**Energy Advisory Committee**

Washington Metropolitan Council of Governments

777 North Capitol Street, NE, Washington, DC

**December 15, 2011 DRAFT Meeting Highlights**

**Attendance:**

Olayinka Kolawole, DDOE, Committee Chair

Jeff Bond, Prince George’s County

Bill Eger, City of Alexandria

Erica Bannerman, City of Alexandria

Dr. Sam Hancock, Emerald Planet

Gerard Gurgick, G2EM

Richard Roby, LLP Combustion

Sean Williamson, UMD CIER (Center for Integrative Environmental Research)

Jeff King, MWCOG

Leah Boggs, MWCOG

Joan Rohlfs, MWCOG

Jeannine Altavilla, MWCOG

Maia Davis, MWCOG

Phone:

Luisa Robles, City of Greenbelt

Lisa Orr, Frederick County

Mike Barancewicz, Loudoun County Public Schools

Liz Thomson, Dominion

Sarah Cosby, Dominion

Andy Flavin, Dominion

**Call to Order** (Olayinka Kolawole)

* + The meeting was called to order at 10:05am.

**Approval of December 15, 2011 Meeting Summary** (Olayinka Kolawole)

* Summary from November meeting approved with no changes.

**PACE Financing** (Gerard Gurgick, G2EM)

* Mr. Gurgick presented on his PACE (Property Assessed Clean Energy) program for financing home improvements, including HVAC system replacement with geothermal systems.
* PACE can work through loans with a local bank.
* An overlay zoning district will allow any home or building owner to opt in to participate in the program
* Effect on homeowner’s insurance?
  + It would likely count as a special item.
  + Ms. Bannerman has contacted companies and was told that solar panels would count as a special item, but that things like insulation and a new HVAC system do not have special items.

**Solar City: Fully Integrated Energy Services** (Colin Murchie, Solar City)

* Did not show

**Liquid Fuel Gasification for Stationary Sources** (Richard Roby, LLP Combustion)

* LPP Combustion has a technology that allows any liquid fuel to be gasified at a stationary facility. LPP stands for lean, premixed, and prevaporized.
* LPP Combustion modifies fuel, allowing liquid fuel to burn cleanly as a gas at or below natural gas emission levels without modifying combustor hardware designed for gaseous fuels.
* The system is liquid fuel agnostic
  + It can burn biodiesel, creating a low-emissions, renewable energy power plant
* Liquid fuel is injected onto a skid with nitrogen gas acquired through real-time air separation
* There is no modification to the burner when the skid is added to the system
* LPP is working with a power plant in Argentina that has seen tests show 2 ppm sodium reduced to less than 0.2 ppm.
* Process reduces NOx, CO and PM by 90% in tests
* Testing at a facility in Columbia, MD with various fuels. The building is on a net metering agreement with BGE and acts as a distributed generation source for the grid.
* The skid consumes energy to perform its process, but it also captures waste heat, and ultimately gains efficiencies
* Massachusetts has RECs for biodiesel that lower the cost of biodiesel below natural gas. Working with Maryland to do the same.
* How can the skid burn any fuel?
  + Fuels require different nitrogen dilution factors and require different amounts of exhaust heat to convert to gas.
  + Due to a direct feedback loop from the turbine the fuels can be changes on-the-fly, which increases cost efficiencies
  + The system must be stationary, because fuels need the heat to remain gaseous. A pipeline would need to be heated, which would not be cost-effective.
* Could you run a fuel cell like a bloom box?
  + LPP would be interested in trying

**Dominion Green Power Program** (Elisabeth Thomson, Dominion, via conference call)

* Dominion has a residential/commercial program and a county/municipal program for purchasing green power RECs through their utility bills. All RECs are Green-e certified.
* Customers can enroll so that RECs equal 100% of their electricity use each month, or they can purchase RECs in any $2 fixed increment.
* Residential/Commercial program
  + Price will change to 1.3 center per kilowatt hour January 1st
  + National average for green power is 1.8 cents/kWh
  + RECs are from Mid-Atlantic and near mid-western states
    - In 2011 Dominion increased RECs for the program from Virginia to 30%, largely biomass
  + More than 13,300 customers enrolled to date in 3 years of program
* County/Municipal program
  + National RECs used
  + Contract with VEPGA for rate lower than commercial and residential because of the national market and the lack of a customer support component for the program
* Dominion Green Power will consider buying RECs from any Virginia renewable energy system.

**Analysis of Offshore Wind in Maryland** (Sean Williamson, UMD CIER)

* Mr. Williamson presented on the status of developing offshore wind on the Eastern seaboard, as reviewed in a report completed by CIER in 2010.
* At the end of 2010 there was 3,000 MW of offshore wind in the world, but none in the US
  + There is 2,300 MW proposed in 9 projects in New Jersey, Delaware, and Massachusetts
* These wind farms would be in federal waters, requiring states and developers to go through a process with BOEMRE
* The Atlantic Wind Connection would be a transmission backbone connecting Atlantic offshore wind capacity to key substations in 4 states
  + It is on track for development as early as 2016
* Based on present technology, Maryland will need significant offshore wind resources to meet its Renewable Portfolio Standard
* Maryland’s potential offshore wind area responds to shipping concerns.
* A call for developers is anticipated to be released in 2012
* An offshore wind act is anticipated to be introduced in the state’s legislative session again this year
* There are still issues to resolve moving forward
  + Interconnection studies and approval from the Maryland PSC are required; PSC approval is not clearly laid out and requires legislation
  + Uncertainty on how many developers would share the costs of necessary upgrades make the projects riskier
  + Project costs depend on where interconnection occurs
    - Example: Bluewater Wind originally intended to interconnect to Ocean City, but the current project proposal will interconnect at Bethany Beach because costs are $21 million instead of $200 million
  + Radar and military operations are additional variables for developers to consider
  + Were hurricanes considered?
    - Likely will not change area, because hurricane would affect entire study area the same way
  + Turbines in water greater than 30 meters deep have substantial increase in cost
    - Out of 9 projects proposed on the east coast only one, in Maine, is in deep water
  + Credits, operation and maintenance costs, reliability, and greenhouse gas impacts are additional variables moving forward
* Did the report consider jobs created?
  + This study did not. There have been other reports that have examined this. Jeff Bond noted that a Climate Action Network meeting in Baltimore talked about the job creation of offshore wind in MD.
* NRG recently backed out of Bluewater Wind due to market/investor uncertainty.
* Cape Wind project continues to go back and forth with financing and approval.

**Roundtable Exchange**

* Mr. Gurgick is working with LVestus to develop geothermal in the region
  + Working with an existing lake cooling system in Reston. Likely will not work because they are not interested in adding heat to their system and making it close-looped.
  + Will be talking with Greenbelt, Inc soon
* Dr. Hancock thanks committee members for contributions to weekly television program that continue to be successful
* Mr. Roby welcomes anyone to the LPP facility for a demonstration
* Mr. King updated the committee on the Integrated Energy Task Force. The final report from consultant FVB Energy is due any time now, examining the business case for district energy systems in the COG region.

**Next Meeting Date and Adjournment**

* + Meeting adjourned 12:00pm.
  + Next planning conference call is January 5th at 10am.
  + Next meeting is January 19th at 10am.