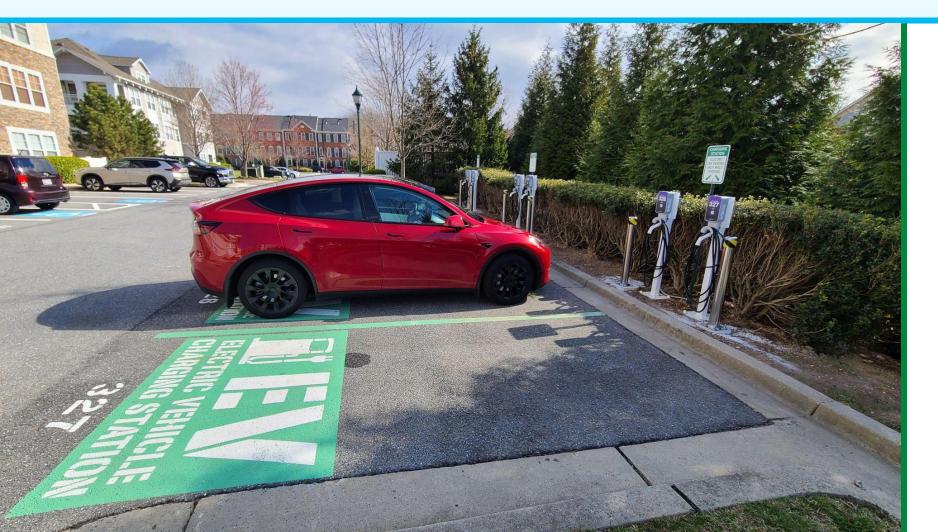


HOSTED BY
HONORABLE ANDREW FRIEDSON
COUNCILMAN
MONTGOMERY COUNTY
COUNCIL







Facilitator
Housekeeping Protocols
Mark Fine,
Panel Chair and ex-officio
Chairman, CCOC



"Serving the citizens of Montgomery County residing in Common Ownership Communities since 1991"





#### **SPONSORED BY**







Montgomery County
Department of Housing and
Community Affairs



Montgomery County
Commission on Common Ownership
Communities







### **CCOC LEGAL DISCLAIMER**

The information in this presentation is not to be construed as legal, accounting or other professional advice. The specific facts of a given situation or subsequent changes in the law may dictate a course of conduct other than as described herein. If specific legal advice or other professional or expert assistance is required, WE ENCOURAGE YOU TO SEEK the services of a competent professional.

#### **SPONSORED BY**







Montgomery County
Department of Housing and
Community Affairs



Montgomery County
Commission on Common Ownership
Communities







The seminar is sponsored by the Montgomery County Commission on Common Ownership Communities (CCOC).

No portion of this presentation may be reproduced or transmitted in any form or by any means, including photocopying, recording, or by information storage and retrieval systems, without the express, written permission of the CCOC.

Every effort has been made to ensure the accuracy of material contained in this presentation. However, the CCOC and its presenters assume no responsibility for any misinformation or any claims for damages arising from the use or misuse of information presented herein. Changes may be made periodically to the information herein.

#### **SPONSORED BY**







Montgomery County
Department of Housing and
Community Affairs

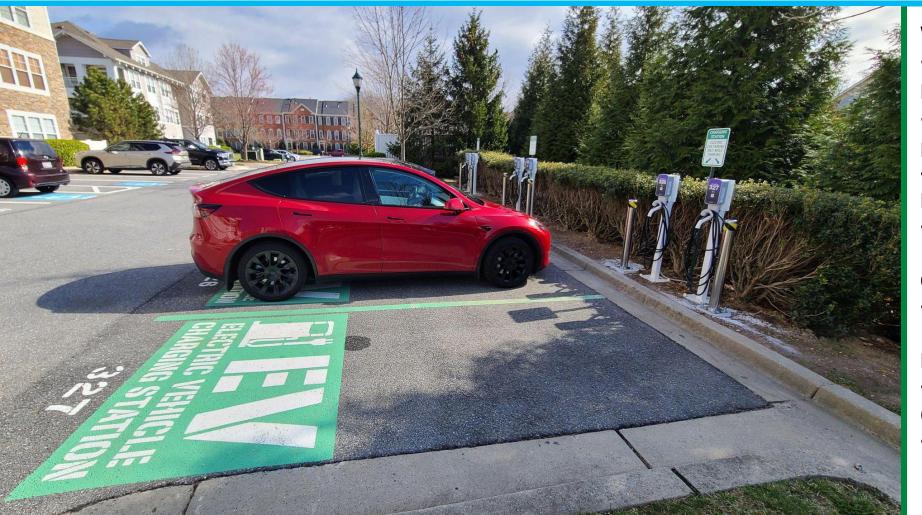


Montgomery County
Commission on Common Ownership
Communities









#### **Welcome and Introductions**

Honorable Andrew Friedson

#### **EV Charging Overview**

Brian Booher, MC DEP

#### **Permitting & Codes**

Anthony Toussaint, MC DPS

#### **PEPCO's Perspective**

 Lori Van Hoy Dan O'Connor Pepco EVSmart program

#### **Clarksburg Case Study**

 Robert Borkowski, Association President, Clarksburg Condo II

#### **Project Financing**

- Rokas Beresniovas, MCGreen Bank Questions and Answers
- Panelist and CCOC Commissioners









# **EV Charging Overview**



**Presenter:** Brian Booher, Senior Planning Special – Zero Emissions Vehicles

**Audience:** Condo boards, HOAs, management companies, and residents of

common ownership communities

**Purpose:** Provide information for communities to confidently

install EV charging and address key questions

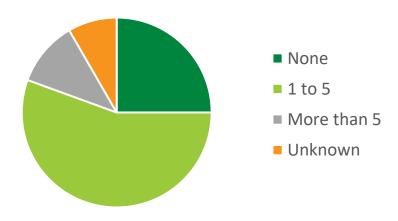
This webinar will help you understand:

- Types of EV charging and what is right for your community
- Process for planning and executing a project
- Ways to engage your residents and management
- Project costs and incentives
- How to manage charger use and parking

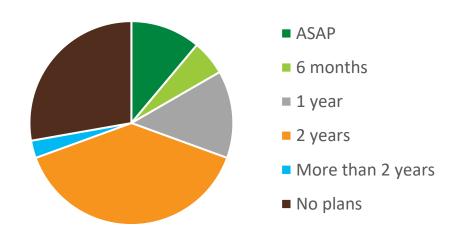
# Survey Responses



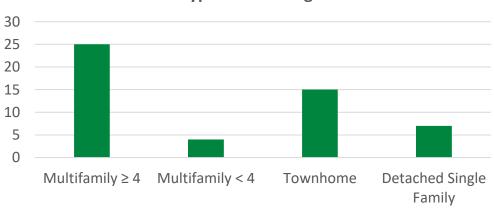
#### **How Many EV Drivers in Your Community?**



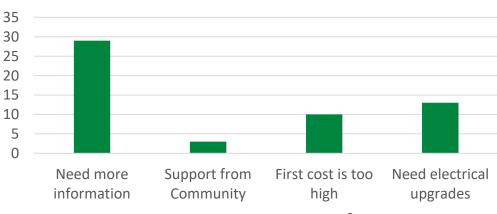
#### **How Soon Would You Like to Install Charging?**



#### **Types of Buildings**



#### **Barrier to Installation**



# Why Electric Vehicles?





Zero tailpipe pollution and 50% lower lifecycle GHG emissions





Lower cost of ownership and incentives





Instant acceleration, smooth driving, and modern features





Convenient charging at <a href="https://example.com/home">home</a>

## EVs are coming, fast

- Plug-in vehicle registrations in Montgomery County up 60% in 2 years
- 9% of new vehicles in the county are fully battery electric or plug-in hybrid
- Demand is outpacing supply, expect faster growth over next few years

# EV Charging 101



There are three types of **Electric Vehicle Supply Equipment (EVSE)** that vary by charging speed as well as power requirements and installation cost

#### Level 1

- Plug-in standard 120V outlet, 15-20 amps
- ~5 miles per hour
- Meets needs if you drive 30-40 miles daily
- "Smart" outlets manage payment and access

#### Level 2

- 220-240V and 30-50 amps (hardwire or plug)
- Used for home and commercial charging
- ~25 miles per hour
- "Networked" equipment manages payment and access

#### Level 3 (DC Fast Charging)

- 480V 3-phase AC input and range in power output, 50-150+ kW
- Public charging locations with high usage
- Fully charge in 30 minutes or less, but more \$\$
- Frequent fast charging is <u>not</u> recommended for battery maintenance

# 6 Keys for COCs



- 1. Every property is different projects need to be customized
- 2. Develop a proactive plan and guidelines
- 3. Engage your community to understand needs and secure support
- 4. Apply for a commercial permit and follow all regulations to ensure safety
- 5. Plan for ongoing management and maintenance
- 6. Use technical and financial assistance from the County, your utility, and the Green Bank

# Typical Project Steps





- 1. Identify community needs and concerns
- 2. Consult experts
- a. Electrical engineer
- b. Utility program
- c. Property manager and HOA regulations
- 3. Select site and level of charging

- 4. Choose equipment and service plan
- 5. Get project quotes and select contractor
- 6. Get approval from HOA board
- 7. Develop design documents
- 8. Apply for a permit

9. Construction

10. DPS Inspection

11. Apply for rebates and financing

12. Final commissioning

13. Educate residents



# Community Engagement

DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY · MARYLAND

1. Anticipate objections



2. Survey your community



4. Advocate and educate



# Shared vs. Private Charging



	Shared Chargers	Private Chargers
PROS	<ul> <li>Install fewer chargers</li> <li>Shorter "payback period"</li> <li>Manage access and charge for usage</li> </ul>	<ul> <li>Exclusive access</li> <li>No competition with general parking</li> <li>Increases the value of the unit/parking space</li> </ul>
CONS	<ul> <li>More persuasion and HOA vote</li> <li>No on-demand availability for all</li> <li>Networked chargers add cost</li> <li>Need to enforce restrictions</li> </ul>	<ul> <li>Higher install cost per charger</li> <li>No backup if charger/circuit stops working</li> <li>Early adopters use spare electrical capacity</li> </ul>

Source: VCI-MUD.org

# Location and Future Planning





#### Where to install?

- Depends on type of parking
- Convenience vs. competing needs
- Distance to electrical service

## How many chargers to install?

- Constrained by available capacity for the property and subpanel
- Each Level 2 charger can serve up to 3 vehicles
- 10% of vehicles may be electric in 5 years
- "Make ready" electrical work can reduce future costs

# **Up-front Project Costs**



Typical Costs (Actual Will Vary)			
Smart Level 1 outlet	\$500		
Level 2 station	\$1000-\$3,000		
Standard installation	\$3,000 per charger		
Panel upgrade	\$4,000		
Trenching	\$100 per foot		
Main service upgrade	\$15,000+		

High: \$10,000+ per charger

New 200-amp panel

- Upgrade to main electrical service
- Trenching long distances

Very Low: up to \$1,000 per charger

> Existing dedicated 120V circuit

Smart Level 1 outlet

Low: \$2,000-5,000 per charger

Level 2 Networked

New 220V circuit

New 120V circuit

Level 2 Non-Networked Existing 220V circuit close to location

# Incentives and Financing







- \$10,000 or more per charger when combining state and utility rebates
- Low-cost financing can provide a bridge until rebate arrives
- Programs can help you select eligible equipment and find contractors







# Charging Experience and Management





## **Recurring Costs**

- Network fees
- Maintenance plan
- Utility rates and demand charges

## Maintenance

- Charging cords
- Connection issues
- Cleaning
- Tripped circuit

# **Managing Access**



- Parking signage and restrictions
- Registered users
- Charging for usage
- Reservations

# Permits & EV Charging Codes

**Electrical Manager: Anthony Toussaint** 

Sustainability, Energy, and Mechanical Manager: Bryan Bomer





# **Commercial Permitting Process**



- Application
  - Fees
- Screening
  - What to submit: drawings and support documents
    - All submittals are required to be signed and sealed
- Review disciplines
  - Architectural-life safety: location of chargers in respect to pathways
  - Electrical: equipment specifications, line diagrams, load calculation
  - Structural: mounting
- Permit issuance
  - Building permit
  - Electrical permit: trade permit pulled by electrician
- Inspections
  - Rough inspection and final inspection

# Important Points to Consider

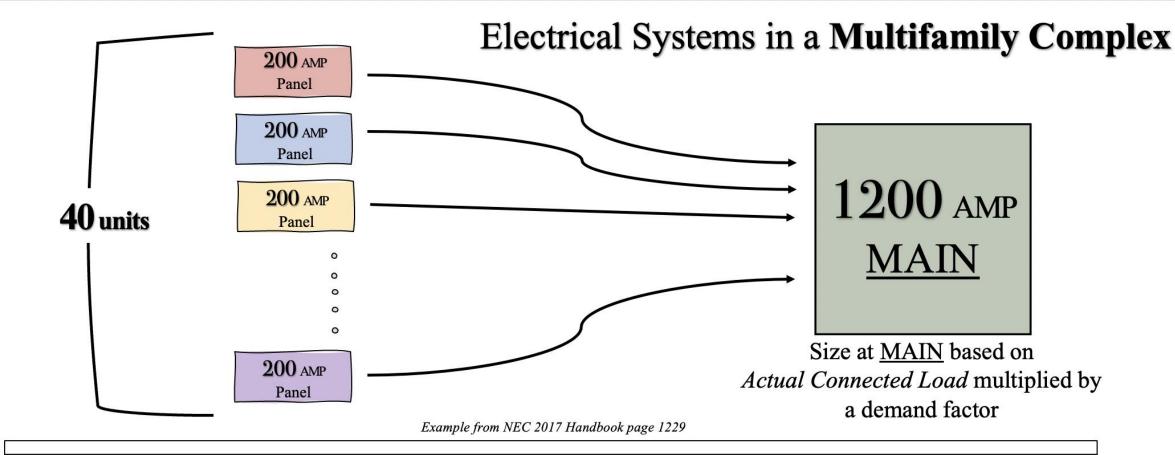


- Evaluation of existing system
  - Professional: licensed electrical engineer
    - DPS can not provide recommendations
    - DLLR agency manages database of licensed professionals
- Determine what the project wants
  - Now vs Future: Communication between COC and design team
    - Budget: this is not linear!
    - Charging power limitations
      - Total system power vs individual unit power

# Common Issues



- Total amperage of all chargers exceeds electrical system design maximum
- Structural changes needed to parking structures due to mounting
- Egress paths impacted by charging station locations and accessibility considerations of parking areas
- COC site and use permission responsibilities:
  - First come first served
    - Full evaluation of the electrical system is needed for each new request
  - Prioritization of parking spots
  - Cost impacts on property



$$=>40 \times 200 \text{ AMPs} = 8000 \text{ AMPs}$$
 X

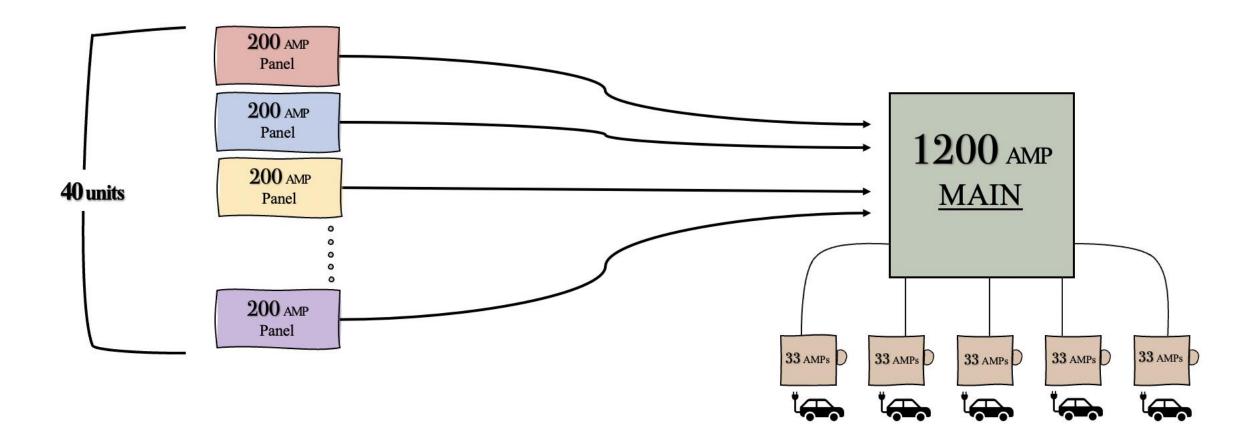
=> Actual Calculated Connected Load = 880,000 VA

Calculated **AMP**eres = 
$$\frac{880,000 \text{ VA}}{240 \text{ V}} = 3667 \text{ AMPs}$$

#### Optional Method per NEC

=> Demand Load = 880,000 x 0.28 = 
$$\frac{246,000 \text{ VA}}{240 \text{ V}}$$
  
= 1026 AMPs





Spare Capacity => 1200 AMPs – 1026 (Actual Calculated Load) => 174 AMPs (Spare Capacity)

Level 2 Charger approximate load = 33 AMPs

Number of Level 2 EV Chargers can then be installed without a service upgrade.

$$\Rightarrow \frac{174 \, AMPs}{33 \, AMPs} = 5.2$$

# **Questions?**



## Brian Booher

Senior Planning Specialist – Zero Emissions Vehicles Brian.Booher@MontgomeryCountyMD.gov 240-506-6075



# **Anthony Toussaint**

Manager of Commercial Electrical and Fire Inspectors
Anthony.Toussaint@MontgomeryCountyMD.gov
240-777-6204



# EV Charging PEPCO's Perspective

**Presenter:** Lori Van Hoy / Dan O'Connor, PEPCO EVSmart Program



September 06, 2022

# Pepco's Perspective: EV Charging for Condos, Co-Ops & Townhomes

Smart Grid Electric Vehicle Programs | Lori Van Hoy and Dan O'Connor

# Agenda

The EVsmart Multifamily Property Rebate Program

Eligibility

How Can I Participate? Two Ways. What Pepco Does Not Assist With Status of MDU EVsmart Rebate Program

Questions

Rebate Recipients

# The EVsmart Multifamily Property Rebate Program

In 2019 the Public Service Commission (PSC) of Maryland approved a statewide electric vehicle charging pilot program. In accordance with the PSC's original and modified orders, Pepco offers a variety of incentive programs that give customers rebates, tools and information to charge faster, smarter, and more conveniently than ever before.

Visit the Pepco EVsmart homepage for an overview of our current offerings at <a href="https://www.pepco.com/SmartEnergy/InnovationTechnology/Pages/ElectricVehicleProgramMD.aspx">https://www.pepco.com/SmartEnergy/InnovationTechnology/Pages/MultifamilyPropert ylncentive.aspx</a> to proceed directly to the Multifamily Property Rebate Program page.

#### **Multifamily Property Rebate Program**

- Pepco will rebate 100% of the cost of <u>eligible Level 2 charging equipment</u>, 50% of the network cost, and 100% of the installation up to \$15,000 per charging station (limit of 2 charging stations). There is a maximum of \$30,000 in rebates per available property.
- Multifamily Property (or Multi dwelling unit) is defined as a residential building with more than 3 units of housing contained within one building. Examples of multifamily properties are apartment buildings and condominiums.
- The Multifamily Property rebates are limited to 100 in the Pepco MD territory.

Eligibility
To be eligible to receive incentives through the EVsmart Program:

- You must be an active Pepco electric customer on Schedule GS, MGT LV II, MGT LV III, MGT 3A II, MGT 3A III, GT, and NEM
- You must be a multifamily unit as defined by the program
- Purchases and installations of eligible Level 2 charger must be after July 1, 2019
- You must provide the following materials to receive your rebate: completed rebate form, dated copy of sales receipt or invoice with EV charger model number(s), dated copy of installation invoice, and photo of installed chargers serial number(s), proof of licensed inspection
- The rebate application must be submitted within 30 days of successful installation if installed by your own electrician
- You will be required to give Pepco the charging data and the price (structure as well as cost) charges
- You must purchase a 5-year cloud plan which will be covered 50% by Pepco per port

# How Can I Participate? Two Ways.

Coordinate with Pepco to Install Your Charger

#### 1. Apply to Participate

Applications must be received and approved prior to charger purchase and installation.

Submit an application (per property location) to participate.

Once your application is received, Pepco will perform a Property Assessment to ensure eligibility for qualified multifamily properties (condominiums, apartments with garage parking) and property owners/HOAs. If you are approved, you will receive an estimate of the equipment and installation costs, after the rebate.

#### 2. Install

After you are approved to participate, Pepco will coordinate the purchase and installation of the eligible Level 2 charger.

Pepco will rebate 100% of the cost of eligible Level 2 charging equipment and installation - up to \$15,000 per charging station (limit of 2 charging stations).\* You are responsible to the remainder of the costs not covered from the rebate.

# **How Can I Participate? Two Ways.**

Install on Your Own and Apply for Your Rebate

#### 1. Purchase the Charging Station

Select and purchase a charging station from the list of <u>approved</u> chargers.

#### 2. Install

Obtain jurisdictional permits and have a certified master electrician perform your installation. Obtain your inspection and provide Pepco with a picture of the inspection.

#### 3. Apply for the Rebate

Within 30 days of your installation, submit the <u>rebate application</u> form and the following documents:

- 1. Proof of approved inspection from your local jurisdiction
- 2. Dated copy of charger sales receipt/invoice
- 3. Dated copy of installation invoice from your licensed electrician

#### 4. Receive Your Rebate

Your rebate will arrive by mail within 4-6 weeks once your application has been submitted, received, and approved.

# What Pepco Does Not Assist With

Pepco and the EVsmart team are here to help guide you through the process, reviewing, replying to, and processing customer inquiries and applications.

#### Pepco does not:

- Assist with coordination of HOA's to agree to getting an EV.
- Weigh in on property policies about how costs for the charger should be divided between residents.
- Influence decisions about transitioning from master meters to individual meters.
- Provide existing equipment upgrades under the EVsmart program offering.
- Provide managed charging software solutions.

# Status of MDU EVsmart Rebate Program

- The Program to date has installed or rebated 15 charging stations in Pepco for the multifamily residence program. An additional 16 locations are in various stages of the review and/or approval process.
- To provide additional flexibility in discussing the Multifamily program and assisting customers in the rebate process, Pepco is providing customers the option of submitting a Multifamily Rebate Reassignment Form. The rebate reassignment will allow approved MDU rebates to be paid directly to third parties instead of directly to their customers, making the MDU rebate application process more streamlined for customers working with third parties. A .pdf copy of the form is available from the EVsmart team as we work to include the offer online. Contact the EVsmart team at <a href="mailto:plugin@pepco.com">plugin@pepco.com</a>.
- Look for additional charging stations to be added to our online eligible L2 charging equipment list soon!

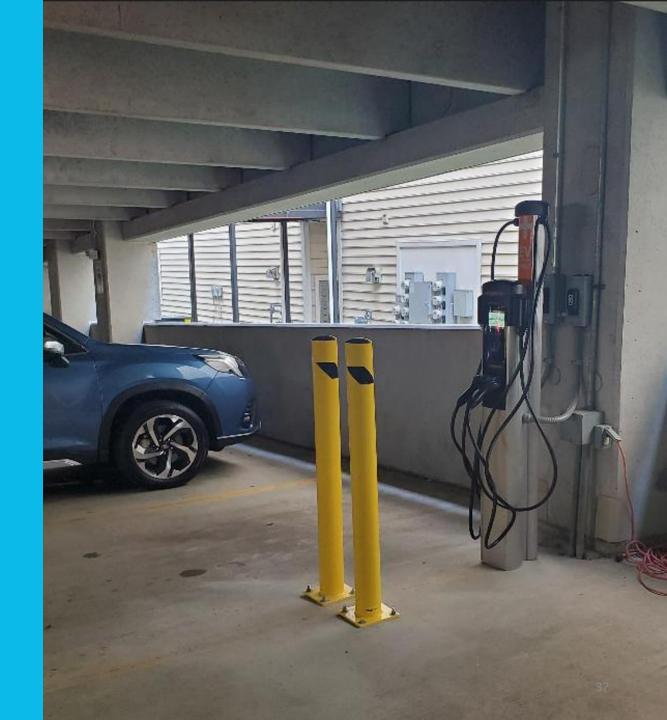
Whether you choose to coordinate with Pepco to install your charging station or install on your own and apply for the Rebate, we encourage early engagement with our EVsmart team! You DO NOT need to have the charging station installed and invoiced beforehand.

# Questions

- 1. Do I need to wait until the chargers are installed to involved Pepco? Do I need an invoice in hand to start the process? No, you do NOT need to have the chargers installed and invoiced beforehand. We encourage early engagement.
- 2. Are there incentives for single family properties? Yes, visit the Pepco EVsmart webpage at <a href="https://www.pepco.com/SmartEnergy/InnovationTechnology/Pages/ElectricVehicleProgramMD.aspx">https://www.pepco.com/SmartEnergy/InnovationTechnology/Pages/ElectricVehicleProgramMD.aspx</a> for current program offerings.
- 3. Are there special EV rates/tariffs for HOA properties? No.
- 4. How do demand charges work and what strategies are there to avoid or reduce demand charges? The distribution demand charge is based on maximum demand (kW) a building incurs (15 min intervals) over the course of a month (~\$3 \$4 / kW); the transmission demand charge (~\$1 / kW) is based on peak (12 8 pm) usage. Managed charging software could be leverage to reduce demand charges.
- 5. What if an electric upgrade is needed? Customers can work with the PHI New Business team. Electrical upgrades are completed at the cost of the customer. The New Business team can be reached here: <a href="https://www.pepco.com/MyAccount/MyService/Pages/ServiceRequests.aspx">https://www.pepco.com/MyAccount/MyService/Pages/ServiceRequests.aspx</a>.

# MDU Program Recipients In Montgomery County

- Pictured: King Farm located in Rockville, MD
- Other installations:
  - The Wisconsin in North Bethesda
  - Fountain Hills Condominium, Germantown
  - Parkside Condominium, Bethesda
  - Summer Village Condominium, Bethesda
  - Kenwood Forest Condominium, Chevy Chase
  - Fallswood Condominium, Rockville





# Thank you

**EVsmart Team** 

plugin@pepco.com



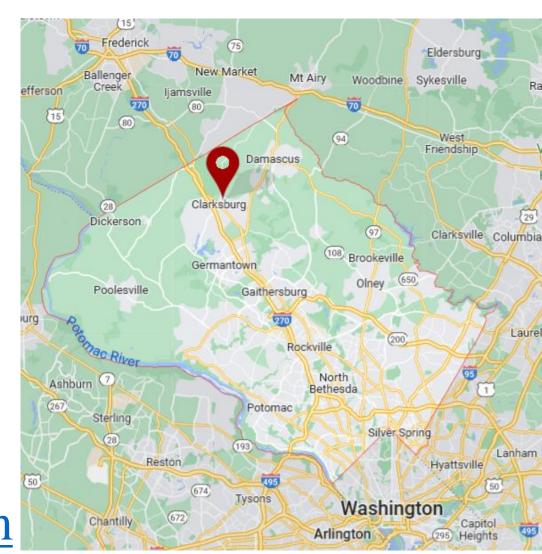
AN EXELON COMPANY

# Clarksburg Condominium II Case Study

**Presenter:** Robert Borkowski - Clarksburg Condominium II – President

# Clarksburg Condominium II

- 2 Buildings
- 40 Units
- 12 private garages
- Unassigned parking
- 47 Surface parking stalls
  - 6 EV Charging
  - 3 Handicap
- Presented by:
- Robert Borkowski
- Clarksburg Condominium II President
- www.ClarksburgCondo2.com



## • EVSE - Electric Vehicle Supply Equipment



- 120 VAC
- Level-1









- 240 VAC
- Level-2



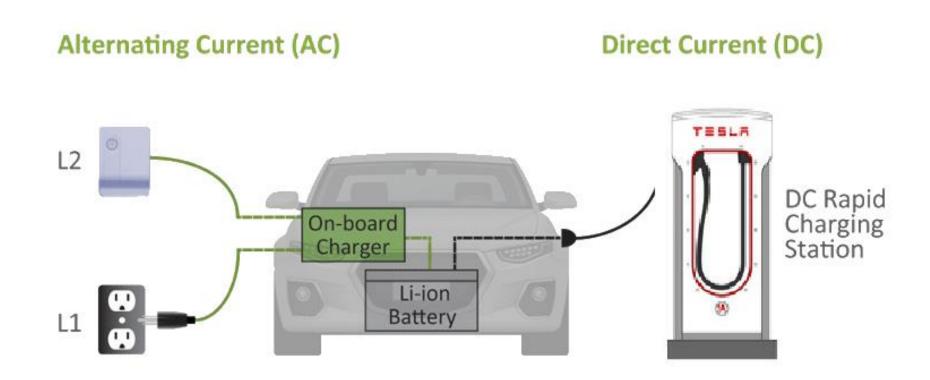






# EVSE is not an EV charger

• General public refers to Level-1 and Level-2 EVSE as a Charging Station



# EVSE = Electrical Receptacle





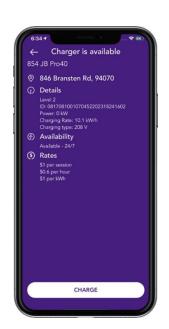




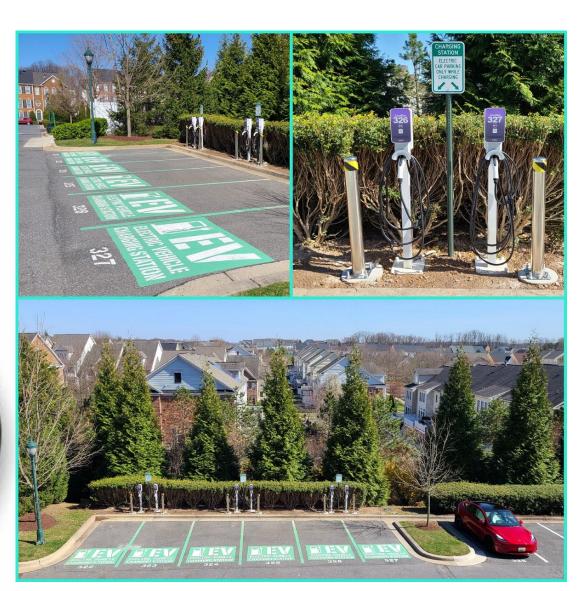
- Six Commercial EVSEs: JuiceBox Pro 40 amp
- Surface mounted metal stands
- Dedicated 3-phase 400 amp Commercial Service
- Capacity to install 11 additional 40 amp EVSEs
- Additional conduit in the ground for future EVSEs
- Comcast Business Internet, WiFi
- Painted EV Charging Stalls and installed EV signs

Six JuiceBox Pro 40 amp

• Pay per charge







- Surface mounted metal stands
- Safety bollards, EV signs.

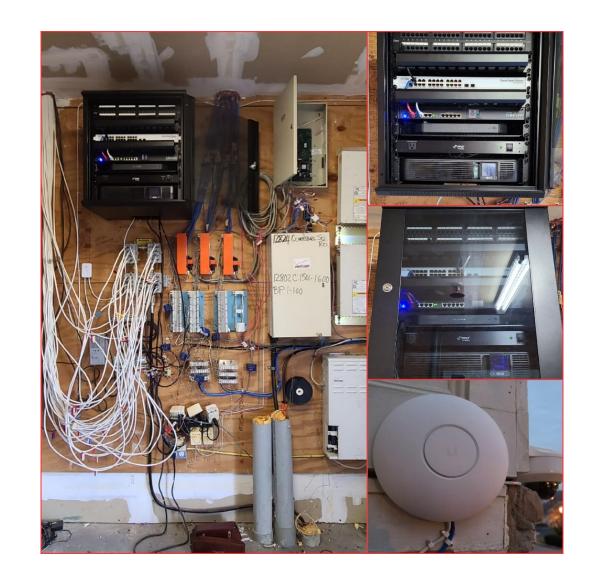


 Dedicated 3-phase 400 amp Commercial Service

- Capacity to install 11 additional 40 amp EVSEs
- Additional conduit in the ground for future EVSEs
- Installed ¾ inch crashed rocks pad for save and easy access.



- Comcast Business Internet
- WiFi

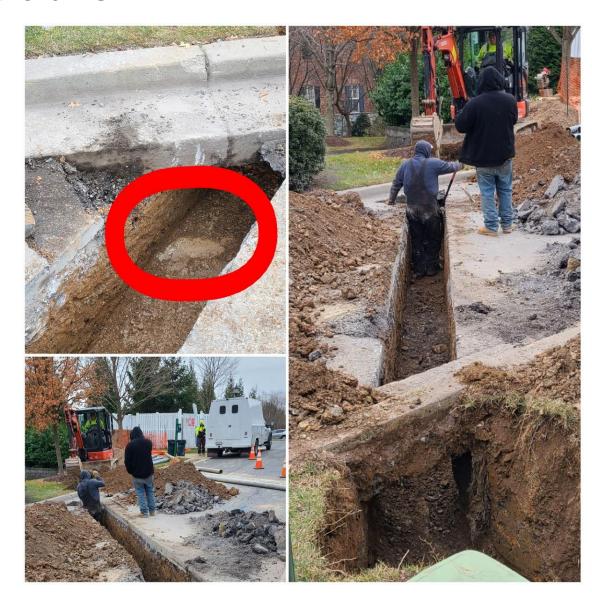


# Bylaws and expenditures

- The Board is under no obligation to install charging stations for electric vehicles ("EV"), but it could do so, subject to certain Bylaws requirements.
- While the Board has general authority to maintain and improve the common elements, there are certain limitations to its expenditure authority. Under Section 2.4.10 of the Bylaws, the Board is not authorized to take an "Extraordinary Action" without prior approval by an affirmative vote of unit owners representing at least 2/3 of the votes present and voting at a meeting of the full Council of Unit Owners at which a quorum is present. An "Extraordinary Action" is defined as any action that requires an expenditure in excess of \$15,000, or an amount equal to 15% of the total annual assessment budget, whichever is greater.

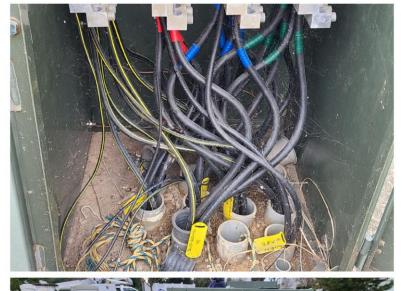
### Construction

- A directional drilling hit an obstacle.
- Plan B, trench across parking lot from a transformer to dedicated load center for EVSEs.
- Additional cost to repair parking lot surface.



### Construction

• 5 inch conduit between a transformer and a load center.







### Construction

 Dedicated 3-phase 400 amp Commercial Service for 6 EVSEs

• Capacity to add 11 more EVSEs.



### Cost and Incentives

- Total cost \$62,000
- MD Energy Administration EVSE Rebates \$24,000
- Potomac Edison EV Driven Rebates \$20,000

• Total Net Cost \$18,000 or \$3,000 per EVSE

• \$18,000 is equivalent to \$450 per condo unit.

# Cost to charge

- \*Residents rate
- \$0.20 per kWh
- \$0.01 per hr
- \$0.00 connection fee

• 8.3 kW = \$1.67/hr or 29 miles/hr

- Public rate
- \$0.30 per kWh
- \$0.05 per hr
- \$0.00 connection fee

• 8.3 kW = \$2.54/hr or 29 miles/hr

\* \$50 Registration fee

# Cost to operate

- EVSE subscription fee \$10 per plug per month
- Internet
- Electricity average \$/kWh depends on Peak Demand & electricity used
- Credit card processing fee
  - 2.99% + \$0.30 per successful card charge
    - ex. 100 miles needs 28.5 kWh, 3.5 hrs to charge

#### Residents rate

- \$5.74 cost to charge
- \$0.47 processing fee or 8.2%

- \$8.75 cost to charge
- \$0.56 processing fee or 6.4%

**Public rate** 

Impact of Condo's EVSEs

• Since 3/16/2022 until 9/5/2022

• 20,000 EV miles driven

• Offset 800 gallons or 15 barrels of gasoline!

• EVSEs utilized at 3% capacity or 43 minutes per day.

www.ClarksburgCondo2.com/evse.htm



# Design

#### **Technical design**

- 1) Dream big.
- 2) How may EV Charging stations would your property need if all cars were EVs?
  - a) 5-6 cars per charging station
- 1) Source of electricity. Do the nearby transformers have available 200-400 amp capacity?
- 2) Location closest to the transformer / existing load center.
- 3) Internet, WiFi or wireless bridges.

#### Financial / Legal

- 1) Consider financing the project to preserve cash reserves, Montgomery County Green Bank
- 2) Financial rebates
  - a) Are rebates still available?
  - b) What are the limits per site?
  - c) What EVSEs qualify?
  - d) What are the specific requirements or limits? MD Energy Admin. considers dual EVSE as a single unit thus qualifies for one rebate.
- 3) Community's governing documents/bylaws.
- a) Get your community's Architectural Review Committee approval.

### Contract the work

- 1) Work with your Electric Utility.
- 2) Work with a Department Permitting Services.
- 3) Get a detailed written contract.
- a) Quantify the scope of work:
- i. number of charging stations,
- ii. gauge of installed conductors (wires),
- iii. size of installed conduit (consider overs sizing),

- 4)Get necessary Permits and Engineering designs.
- 5)List items excluded from the contract:
- a)On boarding, setting up EVSEs.
- b)Internet setup
- 1)Expected duration of the installation.

## Promote your EVSEs

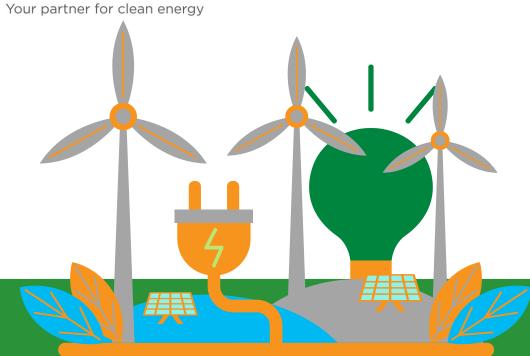
- Register your site on a different EV platforms.
- PlugShare
- <a href="https://www.plugshare.com/location/308415">https://www.plugshare.com/location/308415</a>
- US Department of Energy, Alternative Fueling Station Locator
- <a href="https://afdc.energy.gov/stations/#/find/nearest?fuel=ELEC&location=clarksburg,MD">https://afdc.energy.gov/stations/#/find/nearest?fuel=ELEC&location=clarksburg,MD</a>
- Google Maps
- <a href="https://www.google.com/maps/search/EVSE+Clarksburg,Maryland">https://www.google.com/maps/search/EVSE+Clarksburg,Maryland</a>
- Your community website
- www.ClarksburgCondo2.com/evse.html

### Project Financing

Presenter: Rokas Beresniovas - Director of Commercial Business

Montgomery County Green Bank





EV Charging for Condos, Co-ops and Townhomes

#### **About the Montgomery County Green Bank**

□ Structure: Chartered by Montgomery County. Independent, 501(c)3 nonprofit.

□ Equity: One-time capitalization 2018 and ongoing County appropriation 2022.

□ <u>Purpose</u>: Accelerate energy efficiency and renewable energy.

☐ Focus: Build the case for resilience and sustainable investing in the County.

□ Alignment: Support goal to reduce greenhouse gas emissions to 0% by 2035.

☐ Target: Leverage investment to attract private capital at target 3:1.





# Green Bank Support for Common Ownership Communities (COC)

- Technical assistance and trusted, independent partner:
  - Education, contractor referral, and other project facilitation.
- Financial products that can support COC properties:
  - Long-term subordinate lending (no single deed of trust for condos!).
  - Solar leases and power purchase agreements (no upfront capital!).
  - Smaller projects with flexible terms on repayment and interest only.
  - Green Bridge Loan to bridge the time needed to receive MEA/utility incentives.





#### Green Bank's Green Bridge Support Sample

#### **Sample Turnkey Proposal for 2 Dual EV Chargers**

Make	Model	Description	Qty	Amount
Charge Point	CT4021-GW1	Dual Output, Gateway, Bollard Unit	2	\$18,380
Charge Point	CT4001-CCM	Bollard Concrete Mounting Kit.	2	\$250
Charge Point	CPCLD-COMMERCIAL-5	5yr Prepaid Commercial Cloud Plan	4	\$5,540
Charge Point	CT4000-ASSURE5	5yr Prepaid Assure Plan	2	\$5,240
Charge Point	CPSUPPORT-ACTIVE	Cost to activate and configure initial station	2	\$1,200
Charge Point	CPSUPPORT-SITEVALID	Chargepoint to verify the install	2	\$1,000
		Installation Labor	1	\$22,022
		Shipping	1	\$625
		Taxes	1	\$1,765
Project Cost Total				\$56,022

Customer Project Cost Net of All Grants, Rebates				
Project Cost Total	\$56,022			
MEA Grant	\$8,000			
Pepco	\$43,172			
Net Project Cost	\$4,850			

- Association can consider a \$56,022 loan to have no upfront capital outlay (repayment shown next slide).
- Association could also consider a \$51,172 loan where the net project cost is paid upfront.



#### Green Bank's Green Bridge Support Sample

#### Sample Financing Terms Green Bridge vs. Term

Comparison of Summary Terms						
Product Name	Bridge Loan 12-MONTHS	Term 3-YEARS	Term 5-YEARS			
Project Cost	\$56,022	\$56,022	\$56,022			
Grant Funding (MEA)	\$8,000					
Utility Incentives (Pepco)	\$43,172					
Down Payment	\$0	\$0	\$0			
Financed Amount	\$56,022	\$56,022	\$56,022			
Interest Rate	5.00%	5.00%	5.00%			
Term (months)	12	36	60			
Monthly Debt Service Payment	Interest	(\$1,679)	(\$1,057)			

• Second two options consider an alternative use of the MEA/Pepco incentives (e.g., not used to repay a bridge loan).





Stephen Morel
Chief Investment Officer

smorel@mcgreenbank.org

Rokas Beresniovas

Director of Commercial Business

rokas@mcgreenbank.org

### Questions and Answers with the Panel

#### Panel:

- Brian Booher, Senior Planning Special Zero Emissions Vehicles Montgomery County Department of Environmental Protection
- Anthony Toussaint, P.E., Manager of Commercial Electrical and Fire Inspectors, Department of Permitting Services

  Montgomery County Department of Permitting Services
- Bryan Bomer, Sustainability, Energy, and Mechanical Manager, Department of Permitting Services Montgomery County Department of Permitting Services
- Sonya Burke, Community Outreach Manager, Department of Permitting Services Montgomery County Department of Environmental Protection
- Lori Van Hoy, Dan O'Connor Smart Grid Programs,
   PEPCO HOLDINGS
- Robert Borkowski
   Clarksburg Condominium II President
   Montgomery County Department of Environmental Protection
- Terry Anderson
- Erik Herron, Esq.
- Hon. Marvin Holmes
- Susan Nerlinger

# Thank you for attending

For more information:

CCOC@MONTGOMERYCOUNTYMD.GOV