Draft Meeting Summary
COG Climate Energy and Environment Policy Committee (CEEPC)
July 25, 2012

Members and Alternates Present:
Hon. Jonathan Way, City of Manassas
Hon. Robert Berliner, Montgomery County
Dawud Abdur-Rahman, GSA for Julia Hudson
Kambiz Agazi, Fairfax County
Mark Barancewicz, Loudoun County Public Schools
Hon. Johannah Barry, Falls Church
Austina Casey, District Department of Transportation
Laine Cidlowski, DC Office of Planning
Sarah Cosby, Dominion Resources
Hon. Penelope Gross, Fairfax County
John Lord, Loudoun County Public Schools
Stephen Pattison, Maryland Clean Energy Center
Caroline Petti, ACPAC Chair
Nicole Steele, Alliance to Save Energy
Steve Walz, Northern Virginia Regional Commission
Luke Wisniewski, Maryland Department of the Environment

Others Present:
Melissa Adams, Washington Gas (teleconference)
Michael Alexander, Cassidy Turly
Erica Bannerman, City of Alexandria
Alan Brewer, Loudoun County
Theresa Cusick, DC Department of Public Works
Kristin Deason
Tyler Espinoza, Optony (teleconference)
Tess Flohr, Eaton Corporation (teleconference)
Dr. Sam Hancock, Emerald Planet
Debra Jacobson, GW Law School
Emil King, District Department of the Environment
Olayinka Kolawole, District Department of the Environment
Elizabeth Lawton, Ecotality
Monica Murphy, General Motors
Nick Nigro, Center for Climate and Energy Solutions
Chris Randolph, GSA
Jennifer Richmond, Alliance to Save Energy – DC
Steve Rosenstock, Edison Electric Institute
Chris Somers, Arlington County
Tim Stevens, Falls Church
Kyle Todd, UMD Energy Research Center
Didian Tsongwain, Prince George's County
Tom Whitley, DC
Claire Williamson, WMATA
Claude Willis, Greater Washington Clean Cities Coalition

COG Staff:
COG/Dept of Environmental Programs: Julia Allman, Leah Boggs, Amanda Campbell, Maia Davis, Stuart Freudberg (Director), Jeff King, Sunil Kumar, Joan Rohlfs; COG Dept. of Transportation Planning: Erin Morrow

1. Call to order/Introductions/Chair Remarks

Hon. Jonathan Way of Manassas, standing in for Chair Jay Fisette and Co-Chair Roger Berliner, called the meeting of the Climate, Energy, and Environment Policy Committee (CEEPC) to order at 9:33 a.m. Mr. Berliner later joined the meeting.

Mr. Way introduced the topic of the meeting. Electric Vehicles (EVs) produce zero tailpipe emissions and when charged by renewable energy sources, zero emissions overall. This means significantly reduced air pollutant and greenhouse gas emissions. Electric vehicles also promote energy independence. In May 2011, CEEEPC and the COG Board of Directors voted to create a regional electric vehicle coalition to move forward with EV readiness in the metropolitan Washington region.

Mr. Way noted that the Washington Region Electric Vehicle Coalition was created in September 2011 with participation from utilities, local governments, electric vehicle suppliers, and the Greater Washington Region Clean Cities Coalition. The EV work groups developed a report with recommendations to with facilitate deployment of EVs in the region, which will be discussed under Item 4 on the agenda.

Mr. Way announced that electric vehicles would be available for display and test driving immediately following the meeting. A Ford Focus EV, Chevy Volt, Nissan LEAF, Honda Prius Plug-in Hybrid, and a Ford Equinox fuel cell vehicle were present outside COG offices.

2. Approval of Meeting Summary for May 23, 2012 Meeting and Agenda Amendments

The meeting summary for the May 23, 2012 meeting was approved with no changes. The agenda was approved with no amendments.

3. Panel: Are Electric Vehicles Coming to the National Capital Region?

(Jason Plautz, E&E News; Joe Guzzo, GM; Eugenia Gregorio, Tower Companies; Steven Arabia, NRG)

Jason Plautz, Transportation Reporter for E&E News, moderated the panel. He invited the panelists to make introductory remarks.

Joe Guzzo, Director of Advanced Technology and Federal Affairs for GM, noted that when it comes to EVs or advanced technologies, auto manufacturers need to be sure of that the technology works, and that there is sufficient market acceptance. Even though EVs show great promise, they also face barriers that federal and local governments can help overcome.

Eugenia Gregorio, Sustainability Manager for The Tower Companies, remarked on the property developer's current social and environmental responsibility initiatives, such as LEED certification, Energy Star benchmarking, real-time energy tracking and tenant education.

Mr. Plautz: What market share do you foresee for electric vehicles in the next 5, 10 or 20 years?

Mr. Guzzo: President Obama called for one million EVs on the road by 2015, but it is hard to say whether that goal will be achieved. GM sold 2.7 million automobiles in the U.S. last year, representing about 20% of the industry. GM has a production capacity of about 60,000 Volts per year. They have sold 16,000 electric vehicles so far in 2012, and expect to reach 20,000 by the end of the calendar year. To get to one million EVs, many other car companies have to get involved. By 2015, a few hundred thousand EVs industry-wide is not an unreasonable estimate. Most will be in places like Washington, DC and California; they will not be spread evenly.

Mr. Plautz: Why will we see EVs concentrated in places like Washington, DC?

Range anxiety is a difficult market hurdle. Volts are designed to work with the current infrastructure, being able to be charged in 8 hours on a standard 110-volt plug. We're unlikely to sell many in rural areas or places like New York City where many people don't own cars. The market is limited to urban areas with developed charging infrastructure.

Now until 2015 is seen as the first phase in EV deployment, then from 2015 to 2020 adoption will depend on government actions to promote EVs as well as gas prices.

Mr. Plautz: What can governments do to assist in increasing the deployment of electric vehicles?

Mr. Guzzo: Tax credits and special HOV access are important incentives. The Volt costs about $40,000, whereas the average vehicle prices $28,000, with the majority on the lower end. The current $7,500 federal tax credit moves the vehicle into a market where people can afford it. People are unlikely to purchase an EV because of the tax credit, but the credit will help those interested to afford one. HOV access for EV drivers provides an additional incentive. Finally, having infrastructure available in convenient locations, such as at the workplace or grocery store, provides range confidence.

Mr. Plautz: What is The Tower Companies' interest in electric vehicles?

Ms. Gregorio: The company's interest in electric vehicles stems from its broader commitment to sustainability. The company owns 4 million square feet of residential and commercial space in the region. Nearly 90 percent of their buildings are LEED certified, and 70 percent of eligible buildings are EnergyStar certified. Additionally, the company purchases offsets to cover 100% of its scope-1 and scope-2 greenhouse gas emissions. They want to be a leader in sustainability within the development industry.

In December 2010, the company started researching car charging stations and found grant programs from the Baltimore Electric Vehicle Initiative (BEVI) and the U.S. Department of Energy through ChargePoint America. Using those grants, they have installed chargers in residential and commercial properties in Montgomery County and the District. The chargers were provided for free, with a discount and tax credits applied to the installation, so it was very low cost for the company.

Usage is still light, so though the company plans to install more chargers, they do not have any concrete commitments to do so at the moment. They are assessing whether Level 1, Level 2, or combined 1-2 chargers will best suit demand.

Mr. Guzzo: What makes an EV attractive to the consumer is that it costs just $0.02 cents per mile, versus $0.10 per mile for gas. This same scenario makes it difficult for car charging stations to make a business case.

Mr. Plautz: Steve Arabia from NRG Energy has joined the panel. Please provide some introductory remarks.

Mr. Arabia: NRG's electric vehicle business is called eVgo, which represents a different kind of business model for charging ecosystem development. The business was started in Houston, and has now expanded to Dallas-Fort Worth. The company is funded entirely from private capital. They have committed $15 million in Houston-Dallas area and have made a similar commitment to the Northern Virginia/ DC/Baltimore region.

In terms of the business model, NRG's Complete Plan for EV drivers includes a 3-year subscription paid monthly, under which eVgo installs a charger in the driver's home and gives them unlimited access to all charging stations in its public network. Charging is free at the driver's home, as long as it is off-peak.

NRG currently offers both Level 2 and DC Fast chargers, and that DC Fast will be the dominant charge type in the future. DC Fast fits better with drivers who need to quickly top-off their batteries, giving a full charge in 15 minutes.

Mr. Plautz: Is there a cost barrier for charging infrastructure now, and do you see it coming down in the future?

Mr. Arabia: The price of technology will come down over time. It is expensive to install Level 2 and DC Fast chargers in most locations, because of the electrical work that needs to be done. Eventually, you will need a sustainable business model in the private sector, and we see it as a growing market. NRG is confident that they are making a good investment.

Two things to look at in EV deployment are the price of the cars, which the federal government has helped with, and charging infrastructure, which NRG and other companies are involved in.

Mr. Plautz: What sort of technology is on the horizon for the vehicles themselves, that can address either the cost or range concerns?

Mr. Guzzo: It's a chicken and egg scenario—you can't have vehicles without charging infrastructure, but it's hard to have the infrastructure without the vehicles as well. Once the grid starts building out, however, the market will handle it.

As far as the technology is concerned, the biggest cost of an EV is the battery. When the Volt came to market, the battery cost $16,000. We can't go to market with a battery that we're not sure will be reliable for 10 years.

The technology in the future will be focused on reliability, slightly improving the range, and making it more cost effective before we'll see dramatic changes in range.

Mr. Plautz: What is the role of dealership staff? What information do they need to give to buyers?

Mr. Guzzo: Each dealer is their own businessperson, but has a close relationship with the manufacturer. The dealers need information to help sell the vehicle, and to be able to repair them. There is a lot of work to be done among both the manufacturer and dealer community.

Mr. Plautz: What level of infrastructure do drivers need to see to have range confidence?

Mr. Arabia: For EVs to really take off beyond first adopters, the public has to feel confident that they can charge the vehicles when they need to. In Houston, LEAF dealers encourage potential drivers to have a charger installed in their home, and can connect them with eVgo. The home charger will be essential.

Ms. Gregorio: It's important to have chargers at work places as well. If you have a short enough commute, you may want to only use the electric side of your vehicle and be able to charge for a few hours there. They won't be as popular in shopping centers because of short parked times, unless perhaps it's a Fast charge.

Mr. Arabia: Home charging is more challenging in urban environments where drivers don't have garages.

Mr. Guzzo: For plug-in hybrid vehicles like the Volt, the more that electric charging facilities are available, the greater the benefits. More available charging means that the car runs on gas less often.

Mr. Plautz: What 2-3 can governments do to help electric vehicles on the infrastructure side?

Mr. Arabia: Exempting EV charging providers from being regulated as retail electricity suppliers is very important. They shouldn't be regulated by the public service commission, as it requires a long process of licensing and credit. When electricity markets were deregulated, EVs were not a consideration. The laws are being updated to correct that. Second, this should be a private sector endeavor, and local electric utilities perhaps should not be in this business. Third, installation and permitting can be lengthy and challenging. Local jurisdictions can help speed up permitting.

Ms. Gregorio: From a building owner's perspective, being exempt from utility regulations is essential. Otherwise, we would not be involved in providing charging stations. Second, inspectors must be educated about electric charging infrastructure, and what to look for. Third, continuing grant programs will push other developers to get involved in EV charging.

Mr. Guzzo: HOV access is very important, it can give EV drivers reliable trip times, especially when the driver may be unsure about charging availability. Local codes that encourage building owners to install chargers can be important. Changes should be made to be prepared. Once gas prices go up, the market will take off, and the infrastructure should be ready.

Mr. Arabia: Some parking regulations may need to be amended. Currently, installing an EV charger in a parking lot may count against the business' minimum parking spot requirement. Laws should be changed to still count EV charging spots.

Discussion Session:

Konrad Herling from Greenbelt asked about the current patterns of EV usage. Are they being used primarily for commuting? Mr. Guzzo remarked that vehicles are mostly used for commuting. About 90% of trips are short, but 10% are long trips, for vacations and other trips. Long-term testing is needed to ensure that DC Fast chargers won't damage the battery. For the near future, EVs are likely to be restricted to urban areas.

Mr. Herling asked about the prospects for using EVs for public fleets. Mr. Arabia noted that procurement rules in Maryland restrict the vehicles that can be purchased for public fleets, and that list may need to be updated. Mr. Guzzo believes the EVs may be too expensive at the moment, but there has been interest both in private fleets and within the federal government, through an EV pilot program.

Sarah Cosby of Dominion Resources asked whether the EV industry has been educating consumers on the energy security benefits of EV use and the total cost of ownership. She also asked whether a 110-volt charging network would be sufficient. Mr. Arabia noted that energy security is a pull for some consumers. The total cost of ownership piece is a key element of NRG's policy effort and its customer marketing. Ms. Gregorio noted that the company has provided education to tenants about the benefits of EV when they installed charging stations in the buildings. They also provided a list of available incentives for EV drivers. Level 2 stations may be more cost effective than Level 1. Mr. Guzzo commented that because even a small charge helps instill range confidence, a 110-volt charging network could be useful. In terms of energy security, if oil prices go up to $150 a barrel, GM will need to be ready. The Volt is an important component of their strategy.

Larisa Dobrianski of the Global Energy Network asked, what is the role of the utility in promoting EV use, particularly for electricity storage? Mr. Arabia noted that it is important to have a discussion with the local electrical utilities about the location of planned charging stations so that they can assure grid reliability and install upgrades where necessary. In terms of electricity storage and vehicle-to-grid technology, we see it as farther down the road, but it is something we're working on. Mr. Guzzo added that as the grid is made "smarter," moving energy back into the grid will be a consideration in the next 20 years, but for now the focus should be on establishing a one-way charging network.

4. EV Readiness Strategy: National Capital Region

(Kambiz Agazi, Fairfax County and Olayinka Kolawole, District Department of the Environment – Co-chairs of the Washington Region Electric Vehicle Coalition; Joan Rohlfs, MWCOG DEP)

Kambiz Agazi provided introductory remarks. In September 2011, two electric vehicle work groups, in cooperation with the Greater Washington Region Clean Cities Coalition, were established to discuss EV Planning and EV Policy and Process. The groups included local member jurisdictions, utilities, fleet owners, manufacturers and equipment suppliers. The Task Force concluded its work in June, establishing about thirty recommendations and five priority recommendations. COG put together the report and the task force has reviewed the two drafts. On behalf of the EV Task Force, Mr. Agazi thanked COG Department of Environmental Programs staff.

Joan Rohlfs thanked members of the Task Force and the Greater Washington Region Clean Cities Coalition before presenting the findings of the Task Force.

The region's policies and charging infrastructure are not yet ready for EV adoption to grow. The barriers to EVs in the Washington region include limited availability of vehicles, slow demand, and high cost. There is a need for additional charging infrastructure to support future adoption, and range anxiety is a barrier. Policies related to codes, standards, processes, and zoning may act as barriers to wider EV acceptance. A coordinated regional approach will best overcome these obstacles.

The Task Force evaluated EV readiness in the Washington Region through local government policies, EV registration, the household travel demand survey, and an inventory of publicly available EV charging stations, and provided recommendations on how the region can prepare for and promote electric vehicle adoption.

Most COG member jurisdictions do not have policies regarding electric vehicles. The District and Fairfax County have some zoning considerations, building code policies and ADA parking restrictions for electric vehicles. Most jurisdictions permit EV charging equipment installations as standard electric appliances, and thus do not track EV charging station installations. The City of Frederick and Falls Church track EV charging permit applications. DC and Fairfax County have online permitting for EV charging stations.

There are currently less than 500 electric vehicles registered in the metropolitan Washington region. COG staff and the Task Force believe that the history of early hybrid vehicle adopters is instructive in predicting EV growth. HOV waivers may have been responsible for higher hybrid registrations in Virginia than elsewhere in the region.

The Household Travel Demand Survey, conducted by the Transportation Planning Board, found that 81% of daily trips in the region were made by automobile, at an average of 7.7 miles per trip. Ninety percent of work trips were less than 20 miles each way, making electric vehicles a good fit for accommodating the travel patterns in the region.

There are 332 EV chargers at 133 charging station in the metropolitan Washington region. About one third of these are in office locations, while the next highest location categories are shopping centers and dealerships.

The EV report contains 25 recommendations in 6 topic sections, and the Task Force has identified 5 priority recommendations for the region. The priority recommendations are the following:

1. Local and state officials, employers, property managers, and other EV stakeholders should consider offering incentives to spur early stages of the EV market, including preferred

parking and HOV occupancy exceptions for EV drivers and benefits for developers who invest in EVSE infrastructure.

2. Stakeholder partnerships should be formed to align incentives toward maximizing the rollout of EVs and EVSE, to present the business case for EVs, and to make the community return on investment clear.
3. Electric permitting procedures should identify EVSE installations and notify electric utilities of their locations.
4. Outreach and education is needed to promote EV adoption and inform the public of its benefits.
5. Comprehensive plans and zoning regulations should guide EV infrastructure development and ensure that the built environment can accommodate future EVSE installations.

The Task Force requested that CEEPC reviews the report and provides comments by August 31. The final report will be submitted to CEEPC for adoption at the September 27th meeting. Finally, it will be presented to the COG Board on October 10.

5. Long Range Transportation Planning Goals

(Tad Aburn, Maryland Department of the Environment)

Tad Aburn, the Director of the Maryland Department of the Environment (MDE) Air Pollution Control Program, provided an overview of a proposal to establish long-range environmental planning targets for greenhouse gas and nitrogen oxides (NOx) emissions.

MDE is proposing this regulation to further reduce air emissions from the transportation sector and enhance the air quality conformity process. MDE is concerned that the current pollutant cap under federal conformity does not provide needed information and doesn't set long-term goals.

Environmental impacts of these emissions are driving MDE's proposed regulation. Maryland is the 4th most vulnerable state to sea level rise, the DC/Baltimore region has among the worst air quality problems in the East, and NOx emissions contribute to one-third of the Chesapeake Bay's nitrogen problem. Additionally, the Maryland Greenhouse Gas Reduction Act of 2009 provides a policy framework for reducing GHG emissions.

The proposed regulation incorporates voluntary long-range planning targets for carbon dioxide and NOx that must be considered by the BRTB in Baltimore and TPB in Washington, DC, which are Maryland's two largest Metropolitan Planning Organizations. There is no penalty for failure to achieve the targets, but MDE would requires that a long-range planning report, detailing how transportation emissions compare to the targets and describing any plans to reduce emissions, be submitted whenever a conformity analysis is required.
Goals for carbon dioxide and NOx are set for Washington in 2020, 2030, and 2040, and for Baltimore in 2015, 2025, and 2035. The NOx targets are set for 10% below current technologies, and the 2050 carbon dioxide target is set 90% below 2006 levels.

Next steps are to discuss the proposed regulation at a September advisory council meeting, and to adopt the regulation by the end of the year.

Discussion:

Mr. Berliner brought up Ron Kirby's concern that the voluntary targets might become required for conformity and carry penalties if they targets were not reached. Tad responded that that is not the purpose. The purpose is to emphasize environmental consequences in the transportation decision-making process. Tad also clarified that some of the measures that might be considered to meet the green line would include emissions reductions, but also programs like EV planning, NOx reduction such as Tier 3 low sulfur fuel initiative, and lowering carbon intensity of fuels.

6. Projects and Subcommittee Updates

Julia Allman – Advocacy Committee Report
The Legislative Advocacy Subcommittee is considering offering letters of support on three bills being considered in the DC Council. The Community Renewables Energy Act would establish virtual net metering in the District, allowing residents to "subscribe" to solar panels elsewhere in the city and receive credits deducted from their monthly utility bill. The Energy Innovation and Savings Amendment Act has three provisions: 1) it would exempt electric vehicle charging station operators from public utility regulation; 2) it would exempt solar and cogeneration systems from personal property tax in the district, and 3) it would require commercial properties (with exceptions for small businesses, hotels, and restaurants) to keep doors and windows closed while running the air conditioning. The Sustainable DC Act contains a number of provisions amending the Commercial PACE program, funding the EnergyStar benchmarking program, and extending the renewable energy incentive program through 2013.

The Subcommittee is also considering submitting a comment letter to the Federal Housing Finance Agency (FHFA) on restrictions to residential PACE programs.

Jeff King – Solar Collaborative
(with input from Tyler Espinoza, Optony; Steve Walz, NVRC; and Sarah Cosby, Dominion)
Onsite feasibility assessments have been delivered to potential host sites, and they are proceeding toward an RFP. WMATA is likely to be the lead agency. There are 32 MW of technically feasible projects in Virginia, but economic hurdles make it unlikely that those sites will be included in the collaborative purchase. NVRC hosted a dialogue, including COG, Dominion, Optony, and the VA host sites to try to resolve the issue. Dominion is looking into options to help implement the projects, including their proposed solar programs.

Jeff King – DoD Clean Energy Community Collaborative
On July 24, COG hosted a workshop convening representatives of the White House Council on Environmental Quality, the Army, Navy, and Air Force, and clean energy and energy security experts. The workshop focused on opportunities for collaboration between local governments and military bases on renewable energy, efficiency projects, and economic development.

A key finding of the workshop is that third party finance will be critical in helping the armed services meet their energy commitments, as they do not have sufficient up-front capital to make upgrades.

Jeff King – Innovative Energy Finance Workshop
This half-day workshop will be hosted at COG on July 30, discussing Wall Street's interest in investing in EERE projects, and what investors need to see to be able to bring local projects to a much greater scale.

Maia Davis – Outreach Campaign Update
GolinHarris is developing a strategy for the regional sustainability outreach campaign. They released the draft strategy at the June meeting, and are working on a draft strategy in the coming weeks. The next meeting, on August 21 at 10am, will discuss the draft.

Additionally, on August 2 at 2pm, Practically Green will be hosting a webinar to showcase its web capabilities for leveraging the outreach message.

7. Adjourn

The meeting was adjourned at 11:40 a.m. The next meeting is scheduled for September 27, 2012.