

Mark Hand, Director Matt Reis, Assistant Director

### **Executive Order 2019-01 - GreenGov**

Subject:         Number:           Commonwealth Leadership in Addressing         2019-01           Climate Change and Promoting Energy         Conservation and Sustainable Governance							
By Directio	n 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,	AS, 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,	Pennsylvanians at risk: in recent disasters have become more frequent the United States, Pennsylvania	vania are real and continue to put years, extreme weather and natural t and more intense. Like many areas of is expected to experience higher n, and more frequent extreme weather a change in the coming decades; and					
WHEREAS,		urther reducing its net greenhouse gas uld create a high risk of irreversible, the Commonwealth and beyond; and					
WHEREAS,	reduce emissions in the power sector	vivania can take steps to continue to , increase reliance on clean energy and tinue reductions of potent greenhouse					
WHEREAS,		nsylvania can take steps to increase solutions, and reduce emissions from					

Executive Order 2019-01 establishes the goal to 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 (from 2005 levels).



## **Commonwealth Agency Goals**

Reduce	<ul> <li>Overall energy consumption by 3% per year, and 21% by 2025 from 2017 levels;</li> </ul>						
Replace       • 25% of the state passenger fleet with Battery Electric Vehicles and Plug-In Hybrid Electric Vehicles by 2025;							
Procure	<ul> <li>Renewable energy to offset at least 40% of the Commonwealth's annual electricity, and/or directly purchase renewable power generation sited within PA;</li> </ul>						
Build	<ul> <li>New buildings, major renovations, build to suit leased buildings to high performance building standards.</li> </ul>						

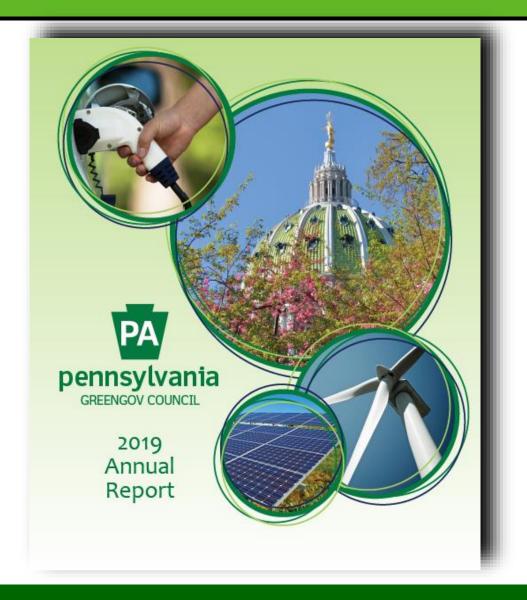


## **GreenGov Council**

The GreenGov Council is chaired by the Secretaries of the Department of General Services (DGS), Department of Environmental Protection (DEP) and the Department of Conservation & Natural Resources (DCNR):



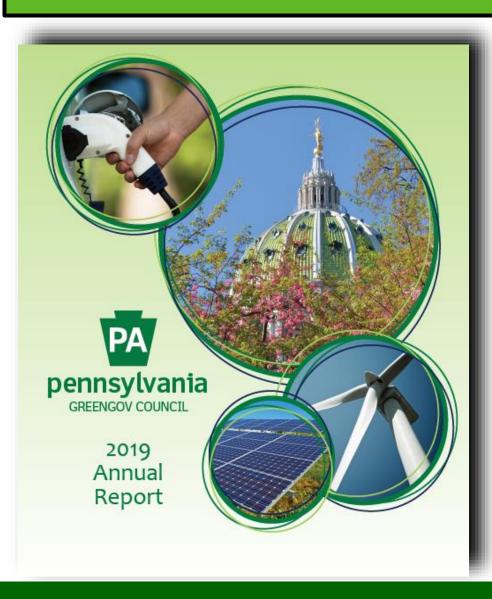
### **GreenGov Annual Report**



- 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 Annual Report – Recommendations**



- Increase Participation in the Utility Benchmarking Initiative
- Expand the Fuel-Efficient Vehicle Fleet Including Electric and Hybrid Options
- Install Solar Power Arrays Including Ground-Mounted Options
- Attain High-Performance Building Certifications ENERGYSTAR, LEED, etc.
- Implement Sustainability Measures Including Agency Sustainability Teams



## **Renewable Energy – Procure 40% Annually**



Partner Name	Annual Green Power Usage (kWh)	GP % of Total Electricity Use*	Industry	Green Power Resources
1. Google Inc.	5,921,710,873	107%	Technology & Telecom	Biogas, Solar, Wind
2. Microsoft Corporation	5,335,585,000	5,585,000 100%		Solar, Wind
3. Intel Corporation	3,897,829,084	101%	Technology & Telecom	Geothermal, Solar, Wind

34. Ahold USA	358,748,135	20%	Retail	Solar, Wind	
35. Commonwealth of Pennsylvania	353,978,000	<mark>44%</mark>	Govt. (State)	Various	( éf)
36. The Boeing Company	346,402,639	16%	Industrial Goods & Srvcs.	Biomass, Small- hydro, Solar, Wind	Green-e
37. City of Austin, TX	333,805,639	100%	Govt. (Local, Municipal)	Wind	



## **Energy Reduction – 3% Annually**

PennState College of Engineering FACILITIES ENGINEERING INSTITUTE

Commonwealth Energy Consumption - FY 2017/2018 - FY 2018/2019 Reduction

Known Electric Meters	Known Nat. Gas & Steam Meters	State Reporting Agency	Normalized Use (MMBtu)	FY 2017 Baseline MMBtus	FY 2018 Current MMBtus	Percentage Change	Metric Tons CO2 Reduction	Known Meter Count	Percent of Meters Reported
220	70	Dept of Corrections		669,213	655,073	-2.1%	1,352	290	58%
47	29	Dept of General Services		598,249	588,601	-1.6%	1,082	76	75%
191	657	Dept of Military and Veterans Affairs		446,876	434,087	-2.9%	530	848	82%
71	17	Dept of Human Services		346,091	318,019	-8.1%	1,558	88	63%
3,245	141	Dept of Transportation		269,549	260,334	-3.4%	619	3,386	75%
1,876	45	Dept of Conservation and Natural Resources	-	80,593	80,108	-0.6%	84	1,921	62%
7	3	Dept of Labor and Industry	-	65,085	64,572	-0.8%	65	10	80%
1,051	79	PA State Police	•	42,364	41,164	-2.8%	100	1,130	5%
80	18	PA Fish and Boat Commission	•	31,110	30,847	-0.8%	(53)	98	68%
145	12	PA Historical and Museum Commission	•	28,147	27,506	-2.3%	106	157	64%
7	5	PA Emergency Management Agency	•	25,026	25,320	1.2%	(65)	12	50%
113	7	Dept of Environmental Protection	•	20,362	21,228	4.3%	(77)	120	71%
5	2	Dept of Revenue		12,340	11,547	-6.4%	64	7	71%
224	10	PA Game Commission		10,139	10,279	1.4%	(42)	234	58%
22	1	Dept of Health		9,475	9,778	3.2%	(88)	23	30%
10	5	Dept of Agriculture		1,141	1,092	-4.3%	7	15	40%
7,314	1,101			2,655,761	2,579,554	<mark>-2.9%</mark>	5,242	8,415	61%

## **High Performance Buildings**

PA	PAT pennsylvania GREENGOV COUNCEL Commonwealth-Owned High Performance Building Delivery Projects in Construction & Planned							
Number	Agency	Project	Location	Project Description	Green Standard	Square Footage	Anticipated Delivery	Value
1	Department of Conservation & Natural Resources	Construct New Visitor Center and Office	Hickory Run State Park, Carbon County	Construct new combined visitor center and office for visitor contact, campground check-in, general park administration, visitor interpretive programming and visitor education. Building to include LEED Certification.	LEED Certification	13,300	Construct 2020	\$6.53 M
2	Game Commission	Construct Replacement Regional Office Facility	South-Central Regional Office, Huntingdon County	Demolish existing facility and construct energy-efficient replacement utilizing high performance building envelope and geothermal mechanical systems.	10% Reduction over ANSI/ASHRAE/IES Standard 90.1.2016	TBD	Design 2020 Construct 2021	\$3.30 M
3	Department of Military & Veterans Affairs	Construct New Police Station Facility	Fort Indiantown Gap, Lebanon County	Construct new facility utilizing high performance building envelope and systems. Project includes; central alarm systems, holding cell, arms vault, evidence room, locker rooms, security fencing and stand-by generator.	10% Reduction over ANSI/ASHRAE/IES Standard 90.1.2016	6,000	Design 2020 Construct 2021	\$2.85 M
4	Department of Conservation & Natural Resources	Construct New Resource Management Center	Delaware State Forest, Pike County	Construct new office and storage buildings utilizing high performance building envelope and systems. Building to include LEED Certification.	LEED Certification	16,000	Design 2020 Construct 2022	\$7.00 M
5	Department of Conservation & Natural Resources	Construct New Park Office	Hills Creek State	Construct new park office for visitor contact, general park administration, visitor interpretive programming and education. Building to include PV solar array and LEED Certification.	LEED Certification	6,000	Design 2020 Construct 2022	\$4.00 M
6	Department of Conservation & Natural Resources	Construct New Park Office	Marsh Creek State Park, Chester County	Construct new park office for visitor contact, general park administration, visitor interpretive programming and education. Building to include PV solar array and LEED Certification.	LEED Certification	TBD	Design 2020 Construct 2022	\$2.00 M
7	State-Related Higher Education School	Renovation of Historic Vail Hall	Lincoln University, Chester County	Renovate Vail Hall and construct new 14,000 sq. ft. replacement addition for office consolidation utilizing high performance building envelope and systems.	10% Reduction over ANSI/ASHRAE/IES Standard 90.1.2016	14,000	Design 2020 Construct 2022	\$12.00 M
8	State System of Higher Education	Renovation of Baron- Forness Library	Edinboro University, Erie County	Renovate Baron-Forness Library including energy-efficient mechanical systems, high performance windows, exterior façade upgrades and security and access controls.	10% Reduction over ANSI/ASHRAE/IES Standard 90.1.2016	102,000	Design 2020 Construct 2022	\$13.30 M
9	Independent Higher Education School	Construct New Community Learning Center	Thaddeus Stevens College of Technology, Lancaster County	Construct new facility including; child care center, STEM laboratory, classrooms, fitness area and computer lab. Building to utilize high performance building envelope and systems.	10% Reduction over ANSI/ASHRAE/IES Standard 90.1.2016	13,600	Design 2021 Construct 2022	\$4.00 M
10	Department of Conservation & Natural Resources	Construct New Park Office	Keystone State Park, Westmoreland County	Construct new park office for visitor contact, general park administration, visitor interpretive programming and education. Building to utilize high performance envelope & systems.	10% Reduction over ANSI/ASHRAE/IES Standard 90.1.2016	TBD	Design 2020 Construct TBD	\$2.00 M
11	Department of Conservation & Natural Resources	Construct New Resource Management Center	Gallitzin State Forest, Cambria County	Construct new office and storage buildings utilizing high performance building envelope and systems. Facility to include net-zero PV solar array and LEED Certification.	LEED Certification	14,800	Design TBD Construct TBD	\$4.80 M

#### Commonwealth-Leased High Performance Building Delivery

Number	Agency	Project	Location	Project Description	Green Standard	Square Footage	Anticipated Delivery	Value
1	Department of Human Services & Office of Administration		7th Street Harrisburg	The new space will be built with energy conservation features including LED lighting, water conservation measures, site design to manage glare and heat gain, and use of recycled materials.	10% Reduction over ANSI/ASHRAE/IES Standard 90.1.2016	120,000	Design 2020 Construct 2021	TBD

## **Transportation – 25% EV Fleet by 2025**

#### Commonwealth Agency Electric Vehicle Fleet & Charging Stations (as of 11/30/2019, rolling annual report)

Description	Count	Equipment Type
Battery Electric Vehicles (BEVs)	6	Chevrolet Bolt, Ford Focus
Plug-In Hybrid Electric Vehicles (PHEVs)	47	Chevrolet Volt, Chrysler Pacifica, Ford Fusion
Owned & Operated Charging Stations	18	Level 2 Stations (240V)
25% Electric Vehicle Goal (by 2025)	990	Battery Electric Vehicles (BEVs) Plug-In Hybrid Electric Vehicles (PHEVs)



## **Open Forum Question & Answer**





## **Agency Certification Checklist**

_							Rev.	4/21/2020		
PA	pennsylvania GREENGOV COUNCIL		Agency Certification Check Year 2019-2020 Reporting							
	Agency Representative Sign-off:									
	Points Applicable	ļ								
	Instructions:  1. Review each measure and answer based upon the actions of your Agency within the fiscal year of July 1, 2019 through June 30, 2020. 2. As each measure is evaluated, begin with the following preface: "Since July 2019, as an Agency have you". 3. The Checklist will automatically tally the points earned based upon measures applicable to your Agency. 4. Once completed, save the document with your Agency name and date completed. 5. Email the completed Checklist to: RA-GSGreenGov@pa.gov by Monday, August 3, 2020. Scoring: 1. Score will be based upon the percentage of "yes" answers to measures that apply to your Agency. 2. For measures that do not apply to your Agency, select "not applicable". 3. Measures that are valued at 4* points are direct initiatives of Executive Order 2019-01. Contact GreenGov: Phone: T17-787-4897 Email: RA-GSGreenGov@pa.gov Web: dgs.pa.gov/greengov									
	Since July 2019, as an Agency have				_					
I		Benchmarking	and Evaluation				Points	Points		
1	Facility Benchmarking			Yes	No	N/A	Value	Earned		
1 A	Maintained an inventory of all building move to the DGS TRIRIGA inventory sy	stem.)					1			
1 B	Maintained an inventory of all owned a systems?	/ use in DGS TRIRIGA & EnergyCAP				2				
1 C	Implemented EnergyCAP for the captu validation of meters? (facilities 20,000		s through the assignment and				2			
1 D	Assigned EnergyCAP "Agency Liaison", program and receive training to create						1			
1 E	Utilized EnergyCAP for the evaluation and establishing reduction targets for						3			
1 F	Established an Executive-level energy ;	portfolio report for your agency's facili	ities through the EnergyCAP System.				1			
16	Developed a comprehensive utility bill energy benchmarking? Example: Energy						2			
1 H	Worked with a Lessor to establish a uti	ility bill tracking program for at least 1	facility?				1			
1.1	Received Act 129 or other energy cons						1			
1.1	Achieved an overall 3% reduction of er Order 2019-01 through the participation						49			
				Poi	ints To	stal	18			
2	Transportation Benchmarking			Yes	No	N/A	Points Value	Points Earned		
2 A	Developed Executive-level fleet report figures for the purposes of VMT reduct						3			
2 B	Utilized vehicle telematic systems to a						2			
2 C	Evaluated passenger vehicle parking as projects as part of an electrified vehicle		or the delivery of EV charging station				3			

**Points Total** 

- Assessment Tool to Gauge Implementation and Achievement 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** Among Agencies and the Public



## Agency Certification Checklist – FY2019-2020

_							Rev.	4/21/2020	
PA	pennsylvania	ania GreenGov Agency Certification Checklist							
	GREENGOV COUNCIL Fiscal Year 2019-2020 Reporting								
	Agency Representative Sign-off:		Agency Executive Sign-off:						
	Points Applicable	Points Earned	Score						
				Ι					
	Instructions:								
	<ol> <li>Review each measure and answer ba 2. As each measure is evaluated, begin</li> </ol>			rough	June	30, 202	80.	l	
	3. The Checklist will automatically tally								
	4. Once completed, save the document								
	<ol> <li>Email the completed Checklist to: RA Scoring:</li> </ol>	-GSGreenGov@pa.gov by Monday, A	agust 3, 2020.						
	1. Score will be based upon the percent	age of "yes" answers to measures tha	t apply to your Agency.						
	2. For measures that do not apply to yo								
	<ol> <li>Measures that are valued at 4* point Contact GreenGov:</li> </ol>	s are direct initiatives of Executive On	ler 2019-01.						
	Phone: 717-787-4987 Email: RA-GSGr	eenGov@pa.gov Web: dgs.pa.gov/)	treengov						
	Since July 2019, as an Agency have								
1		Benchmarking	and Evaluation						
1	Facility Benchmarking			Yes	No	N/A	Points Value	Points Earned	
1 A	Maintained an inventory of all building move to the DGS TRIRIGA inventory sys		ation is also a key component for the				1		
1 B	Maintained an inventory of all owned a systems?				2				
1 C	Implemented EnergyCAP for the captur validation of meters? (facilities 20,000 s		s through the assignment and				2		
	Assigned EnergyCAP "Agency Liaison",		gency who will participate in the						
1 D	program and receive training to create						1		
1 E	Utilized EnergyCAP for the evaluation o and establishing reduction targets for o						3		
1 F	Established an Executive-level energy p		÷				1		
16	Developed a comprehensive utility bill energy benchmarking? Example: Energy						2		
1 H	Worked with a Lessor to establish a util						1		
					<u> </u>		-		
11	Received Act 129 or other energy conse		-				1		
1 J	Achieved an overall 3% reduction of en Order 2019-01 through the participatio						41		
				Poi	ints To	stal	18		
2	Transportation Benchmarking			Yes	No	N/A	Points Value	Points Earned	
2 A	Developed Executive-level fleet reports figures for the purposes of VMT reducti						3		
2 B	Utilized vehicle telematic systems to ac	curately track performance figures for	your entire traveling fleet?				2		
2 C	Evaluated passenger vehicle parking as projects as part of an electrified vehicle		or the delivery of EV charging station				3		
	Prints Total o								

## 2019-2020 Submittal

- July 1, 2019 through June 30, 2020
- Score Based on **Applicable Measures**
- Due Monday, August 3, 2020

## **Checklist Expansion**

- 84 Measures Across All Program Areas
- 14 New Measures for More Agency Opportunies
- 154 Total Points Available



## Agency Certification Checklist – FY2019-2020

PA	PA pennsylvania GreenGov Agency Certification Chec GREENCOV COLINCIL Fiscal Year 2019-2020 Reporting						nev.	4/23/2020	
	Agency Representative Sign-off:								
	Points Applicable	I							
	Instructions:  1. Review each measure and answer based upon the actions of your Agency within the fiscal year of July 1, 2019 through June 30, 2020. 2. As each measure is evaluated, begin with the following preface: "Since July 2019, as an Agency have you". 3. The Checklist will automatically tally the points earned based upon measures applicable to your Agency. 4. Once completed, seve the document with your Agency mane and date completed. 5. Email the completed Checklist to: RA-GS GreenGov@pa.gov by Monday, August 3, 2020. Scoring: 1. Score will be based upon the percentage of "yes" answers to measures that apply to your Agency. 2. For measures that do not apply to your Agency, select "not applicable". 3. Measures that are valued at 4* points are direct initiatives of Executive Order 2019-01. Contact GreenGov: Phone: 7.17-87-4867 — Email: RA-GS/GreenGov@pa.gov Web: dgs.ps.gov/greengov								
1	Since July 2019, as an Agency have		and Evaluation						
	Facility Benchmarking	Denchmarking		Yes	No	N/A	Points	Points	
1.4	Maintained an inventory of all building		nation is also a key component for the				Value 1	Earned	
1 8	move to the DGS TRIRIGA inventory sy Maintained an inventory of all owned systems?		r use in DGS TRIRIGA & EnergyCAP				2		
1 C	systems? Implemented EnergyCAP for the captu validation of meters? (facilities 20,000		s through the assignment and				2		
1 D	Assigned EnergyCAP "Agency Liaison",						1		
1 E	Utilized EnergyCAP for the evaluation		rends, usage spikes, billing anomalies				3		
1 F		portfolio report for your agency's facil					1		
16	Developed a comprehensive utility bill energy benchmarking? Example: Energy	tracking plan or program within Lesso gyStar, EnergyCAP or other (through le					2		
1 H	Worked with a Lessor to establish a ut	ility bill tracking program for at least 1	facility?				1		
11	Received Act 129 or other energy cons	ervation or sustainability incentive pro-	ogram rebates?				1		
1.1	Achieved an overall 3% reduction of er Order 2019-01 through the participation	nergy consumption within the past Fis on in energy reduction programs and p					4*		
				Poi	ints To	tai	18		
2	Transportation Benchmarking			Yes	No	N/A	Points Value	Points Earned	
2 A	Developed Executive-level fleet report figures for the purposes of VMT reduct						3		
2 B	Utilized vehicle telematic systems to a	courately track performance figures fo	r your entire traveling fleet?				2		
2 C	Evaluated passenger vehicle parking a	ssignments to identify ideal locations f	or the delivery of EV charging station				3		

**Points Total** 

## EnergyCAP

- Agency Liaison & Core User Roles
- Executive Level Reporting

## **Facility Operations**

- Square Footage for EnergyCAP & TRIRIGA
- **Opportunities** "1 Facility" vs. "All Facilities"

## **Vehicle Fleet**

- Telematics Data Tracking
- EV Charging Station Installations

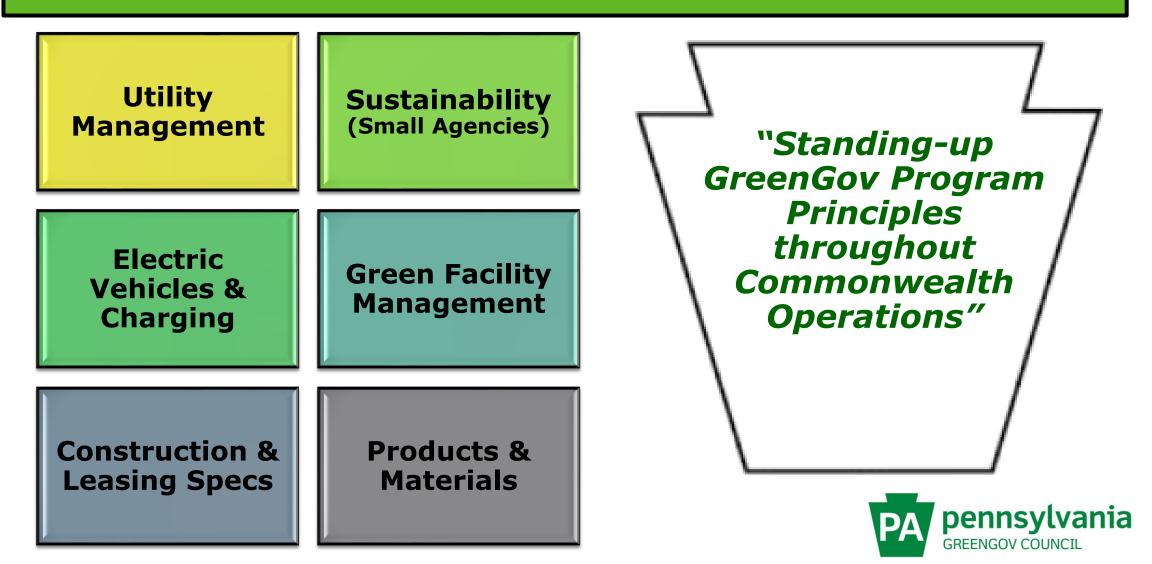


## **Open Forum Question & Answer**





### **GreenGov Program Area Focus Groups**



## **Focus Group: Utility Management**

2020 Goal – Progression from 60% of Energy Meters Validated and Reporting within the EnergyCAP System to 85%

"Agency Liaisons Provide the Best Opportunity for Energy Reductions"

- Identify, Validate & Assign Missing Meters and Building Assignments to Achieve the 85% goal
- Establish and Assign Agency Liaison and Core User Roles for Participating Agencies
- **Streamline** and **Confirm** Utility Bill Processing Steps for Accuracy and Consistency



### Focus Group: Sustainability Teams (Small Agency Operations)

**Top Conservation Measures** for Agency Operations Identified:

- Paper Reduction & Recycling Practices & Policy
- Employee Communication to Gain Participation & Buy-In
- **Carbon Footprint Tracking** for Transportation Methods

**Develop Policies** to Incorporate Conservation Measures for Achievement of Performance Goals

**Share Strategies** of Conservation Measure Implementation for the Success of All Agencies "Best Practices to Reduce Energy and Resource Consumption, Realize Savings and Protect the Environment"



## **Focus Group: Electric Vehicles & Charging**

### **EV Charging Station Project Guidelines**

- Specifications for Level 2 Charging Station Equipment
- Lists Equipment & Site Installation Recommendations
- Includes Parameters for DEP Rebate Incentives

### **EV Charging Station Project Pathways**

- Step-By-Step Guide for Charging Station Project Delivery
- Project Scoping and Delivery Steps for Both Owned and Leased Facilities

"2020 Goal to Deliver Electric Vehicle Charging Stations and Infrastructure"





3/3/2020

#### Electric Vehicle Charging Station Development Guidelines Commonwealth Level 2 Workplace Charging

#### Purpose:

This document contains minimum guidelines and additional recommendations for use by commonwealth agencies when siting "Level 2 Workplace Charging."

Level 2 Workplace Charging - refers to a freestanding or wall mounted charging device that delivers a 208/240V charge, replenishing an electric vehicle battery at an approximate rate of 10 to 20 miles of range per hour of charging time. Level 2 Workplace Charging is solely for use of the commonwealth-owned vehicle fleet.

For the purposes of this document, Level 2 Workplace Charging will NOT include:

- Any installations intended for public use (including employee personal vehicles);
- Any installations intended for combined commonwealth fleet and public use;
- Any installations using 110/120V (Level 1 Charging) or 480V (Direct Current (DC) Fast Charging);
- Any installations proposed on public streets.

Commonwealth agencies may decide to install chargers for public or employee use, and/or on public streets, however there are many other factors to consider which are not covered in these guidelines.

Note: All criteria which include an \* are required by the Department of Environmental Protection as a condition to securing a <u>Level 2 Electric Vehicle</u> <u>Charging Rebate</u> for your project. Agencies applying for rebates may be reimbursed up to \$3,500 per plug or 50% of the total project cost (whichever is less). <u>Applications must be submitted prior to the start of project installation.</u>

Agencies who install charging stations in calendar year 2020 will be eligible for extra GreenGov Checklist points!

#### General Project Guidelines

- \*Minimum of 2 plugs per location
- Installed by a licensed professional contractor
- Designed by a professional engineer
- Compliance with National Electric Code and 2015 Building Codes



#### EV Charging Stations - Project Pathways

Commonwealth Owned Facility										
Phase	Simp	Descrip	rtion		Parameter	Considerations				
	1	Plug Count			ny plugs are needed at the site to , taking into account future needs	Buneau of Vehicle Management vehicle reports     Headquarter locations of feet     GreenGov Agency Pool Vehicles Spreadsheet				
	2	Rariding Sp Location	808	Identify parking chargers & vehic	spaces that will support the EV cles	Parking: Indoor (garage) or outdoor     Proximity to power source				
Project Scoping	а	Project So Site Visit	oping	Solicit DGS Prop to establish proj	erty Management team for a site visit lect scope	Electric panel to charger distance     obstructions: sidewalks, curbing, pevement     Parking signage & painting				
	4	Project Co Estimate	st		ct cost based upon scope of work - ine delivery method, consider DEP eligibility	Count of chargess needed     Complexity of installation     DIP Rebate(s) & Rebate Guidelines				
	s	Delivery M Determina			y agency & DGS based on project at method to deliver	Delivery: In-house or JOC system     Capital Project process & GISA options     (DGS to determine)				
Phase		ethod		Step	Description					
			1	Develop Electrical Plan	Electrical plan developed by agency fo	r engineer review and to determine material needs				
					2	Engineer Review	Agency engineer review of the project, specifications and other parameters	, taking into consideration code compliance, standard		
			а	DEP Rebate Incentive	Apply for DEP Level 2 Electric Vehicle (	Charging Rebate(s)				
		House	4	LAI Permit Submittal	Project is submitted to LMI for review (	& permitting				
			5	Material Purchase	Agency funds will be required for purd	hase of materials specified				
		6 Construction During the construction phase, project			During the construction phase, project	ct milestones will be inspected by L&I for compliance				
Project Delivery			7	Final Inspection	After final inspection, the charging stat	tions may be utilized for the EV feet				
			1	Project Landing Page	Agency submits a 30C project within t	te system's landing page to begin project				
			2	Site Scoping Meeting	Joint site meeting between agency sta	If & JOC contractors to agree upon project scope				
		System	а	DEP Rebate Incentive	Apply for DEP Level 2 Electric Vehicle (	Charging Rebate(s)				
		sheery	4	Project Design	Project is designed and submitted for i	All permitting through 30C contractor				
			5	Construction	During the construction phase, project	milestones will be inspected by L&I for compliance				
			6	Final Inspection	After final inspection, the charging stat	tions may be utilized for the EV feet				

					Commonwealth Leased Facilit	
Phase	Step Descript		rillon 🛛	Perameter		Considerations
	1	Plug Count		Identify how many plugs are needed at the site to support IV fleet, taking into account future needs		Bureau of Vehicle Management vehicle reports     Headquarter locations of fleet     GreenGov Agency Pool Vehicles Spreadsheet
Project	2 Parking Space Location		Identify parking spaces that will support the IV chargers & vehicles		Parking: Indoor (garage) or outdoor     Leased building or parking garage/lot	
Scoping	а	3 Project scoping scope of work		Work with Lessor to establish full charging project scope of work		Electric panel to charger distance     obstructions: sidewalks, curbing, pavement     Parking signage & painting
	4				Count of chargest needed     Complexity of installation     DIP Rebate(s) & Rebate Guidelines	
-	Hethod			Step		Description
	Lessehold Improvement - DGS Bureau of Real Estate (BRE)		1	Develop Project	Develop leasehold improvement project request utilizing project scope and GreenGov IV Charging Guidelines	
Project Delivery			2	DEP Rebate Incentive	Assist Lessor with DEP Level 2 Electric Vehicle Charging Rebate(s) (Lessor will apply for rebate(s) as the project owner)	
			а	Lessor Negatiation	Work with Bureau of Real Estate & Lessor to finalize project acope, delivery & payment method (Lessor to deliver project with agency reimbursement)	

## **Focus Group: Green Facilities Management**

MANAGEMENT DIRECTIVE Commonwealth of Pennsylvania Governor's Office					
Subject: Energy Conservation and Electrical Devices in Commonwealth-Owned or Leased Buildings	Number: 720.5 Amended				
Date: July 25, 2008	By Direction of:				
	James P. Creedon, Secretary of General Services				
Contact Agency: Press Secretary, DGS, 7	717/787-3197				
Commonwealth of Penn indicated by marginal dot	provide improved fire/life safety in				
<ol> <li>SCOPE. This directive applies to en Governor's jurisdiction in Commonw Legislative, judicial, and other indeper complying with this directive for their r</li> </ol>	ealth-owned and leased facilities. Ident agencies should also consider				
<ol> <li>DEFINITIONS. For the purpose of th apply:</li> </ol>	is directive, the following definitions				
<ul> <li>a. Non-Commonwealth Provided E appliance not owned or provide requires alternating current (AC) elo</li> </ul>	d by the Commonwealth, which				

c. Restricted Electrical Devices. The use of the following list of devices is specifically prohibited within Commonwealth-owned and leased facilities unless approved by the Department of General Services (DGS) or designated Commonwealth official.

## "Modernization of Management Directive 720.5 to Include Large Energy Reduction Programs"

- MD720.5 Revisions to Include GreenGov, EnergyCAP & TRIRIGA Programs
- **GESA Project Best Practices "Booklet"** Defining the Guaranteed Energy Savings Act Program, Benefits and Delivery Mechanism
- Comprehensive Facility Management Manual to be created through the Collaboration of Agency Facility Managers



## **Focus Group: Green Construction & Leasing Specs**

- Standardized Construction Specs to Achieve 10% Energy Savings Over ANSI / ASHRAE / IES Standard 90.1.2016
- Standardized Green Lease Specs for Energy Savings Developed Through Agency, Lessor & Consultant Partnerships
- Evaluation and Incorporation of Green Construction Standards to Meet & Exceed Executive Order Performance Goals
- Information Sharing of Energy Saving Techniques and Programs with Outside Industry Professionals



Photo Credit: BuildingToday



## Focus Group: Products & Materials (Procurement)

- Revise and Modernize Existing Recycling Policies Including Management Directive 205.22 (Commonwealth Recycling)
- **Expand Recycling Operations** to Include Additional Recyclable Material Streams
- Partner with Multiple Agencies and Penn State University to Develop Comprehensive Recycling Programs
- **Identify Opportunities** to Better Manage Recyclable Materials and Create Sustainable Clean Product Streams





## **Open Forum Question & Answer**





**Brown Bag Lunch Series – Penn State Sustainability** 

**GreenGov Partnership with Penn State Sustainability Institute Hosting Call-In Webinar Series for Employees and Stakeholders** 







# **Thank You!!**



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