



Climate, Energy, and Environment Policy Committee

DRAFT MEETING SUMMARY: JULY 23, 2025

CEEPC MEMBERS IN ATTENDANCE

- Hon. Susan Cunningham, Arlington County
- Hon. Cindy Dyballa, City of Takoma Park
- Hon. Alan Hew, City of College Park
- Hon. M.C. Keegan-Ayer, Frederick County
- Erica Bannerman, Prince George's County
- Noelani Brockett, Charles County
- John Lord, Fairfax County Public Schools (FCPS)
- Dale Medearis, Northern Virginia Regional Council (NVRC)
- Shannon Moore, Frederick County
- John Morrill, Fairfax County
- Jim Ponticello, Virginia Department of Transportation (VDOT)
- Matt Ries, DC Water
- Erica Shingara, City of Rockville
- Maria Sinner, VDOT
- William Washburn, ACPAC Chair
- Brittany Whited, DOEE

ADDITIONAL ATTENDEES:

- Maggie Beetstra, Fairfax County
- Amanda Campbell, City of Rockville
- Al Carr, DOEE
- Kelly Collins Choi, Casey Trees
- Richard Dooley, Arlington County
- Dory Estrada, City of Takoma Park
- Jennifer Fioretti, Arlington County
- Ryan Freed, City of Alexandria
- Allison Homer, Fairfax County
- Tianni Ivey, Office of Supervisor Koran T. Saines
- Ray Jefferies, Town of Bladensburg

- Emily Judson, WMATA
- Hokuma Karimova, City of Gaithersburg
- Stefanie Kupka, City of Fairfax
- Kurt Lawrence, City of Falls Church
- Matt Meyers, Fairfax County
- Dr. Opeoluwa Olawale, Washington Gas
- Jason Papacosma, Arlington County
- Lindsey Shaw, Montgomery County
- John Silcox, Fairfax County
- Michelle Smyk, Prince William County
- Drew Stilson, Arlington County
- Yi Sun, Prince William County
- Elizabeth Thurber, Arlington County
- Taylor Ware, Office of Councilmember Shayla Adams-Stafford
- Sunny Wescott, Cybersecurity and Infrastructure Security Agency

COG STAFF IN ATTENDANCE:

- Alissa Boggs, COG Environmental Programs
- Heidi Bonnaffon, COG Environmental Programs
- Robert d'Abadie, COG Transportation Planning
- Maia Davis, COG Environmental Programs
- Jeff King, COG Director Climate, Energy and Air Programs
- Mark Moran, COG Transportation Planning
- Katherine Rainone, COG Transportation Planning
- Dusan Vuksan, COG Transportation Planning

1. WELCOME AND MEETING SUMMARY

Cindy Dyballa, City Council, Takoma Park for Sarah Bagley, CEEPC Chair, City of Alexandria Council

Councilmember Cindy Dyballa called the July Climate, Energy, and Environmental Policy Committee (CEEPC) meeting to order. The May CEEPC Meeting Summary was approved.

2. ATMOSPHERIC SHIFTS AND LOCAL WEATHER IMPACTS – BAROMETRIC CHANGES IMPACTING EXTREME WEATHER EVENTS

Sunny Wescott, Chief Meteorologist

Severe weather patterns are intensifying globally and in the United States due to atmospheric changes at both surface and upper levels. Deeper low-pressure systems are producing stronger winds, heavier precipitation, and more frequent severe weather outbreaks, while persistent high-pressure systems are causing prolonged heat waves and elevated humidity. Increased atmospheric moisture is fueling storms and creating a feedback loop that amplifies both heat and storm severity.

The expansion of the troposphere is enabling taller thunderstorms, higher cloud tops, and greater vertical temperature exchange, which strengthens prevailing winds and regional wind events. Data from automated weather stations and state Mesoscale Networks (Mesonet) confirm measurable increases in the frequency and intensity of extreme weather.

The United States leads globally in tornadic activity, hail frequency, and lightning density over populated areas. Lightning frequency increases by approximately 12 percent per degree of warming, with cloud-to-ground strikes up about 28 percent. Atmospheric particulates from pollution further destabilize thunderstorms, enhancing lightning production. Hail events are becoming larger and denser, with recent stones exceeding seven inches in diameter, and insured losses are rising. Rainfall intensity is also increasing, with more storms capable of producing three to four inches per hour. Preliminary 2025 data places the year among the top three for tornadic activity, with record monthly counts and EF-3/EF-4 tornadoes occurring farther north than previously recorded. Land subsidence in urban and coastal areas is compounding flood risks by lowering ground elevation after repeated flood events.

Discussion: Infrastructure and energy systems face growing vulnerabilities from these trends. Lithium-ion batteries in mobility devices and EVs are susceptible to damage from floodwater, extreme temperatures, and rapid temperature changes, with potential fire risks and reduced lifespan. Electrification strategies such as undergrounding transmission lines face challenges from flooding and subsidence. Hyper-local datasets from Automated Surface Observing Systems (ASOS) and Mesonet networks, paired with AI analysis, can help identify trends and guide targeted infrastructure hardening. Diversifying energy sources was recommended to reduce systemic risk.

3. INTEGRATING UPDATED FLOODING DATA INTO VULNERABILITY ASSESSMENT

Katherine Rainone, Transportation Planner, COG/DTP

Flood risk analysis for regional transportation assets was expanded beyond FEMA's historical riverine and coastal floodplain data to include forward-looking pluvial flooding projections. Using Fathom US flood maps, the updated assessment incorporated both flood extent and depth for multiple time horizons (2020, 2030, 2050, 2080) under moderate and high emissions scenarios. Assets scored for exposure included roads, highways, bus stops, rail stops, and rail lines. Results show significantly higher percentages at risk compared to FEMA-based analysis: 38 percent of road miles versus 14 percent, 11 percent of bus stops versus 4 percent, 21 percent of rail stops versus 7 percent, and 64 percent of rail line miles versus 39 percent. The findings highlight the under-representation of urban flooding in traditional datasets and the importance of integrating future climate conditions into resilience planning.

The publicly available interactive mapping tool displays these updated risk scores, allowing users to toggle between FEMA- and Fathom-informed scenarios. While raw Fathom data cannot be shared due to licensing restrictions, the processed analysis is accessible for planning purposes. The tool is intended to guide prioritization of transportation projects, inform design and construction decisions, and support funding applications by identifying assets vulnerable to both current and projected flooding.

Discussion: The tool can be used for both long-term resilience planning and short-term operational readiness. While not a substitute for site-specific engineering studies, it provides a regional screening resource to flag areas for further investigation. Differences between emissions scenarios were less pronounced than expected, though risk increases over time are evident. Future work will explore integration with critical infrastructure datasets and outreach to public safety agencies to enhance preparedness and response.

4. MID-COURSE REVIEW: GREENHOUSE GAS INVENTORY RESULTS

Maia Davis, COG Senior Environmental Planner

Alissa Boggs, COG Environmental Planner

The 2023 Regional Greenhouse Gas Inventories indicate a 19 percent gross and 20 percent net reduction in emissions compared to 2005 levels. Prepared for all 24 COG member jurisdictions, the inventories follow consistent U.S. and global protocols and include buildings, transportation, waste, agriculture, and forest/tree emissions and sequestration. Buildings remain the largest emitting sector at 49 percent of total gross emissions, with residential energy use accounting for 17 percent, commercial energy for 23 percent, and data centers—now tracked separately—representing 9 percent. Transportation is the second-largest sector at 41 percent of emissions, led by on-road sources (33 percent), followed by off-road (3 percent), passenger air travel (4 percent), and rail (<0.1 percent). The remaining emissions come from process and agricultural sources (6 percent), waste (3 percent), and forest/tree losses (1 percent).

A methodological update in this cycle was the inclusion of data center electricity use estimates, developed in coordination with local jurisdictions and informed by utility data, permitting records, and industry growth projections. Regional data center floor area expanded from 28.9 million square feet in 2020 to 46 million in 2023, with 43 million square feet located in Northern Virginia. Grid emission rates have continued to improve, dropping from over 1,100 pounds CO₂ per megawatt-hour in 2005 to under 600 in 2023, largely due to coal power plant retirements and increased natural gas and renewable generation.

The inventories also reflect updated global warming potential values from the IPCC Fifth Assessment Report, applied to both the base and current years to ensure comparability. Results are presented in

both gross and net terms, with net emissions accounting for sequestration from forests and trees. The data will inform the region's mid-course review of progress toward the 2030 goal of a 50 percent reduction from 2005 levels, as well as the development of the Comprehensive Climate Action Plan. Draft inventories have been distributed to jurisdictions for review, with final data, fact sheets, and methodology reports scheduled for release by December.

5. COMMITTEE AND MEMBER UPDATES

Written updates provided in advance

A. Member Updates

- The City of Alexandria became the first city in Virginia to ban gas leaf blowers, with an 18-month phase in.

B. Built Environment Energy Advisory Committee (BEEAC)

- At the June 12 Built Environment Energy and Advisory Committee meeting received a briefing on the Comprehensive Climate Action Plan's (CCAP) data center measure including actions local governments can encourage data centers to take to improve energy efficiency and reduce emissions. The goal of the measure is to provide actions that jurisdictions can leverage going forward to maintain the economic advantages data centers provide while addressing concerns of how to balance rising GHG emission reduction goals. BEEAC also heard from Electrify DMV on their regional efforts to make decarbonization of all homes more affordable. One of their core programs is the Residential Electrification Implementation Working Group (REIWG). REIWG includes local government, service providers, and industry experts working to scale residential electrification in the DC region. Electrify DMV's goal is increased participation from local governments to expand their work towards making decarbonization of homes more affordable. The recording and related materials can be found on the [meeting page](#). The next BEEAC meeting is September 18.

C. Air And Climate Public Advisory Committee (ACPAC)

- Equival Partners submitted the final version of the report to COG Staff, Environmental Justice (EJ) Toolkit Community Engagement Findings and Recommendations. COG Staff presented elements of the report to ACPAC at the July 21 meeting. The full EJ Toolkit will include both community engagement recommendations and local government best practices. The full EJ Toolkit is expected to be completed by the end of 2025.
- The 2025 Climate and Energy Leadership Awards Program ended on July 7 and received 23 applications. ACPAC members discussed the applications and submitted final judging sheets. COG staff will tally the scores and winners for each category will be calculated for each category. Winners will be announced at the fall COG Board meeting. The next ACPAC meeting is September 15.

D. Regional Electric Vehicle Deployment (REVD) Working Group

- The Regional Electric Vehicle Deployment Working Group held its most recent meeting on July 17. The working group received a presentation from EPRI on its EVs2Scale2030 Initiative. The initiative aims to address barriers to achieving EV adoption at scale. The three pillars of design are Coalitions and Roadmaps, Structural System Reforms, and Unifying Tools and Pilots, all of which are undergirded by an enabling regulatory and oversight framework incorporating equity and workforce development at its foundation. The initiative has released four deliverables that include a vetted product list of 105 vendors and 750 products, a visual roadmap of planned and expected grid load, an industry portal for grid planning, and a data-based tool for proactive grid planning. The second presentation was from the Massachusetts Clean Energy Center focused on their Vehicle-to-Everything (V2X) initiative. The project is designed to demonstrate the ability of electric vehicles to
- be used as a grid resource when connected to the grid. Electric cars that are plugged in and charging can be used as battery backups or part of virtual power plants. Benefits of this

technology are that it can make the grid more reliable, offset energy usage during times when energy prices are high, or send energy back into the grid for bill credit or other forms of payment. The next REVD meeting is October 16.

E. Recycling Committee

- The COG Recycling Committee ran separate, paid advertising campaigns in May and June. The May Battery Management Campaign promoted the message: “Batteries Can Spark Fires: They don’t belong in the trash or recycling. Avoid overcharging.” The campaign had a \$72,500 media buy paid for by private and public sector sponsors across broadcast radio, digital radio, web digital ads, and paid social media posts.
- The June Go Recycle Campaign ran on the same media platforms with the message: “WASTED – 1/3 of all food we buy, we throw away. Plan your shopping to save money and reduce waste.” This buy was for \$65,000 and was also paid for by private and public sector sponsors. Additionally, COG will provide members with new animated and video messages produced by the campaigns for their use in future media posts. In July, the Recycling Committee will hold a virtual meeting on the 17th focusing on Single Use Materials and Bottle Bills.

F. Regional Tree Canopy Subcommittee (RTCS)

- In their July meeting, the Regional Tree Canopy Subcommittee will begin review of the recently released Chesapeake Bay Program’s 2021-2022 Land Use/Land Cover data to examine changes to tree canopy and forest acres compared to prior assessments. In August, the Chesapeake Conservancy is expected to release their tree canopy cover factsheets by City and County. In their August meeting, the Regional Tree Canopy Subcommittee will hold a forestry workforce discussion to help inform the CCAP.

G. Greater Washington Region Clean Cities Coalition

- The Greater Washington Region Clean Cities Coalition has level 2 EV chargers available for free (installation not included). The deadline to [sign up online](#) is July 31. GWRCCC hosted several events, including two annual signature events: the Juneteenth Environmental Justice Summit and Ron Flowers Golf Outing. The Juneteenth EJ Summit, hosted at Howard University, consisted of five expert-driven panels on urban heat islands and green infrastructure, navigating policy advocacy, the power of community-owned energy solutions, advocacy efforts from houses of worship, and clean energy funding opportunities for businesses and nonprofits. Participants in the Ron Flowers Golf Outing enjoyed a day of networking and fun, while raising money for the GWRCCC Ron Flowers Future Green Leaders Scholarship, which will award 20 \$1,000 scholarships to students from the DMV pursuing a college degree or training program. The scholarship award presentation will be made at the [2025 Annual Conference, Expo, & Awards Luncheon on October 23](#).

H. Staff Updates

a. Climate Pollution Reduction Grant (CPRG) Program

- The Comprehensive Climate Action Plan (CCAP) for the Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area (MSA) is currently under development. Key elements of the plan include an MSA greenhouse gas (GHG) inventory, GHG projections, GHG reduction measures, a net zero GHG emissions scenario, a co-pollutant benefits analysis, and workforce development analysis. A new measure has been drafted for stakeholder review on data centers. This summer and early fall COG is hosting meetings with workforce development and outreach/engagement stakeholders to inform the workforce development analysis and a new outreach measure, respectively. The draft plan will be available for public comment this October and a final plan submitted to EPA by December 1, 2025.

6. ADJOURN

Cindy Dyballa, City Council, Takoma Park for Sarah Bagley, CEEPC Chair, City of Alexandria Council

Councilmember Dyballa adjourned the meeting. Upcoming CEEPC meeting dates for 2025 include:

- Wednesday, September 24, 2025
- Wednesday, November 19, 2025

All meeting materials including speaker presentations can be found on the COG website or by clicking the link below –

<https://www.mwcog.org/events/2025/7/23/climate-energy-and-environment-policy-committee/>