

Built Environment and Energy Advisory Committee (BEEAC)

Draft Meeting Summary: July 21, 2016

MEMBERS AND ATTENDEES:

Michelle Vigen, Montgomery County (Chair)
Tim Stevens, City of Falls Church
Loren Bruce, City of Falls Church
Lisa Orr, Frederick County (by phone)
Najib Salehi, Loudoun County (by phone)
Ellen Eggerton, Fairfax County
Emil King, District of Columbia
Bill Eger, City of Alexandria (by phone)
Lisa Goldberg, City of Alexandria
Larissa Johnson, Montgomery County
Noel Kaplan, Fairfax County
Dyan Backe, City of Gaithersburg (by phone)
Gina Mathias, City of Takoma Park
Erica Shingara, City of Rockville
Nancy Norris, Frederick County (by phone)
Bill Griffiths, Montgomery County
Matthew Goetz, Georgetown Climate Center
Vernon Wade, Wade Enterprises Inc.
Claude Willis, GWRCC
Eli Smith, City of Bowie
Miles Braxton, Montgomery County
Alleyn Harned, Virginia Clean Cities Coalition
David Gelman, SESI
Joan Kelsch, Arlington County
Justin Mabery, MDE
Ron Calterswell, EVA-DC (by phone)
Danielle Blustein, Consumers Union

COG STAFF:

Leah Boggs, COG DEP
Amanda Campbell, COG DEP (by phone)
Maia Davis, COG DEP
Jeff King, COG DEP
Madison Wagner, COG DEP
Steve Walz, COG DEP, Director
Aaron Waters, COG DEP

1. Call to Order and Introductions, *Michelle Vigen, Montgomery County (Chair)*

Chair Vigen called the meeting to order and attendees introduced themselves in person and by phone. The meeting minutes from the June meeting were approved by the attendees.

2. Jurisdiction Updates

Fairfax County: Fairfax County recently authorized county staff to begin engaging applicants during the zoning process on EV charging issues, consistent with the Planning Commission's recommendations on EV-ready design and the county's proffer authority. County staff is seeking guidance on implications of the new proffer law on this matter. The county is holding three public meetings on the update of the Board of Supervisors' 20-Year Environmental in order to get community input relating to this effort.

Frederick County: Frederick County is getting closer to being able to put out a bid for a PACE program and is currently ready to launch its PowerSaver retrofits program to assist county residents in housing efficiency upgrades.

DC: The District of Columbia is completing deep energy efficiency and solar retrofits on district buildings including schools, churches, and a foodbank. Soon, the district will announce the community solar grant winners and begin construction of 11.5 MW of solar. The ongoing affordable solar program for single-family households has surpassed the goal the district set at the start.

Montgomery County: The Montgomery County green bank established its Board of Directors and will soon begin working on an event to raise interest and awareness for a community solar coop. The county also recently received its first commercial PACE application.

Loudoun: Loudoun County is participating in the ENERGY STAR National Building Competition BOOTCAMP.

Falls Church: The City of Falls Church, in combination with the City of Fairfax and the Town of Vienna, completed the campaign for their joint Solarize project. Falls Church is a small jurisdiction and praised the benefits of working with other small jurisdictions on these types of campaigns.

Takoma Park: The City of Takoma Park obtained bicycles for free staff use to reduce local government emissions and has seen much more use and participation than anticipated.

Arlington County: Arlington County hopes to have its RFP and PACE program ready in the fall of 2016, while the city's solar initiatives are already taking off. The county will be providing rebates to residents for the purchase of efficient HVAC units to encourage energy efficiency.

Rockville: The City of Rockville has a solar coop effort launching soon. The city must also now comply with the Montgomery County commercial benchmarking rules. Rockville has also been designated as a Community Wildlife Habitat by the National Wildlife Federation.

Gaithersburg: The City of Gaithersburg has been designated as a Maryland Smart Energy Community due to its demonstration of leadership in smart energy management and will receive funding assistance for efficiency and renewable energy projects from the Maryland Energy Administration. Gaithersburg has also opted into Montgomery County's polystyrene ban.

3. Low and Zero Emission Vehicle Initiatives: State Level Perspective and Local Level Projects and Implementation

Justin Mabrey, Maryland Department of Environment

Alleyn Harned, Virginia Clean Cities Coalition

Leah Boggs, COG DEP

Bill Griffith, Fleet Manager, Montgomery County

Gina Mathias, Takoma Park

Nancy Norris, Frederick County

Maryland Electric Vehicle Initiatives

The Maryland Electric Vehicle Infrastructure Council (EVIC) took effect in July 2011 and will work to develop policies to remove barriers to EV implementation in Maryland until the program ends in July 2020. The Council includes members from the state, private sector, non-profits, and utilities. The EVIC has passed legislation to improve Maryland's access to and incentives for EVs and EV infrastructure. Some of the barriers to EV adoption that Maryland is currently facing include infrastructure, increased vehicle cost, outreach and consumer education on EVs, and the availability of cheap gas for traditional vehicles.

Maryland is working to combat these barriers by creating an excise tax for plug-in vehicles and an EV charging rebate program, allowing EVs to access the HOV lane, requiring auto manufacturers to place an increasing number of alternative fuel vehicles (AFVs) in the state under a zero emissions vehicle (ZEV) mandate and clean cars program, enlisting the Maryland Energy Administration, Maryland Department of Transportation, and Maryland Department of Environment in joint outreach efforts, and creating a ZEV action plan to help promote a sustainable market. These actions have resulted in the installation of 42 fast charging stations and 920 EV chargers. There are 6,788 plug-in vehicles registered in Maryland and the EVIC is focused on extending the EV tax credit and infrastructure rebate to encourage AFV growth in the state.

Virginia Vehicle Charging Infrastructure

Virginia is not yet a ZEV state, but it has begun to install charging stations and DC fast chargers. The Virginia charger program is a state collaboration with auto manufacturers and electric utilities which has resulted in the installation of 26 fast chargers for the initial state charging network. Despite this progress, there are still no chargers in southern and southwest Virginia and the Virginia Clean Cities Coalition and its partners are working to expand the program. There are several challenges to future charging station deployment in the state, including financial cost barriers and finding site hosts willing to install EV charging infrastructure.

Despite these barriers, Virginia has put EV chargers in some state government buildings and is currently in the public comment period for a plan to invest state funds to cover the incremental cost in purchasing alternative fuel vehicles for state and local government fleets. Virginia also recognizes opportunity in working with Volkswagen (whose US headquarters is located in Herndon) on EV supply and equipment.

MWCOG Electric Vehicle Preparedness

The Metropolitan Washington Council of Governments held its first EV workshop in 2011 to learn what actions and plans its member jurisdictions had taken to prepare for EV deployment and infrastructure. Under the Clean Cities Community Readiness and Planning for PEV and Infrastructure Solicitation, COG proposed an EV plan. The plan was not awarded, but COG used it to create a revised EV deployment plan with 25 recommendations and participated in a Washington Regional EV partnership to implement the recommendations.

COG's regional EV work aims to assist stakeholders in finding ways to increase EV infrastructure and deployment and includes forums and discussions for the coordination of public and private strategies to support EV deployment. Between 2001 and 2015, COG has hosted several meetings, workshops, and forums to encourage EVs in the region. The COG-Vision Fleet Project worked to establish a cost baseline for existing fleets and provide recommendations for suitable replacements, as well as to quantify the financial implications of a large-scale EV replacement program.

COG also co-hosted an EV Readiness Workshop with MD-EVIC in June 2015 to focus on codes, siting, and design, the EV planning-purchasing nexus, public charging venues, permitting and power considerations, and EV riding and driving. COG is also a partner in larger regional and national efforts in bulk procurement for AFVs and infrastructure. COG's most recent EV preparedness effort is a partner project with GWRCC, NASEO, and Sustainable Energy Strategies, Inc. called DC Greening the Fleet Initiative. This project works to establish a baseline of existing public and private fleets in DC and create recommendations on how to switch to financially and environmentally beneficial alternatives.

Montgomery County Electric Vehicle Efforts

The Montgomery County government fleet contains 3,438 vehicles; over 900 of which are alternative fuel vehicles, making up about 26% alternative fuel consumption. Montgomery County's green fleet pillars focus on building a greener, cleaner, more sustainable fleet through management and maintenance practices, fleet rightsizing, alternative fuel use, and emissions reductions. The county's green fleet plan aims to reduce petroleum use by 20% over five years, reduce fleet emissions 2% annually and 30% by 2030 with a 2% annual increase in alternative fuel use, increase fuel efficiency by purchasing the most fuel efficient vehicle for each class, and optimize the fleet.

Montgomery County implemented a battery electric vehicle (BEV) integration effort to encourage EV use in its government fleets. This effort included the installation of 16 strategically located charging stations (selected based on data collection and telematics) and the deployment of 25 EVs, as well as driver education. The BEV integration effort resulted in the elimination of 3,500 gallons of gas use, \$11,600 in fuel savings, and a 31 MT CO_{2e} emissions reduction. The deployed vehicles used the chargers 3,7000 times and took an average of three hours to charge, with the average trip being 26.8 miles.

Going forward, Montgomery County plans to install four fleet sites in 2017, conduct a cost-benefit analysis of DC fast charging installation, expand the county's EV fleet based on data driven analysis, and plan charging station sites for public access. The county has entered into contracts with ChargePoint and has an advanced vehicle purchase contract to help move towards these goals.

Takoma Park Public Electric Vehicle Charging Stations

The City of Takoma Park focused its EV efforts on public infrastructure, noticing that the area was a charging desert. Takoma Park found an opportunity under the Electric Vehicle Institute to create public EV infrastructure at no cost to the city. The Electric Vehicle Institute installed 14 chargers free of charge, including three years of free maintenance costs. Takoma Park is offering free charging at these stations for three years.

Site selection for the 14 charging stations was very important. The City of Takoma Park looked into both public and privately owned locations, but selected all public locations when local businesses expressed little interest in hosting charging stations. Access to electricity that met regulation standards, location and proximity to services and businesses, and general parking availability were all important factors in site selection. Takoma Park is currently operating under a parking policy allowing cars to park for four hours in using the EV charger and one hour otherwise.

Going forward, Takoma Park will evaluate the performance of the EV chargers based on location and how often the chargers are being used, necessary maintenance, overall availability and usage, and who should pay for the charging costs once the three free years have ended.

Frederick County Refurbished Electric Buses

Frederick County received five all-electric buses for its public transit fleet in spring 2016 to be used in peak hour service. Fully charged, which takes about four to six hours, the buses are able to run for over eight hours. These five buses run in the morning and at peak rush hours to lessen the load on the diesel bus fleet, but are taken off the road well before the eight-hour charge is complete.

Frederick County worked with Pepco to install transformers with enough capacity to charge the buses. Pepco installed 10 charging stations and an additional 10 conduits for electric buses the county hopes to receive in the future. The infrastructure costs to install the 10 charging stations was \$175,000, which was funded by the county, FTA, MTA, and under a Smart Energy Grant from the Maryland Energy Administration. Each refurbished all-electric bus cost \$600,000, which is \$400,000 less than purchasing a new all-electric bus.

Discussion

BEEAC members asked if Montgomery County compressed natural gas (CNG) fueling sites were open to the public and were told that the sites were publically accessible and open 24 hours. Members also asked how Montgomery County was able to calculate the greenhouse gas emissions reductions from fleet and charging changes and were told that the county used a modeling tool to determine baseline and alternative fleet emissions and measured the difference from the changes that were made.

BEEAC members asked which tools were used for the telematics in Montgomery County and what the costs were for operating these devices. They were told that Montgomery County used technology by GPS Insight, which cost \$150 for light-duty and \$250 for heavy-duty vehicles, and that there was a \$15 per month service fee. It was mentioned that the return on investment time had been about 6 months for Montgomery County and that the county had received a large amount of stakeholder investment, which impacted the cost of this technology.

BEEAC members and attendees asked about the interest and involvement of regional electric utilities in the EV efforts the jurisdictions had made. In Virginia, the utilities, especially municipal, were engaged and involved, but were unable to directly fund EV projects due to commonwealth restrictions. In DC, the utilities were not directly involved, but have express and vested interest in all electric activities. In Maryland, the utilities had expressed interested in providing EV chargers but have not done so yet.

4. COG Updates

A building codes training workshop is taking place after the July BEEAC meeting to prepare jurisdictions to participate in the upcoming ICC public meeting focusing on building code updates. Participation from regional jurisdictions is important.

5. Upcoming Meetings and BEEAC Adjournment

- CEEPC Meeting – July 27, 2016
- BEEAC Planning Call – August 4, 2016
- BEEAC Meeting – September 15, 2016