Metropolitan Washington Council of Governments

Climate, Energy and Environment Policy Committee (CEEPC)

Meeting Summary: March 25, 2014

Members and Alternates in Attendance

Roger Berliner, Montgomery County (Chair)
Del Pepper, City of Alexandria (by phone)
Khoa Tran, City of Alexandria (by phone)
Jay Fisette, Arlington County
Bianca Black, DC Councilmember Mary Cheh's office (by phone)
Mark Chambers, DC Department of General Services
Kate Johnson, DC Department of Environment
Penelope Gross, Fairfax County
Michael Lake, Fairfax County (by phone)
Tim Stevens, City of Falls Church
Dan Sze, City of Falls Church (by phone)
Shannon Moore, Frederick County
Dyan Backe, City of Gaithersburg (by phone)
J Davis, City of Greenbelt
Gwen Kennedy, Loudoun County (by phone)
John Lord, Loudoun County Public Schools (by phone)
Mike Barancewicz, Loudoun County Public Schools (by phone)
Luke Wisniewski, Maryland Department of Environment
Laura Rogers, Maryland Department of Transportation (by phone)
Kyle Haas, Maryland Energy Administration
Eric Coffman, Montgomery County
Erica Bannerman, Prince George's County (by phone)
Mary Lehman, Prince George's County
Gina Matthias, City of Takoma Park
Andrew Beacher, Virginia Department of Transportation (by phone)

Stakeholders

Abby Johnson, Abacus Property Solutions
Blaine Collison, Altenex
Veronique Marier, Bethesda Green
Steve Shaff, Chesapeake Sustainable Business Council
Molly Plautz, Dominion
Devin Hartman, Federal Energy Regulatory Authority
Dann Skralew, George Mason University
Kate Zyla, Georgetown Climate Center
Scott Sklar, George Washington University

Michelle Peterson, Honeywell
Glenna Tinney, MWCOG Air and Climate Public Advisory Committee Chair
Jerry Pasternak, Pepco
Tyler Espinoza, Optony
Bracken Hendricks, Urban Ingenuity
Dave Good, SCL Energy
Greg Werner, Solar City
Odette Mucha, US Department of Energy
Jamie Nolan, US Department of Energy
Robin Snyder, US General Services Administration
Emily Seyller, US Global Change Research Program
Rachel Healy, Washington Metropolitan Area Transit Authority

COG Staff in Attendance
Paul DesJardin, Department of Community Planning and Services Director
Leah Boggs, Department of Environmental Programs
Amanda Campbell, Department of Environmental Programs
Maia Davis, Department of Environmental Programs
Jeff King, Department of Environmental Programs
Isabel Ricker, Department of Environmental Programs
Steve Walz, Department of Environmental Programs Director
Eulalie Gower-Lucas, Department of Transportation
Erin Morrow, Department of Transportation
Daivamani Sivasailam, Department of Transportation
Kanti Srikanth, Department of Transportation Director

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

Chair Berliner called the meeting to order. A motion was made and seconded to approve the meeting summary from January 2015.

2. Multi-Sector Professional Working Group

Steve Walz, COG Director of Environmental Programs

Steve Walz gave an update on the Multi-Sector Professional Working Group (MSWG) and ongoing work to evaluate viable cost-effective greenhouse gas strategies. Since the last CEEPC meeting the MSWG has met, and three subgroups (in Transportation, Land Use and Energy/Environment) were established, all of which have met once or twice thus far. The subgroups are developing the list of strategies for analysis by the consultant. COG received nine bids in response to its RFP for a contractor to perform the cost-benefit analysis, and to look at implementation needs and timeframes, from which COG selected ICF.

COG staff have updated the regional GHG inventory. The preliminary results indicate that the region is meeting or exceeding our emissions goal for 2012! (To return to 2005 emission levels.) The share of emissions from each sector has not changed dramatically. Transportation emissions appear to have increased slightly, and electricity emissions appear to have declined slightly. The on-road transportation numbers for 2012 have been calculated using a newer tool, which is more accurate than the model used for the 2005 inventory, so the 2005 numbers may need to be revisited. COG is also moving to use MOVES 2014, which staff estimate will show a 2 percent drop in emissions compared to the current model, due to methodology.

The factors driving the drop in emissions are likely: (1) a decrease in the emissions rate for electricity sector due largely to switching from coal to natural gas fuel, and (2) improvements in fleet efficiency and increases in non-single-driver and non-motorized transport shares.

The Energy and Environment Subgroup has developed a list of strategies with eight categories:

- **Existing Buildings:** 2% reduction per year (30% by 2030) in energy & water consumption through physical upgrades, operations improvements and occupant actions
- **Location Efficiency:** 10% increase in the proportion of new development built in Activity Centers by 2030
- **New Buildings and Development:** 100% new buildings (Commercial, residential, institutional) are designed to be net zero energy on annual basis by 2050
    - 100% of new buildings are designed to Energy Star standards by 2030
    - 50% of new buildings reach net zero energy by 2040
- **Public and Private Infrastructure:** 1% per year (35% by 2050) reduction in energy consumption by improving efficiency of public and private infrastructure
- **Energy Source and Supply:** 30% reduction in emissions from energy generation by 2030
- **Resource Recovery, Conservation and Management:** Net Zero Waste by 2050
- **Non-road Engines:** 2% per year (30% by 2030) reduction in greenhouse gas emissions from non-road sources
- **Awareness and Education:** Move from education to action - Create measurable results through community energy engagement

Discussion:
CEEPC members suggested that it would be helpful to have the consultant look into how many building retrofits would be needed per year to achieve the existing building goal. This will enable local governments and others to determine an achievable retrofit target and better allocate funding. The consultant's analysis will also help the region determine what proportion of the overall GHG goals we intend to meet from existing versus new buildings.

Chair Berliner noted that residential PACE has been stymied in the region due to FHFA's concern about lien seniority. However, California is moving forward and has established a $25 million loan loss reserve

to guarantee residential PACE loans. Los Angeles and San Francisco are moving forward with programs. Montgomery County is looking into this because PACE is the best established finance mechanism for funding retrofits and solves a lot of traditional retrofitting challenges.

In response to a question about the inclusion of adaptation strategies and strategies with cobenefits, Mr. Walz responded that COG has asked the consultant to include cobenefits to resilience and adaptation, as well as health, safety, reliability, economic vitality and other measures in their analysis.

A suggestion was made to include strong demand side management strategies, as DSM reduces bills for residents, reduces electric grid issues and reduces the need to use the most expensive and dirtiest power sources by reducing peak demand. Other committee members noted that for some customers, reducing demand can increase rates due to demand charges, but that residential customers will save.

CEEPC members suggested that on the awareness piece, the region needs to move from education to action. COG will look into how to do this and what the best approach would be.

In response to a question about including electric vehicle charging stations in the strategies list, Steve noted that most of those measures fall under the Transportation subgroup's charge. The MSWG will be looking carefully at how to encourage fleet electrification, including deploying more charging stations.

CEEPC members asked for more information on regional GHG emissions trends in each sector and analysis of the major policies or programs driving the trend so that progress can be sustained. COG staff are planning to do more analysis of the GHG inventory and will write up an evaluation of the relative sector shares, trends and drivers.

Committee members also suggested that we need to look more carefully at how to integrate GHG considerations into TPB's work, as this was the original motivation leading to the MSWG process. In response to a question about the feasibility of making GHG emissions a criterion for project inclusion in the CLRP or TIP, COG staff replied that the Transportation subgroup is looking into possible GHG targets and the feasibility of various approaches for implementing them.

CEEPC members asked whether the MSWG could require that more development be in Activity Centers, perhaps by developing incentives or tying transportation dollars to concentrated growth. COG modeling shows that over half of new growth will be in Activity Centers and 66% of Activity Centers will be served by high quality transit by 2040, but it is not a mandated requirement at this point.

Members noted that in many places the electricity sector already has mandates and incentives in place to reduce emissions, such as renewable portfolio standards. There is an effort currently to increase Maryland's RPS to 40% RPS by 2025, and especially because of the proposed merger the region has a unique opportunity at this moment in time.

3. Collaborative Solar Procurement

Blaine Collison, Altenex; Tyler Espinoza, Optony; Eric Coffman, Montgomery County DGS; Mark Chambers, DC DGS

Jeff King introduced the panel. In 2010, COG began a process to bring local governments together to do a collaborative solar procurement for municipal buildings, borrowing a model from California. The panelists today were part of that effort and are here to talk about the process and results.

Blaine Collison, Altenex, formerly EPA Green Power Partners

EPA Green Power Partners saw the collaborative procurement model in California as a very effective way to help municipalities achieve renewable energy goals, and deploy solar at a large scale. EPA wanted to bring the model to the DC region, and provided funding for Optony to deliver technical assistance to COG members.

Renewable energy deployment is no longer a technological question – the technology is proven, highly efficient, safe and only getting better – or a financial question – in most places renewables are the most cost effective energy source. The main barrier is process, and this project was aimed to address many of those issues and make it easier for agencies pursuing solar in the future.

Tyler Espinoza, Optony

Optony was involved in the Silicon Valley Collaborative Renewable Energy Procurement (SV-REP) project which involved nearly 50 cities, towns and counties. The procurement, finalized in 2010, involved 70 sites at 43 locations, and collaboration across 9 public agencies. The project expanded as the Regional Renewable Energy Procurement (R-REP), which is open to all public agencies in Santa Clara, San Mateo, Alameda and Contra Costa Counties.

In 2010, Optony and Green Power Partners reached out to COG and began to work on replicating the model here. In 2011, Optony began ground and roof assessments for COG members. They screened 175 sites and identified potential for 80MW of solar on public facilities in the region. At the time the market in Virginia was not developed enough for the projects to be economically feasible, but several other municipalities wanted to move forward after the technical analysis was complete.

DC and Montgomery County are leading the charge, and several cities are hoping to use the COG rider to bridge those contracts to simplify the procurement process. Additionally, Arlington Public Schools are working with Dominion to bring sites into the utility's Community Solar Pilot Program. Prince George's County, as well as several water utilities and transit agencies in the region are also actively planning for on-site solar projects. Optony is also working with 15 independent colleges in southern Virginia on a collaborative procurement with assistance from DOE's Solar Market Pathways program.

Eric Coffman, Montgomery County Department of Green General Services

The goal of the Montgomery County Department of Green General Services is to reduce the GHG footprint of County operations. The solar initiative is a big part of this mission and will be expanding significantly in the next few years. The County will be rebranding the program and creating materials including a website that tracks energy production, and on-site monitors to assist with education and community engagement.

The County's portfolio includes 400 buildings. In general, the buildings are not optimal for PV because they are relatively older, smaller, have varied roof conditions, and because solar is competing with trees and vegetative roofs. DGS bundled smaller and larger buildings together for the project to make attractive bundles for a developer.

After four years of planning and preparation, they hired SolarCity in spring 2014. The County has also hired a full time staff person to manage the solar project portfolio.

Phase 1 of the County's solar efforts will be 14 projects across 12 sites with SolarCity. Construction on these sites has started. Phase 2 includes 11 sites available for development, and the RFP (bids due 4/28) is geared toward a local small business vendor. Construction on these projects is expected for July-December 2016. The County is evaluating potential Phase 3 projects, likely to be purchasing power from off-site solar facilities.

PPAs can be difficult to bridge because there are three funding streams: electricity rate, tax credits, and SRECs. The PPA is for 6 cents/kWh averaged across the portfolio of sites, but this varies significantly between ground mounted and rooftop systems. DGS built some flexibility into the contract for pricing, variability in sites, financing options, etc. to help enable bridging. Some additional options are also built in, such as premium racking, roof upgrade, EV charging infrastructure, and native pollinator-friendly plants – these do not qualify for tax credits or SRECs. RFP and bid documents are available online, or contact Eric to discuss bridging the contract.

Mark Chambers, DC Department of General Services

DC DGS sees communication as the main obstacle to success in greening the District's facilities. Mayor Bowser is a champion for sustainability and the Sustainable DC goals, and the environment of DC government allows and encourages bigger and bolder thinking.

DGS's goals are to: diversify energy resources, use on-site renewables, and reduce their carbon footprint. The first step is to assess your assets: know what you are working with, and your resources, opportunities, challenges. DC DGS manages a portfolio over 28 million square feet, including schools, offices, warehouses, multifamily housing, police stations, and recreational centers. 49 rooftop solar systems, with a capacity of 10MW will be installed by end of 2015. This will create an estimated 68 jobs and $16.5 million in economic impact and save $10.9 million in energy costs annually, as well as save 7000 tons of CO2e annually. Others with similar portfolios can learn from DC's process and framework for the project, as well as bridge the contract.

In response to a question about updates and progress in Virginia, COG staff replied that the General Assembly recently created a Solar Development Authority and the state will be procuring solar for their facilities. The General Assembly session also passed new law making it in the public interest for utilities to build up to 400MW of solar. This will also allow third party contractors to work with utilities, such as through PPAs, for the first time.

4. Update on Energy Efficiency Financing – Commercial PACE
Abby Johnson, Abacus Property Solutions; Bracken Hendricks, Urban Ingenuity

Bracken Hendricks, Urban Ingenuity
Urban Ingenuity (UI) is the DC Commercial PACE administrator, a multifamily housing partner for the Connecticut Green Bank, and sustainability leads for the Walter Reed center redevelopment, which will achieve net zero energy.

In order to move from policy goals to action on the ground, financing options are critically important. PACE financing is helpful for a number of reasons. PACE is an opt-in special assessment district, like others for water and sewer lines, curb replacements, etc. By using government authority, PACE projects can bring in private capital because of the enforceability of tax law.

PACE uses the tax lien vehicle to leverage private dollars, and involves zero local government dollars, making it attractive to municipalities. The DC PACE program has $250 million of bonding authority, but no impact on the District's debt cap. Mortgage backers like PACE and more and more are seeking out these deals because they provide assured good returns. PACE can also be combined with existing financial vehicles like PPAs. In addition to lowering utility bills, PACE provides the co-benefits of improving the financials of building stock, as well as occupant health and safety.

There has been a rapid proliferation of PACE programs since 2010. 31 states have PACE enabling legislation and 13 have active programs. Maryland and Virginia are not far behind the pack, and because of the metropolitan area, there is an opportunity to create a really robust regional market.

DC established PACE with the Energy Efficiency Act of 2010, but structural amendments to the mechanics of tax collection were needed in 2012. DC completed a pilot project in 2013 that was the first affordable multifamily housing building retrofit done with PACE in the country. The program now has a pipeline of $90 million in real projects, 6 projects are currently moving to the lender consent stage.

UI's goal is for PACE to feel like a financial tool on the market, not part of bureaucracy. UI markets the program, provides technical assistance to projects, identifies investors and bundles projects, and does the technical and financial underwriting for projects. DDOE approves the underwriting and the DC Office of Tax and Revenue signs off and handles the tax billing and collection.

There is strong demand for PACE because it can provide capital to those that have trouble accessing it. PACE especially appeals to clients that 1) have trouble accessing credit or capital, 2) those that don't want to increase debt cap or take on debt, and 3) properties that prefer a minimal or cash flow positive operating expense to other options for capital improvements.

UI is hoping that contractors start to use PACE as a financing tool to help them sell projects. It enables the project to be done at zero upfront cost to customer, and without taking on any debt. UI is beginning education and marketing for contractors in the region. Capital providers are starting to understand PACE and even encouraging PACE projects on properties they own the mortgages for. Small regional banks are especially excited about PACE projects.

When designing a PACE policy or program, you want to create a balance between a standardized structure that has strong meaning in the secondary market, and flexibility to allow for changes in the marketplace, demand, capital providers, etc. Harmonizing security structures and rules enables securitization but legislating program guidelines (SIR, LTV tests, etc.) can be problematic. Regional collaboration may create program administration efficiencies, which will lower cost and drive demand.

Abby Johnson, Abacus Property Solutions

Abacus specializes in clean energy finance solutions for the real estate market, especially PACE. Virginia passed legislation a few years ago to enable PACE but it did not allow for a PACE lien to be primary. This made it untenable for investors, so since last May, a group of people in Virginia have been working to fix the state's legislation. They involved the Virginia Bankers Association early to ensure that they were on board. The group did try to include Residential PACE in the bill language, but was not possible at this time due to lingering concerns about FHFA. The state General Assembly passed the new Commercial PACE enabling legislation earlier this month.

The state Department of Mines, Minerals and Energy will be leading a stakeholder group to figure out what model will work best and to develop underwriting guidelines, sample ordinances and other materials for local governments to ensure that there is some consistency and reliability across the state. They will convene a group of stakeholders including the Bankers Association, the Energy Efficiency Council, Virginia Municipal League and others.

Abacus and other PACE stakeholders in Virginia like the idea of sharing regional lessons and best practices to create stronger and more consistent process across the state and the DC region. The benefit of a regional PACE market is that the real estate market is not jurisdiction specific – portfolios span multiple jurisdictions and building owners would prefer a regional process or guidelines to avoid complexity doing similar projects at different properties.

An extremely strong regional PACE market will rely on local tax authority so there will be inevitable variation in program structures or models. However, one could develop a regional PACE market with structural flexibility similar to the Texas PACE in a Box model. This includes standards and guidelines that

help to cultivate local programs. The DC region could begin a similar process and coordinate with the Virginia group led by DMME.

COG staff proposed that CEEPC could establish a Regional PACE Workgroup to look at these issues, serve as an educational body and forum for local governments, financial sector and real estate to come together and recommend guidelines or best practices to encourage consistency in commercial programs across the region. CEEPC members suggested that the group also look at the residential PACE market and legal issues, and provide direction to the region on how to proceed. CEEPC voted to establish the PACE Workgroup.

5. Announcements and Updates

Due to lack of time remaining in the meeting, updates will be emailed out to the committee on:

- Regional Infrastructure Report
- Legislative Updates
- Climate Action Champions
- Climate & Energy Awards Program
- Electric Vehicle Initiatives

6. Adjourn – Chair Berliner

- Next CEEPC Meeting: Wednesday, May 27, 2015 @ 10:00 am – 12 pm noon