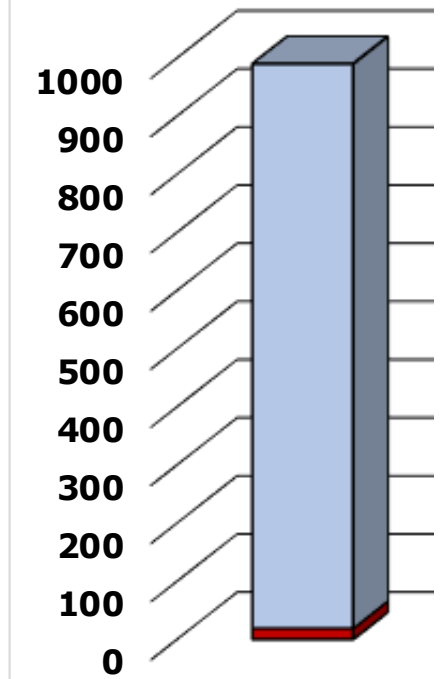
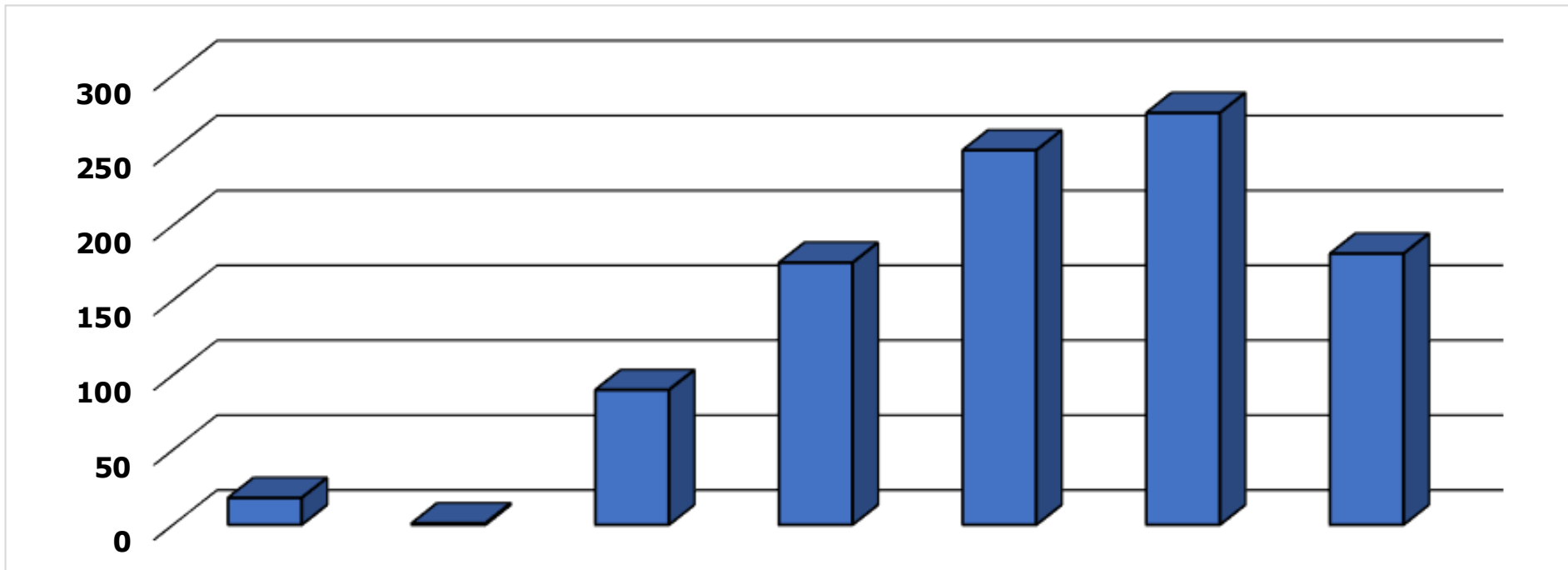


Charging Plug Annual Delivery - Projected 990 Unit Goal

Year	2019	2020	2021	2022	2023	2024	2025
Count	18	1	90	175	250	275	181
Percentage Complete	1.92%	1.92%	11.01%	28.69%	53.94%	81.72%	100%

Delivery Status

Count	Percentage
19 of 990	1.92%



2021 Progress ~ 65 Plugs

High-Performance Building Construction

High-Performance Building Projects

- **High-Performance** projects across agencies
- **Future Projects Meeting or Exceeding** EO 2019-01 performance goals

High-Performance Building Delivery Guide

- **Outline Steps and Processes** to deliver high-performance projects
- **Exceed Performance Goals** as defined within EO 2019-01
- **Incorporate High-Performance Standards** (LEED, GreenGlobe, etc.)

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

GreenGov Communications – Annual Report



- **Executive Summary** of the GreenGov Program and **Agency Efforts**
- **Communications Tool** for Reporting Program Status to **Public Stakeholders**
- **Baseline Creation** of the Commonwealth's Energy Portfolio for **Energy Benchmarking**



GreenGov Communications – Newsletter

"Providing Updates on State Agencies' Lead-By-Example Efforts toward Energy-Saving and Carbon Reduction Goals"



Pennsylvania GreenGov News



TOM WOLF, GOVERNOR

August 2021

Welcome to the latest edition of *Pennsylvania GreenGov News*! As we move through the summer weather, we're heating up our efforts to provide you with updates on state agencies' work toward ambitious goals in carbon dioxide emissions reduction, and highlight resources that may help you reach your own goals.

In this edition, read about the award-winning work by the Department of General Services Bureau of Procurement to help the environment; new training from the Department of Environmental Protection to help leaders statewide address climate change; what a special group of employees are doing to change the landscape of helping the environment, and more.

Please consider sharing this newsletter with your networks to help expand the knowledge base as we all work together to reduce emissions. To learn more about the GreenGov Council, co-chaired by the Departments of General Services, Environmental Protection, and Conservation and Natural Resources, [visit our website](#).

— Mark Hand, Director, GreenGov Council

GreenGov Communications – PA Climate Academy

Pennsylvania Climate Leadership Academy

Administered by:



Powered by:





"Advancing Pennsylvania's Preparedness, Economic Vitality, and Public Health"

- Providing **Foundational** and **Cutting-Edge** Training for Climate Leaders
- Increasing PA's Capacity to **Tackle Climate Change**
- **Certified Climate Change Professional** Credential Program

GreenGov Communications – Webinar Series

9/7/2021



GreenGov Council & Penn State Sustainability Institute's Sustainability Webinar Series 3

OVERVIEW:
The [GreenGov Council](#) and Penn State's [Sustainability Institute](#) are co-hosting our third 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 toward sustainability goals set forth in the Governor's [Executive Order 2019-01](#). 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**
- Call-In Webinar Series Hosted on a **Monthly Basis**



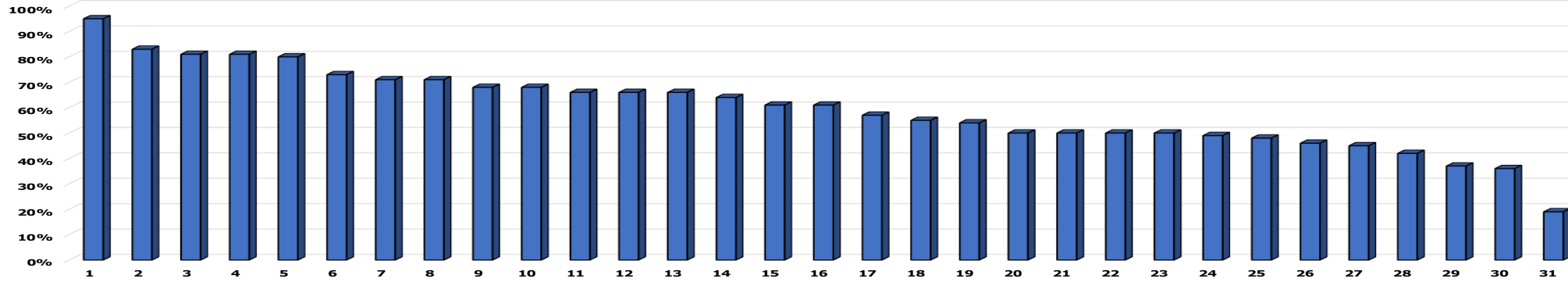
GreenGov Communications – Sustainability Week



- **First-Ever** State Government **Sustainability Week**, October 4-8
- **Daily Messaging to All Employees** on Focused Sustainability Topics
- **Messaging Includes:**
 - Food Security, Local Foods & Purchasing
 - Sustainable Transportation
 - Climate Urgency & Action
 - Recycling and Food Waste Reduction
 - High-Performance Buildings

2021 GreenGov Agency Checklist – 100% Participation!

State Agencies	Department of Corrections	Turnpike Commission	Pennsylvania Milk Marketing Board	Department of Banking and Securities	Office of Administration	Department of Transportation	Dept. of Military and Veterans Affairs	Pennsylvania State Police	Department of Conservation of Natural Resources	Office of the Budget	Historical and Museum Commission	Department of Environmental Protection	Department of Human Services	Department of Labor and Industry	Department of State	Dept. of Community and Alcohol Programs	State Fire Commission	PA Emergency Management Agency	Pennsylvania Insurance Department	Department of General Services	Office of General Counsel	Department of Education	Public Utility Commission	Department of Health	Department of Aging	Department of Revenue	Office of State Inspector General	Pennsylvania Game Commission	Liquor Control Board	Department of Agriculture	
Points Applicable	153	166	52	103	54	175	168	160	178	40	164	180	180	171	128	80	56	177	180	78	180	82	52	110	147	82	112	73	174	176	180
Points Earned	145	138	42	83	43	127	120	113	121	27	108	119	119	109	78	49	32	98	97	39	90	41	26	54	70	38	50	31	64	64	34
Score	95%	83%	81%	81%	80%	73%	71%	71%	68%	68%	66%	66%	66%	64%	61%	61%	57%	55%	54%	50%	50%	50%	50%	49%	48%	46%	45%	42%	37%	36%	19%




Highest Score: 95%

Lowest Score: 19%

2021 Average Score: 59%



Agency Certification Checklist


GreenGov Agency Certification Checklist
 Fiscal Year 2020-2021 Reporting

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

Points Applicable	Points Earned	Score
180	0	0%

Instructions:
 1. Review each measure and answer based upon actions of your Agency within the fiscal year of July 1, 2020 through June 30, 2021.
 2. As each measure is evaluated, begin with the following preface: "Since July 2020, as an Agency have you...".
 3. The Checklist will automatically tally all points earned based upon measures applicable to your Agency.
 4. Once completed, enter your Agency sign-offs above and save the document with your Agency name in the title.
 5. Email the completed Checklist to: RA-GSGreenGov@pa.gov by **Friday, September 3, 2021**

Scoring:
 1. Score will be based upon the percentage of "yes" answers to measures applicable to your Agency.
 2. For measures that do not apply to your Agency, select "not applicable".
 3. Blue highlighted measures valued at 4 points are direct Initiatives of GreenGov Programs.
 3. Green highlighted measures valued at 4 points are direct Initiatives of Executive Order 2019-01.

Contact GreenGov:
 Phone: 717-787-4987 Email: RA-GSGreenGov@pa.gov Web: dgl.pa.gov/GreenGov
Since July 2020, as an Agency have you...

I Benchmarking and Evaluation					
	Yes	No	N/A	Points Value	Points Earned
1 Facility Benchmarking					
1 A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	0
1 C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	0
1 D	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	0
1 E	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	0
1 G	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
1 H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0
1 I	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	0
				Points Total	25
2 Transportation Benchmarking					
2 A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
2 B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	0
2 C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0
				Points Total	7
3 Products and Materials					
	Yes	No	N/A	Points Value	Points Earned

- **Assessment Tool** to gauge implementation and achievement efforts of performance goals
- **Menu of Measures** and strategies for conservation and sustainability
- **Annual Program** evaluation to align with the commonwealth fiscal year
- **Tracking Progress** of implementation
- **Sharing Results** with other agencies and the public

GreenGov Agency Checklist 2020-2022

PA pennsylvania GREENGOV COUNCIL GreenGov Agency Certification Checklist
Fiscal Year 2020-2021 Reporting Rev. 4/15/2021

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

Points Applicable	Points Earned	Score
180	0	0%

Instructions:

- Review each measure and answer based upon actions of your Agency within the fiscal year of July 1, 2020 through June 30, 2021.
- As each measure is evaluated, begin with the following preface: "Since July 2020, as an Agency have you...".
- The Checklist will automatically tally all points earned based upon measures applicable to your Agency.
- Once completed, enter 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, September 3, 2021**

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".
- Blue highlighted measures valued at 4 points are direct initiatives of GreenGov Programs.
- Green highlighted measures valued at 4 points are direct initiatives of Executive Order 2019-01.

Contact GreenGov:
Phone: 717-787-4987 Email: RA-GSGreenGov@pa.gov Web: dgs.pa.gov/GreenGov

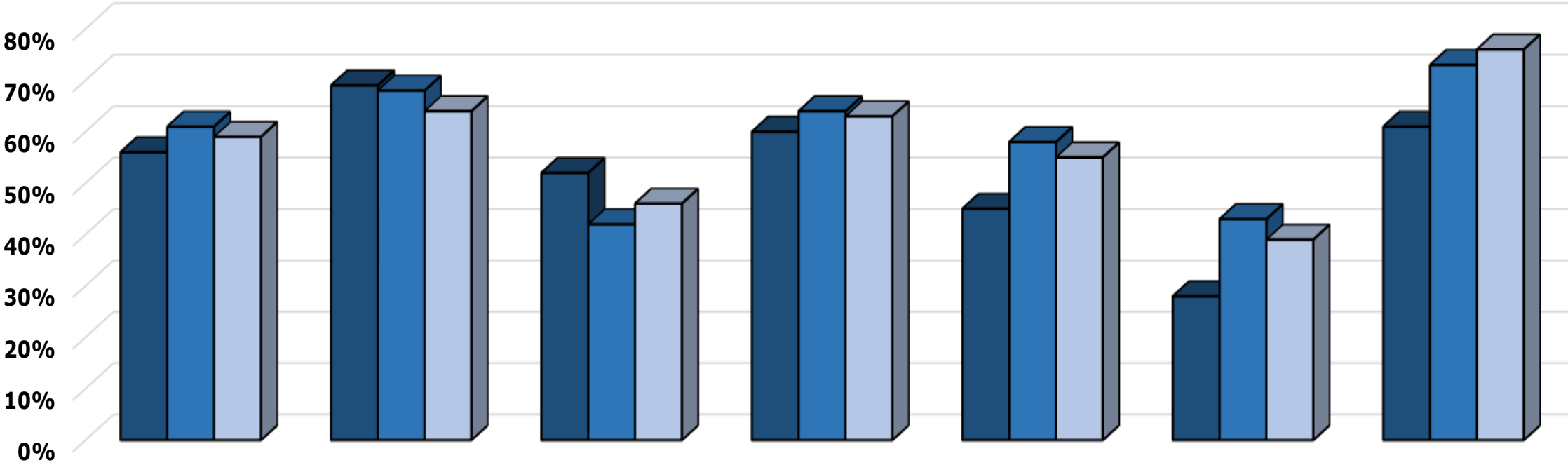
Since July 2020, as an Agency have you...

1 Benchmarking and Evaluation						
	Yes	No	N/A	Points Value	Points Earned	
1 Facility Benchmarking						
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 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 2021 EnergyCAP Agency Workplan by assigning "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 establishing reduction targets for compliance with Executive Order 2019-01?	<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?	<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 Received Act 129 or other energy conservation or sustainability incentive program rebates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	0	
1 I Achieved an overall 3% reduction of energy consumption within the past Fiscal Year (2020-2021) as per Executive Order 2019-01 through the participation in energy reduction programs and projects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	0	
	Points Total			25	0	
2 Transportation Benchmarking						
2 A Developed Executive-level fleet reports including type, classification, mileage, consumption, emission and cost figures 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	
2 C Utilized vehicle telematic systems to accurately track performance figures of your entire traveling fleet?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	0	
	Points Total			7	0	
3 Products and Materials						

- Revised Checklist shared today will be used for **both 2020-2021 & 2021-2022 fiscal year** reporting
- 6 New 4-Point Measures!**
 - Space Consolidation Plan
 - High-Performance Leases
 - High-Performance Construction
 - EV Charging Stations
 - Downsizing Vehicle Fleet
 - Employee Telework Options

Average Checklist Scores by Category – 2019, 2020 & 2021

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



Overall Averages
2019: 53% 2020: 61% 2021: 59%



GreenGov Program Area Focus Groups

**Utility
Management**

**Sustainability
(Small Agencies)**

**Electric
Vehicles &
Charging**

**Green Facility
Management**

**Construction &
Leasing Specs**

**Products &
Materials**

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

Focus Group: Utility Management

**Commonwealth Utility Benchmarking Initiative (CUBI)
2021 EnergyCAP Agency Workplan**

Vision

Develop an enterprise energy and resource management strategy that involves tracking all commonwealth agency energy, water, and waste utility accounts to identify investment opportunities that save money, conserve natural resources, and reduce greenhouse gas emissions from commonwealth operations.



***"You Can't Manage
What You Don't
Measure"***

GreenGov Agency Checklist Points Available: 24



Actual Use

Report-10 - Two-Year Comparison

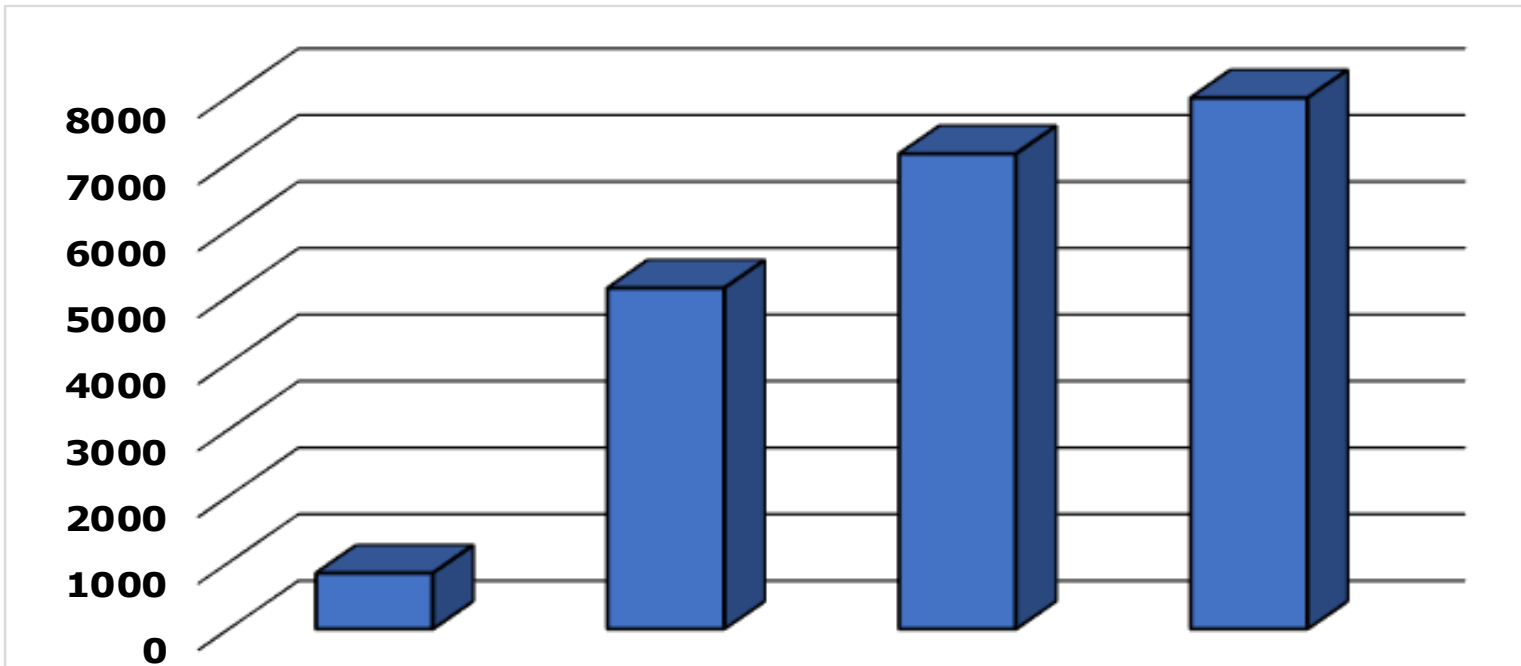
Commodity one of Electric, Natural Gas
Topmost Cost Center Name equals DGS - Reporting

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"

EnergyCAP Utility Meters Verified

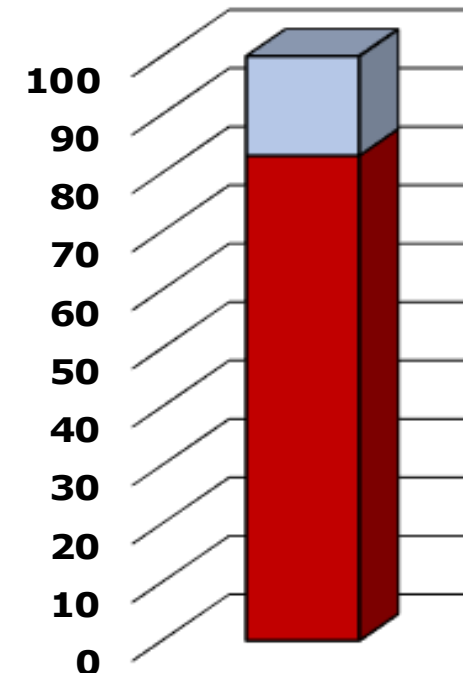
Year	2018	2019	2020	2021
Count	840	5126	7143	7984
Percentage Complete	10.00%	61.00%	85.00%	95.00%+



2021 Progress ~ 90+%

Validation Status

Count	Percentage
7143 of 8404	85.00%



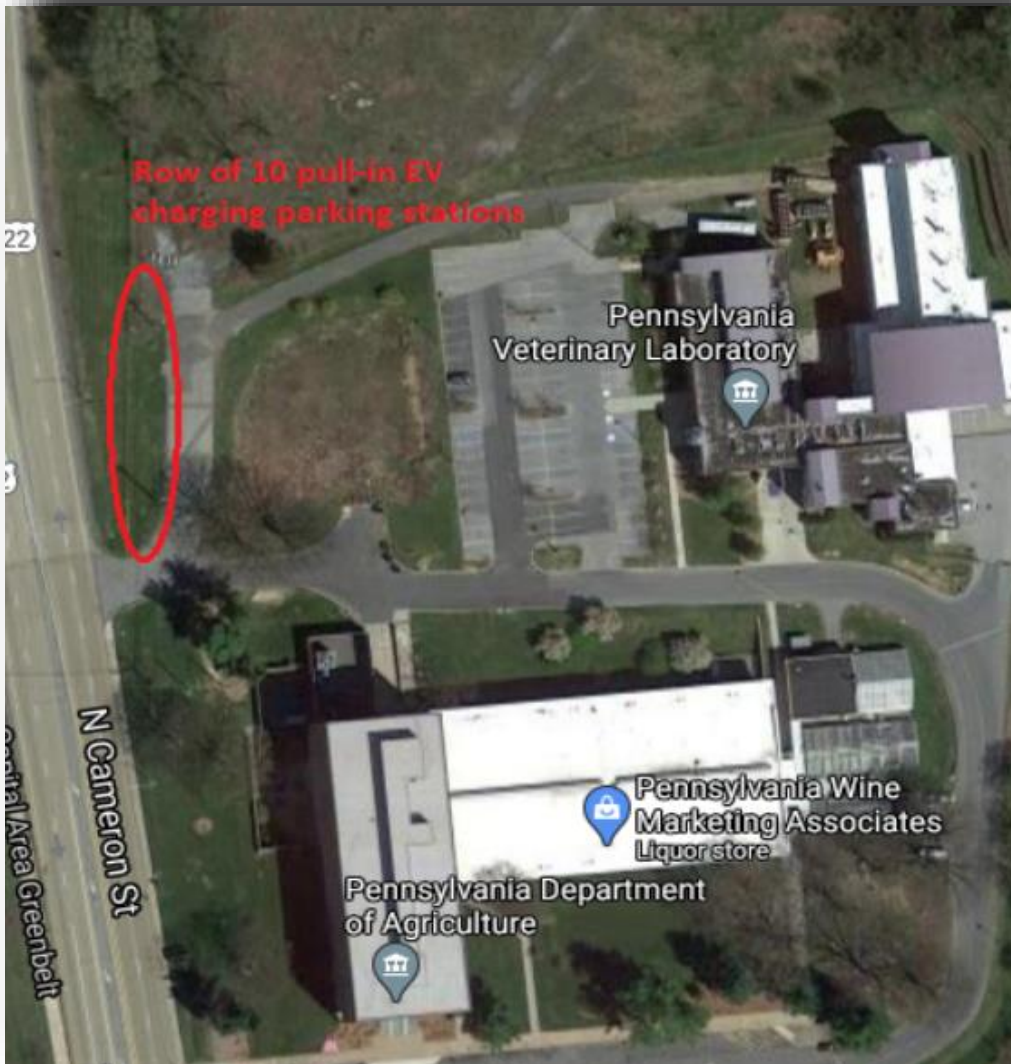
Focus Group: EVs & EV Charging

- **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



GreenGov Agency Checklist Points Available: 35

EVs & EV Charging – Project Development



"Make 2021-2022 a Robust EV Charging Delivery Year!"

- **Identify Ideal Locations** for EV Charging Stations Based on Vehicle Assignments
- **Summarize Project Site Specifics** Including Equipment Needed & Installation Recommendations
- **EVSE Contract Now Available** through DGS Procurement!

EVs & EV Charging – High Efficiency Vehicles



Bureau of Vehicle Management Low-Emission Vehicles on State Contract

Segment	Make	Model	Drive	Fuel	Procurement
Compact/Midsize Sedan (6)	Chevrolet	Bolt Electric Vehicle	FWD	BEV*	Carryover
	Ford	Police Responder Hybrid Sedan Base	FWD	HEV	Carryover
	Ford	Fusion Energi SE	FWD	PHEV*	Carryover
	Honda	Accord Hybrid	FWD	HEV	New**
	Toyota	Camry Hybrid	FWD	HEV	New**
	Ford	Special Service Plug In Hybrid Sedan	FWD	PHEV*	Carryover
Large Sedan (1)	Toyota	Avalon Hybrid 4DR XLE	FWD	HEV	New**
Large SUV (3)	Ford	Explorer Sport Utility Limited Hybrid	4WD	HEV	New**
	Ford	Explorer Sport Utility Limited Hybrid	4WD	HEV	New**
	Ford	Police Interceptor Utility, Int. Upgrade	4WD	HEV	Carryover
Light Duty Pickup Truck (8)	Ford	F-250 Crew Cab XL	4WD	Bi-Fuel (Gas & CNG)	Carryover
	Ford	F-250 Reg Cab XL	RWD	Bi-Fuel (Gas & CNG)	Carryover
	Ford	F-250 Reg Cab XL	4WD	Bi-Fuel (Gas & CNG)	Carryover
	Ford	F-250 SuperCab XL	4WD	Bi-Fuel (Gas & CNG)	Carryover
	Ford	F-350 SRW Crew Cab XL	4WD	Bi-Fuel (Gas & CNG)	Carryover
	Ford	F-350 SRW Reg Cab XL	4WD	Bi-Fuel (Gas & CNG)	Carryover
	Ford	F-350 SRW SuperCab XL	4WD	Bi-Fuel (Gas & CNG)	Carryover
	Ram	1500 Quad Cab HFE	RWD	HEV	New**
Mini-Van (1)	Chrysler	Pacifica	FWD	PHEV*	Carryover
Small/Medium SUV (4)	Ford	Escape Sport Utility SE Sport	AWD	HEV	New**
	Ford	Escape Sport Utility SE Sport	FWD	HEV	New**
	Ford	Escape Sport Utility SE Sport	FWD	PHEV*	Carryover
	Toyota	RAV4 Hybrid LE	AWD	HEV	New**

* BEV & PHEV vehicles are specifically mandated within EO2019-01

** Vehicles are new additions to the state procurement contract

Note: 14 models available in 2019 to 23 models in 2020 = 64% increase

COMING SOON!!

- **More High-Efficiency Vehicles** on State Contract through DGS Bureau of Vehicle Management
- **Future Vehicle Options** to Include BEVs, HEVs and PHEVs as Agency Options



Focus Group: Construction & Leasing Specs



Photo Credit: BuildingToday

- **Standardized Construction Specs:**
10% Energy Savings Over ANSI / ASHRAE / IES Standard 90.1.2016
- **Standardized Green Lease Specs** for Energy Savings Developed through Agency & Lessor Partnerships
- **Evaluation and Incorporation** of Facility Standards to Meet & Exceed Executive Order Performance Goals (LEED, GreenGlobe, etc.)

GreenGov Agency Checklist Points Available: 31

Construction & Leasing Specs – High Performance Buildings

"Development of a High-Performance Building Delivery Guide"

- **Outline All Steps and Processes** to Deliver High-Performance Projects
- **Exceed Performance Goals** as Defined within Executive Order 2019-01
- **Incorporate Sustainability Elements** into New Construction & Major Renovation Projects

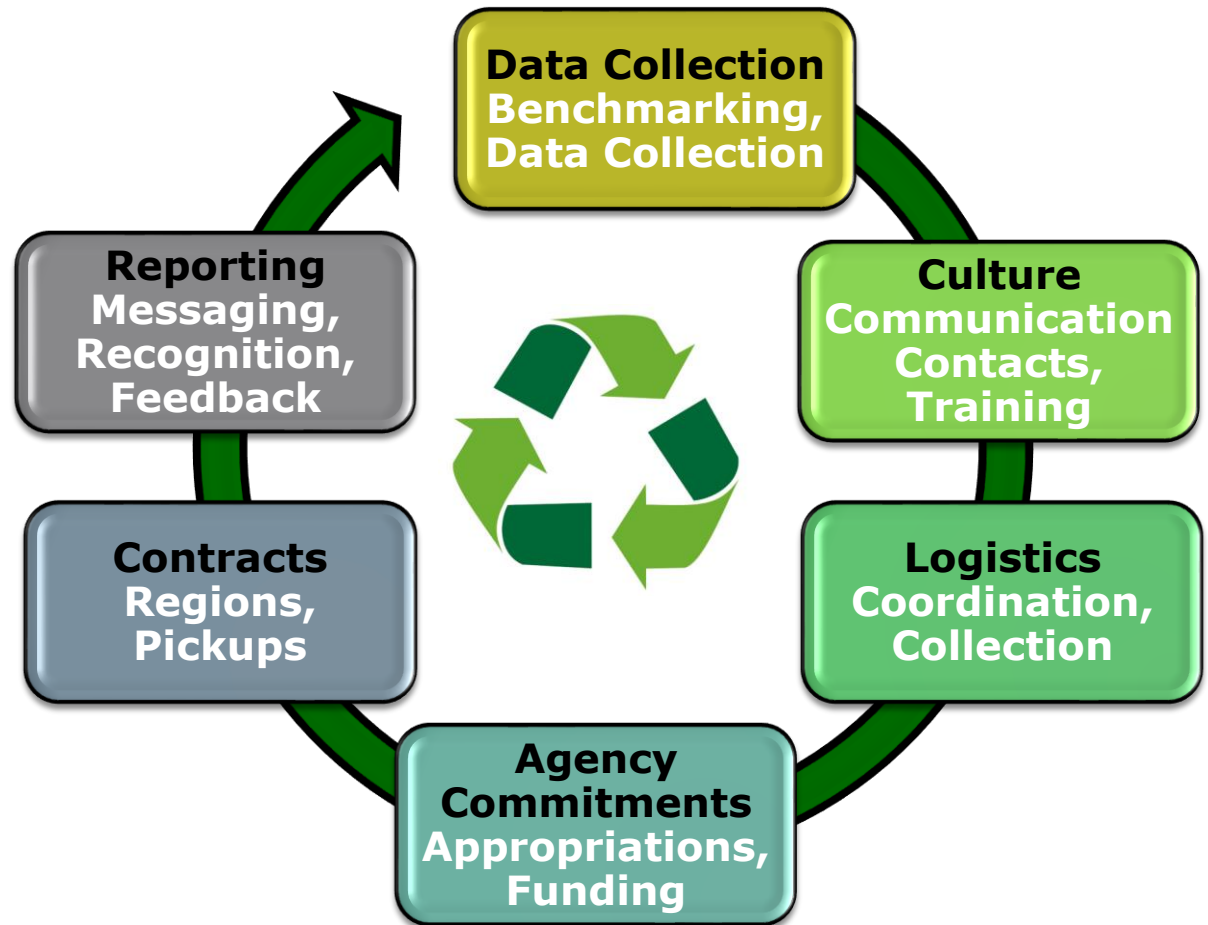
Construction & Leasing Specs – Lease Roadmap



- **High-Performance Lease Pilot Initiative** Within 3 Office Facilities over 20K Square Feet
- **High-Performance Lease Policy** for the Incorporation of Energy Benchmarking and Sustainability Measures into Lease Negotiations
- **High-Performance Lease Exhibit** to be Included in Leases over 20K Square Feet

Focus Group: Products & Materials

- **Expand Recycling Operations** to Include Additional Material Streams
- **Employee Participation and Education Plans** to Boost Recycling Programs
- **Expand Environmentally Preferred Product** Opportunities for Agency Procurements



GreenGov Agency Checklist Points Available: 17

Products & Materials – Procurement

- **Expand Environmentally Preferred Products** and Materials for Procurement by State Agencies
- **Encourage the Selection of EPPs** by Agencies when Reviewing Product Options
- **Incorporate Recycled Products** into Commonwealth Operations Including Construction and Facility Maintenance

**DGS Procurement Wins EPEAT Award
2 Years in a Row!!**

(Electronic Product Environmental Assessment Tool)

"Environmentally Preferred Products for the Conservation of Resources"

Products & Materials – Recycling Kiosk



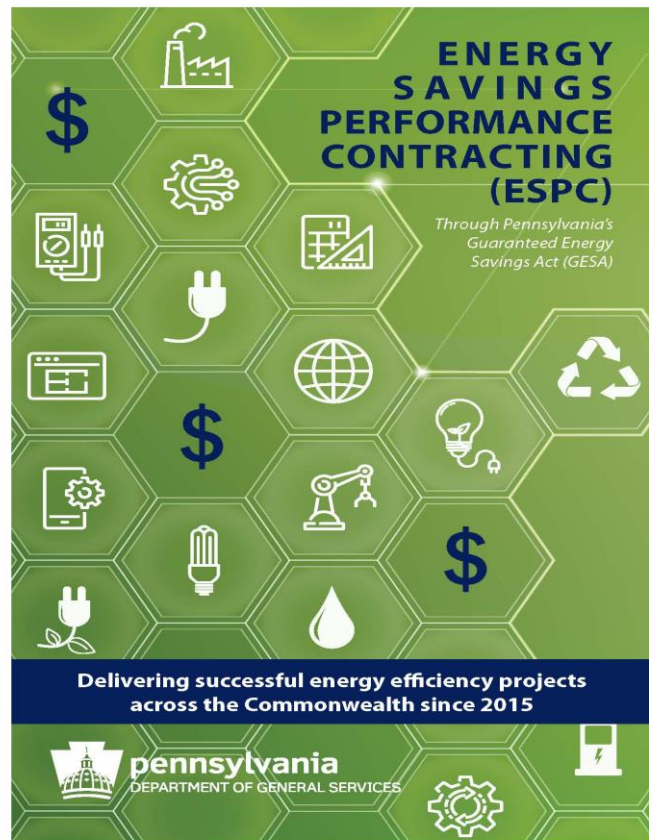
***"Standardized
Recycling Kiosk
Model for use in
Commonwealth
Facilities"***

Products & Materials – Future Plans

- **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: Green Facility Management



- **Facility Manager Collaboration** for the Development of a Comprehensive Facility Operations Manual for All Agencies
- **GESA Project Best Practices** for the Identification, Scoping, Administration and Delivery of Energy-Saving Projects
- **Management Directive 720.5 Revised** to Reflect the Modernization of our Energy Conservation Standards and Programs

GreenGov Agency Checklist Points Available: 36

Green Facility Management – Facility Manager Collaboration

- **Deployment of Standard Industry Tools** for the Identification, Prioritization and Delivery Planning of Projects
- **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



Green Facility Management - MD 720.5 Revised

Energy Conservation in Commonwealth-Owned or Leased Buildings

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,

- **Modernization of the Management Directive** to include large energy-reduction programs
- **GreenGov Program & Checklist** for energy reduction and sustainability implemented within all facilities
- **Facility Energy Benchmarking** to find reduction opportunities – EnergyCAP & TRIRIGA
- **Building Systems Efficiency** through the delivery of energy-saving projects (GESA)

Focus Group: Sustainability Teams

***"Best Practices
to Reduce Energy
Consumption,
Realize Savings
and Protect the
Environment"***

- **Agency Sustainability Team Development** per Management Directive 720.05
- **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

GreenGov Agency Checklist Points Available: 37

Sustainability Teams – Commonwealth Sustainability Week



- **First-Ever** State Government **Sustainability Week**, October 4-8
- **Daily Messaging to All Employees** on Focused Sustainability Topics
- **Messaging Includes:**
 - Food Security, Local Foods & Purchasing
 - Sustainable Transportation
 - Climate Urgency & Action
 - Recycling and Food Waste Reduction
 - High-Performance Buildings

5 THINGS YOU CAN DO TO PROMOTE AND SUPPORT FOOD SECURITY

BUY LOCAL

PA Preferred® is Pennsylvania's brand for locally grown and made items, including fruit, vegetables, honey, maple, craft brews, cheeses and even hardwood products. Buying local supports the Pennsylvania industry that feeds our economy \$132.5 billion and supports more than 590,000 jobs paying nearly \$33 billion in wages annually.



The U.S. Department of Agriculture estimates that more than one-third of all food goes uneaten due to waste. The Pennsylvania Agricultural Surplus System (PASS) helps to reduce agricultural surplus waste by creating an efficient mechanism for producers to donate safe, wholesome food by reimbursing them for the costs of harvesting, processing, packaging and transporting donated food to the non-profit sector.

REDUCE FOOD WASTE

BUY LOCAL FRESH FOODS

Buying local fresh foods that are in season is an excellent way to reduce food waste. Buying local equates to a shorter the trip from farm to table resulting in fresher food.



In a Community Supported Agriculture, or CSA, customers pre-purchase a share of the season's crop. The farmer receives payment for the share before the season begins so they are able to cover startup costs. CSA customers benefit as well—they enjoy vegetables, herbs, flowers, and fruit and other farm products including meat, eggs, dairy products, and even baked goods in their shares throughout the season as they share the risks and rewards of the harvest.

CSA

COMPOSTING

When food waste can't be avoided or you've done everything you could to use your wasted food, certain inedible parts will still remain and can be turned into compost to feed and nourish the soil. Like yard waste, food waste scraps can also be composted. Composting these wastes creates a product that can be used to help improve soils, grow the next generation of crops, and improve water quality.



MORE INFO AT GREENGOV

Visit dgs.pa.gov/greengov for helpful links and more info.

6 THINGS YOU CAN DO TO FOR SUSTAINABLE TRANSPORTATION

ALTERNATE TRANSPORTATION

Whether it's for work or recreation, consider an alternate transportation option. PennDOT offers resources to connect you with public transportation and ridesharing options, and how to safely bike or walk to your destination.



Review whether you, a friend, or family member may qualify for free or reduced-fare public transportation - or find available services near you - on PennDOT's public transportation services and programs map. Be sure to share the resource with those who can benefit.

FREE TRANSPORTATION

FUEL ALTERNATIVES

When you make your next vehicle purchase, choose a fuel-efficient or alternative-fuel vehicle. The DEP Alternative Fuel Vehicle Rebate program may be able to help. The DEP Electric Vehicle Roadmap 2021 booklet has great information on the basics and benefits of electric cars.



Download the Commute PA App - get rewarded for commuting and find other interested commuters in your area.

COMMUTE PA APP

VIRTUAL MEETINGS

While at work, it's oftentimes necessary to meet in person. Face-to-face meeting is also good for healthy and important social interaction. However, continue to explore ways to maximize conference-calling and other virtual meetings to reduce transportation emissions.



Check out DEP's resources for residents and see the many ways you can be involved in a more sustainable lifestyle and state!

RESIDENT RESOURCES

MORE INFO AT GREENGOV

Visit dgs.pa.gov/greengov for helpful links and more info.

5 THINGS YOU CAN DO TO IMPACT AND PROTECT AGAINST CLIMATE CHANGE

LEARN

Be informed on climate change. Sign up for free online courses from the Pennsylvania Climate Leadership Academy.



Be the energy efficiency boss at home. Top tip: Weather-seal and insulate your house to lower heating and cooling costs and reduce emissions.

START AT HOME

PLANT A TREE

Plant trees in your yard or your community. Trees absorb carbon dioxide, keep buildings cooler in the summer, reduce erosion and runoff water pollution, and improve our sense of well-being.



For your next vehicle purchase, consider an electric car. Did you know DEP offers rebates on new or used electric vehicles?

EV CARS

MUNICIPALITIES CAN MAKE A DIFFERENCE

Ask your municipal leaders how they're working to protect your community from climate change. Suggest that your municipality join the DEP Local Climate Action Program if it hasn't yet.



MORE INFO AT GREENGOV

Visit dgs.pa.gov/greengov for helpful links and more info.

6 THINGS YOU CAN DO TO SUPPORT RECYCLING AND FOOD WASTE

MAKE A DIFFERENCE IN THE WORKSPACE OR AT HOME

Learn more about how you can be more effective with your recycling efforts, no matter where you are. The Commonwealth Recycling Program has this useful FAQ to assist you in understanding how and what to recycle from your office or home office!



Pay attention to the products you buy, how they are packaged and shipped. Over time, you may discover alternative products you like that can be used more than once and/or use less packaging or those that cannot be recycled. Check out the PA Department of Environmental Protection's Recycling Markets Search to locate manufacturers of recycling products.

BUY RECYCLED

CONSUMER PURCHASES

Pay attention to the products you buy, how they are packaged and shipped. Overtime, you may discover alternative products you like that can be used more than once and/or use less packaging or those that cannot be recycled.



Become familiar with the 3 R's - Reduce, Reuse and Recycle - and how you can use them to bolster your recycling efforts. For example using reusable bags instead of plastic bags works to help eliminate single-use plastics.

USE THE 3 R'S

REDUCE FOOD WASTE

The U.S. Department of Agriculture estimates that more than one-third of all food goes uneaten due to waste. The Pennsylvania Agricultural Surplus System (PASS) helps to reduce agricultural surplus waste by creating an efficient mechanism for producers to donate safe, wholesome food by reimbursing them for the costs of harvesting, processing, packaging and transporting donated food to the non-profit sector.



When food waste can't be avoided or you've done everything you could to use your wasted food, certain inedible parts will still remain and can be turned into compost to feed and nourish the soil. Like yard waste, food waste scraps can also be composted. Composting these wastes creates a product that can be used to help improve soils, grow the next generation of crops, and improve water quality.

COMPOSTING

MORE INFO AT GREENGOV

Visit dgs.pa.gov/greengov for helpful links and more info.

8 THINGS YOU CAN DO TO IMPROVE BUILDING PERFORMANCE EACH DAY

ENERGY EFFICIENCY

Assess your home's efficiency using ENERGY STAR's Home Energy Yardstick or Home Advisor.



Visit your electric and gas utility websites and discover rebate options for energy efficient appliances for your home.

REBATES

SEAL & INSULATE

Air seal and insulate your home to reduce energy costs.



Use a smart thermostat.

THERMOSTAT

LED

Switch to LED lightbulbs.



Use appliances with high energy efficiency ratings - look for the ENERGY STAR.

ENERGY STAR

STORMWATER

Manage your stormwater to help prevent flooding.



Go solar or shop for clean electricity on PAPowerSwitch.

SOLAR POWER

MORE INFO AT GREENGOV

Visit dgs.pa.gov/greengov for helpful links and more info.

Public Outreach & Participation

- **GreenGov Annual Report** to track Executive Order goals
- **GreenGov Newsletter** to highlight agency successes
- **Public Stakeholder** partnerships for the sharing of ideas, strategies and information
- **GreenGov Agency Certification Checklists** published for peer & public review
- **Sustainability Webinar Series** partnership with Penn State University



***"Commonwealth
Agencies
Leading by
Example"***

Thank You!!



717-787-4987 RA-GSGreenGov@pa.gov dgs.pa.gov/greengov