Metropolitan Washington
Council of Governments

METROPOLITAN WASHINGTON AIR QUALITY COMMITTEE (MWAQC)

December 7, 2022
12:00 P.M. – 2:00 P.M.
Webinar Meeting

Chair: Takis Karantonis, Arlington County

MEETING SUMMARY

MWAQC MEMBERS AND ALTERNATES

- Takis Karantonis, Arlington County (Chair)
- Kenny Boddye, Prince William County (Vice Chair)
- Anita Bonds, District of Columbia (Vice Chair)
- Stuart Adams, City of College Park
- Michele Blair, City of Laurel
- Tamara Blake-Wallace, Calvert County
- Virginia Burke, Maryland Department of Transportation
- Tom Dernoga, Prince George's County
- Lynn Forkell Greene, City of Manassas
- Penny Gross, Fairfax County
- Jason Groth, Charles County
- Chris Hoagland, Maryland Department of the Environment
- Joseph Jakuta, District Department of Energy and Environment
- Keith Levenchenko, Montgomery County
- Doris McLeod, Virginia Department of Environmental Quality
- Kirk McPike, City of Alexandria
- Jim Ponticello, Virginia Department of Transportation
- John Rigg, City of College Park
- Tom Ross, City of Fairfax
- Dave Snyder, City of Falls Church
- Kari Snyder, Maryland Department of Transportation
- Roger Thunnel, Maryland Department of the Environment
- Kristen Weaver, City of Greenbelt

OTHERS

- Tad Aburn, Citizen
- Sophia Cortozza, Maryland Department of Transportation
- Richard Dooley, Arlington County
- Bill Eger, City of Alexandria
- Demetra McBride, Arlington County
- Jamie McKay, TransIT Services of Frederick County
- Regina Moore, Virginia Department of Transportation
- Raymond Mui, Alexandria DASH
- Catherine Salarano, Maryland Department of the Environment
- Noble Smith, University of Maryland
- Roman Steichen, TransIT Services of Frederick County
- Antoine Thompson, Greater Washington Region Clean Cities Coalition

COG STAFF

- Leah Boggs, COG Department of Environmental Programs
- Robert Christopher, COG Department of Environmental Programs
- Jen Desimone, COG Department of Environmental Programs

- Lyn Erickson, COG Department of Transportation Planning
- Jeff King, COG Director Climate, Energy and Air Programs
- Sunil Kumar, COG Department of Environmental Programs
- Tim Masters, COG Department of Environmental Programs
- Mark Moran, COG Department of Transportation Planning
- Erin Morrow, COG Department of Transportation Planning
- Wanda Owens, COG Department of Transportation Planning
- Jane Posey, COG Department of Transportation Planning
- Kanti Srikanth, COG Deputy Executive Director
- Dusan Vuksan, COG Department of Transportation Planning

1. PUBLIC COMMENT PERIOD, APPROVE MINUTES, CHAIR'S REMARKS

Takis Karantonis, MWAQC Chair

Chair Takis Karantonis called the meeting to order, and the September MWAQC meeting summary was approved without any changes.

Noble Smith (University of Maryland) and Tad Aburn (Citizen) provided spoken public comment in opposition to the District of Columbia's proposed DC Circulator bus maintenance and training facility to be located in the Cheverly and Seat Pleasant area of Prince George's County, Maryland. This would be located in close proximity to communities of color who have long faced the burdens associated with criteria air pollutants, to which this proposed project will contribute negatively. COG is an entity which advances regional priorities and works to garner consensus on regional issues. This proposed project is outside the scope of MWAQC and the COG Board of Directors and is a matter between the District of Columbia and Prince George's County. It is not COG's role to intervene in local jurisdictions' matters. Speakers are encouraged to pursue solutions with the local jurisdictions directly involved in the project. Penny Gross (Fairfax County) suggested that a memorandum on this issue be provided for Region Forward's consideration, as jurisdictions look to locate potential bus facilities in the region.

2. COMMITTEE REPORTS

<u>MWAQC Technical Advisory Committee (TAC) – Sunil Kumar (COG Staff)</u>
MWAQC-TAC held a call on December 6:

- TAC discussed the draft schedule for the 2008 Ozone Maintenance Plan Update, status of inventories, and EPA's response to the proposed methodology for updating the plan.
- COG staff provided an updated on the recently finalized 2020 GHG emissions inventory. Staff confirmed that the region reduced emissions by at least 24 percent below 2005 levels.
- TPB staff presented the results of the 2022 Sate of the Commute survey.

<u>Air and Climate Public Advisory Committee (ACPAC) – Leah Boggs (COG Staff)</u>
ACPAC held a webinar meeting on November 28:

- ACPAC new member recruitment period is now underway until January 20, 2023. The committee has three slots open this year due to career and location changes. There are two slots open in DC and one in VA.
- From now until ACPAC's January meeting, the committee will be working on developing

priorities for 2023 that will include updating the 2017 Environmental Justice Toolkit. A proposal for the update will be presented to MWAQC at its February meeting.

- ACPAC also has a new officers subcommittee charged with developing a list of nominees for 2023 committee leadership. The nominees will be presented and voted on in January.
- The next ACPAC meeting is January 23, 2023.

Climate, Energy, and Environment Policy Committee (CEEPC) – Jeff King (COG Director Climate, Energy and Air Programs)
CEEPC held a webinar meeting on November 16:

- At the November 16 meeting, CEEPC heard from Dr. James Kinter (George Mason University) who provided an overview of global and metropolitan Washington climate change impacts from the last five years and shared the outlook on the remaining carbon budget consistent with limiting global warming to 1.5 degrees Celsius; for degrees Celsius. Maia Davis provided an overview of regional trends and progress toward COG's climate goals. This was followed by a review of the past year and discussion of CEEPC's 2023 priorities, specifically emphasizing electric vehicles (EVs) and equity as key areas of focus in the coming year.

3. LOCAL AND STATE UPDATES

Local Members and State Air Agencies

- Demetra McBride (Arlington County) informed the group that Arlington County's Maplewood Solar project in Pittsylvania County, Virginia is now online. Through their partnership with Dominion Energy and Amazon, the county is now sourcing 100 percent renewable energy for government operations from this project (three years ahead of schedule). There has been media coverage of how large solar farms are adversely affecting stormwater, but the county had stormwater measures incorporated into the design of the Maplewood system. They are also doing a livestock pilot with sheep to control vegetation at the solar farm. Arlington County is working on their Arlington Transit (ART) bus zero emissions vehicle study, which is focused on electrification of the fleet, the associated EV infrastructure, as well as other fuel alternatives. This will likely be completed in April 2023. Lastly, Arlington County is a member of the European Union (EU) International, Urban and Regional Cooperation (IURC) cohort. A series of presentations have been provided throughout the year, as well as some exchanges to learn about sustainable and innovative projects in other cities.
- Joseph Jakuta (District Department of Energy and Environment) said that DOEE will be proposing the adoption of the Advanced Clean Cars II rulemaking on Friday in the District register. They will be proposing to adopt zero emission vehicle (ZEV) provisions in addition to the criteria pollutant emissions standards. This includes phasing out the purchase of fossil fuel cars in 2035.

4. ELECTION OF 2023 OFFICERS

Takis Karantonis, MWAQC Chair

Chair Karantonis presented the Nominating Committee's proposed slate of officers for 2023:

Chair: Anita Bonds, Councilmember, District of Columbia
Vice Chair: Tom Dernoga, Councilmember, Prince George's County, Maryland
Vice Chair: Kenny Boddye, Board Member, Prince William County, Virginia

Action: MWAQC members voted to elect these officers. All were in favor with two abstentions (Tom Dernoga and Kenny Boddye).

5. AIR QUALITY PLANNING UPDATES

Sunil Kumar, COG Environmental Engineer

Data shows that the region has had only three code orange days with no code red days this ozone season. This has been the second cleanest year on record for the COG region. Based on the 2019-2021 data, the region has attained the 2015 Ozone National Ambient Air Quality Standard (NAAQS) with a design value of 70ppb. Based on the 2020-2022 draft data, the region remains in attainment with a design value of 67ppb. EPA is expected to issue a Clean Data Determination (CDD) for the region, which would suspend the requirement for submitting an Attainment Plan (AP). Thus, COG staff are currently working on updating the 2008 Ozone NAAQS Maintenance Plan (MP). Current Motor Vehicle Emission Budgets (MVEBs) from the above plan were developed using MOVES2014a. TPB will have to use MOVES3 starting early next year for demonstrating conformity. The 2008 Ozone MP MVEBs will be applicable for regional transportation conformity, unless EPA revokes 2008 Ozone NAAQs (no plans at this time) and new MVEBs are approved or found adequate in the 2015 Ozone NAAQS MP (timing not known). TPB's preliminary analysis shows issues with demonstrating conformity using MOVES2014a MVEBs, so new MOVES3 based MVEBs needs to be developed. COG and state air agencies are coordinating with EPA on updating the 2008 ozone MP. Staff developed a draft schedule to get updated MVEBs approved by MWAQC in May (for public comments) and in September (final approval).

6. LEGISLATIVE UPDATE

Tim Masters, COG Environmental Planner

Tim Masters provided an overview of the CEEPC Legislative Committee, as well as a brief preview of the upcoming legislative session. Each year, CEEPC's Legislative Committee tracks legislation in the District, Maryland and Virginia and advocates for legislation that aligns with the COG Board's Legislative Priorities. COG staff are currently updating the Legislative Priorities for Climate and Energy Innovation and Air Quality Protection to go to COG's 2023 Legislative Committee Members this month. Edits include the addition of a priority focused on Energy Efficiency and a couple of small edits to the language of one or two other priorities. The CEEPC Legislative Committee advocates for legislation that will further the goals and targets laid out in the 2030 Climate and Energy Action Plan. Looking to the 2023 sessions, the CEEPC Legislative Committee will largely focus on continuing to support initiatives that are aligned with COG's legislative priorities by providing comment letters on items that support the deployment of renewable energy and EV infrastructure, EV adoption, and building energy efficiency retrofits. The Virginia session convenes on January 11, 2023. The adjournment date is February 25, 2023. The Maryland session convenes January 11, 2023, and the adjournment date is April 10, 2023. The District of Columbia has a 2-year session starting in January 2023.

Discussion:

- There are a few bills that have been prefiled in Virginia that aim to repeal the requirement that the State Air Pollution Control Board implement a low-emissions and zero-emissions vehicle program and repeal the Board's authority to implement low-emissions and zero-emissions vehicle standards. COG staff are tracking these bills for the CEEPC Legislative Committee.
- The Virginia State Air Pollution Control Board may also attempt to remove the Commonwealth of Virginia from the Regional Greenhouse Gas Initiative (RGGI). This would likely go to court, but COG staff will also be tracking these developments.

7. MID-ATLANTIC ELECTRIC VEHICLE INITIATIVES

Antoine Thompson, Greater Washington Region Clean Cities Coalition Director

Antoine Thompson briefed members on two regional EV initiatives lead by the Greater Washington Region Clean Cities Coalition (GWRCCC): the Mid-Atlantic Electrification Project (MAEP) and the Mid-Atlantic Electric School Bus Experience Project (MEEP). GWRCCC is a public-private partnership of the

Washington, DC metro area promoting the use of clean, American transportation fuels for homeland security, improved air quality and environmental justice. MAEP is a federal three-year grant from the U.S. Department of Energy (DOE) for the District of Columbia, Maryland, Virginia, and West Virginia. The aim of the grant is to deploy Level 2 and Level 3 EV charging stations, establish charging hubs for rideshare in the District with Pepco and increase education, outreach and community engagement. There is a strong racial equity component to this work, with focus of EV deployment in underserved areas. GWRCCC worked with Argonne National Laboratory in the development of their Equity Mapping Tool. MEEP is another U.S. DOE funded project that is focused on electric school bus deployment. It is for schools in the District of Columbia, Maryland, New Jersey, Pennsylvania, and Virginia. The aim is to reduce operating costs, achieve sustainability goals, improve local air quality, protect the health of children. Part of this work also includes outreach and education in the form of demonstration vehicles and school bus drives. MEEP partners also provide technical assistance to schools looking to purchase electric buses or retrofit their fleets.

GWRCCC is also working on the National Electric Vehicle Infrastructure (NEVI) Formula Program and EPA's Clean School Bus Program. The NEVI program provides over $8 billion over the next few years to deploy EV charging stations along major corridors. The Clean School Bus Program provides over $5 billion and is aimed at electrifying school bus fleets across the country, as well as deploying alternative fuel school bus vehicles. GWRCCC encourages those interested to become partners and allow GWRCCC to attend monthly community meetings and events, provide recommendations for EV charging locations at parks, libraries, public housing, public buildings, community centers, shopping centers, hotels, etc., host ride and drives with GWRCCC, as well as partner on events and workforce development training.

Discussion:

- Localities are having difficulty with finding staff for electric fleet maintenance and EV maintenance, especially for buses and larger vehicles. Starting in January, GWRCCC and some national partners will be offering some webinars and trainings around transitioning the workforce to EV maintenance. Some community colleges have programs that need to be retooled and GWRCCC has been approached to help them with that. As part of some of the federal funding opportunities, GWRCCC will be doing workforce development around maintaining EV chargers as well. There is a great black woman-owned company called Chargerhelp. GWRCCC hopes that they can be brought in to train DC residents on how to maintain EV chargers.
- The Alternative Fuels Data Center has information on where there are gaps in EV infrastructure, which can be very useful for decision making, but also shows that there is significant work to be done to accelerate EV adoption.

8. ELECTRIC TRANSIT BUS PROGRAMS

Raymond Mui, Alexandria Transit Company (DASH) Assistant General Manager
The DASH local bus system services the City of Alexandria and surrounding areas, and operates over three million miles annually, with an annual ridership of around four million passengers. The fleet is comprised of 115 fixed route buses with a service area of 15 square miles. In 2010, a policy was adopted to purchase diesel-electric hybrids for new fleet vehicles. In 2017, this policy changed to require the purchase "clean diesel" vehicles instead of hybrid vehicles. From 2019 to 2027, the DASH transit system's policy aims to transition to more zero emission vehicles (ZEVs) and fewer clean diesel buses with each bus procurement. In 2027, all new bus procurement will be 100 percent ZEVs. By 2037, all vehicles will be ZEVs. DASH has undertaken a number of studies that have demonstrated that battery electric is the most feasible technology to achieve zero emissions given DASH's facilities, fleet, and service requirements. One challenge is battery range and capabilities. This is not always a straight answer, as changing the operating circumstances can significantly impact battery life. For example, the age of the battery can impact range and capability. Another example is heating and cooling, which can radically impact range. Ridership, route characteristics, and weather all factor into the equation too.

DASH currently has 14 battery electric buses in the fleet. DASH chose to split the procurement in half, purchasing seven Proterra buses and seven New Flyer of America buses, requiring interoperability between the EV chargers. The goal of this was to divide the risk, motivate manufacturers to perform, evaluate differing approaches and engineering, and demonstrate standardization and interoperability. So far, deployment has been successful. The main challenges have been a few early adopter challenges (i.e., range expectations, quality, and build process), range reduction of vehicles due to heating, and interoperability between buses and chargers. DASH is completing phase two of their Zero Emissions Bus (ZEB) Implementation Study. They are also in the pre-design phase of a facility expansion project, which would house EV infrastructure and equipment, serving as a charge point for all the buses.

Jamie McKay, TransIT Services of Frederick County
Frederick County is committed to environmental and fiscal sustainability. Electric buses are a significant step toward this goal. Electric buses have zero tailpipe emissions. They are quieter, cleaner, and operate similarly to the county's traditional diesel buses. In addition, they are much cheaper to operate over the course of their useful life than one of the county's equivalent diesel buses. Frederick County TransIT Services had few options for manufactured electric buses at the onset of their proposed transition to electric buses. Refurbished buses with new electric propulsion systems were the best and most cost-effective option when kicking this project off in 2016. The county chose Complete Coach Works (CCW) to retrofit 1999 Gillig chassis with grant funds from Maryland Smart Energy Communities (MSEC). These older vehicles typically do not have the capacity to last the full eight-to-nine-hour shift, especially in a county where the routes are generally much longer than in other jurisdictions. The county's current fleet consists of 23 buses. Nine are all electric buses and two are hybrid vehicles. The all-electric vehicles are BYD buses, which have the required capacity needed for the bus routes.

TransIT Services has encountered many of the same challenges that DASH have experienced. Route characteristics, and heating and cooling have big impacts on electric bus range. Frederick County partnered with Tesla to install a solar array at the county landfill. The electric buses receive power from that array. A critical component to transitioning the fleet to electric buses was training staff, as well as local first responders. TransIT Services had to familiarize elected officials and other leaders with these efforts. The success of the program depends on people understanding the why and the how. While the electric buses are more expensive than diesel buses initially, they are cheaper to operate and maintain over a course of years. However, the upfront costs for the electric vehicles are significantly higher than their diesel counterparts for the time being. Charging infrastructure was installed in the county to serve these buses and there will likely be expansion of these facilities soon.

Discussion:

- DASH tracks energy usage data for these ZEBs and has good information that factors in many variables such as bus heating or temperature variability on a day-to-day basis. This provides direct feedback that can help optimize ZEB deployment.
- There are a few work groups in the region that are working to identify and find solutions to the challenges of electric bus deployment. For instance, the Washington Metropolitan Area Regional Bus Leaders Workgroup allows agencies to share their lessons and work in the metropolitan Washington region. There is certainly space for further education and outreach in the region.

9. ADJOURN
Takis Karantonis, MWAQC Chair

Chair Takis Karantonis adjourned the meeting. The next MWAQC meeting is scheduled for February 22, 2023.