



## BUILT ENVIRONMENT AND ENERGY ADVISORY COMMITTEE (BEEAC)

Final Webinar Meeting Summary: September 19, 2024

### BEEAC Local and State Government Members in Attendance:

- Andy Young, Falls Church (Chair)
- Mati Bazurto, City of Bowie, MD (Co-Vice Chair)
- Al Carr, DOEE, (Co-Vice Chair)
- Amanda Campbell, City of Rockville
- Ben Burrows, Frederick County
- Beth Groth, Charles County
- Brian Booher, Montgomery County
- Chloe Delhomme, City of Manassas
- Connor Rattey, DOEE
- Demetra McBride, Arlington County
- Dory Estrada, City of Takoma Park
- Emily Curley, Montgomery County
- Erica Bannerman, Prince George's County
- Giulia Manno, Prince William County
- Hokuma Karimova, City of Gaithersburg
- Jennifer Fioretti, Arlington County
- Jeremy Good, Montgomery County
- John Morrill, Fairfax County
- Joy Togo, City of Takoma Park
- Kate Roetzer, WMATA
- Kathie Hoekstra, City of Alexandria
- Kevin Milstead, Prince William County
- Kevin Smith, Fairfax County
- Lewis Morgante, Montgomery County
- Marguerite Guarino, Fairfax County
- Maya Dhavale, Fairfax County
- Rich Dooley, Arlington County

- Ryan Caftriz, DOEE
- Shawn O'Neill, Fairfax County
- Michelle Smyk, Prince William County
- Sonia Succar Ferré
- Sosina Tadesse, DOEE
- Stephen Gyor, DOEE
- Steve Burr, Arlington County
- Valerie Amor, City of Alexandria

### Additional Attendees:

- Brian Anleu, AOBA
- Chris Pendley, AOBA
- Debra Maes, Fairfax County Public Schools
- Katie Bergfeld, DOEE
- Tabaris Smith, Emerald Cities
- Sam Furio, MDE
- Susan Gerson, Loudoun County Public Schools
- Zach Berzolla, MDE

### COG Staff:

- Alissa Boggs, COG DEP
- Leah Boggs, COG DEP
- Heidi Bonnaffon, COG DEP
- Robert Christopher, COG DEP
- Maia Davis, COG DEP
- Jeff King, COG DEP
- Tim Masters, COG DEP



### **1. CALL TO ORDER AND INTRODUCTIONS**

*Andy Young, Interim Deputy City Manager, City of Falls Church and Chair*

Chair Andy Young called the meeting to order, and introductions were given.

### **2. APPROVAL OF THE JUNE 20, 2024 MEETING SUMMARY**

*Andy Young, BEEAC Chair*

The June 20, 2024 BEEAC meeting summary was approved with no amendments.

### **3. ENERGY UTILITY DATA UPDATE**

*Alissa Boggs and Tim Masters, COG Staff*

Alyssa Boggs provided an update on the annual utility energy data survey. The survey collects electricity and natural gas consumption data from nine regional gas and electric utilities. Due to a new billing system, Dominion's 2023 data is unavailable, so 2022 data is used temporarily to maintain trend analysis.

The data, accessible to BAC members via Dropbox, shows a steady increase in electricity consumption, primarily driven by the commercial sector since 2010, while residential electricity usage remains flat. Natural gas consumption is variable and weather-dependent, with residential usage higher than commercial. Maryland has seen a recent uptick in commercial natural gas consumption due to a new power plant in Prince George's County.

Geographically, Northern Virginia, especially Loudoun and Prince William counties, has experienced significant increases in commercial electricity consumption since 2017, correlating with the growth of data centers. In contrast, Washington, D.C., and Maryland have flat consumption trends. Frederick County saw a sharp decline due to the closure of a smelting plant between 2005 and 2009.

The region is nearing one gigawatt of renewable energy capacity, mainly from solar installations. However, this figure is provisional pending Dominion's 2023 data. Wind energy contributes minimally, with fewer than 50 systems accounting for less than 15 kW of capacity.

Tim Masters discussed the greenhouse gas (GHG) inventories conducted every three years, with the 2023 inventory in progress and results expected by winter 2025. The inventories follow ICLEI's location-based approach to avoid double-counting renewable energy credits (RECs). COG is open to incorporating market-based approaches, such as power purchase agreements (PPAs), which could lower reported emissions but require additional data and parallel reporting of both location-based and market-based results.

An example highlighted is Arlington County's virtual PPA with Dominion Energy for a solar farm, covering approximately 83% of the county government's electricity usage. While this could

significantly impact government operations emissions, it would have a smaller effect on community-wide emissions.

Challenges include obtaining data on private sector REC purchases and addressing the growing energy demands of data centers, which may affect the region's ability to meet GHG reduction goals. There's a need to reassess projections.

COG is also pursuing the new energy badge from the Global Covenant of Mayors for Climate and Energy (GCoM), focusing on energy equity assessments and quantifiable goals to reduce energy burdens.

During the Q&A session, participants discussed the anticipated receipt of Dominion's 2023 data, the potential impact of incorporating market-based RECs into GHG inventories, and the complexities of accounting for private sector REC purchases and data center energy consumption.

#### 4. JURISDICTION ROUNDTABLE AND PEER EXCHANGE

##### *BEEAC Committee Members*

During a meeting on building decarbonization, representatives from Maryland and Virginia jurisdictions shared updates on their policies, property owner feedback, and support for low-to-moderate-income (LMI) buildings. The discussion was framed around three key questions:

1. **Policy Goals and Regulations for Decarbonizing Buildings**
2. **Tracking Property Owner Feedback and Responses**
3. **Efforts to Support Compliance for Affordable or LMI Buildings**

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## Maryland

### City of Rockville:

- **Adoption of 2021 IECC:** Implementing the 2021 International Energy Conservation Code with local amendments effective December 1.
- **Enhanced Requirements:**
  - **Solar-Ready Spaces:** Mandatory for residential and commercial buildings, with exceptions for shaded areas.
  - **Grid Integration:** Required for water heaters and thermostats.
  - **Energy Storage Readiness:** Provision of space and electrical capacity for energy storage in commercial buildings.
  - **Electrification Readiness:** Standards for residential and commercial buildings to include necessary electrical infrastructure for appliances like dryers and heaters.
  - **EV Charging Infrastructure:** Adoption of EV installed, EV-ready, and EV-capable standards.
- **Inquiry:** Questioned whether other jurisdictions have adopted similar EVSE (Electric Vehicle Supply Equipment) installation standards.

## Montgomery County:

- **Building Performance Standards (BEPS):** Passed in 2022; regulations are under consideration by the county council.
  - **Scope:** Applies to existing commercial and multifamily buildings over 25,000 sq ft (~1,800 buildings).
  - **Standards:** Proposed site Energy Use Intensity (EUI) targets.
- **Property Owner Feedback:**
  - **Concerns:** Impact on commercial real estate, especially post-pandemic office markets and the interplay with new rent stabilization laws.
  - **Engagement:** Extensive public comment period yielding valuable feedback.
- **Support for LMI Buildings:**
  - **Montgomery County Green Bank:** Provides technical assistance in energy benchmarking, audits, electrification feasibility, EV readiness, and renewable energy studies.
  - **Focus:** Prioritizes nonprofit-owned buildings and those in equity emphasis areas.

## Montgomery County:

- **Electrification Pilots:**
  - **Electrify MC:** Targets market-rate households, offering incentives through a specific contractor for various electrification projects.
    - **Future Plans:** Expand contractor options to allow residents to work with preferred providers.
  - **HEECAP (Home Energy Efficiency and Climate Action Program):** Launched in June for LMI households.
    - **Services:** Includes electrification, climate adaptation, and pre-weatherization efforts.
    - **Challenges Addressed:** Addresses issues like roof repairs, mold, and asbestos that disqualify homes from state weatherization programs.
- **Additional Initiatives:**
  - **Home Energy Labeling Program:** Plans to provide home energy scores at the time of property listing to inform buyers and encourage decarbonization.
  - **Feedback Mechanisms:** Surveys sent to Electrify MC participants to gather insights.

## City of Takoma Park:

- **Promotion of County Programs:** Actively supports Electrify MC and HEECAP, assisting residents, especially seniors, in application processes.
- **Multifamily Building Improvement Grant Program:**
  - **Objective:** Targets multifamily buildings, which constitute 50% of the city's building stock, many housing LMI residents.
  - **Approach:** Conducts mandatory energy audits before awarding grants for electrification and decarbonization projects.
  - **Funding:** Combines remaining ARPA funds, DHCD grant money, and city budget allocations.
  - **Focus:** Aims to upgrade older buildings in need of significant improvements.

## District of Columbia

- No additional comments were provided by representatives from the District.

## Virginia

### Arlington County:

- **Green Building Incentive Program Overhaul:**
  - **Approach:** Transitioned from relying solely on incentives due to state limitations on mandates.
  - **Updates:**
    - **Inclusion of Existing Buildings and Adaptive Reuse Pathways:** Expanded focus beyond new construction.
    - **Incentivizing Net Zero and ILFI Designs:** Encourages designs that inherently include electrification.
    - **Financial Incentives:** Introducing financial benefits for the first time.
  - **Public Engagement:** Ongoing briefings with various groups; a detailed briefing deck is available upon request.
- **County Facilities Policy Update:** Plans to update the Sustainable Facilities Policy early next year to reflect new decarbonization goals.
- **EPA Environmental Justice Grant Project:**
  - **Deliverable:** Developing an open-source decision support tool to assist developers and building owners, especially in disadvantaged communities.
  - **Purpose:** To model and analyze building profiles, demystify decarbonization processes, and encourage voluntary compliance.
- **Challenges with EV Infrastructure:**
  - **Grid Capacity Issues:** Developers report insufficient grid capacity, requiring costly investments in transformers and infrastructure.
  - **Impact on Goals:** Additional capital funds are often needed to meet electrification and EV charging targets, particularly in high-density areas.

### City of Alexandria:

- **City Building Performance Program:**
  - **Aim:** Benchmarks all city buildings and creates energy plans aligned with Energy and Climate Action Plan (EAP) 2040 goals.
  - **Process Improvement:** Seeks to optimize resource allocation and avoid emergency responses in maintenance and capital improvement processes.
- **Public Engagement Initiatives:**
  - **Eco City Academy:** Designed to educate the public on energy savings and environmental impact.
  - **Green Business Recognition Program:** Encourages businesses to adopt sustainable practices by highlighting and supporting their efforts.
- **Policy Updates:**
  - **Green Building Policy:** Currently updating the 2019 policy; details to be shared when available.
- **Exploration of New Technologies:**

- **Utility-Scale Geothermal Projects:** Proposed initiatives to incorporate geothermal energy, facing right-of-way challenges similar to those in EV infrastructure expansion.
- **EV Program Expansion:** Robust efforts to enhance electric vehicle adoption and infrastructure.

#### Key Takeaways:

- **Collaborative Efforts:** Jurisdictions are actively sharing strategies and challenges to accelerate building decarbonization.
- **Policy Implementation:** Adoption of updated building codes and performance standards is central to achieving decarbonization goals.
- **Community Engagement:** Programs targeting residents, businesses, and disadvantaged communities are crucial for widespread adoption.
- **Infrastructure Challenges:** Grid capacity and infrastructure costs are significant hurdles, particularly in high-density urban areas.
- **Innovation and Incentives:** Financial incentives, pilot programs, and open-source tools are being developed to encourage voluntary compliance and innovation in the private sector.

## 5. BUILDING DECARBONIZATION: POLICY AND IMPLEMENTATION IMPACTS

*Steve Burr, Arlington County*

*Building Decarbonization Team, Maryland Department of the Environment*

*Brian Anleu, Apartment and Office Building Association*

*Katie Bergfeld, DC Department of Energy & Environment*

A panel discussion on building decarbonization was held, focusing on policy requirements and regulations developed by state and local governments and their impact on the private sector in the region.

#### Building Decarbonization Goals and Regulations:

- **Arlington County:**
  - Implementing goals from the Community Energy Plan and a carbon roadmap.
  - Participating in the Better Climate Challenge program.
  - Utilizing a Sustainable Facilities Policy for new building construction.
  - Developed a decarbonization tool to assess energy efficiency and decarbonization opportunities in existing buildings.
- **Maryland Department of the Environment:**
  - Enacting the Climate Solutions Now Act of 2022, aiming for a 60% reduction in greenhouse gas (GHG) emissions by 2031 compared to 2006 levels and net-zero emissions by 2045.
  - Developing Building Energy Performance Standards (BEPS) to reduce emissions from the building sector.
  - Requiring building owners to report energy use data annually starting June 1, 2025, and meet phased emission standards beginning in 2030.
- **District of Columbia:**
  - Pursuing a 60% GHG emissions reduction by 2032 and carbon neutrality by 2045, mandated by the council.

- Implementing a 100% Renewable Portfolio Standard (RPS) by 2032, with 15% from local solar by 2041.
- Planning for net-zero building codes by 2026.
- Established BEPS requiring buildings that do not meet energy performance standards to make efficiency improvements over a five-year period, targeting a 20% reduction in site Energy Use Intensity (EUI).

#### **Impact on Property Owners and Challenges (AOBA):**

- **Positive Impacts:**
  - Changed conversations among property owners, prompting considerations for electrification as equipment reaches end-of-life.
  - Increased energy audits and exploration of decarbonization strategies due to available funds and technical assistance programs.
- **Challenges:**
  - Financial limitations and uncertainty about funding required upgrades.
  - Tension between housing affordability and the costs of compliance, especially in areas with rent stabilization.
  - Implementation timelines may not align with equipment lifecycles, creating logistical and financial hurdles.

#### **Cost-Effectiveness of Policy Elements:**

- **Arlington County:**
  - The decarbonization tool aids in data-driven decision-making, evaluating GHG savings, energy impacts, and cost-effectiveness.
  - Emphasizing pre-planning to anticipate costs and timelines, particularly regarding electrical service upgrades.
- **Maryland:**
  - Energy efficiency measures are highly cost-effective; modeling indicates average savings of \$4.47 per square foot over 25 years for Maryland buildings.
  - Efficiency also contributes to a 6% reduction in peak energy demand.
- **District of Columbia:**
  - Retro-commissioning, LED lighting, water efficiency measures, and variable frequency drives (VFDs) are identified as cost-effective strategies.
  - The Affordable Housing Retrofit Accelerator provides free energy audits and helps affordable housing buildings comply with BEPS.

#### **Compliance and Risk Mitigation Strategies (AOBA):**

- Property owners are at different stages regarding fines and compliance:
  - Some consider fines in their financial planning.
  - Others are aware but not yet incorporating fines into decision-making due to timelines.
  - A few are not yet recognizing fines as a factor.
- Proactive strategies include optimizing existing systems and planning for electrification at the end of equipment lifecycles.

### Modeling and Data Tools Used:

- **Arlington County:**
  - The decarbonization tool incorporates Advanced Metering Infrastructure (AMI) data for load analysis.
  - Robust energy management tracking systems and public energy dashboards.
- **Maryland:**
  - Utilizing the U.S. EPA's Energy Star Portfolio Manager for benchmarking and compliance tracking.
  - Collaborating with Lawrence Berkeley National Laboratory for modeling and analysis.
- **District of Columbia:**
  - Clean Energy DC website provides public tracking of climate action progress.
  - An interactive benchmarking map displays energy performance data for buildings.
  - The BEAM (Building Energy Assessment Manager) tool manages data collection, quality checks, and compliance tracking.

### Impact on Small Property Owners and Underserved Communities (AOBA):

- Small property owners face staffing challenges and may lack dedicated sustainability personnel.
- Underserved communities might experience increased rents due to the costs of compliance.
- There is a potential risk of tenant displacement if property owners opt for redevelopment over upgrades.

### Ensuring Equitable Access to Resources:

- **Arlington County:**
  - Received an EPA Environmental Justice grant to develop an open-source decarbonization tool tailored for disadvantaged communities.
  - Plans include community outreach and creating a financial toolkit.
- **Maryland:**
  - Established a cohort for local governments to collaborate on BEPS implementation.
  - Engaging community navigators to assist underserved communities.
  - Department of Housing and Community Development offers funding covering up to 100% of weatherization and electrification costs for low-income households.
- **District of Columbia:**
  - Conducted discussion groups with affordable housing stakeholders.
  - Established the Affordable Housing Retrofit Accelerator to provide technical assistance and funding.
  - Engaging residents directly through grant projects and exploring retro-commissioning pilots for smaller buildings.

### Conclusion:

The panel highlighted the collaborative efforts between governments and the private sector to achieve building decarbonization goals. While significant progress is being made, challenges such as financial limitations, housing affordability, and equitable access remain. Innovative tools, technical assistance programs, and community engagement are key strategies being employed to address



these challenges and support property owners in the transition to more energy-efficient and sustainable buildings.

## 6. COG UPDATES AND ANNOUNCEMENTS

COG Staff

Updates:

- **Solar Seminar Announcement:**
  - **Partnership:** Collaborating with Mason Energy, a George Mason University initiative, and other local and regional partners.
  - **Purpose:** To convene stakeholders in fall 2024 and spring 2025 to accelerate action and address challenges in non-utility scale solar deployment in the region.
  - **Fall Workshop Details:**
    - **Date:** October 28
    - **Location:** George Mason University's Arlington County campus
    - **Time:** 10 a.m. to 4 p.m.
    - **Focus:** Designed to convene various sectors of local government involved in launching solar initiatives, including energy procurement and facility staff.
  - **Encouragement:** Attendees are invited to learn from experts in the solar arena, with a follow-up event planned for spring 2025.
  
- **Electric Vehicle (EV) Initiatives:**
  - **REVI Strategy Completion:**
    - The Regional Electric Vehicle Infrastructure (REVI) strategy has been finalized.
    - **Objectives:**
      - Identify locations for publicly accessible Level 2 and DC fast charging stations.
      - Support reliable access to publicly accessible EV charging infrastructure.
      - Ensure all regional populations can access the financial and environmental benefits of EVs.
    - **Resources:**
      - An email was sent with links to the strategy and jurisdictional profiles.
      - A mapping tool is available to help jurisdictions determine optimal locations for charger installations.
  - **Funding Announcements:**
    - COG was awarded nearly \$4 million in the Charging and Fueling Infrastructure Round 1B awards to support the installation of electric chargers across the region.
    - Under the Carbon Reduction Program, the City of Rockville and Montgomery County received funding for EV chargers, supporting efforts to reduce greenhouse gas emissions.

- **Environmental Justice Subcommittee:**
  - **Launch and Activities:**
    - The subcommittee kicked off in May.
    - Approved a stakeholder engagement strategy in collaboration with AECOM (consultant) and Equitable Cities (subcontractor).
  - **Stakeholder Engagement:**
    - Round one of stakeholder engagement is underway across the region, set to conclude at the end of the month.
    - Feedback from this round will inform the development of a draft Environmental Justice Action Plan.
    - The draft plan will be presented back to communities for review in a second round of engagement.

## 7. 2024 MEETING SCHEDULE AND ADJOURNMENT

*Andy Young, Falls Church (BEEAC Chair)*

2024 BEEAC Meeting Schedule (Virtual meeting only\*):

- November 21, 2024\*

Chair Young adjourned the meeting.

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

<https://www.mwcog.org/events/2024/9/19/built-environment-and-energy-advisory-committee/>

**The next BEEAC meeting is November 21, 2024.**

Reasonable accommodations are provided upon request, including alternative formats of meeting materials. For more information, visit: [www.mwcog.org/accommodations](http://www.mwcog.org/accommodations) or call (202) 962-3300 or (202) 962-3213 (TDD)