Metropolitan Washington Council of Governments

# Metropolitan Washington Air Quality Committee (MWAQC) and Climate, Energy and Environment Policy Committee (CEEPC)

Joint Meeting Minutes: October 2, 2014

# **MWAQC and CEEPC Members in Attendance:**

Roger Berliner, Montgomery County (Chair, CEEPC)

David Snyder, City of Falls Church (Chair, MWAQC)

Phil Mendelson, District of Columbia (Chair, COG Board of Directors)

Patrick Wojahn, City of College Park (Chair, National Capital Region Transportation Planning Board)

Del Pepper, City of Alexandria

Jay Fisette, Arlington County

Mary Cheh, District of Columbia (Vice Chair, MWAQC)

Sharon Bulova, Fairfax County

Linda Smyth, Fairfax County (by phone)

David Gray, Frederick County

Judith Davis, City of Greenbelt

Leta Mach, City of Greenbelt

Jonathan Way, City of Manassas (Vice Chair, CEEPC)

Alfred Carr, Maryland House of Delegates

Hans Riemer, Montgomery County (Vice Chair, MWAQC)

Julie Palakovich Carr, City of Rockville

Andrew Kambour, National Governors Association (Chair, Air and Climate Public Advisory Committee)

Khoa Tran, City of Alexandria

Chris Somers, Arlington County

Gregory Matlesky, District of Columbia, Office of Phil Mendelson

Kate Johnson, District Department of the Environment

Brendan Shane, District Department of the Environment

Ram Tangirala, District Department of the Environment

Austina Casey, District Department of Transportation

Mark Rawlings, District Department of Transportation

Kambiz Agazi, Fairfax County

Michael Lake, Fairfax County Department of Transportation

Katherine Zyla, Georgetown Climate Center

Scott Sklar, George Washington University

Bob Grow, Greater Washington Board of Trade

Claude Willis, Greater Washington Clean Cities Coalition

John Lord, Loudoun County Public Schools

Mike Barancewicz, Loudoun County Public Schools

Tad Aburn, Maryland Department of Environment

Molly Berger, Maryland Department of Environment

Luke Wisniewski, Maryland Department of Environment (by phone)

Lyn Erickson, Maryland Department of Transportation

Dorothy Morrison, Maryland Department of Transportation

Laura Rogers, Maryland Department of Transportation

Howard Simons, Maryland Department of Transportation

Erica Bannerman, Prince George's County
Dawn Hawkins-Nixon, Prince George's County (by phone)
James Davenport, Prince William County
Tim Stevens, Sierra Club Virginia Chapter
Tom Ballou, Virginia Department of Environmental Quality
Rene'e Hamilton, Virginia Department of Transportation
Jim Ponticello, Virginia Department of Transportation
Norman Whittaker, Virginia Department of Transportation
Rachel Healy, Washington Metropolitan Area Transit Authority (WMATA)
Shyam Kannan, Washington Metropolitan Area Transit Authority (WMATA)

# Other Attendees:

Mike Arstadt, Arlington County (by phone)
Luisa Robles, City of Greenbelt (by phone)
Kelly Blynn, Coalition for Smarter Growth
Stewart Schwartz, Coalition for Smarter Growth
Candice Wilkenson, Coalition for Smarter Growth
Laine Cidlowski, District of Columbia Office of Planning (by phone)
Robert Lazaro, Northern Virginia Regional Commission
Bill Orleans, Resident of Greenbelt, MD
Martin Di Caro, WAMU Reporter

## **COG Staff in Attendance:**

Chuck Bean, Executive Director (by phone) Stuart Freudberg, Deputy Director Kanti Srikanth, Director, Department of Transportation Planning Steve Walz, Director, Department of Environmental Programs Leah Boggs, COG DEP Amanda Campbell, COG DEP Lamont Cobb, COG DTP Elena Constantine, COG DTP Maia Davis, COG DEP Jennifer Desimone, COG DEP Bryan Hayes, COG DTP Steve Kania, COG OPA Jeff King, COG DEP Sunil Kumar, COG DEP Erin Morrow, COG DTP Jane Posey, COG DTP Isabel Ricker, COG DEP John Swanson, COG DTP

## **Public Comment Period, Approve Minutes, Chair's Remarks**

Chairs David Snyder and Roger Berliner called the meeting to order and noted that they called for this joint meeting to address how the committees can better work together, and with the Transportation Planning Board, to address the ongoing needs to improve air quality and address climate change in the National Capital Region.

Chairman Snyder noted the remarkable successes the Region has had addressing air quality, and that MWAQC was releasing the latest edition of the Gold Book which lays out best practices that can be implemented in the region for cleaner air.

Chairman Berliner made note of the region's climate change goals and reinforced the need to work together to address these issues in our transportation and other sectors.

The Boards then heard from two presenters in the public comment period.

Kelly Blynn of the Coalition for Smarter Growth (CSG) submitted written remarks related to the issue of climate change goals for the transportation sector. She expressed concern about the gap between projected mobile sector emissions and COG's greenhouse gas reduction target, as shown in the 2014 CLRP Performance Analysis. She urged regional decision makers to use greenhouse gas emissions as a criteria in transportation planning and project selection.

She referred members to a new report, "Global High Shift Scenario," by the University of California, Davis, and the Institute for Transportation and Development Policy (ITDP). This report shows that shifting public investment dollars from roads and vehicle infrastructure to transit, walking, biking infrastructure would save than \$100 trillion globally between now and 2050 and estimates that strong vehicle pollution controls could avoid 1.4 million early deaths from air pollution by 2050.

Ms. Blynn said that the What Would it Take report (WWIT) TPB completed in 2012 was helpful, but that the region must do more. Ms. Blynn suggested that a new framework is needed for assessing projects for the CLRP. California, for example, uses VMT as a performance measure for CLRP projects. She argued that the 2014 plan includes more road and highway expansion than transit expansion, and that many projects were planned years or decades ago, and therefore should be "right-sized" or eliminated.

Ms. Blynn listed three recommendations:

- 1). Transparency provide assessment of how specific projects within the CLRP contribute to projected VMT, greenhouse gas emissions and other pollutants.
- 2). Set Targets set a target of 80% greenhouse gas emissions reduction below 2005 levels by 2050 for the transportation sector, and a corresponding VMT reduction target
- 3). Demonstrate Leadership lead by example by convening stakeholders to talk about solutions or by providing technical assistance to jurisdictions moving to climate sensitive transportation planning

Stewart Schwartz, the Executive Director of the Coalition for Smarter Growth also submitted comments related to the need for the regional transportation sector to address climate change. Mr. Schwartz referenced recent reports on climate impacts in the National Capital Region (NCR), which indicate that the monumental core is likely to be impacted by sea level rise and storm surge by 2050. Given these risks, the region must do more to address climate change.

He noted that 70% of trips in the central core (the District, Arlington and Alexandria) are transit, walking and biking trips, which is a result of transit-oriented and mixed-use development. Only 37% of trips in the inner suburbs and only 21% of trips in the outer suburbs are non-single-occupant vehicle trips. He suggests that moving toward mixed use and concentrated development in these areas can significantly reduce VMT.

Mr. Schwartz also noted that the CLRP Performance Analysis indicates that the additional 1,200 lane miles and 25 new interchanges planned in the CLRP project bundle will not improve congestion levels. He suggests that emphasizing other strategies, such as transit, biking and walking, would be a win-win in terms of reducing congestion, air pollution, greenhouse gas emissions and long-term infrastructure costs.

Following the public comments, Councilmember Del Pepper of Alexandria moved to approve the MWAQC minutes, Councilmember Leta Mach of Greenbelt seconded the motion, and the minutes were approved unanimously.

Mayor Judith Davis of Greenbelt moved to approve the CEEPC minutes, Scott Sklar seconded the motion, and the minutes were approved unanimously.

## **Transportation, Air Quality and Climate Change**

The Transportation Planning Process, Kanti Srikanth, MWCOG, Director of Transportation Planning

The TPB was created in 1965 by the region's local and state governments to respond to federal highway legislation in 1962 that required the establishment of a "continuing, comprehensive and coordinated" (3-C) transportation planning process in every urbanized area in the United States. The TPB is a Metropolitan Planning Organization (MPO) created according to federal law. Every urbanized community over 50,000 people must have an MPO in order to receive federal transportation funds. TPB includes members from county and city governments, state transportation agencies, state legislative bodies, WMATA and other ex-officio entities. TPB is an independent board, but is staffed by COG's Department of Transportation planning.

# Federal Mandates for MPOs – TPB in our region:

- Carry out a "continuing, cooperative, comprehensive" planning process among local, state, regional, and federal transportation partners to determine who will develop transportation projects and who will fund them;
- Develop and approve a Constrained Long-Range Transportation Plan (CLRP) and six-year Transportation Improvement Program (TIP);
  - The CLRP only includes projects for which funding has been identified (hence "constrained");
- Collect and report data about the regional transportation system related to congestion mitigation, air quality, safety, freight, and more;
- In Non-Attainment or Maintenance areas,
  - MPOs coordinate development of the CLRP in accordance with the State Implementation Plan (SIP) for criteria air pollutants;
  - MPOs only may approve transportation plans or programs which conform with the SIP and must develop transportation control measures for the SIP.

#### Clean Air Act Requirements:

- EPA must establish standards for six "criteria pollutants";
  - Carbon monoxide, particulate matter, and ozone are the biggest concerns for our region;
- States must develop a SIP or Maintenance Plan for areas in Non-Attainment of EPA standards;
  - SIP sets maximum amount of emissions for all sources;
- Must demonstrate that the emissions from motor vehicles will remain below limits established in the SIP.

There are four sectors responsible for most emissions:

- Mobile (on road vehicles);
- Point (power plants);
- Non-road sources (locomotives, construction equipment, aircraft);
- Area sources (usually from chemicals used by businesses and residences).

TPB has authority in the mobile sector, so it is not possible for TPB to control whether or not the overall emissions targets are met. However, through the conformity analysis, it demonstrates that future mobile sector emissions under both the CLRP and TIP will remain below the mobile emissions budgets established in the EPA-approved SIPs and Maintenance Plans.

In addition to carrying out the federally mandated planning process, major roles of TPB include:

- Coordinating between state and local entities and WMATA;
- Provide policy guidance and technical resources for decision-making;
- Encourage parties to "think regionally, act locally" in developing projects;
  - Has resulted in greater focus on Activity Centers and more development around Metrorail stations.

TPB has developed a policy framework which set out the following principles:

- Provide a comprehensive range of transportation options;
- Promote dynamic Activity Centers;
- Ensure system maintenance, preservation, and safety;
- Maximize operational effectiveness and safety;
- Protect and enhance the natural environment;
- Support interregional and international travel and commerce.

The annual CLRP cycle is both a bottom-up and top-down process:

- Bottom up: local governments do a comprehensive assessment of their transportation needs and use this to inform transportation projects developed and proposed at the local level;
- Top down: TPB provides guidance, analysis and projections, such as the RTPP, the scenarios analysis, CLRP Performance Analysis, congestion reports.

Progress toward TPB Policy goals as shown in the 2014 CLRP includes:

- More concentrated growth in Activity Centers;
  - 58% of new population growth projected to be in Activity Centers, and 76% of new jobs will be in Activity Centers;
- Greater investment in expanded travel options;
  - 2/3 of Activity Centers will be connected by high-quality transit;

- Increasing use of non-auto modes;
  - o VMT is growing slower than population, leading to a 2% drop in VMT per capita;
- The transportation sector is meeting the emissions budgets established in the SIP, and CO2 emissions per capita are forecast to drop.

The 2014 CLRP Performance Analysis showed that the region is projected to continue to remain within the air pollution conformity emission budgets moving forward.

TPB has studied ways to improve air quality or reduce emissions beyond its federal mandate:

- RMAS: Regional Mobility and Accessibility Study (2006);
- CLRP Aspirations Scenario (2010-2013);
- Public Acceptability of Congestion Pricing (2013);
- Value Pricing Network Scenario Study (2008);
- "What Would It Take?" Scenario (2010).
  - Studied the impact of local/regional/state strategies and system-wide strategies, including federal fuel efficiency standards, new transit, vehicle pricing, etc.
  - Showed that new fuel economy 35.5 MPG standards would make the biggest impact on emissions, but even if the region implemented all the measures proposed in WWIT there would still be a large gap between mobile emissions and the 2050 target.
  - Tested three system wide scenarios to determine how to meet goal:
    - More efficiency for light duty vehicles;
    - More efficiency for heavy duty vehicles;
    - \$7 price of gasoline.
  - o Implementing all three would bring us to the COG CO2 goal by 2050.

The transportation sector has made good progress on many fronts:

- Significant reductions in mobile source emissions since the mid-1990s, due in large part to improvements in fuel efficiency;
- Demonstrated conformity with motor vehicle emissions budgets;
- Continued implementation of the emission reduction measures outside of the CLRP;
- Coordination of development and investment with social and environmental goals this has improved but there is more to do.

Looking ahead, it is expected that population growth will increase demand on transportation infrastructure, while the region will be called on to meet tougher environmental standards for some criteria pollutants. Therefore:

- It will take a strong commitment to implement new measures, as most low-cost transportation emission reductions measures have already been adopted;
- A concerted policy and funding effort will be needed for next phase of transportation emission reduction;
- A new action-oriented plan with a comprehensive approach is needed to implement additional emissions-reduction strategies.

Moving forward, how can MWAQC, CEEPC and TPB work together to advance regional transportation and environmental goals? Mr. Srikanth proposed the following as a possible course of action:

Jointly convene multi-sector, multi-disciplinary professional working group;

- Identify viable, implementable local, regional, and state actions in each sector (mobile, point, non-road, area);
- Quantify benefits, costs, and implementation schedules;
- Jointly develop specific action plan for region;
- Take appropriate steps towards implementation at the local, regional, and state levels.

# Transportation and Air Quality, Steve Walz, MWCOG, Director of Environmental Programs

Transportation emissions are a key concern from an air quality standpoint, because ground level ozone is the largest air quality problem for the region and can have severe health impacts, particularly for children and the elderly.

Ozone exposure is linked to increased early mortality, respiratory disease and is a contributor to asthma

- Childhood asthma rates in Washington, DC are double national average;
- The most densely populated, central city areas typically have highest rates.

Federal standards for air pollutants have been steadily decreased, and the region has made tremendous progress decreasing ozone levels.

- The region is close to meeting the current 75ppb standard, but expect that EPA will propose new limits in the 60-70 ppb range before the end of the year.
- The region had zero Code Red exceedance days in the last two years, but the region may go back to having Code Red days again when the standard is lowered.

Climate change is also a significant problem for the region. A recent analysis downscaling NASA satellite data shows that flooding and high temperature days are expected to increase in the future.

Regional entities has produced several documents over the last 15 years establishing climate and energy goals, including TPB's 1998 vision statement, the 2008 COG Climate Change Report, and climate plans or goals adopted by each of the two states and the District.

Strategies for reducing ozone and greenhouse gas emissions can target point sources, area sources, and mobile sources (both on-road and off-road). Several measures to address emissions from point sources are underway, including:

- Emissions controls on upwind power plants;
- The Regional Greenhouse Gas Initiative (RGGI); and
- The EPA's recently proposed Clean Power Plan to regulate CO<sub>2</sub> emissions from power plants.

The region is addressing area sources through efforts such as the climate and energy action plan. Energy use per capita has been basically flat since 2010, and renewable energy generation is increasing, but is still a small percentage of total regional power. The region needs to do more on both efficiency and renewable energy in order to meet the NCR Climate Report and CEEPC Action Plan goals:

- Reduce non-transportation greenhouse gas emissions 20% below 2005 levels by 2020;
- Increase renewable energy to 10% of regional electric consumption by 2016.

Federal actions to address emissions from mobile sources are reducing emissions per vehicle mile, and will have significant on-road emissions reductions after 2020 as the fleet turns over:

• Tier 2, Heavy duty diesel vehicle regulations; and

• New technology and clean fuel options (CAFE, Tier 3) being implemented.

At the local level, reducing vehicle miles traveled by providing transportation alternatives and prioritizing transit oriented development can make a significant impact.

The Conformity Analysis demonstrates that changes to transportation plans will protect air quality by showing mobile emissions will be within limits set in air quality plans. However, it is not a control measure. Conformity also has limitations:

- It can lag behind recently modified air quality standards;
- Does not address future standards that may be tougher; and
- Does not require addressing greenhouse gas emissions.

Therefore, the region needs a separate, long-term planning process from conformity through which to address greenhouse gas emissions and future air quality challenges.

Opportunities for the region to work toward this enhanced long term planning process include:

- Identify and share best practices, such as through the Gold Book, the 2013-16 Climate and Energy Action Plan, and the accompanying Resource Guide;
- Take advantage of the expanded scope of Technical Assistance Planning Grants to include climate-related projects;
- Advance alternative fuel vehicles work with regional stakeholders; and
- Take advantage of financial and technical assistance for air quality and climate mitigation or adaptation projects.

Mr. Walz suggested that, through the workgroup process suggested by Mr. Srikanth, the region could develop a Multi-Sector Action Plan to:

- Assess existing plans and actions at the federal, state and local levels;
- Identify gaps between projections based on current actions and goals;
- Identify new options for reducing emissions;
- Rigorously assess costs and benefits of these options;
- Create toolbox of state and local actions, with resources for implementing them.

# **Discussion:**

Chair Berliner opened the discussion by noting that a specific reduction target has been very helpful for reaching our air quality goals, and for making progress to reduce greenhouse gas emissions. He asked whether it would not be beneficial to set a target for greenhouse gases for the transportation sector.

Discussion followed that DTP has been using the COG goals as the benchmark for comparing on-road mobile sector CO2 emissions, such as in the WWIT report and the annual CLRP Performance Analysis. The most recent Performance Analysis shows promising trends, including that a majority of forecasted growth has shifted to activity centers, and walking and cycling trips are forecast to grow at pace with single occupant vehicle use. These trends are a result of the increase in mixed-use transit oriented development in the region, such as the Tyson's Corner project and the Rosslyn-Ballston corridor.

It was noted that COG staff could seek to track progress toward goals more frequently and at a more granular level, and can convey this data to decision makers.

Supervisor Sharon Bulova of Fairfax County proposed a motion to create a multi-sector, multi-disciplinary professional working group as proposed by Mr. Srikanth's presentation. She suggested that the working group address the issue of whether to adopt a greenhouse gas emissions reduction target for transportation and establish a common goal, which could then be taken up by the various committees and brought back to the boards.

County Board member Jay Fisette of Arlington County seconded the motion, but noted that it is important not to duplicate work that has already been done on this issue. Additionally, he noted that CEEPC is multi-disciplinary and multi-sector body, so an appropriate working group may already be assembled in the room.

Discussion followed that other jurisdictions around the country have set greenhouse gas reduction targets for transportation, as well as strategies for achieving them. The Gold Book includes measures the region is currently undertaking that help reduce emissions; the next step is to assess the costs and benefits of the measures and the policy actions that would be required to bring them to fruition.

Discussion turned to whether there were targets for CO2 emissions from the mobile sector. It was noted that the regional targets in the Regional Climate Change Report apply to all sectors. Discussion then turned to whether there is any legal prohibition to TPB including projected CO2 emissions as a screen for projects to be included in the CLRP. It was noted that TPB does have the authority to self-impose such a project screen if it chooses to.

Discussion then turned to the possible role of the proposed regional working group. The working group could look at best practices around the country at the state, local and regional level for reducing transportation sector emissions – such as in California which recently passed a law requiring the MPO to analyze CO2 emissions in the CLRP process. However, the law does not prevent projects from being included in the CLRP if they do not meet the CO2 target. Rather, it directs the MPO to do a report similar to WWIT to determine what projects to pursue in the future to meet the greenhouse gas reduction goals.

It was noted that the working group should compare additional economic benefits of potential measures - such as job creation, long-term cost savings and health impacts - in a cost/benefit analysis.

It was further noted that although the WWIT report emphasizes walking and biking, it did not look at a high mode shift to transit, which would help with mode shift away from vehicles.

In response, it was pointed out that the performance analysis shows that transit is likely to be steady at 7 percent of mode share going forward, which will be a significant accomplishment given the projected population growth. It would be possible to grow the transit share further, but financial constraints make this difficult.

Discussion turned to how the RTPP policy framework impacts or fits into this conversation. The RTPP includes environmental protection as one of its goals. The 1998 TPB vision statement included a commitment to reducing VMT per capita. The RTPP sets out general guidelines, but does not set out detailed direction how to achieve these goals.

Maryland representatives noted that MDE proposed a regulation a year ago that would have set NOx and CO<sub>2</sub> targets for transportation, but it was withdrawn it in favor of a voluntary process. The SIP, and

the budgets contained therein, are based on a ten year old air quality standard, and therefore in MDE's view, is not a good benchmark of future performance. It was suggested that, especially for long term planning, the region should be using the standard that will apply for the next ten years.

It was noted that although the future standard has not be announced, it is clear that it will be lower, and modelling tools demonstrate how the region would perform related to a probable future standard. It was suggested that this information be used to encourage policy makers to direct funding to projects that will help reach the emissions targets.

An amendment was proposed to direct the workgroup set the greenhouse gas reduction goal at the already-approved COG target of 80% below 2005 levels by 2050.

Supervisor Bulova amended her motion to ask COG to establish a multi-sector, multi-disciplinary professional working group to explore the establishment of a target for greenhouse gas reductions from the transportation sector and explore establishing a target for screening the plan based on reaching the COG greenhouse gas reduction targets.

It was suggested that since TPB has already used the COG greenhouse gas reduction targets as the benchmark for the transportation sector, it may not be necessary to have the working group look at whether to establish a goal. Instead, it was suggested to have all relevant COG committees and Boards take up the issue affirm their commitment to the climate change goals by end of the year, and to have the working group look at how to implement projects to meet the goals.

It was noted that because there is a fine line between air quality and climate change it may be helpful to address both together. Having the working group explore the implications of a target from a legal and fiscal perspective would also be helpful as staff will need to know how project priorities would change and how this would affect budgets.

It was noted that a goal is not a standard or budget, and therefore the CLRP would not necessarily have to meet the goal, but a goal would nonetheless be helpful to move the region in the right direction.

It was further noted that the greater concern and more difficult task is assessing the costs and benefits of reaching a goal. Local government officials have a responsibility to protect their citizens and public health while maintaining fiscal responsibility.

It was added that the goals must be realistic, achievable and cost effective. An 80% emissions reduction goal for each individual project is not realistic. The goal must apply to the whole project bundle.

It was further suggested that the analysis include pros and cons of various goals, what they could improve and potential drawbacks. For example, Baltimore recently tried to include  $CO_2$  goals in the conformity document, but the Federal Highway Administration (FHWA) denied the document until the language about  $CO_2$  targets was removed. FHWA suggested that they could look at  $CO_2$  in the long range plan but not the conformity analysis.

Discussion turned to whether it would be appropriate to add a NOx reduction target as well. The committees agreed that this resolution would be limited to CO<sub>2</sub>, and that the issue of a NOx target was within MWAQC's jurisdiction.

COG staff prepared a summary of the proposed motion as follows:

- Ask COG to jointly convene multi-sector, multi-disciplinary professional working group to explore
  establishing target for screening the regional transportation plan, based on reaching the COG
  goal of 80% reduction by 2050, and consider how to:
  - Identify viable, implementable local, regional, and state actions in each sector (mobile, point, non-road, area);
  - Quantify benefits, costs, and implementation schedules;
  - Jointly develop specific action plan for region;
  - o Take appropriate steps towards implementation at the local, regional, and state levels.
- Ask related committees to affirm support for the existing COG goal to be acted on by appropriate COG committees by the end of 2014.

The motion was approved.

# MWAQC Action Item: Comment Letter on the 2014 Constrained Long Range Plan

MWAQC members next considered the draft letter from MWAQC to the TPB on the 2013 CLRP. Mayor Judith Davis of Greenbelt submitted a motion to approve the comment letter from MWAQC on the 2014 CLRP. Councilmember Del Pepper of Alexandria seconded the motion and the letter was approved unanimously.

## **Updates**

Mr. Walz gave brief staff updates:

- Ozone Season Summary
  - The 2014 ozone season only had four code orange days and no code red days. This is the second year in a row the region has had no code red days.
- Climate and Energy Leadership Awards
  - The inaugural Climate and Energy Leadership Awards will be presented at the Board meeting on October 8.
- EcoDistrict Training
  - COG hosted a practitioners training during the EcoDistricts Summit at the end of September. Contact Maia Davis for further information on the training or EcoDistricts.
- Gold Book
  - The Gold Book was approved at the last MWAQC meeting and is being formally released today. To reduce environmental impact, COG is not printing the document, but it is available online at: <a href="http://www.mwcog.org/store/item.asp?PUBLICATION\_ID=492">http://www.mwcog.org/store/item.asp?PUBLICATION\_ID=492</a>.

## **Next Meeting Dates; Adjourn**

- COG Rooftop Solar Challenge Workshops: November 17, 2014, 10:00am
- Next CEEPC Meeting Date: November 19, 2014, 10:00am
- Next MWAQC Meeting Date: December 17, 2014, 10:00am