



BUILT ENVIRONMENT AND ENERGY ADVISORY COMMITTEE (BEEAC)

Draft Meeting Summary: July 18, 2019

BEEAC Members In Attendance:

Gina Mathias, City of Takoma Park (Chair)
Bill Eger, City of Alexandria (Vice Chair)
Dawn Hawkins-Nixon, Prince George's County*
Joan Kelsch, Arlington County
Daniel Lee, WMATA
Dale Madearis, NVRC
Chris McGough, Fairfax County
Kevin Milsted, Prince William County*

Additional Attendees:

Kate Daley, Fairfax County
Melissa Deas, DOEE
Rich Dooley, Arlington County*
Alex Fisher, DOEE
Ned Gardiner, NOAA*
David Terry, NASEO
Sosina Tadesse, DOEE

COG Staff:

Steve Walz, COG DEP
Jeff King, COG DEP
Leah Boggs, COG DEP
Maia Davis, COG DEP
Tim Masters, COG DEP
Doug Abbot, COG DEP

* Indicates participation by phone

1. CALL TO ORDER AND INTRODUCTIONS

Gina Mathias, City of Takoma Park (BEEAC Chair)
Chair Gina Mathias called the meeting to order.

2. APPROVAL OF MAY 16, 2019 DRAFT MEETING SUMMARY

Gina Mathias, City of Takoma Park (BEEAC Chair)
The May 16 meeting summary was approved.

3. COG ANNOUNCEMENTS AND UPDATES

Leah Boggs, COG

- The Mid-Atlantic PACE Alliance (MAPA) has reported that 17 counties in Maryland have

adopted a Commercial PACE program, of which many have joined the State program. In Virginia, the Arlington County C-PACE program is moving forward, and Fairfax County and Loudoun County have recently passed legislation to enable C-PACE financing in their respective jurisdictions. MAPA's DOE grant ends at the end of the year, but MAPA will continue it's work as a 501(c)(3) organization.

- Last November, COG hosted a workshop entitled “Benefits of a Green Bank for your Community”. From this conversation, the idea of a regional green bank developed. Related to this, on August 6, there will be a conversation on [Compliance Assistance and Green Incentives for District Buildings](#).

Tim Masters, COG

- On June 20, COG hosted a Clean Energy Financing Workgroup meeting. Representatives from COG member jurisdictions, PACE administrators from throughout the region, and other stakeholders attended to discuss Commercial PACE programs in the region. There is a need for more discussions around this topic with regard to PACE program design and how this differs and compares across jurisdictions. PACE for new construction is also a key interest of the group, and marketing PACE efforts presents some challenges to PACE adoption. Next steps will involve updating a comparison of PACE programs in the region and identifying best practices.
- Tim Masters will be leaving COG at the end of July. He will be moving to Spain to be with his fiancée. This is his last BEEAC meeting.

4. JURISDICTION UPDATES AND PEER EXCHANGE ROUNDTABLE

Gina Mathias, City of Takoma Park –

- Takoma Park is working on their new sustainability and climate action plan, which they contracted with Cadmus (through COG's contract). Resiliency will be included in this plan, although it will not be something that a lot of attention is given to, as the deadline for this plan is very soon (December 31).
- Takoma Park has been involved in some resiliency planning, but there will be a more robust resiliency plan looking at stormwater issues moving forward. The City was not able to apply to MEA Resiliency Hubs grant due to the use of gas generators in their community and public works building. As Takoma Park is a small city, it is difficult to find the time and resources necessary for greater resiliency planning. The City's emergency response manager is more focused on other emergencies, and not climate emergencies. COG could provide planning assistance and/or technical assistance with regard to resiliency efforts.

Joan Kelsch, Arlington County

- Arlington County's community energy plan will be going to the County Board in September. The County will have a new goal of reaching carbon neutrality by 2050. A part of this is the County Facility Sustainability Policy for County government facilities. This policy calls for net zero energy buildings wherever possible. This has been challenging to implement. Arlington County also has a Green Building Policy to incentivize privately-owned developers to build more sustainable projects, which is being revised to set goals higher.
- Arlington has some stormwater management issues. COG could push for education and financing options in this regard.
- Arlington County kicking off overland flooding study, and details will be forthcoming. In the past few weeks there has been some intense flooding in the County and there is a need to factor this into future planning activities.

Sosina Tadesse, DOEE

- The library in South West DC, is going to have electricity supplied by solar energy (135 kW

capacity) and a battery. This project will be completed around September. There is a big solar project that is being developed in Oxon Run. There has been community engagement through the Neighborhood Association, and now the area is being prepared for development.

- DC has updated their 2018-2022 action plan, which includes some resiliency planning.
- COG's support would be helpful with regard to energy emergency and assurance. There is a need for practice exercises and education/training in this area. Fuel suppliers for the District also supply New York and New Jersey, and energy assurance is a concern if there are disruptions in fuel supply.

Melissa Deas, DOEE

- Climate Ready DC is the District's resilience and climate adaptation plan. Energy resilience is part of this and there has been more progress on implementing these practices. Resilient design guidelines are being developed with public facilities, waterfront developments and roads are a major focus, as well as critical infrastructure (schools, police stations, etc.). DC's clean energy plan also covers resilience in its goals (this plan is focused on goals for 2032). The climate neutrality plan also has these goals (this is currently in draft form and will focus on path to carbon neutrality by 2050).
- DC is looking for funding to do work with hospitals. They are also seeking funds for integrated flood mapping and this will be looked into in the coming months. The District needs to identify flooding hotspots and understand the drainage dynamics at play. In this regard, DC Water is looking at pumping stations.

Alex Fisher, DOEE

- Nothing very definitive came out of a working group focused on grid modernization, but it pushes for interconnection rules for storage projects, as there are none. This has been helpful for storage projects, as well as islanding projects that act as microgrids.

Dale Madearis, NVRC

- Some representatives from the NVRC and local jurisdictions in Northern Virginia went on a Germany trip last month to learn about sustainability initiatives there. By the end of August, the lessons learned from Germany will be ready for sharing.

Bill Eger, City of Alexandria

- On June 22, the City passed updates to its Green Building Policy. On the municipal side, net zero energy developments will be required of new construction in the City starting in March 2020. On July 9, the City passed its sustainability plan, which includes aggressive climate action goals. Most of the resiliency work is in the riverine area. There is still a lot of space to improve in this area, and equity should also play an important role here. Building this focus into emergency plans would be a great step forward. The municipal campus planning effort will take climate and resilience factors into account.
- The subcommittee, RESF12, is an energy emergency-focused function (Bill is chair) and it has been a challenge to bring the climate and energy emergency piece to emergency planners' attention. Fuel supply is important in this regard, and there is a need for more conversation on this. RESF12 wrote a proposal to consolidate energy emergency plans, as there are a few plans and they are over 40 years old. There should be work to address this in RESF12 moving forward.

5. THE NEXUS BETWEEN RESILIENCE PLANNING, ENERGY AND THE BUILT ENVIRONMENT

Ned Gardiner, NOAA

There is a lot of great work happening in the metropolitan Washington area, such as the flood risk management planning. Projecting decades into the future is always a difficult task. Taking the socioeconomic systems and their interaction with the climate system into account is very critical for planning purposes and projecting future scenarios. Resilience in the context of climate adaptation is

the extra capacity that is built into a system (e.g. energy, buildings, critical infrastructure) to minimize disruption from climate emergencies. Practical guidance to achieving resilience from a climate perspective includes two very important steps; 1) exploring the hazards, and 2) assessing vulnerability and risks.

There is a trend in the DC region of an increasing number of very warm nights where the temperature does not drop below 75°F, as well as an increasing number of hot days. This is a concern with regard to energy demand, health, and building resilience. Studying the impacts of the urban heat island and sea level rise is becoming a greater concern. There is growing interest in the practical responses to flooding events and increases in annual precipitation, as well as increasing precipitation intensity, which is projected for cooling degree days (something to consider in planning). There are also transition risks; for example, the supply and demand of energy and its effect on the grid, especially with increased renewable energy generation. The [Steps to Resilience](#) is a part of the [US Climate Resilience Toolkit](#), which aims to build in decision making processes for planners. There is need for resources to aid in decision-making.

David Terry, NASEO

There are many solutions with regard to energy resilience at the local level. The federal government has not had a major role in this work. Thus, local planning is crucial. DOE work with NASEO on energy emergency planning, specifically crafting guidance that is more streamlined and testing this out. Cybersecurity also a concern and there is this “emergency convergence” (natural disaster and cybersecurity attack) conversation. Framing the conversation around health and safety issue can be an immediate and impactful strategy for advocating for more funding in this space.

There seems to be an over-focus on the grid, and an under-focus on fuels. Fuel supply remains a weak link, as there is a lack of attention given to fuels. Diversifying vehicle fleets can be a great way to address this weakness, as electric vehicles are a great help with regard to emergency response, as they do not require conventional fuels. There is a lot of faith in natural gas, and this should also be taken into account. Tying resilience and emergency response more closely together is essential. Backup generation is an issue, with transfer switches, propane and diesel backup generation. These are fairly critical for a number of functions.

FEMA’s disaster recovery response began as a tiny disaster mitigation fund, but this is changing and they are beginning to provide more funding for pre-disaster mitigation measures. In September/October this funding will become available and it will be new and larger than what FEMA has dealt with in the past. There has been a lot of political support for this as well, from both Democrats and Republicans. That being said, emergency planning efforts need to continue at the local/regional level.

Questions:

- There is a concern of the impacts of the shutdown of a refinery plant in Pennsylvania. Are there any concerns for the impact on the metropolitan Washington region? Disaster response is crucial for the cascading effects. It is not a concern now, but there could be issues moving forward.
- Greenhouse gas-friendly refrigerants and diversifying fuel types are part of the solution. With regard to the regional/jurisdictional response, are their regional discussions about this? If every jurisdiction is producing their own action plan for energy emergency response, won’t there be a degree of completion between localities in emergency situations? There certainly

needs to be more coordination between jurisdictions and there should be more regional discussions on this.

Dale Madearis, NVRC

Since 2016, the NVRC has looked at floodplain management, mapping the coastal areas of Virginia. The NVRC is one of seven planning organizations that are part of a broader coastal management coordination process. In 2016, flooding was identified as one part of a set of efforts that needed attention. With some support from NOAA and FEMA, the NVRC convened a range of stakeholder meetings to discuss strategies around flood management planning. Since then, they have consulted with experts to identify stressors and mapping out an action plan. These stressors include heat, extreme precipitation, sea level rise, and storm surge. The focus has been on critical infrastructure. An important factor for Northern Virginia to consider is data center resilience. More than 70 percent of the world's internet traffic flows through Loudoun County. If there is a disruption to that, the impacts can be severe not only for the County, but also for national and global security. The NVRC is a small agency with modest funding and these are very serious issues that require a lot of investment. The technical expertise made available through their membership to the American Geophysical Union (AGU) has been a great help. They have a special initiative called the Thriving Earth Exchange, which draws on AGU's membership who work voluntarily at the local level. This has helped the NVRC plan strategies to respond to the local trends projected out to the next few decades. They hope to have results from this work by December this year.

Rich Dooley, Arlington County

Arlington County has been updating their Community Energy Plan. They are reassessing their plan based on changes in the energy sector. In the last five years, the County has also conducted feasibility studies. District energy was one of their six goal areas in their June 2013 Community Energy Plan. District energy feasibility studies have been done for Crystal City and Pentagon City, and in the Courthouse area. These showed a viable path forward for using public funds for district energy systems. The decision was made to not pursue that, but this will be revisited as market conditions warrant these changes. About year ago, while drafting the updated plan, district energy and the localization of energy generation were considered as options for increasing energy security and this was rolled into a larger resiliency chapter. The changes to the plan will be brought to the September County Board meeting for approval. The County is not turning blind eye to other technologies that would facilitate greater resiliency such as combined heat and power and solar-plus-storage. They have also been examining the role of microgrids and how this could enhance continuity of operations and community resilience. Montgomery County's efforts have been an inspiration. The County would like to go back to the Board with the objective to increase the resilience focus. Three points are important for this plan; 1) energy security, 2) economic competitiveness, 3) environmental protection. They have added a fourth lens of importance recently, which is energy equity.

Discussion:

- The Corps flood risk assessment study is moving forward and will be looking at storm surge in particular, as well as modelling the impacts of flooding on critical infrastructure.
- Building envelopes and the effect this has on energy efficiency is an important issue to be factored into regional planning efforts. Reducing demand is critical. Housing affordability is another factor to be taken into account. With regard to housing efforts, there is a need to make sure there is crossover between environmental efforts and affordable housing. "Affordable living" should be the aim.
- DOEE has developed a solar and resilience audit tool for multifamily buildings. This can be

used by affordable housing developers to assess properties. Click [here](#) for more information. It is a excel spreadsheet tool. The Urban Land Institute has incorporated some of the building utility costs into some of their work. There is a need to look beyond upfront costs.

- The upcoming September 19 BEEAC meeting will deal with energy efficiency and affordability.

6. NEXT BEEAC MEETING DATE AND ADJOURNMENT

Gina Mathias, City of Takoma Park (BEEAC Chair)

Chair Gina Mathias adjourned the meeting.

All meeting materials can be found on the MWCOC website or by clicking the link - <https://www.mwcog.org/events/2019/7/18/built-environment-and-energy-advisory-committee-beeac/>

The next BEEAC meeting is September 19.

The next CEEPC meeting is July 26.

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