



Community-wide Energy and Climate Action Plan (CECAP) Implementation

Update on 2023-2024 Priority Actions & Progress

Update

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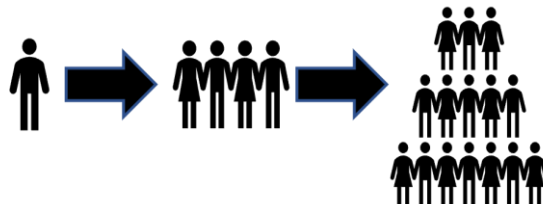
February 28, 2023

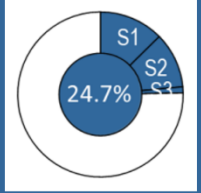
CECAP Implementation Priorities

- **Priorities:** Targeting sectors with the greatest carbon reduction need



- **2023-2024 Implementation Game Plan:** Focuses on actions to accelerate implementation of new and ongoing programs and initiatives within target priority sectors.
- **Community-based Approach to Implementation:** Collectively working together and leveraging resources to achieve a common goal of carbon neutrality.





Emission
Reductions



Buildings and Energy Efficiency

Strategy 1 (12.6%): Increase Energy Efficiency and Conservation in Existing Buildings

Strategy 2 (10.9%): Electrify Existing Buildings

Strategy 3 (1.2%): Implement Green Building Standards for New Buildings

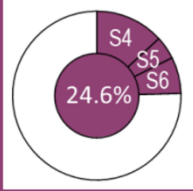
Program	Multi-sector programs and initiatives	S1	S2	S3
<u>Carbon-Free Fairfax:</u> Residential and Commercial energy efficiency education and outreach		+	+	
<u>Climate Champions:</u> Individuals, Organizations and Businesses		+		
<u>Green Business Partners:</u> Commercial sustainability and energy efficiency		+		
<u>Green Bank:</u> Support residential and commercial energy efficiency financing and technical assistance		+	+	
<u>C-PACE:</u> Commercial Property Assessed Clean Energy and Resiliency program		+	+	
<u>County Legislative Program</u>		+		
<u>Entitlement process:</u> Comprehensive Plan Policy Amendments			+	+
<u>Sustainable development policy</u> for county capital construction				+
<u>HomeWise:</u> Residential energy efficiency, weatherization and conservation		+		+
<u>Modernization of State building codes:</u> Legislative position statement supporting IECC and IgCC		+	+	+
<u>ESCO:</u> County government energy efficiency and conservation		+		

Incentives:

- HomeWise (County)
- Adaptive reuse of existing buildings incentives (County)
- Introduce incentive programs as permitted by existing authority or advance legislative proposals for expanded authority (County)
- Conservation Assistance Program (CAP) (Northern Virginia Soil Water Conservation District)
- Low Income Home Energy Assistance Program (LIHEAP) (State)
- Various ratepayer utility rebates and incentives
- Federal tax credits, rebates and subsidies to include upcoming Inflation Reduction Action (IRA)

Goal: All new, eligible buildings will have a commitment to green building

Goal: Retrofit at least 100,000 housing units with energy efficiency measures by 2030.



Emission
Reductions



Energy Supply

Strategy 4 (13.2%): Increase the Amount of Renewable Energy in the Electric Grid

Strategy 5 (4.4%): Increase Production of Onsite Renewable Energy

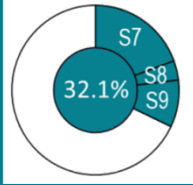
Strategy 6 (7.0%): Increase Energy Supply from Resource-Recovered Gas, Hydrogen, and Power-to-Gas

Program	Multi-sector programs and initiatives	S4	S5	S6
Carbon-Free Fairfax: Residential and Commercial energy efficiency education and outreach			+	
Climate Champions: Individuals, Organizations and Businesses			+	
Green Business Partners: Commercial sustainability and energy efficiency			+	
Green Bank: Support residential and commercial energy efficiency financing, fleet electrification financing and technical assistance			+	
C-PACE: Commercial Property Assessed Clean Energy and Resiliency program			+	
County Legislative Program		+	+	+
Sustainable development policy and solar gameplan: County capital construction			+	
Virginia Clean Economy Act – Dominion Energy		+		
County government off-site solar VPPA		+		
Solarize Fairfax: Residential and Commercial Solar			+	
Solar permit fee and tax incentives			+	
Community Solar – Dominion Energy			+	

Incentives:

- Solar Permit Fees Waived (County)
- Solar Zoning Flexibility (County)
- Solar Tax Exemption (County)
- Solarize Fairfax County – LEAP (Local Energy Alliance Program)
- Federal Tax Credits and Subsidies
- Introduce incentive programs as permitted by existing authority or advance legislative proposals for expanded authority (County)

Goal: The [Virginia Clean Economy Act](#) requires Dominion Energy Virginia and American Electric Power to produce their electricity (for the energy grid) from 100% renewable sources by 2045 and 2050. Smaller on-site solar projects also help us achieve carbon neutrality.



Emission
Reductions



Transportation

Strategy 7 (19.4%): Increase Electric Vehicle (EV) Adoption

Strategy 8 (3.7%): Support Sustainable Land Use, Active Transportation, Public Transportation, and Transportation Demand Management to Reduce Vehicle-Miles Traveled

Strategy 9 (9.0%): Increase Fuel Economy and Use of Low-Carbon Fuels for Transportation

Program	Multi-sector programs and initiatives	S7	S8	S9
Carbon-Free Fairfax: Residential and Commercial energy efficiency education and outreach		+		
Climate Champions: Individuals, Organizations and Businesses		+	+	
Green Business Partners: Commercial sustainability and energy efficiency		+	+	
Green Bank: Support residential and commercial energy efficiency financing, fleet electrification financing and technical assistance		+		
County Legislative Program		+	+	+
Entitlement process: Comprehensive Plan Policy Amendments			+	
Fleet Electrification: County government fleet electrification, EV infrastructure, and transition to Zero Emissions Vehicles		+	+	+
Charge Up Fairfax: Residential common interest communities shared charging grant and technical assistance program		+		
ActiveFairfax Transportation Plan			+	

Incentives:

- Alternative Fuel Vehicle Refueling Property Tax Credit (County)
- Permit Fees Waived for Electric Vehicle Charging Installations (County)
- Charge Up Fairfax reimbursement grant of EV charging stations (County)
- Introduce incentive programs as permitted by existing authority or advance legislative proposals for expanded authority (County)
- Federal Tax Credits and Rebates

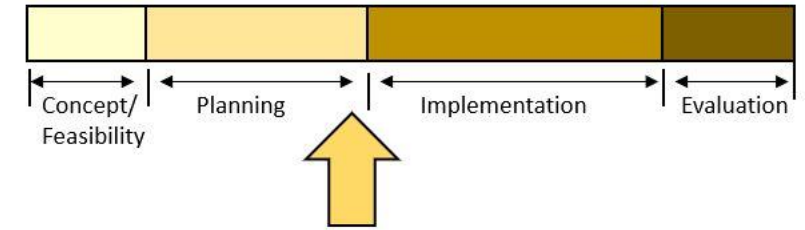
Goal: Increase transit & non-motorized commuting to 30% (including telework) by 2030.

Goal: Increase plug-in hybrid vehicles (PHEVs) and battery electric vehicles (BEVs) to at least 15% of all light-duty vehicle registrations by 2030 and 42% by 2050.



Climate Champions

Solar Sanctuaries (Resilience Hubs)



Jan. – Mar. 2023

Current Action

Complete

Kickoff meeting with FACS

Feb.

Scope for Solar Sanctuary Pilot

Mar.

Identify funding opportunities and partnerships*

In progress

Site selections for Solar Sanctuary Pilot

In progress

Community engagement

Apr. - June

Next Steps

Apr.

Grant application due for Solar Sanctuary/Resilience Hub

Apr. -June

Continue Community Engagement

Apr. -June

Continue to identify funding and partnership opportunities*

Spring

Energy Efficiency Audits (LEAP Solarize applications)

** LEAP, NVSWCD, Release of IRA guidance*

Solar Sanctuary Program Levels



Level 1
Energy
Efficiency &
Outreach



Level 2
Renewable
Energy
installations



Level 3
Battery
storage &
Resilient
Hubs



Carbon-Free Fairfax



Jan. – Mar. 2023

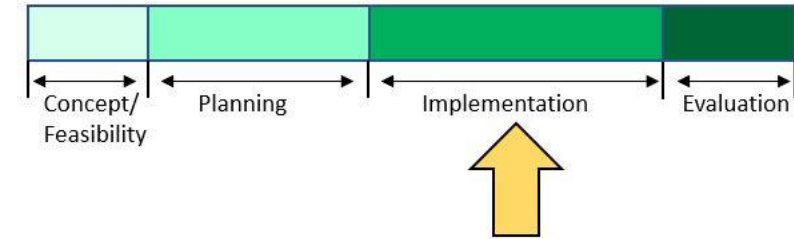
Current Action

Mar.	Logos for Resilient Fairfax, Charge Up Fairfax, Fairfax Tree Canopy Program
Mar.	Checklist of climate actions
Mar.	Climate Action “Roadshow” presentation and outreach
March	EV “Myth vs Fact” video

Apr. – May 2023

Next Steps

Apr. - June	Bring ‘roadshow’ to Charge Up Fairfax Pilot communities & Climate Champions Pilot
May	EV and solar climate-action video testimonials



Checklist Under Development

Buildings and Energy Efficiency: What You Can Do

What You Can Do

- ☐ Find and seal your leaks
- ☐ Professional audits and insulation upgrades
- ☐ ENERGY STAR windows and appliances
- ☐ Thermostat settings
- ☐ HVAC filters and maintenance
- ☐ Use a clothesline or drying rack
- ☐ Wash on cold
- ☐ Unplug electronics and/or use power strips
- ☐ LED lights and turn lights off
- ☐ Power management features on computer
- ☐ Water-Sense faucets, showerheads, fix leaks
- ☐ Switch to electric stove

Resources and Incentives

- [Carbon Free Fairfax](#)
- [Conserve Energy Kit](#)
- [Energy Conservation Assistance Program](#)
- [Fairfax County Green Bank](#)
- [HomeWise Program](#)
- [Thermal Camera Loan Program](#)
- [Tax Credit for Home Energy Audit](#)
- [Tax Credits for Insulation](#)
- [Tax Credits for Windows and Skylights](#)
- [Tax Credits for Energy Efficient Furnaces](#)
- [Tax Credits for Air Source Heat Pumps](#)
- [Residential Energy Efficiency | US EPA](#)
- [WaterSense | US EPA](#)



Charge Up Fairfax



Jan. – Mar. 2023

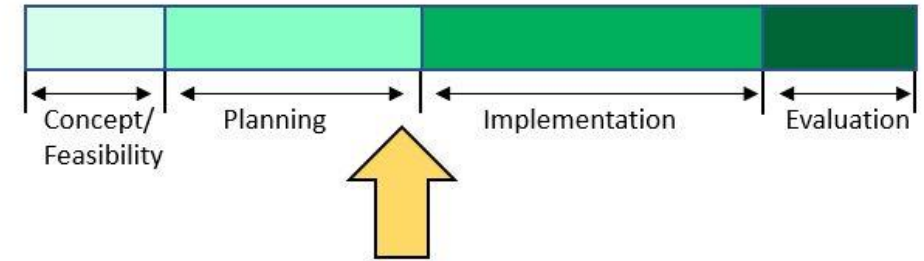
Current Action

Complete	MOU signed with NVSWCD
Complete	Purchase order issued to Vybe Energy
Complete	Purchase order to be issued to NVSWCD

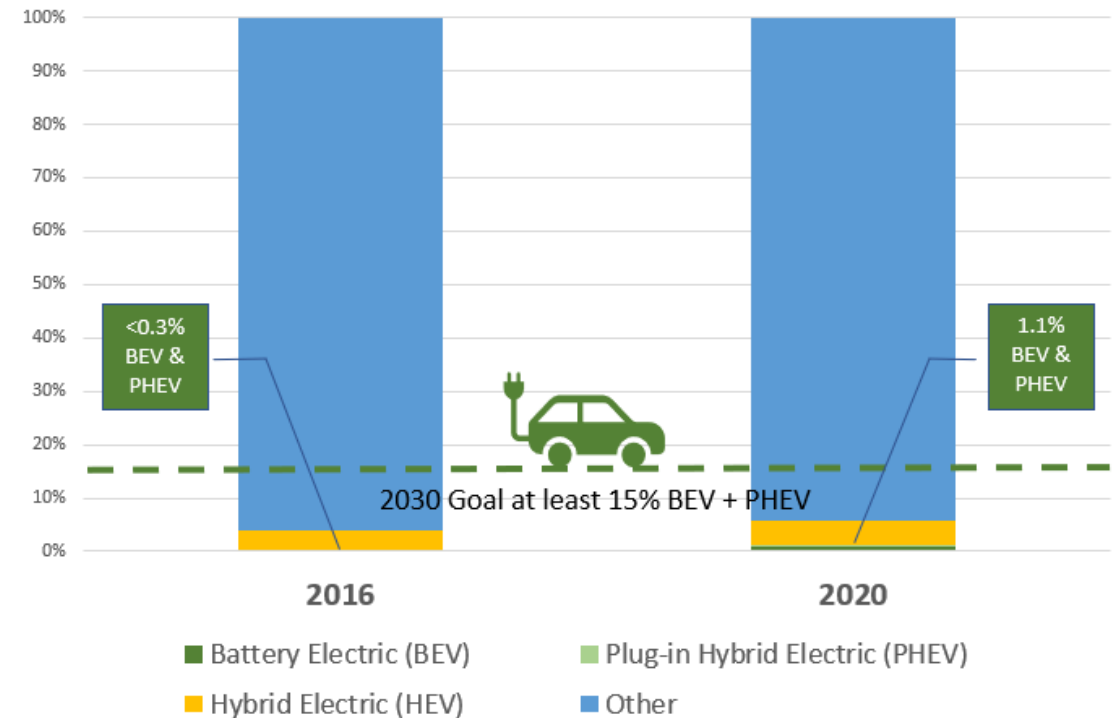
Apr. – May 2023

Next Steps

April	Launch Pilot Program
April	Up to 3 communities selected
April – June	Community Engagement
July	Begin Pilot evaluation



Electric Vehicle Registration in Fairfax County





County Fleet Electrification EV Charging Stations



Site	Charging Spaces (Ports)	Status
Fairfax County Government Center	17	Complete
Herrity Building	6	Complete
Pennino Building	6	Complete
Public Safety Headquarters	8	Complete
Merrifield Center	6	Complete
Sully Community Center	4	Complete
Innovation Station Center	20	Complete
Herndon-Monroe Garage	15	15 of 20 complete; remainder on-going
Police Heliport	2	Complete
Lorton Community Center	5	Complete
West Ox Bus Connector	2	Complete

Completed:

- 11 locations, 91 charging spaces

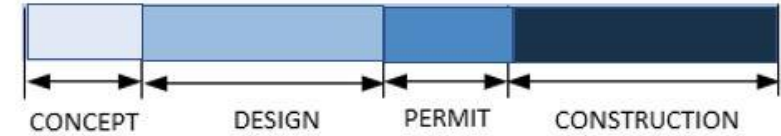
Additional installations plan for 2023-2024:

- 5 locations with up to 116 charging spaces
 - Jermantown DVS
 - W. Springfield Government Center, Police Station, Fire & Rescue Station
 - Sully Police Department
 - Fairfax County Government Center
 - Public Safety Headquarters Phase II

Fairfax
County
Government



Solar Installations

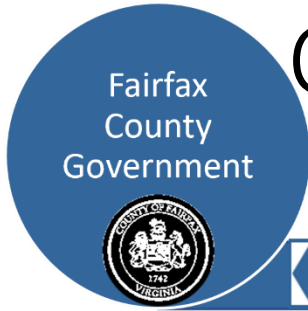


CY 2023 Target Completion

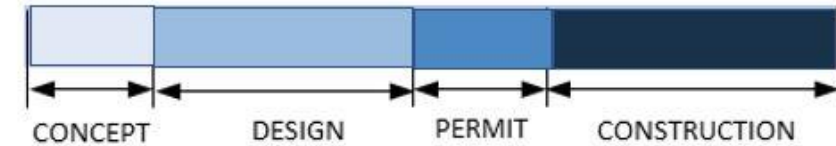
Site	kW	Lead Agency	Target Completion	Status
Sully Community Center	180	Capital Facilities	March 2023	
Woodlawn Fire Station	40	FMD	August 2023	
Reston Fire Station	40	FMD	August 2023	
Pender Building	120	HCD	Fall 2023	
Reston Community Center	100	RCC	Fall 2023	
Springfield CBC Commuter Garage	170	Capital Facilities	October 2023	
Cub Run RECenter	300-470	FCPA	2023	
Newington DPWES Admin Building	80	SWMP	2023	
South County Police Station & Animal Shelter	70	Capital Facilities	2023	

CY 2024-25 Active Sites

Site	kW	Lead Agency	Status
Spring Hill RECenter	310	FCPA	
Seven Corners Fire Station	50	Capital Facilities	
FCPA Area 1 & 2 Maintenance, Burke Lake GC	70, 50, 50	FCPA	
Lorton Community Center	100	FMD	
Lorton Fire Station	60	FMD	
Edsall Road Fire Station	60	FMD	
Jefferson Fire Station	25	FMD	
Scott's Run Fire Station	TBD	FMD	
Stormwater Ops Complex	400	Capital Facilities	
Police Operational Support Bureau	650	Capital Facilities	
Monument Dr. Commuter Parking Garage	530	Capital Facilities	
Springfield Warehouse	400	FMD	
I-66 Transfer Station Admin Building Rooftop	220	DPWES SWMP	
I-95 Landfill Admin Building Rooftop	80	DPWES SWMP	
Providence Community Center	80	FMD	
5 MW I-95 Landfill PPA	5,000	DPWES SWMP	



County Sustainable Development Policy



In Construction (Pre-OES July 2021)				
Project Name	LEED Goal	Solar Ready	Net Zero	EV Ready
Lorton Volunteer Fire Station	Silver	No	No	No
Police Heliport	Silver	No	No	Yes
Reston Fire Station	Silver	Yes	No	No
Sully Community Center	Gold	Yes	No	Yes
Woodlawn Fire Station	Platinum	Yes	No	No
Lorton Community Center & Library	Gold	Yes	No	Yes
Edsall Road Fire Station	Silver	Yes	No	No
South County PS & Animal Shelter	Silver	Yes	No	Yes
Springfield Garage **1,100 spaces	n/a	Yes	No	Yes
Stormwater Wastewater Facility	Gold	Yes	Yes	Yes
Operational Support Bureau	Gold	Yes	Yes	Yes
Monument Garage **820 spaces	Parksmart	Yes	No	Yes
Innovation Garage	n/a	Yes	No	Yes
Seven Corners Fire Station	Gold	Yes	No	Yes
Kingstowne Library/Franconia PS	Gold	Yes	No	Yes
Mount Vernon RECenter	Silver	Yes	No	Yes
Final Design (Pre-OES July 2021)				
Patrick Henry Shelter	Silver	Yes	No	Yes
Original Mt. Vernon HS Redevelopment	Gold	Yes	No	Yes

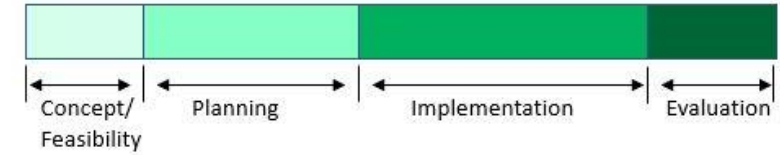
Design (OES July 2021 Policy)				
Project Name	LEED Goal	Solar Ready	Net Zero	EV Ready
Fairview Fire Station	Gold	Yes	Yes	Yes
Judicial Complex Building One	Gold	Yes	Yes	Yes
Mason Police Station	Gold	Yes	Yes	Yes
Gunston Fire Station	Gold	Yes	Yes	Yes
West Annandale Fire Station	Gold	Yes	Yes	Yes
Tysons Fire Station #29	Gold	Yes	Yes	Yes
Willard Health Center	Gold	Yes	Yes	Yes
Patrick Henry Library Garage	Gold	Yes	Yes	Yes
Audrey Moore Rec Center	Gold	Yes	Yes	Yes
Penn Daw Fire Station	Gold	Yes	Yes	Yes
Eleanor Kennedy Shelter	Gold	Yes	Yes	Yes
Crossroads	Gold	Yes	Yes	Yes
George Mason Library	Gold	Yes	Yes	Yes

Completed Buildings with Certifications:

- LEED Gold = 17
- LEED Silver = 21
- LEED Certified = 1
- Green Globe or Energy Star = 2



Additional Updates



PROGRAM	ACTION	STATUS
Green Business Partners(GBP) Program and Forum	<ul style="list-style-type: none"> • Forum registration open • Launch revitalized GBP at Forum scheduled for 3/31 	
Fairfax Tree Canopy Program	<ul style="list-style-type: none"> • Working with UFMD and NGOs to initiate program including education and outreach to communities 	
HomeWise: Residential Energy Audits	<ul style="list-style-type: none"> • Meeting with partners (e.g., LEAP, NVSWCD) to expand residential energy audit program 	
Virtual PPA Solar Installation	<ul style="list-style-type: none"> • Issue RFP in late 2023 for a virtual power purchase agreement (PPA) 	
Climate Champions (Hospitality)	<ul style="list-style-type: none"> • Kickoff meeting for roundtable (2/23) 	
Climate Champions (Individual)	<ul style="list-style-type: none"> • Complete checklist • Video development 	
Transportation Planning (FCDOT)	<ul style="list-style-type: none"> • ActiveFairfax Transportation Plan: Phase 2 ongoing • TPB Long-Range Plan: Visualize 2050 	
Comprehensive Plan and Policy Updates (DPD)	<ul style="list-style-type: none"> • Multi-agency team coordination meetings 	

Climate Action Dashboard



[Climate Action](#)