



MONTGOMERY COUNTY, MD ELECTRIC VEHICLE GROUP BUY FORUM

JANUARY 13, 2021
3:30 – 5:00 PM

AGENDA

ELECTRIC VEHICLE (EV) GROUP BUY FORUM

- I. Welcome & Information About Webinar Procedures
- II. Montgomery County Climate Initiatives & Goals
- III. Key Elements of the EV Group Buy Initiative
- IV. Examples of Successful EV Group Buy Programs Elsewhere
- V. Regional, State and Local Context & Experience
- VI. Q&A and Discussion



BACKGROUND ON MONTGOMERY COUNTY CLIMATE INITIATIVE

- In 2017, the Montgomery County Council adopted the [Emergency Climate Mobilization Resolution](#), which called for 80 % reduction in Greenhouse Gas (GHG) emissions by 2027, and elimination of GHG emissions – “Net Zero” – by 2035.
- The County initiated exploration of strategies to get to Net Zero, involving more than 200 volunteer members of the Climate Technical Workgroups, community groups, County employees and technical consultants, and input from the public – resulting in nearly 900 recommended strategies to achieve the goals.
- Using the Workgroup recommendations and further technical analysis and modeling, the County has issued a Draft Climate Action Plan (CAP) which outlines 87 actions that lay the path to meet the County’s ambitious climate goals while building a healthy, equitable and resilient community.
- Transportation sources constitute 41% of the County’s GHG emissions. An important recommendation for lowering those emissions is increasing the scale and rate of EV adoption.



WHY AN EV GROUP BUY?

- The County's EV Group Buy Program will seek to leverage the collective buying power of the community by negotiating and obtaining discounts on electric vehicles.
- It is anticipated implementation and success of this Group Buy Program will translate to increased EV adoption in the area, reducing transportation sector emissions. Specific goals of the program include:
 - Reducing transportation sector emissions in Montgomery County
 - Making electric vehicles accessible to a broader range of the community
 - Generating more EV sales for local car dealerships.



KEY PROGRAM ELEMENTS

- Target Market -- Residents, businesses & employees working in the County. This is NOT for public fleet. Including lower income residents a particular emphasis.
- Recurrent Program Planned – Duration and frequency TBD
- Administered by Outside Entity – With County oversight
- Timing – County program operational by 6/30/21 (end of FY21)
- Regional Option – Perhaps ideal, but likely to take longer. County program can be incorporated into multi-jurisdictional/regional program.
- Start Small? – May need to start small and scale up over time
- EVSE – Charging equipment key part of success. Not part of planned approach to Group Buy. Forum participants may speak to this aspect, and to incentives to reduce costs for charging equipment. If we conclude that is an essential component we may consider incorporating in some way.



EXAMPLES OF SUCCESSFUL EV GROUP BUY PROGRAMS



BOULDER COUNTY, COLORADO

- In September of 2015, Boulder County launched the first EV group buy program with Boulder Nissan
- In 4 months, Boulder Nissan sold 248 LEAFs, quadruple its previous monthly average
 - With a \$8,349 group discount and federal tax credit, the 2015 Nissan LEAF's net price was \$12,130
 - This was a 62% reduction from the \$31,500 retail price



FORT COLLINS/LOVELAND, COLORADO

- Partnership between the Electrification Coalition, the City of Fort Collins, the City of Loveland, and Colorado State University
- November – December 2015 Results:
 - 52 LEAFs sold through Tynan's Nissan in Fort Collins (quadrupling sales)
- August – September 2019 Results:
 - 60 EVs sold between Tynan's Nissan (LEAF) and Co's BMW Center (2019 i3, i8, 530xe)



ROCHESTER, NEW YORK

- Facilitated the purchasing of affordable Nissan LEAFs between Nov 1st 2018 and Jan 1st 2019
 - Utilized a special Rochester Gas & Electric discount (utility partnership)
- Requirements
 - Had to be RG&E utility user
 - Employed at a local workplace charging partner



REGIONAL, STATE & LOCAL CONTEXT



REGIONAL, STATE & LOCAL CONTEXT

REGIONAL

Leah Boggs, Senior Environmental Planner
Department of Environmental Programs
Metropolitan Washington Council of Governments

STATE

Colleen Turner, Assistant Director
Office of Planning & Capital Programming
Maryland Department of Transportation

MONTGOMERY COUNTY

Benjamin Morgan, Senior Planning Specialist
Division of Parking Management
Montgomery County Dept. of Transportation

Maricela Cordova, Purple Line Manager &
Managed Lanes Implementation Manager
Montgomery County Dept. of Transportation

Atiq Panjshiri, Manager, Right-of-Way Plan Review
Division of Land Management
Montgomery County Dept. of Permitting Services

OTHER LOCAL EXPERIENCE & PLANNING

City of Rockville

Clark Reed, Chair

Rockville Environment Commission

Arlington County

Helen Reinecke-Wilt, Green Home Choice Program Manager,
Solar Coop Coordinator, Electric Vehicle Planner

Arlington Initiative to Rethink Energy (AIRE)

Department of Environmental Services

Charging Station Programs Elsewhere

Rose Lenoff, Business Development Manager, Smart Cities & Government

FLO Services, Inc. [EV Charging]

Q&A AND DISCUSSION



QUESTIONS FOR DISCUSSION

- Scale & duration of the program: We received varying responses about the appropriate scale of the program. Please tell us why going smaller/larger makes the most sense.
- Role of auto dealers/OEMs/utilities: How can the County best facilitate interest and participation of these key participants in a Group Buy Program?
- Role of businesses/employers: How can business fleets participate in group buy and other incentives? Any known experiences where employers participate in a Group Buy and further reduce the cost to employees with additional incentives?
- Purchase vs. Lease & Financing Options: What are the respective pros and cons of purchase vs. leasing for Evs? Does the public have enough information available about options to make informed choices? What role should banks/lenders play?
- Marketing & promotion: How can the County best target potential participants interested in the program? How can we best conduct advertising and community outreach during the pandemic? Are there additional incentives the County should consider providing for those purchasing or leasing EVs?
- Equity: How can the County make EVs and the Group Buy Program more accessible and appealing to lower-income residents and others who do not typically consider EVs? How could a sliding pricing scale within the group buy program be structured to address equity issues? Would a "group-lease" be a viable possibility? How can we address needs of residents in multi-unit residential buildings?





THANK YOU FOR YOUR INTEREST!
THE EV GROUP BUY TEAM:

SANDRA L. BRECHER, SECTION CHIEF
MONTGOMERY COUNTY COMMUTER SERVICES
DEPARTMENT OF TRANSPORTATION
OFFICE OF TRANSPORTATION POLICY

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CLIMATE INTERNS

JULIA BROWN

REGINA FINK

SARAH KALLGREN



WWW.MONTGOMERYCOUNTYMD.GOV/CLIMATE



ZERO ELECTRIC VEHICLES: A REGIONAL OUTLOOK TO 2030

Presented to Montgomery County EV Buy Program Forum

Leah Boggs
Senior Environmental Planner

January 13, 2021

COG Climate Planning

- 2008 National Capital Region Climate Change Report
 - Regional goals
 - Recognize need for adaptation (resiliency)
 - Endorsed by Region Forward Coalition, TPB
- Regional goals set in 2008
 - 2012 – Reduce from business as usual by 10%
 - 2020 – Reduce 20% below 2005
 - 2050 – Reduce 80% below 2005

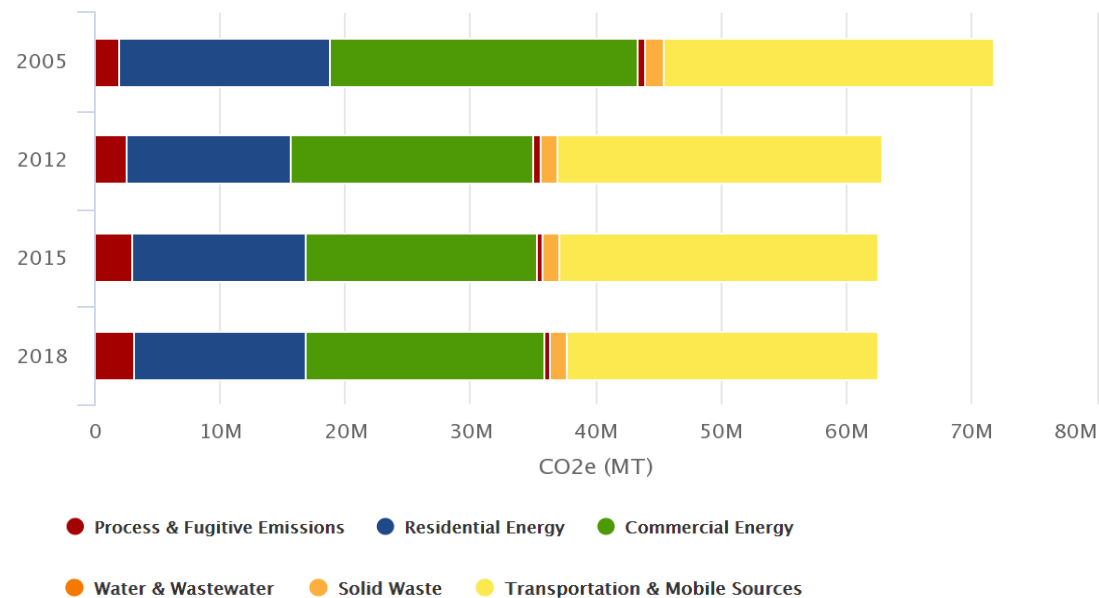
COG Climate Planning

- Climate and Energy Action Plans
 - Shorter-term plans recommending voluntary actions to reach goals
 - 2030 Climate and Energy Action Plan (CEAP) - the 5th version of the Climate and Energy Action Plan
 - COG Board adopted goals:
 - 50% GHG reductions by 2030 below 2005 levels
 - Becoming a Climate Ready Region

Regional GHG Goals & Inventory

- Regional goals set in 2008
 - 2012 – Reduce from business as usual by 10% (roughly 2005 levels)
 - 2020 – Reduce 20% below 2005 (inventory showed 13% by 2018)
 - 2050 – Reduce 80% below 2005

Regional Greenhouse Gas Inventory



Source: ClearPath output

Note: ClearPath is an online greenhouse gas inventory tool. ClearPath is a product of ICLEI - Local Governments for Sustainability.



2030 CEAP ZEV Strategies and Targets

- Regional Zero Emission Vehicle (ZEV) Strategies
 - ZEV-1: expand light-duty electric vehicle deployment
 - ZEV-2: accelerate electrification of medium- and heavy-duty vehicles
 - ZEV-3: build out regional electric vehicle charging network
- ZEV Implementation Targets (to meet 50% GHG reductions)
 - Light-duty BEVs and PHEVs: increase to 30% (\$1.4 million)
 - Light-duty trucks: increase to 9%
 - Medium- and heavy-duty trucks: increase to 4%
 - Transit buses: increase to 30%
 - Charging: 71,000 workplace L2, 42,000 public L2, and 7,600



COG Role

- Support aggregation of demand via COG Cooperative Purchasing Program and local EV buying coops. Coordinate closely with Clean Cities, Washington Area New Dealers Association (WANADA), and electric EV supply equipment (EVSE) industry.
- Advocate for regional, state and national incentives and mandates for purchasing EVs.
- Support the work of the Transportation and Climate Initiative (TCI).
- Advocate for regional, state and national actions, mandates, or incentives to fund MHDV electrification.

COG Role

- Support partners with grant applications to advance electric MHDV deployment.
- Support Clean Cities, local jurisdictions, and industry partners in engaging and educating local industry on opportunities and incentives to electrify their MHDV fleets.
- Support jurisdictions in adopting EV-ready new construction ordinances or incentives.
- Conduct regional EV gap analysis to identify most critical gaps in EV charging network.
- Support state/national incentives for EV charging deployment and technology advancement.
- Support local EV planning, including public fleet, transit, and community-scale initiatives.

How Member Jurisdictions Can Support

- Support partners with grant applications to advance electric MHDV deployment.
- Implement community-wide EV buying co-ops.
- Promote state and national incentives and mandates for purchasing EVs.
- Transition fleets to zero emission vehicles. Adopt green fleet policy and plans or participate in cooperative procurement opportunities for public fleets to support transition.
- Transition public fleet MHDVs to electric.
- Connect private fleets with partners and opportunities to educate and incentivize electrification
- Require new developments to install EV infrastructure or be EV-Ready.

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Maryland State Agency Zero Emission Vehicle Efforts

Colleen Turner, Maryland DOT

January 13, 2021



Maryland
Energy
Administration



Maryland
Department of
the Environment

Maryland State Agencies Overview



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MSEC/CFIP/CFTA

Install EVSE

ZEV MOUs

EV/EVSE
(Incentives/Rebates)

Chair/Staff ZEEVIC

Maryland Clean Cars
Program

Track ZEV Registrations

VW Settlement

Maryland Clean Cities
Coalition

AFC Corridors

Chair/Staff MCCC

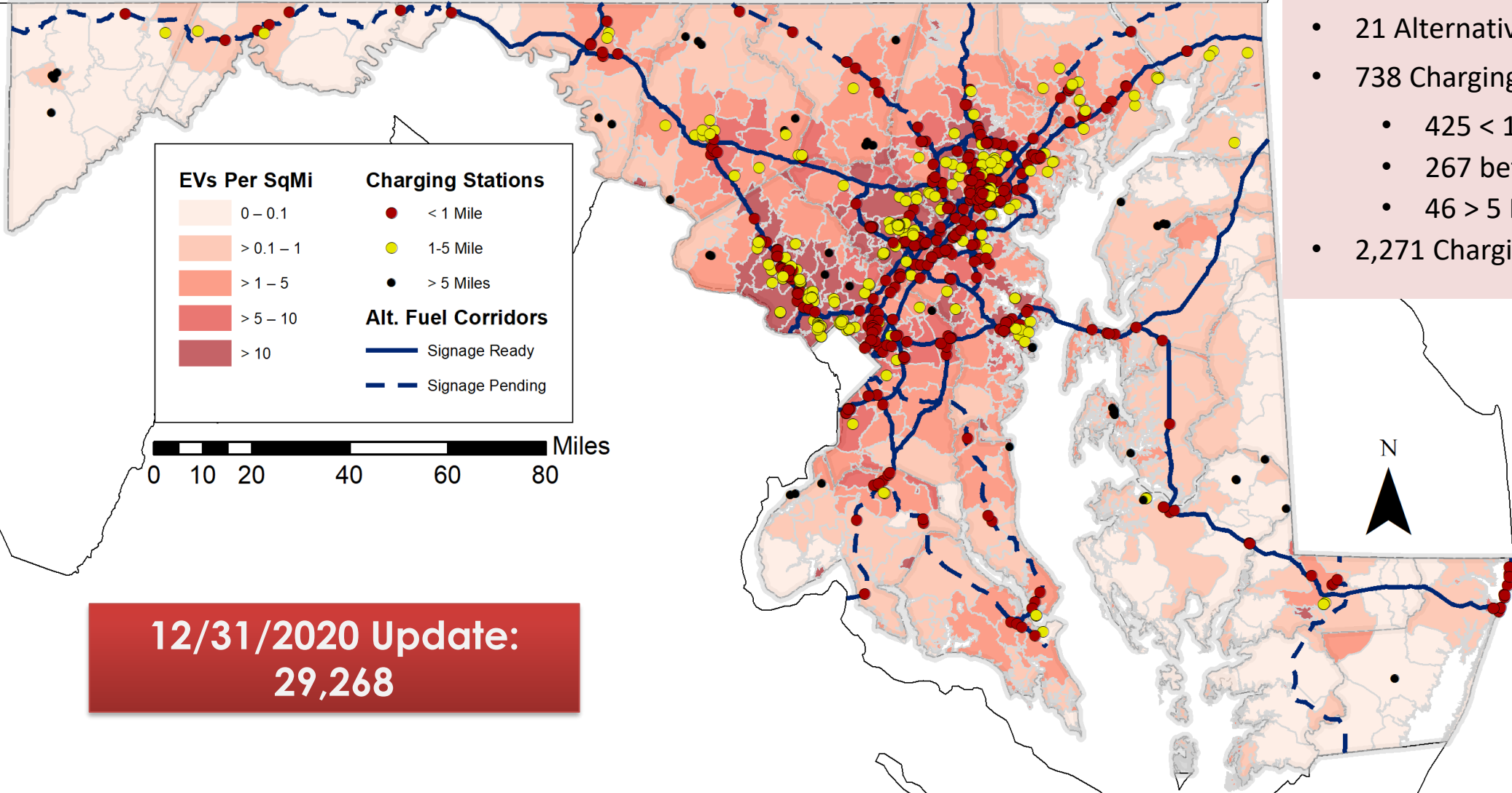


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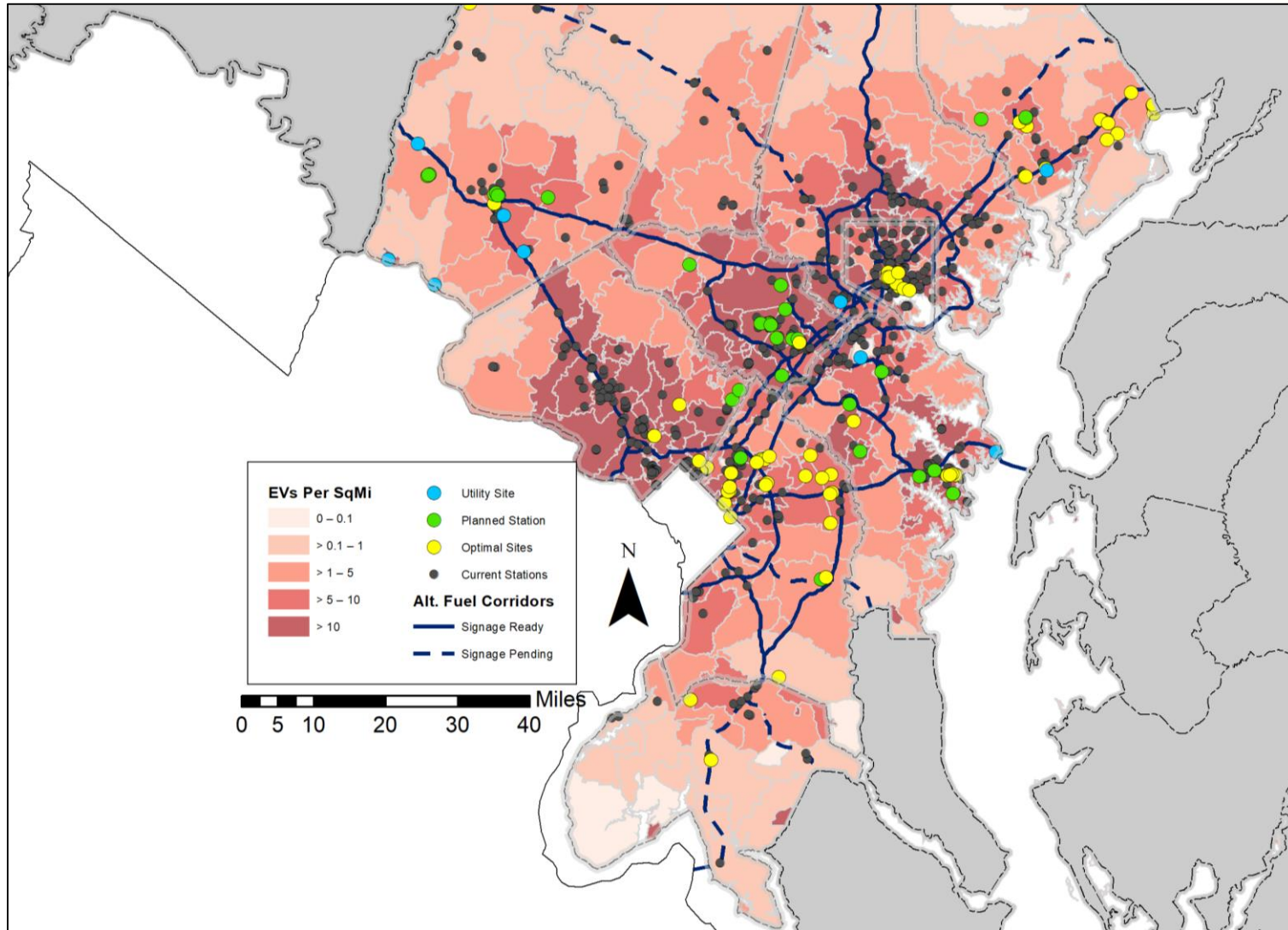
Current Infrastructure Statewide



12/31/2020 Update:
29,268

- By the Numbers:**
- 26,299 Registered EVs
 - 21 Alternative Fuel Corridors
 - 738 Charging Stations
 - 425 < 1 Mi from AFC
 - 267 between 1-5 Mi from AFC
 - 46 > 5 Mi from AFC
 - 2,271 Charging Outlets

Current Infrastructure & Opportunities- Central



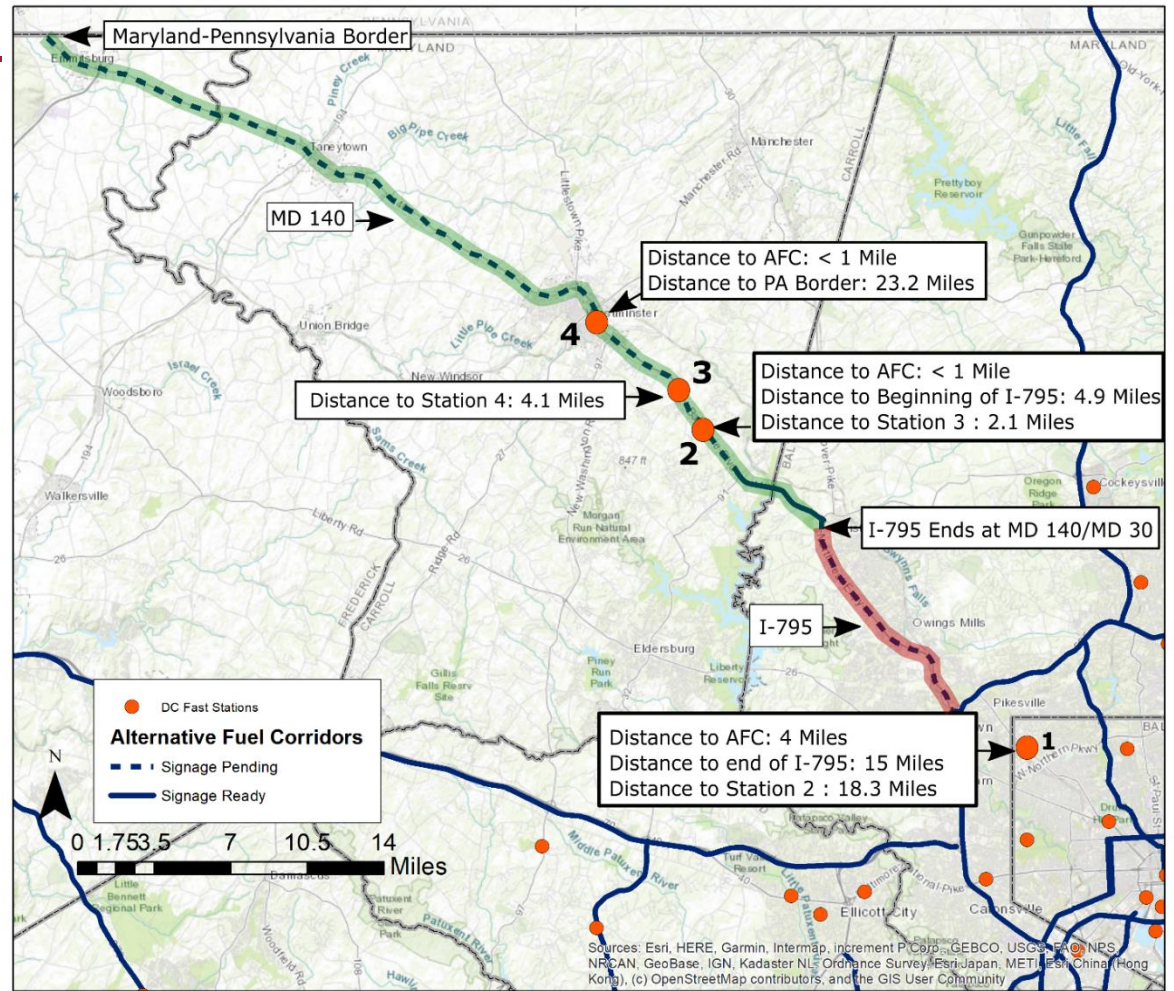
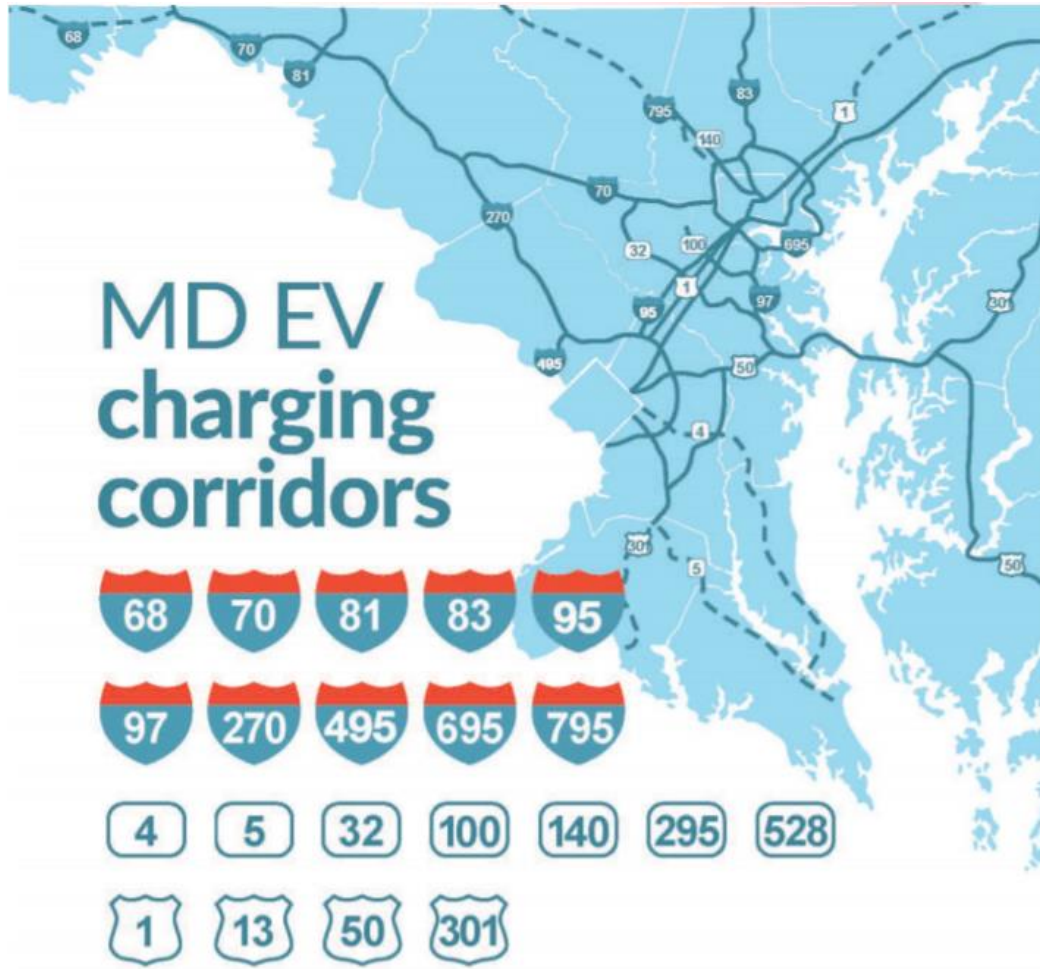
Current Infrastructure:

- 640 Charging Stations
 - 368 < 1 Mi from AFC
 - 250 between 1-5 Mi from AFC
 - 22 > 5 Mi from AFC
- 1,983 Charging Outlets

Infrastructure Opportunities:

- 9 Utility Sites
- 33 Planned Stations (MetroQuest)
 - 1 Corridor
 - 5 Other
 - 7 Workplace
 - 16 Destination
 - 4 No Response
- 64 Optimal Sites (MetroQuest)
 - 1 Other
 - 2 Multi-unit Residential
 - 9 Corridor
 - 9 Workplace
 - 15 Destination
 - 28 No Response

Alternative Fuel Corridors



VW Settlement - MDE

Volkswagen Settlement Funds

Maryland Volkswagen Settlement Agreement (\$75.7 million)

- Targets NOx reductions, replaces older heavy-duty diesel engines (class 4-8) with new cleaner options and funds light duty charging infrastructure
- Projects must be completed by October 2027

Light Duty Charging Infrastructure (approx. \$11.3 million)

- [Proposals accepted through March 5th](#)
- Three funding rounds
- Focus on workplace charging, state owned properties and corridor/Hub location

Heavy –Duty Vehicle Replacement Program (approx. \$64 million)

- Proposals were due to MDE by May 6th, 2019; MDE received approx. 44 proposals
- MDE completed its review of proposals and is in process of finalizing funding and contracts



Maryland Energy Administration

- Maryland Clean Cities Coalition
 - Part of [US DOE Clean Cities program](#) to reduce reliance on foreign petroleum in transportation
 - National network, expertise and resources available
- Maryland Smart Energy Communities [\(MSEC\) Program](#)
 - Local governments can receive project funding in exchange for adopting sustainability policies (EE/RE/TR)
 - Light-duty EVs and fleet charging infrastructure
 - Less than 200 miles of all electric range: 100% of vehicle incremental cost up to \$3,750/vehicle
 - 200 miles +: 100% up to \$7,500/vehicle
 - 60% (charger + install) up to \$6,000/charger
 - Applications due 11/13/2020



MEA – Clean Fuels Incentive Program

Clean Fuels Incentive Program (CFIP)

- 2 AOI: public infrastructure (DCFC/hydrogen) and fleet vehicles (PHEV/BEV/FCEV)
- Reporting requirement (vehicles- 3 years, infrastructure- 5 years)
- Applications due 12/15/2020

Alternative Fuel Type	Vehicle Class	AER (for EV's only)	% of Incremental Cost Eligible for Grant Request	Maximum Grant Award (per new vehicle)
Electric (PHEV/BEV)	Class 3-8	0-99 miles	Up to 100%	\$25,000
		100+ miles	Up to 100%	\$50,000
Hydrogen (FCEV)	Class 1-2		Up to 100%	\$7,500
	Class 3-8		Up to 100%	\$50,000



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MEA – Additional Incentive Programs

Electric Vehicle Supply Equipment [\(EVSE\) Rebate Program](#)

- First-come, first-served. Application submitted in arrears, no pre-approval.
- All charger deployments eligible, but geared at non-fleet L2 (workplace and/or publicly available chargers)
- Fall back option for fleet L2 (in case MSEC funding isn't secured)
- 40% up to \$4,000/charger

Clean Fuels Technical Assistance (CFTA) Program

- Not a grant program- local governments can receive TA to develop fleet electrification strategies
- First-come, first-served pilot/test-of-concept
- Anticipate 4-8 projects



Maryland Department of Transportation

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC)

- Created in 2011 Through Legislation
- Meets every other month
- Working Groups meet in off-months
- Annual Report Due in December
- [GIS StoryMap](#) Illustrating Goals & Progress



MARYLAND
ZERO EMISSION
Electric Vehicle Infrastructure Council



Maximize the use of grant and alternative funding opportunities for EV / EVSE in MD.



Develop an approach to address the Right to Charge and EV Parking / Anti-Icing.



Ensure EV readiness through strategic infrastructure planning that focuses on corridors, workplaces, and communities.



Continue education and outreach coordination with a focus on diversity and equity.



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Received 2019 Visionary Award Greater Washington Region Clean Cities Coalition (GWRCCC)

Communication

Table 4: 2019 Public Outreach

Date	Outreach Event	Individuals/ Touchpoints	Outreach Languages
07/20/2019	World Heritage Festival	141	English
08/05/2019	Festival Latino de Maryland	251	English, Spanish
08/11/2019	Latin Heritage Festival	754	English, Spanish
09/07/2019	Caribbean Food and Wine Festival	351	English
09/15/2019	Hagerstown Hispanic 13 th Annual Festival	375	English, Spanish
09/21/2019	42 nd Annual Korean Festival	1,027	English, Korean
10/20/2019	Howard County Diwali Festival	201	English



Statewide
25 Events
7,370
Touchpoints

2020
1 Event
655
Touchpoints



MDOT – #MarylandEV



Resources

- MDE VW Information: mde.vw@maryland.gov
- Maryland EV: <https://marylandev.org/>
- ZERO Emission Electric Vehicle Council (ZEEVIC):
• [http://www.mdot.maryland.gov/newMDOT/Planning/Electric_Vehicle/About the Council.html](http://www.mdot.maryland.gov/newMDOT/Planning/Electric_Vehicle/About_the_Council.html)
- MDE EV Incentives:
• https://mde.maryland.gov/MarylandGreen/Documents/EV_dealershipflyer_online.pdf
- US DOE Alternative Fuels Data Center: <https://afdc.energy.gov/>



State Agency Contact Information



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Thank You.



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Residential Electric Vehicles (EV) Charging Permitting Guidelines

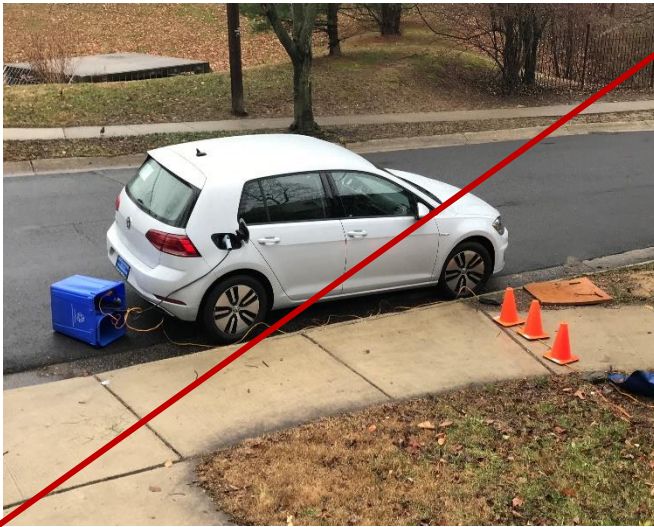
Montgomery County
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Department of Permitting Services



New County Residential EV Charging Policy Objectives

County policy priority:

- Present options for **SAFE** home charging – Montgomery County's commitment to Vision Zero



New County Residential EV Charging Policy Objectives

New County policy:

- Provides for convenient, economical refuel of EVs
 - Ensures Right-of-Way serves the general Public
 - Focuses on single family or duplex property owners
 - Allows for residential EV charging within private property or curbside
 - Maintains parking availability and restrictions
- ❖ Curbside EV charging applies only when charging is not possible and cannot be accommodated within private property



New County Residential EV Charging Policy Objectives

To address these needs, Montgomery County:

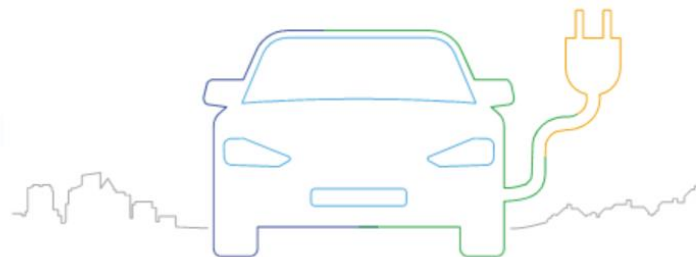
- Started the implementation of a two-year EV Charging Station Pilot Program on September 2, 2020.
- Once this evaluation period has expired, and depending on the success of the program, DPS will either adopt the policy or deem it no longer valid.
- If not adopted, any equipment installed in the public right of way must be removed and the right of way restored to its original condition at the property owner's expense.
- These Guidelines can be found at:

https://www.montgomerycountymd.gov/DPS/Resources/Files/RCI/EV_Charging_Guidelines.pdf

PILOT PROGRAM

Residential Electric Vehicles (EV) Charging Permitting Guidelines

An EV Charging Station Pilot Program will be implemented for a two-year period starting September 2, 2020. Once this evaluation period has expired, and depending on the success of the program, DPS will either adopt the policy or deem it no longer valid. If not adopted, any equipment installed in the public right of way must be removed and the right of way restored to its original condition at the property owner's expense.



MONTGOMERY COUNTY



Montgomery County
Department of Transportation



Montgomery County
Department of Permitting Services

SEPTEMBER 2020

New County Residential EV Charging Policy

How to apply for permit:

1. Submit letter of interest and site plan with proposed charging station location to DPS
2. DPS will review application and advise:
 - Review application to determine if charging within private property is possible
 - Provide direction to construct driveway or parking pad for charging station and parking space within private property, if possible
 - Provide direction to install curbside charging station in front of property within Right-of-Way, or,
 - Deny application if charging within Right-of-Way is not possible due to space availability and/or safety concerns



New County Residential EV Charging Policy

How to apply for permit:

Once DPS evaluates application and determines an EV charging station can be safely installed in the applicant's property, 1 of 3 options will apply:

- **Option A:** install EV charging station in existing driveway, garage or parking pad
- **Option B:** install EV charging station in new curb cut (driveway or parking pad) within private property
- **Option C:** install EV charging station within public Right-of-Way while parking electric car in public street



New County Residential EV Charging Policy

Safe Operation

- Operate in compliance with permits
- For curbside charging, be safe – minimize potential for hazards (retractable cord, enclosure, locked charging station, turn power off when not in use)
- Permit can be revoked if unsafe; repairs to restore Right-of-Way at Owner's cost
- Permit can be revoked if creating parking issues with neighbors; repairs to restore Right-of-Way at Owner's cost

Responsibilities

- Share information about your project with neighbors and request feedback
- Owner will pay all costs to purchase, install, use and maintain EV charging station and enclosure
- Maintain station in good and safe condition
- Owners do not have parking exclusive rights, privileges or priority



New County Residential EV Charging Policy

Permitting Cost -by Owner

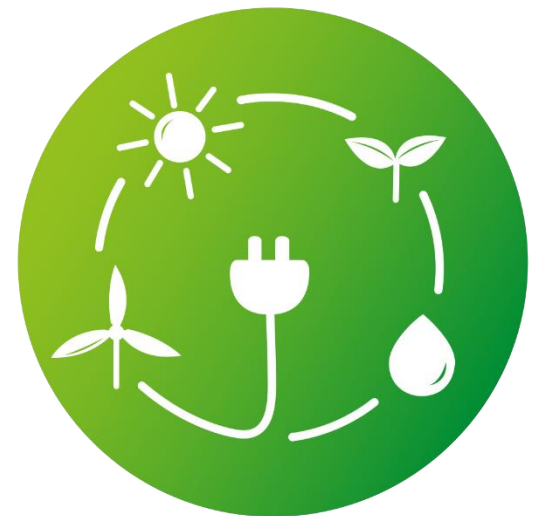
- Electrical Permit: \$150 - \$300 (depending on Amps needed)
- Right of Way Permit: \$235
- ❖ Permit fees include permit application evaluation, review, approval and inspection services



New County Residential EV Charging Policy

Summary of Next Steps

- We are in month 4 of the 2-year implementation period of the EV Charging Station Pilot Program; so far:
 - 2 approved permit applications
 - 2 denied applications for installation in the ROW; recommended installation within private property
- Modifying and adapting the program as we obtain feedback from our residents
- Permanent program implementation by September, 2022
- Looking forward to a successful implementation!





Questions?

Montgomery County



New County Residential EV Charging Policy

Permitting requirements **Option A:**

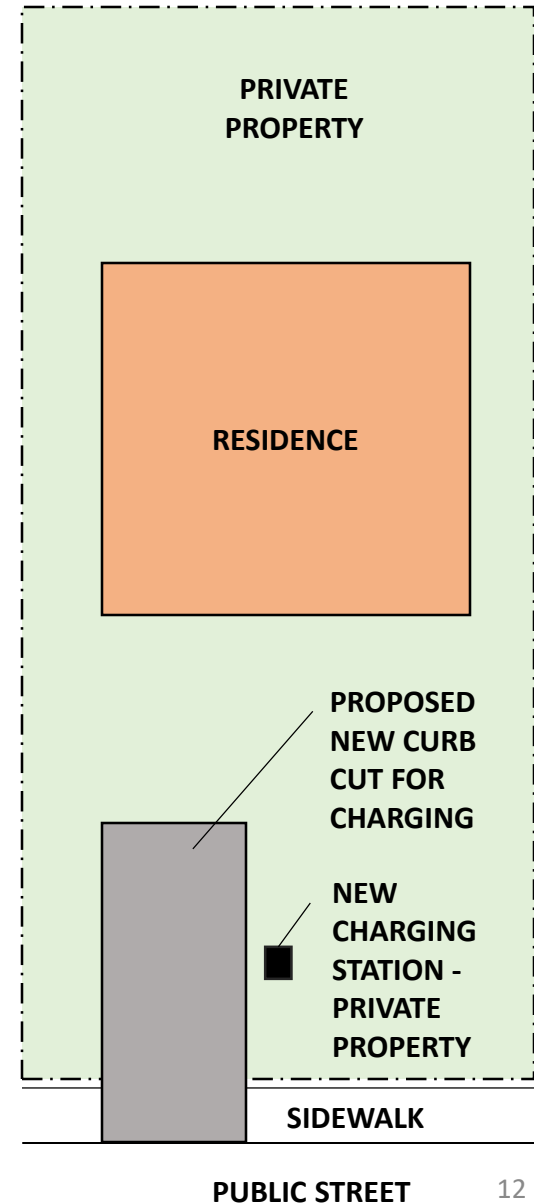
- If existing driveway, garage or parking pad, permit application within private property requires an electrical permit through a licensed electrician:
 - Electrical Permit application and fee
 - Site plan with property lines, charging station location, conduit routing and meter location
 - Single line electrical diagram from meter to charging station
 - Charging station manufacturer's specifications and installation guidelines including approved product listing agency
 - Existing panel rating, proposed charging load and calculations for systems over 220 volts and/or 40 amps



New County Residential EV Charging Policy

Permitting requirements **Option B:**

- Constructing a new curb cut (driveway or parking pad) within private property
- Adequate space within private property
- Deed restricted use – only while charging EV
- Permit is not required for driveway or parking pad
- Right-of-way permit for access to property is required
- Electrical permit for charging station is required
- DPS will perform zoning review and confirm curb cut location in compliance with all codes and standards



New County Residential EV Charging Policy

Permitting requirements **Option B:**

Right of Way Permit (ROW)

1. Right-of-Way Permit Application and Filing Fee
2. Site plan:
 - a. Dimensioned drawings with property lines, lot dimensions, building footprints, walkways, existing above ground and underground utility infrastructure and underground laterals, sidewalks, curbs, and features in the planting strip (if any)
 - b. Proposed location of curb cut, driveway approach, vehicle-related paving, and landscaping screening strip, dimensioned and called out with shading, hatching, or other methods
 - c. Photographs of existing conditions are encouraged
 - d. Declaration of Covenants on Use of Vehicle-Related Paving

Electrical Permit

1. Electrical Permit application and fee
2. Site plan with property lines, charging station location, conduit routing and meter location
3. Single line electrical diagram from meter to charging station
4. Charging station manufacturer's specifications and installation guidelines including approved product listing agency
5. Existing panel rating, proposed charging load and calculations for systems over 220 volts and/or 40 amps

New County Residential EV Charging Policy

Permitting requirements **Option C:**

- Charging within public Right-of-Way; no driveway no access to side/rear yard; no room on private property for charging:
 - Level 1 (120volt) or Level 2 (240 volt) charging stations
 - Meet Electrical Code
 - EV charging station permanently connected and fastened in place with no exposed live parts
 - EV charging station listed by approved product listing agency
 - EV charging station rated for outdoor use
 - EV charging station installed per manufacturer's specifications and County's right-of-way permit conditions

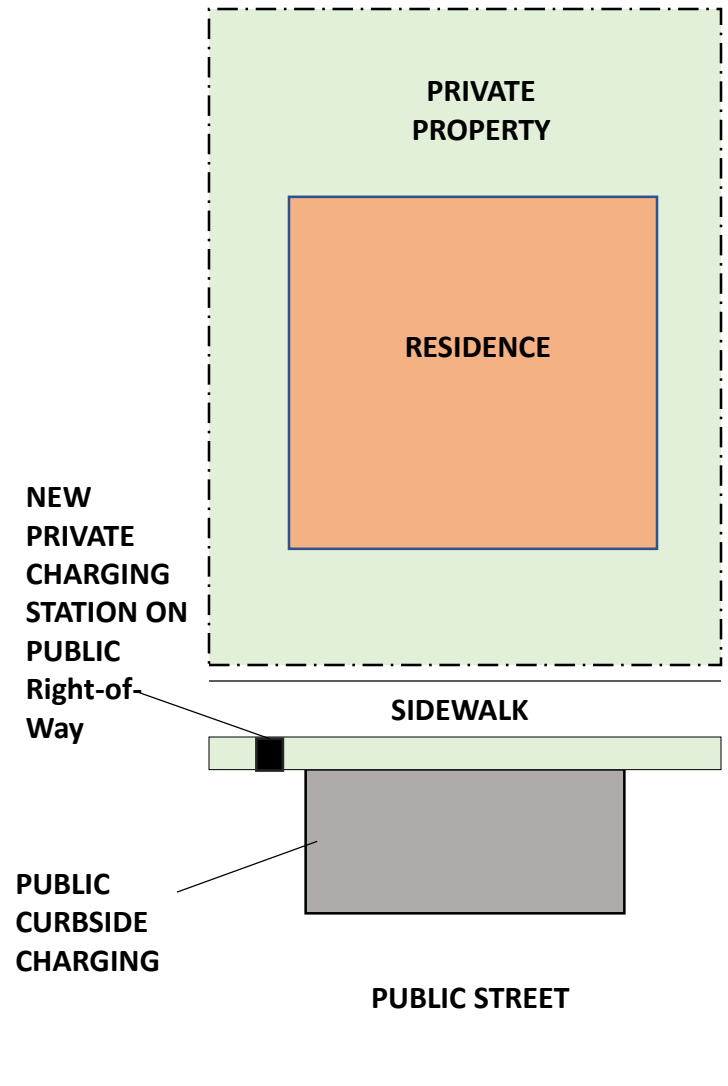


New County Residential EV Charging Policy

Permitting requirements **Option C:**

▪ Design and placement

- Space to comply with existing parking restrictions
- Avoid conflicts with utility infrastructure
- Installation shall be at least 6 feet from fire hydrants
- Avoid interference with vehicular sight lines at street corners or driveways
- Minimize removal of vegetation
- Maximize number of parking spaces the EV charging station could serve
- EV charging station cords must not cross over sidewalks, walkways, or driveways, rather, station cords shall be automatically retractable
- Installation shall be at least 18 inches from the face of the curb (in the planting strip if one is present)
- Preserve as much clear sidewalk width as possible, no less than 3 feet
- Position EV charging station such that the stored connector is at a height of 24 inches to 48 inches above the parking surface (Electrical Code, Article 625.30(B))
- Install enclosure or cage around EV charging station to protect and control use; if charging station is not fully enclosed, cord and connector must be secured when not in use
- Orient EV charging station such that an enclosure door will not open past the curb face or over the sidewalk
- Minimize size of enclosure around a charging station or cord - colors and materials should minimize their visibility and integrate with surrounding buildings and landscaping
- No advertising is permitted on the charging station or associated enclosure



New County Residential EV Charging Policy

Permitting requirements **Option C:**

Right of Way Permit (ROW)

1. Right-of-Way Permit Application and Filing Fee
2. Site plan showing proposed EV charging station location:
 - a. Dimensioned drawings with property lines, lot dimensions, building footprints, walkways, existing above ground and underground utility infrastructure and underground laterals, sidewalks, curbs, and features in the planting strip (if any)
 - b. Declaration of Covenants on Use of Vehicle-Related Paving

Electrical Permit

1. Electrical Permit application and fee
2. Site plan with property lines, charging station location, conduit routing and meter location
3. Single line electrical diagram from meter to charging station
4. Charging station manufacturer's specifications and installation guidelines including approved product listing agency
5. Existing panel rating, proposed charging load and calculations for systems over 220 volts and/or 40 amps

New County Residential EV Charging Policy

Permitting requirements **Option C:**

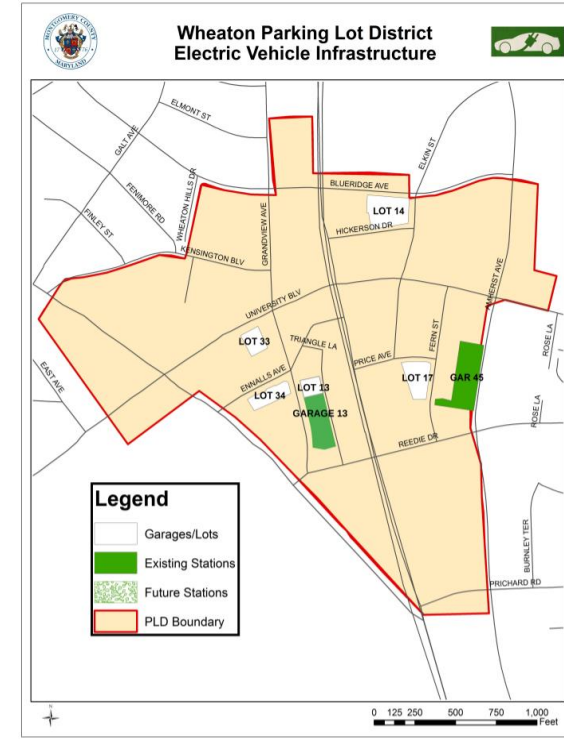
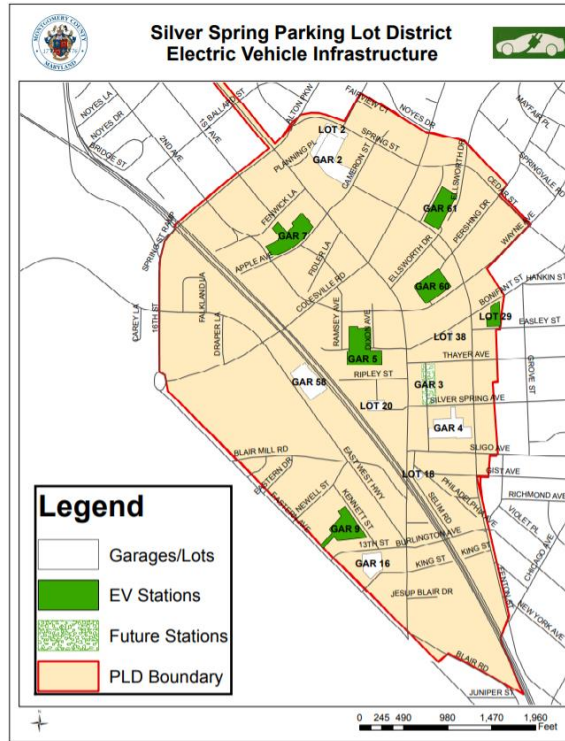
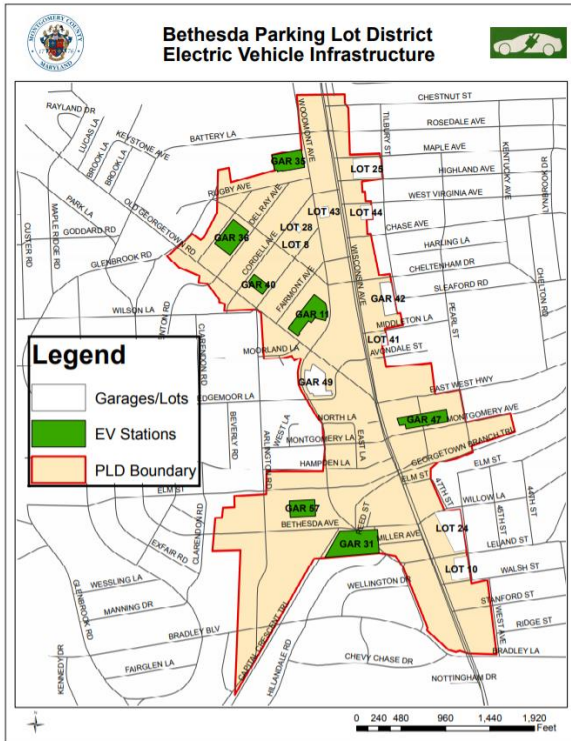
- Installation:

- Once permits approved, proceed with installation
- County Building and Safety staff will inspect the connection
- A Right-of-Way inspector will inspect construction in public Right-of-Way

❖ You are now ready to charge!

EV Charging Stations Overview

Locations



- 20 dual-port stations in 15 parking facilities
- ChargePoint network
- Level 2 chargers
- Expansion Plans

EV Charging Stations Overview

Design and Operations

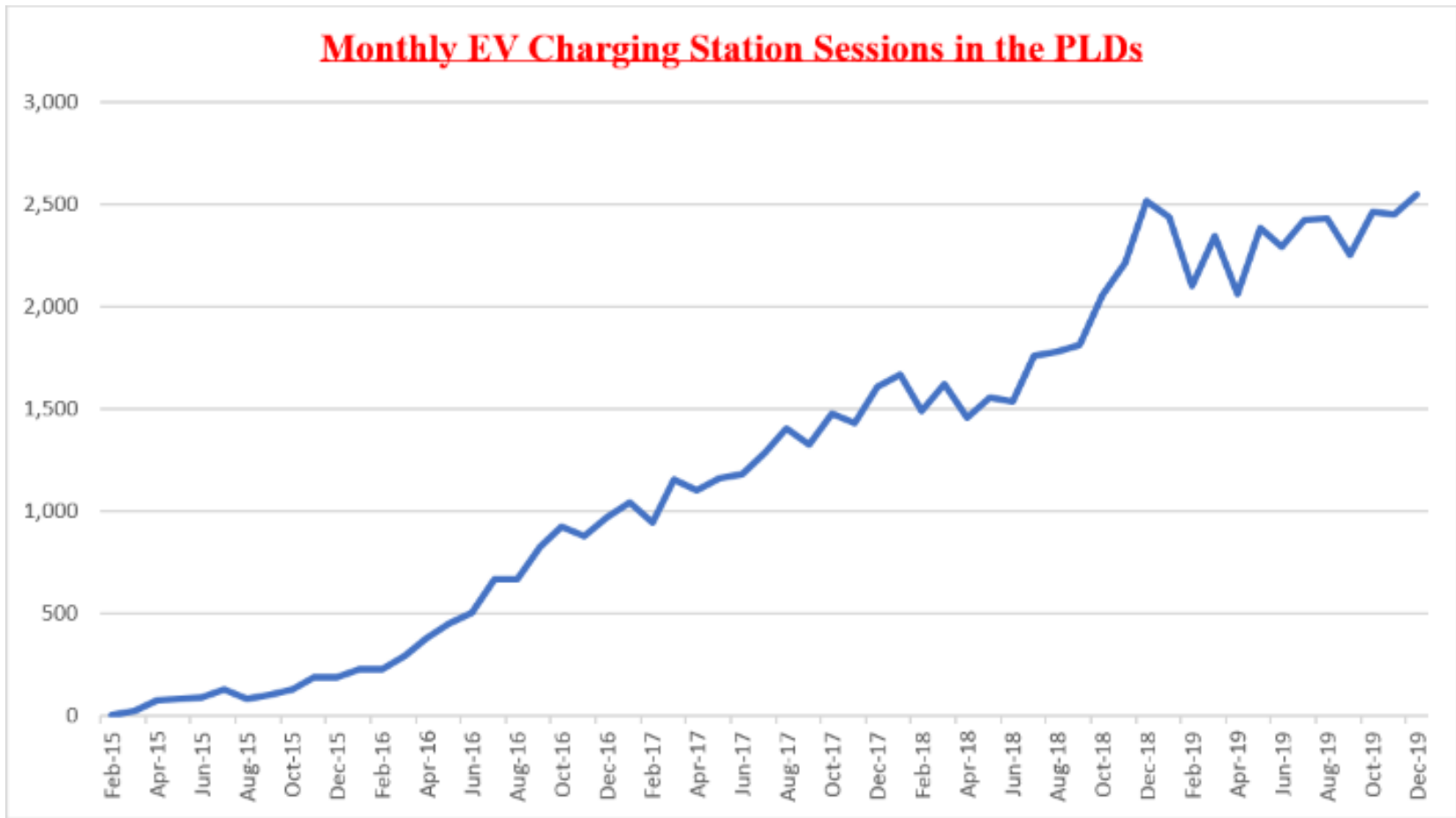


- ADA compatibility
- 4-hour durations
- Regulatory signage
- Hourly parking rate + \$0.13/kWh for electricity

EV Charging Stations Overview

Performance

Monthly EV Charging Station Sessions in the PLDs





ROCKVILLE ENVIRONMENT COMMISSION MISSION

To recommend policies and programs to the Mayor and Council and City staff relating to the environment and sustainability.

To promote a sustainable community through initiatives relating to pollution prevention, among others.

CLARK REED, CHAIR

Rockville Solar Co-op

Largest Solar Co-op in Maryland in 2015/16



- 2015: 300 sign ups, 63 installations, 16% of total residential installations, \$1.2 million invested
- 2016: 200+ sign ups, 88 installations, 15% of total residential installations
- 2017: Merged with MoCo Solar Co-op, allowing an additional 207 Rockville installations through 2018

COMMISSION WANTED TO RE-ENGAGE CO-OP MEMBERS IN 2019

RESEARCHED AND PITCHED A
PROPOSAL TO THE CITY TO
ESTABLISH AN EV BUYERS CO-OP

Rockville Electric Vehicle (EV) Buyers Co-op

A proposal to increase the number of EVs in Rockville in 2019



Clark Reed, Chair, Energy Committee
Rockville Environment Commission
December 20, 2018

BOULDER COUNTY LAUNCHED 1ST EV CO-OP

Group Discount + State/Federal Tax Credits = 62% discount off retail price

\$12,130 for new 2015 Nissan Leaf

248 Nissan Leaf sales in 4 months!
4x monthly average sales

BOULDER COUNTY INVESTMENT

Boulder County invested only **\$7,000 in staff time** and advertising costs, but leveraged its dollars by a factor of 750.

Boulder County reported a total of only **165 hours of staff time** used for this effort.

ROLES & RESPONSIBILITIES

Primary model: A lead agency, such as a local government or nonprofit, designs an RFP and distributes the document to local car dealerships and national auto-manufacturers. Co-op members chose between competing discounts.

Derivations of this model: Local government negotiate with dealerships directly to save costs or offered rolling discounts updated on a monthly basis, if dealerships were only able to guarantee pricing month-to-month.

Recruitment: The lead agency works with other allies to recruit members into the co-op through community based outreach activities involving environmental and civic groups, articles in community papers, television, and special events.

PRINCIPLES OF SUCCESS



LEAD AGENCY:

- LOCAL GOV'T/NONPROFITS ARE MOST TRUSTED SOURCES OF UNBIASED INFORMATION

GO BIG OR GO SMALL?

- SMALL GROUPS GIVE PEOPLE SHARED IDENTITY, ABILITY TO LEARN DEEPER, AND GREATER CONTROL WHICH LEADS TO LIKELIER PURCHASE

PURCHASE DEADLINE OR ROLLING?

- CO-OP DEADLINE PROVIDES PUSH TO GET PEOPLE TO COMMIT

ENGAGEMENT

- COMMUNITY BASED SOCIAL MARKETING BROADENS POTENTIAL POOL OF MEMBERS AND IS MORE EFFECTIVE THAN TRADITIONAL FORMS OF OUTREACH.