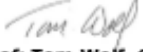




Mark Hand, Director
Matt Reis, Assistant Director

Executive Order 2019-01 - GreenGov

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
<p>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</p> <p>WHEREAS, the Commonwealth government has long protected, valued, and recognized these rights, specifically under <i>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</i>; and</p> <p>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</p> <p>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</p> <p>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</p> <p>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</p>	

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

- 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.

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):

**Secretary Curt Topper,
DGS**



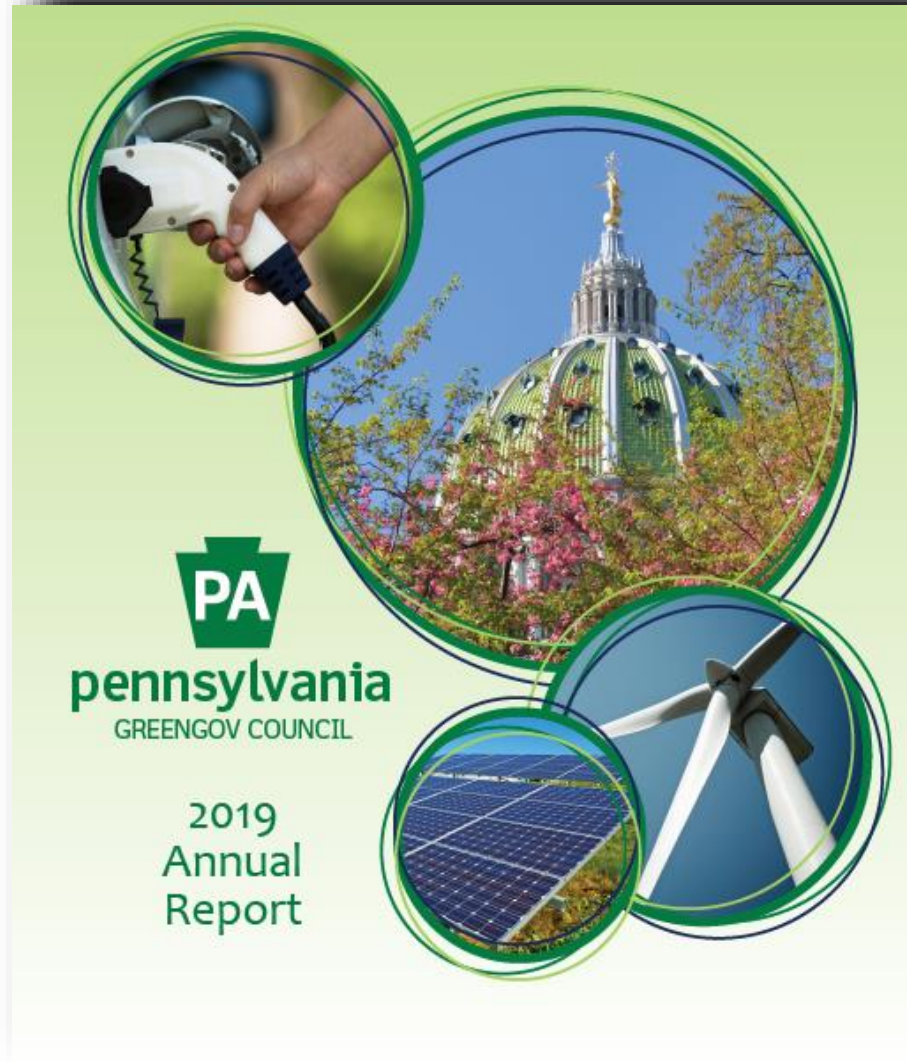
**Secretary Patrick McDonnell,
DEP**



**Secretary Cindy Adams Dunn,
DCNR**

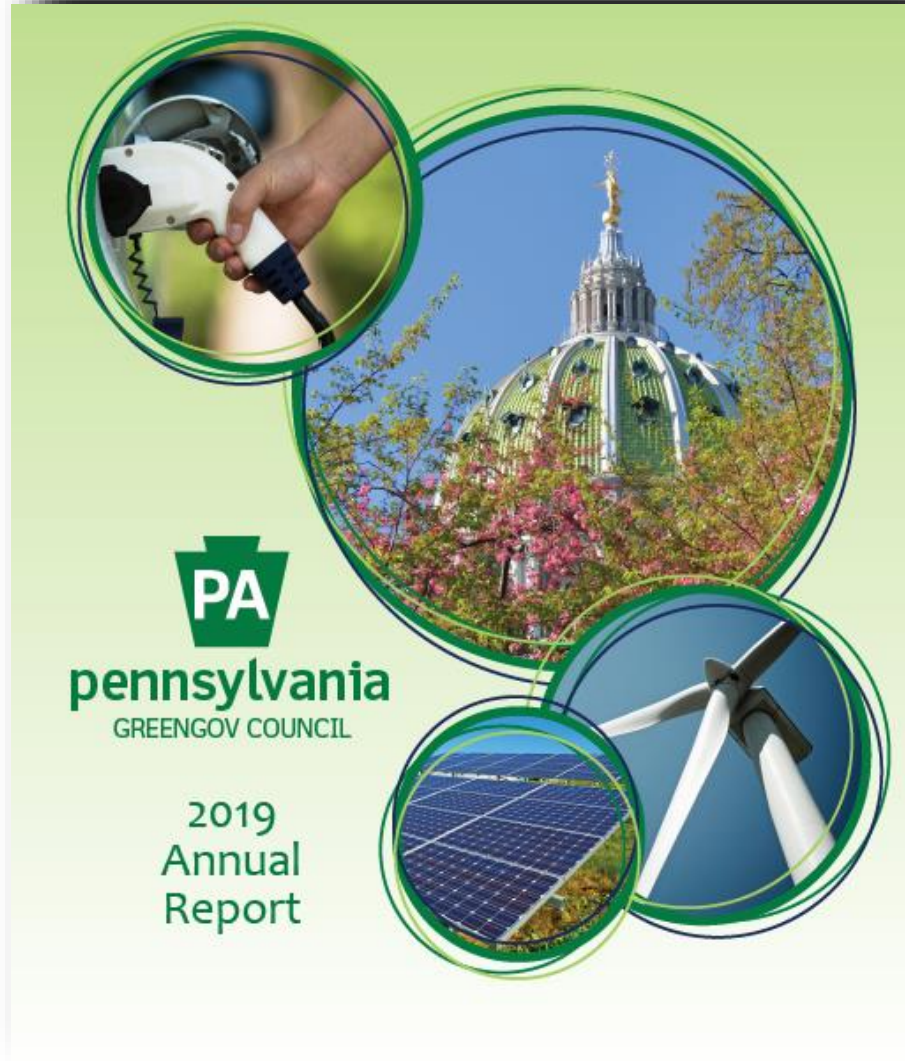


GreenGov Annual Report



- **Executive Summary** of the GreenGov Program and **Agency Efforts**
- **Communication 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	100%	Technology & Telecom	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	44%	Govt. (State)	Various
36. The Boeing Company	346,402,639	16%	Industrial Goods & Srvcs.	Biomass, Small-hydro, Solar, Wind
37. City of Austin, TX	333,805,639	100%	Govt. (Local, Municipal)	Wind



Energy Reduction – 3% Annually



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	-2.9%	5,242	8,415	61%

High Performance Buildings



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 Park, Tioga 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	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	Build-to-Suit Office Building	7th Street Harrisburg City, Dauphin County	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)

Agency Certification Checklist

PA pennsylvania
GREENGOV COUNCIL

GreenGov Agency Certification Checklist
Fiscal Year 2019-2020 Reporting

Rev. 4/21/2020

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

Points Applicable	Points Earned	Score

Instructions:

- Review each measure and answer based upon the actions of your Agency within the fiscal year of July 1, 2019 through June 30, 2020.
- As each measure is evaluated, begin with the following preface: "Since July 2019, as an Agency have you...".
- The Checklist will automatically tally the points earned based upon measures applicable to your Agency.
- Once completed, save the document with your Agency name and date completed.
- Email the completed Checklist to: RA-GSGreenGov@pa.gov by Monday, August 3, 2020.

Scoring:

- Score will be based upon the percentage of "yes" answers to measures that apply to your Agency.
- For measures that do not apply to your Agency, select "not applicable".
- Measures that are 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 2019, as an Agency have you...

I Benchmarking and Evaluation						
		Yes	No	N/A	Points Value	Points Earned
1	Facility Benchmarking					
1 A	Maintained an inventory of all buildings both owned and leased? (This information is also a key component for the move to the DGS TRIRIGA inventory system.)				1	
1 B	Maintained an inventory of all owned and leased building square footage for use in DGS TRIRIGA & EnergyCAP systems?				2	
1 C	Implemented EnergyCAP for the capturing of energy bills within your facilities through the assignment and validation of meters? (facilities 20,000 square feet & greater)				2	
1 D	Assigned EnergyCAP "Agency liaison", "Core User" and other roles for your agency who will participate in the program and receive training to create & maintain your agency's executive level utility reports.				1	
1 E	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?				3	
1 F	Established an Executive-level energy portfolio report for your agency's facilities through the EnergyCAP System.				1	
1 G	Developed a comprehensive utility bill tracking plan or program within Lessor-paid utility leased facilities for energy benchmarking? Example: EnergyStar, EnergyCAP or other (through lessor)				2	
1 H	Worked with a Lessor to establish a utility bill tracking program for at least 1 facility?				1	
1 I	Received Act 129 or other energy conservation or sustainability incentive program rebates?				1	
1 J	Achieved an overall 3% reduction of energy consumption within the past Fiscal Year (2018-2019) as per Executive Order 2019-01 through the participation in energy reduction programs and projects?				4*	
					Points Total	18
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?				3	
2 B	Utilized vehicle telematic systems to accurately track performance figures for your entire traveling fleet?				2	
2 C	Evaluated passenger vehicle parking assignments to identify ideal locations for the delivery of EV charging station projects as part of an electrified vehicle plan?				3	
					Points Total	8

- **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

Agency Certification Checklist – FY2019-2020

PA pennsylvania GREENGOV COUNCIL

GreenGov Agency Certification Checklist
Fiscal Year 2019-2020 Reporting

Rev. 4/21/2020

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I Benchmarking and Evaluation						
	Yes	No	N/A	Points Value	Points Earned	
1 Facility Benchmarking						
1 A Maintained an inventory of all buildings both owned and leased? (This information is also a key component for the move to the DGS TRIRUGA inventory system.)				1		
1 B Maintained an inventory of all owned and leased building square footage for use in DGS TRIRUGA & EnergyCAP systems?				2		
1 C Implemented EnergyCAP for the capturing of energy bills within your facilities through the assignment and validation of meters? (facilities 20,000 square feet & greater)				2		
1 D Assigned EnergyCAP "Agency liaison", "Core User" and other roles for your agency who will participate in the program and receive training to create & maintain your agency's executive level utility reports.				1		
1 E 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?				3		
1 F Established an Executive-level energy portfolio report for your agency's facilities through the EnergyCAP System.				1		
1 G Developed a comprehensive utility bill tracking plan or program within Lessor-paid utility leased facilities for energy benchmarking? Example: EnergyStar, EnergyCAP or other (through lessor)				2		
1 H Worked with a Lessor to establish a utility bill tracking program for at least 1 facility?				1		
1 I Received Act 129 or other energy conservation or sustainability incentive program rebates?				1		
1 J Achieved an overall 3% reduction of energy consumption within the past Fiscal Year (2018-2019) as per Executive Order 2019-01 through the participation in energy reduction programs and projects?				4*		
				Points Total	18	
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?				3		
2 B Utilized vehicle telematic systems to accurately track performance figures for your entire traveling fleet?				2		
2 C Evaluated passenger vehicle parking assignments to identify ideal locations for the delivery of EV charging station projects as part of an electrified vehicle plan?				3		
				Points Total	8	

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 Opportunity
- **154 Total Points** Available

Agency Certification Checklist – FY2019-2020

PA pennsylvania GREENGOV COUNCIL

GreenGov Agency Certification Checklist
Fiscal Year 2019-2020 Reporting

Rev. 4/21/2020

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

Points Applicable	Points Earned	Score

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1 C	Implemented EnergyCAP for the capturing of energy bills within your facilities through the assignment and validation of meters? (facilities 20,000 square feet & greater)				2	
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1 J	Achieved an overall 3% reduction of energy consumption within the past Fiscal Year (2018-2019) as per Executive Order 2019-01 through the participation in energy reduction programs and projects?				4*	
					Points Total	18
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?				3	
2 B	Utilized vehicle telematic systems to accurately track performance figures for your entire traveling fleet?				2	
2 C	Evaluated passenger vehicle parking assignments to identify ideal locations for the delivery of EV charging station projects as part of an electrified vehicle plan?				3	
					Points Total	8

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

GreenGov Program Area Focus Groups

**Utility
Management**

**Sustainability
(Small Agencies)**

**Electric
Vehicles &
Charging**

**Green Facility
Management**

**Construction &
Leasing Specs**

**Products &
Materials**

***"Standing-up
GreenGov Program
Principles
throughout
Commonwealth
Operations"***

Utility Management – 2020 Goal

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

- Identify, validate & assign missing meters and building assignments to achieve the **85% goal**
- Transition from P-card billing to **SAP Non-PO Invoice Workflow**
- Direct all non-EDI natural gas & electric utility invoices directly to the Comptroller utility **P.O. Box 69182, Harrisburg PA 17106**
- Confirm invoice routing to agency approvers through the **ESS System**


Utility Management – EnergyCAP Agency Roles

Agency Liaisons – Act as liaison between DGS Procurement, PSFEI, GreenGov & other agencies

- Deliver EnergyCAP Program for the agency and lead agency staff participation
- Partner with PSFEI and agency staff to establish training opportunities

Agency Core Users – Agency staff that act as an internal resource for the agency's EnergyCAP needs

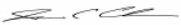
- Oversee data quality and roll-up reporting for a group of facilities or a region
- Deliver data for reporting purposes as needed



***"Agency Liaisons
Provide the Best
Opportunity for
Energy
Reductions"***

Green Facilities Management - MD 720.5 Revisions

Energy Conservation in Commonwealth-Owned or Leased Buildings

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, 717/787-3197	

This directive establishes policy for the use of non-Commonwealth provided electrically powered devices in facilities owned or leased by the Commonwealth of Pennsylvania. Changes are indicated by marginal dots.

1. **PURPOSE.** To conserve energy and provide improved fire/life safety in all Commonwealth-owned or leased facilities.
2. **SCOPE.** This directive applies to employees in all agencies under the Governor's jurisdiction in Commonwealth-owned and leased facilities. Legislative, judicial, and other independent agencies should also consider complying with this directive for their respective facilities.
3. **DEFINITIONS.** For the purpose of this directive, the following definitions apply:
 - a. **Non-Commonwealth Provided Electrical Device.** Equipment or appliance not owned or provided by the Commonwealth, which requires alternating current (AC) electricity.
 - b. **Commonwealth Provided Electrical Device.** Equipment or appliance owned or provided by either the Commonwealth or Lessor, which requires alternate current (AC) electricity.
 - 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 the Management Directive to Include Large Energy Reduction Programs"

- **GreenGov Checklist Measures** 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)

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 [Level 2 Electric Vehicle Charging Rebate](#) 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). Applications must be submitted prior to the start of project installation.

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 & EV Charging Charging Station Projects

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 Stations - Project Pathways

Commonwealth Owned Facility				
Phase	Step	Description	Parameter	Considerations
Project Scoping	1	Plug Count	Identify how many plugs are needed at the site to support EV fleet, taking into account future needs	• Bureau of Vehicle Management vehicle reports • Headquarter locations of fleet • GreenGov Agency Pool Vehicles Spreadsheet
	2	Parking Space Location	Identify parking spaces that will support the EV chargers & vehicles	• Parking: Indoor (garage) or outdoor • Proximity to power source
	3	Project Scoping Site Visit	Solicit DGS Property Management team for a site visit to establish project scope	• Electric panel to charger distance • Obstructions: sidewalks, curbing, pavement • Parking signage & painting
	4	Project Cost Estimate	Determine project cost based upon scope of work - will help determine delivery method, consider DEP rebate program eligibility	• Count of chargers needed • Complexity of installation • DEP Rebate(s) & Rebate Guidelines
	5	Delivery Method Determination	Joint decision by agency & DGS based on project scope for the best method to deliver	• Delivery: In-house or 30C system • Capital Project process & GESA options (DGS to determine)
Phase	Method	Step	Description	
Project Delivery	In-House Delivery	1	Develop Electrical Plan	Electrical plan developed by agency for engineer review and to determine material needs
		2	Engineer Review	Agency engineer review of the project, taking into consideration code compliance, standard specifications and other parameters
		3	DEP Rebate Incentive	Apply for DEP Level 2 Electric Vehicle Charging Rebate(s)
		4	LMI Permit Submittal	Project is submitted to LMI for review & permitting
		5	Material Purchase	Agency funds will be required for purchase of materials specified
		6	Construction	During the construction phase, project milestones will be inspected by LMI for compliance
		7	Final Inspection	After final inspection, the charging stations may be utilized for the EV fleet
	30C System Delivery	1	Project Landing Page	Agency submits a 30C project within the system's landing page to begin project
		2	Site Scoping Meeting	Joint site meeting between agency staff & 30C contractors to agree upon project scope
		3	DEP Rebate Incentive	Apply for DEP Level 2 Electric Vehicle Charging Rebate(s)
		4	Project Design	Project is designed and submitted for LMI permitting through 30C contractor
		5	Construction	During the construction phase, project milestones will be inspected by LMI for compliance
		6	Final Inspection	After final inspection, the charging stations may be utilized for the EV fleet

Commonwealth Leased Facility (Contact BRE for Master Lease Process)				
Phase	Step	Description	Parameter	Considerations
Project Scoping	1	Plug Count	Identify how many plugs are needed at the site to support EV fleet, taking into account future needs	• Bureau of Vehicle Management vehicle reports • Headquarter locations of fleet • GreenGov Agency Pool Vehicles Spreadsheet
	2	Parking Space Location	Identify parking spaces that will support the EV chargers & vehicles	• Parking: Indoor (garage) or outdoor • Leased building or parking garage/lot
	3	Project Scoping	Work with Lessor to establish full charging project scope of work	• Electric panel to charger distance • Obstructions: sidewalks, curbing, pavement • Parking signage & painting
	4	Project Cost Quotes	Project construction quote(s) to be obtained by the Lessor and approved by the agency, consider DEP rebate program eligibility (Lessor)	• Count of chargers needed • Complexity of installation • DEP Rebate(s) & Rebate Guidelines
Phase	Method	Step	Description	
Project Delivery	Leasehold Improvement - DGS Bureau of Real Estate (BRE)	1	Develop Project	Develop leasehold improvement project request utilizing project scope and GreenGov EV Charging Guidelines
		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)
		3	Lessor Negotiation	Work with Bureau of Real Estate & Lessor to finalize project scope, delivery & payment method (Lessor to deliver project with agency reimbursement)

EV & EV Charging Charging Station Projects

EV Charging Station Project Pathways

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

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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