

Built Environment and Energy Advisory Committee (BEEAC)

Meeting Summary: June 16, 2016

MEMBERS AND ATTENDEES:

Michelle Vigen, Montgomery County (Chair)
Kate Walker, City of Falls Church
Tim Stevens, City of Falls Church
Loren Bruce, City of Falls Church
Jeannine Cooper, Arlington County
Lisa Orr, Frederick County (by phone)
Najib Salehi, Loudoun County (by phone)
Lindsay Shaw, Montgomery County
Ellen Eggerton, Fairfax County (by phone)
Emil King, District of Columbia
Marshall Duer-Balkind, District of Columbia
Cindy Zhu, US DOE
Francis Moxey, Montgomery County
Xi Chen, WMATA

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 May meeting were revised and approved by the attendees.

2. Jurisdiction Updates

Fairfax County: The Fairfax County Board of Supervisors 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. The county is also opening its Environmental Excellence 20 Year Vision to public comment with an online survey on the county webpage and public meetings in July.

Frederick County: Frederick County launched its first 5 all-electric transit buses; the first stage in replacing the entire fleet. The county plans to fund 2 more buses under an upcoming grant. Frederick County was also awarded a \$930,000 grant from MEA for its power-saver retrofit plan.

DC: The District of Columbia is in the final stages of a draft version of its comprehensive energy plan, which will be released for comment soon. The district is also seeking scalable and replicable solar project ideas to provide solar benefits to its low-income residents.

Montgomery County: Montgomery County had its first reporting deadline for private buildings on June 1st, receiving about 60% compliance; county buildings also reported for this deadline and were 100% compliant. Montgomery County received its first commercial PACE application and will be expecting more in the near future. The county's green bank should have its roster finalized soon, although the Montgomery County financial director, an important proponent of the green bank, is moving to WSSC. Montgomery County also brought on a new environmental staff member. The state of Maryland Public Service Commission also recently adopted community solar regulations that will have an impact on the county's solar projects.

3. Regional Goals and Measurable Outcomes for Energy and the Built Environment

Steve Walz, COG DEP, Director

The third edition of the CEEPC Action Plan, which will be outlining the region's climate and energy goals between 2017 and 2020, will be finalized by the end of the year. This short-term plan is the third iteration of the regional actions to reduce greenhouse gas emissions built off of the comprehensive 2008 regional climate report. The 2017-2020 plan builds from the previous action plan, which included 59 implementation actions to achieve the overarching goal of reducing regional emissions by 20% below 2005 levels by 2020. Progress toward this goal is tracked with CEEPC's annual Climate and Energy Surveys and will also be impacted by the Multi-Sector Working Group (MSWG) strategies on energy and the built environment.

The 2013-2016 action plan adhered to six main goals, including reducing emissions and non-transportation energy use by 20% below 2005 levels by 2020, having 10% of regional electricity consumption from renewable sources by 2016, minimizing emissions from the transportation system, increases resiliency and sustainability of the regional infrastructure, economy, and environment, and improving public understanding of climate change. Progress was made on all of these goals, many of which carry into the next action plan. Some implementation actions saw stronger improvement than others, demonstrating areas where the region thrives and where progress can still be made. The results of the 2016 surveys are now available for all 59 implementation actions.

The CEEPC Action Plan is based largely on greenhouse gas emission data from 2005 and COG has conducted many studies to track and compare the region's progress and development since 2005. In overall emissions, the region has met its 2012 reduction goal and is on-track to achieve the 2020 target. Regional energy consumption has remained relatively static despite sizable population growth between 2005 and 2015. Renewable energy production has surpassed the 2016 goal of 10% of regional consumption and vastly exceeded its grid-connected renewables goal. This progress will be reflected in the next action plan and targets.

The MSWG targets will also build onto the implementation actions for the 2017-2020 plan. MSWG strategies fall under three categories, based on regional survey responses. Solid waste, new and existing buildings, non-road equipment, tree canopy, activity center development, and public sector

fleet alternative fuel use goal were found to be consistent with local policies and implementable with regional action. Infrastructure energy, Clean Power Plan support, distributed renewables, system operations, travel demand management, transit enhancement, private fleet fuel economy, and transit fare reduction goals were found to be consistent with local policies and implementable with selected local action. Natural gas leaks, carbon fuel standard, highway speeding, and truck-stop electrification goals were found to be strategically dependent on larger political entities and only implementable through regional support options.

Moving forward on the climate action plan, it is important to have consistent metrics and approaches. Research and analysis were conducted on national and international best practices for regional applicability. Research found that most cities focus on commercial buildings in their energy reduction plans, which has an important implication on the MSWG built environment work. However, the residential sector is also a large factor, as residential emissions account for about a third of the regional total. The region has typically focused on commercial emission because they are easier to regulate and enforce, but residential sector emissions will have to be regulated to meet the regional goals going forward.

Discussion

BEEAC members asked about the original 5,000 system renewable energy goal and were told that the goal was set without a clear idea of the regional capacity or the systems and infrastructure already existing. The low cost of solar and high availability of SRECs were also not anticipated. BEEAC members also discussed the difference between measuring renewable growth by capacity versus number of systems installed and how the number of systems was chosen as the metric.

4. Better Buildings Challenge: National and Local Perspective

Cindy Zhu, US DOE

Jeannine Cooper, Arlington County

Marshall Duer-Balkind, District of Columbia

Better Buildings Initiative

In 2011, the US Department of Energy (US DOE) was challenged to create a program to make buildings 20% more energy efficient over the next 10 years and help accelerate private sector investment in energy efficiency. The Better Buildings Challenge was created as a response and partners were required to set a public goal of a minimum 20% reduction portfolio-wide over 10 years, share transparent examples describing what they've done and how they've done it, and report annually on progress. Since its inception, the Better Buildings Challenge has over 300 partners in the commercial, industrial, public, and private sectors, representing over 4 billion square feet, \$5 billion in private funding, and \$2 billion in federal commitment. The Better Buildings Initiative's implementation model sets a goal, identifies the barriers to achievement, and creates a solution by working with the partner. Cities, counties, educational institutions, and corporations have goals across their portfolios.

The Better Buildings Alliance is not part of the Better Buildings Initiative, but also works with the US DOE and offers members and partners peer-networking opportunities and public access to best practices and technology demonstration. Alliance members commit to setting an organization-wide

energy reduction goal of 2% per year or greater and assign a representative to communicate with the US DOE on progress and barriers. The Alliance is organized by building sector and technology versus market solutions targeted to help members.

Under the US DOE, Better Buildings also promotes an adoption campaign by choosing a technology ready for market adoption each year and offers awards, advice, and case studies to encourage implementation. Jurisdictions and organizations can also be recognized under the adoption campaign retroactively for work they have already done in the area. Currently, the adoption campaign is working on LED lights with controls, focusing on troffer lighting commitments.

Arlington Building Perspective

Arlington County has made a commitment under the Better Buildings Challenge of 1.9 M square feet of municipal buildings and is currently showing an 11% improvement from its 2009 baseline. The county's showcase is its Central Library, representing 137,000 square feet, 28% energy savings, and \$56,000 in cost savings. These savings were achieved with lighting retrofits throughout the building and solar panels on the library roof. Under the Better Building Challenge, Arlington County hopes to achieve its commitment in tandem with the Arlington Initiative to Rethink Energy (AIRE) energy goals set in 2007.

District of Columbia Building Perspective

The District of Columbia's goal under the Better Buildings Challenge is to engage the local community in reducing energy consumption in over 65 million square feet of buildings by at least 20% by 2020 across public and private buildings. This involves a community-wide planning initiative, legislation, and public-private partnerships to engage the local community in achieving energy reduction. Public buildings account for 230 buildings and 21 million square feet of the portfolio; the public buildings do not include federal buildings or instrumentalities (like DC Water). The portfolio includes DC public schools, which account for most of the existing portfolio. Private buildings included in this challenge are measured using the energy benchmarking data collected annually by the DC Department of Energy and Environment (DOEE). Accessing private building data and data quality have been challenges for DC's commitment.

Another challenge has been building turnover in the district. The DOE wants to track a static set of buildings but DC sees a high level of property turnover, renovation, construction, and non-compliance, creating a flux of buildings in and out of the sample. In order to address this problem, the US DOE now tracks DC's progress in average annual percent improvement. Since the inception of its Better Buildings Challenge, the district has seen a 2.9% annual improvement in public building energy efficiency and a 10% decrease in energy intensity in private buildings, resulting in \$1 million in energy savings.

A large challenge facing the district's commitment is community engagement. There is a lack of awareness of participation in the Challenge, buy in to commitment, and marketing theme to get buildings involved. The district could more effectively leverage engagement to increase local interest and action.

Discussion

BEEAC members asked if incentives were offered to encourage new developments or retrofits to become a part of the Better Buildings Challenge and were told that public recognition as energy leaders, data assistance, the ability to learn from case studies, the economics of energy saving, and third party verification of energy savings were the incentives and benefits of participating in the program.

5. 2017-2020 CEEPC Action Plan Goals and Metric Discussion

Leah Boggs, COG DEP

In setting the stage for 2020 and the upcoming action plan, the region needs to build on the MSWG report and renewable energy potential study, expand the use of performance-based metrics, and create an array of implementation action options for a broader understanding of local action. A final action plan needs to be finalized by the last CEEPC meeting on November 16th and BEEAC must complete its feedback by the September meeting.

Regional 2020 goals include reducing greenhouse gas emissions and non-transportation energy consumption to 20% below 2005 levels, resulting in 10,000 high performance buildings. Implementation actions to achieve these goals include adopting the current version of the IGCC energy standard, adopting the current version of the IECC, implementing a commercial building benchmarking program, and publicly disclosing government building energy use. By 2020, the region also has a goal to increase renewable energy production to 25% of its electricity consumption, resulting in 25,000 distributed renewable energy systems and 3,500 million kWh in green power purchases. Implementation actions to achieve this goal include streamlining the permitting and inspection process, adopting a solar access ordinance, allowing solar, with reasonable conditions, in historic neighborhoods, and requiring new buildings to install distributed renewable energy systems.

Discussion

BEEAC members asked what local governments can do to support these goals and were told that going forward the “option menu” will be important in acknowledging what different jurisdictions are doing to work towards these goals, as some jurisdictions have less control than others, making reporting flexibility important. Avoiding double-counting and allowing flexibility in the new reporting metrics will also help provide a more accurate reading of how the region is progressing. BEEAC members also mentioned that it could be beneficial to have separate goals for government and non-government emissions.

6. COG Updates

The National Association of Region Councils (NARC) will be having a cooperative purchasing opportunity for alternative fuel vehicles in July, which member jurisdictions can participate in if interested.

A building codes training workshop will be taking place July 21 at COG 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.

7. Upcoming Meetings and BEEAC Adjournment

- CEEPC Meeting – July 27, 2016
- BEEAC Planning Call – July 7, 2016
- BEEAC Meeting – July 21, 2016

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