

**Built Environment & Energy Advisory Committee Meeting**  
**Meeting Summary: 2/20/14**

**Attendance:**

Joan Kelsch, Arlington County  
Jeannine Altavilla, Arlington County  
Bill Eger, City of Alexandria  
Emil King, DDOE  
Daniel Cleverdon, DCPSC  
William Marsh, Fairfax County  
Aida Velasquez, Reagan National Airport  
Steve Walz, NVRC  
Zach Dobelbower, DGS  
Bill Updike, DDOE  
Sam Hancock, Emerald Planet  
Lisa Mae Crawford, Capitol Property Development  
Ebony Wimbush, Johnson Controls  
Heston Crandon, Johnson Controls  
George Barnes, Johnson Controls  
Katherine Hamilton, Advanced Energy Management Alliance  
Ryan Myers

**By Phone:**

Erica Bannerman, Prince George's County  
Luisa Robles, Greenbelt  
Noel Kaplan, Fairfax County  
Kristen Larson, City of Bowie  
Said Said, Prince William County  
Ken Stadlin, MDV-SEIA

**COG Staff**

Leah Boggs, COG DEP  
Jeff King, COG DEP  
Isabel Ricker, COG DEP  
Maia Davis, COG DEP

**1. Call to Order, Joan Kelsch, Arlington Count & Emil King, DC**

**2. DC Community Renewable Energy Act (CREA), Daniel Cleverdon, DCPSC**

The DC Community Renewable Energy Act, or CREA, was passed in 2013 after a 2 year process. The bill essentially allows those without roofs (tenants, renters) and those with unsuitable roofs (i.e. old or shaded) to purchase solar power from an off-site system and get a credit for the energy on their utility bill through virtual net metering.

The DC Renewable Portfolio Standard (RPS) makes this bill possible and provides the regulatory framework for developing rules of implementation. The RPS is enforced by Public Service Commission (PSC) and encourages renewables by requiring certain amounts of renewable energy in the energy mix:

## RPS:

- Tier 2: garbage burners and hydro
  - Grandfathering clause: Loophole that WGE put in has huge costs for compliance
- Tier 1: solar, wind, biomass, geothermal
  - 2.5% solar carve out - 260 MW solar capacity, 240MW in DC
    - In 2011 passed a law that the solar must be in the DC area
  - Over 30MW of eligible solar right now, need closer to 60MW -30ish MW deficit
    - Expect that this shortfall will be greatest in 2016
  - Goal of CREA is to help meet the solar RPS, but could work for all renewables
- The Renewables Fund is administered by DDOE
  - Alternative Compliance Payments (ACP) are paid by utilities when they were unable to meet the RPD or solar carve out because the market didn't provide enough
  - Large shortfall large pot of ACP funds
  - ACP funds used to fund Renewable Energy Incentive Program (REIP)

## PSC Role

- PSC handles: rules for safety, control and testing for reliability, interconnection, net metering, approving costs of implementation of Community Renewable Energy Facilities (CREFs)
  - Interconnection rules are old, PSC is updating to address new technology such as storage (Solar Grid Storage, Solar City are implementing storage technology with solar)
- CREFs will inject a lot of capacity and energy into grid, much bigger than residential systems
  - Could encounter circuit problems when demand on the circuit is less than energy being produced → Need a different model for interconnection & net metering, which are usually very small capacity
  - If becomes wholesale transaction, could require PJM or FERC intervention

## Billing

- Pepco will bill each subscriber through their bill, not the CREF as a whole
  - CREFs output is reported to Pepco, Pepco credits individual bills
    - Makes it a retail transaction, avoid wholesale issues (and FERC)
    - Does not affect 3<sup>rd</sup> party suppliers at all – it is just a credit to your usual bill
- Net Energy metering seems fairly simple but concerns with Standard Offer Service (SOS)
  - Rates are required to be the result of a competitive auction
  - If buying at a fixed rate (as in a CREA) that is not competitive.
  - CREA is a second-order competitive auction. The PSC is unsure it will comply with restructuring regulations
- PSC will likely require Pepco to tell PJM capacity market that the energy will be injected into grid on a day-ahead basis

## Discussion:

- Emil King asked: what issues will MD or VA have if they try to implement CREA?
  - Maryland will likely have similar issues to DC, VA will be different because it is not a deregulated electricity market. The PSC is unsure how it could affect rural cooperative or municipal utilities.
- Steve Walz: what happens when a subscriber leaves the CREF?
  - It is up to the individual CREF to set rules for how to handle changing participants
- Emil King: what is the timeline for the PSC releasing the regulations?

- Notice of proposed rule (NOPR) for Community Net Energy Metering and any SOS changes will be released first, followed by 30-45 days for public comments, followed by 30-45 days for revision.
- Hope to have final rules before memorial day
- Question: when will the PSC update rule 1547 on interconnection?
  - The Draft NOPR is with commissioners now
  - Process: this could be straw set of new interconnection rules, or it could go through a working group before going to a NOPR
  - Second option is slower, but would hopefully have more buy in from stakeholders
    - There are many new stakeholders: GSA, micro grid operators and advocates
    - Many questions about storage and smart inverters, screens, automatic fines, who pays for what, etc. that may need more deeper discussion to sort out.
- Jeff King: is there still a problem with the environmental disclosure form?
  - REC providers have to be in environmental compliance (i.e. paper mills, waste burners)
  - The PSC will likely say that rooftop solar doesn't need to complete the full compliance form, or only for the actual generation area of the facility
- How will people know if the feeders in Maryland are serving DC?
  - The PSC hopes that the process will lead to a list of eligible feeders
  - Pepco has the information but it is classified as "critical infrastructure" and there are safety concerns about publicly releasing the feeder locations
    - It would be best to put the info on a website with a GIS map that also shows the interconnect load and which feeders can take more capacity. This would let anyone wanting to install access to see whether it is even possible
- Solar thermal qualifies under the RPS, but because it isn't displacing electricity in DC (most people use gas for heating) it likely would not work under CREA, and therefore it would not make sense to take an electric bill credit.
- DC's REIP program part 2 will be publicly announced in March
  - The incentives are aimed to help reach 220MW by 2023
  - The emphasis will be on populations that have been underserved thus far in solar: multifamily buildings, low income, disabled.
  - CREA also has set-asides for solar projects benefiting low income populations

### **3. PJM Demand Response, Katherine Hamilton, AEMA & George Barnes, Johnson Controls**

COG had a question from one of our members about demand response aggregation at the municipal level. We've been in touch with aggregators Johnson Controls and EnerNOC who have contracts in the region and are looking at how our members could take advantage of this service.

Katherine Hamilton of Advanced Energy Management Alliance (AEMA) came in to discuss the newly formed group, which includes both DR Companies (like Johnson Controls and EnerNOC) and users (Walmart, Alcoa) and associated industries like technology and software providers. These groups expressed a need to have a single entity to represent their common interests and allow them to come together. AEMA was formed to do this, and takes a consumer approach to make benefits of DR more widely known, and handles FERC filings and handles other regulatory issues.

George Barnes of Johnson Controls (JC) came in to speak about their programs. JC is the sole provider for DR for Virginia agencies through a contract with DMME, and any of the jurisdictions can ride this contract.

## Overview of demand response aggregation

- PJM needs to balance the grid: supply = demand and uses several markets to do this, including capacity markets, energy markets and ancillary services markets
- Utility members participate in forward capacity markets. Utilities bid daily how much power they will need the next day, and generators bid how much power they can produce and at what price.
- Demand Response participants agree to curtail power when needed to reduce peak load, this added capacity can be bid into the market. DRA companies bundle the capacity of all their DR participants and bid this into the capacity market.
  - Can get paid just for willingness to curtail when called upon, even if not called
    - Participants are required to do a performance test during enrollment to ensure they can meet the required curtailment or load reduction
  - Anyone in PJM can participate in the DR program
    - Utilities also have interruptible programs, but you cannot participate in the utility program & the PJM program

## Johnson Controls Programs:

- Emergency load response program
  - 2 hour notice, up to 6 hours duration, June through September, noon to 8pm, up to 10 events per year, usually only one event per year
    - May move this to a year round-program, with 30 minute notice
  - Many other options and DR programs, some with only 5 second notice, which usually requires automation
- How to use the DR payments:
  - On average receive \$45,000 per MW load reduction
  - Comes as a check, the participant decides how to use it. Can be used to pay down your utility bill or go into the general fund
    - Other options: put in back into the facilities budget for additional efficiency and other energy improvements
    - Put into education and community outreach to ensure participation when an event is called
  - Solutions Performance Contracting
    - Use revenue from DR for additional facilities improvements with JC energy performance contract programs
  - Can also bid efficiency into capacity markets, but very difficult
- VA Department of Mines and Minerals JC program
  - Any Virginia jurisdiction can participate
  - \$70 million paid out to state agencies and services each year, will have over 100 participants by the end of the year

## Discussion:

- State air agencies are concerned about using diesel generators to comply with DR
  - DEQ and MDE have approved generators during "ISO declared events"
  - DR events are usually only a few hours, the devices are permitted to be run for ~100hrs
    - However, these few hours are often on the worst ozone days

- No one knows how many generators there are, where there are, how many hours they run and when
- MD may pass a rule requiring generators to provide this information
- Can Data centers participate?
  - Have traditionally been reluctant due to sensitivity of safeguarding data
  - Google and others have begun using more flexible servers that can be run around 80 degrees, so these could participate

#### 4. How does COG's plan compare to other regions around the country? *Maia Davis, COG DEP*

At the CEEPC meeting in November one member requested an analysis of how our region compares with other regions around the country in terms of climate and energy goals. Maia has been looking into this question and has found that many regions have similar plans to ours, and that we are ahead in some areas and less advanced in others.

**California** has some of the more detailed and comprehensive requirements for regional councils & their members.

- The state passed a law in 2006 to require regions and localities to reduce GHG emissions 15% by 2020 from 2006 levels.
- In 2008 the state passed a bill to address transportation-land use emissions (Per capita and VMT reductions)
  - Under this law regions are required to do a Sustainable Community Strategy (SCS), which is adopted in their regional transportation plan
  - Targets for emissions reduction are set by the CA Air Resources Board
- Regional Sustainable Community Strategy Plans
  - Similar to the CEEPC Action Plan
  - Look at housing mix and affordable housing ratio
  - Incorporate climate principles in the MPO Transportation Plan
  - SANDAG was first region to adopt an SCS plan
- San Francisco's regional plan is similar to COGs Climate Report / Action Plan
  - One difference: their transportation plan sets a per capita GHG reduction goal
  - The whole transportation plan uses a "climate change lens" and focuses on how the plan will reduce GHG emissions, rather than putting this as a separate section
  - San Francisco also has a climate grants program to promote innovative travel changes to reduce transport GHG emissions

**Oregon** also has state requirements for regions

- The GHG goals passed in 2007 are to reduce emissions to 10% below 1990 levels by 2020 and 75% by 2050
- This legislation also requires regions to develop alternative transportation-land use plans and requires localities and regions to adopt the "preferred alternative" of the plan scenarios
- Portland's regional council (METRO)
  - Scenarios Project will be submitted to the state by 2015, but their existing plans will meet the GHG target
  - Most local governments work with ICLEI on plan development and GHG inventory
  - Portland's plan is strong in community design and land use-transportation nexus

- Pricing strategies: pay-as-you-drive insurance, road use fees, CO2 emissions fee
- Behavioral strategies: eco-driving campaigns, call phone apps to increase awareness information and engagement
- Much of this initiative is led by businesses and universities
- They also have a number of innovative financing methods & priorities:
  - A Green Bank is in development
  - On bill repayment is allowed
  - Bulk procurement of renewable energy, commercialization of clean tech sector
  - Forecast green workforce needs and strategic investment in post-secondary needs for clean tech jobs

### **Southeast Florida**

- Not an official COG, but all the localities came together to do climate planning, focused mostly on adaptation & resilience
- Developed a framework for land use and transportation planning
  - Transportation infrastructure required to focus on resilience and reducing GHG
  - Adaption “action areas” to focus resilience and infrastructure in those locations & focus growth areas away from those areas to protect the natural systems

### **Mid America Regional Council, Kansas City, MO**

- Has a fairly narrow climate plan, focusing on building codes and the clean energy market
- Academy of Sustainable Communities – formal training program
- Green Impact zones
  - Economically depressed areas with severe abandonment
  - Job training, community leadership program, weatherization, smart grid project, bus rapid transit, solar installations

### **Summary**

- Many plans focus on land use and transportation
- CA and OR have state requirements
- Other regional climate plan examples: Delaware Valley, Denver, Atlanta, Puget Sound.
- Many plans have similar actions to COG: San Diego, Atlanta and SE Florida are the most similar

### **Discussion:**

Jeff King: how do they deal with conformity under these plans, if at all?

- Some of the plans have air quality sections or include air quality improvement measures

Leah Boggs: what are some areas for improvement in the COG plan?

- Breaking down silos between our plans – other regions have more integrated plans, and incorporate water, energy, climate, transportation, land use, etc. into each plan, or use a more holistic approach. Thinking about the overlapping interests, such as how transportation plans can help achieve environmental goals, is one thing we could learn from CA or OR.

### **5. Legislative Update, Isabel Ricker COG DEP**

- CEEPC’s Legislative Committee sent 11 comment letters to VA and MD legislatures regarding positions on about 20 bills. The issues included: RPS changes, biomass & black liquor removal from the RPS, solar tax credits and exemptions, a solar grant program in VA, green business incentive zones, municipal street light purchases, and new energy efficiency programs.
- The VA session ends March 8, and MD ends in early April.

- At federal level, energy efficiency is the only issue that has a chance of moving. The Shaheen Portman bill is likely to pass if it comes to the floor, and the House version is also likely to pass so we will be writing a letter to encourage leadership to bring it to the floor.

## 6. Roundtable

- Steve Walz: NVRC is hosting an Energy Service Contracting training for local governments on the 21<sup>st</sup> (tomorrow)
- Jeff King: solar updates
  - DC's RFP for collaborative solar procurement getting close to finalized, approximately 10 MW in DC
  - Montgomery County DGS (with Greenbelt & WMATA) recently issued an RFP for 13 MW
  - Montgomery County Department of Transportation will also be issuing a solar RFP soon
  - Rooftop solar challenge meeting with Prince Georges County and MEA March 11 to set priorities to focus on for the year
  - Preparing to do a survey in VA to ask the solar industry what the real barriers are
- Jeff King: RTPP comment letter
  - TPB is now working on how to implement the plan
- Jeff King: UASI
  - Bill Eger is the new lead
  - Putting forward proposals for projects: micro grid and Energy assurance planning
- Jeff King: DOE funding opportunity for micro grid technology
  - COG may be reaching out to manufacturers and universities about doing a demonstration project here
- Jeff King: COG Board priority for 2014 is infrastructure, we will be looking at energy infrastructure to prepare something to present to the board in June or July
- Leah Boggs: COG hosting an EPA Portfolio Manager Master Account workshop in March

**Next meeting March 20, Planning Call March 6**