

Metropolitan Washington Council of Governments (MWCOG)  
**Climate, Energy and Environment Policy Committee (CEEPC)**  
Meeting Summary: May 27, 2015

**Members and Alternates in Attendance:**

Roger Berliner, Montgomery County (Chair)  
Jay Fiset, Arlington County  
Chris Somers, Arlington County  
Bill Updike, District Department of Environment  
Austina Casey, District Department of Transportation (by phone)  
Andy Beacher, District Department of Transportation (by phone)  
Jamie Nolan, Department of Energy SunShot Initiative (by phone)  
Linda Silverman, Department of Energy  
Bucky Green, Environmental Protection Agency  
Kambiz Agazi, Fairfax County  
Penelope Gross, Fairfax County  
Malcolm Watson, Fairfax County (by phone)  
Jeff Platenberg, Fairfax County Public Schools (by phone)  
Devin Hartman, Federal Energy Regulatory Commission (by phone)  
Dyan Backe, City of Gaithersburg (by phone)  
Dawud Abdur-Rahman, General Services Administration Director of Planning  
Alissa Manega, General Services Administration  
Kyle Reagan, General Services Administration  
J Davis, City of Greenbelt (by phone)  
Mike Barancewicz, Loudoun County Public Schools (by phone)  
Kathy Magruder, Maryland Clean Energy Center (by phone)  
Luke Wisniewski, Maryland Department of Environment  
Mike Lake, Maryland Department of Transportation (by phone)  
Laura Rogers, Maryland Department of Transportation  
Doug Weisburger, Montgomery County  
Nick Bonard, National Capital Planning Commission  
Matt Dernoga, Prince George's County  
Erica Bannerman, Prince George's County  
Julie Palakovich Carr, City of Rockville (by phone)  
Gina Mathais, City of Takoma Park (by phone)  
Fred Schultz, City of Takoma Park  
Kate Brandt, White House Council on Environmental Quality

Glenna Tinney, ACPAC Chair  
Lori Arguelles, Alice Ferguson Foundation  
Clementine Aymard, Bethesda Green  
Veronique Marier, Bethesda Green  
Lydia Sullivan, Breathe Easy Home

Steve Shaff, Chesapeake Sustainable Business Council  
Mollie Plauf, Dominion (by phone)  
Dan Skralew, George Mason University  
Nicole Steele, Grid Alternatives (by phone)  
Michael Reed, Groundswell Energy  
Chris Forinash, Institute for Sustainable Communities  
Dave Feldman, Livability Project  
Sandy Wiggins, Potomac Watershed Study Center  
Tim Stevens, Sierra Club  
Melissa Adams, Washington Gas

**COG Staff in Attendance:**

Stuart Freudberg, Deputy Executive Director  
Steve Walz, Department of Environmental Programs Director  
Leah Boggs, Department of Environmental Programs  
Amanda Campbell, Department of Environmental Programs  
Maia Davis, Department of Environmental Programs  
Jeffrey King, Department of Environmental Programs  
Isabel Ricker, Department of Environmental Programs  
Monica Beyrouti, Executive Department

**1. Call to Order/Introductions/Chair Remarks/Approval of Meeting Summary**

---

Chair Berliner called the meeting to order. The meeting summary from March, 2015 was approved.

**2. Announcements and Updates**

---

ACPAC Report - Glenna Tinney, ACPAC Chair

- At its last two meetings, ACPAC has had briefings on smart cities, the MSWG process and GHG reduction strategies being analyzed, and the proposed new ozone standard. The committee is moving forward with the awards program and discussing ACPAC's role in advocacy.

RGGI Investment Impact Study - Luke Wisniewski, Maryland Department of Environment

- RGGI states have received over 1 billion since start of the program in 2008. RGGI programs return over 2.9 billion back in energy savings over the lifetime of programs. Maryland has received 234 million in revenue. Maryland's three biggest programs have been renewable energy, on-bill rate relief and low income bill assistance. Cost of carbon is about \$5.31 per ton. Market based program, with a set budget on number of allowances put out to bid. Bidding parties are largely utilities or trading companies.

The following COG staff updates were sent out via email due to time constraints:

- Multi-Sector Working Group (Steve Walz)
- Awards Program (Maia Davis)
- Electric Vehicle Workshop (Leah Boggs)

- PACE Workgroup (Isabel Ricker)
- Solarize (Isabel Ricker)

### **3. Executive Order 13693 – Planning for Federal Sustainability for the Next Decade**

Kate Brandt, Federal Chief Sustainability Officer, White House Council on Environmental Quality

---

The White House Council on Environmental Quality (CEQ) is responsible for sustainability for all federal facilities and operations. The federal government aims to lead by example to reduce GHG emissions. Newly released Executive Order (EO) 13693 establishes a Sustainability Strategy for the federal government, including energy efficiency, clean energy, water efficiency, and clean fleet goals to get to a 40% reduction GHG emissions by 2025. These measures are estimated to save \$18 billion on the federal government's energy bill from 2008-2025.

The federal government has already reduced emissions 17% compared to 2008, a result of previous sustainability orders (EO 13514 in 2009 has been subsumed by this new EO). This new EO also builds on other elements of President's climate policy, e.g. the Clean Power Plan, which will make the grid 17% cleaner, and CAFE standards that will make vehicles twice as efficient over the next decade.

Any GHG reduction strategy should start with energy efficiency. The federal government has an energy use reduction per square foot target, which expires after FY 15. The new target is a 2.5% reduction in energy use per year for the next decade - to get to 25% more efficient by 2025. Agencies are using energy service performance contracting (ESPC) to reach the target, per the President's Energy Performance Challenge.

The new clean energy target is 25% of *total energy* from clean sources in 2025, and at least 30% of electricity from renewables. The goals encourage agencies to have portion of their electricity come from renewables, and to look at clean thermal energy sources like solar thermal, geothermal and CHP. The first Capital Solar Challenge ribbon cutting happened recently at the USDA Carver facility, and a project will be breaking ground at Fort Detrick in Maryland soon. Two additional RFPs being released later this year include a GSA aggregated rooftop project in DC, and a Navy multi-facility project in the NCR.

Federal operations have reduced water use 19% since 2007. The new target is 2% reduction per year, achieving a 36 percent reduction by 2025 compared to 2007 levels. The fleet target is a 30% reduction in GHG emissions per mile by 2025, from a 2014 baseline.

The EO addresses climate resilience at federal critical facilities, including impacts to mission critical water, energy, communication and transportation demands, and encourages regional coordination with state, local and tribal communities. GSA and EPA will be starting regional climate resilience partnerships with communities around federal facilities. The EO also calls for enhanced training; CEQ is partnering with OPM to provide leadership and educational programs on the environment, climate preparedness and resilience training for federal sustainability professionals.

The Major Supplier Scorecard is a new effort to raise awareness of green purchasing launched with the announcement of the EO. The scorecard is a public list of the 43 major federal suppliers (federal

government purchases over \$1 billion in services/products per year), and scores them on public GHG disclosure and public GHG reduction targets.

**Discussion:**

The 25% clean energy target seems lower than goals adopted by many large companies. The federal government has a very diverse portfolio of buildings and facilities, which can make it difficult to deploy onsite renewable projects. Some agencies will purchase RECs, but onsite is preferable. They are also exploring PPAs, renewable tariffs, and aggregating facilities into one offsite PPA where possible. GSA has done one offsite PPA, which resulted in a large Illinois wind project and two solar projects in Maryland.

National Institutes of Health (NIH) is the largest federal employer in Montgomery County and is planning a large expansion, using the outdated parking space ratio of 2-1 (one space for every two employees). NCPC rejected the NIH expansion plan because the new federal standard is 3-1. The new EO does not change the parking ratio guidelines, but CEQ can look into this issue.

A question was asked about prioritization of federal buildings for solar PV projects. Ms. Brandt replied that CEQ sets high level goals and convenes, provides resources, and encourages agencies to move forward with projects. They will be releasing an Implementing Instruction, essentially a user's manual for the EO to assist agencies with this. Agencies are also required to submit an annual strategic sustainability plan that articulates their plan to meet each of the goals. For many, the aggregated off-site PPA and grid-based solar purchase models seem to be promising due to roof constraints.

The federal government has some sustainable siting guidelines, developed by EPA and GSA in an implementing instruction for sustainable communities. This guidance document should help move agencies toward including GHG implications of facilities siting decisions, though square footage cost is still often the largest consideration. The new EO does ask agencies to develop a multi-modal access plan that describes their strategy on biking, walking, public transit, carpooling and workplace charging.

To support green jobs and clean technology jobs, federal purchasing is emphasizing USA made, DBE and small business providers. They are also developing new training programs, such as one to help veterans qualify and move into solar jobs.

#### **4. The Living Building Challenge: Advancing Net Zero Energy, Water, and Waste**

---

Leah Boggs of COG DEP gave an introduction to the panel and the Living Building Challenge, which combines net zero energy, waste and water goals into one standard. A living building actively contributes to the health and vitality of the natural systems that support life, culture and the economy.

**Lori Arguelles, Alice Ferguson Foundation Executive Director**  
**Sandy Wiggins, Project Consultant, Potomac Watershed Study Center**

The Alice Ferguson Foundation is a 330-acre working farm on Potomac River, across from Mount Vernon in Accokeek, MD. They run a suite of environmental education programs for elementary and middle school

students including Hard Bargain Farm, Bridging the Watershed Program, and the Trash Free Potomac Watershed Initiative which is in its 27<sup>th</sup> year. The foundation's Potomac Watershed Study Center is the only multi-building complex registered with living building challenge. The Center houses day and overnight programs for students, serving all 5<sup>th</sup> graders in DC.

#### Requirements of Living Building Challenge

- Net zero energy: Alice Ferguson has solar PV, geothermal, and high insulation (R 30-50)
- Net zero water: this is usually more challenging than net zero energy because the regulatory regime has not caught up yet. Alice Ferguson is participating in efforts to establish potable rainwater standards with EPA and Maryland.
- Carbon neutral
- Non-toxic and non-polluting
- Performance: building must demonstrate energy and water goals for one year. Alice Ferguson uses its buildings as teaching tools because the performance tracking is already in place.

Alice Ferguson used the multi-building facility to optimize for design and user experience: one building serves as the main solar collector for both buildings, and one is the main water collector.

#### **Bill Updike, DDOE and the Living Community Challenge and Living Building Collaborative**

DC has a long history of green leadership, and is leading in the nation on the number and square footage of LEED and Energy Star projects. The District is aware that LEED Platinum isn't enough to get to the Sustainable DC goals, let alone true 'sustainability'.

DC is ramping up initiatives to move beyond LEED including:

- Living Building design competition for an affordable housing site owned by DHCD, which received 27 proposals. DHCD hopes to announce the winner in June.
- Living Community Challenge to build toward a Sustainable DC 2050 Vision.
- Including sustainability goals in large scale development plans.
- EcoDistricts: DC is only city with multiple target cities projects: Downtown BID, St. Elizabeth's and the Southwest EcoDistrict.

The Living Community Challenge is a new model of urban design and community building.

- Net positive water and energy
- Solutions are at the neighborhood scale
- Performance-based goals with verification for one year after occupancy
- There are four registered Living Communities and six pilot cities, including DC

DC awarded a Green Building Fund Grant to a project to study the differential cost for various levels of sustainability performance. This project showed that net zero energy buildings have about a 3 year payback, and incredible financial benefits over time due to the DC market for solar. Water efficiency has a longer payback due to undervaluing of water resources and lack of a market for water efficiency.

**Discussion:**

It was commented that COG has a role to play in helping the NCR be a living community or network of living communities by helping to balance resource consumption across denser and more sprawling areas, e.g. areas with low square footage for solar vs. higher square footage available for solar. There are some trade-offs with density - solar on commercial buildings usually can't offset more than a fraction of the building's energy use, but the density of location makes it much more sustainable on other measures. For example, the Maryland Aquarium wanted to put solar on their roof, but purchased a solar farm instead to make it economically viable. Net zero energy is also more efficient and effective when done at scale - a network or campus of six buildings or more.

With any new standard, there is always a challenge of inertia, as well as finding the right materials and expertise. DDOE is funding a study to be released in the next few months, which will evaluate and illustrate the financial specs of living buildings, which will also help inform the market. Additionally, the District's Green Building Code is being enforced very strongly. The goal is to make all building green, so "green building" is not special but normal course of business.

Developers can be encouraged to start moving from LEED to Living Building or net zero energy by starting with one petal, like net zero energy, to make it manageable and easier to understand. LEED is evolving over time, each version raises the bar required to meet each certification level. However, even the highest rated platinum building is still just doing *less* badly. Living Building Challenge aims to get beyond that to where buildings are not having any negative impact to the environment or community.

**5. Work Program and Budget**

Steve Walz, Director of Environmental Programs

---

The FY16 Work Program sets out COG's climate and energy team's work for the next year. The broad goal is to help local governments and the region as a whole meet our climate and energy goals. The committee's feedback on what would be most helpful to your communities is welcome. We've listed out goals and implementation actions, including workshops and pilot programs. The draft Work Program has been sent to the committee and members are asked to provide feedback by email, as well as at the next CEEPC meeting in July.

**6. Adjourn: Member Networking Time and Lunch**

---

COG staff hosted three breakout group discussions on the following topics: (1) ICLEI ClearPath and Carbon Disclosure Project Reporting, (2) Climate and Economic Resilience, and (3) Commercial Solar Deployment. The purpose of the groups is to provide members time to discuss each other's work and provide more detailed feedback to COG staff on various early stage initiatives intended to help members achieve climate and energy goals.