

Update on COG EV Efforts to BEEAC: REVII Strategy, Charging and Fueling Infrastructure (CFI) Discretionary Grant Program, and the Carbon Reduction Program

September 19, 2024

The transition of the region's four million light-duty vehicles (LDVs) from fossil fuels to clean energy is a critical priority identified in the Transportation Planning Board's 2021 Climate Change Mitigation Study (CCMS) and by the COG Board in 2022, recognizing the need for increased collaboration to support EV plans, programs, and policies as necessary to meet regional climate goals. This shift offers the greatest potential to significantly reduce greenhouse gas (GHG) emissions in the on-road transportation sector, thereby advancing the region's GHG reduction goals. The 2021 Bipartisan Infrastructure Law created a \$7.5 billion initiative within the U.S. Department of Transportation to fund EV charging infrastructure through two key programs: the \$5 billion National Electric Vehicle Infrastructure (NEVI) Formula Program and the \$2.5 billion Charging and Fueling Infrastructure (CFI) Discretionary Grant Program.

The Regional Electric Vehicle Infrastructure Implementation (REVII) Strategy, a collaborative effort between TPB and COG, provides a comprehensive roadmap for establishing a robust network of EV charging stations across the region. This strategy, a direct outcome of the CCMS, supports local governments by offering a blueprint and EV charger siting priority map to aid in the development of their EV charging deployment plans. These resources will also assist localities in securing federal and state grants for infrastructure projects. The REVII Strategy has already informed COG's regional application for the second round of funding from the CFI Program.

BACKGROUND

To help achieve the region's greenhouse gas (GHG) emission reduction goals, both the TPB and COG support the adoption of EVs and the deployment of EV chargers. In June 2022, the TPB adopted Resolution R18-2022, adopting GHG reduction goals and strategies for the on-road transportation sector. One of those strategies is to "deploy a region-wide robust electric vehicle charging network." Development of the REVII Strategy was funded through the TPB's UPWP as a resource to member jurisdictions to help implement one of TPB's key strategies to reduce on-road GHG emissions. In September 2022, the COG Board adopted Resolution R40-2022, which established the Regional Electric Vehicle Deployment Working Group (REVD) under the Climate, Energy, and Environment Policy Committee (CEEPC) to coordinate regional collaboration on EVs and EV infrastructure deployment. The REVD Working Group, which has representatives from TPB and COG members, provided input and review for the REVII Strategy project.

THE REVII STRATEGY

The REVII Strategy is intended to serve as planning resource built to assist the region implement the clean fuel vehicle strategy to attain its climate goals and includes three key objectives:

- Identify locations for publicly accessible Level 2 and direct current fast charging (DCFC)¹ facilities to support increased EV adoption throughout the metropolitan Washington region.

¹ Level 2 charging gives EVs 10 to 20 miles of range per hour and is most suitable for residential and workplace locations where charging for at least 4 hours at a time is feasible. DCFC charging gives 60 to 80 miles of range per 20 minutes of charging.

- Support reliable access to publicly accessible EV charging infrastructure, particularly in areas with limited at-home charging, including multi-family housing (MFH) developments and disadvantaged communities.
- Help ensure that all populations in the metropolitan Washington region, including disadvantaged communities and individuals living within equity emphasis areas (EEAs), are able to access and benefit from the financial and environmental benefits of EVs.

The REVII Strategy has two primary components:

- Projections for light-duty EV registrations and EV charger needs for this region for three EV adoption rate scenarios (low, medium, and high adoption) at three planning benchmark years (2030, 2035, and 2045) at the county level, including the District of Columbia and the City of Alexandria.
- A GIS-based EV charger siting priority map that identifies priority locations for deploying chargers for three different scenarios: prioritizing DCFCs with high utilization, prioritizing Level 2 chargers with an equity focus, and prioritizing DCFC with a multi-family housing focus.

At the time of the analysis for the REVII Strategy, the region had almost 4,000 publicly accessible Level 2 charging ports and almost 400 DCFCs. These represent 29% of the Level 2 chargers and 79% of the DCFCs projected to be needed by 2030 under the low adoption scenario and 14% of the Level 2 and 37% of the DCFCs projected under the high adoption scenario, indicating that there is a significant need for additional infrastructure.

CHARGING AND FUELING INFRASTRUCTURE (CFI) DISCRETIONARY GRANT PROGRAM

On August 27, the Biden-Harris Administration announced recipients for [CFI Round 1b](#) awards and [COG's proposal](#) was selected to receive \$3.9 million to install EV chargers across metropolitan Washington. Sites are located in the Cities of Alexandria and Fairfax, and Arlington, Fairfax, Frederick, and Prince George's Counties.

The REVII Strategy was used to develop a COG-led regional application for CFI Round 2, which will be submitted before the deadline on September 11, 2024.

Potential partners for the Round 2 application initially proposed over 200 sites for electric vehicle supply equipment (EVSE). To help select the final sites for the application, COG conducted an assessment of each site location to determine whether the sites are identified as priorities in the REVII Strategy's EV charging siting priority map; identify climate risks using the TPB's [Transportation Resilience Improvement Program \(TRIP\) interactive mapping tool](#); estimate the GHG and air quality benefits using the AFLEET CFI Emissions Tool; assess whether sites are EV capable as identified by Pepco and Dominion EV Capacity maps and utility review; and determine whether sites are in rural areas or in or near disadvantaged communities. This assessment prioritized the selection of locations, and identified where utility upgrades may be needed, where resilience strategies like floodproofing may be needed, and where the proposal will target engagement of rural and disadvantaged communities.

If selected, the EVSE sites proposed in the COG CFI Round 2 application would expand community-based infrastructure and fill gaps in access by equitably expanding the deployment of publicly accessible EVSE in community locations. The proposed EVSE sites are located throughout the broader metropolitan Washington region expanding beyond our member jurisdictions, including in Maryland - Frederick, Montgomery, Prince George's Counties, and the Cities of Bowie, Gaithersburg, and Takoma Park; and in Virginia - Arlington, Fairfax, Loudoun, Orange, and Prince William Counties, the Cities of Alexandria and Manassas, and the Towns of Gordonsville and Leesburg.

CARBON REDUCTION PROGRAM

The Carbon Reduction Program (CRP) supports the region's efforts to reduce greenhouse gas (GHG) emissions by funding projects that promote the adoption of electric vehicles (EVs) and the deployment of EV charging infrastructure. Two key projects are focused on expanding EV charging networks in Maryland to meet the region's climate goals:

City of Rockville Transportation GHG Reduction Projects (EV Station Design): The City of Rockville will design and install up to four publicly accessible EV charging stations. These stations will be located at publicly owned facilities or along the right-of-way to expand equitable access to EV charging infrastructure across the city. The project aligns with the region's goal of promoting clean energy adoption and ensuring widespread access to EV infrastructure, especially in underserved areas.

Montgomery County Community EV Charging Network: Montgomery County will establish up to 17 EV charging stations on publicly owned properties as part of a county-wide strategy to support the adoption of electric vehicles by the public and the county fleet. This project will play a crucial role in accelerating EV adoption, reducing GHG emissions, and fostering cleaner transportation options in the county.

These initiatives, funded by the CRP, represent a critical step in building a robust EV charging network that supports the region's efforts to reduce carbon emissions and transition to cleaner energy sources.