CEEPC Monthly Updates – January 2014

Events, News & Announcements related to Climate, Energy, & Environment in the Washington Region

Events

Please bookmark MWCOG's Regional Energy Events Calendar:
https://ncrportal.mwcog.org/sites/surveys/climate/Lists/Calendar/calendar.aspx

- ✓ **10 Questions to Ask About Scaling On-Grid Renewable Energy** (January 23) 4:30-7:00pm World Resources Institute, 10 G Street, NE, Suite 800. "10 Questions to Ask About Scaling On-Grid Renewable Energy" is a framework designed to facilitate multi-stakeholder engagement for improving renewable energy policy.
- ✓ **The Year Ahead in Environment & Energy** (January 24) 3:00-5:00pm Ronald Reagan Building, 1300 Pennsylvania Ave., NW, 6th Floor. A panel of veteran journalists will offer their thoughts on what will be the biggest environment and energy stories in the U.S. and around the world in 2014.
- ✓ **The Vulnerability of the U.S. Grid** (February 11) 7:30-9pm, Kenwood Club, 5601 River Road, Bethesda, MD. Sponsored by the MIT Club of Washington, DC. Speaker: Michael Chertoff, Chairman and Co-founder, The Chertoff Group; former Secretary, U.S. Dept. of Homeland Security
- ✓ **ARPA-E Energy Innovation Summit** (February 24-26) Gaylord National Hotel and Convention Center, 201 Waterfront Street, National Harbor, MD 20745. The ARPA-E Energy Innovation Summit brings together thought leaders from academia, business, and government to discuss cutting-edge energy issues and facilitate relationships to help move technologies into the marketplace.

Climate, Energy, and Environment News

Warsaw climate conference produces little agreement (November 23) Representatives from 195 nations achieved some limited progress during the 19th U.N. Framework Convention on Climate Change (UNFCCC) negotiations in Warsaw. Norway, Britain and the United States collectively pledged $280 million to reduce emissions from deforestation. The Climate and Clean Air Coalition (CCAC) will launch a partnership with oil and gas companies to reduce methane emissions. On the other hand, Japan decreased its emissions reduction goal from 25% below 1990 levels to 3% above by 2020, and Australia's legislature repealed the nation's carbon tax. No major agreement was reached, but participants hope the modest gains build momentum for next year's meeting in Lima, Peru. See here for background on the UNFCC and analysis by the BBC.

States to EPA: Keep Cap-and-Trade Alive (December 2) The nine states that make up the Regional Greenhouse Gas Initiative (RGGI) sent EPA Administrator Gina McCarthy a letter urging the agency to allow RGGI and similar cap-and-trade schemes as compliance pathways for forthcoming federal CO2 emission regulations. EPA will use its authority under section 111(d) of the Clean Air Act to set enforceable guidelines for state emission reduction plans for existing power plants. The agency released emissions regulations for new power plants in September 2013. The National Association of Regulatory Utility Commissioners and others have also called for flexibility in compliance mechanisms. The RGGI states, which include New York and Maryland, have cut their collective electricity-sector emissions by more than 40 percent since 2005.

Driving on the Decline in Largest U.S. Cities (December 4) The U.S. Public Interest Research Group (PIRG) Education Fund reports that the number of miles driven and rates of commuting by car have declined in the nation's most populated urban areas. At the same time, most U.S. cities have seen an increase in public transit use and biking. PIRG found increases in the proportion of households without cars, the proportion of commuters that biked to work, and the number of passenger miles traveled per capita on public transit. According to U.S. PIRG, "The Millennial generation, which will comprise the largest share of future travelers, is leading the trends."

Are Ford and SunPower About to Make the Grid Irrelevant for EV Charging? (January 2) Ford has introduced the first "plug in hybrid that doesn't need to plug in." The new model, the C-MAX Energi plug-in hybrid, hosts an array of SunPower's X21 high-efficiency solar cells on top. The company has also developed a canopy of Fresnel lenses, which concentrate solar radiation onto the array, to park the cars under to accelerate solar charging. The system cuts grid-based charging up to 75%.

Exxon Faces Criminal Charges Over 50,000 Gallon Fracking Waste Spill (January 3) Exxon Mobil Corp. subsidiary XTO Energy will have to face criminal charges for allegedly dumping tens of thousands of gallons of hydraulic fracturing waste at a Marcellus Shale drilling site in 2010, according to a Pennsylvania judge's ruling on Thursday. A December study in the journal Endocrinology found hormone-disrupting chemicals in surface water and groundwater samples near fracking areas in Colorado. The chemicals have been linked to infertility, birth defects, and cancer. XTO claims there was "no lasting environmental impact," and that the charges could "discourage good environmental practices" in the industry.

EVs sales jump in 2013 (January 3) U.S. sales of electric and plug-in hybrid vehicles jumped 84% over 2012 to more than 96,000. The rise has been partly fueled by price cuts made last year to combat slow sales. Tesla Model S EV sales skyrocketed to about 18,800, and sales of the Nissan Leaf rose 130 percent to 22,610. Traditional hybrid sales also jumped 15.3 percent to a record 489,413 in 2013. But sales of Chevrolet's Volt and Toyota's plug-in Prius have declined, and other small EV makers collapsed, went bankrupt or haven't brought EVs to market as planned, including Coda Automotive, Fisker Automotive, BYD and Think City.

Suburban sprawl cancels carbon-footprint savings of dense urban cores (January 2014) Cities have smaller carbon footprints than suburbs, thanks to public transportation and smaller homes. Suburbanites tend to own more vehicles, have bigger homes and larger incomes, all of which increase greenhouse gas emissions. However, researchers at UC Berkley's CoolClimate Network have found that increasing population density in cities appears to not be very effective for reducing emissions locally. A 10-fold increase in population density in central cities yields only a 25 percent reduction in greenhouse gas emissions. But, increasing population density in suburbs appears to be an even worse strategy - dense suburbs seem to have significantly higher carbon footprints than less dense suburbs. You can see this for yourself on one zoomable, color-coded map, on which the researches plotted the 2013 household carbon footprints for nearly every American zip code.

Environmental groups say Obama needs to address climate change more aggressively (January 16) Nearly 20 environmental, environmental justice, and public health advocacy groups published a letter to President Obama urging him to drop his "all of the above" energy strategy, which promotes fossil fuels alongside renewable energy sources. The letter urges that the "all of the above" strategy be replaced by a "carbon-reducing clean energy" one that subjects new fossil fuel projects to a strict climate test. The following day, John Podesta, senior advisor to the president on energy and environment issues, replied to the letter signatories saying he was "surprised" that the groups would send such a letter. He highlighted the Administration's Climate Action Plan and efforts to reduce greenhouse gases, including the first carbon pollution standards for power plants, efforts

to limit the release of hydrofluorocarbons (HFCs), new DOE energy efficiency standards, and additional fuel economy standards for heavy duty vehicles.

EU Calls for 40% Reduction in Greenhouse-Gas Output by 2030 (January 22) The European Commission proposed a new strategy to reduce pollution, curb rising energy costs and overhaul renewable-energy policies in the next decade which would require an average annual investment of 38 billion euros ($52 billion) from the 28-nation bloc. The current goal is to cut emissions 20% from 1990 levels by 2020 and 32% by 2030. However, while setting a higher carbon reduction goal, the proposal ends binding national targets for renewable energy production in favor of an overall European goal that will be much harder to enforce. The European Environment Bureau (EEB) has said the carbon limit should be at least 60 percent, with EEB Secretary General Jeremy Wates adding, "the Commission's proposal falls well short of what science tells us is needed to address the devastating consequences of climate change."

Regional Updates

District of Columbia

D.C. Government Selects Citelum to Manage and Upgrade Washington's Street Lighting (December 17). The District Department of Transportation (DDOT) finalized a deal to upgrade the city's 71,000 street lights to a state-of-the-art, sustainable system. Key aspects of the project include the installation of LED lighting in every Ward of the District, and transitioning to a real-time information system, which will greatly improve system management, public safety and cut use of electricity by more than half. The company awarded the contract, Citelum, has upgraded street lights in London, Paris, Venice, Madrid, Mexico City and Shanghai.

Solar power lights up D.C. communities (January 7) Thanks to groups like D.C. Solar United Neighborhoods (DC SUN), rooftop solar power has become much more accessible and affordable to communities in the District. D.C. SUN is an umbrella organization of 11 neighborhood co-ops in all eight wards of the District, and also coordinates programs in Maryland, Virginia and West Virginia. D.C. Sun's executive director, Anya Schoolman, estimates that buying as a group saves residents close to 30 percent from the solar contractor, bringing total costs to $4,000 – $6,000 for a rooftop solar system in the District. And D.C.'s 2013 Community Renewables Energy Act will soon expand access to allow those without rooftops to buy into solar power.

Styrofoam Containers Could Be Banned Under Proposed D.C. Legislation (January 8) The District is considering a plan to ban styrofoam food containers at restaurants by 2018 to reduce pollution in the Anacostia River. The problem, according to environmental activists, is that it is not biodegradable and often breaks down into little pieces that cannot be picked up. Additionally, there are potential health risks for humans and wildlife. The measure is one of eleven bills in Mayor Vincent Gray's Sustainable DC legislative package, but garnered the most attention at the D.C. Council hearing on Wednesday, January 8.

Maryland

Takoma Park registers low greenhouse gas emissions, sets new goals (November). Takoma Park released a new Sustainable Energy Action Plan which sets out new strategies for achieving the City's sustainability goals and includes a greenhouse gas (GHG) inventory for 2013. Takoma Park's GHG emissions are around 5.5 MT CO2e (million metric tons of carbon dioxide equivalent) per person per year, significantly lower than the U.S. average.

This may be due to the City's short vehicle travel distances and high transit ridership, Maryland's efficiency provisions in building codes, PEPCO's use of nuclear power, and the inclusion of aviation emissions in other cities' inventories. The City is planning to set new GHG emissions targets for future years. The Action Plan is available here.

Maryland To Study Health Impacts Of Fracking (December 24) The Maryland Department of Health and Mental Hygiene will study the health impacts of shale gas drilling via hydraulic fracturing. The study will assess possible impacts on water and air quality, noise and public safety and will help inform Governor Martin O'Malley's Commission on Safe Drilling Practices. That commission is due to deliver a final report on whether Maryland should allow fracking in August.

State and Federal government harness the wind (December 26) Earlier this year the MD General Assembly passed the Offshore Wind Energy Act to encourage development of a wind energy industry in the state and to promote renewable energy sources. Now, the Bureau of Ocean Energy Management (BOEM) has announced it will lease approximately 80,000 acres off the coast of Maryland for commercial wind energy development. The proposed notice of sale on Dec. 17 triggers a public comment period ending on Feb. 18. BOEM is auctioning the wind energy area as two leases.

Virginia

Report outlines impact of climate change on Virginia, Southeast (November 25). In addition to rising sea levels, warmer temperatures and more intense storms, a new report indicates that the Southeast should expect longer, hotter summers, more heat waves, floods, crop damage and water supply stresses, worsening air quality, and an uptick in asthma and respiratory ills. The report, "Climate of the Southeast United States: Variability, Change, Impacts and Vulnerability," compiles existing research and climate models from three Regional Integrated Sciences and Assessment centers, funded by the National Oceanic and Atmospheric Administration.

DVP to install VA's largest rooftop solar system (December 6). Dominion Virginia Power (DVP) is installing the largest rooftop solar system in Virginia - more than 2,000 solar panels on the roof of Canon Virginia Inc.'s Industrial Resource Technologies facility in Gloucester. The project is part of Dominion's Solar Partnership Program, in which Dominion leases rooftop or ground space at commercial, industrial or public facilities for installation of solar panels.

Prince William County Turns Garbage into Energy Resource (December 5). The Prince William County Landfill now produces more than twice as much electricity as it once did. The County recently installed three new 4.8-megawatt diesel engines to replace the two original 1.9-megawatt engines, installed in 1997, which had become insufficient to handle all of the methane the plant produced. 1,000 tons of garbage arrive at the landfill every day. Tom Smith, Prince William County Solid Waste Division Chief, said the expansion puts the Prince William County landfill in the big leagues: "Not only are we producing power that can be used in our community, we're also controlling our landfill gas."

EPA Releases Compilation of Federally Enforceable SIP Requirements (November 29) Pursuant to Clean Air Act (CAA) section 110(b), EPA published in the Federal Register (78 FR 71508) a notice of availability of a compilation of the requirements of federally enforceable State Implementation Plans (SIPs) in each state. Under the CAA, EPA is to assemble these requirements by November 15 every three years beginning in 1995.

White House Announces New Energy Efficiency Directive for Federal Agencies (December 5) President Obama issued a Presidential Memorandum on new energy management standards for federal agencies. The Memorandum directs all federal agencies to 1) achieve 20% renewable energy usage by 2020 "to the extent economically feasible and technically practicable;" 2) create a certificate-based accounting system to determine compliance with the 2020 goal; 3) improve federal building performance and energy management; and 4) provide an accounting framework to track and transfer compliance certificates between agencies. The Memorandum also outlines different compliance options to demonstrate renewable energy use.

EPA Publishes Final Carbon Capture Regulations (December 30) The U.S. Environmental Protection Agency (EPA) issued a final rule on carbon capture and sequestration (CCS), removing barriers to the implementation of CCS which will allow coal power plants to continue operation while meeting proposed carbon emissions standards. The new rule will create a national framework to facilitate use of the technology. The rule exempts underground carbon storage from the EPA's hazardous waste regulations because EPA found that this stored carbon dioxide did not present a strong risk to human and environmental health.

U.S. Publishes Climate Action Plan Detailing International Climate Goals (January 1, 2014) As part of UN efforts to address global warming, the U.S. State Department submitted its 2014 U.S. Climate Action Report to the UNFCCC. The report describes recent and upcoming actions the U.S. is taking to address global warming, including efforts to reduce carbon pollution from the power sector, promote energy efficiency and clean energy technologies, and reduce methane and hydrofluorocarbon emissions. The report asserts that the goal to decrease national GHG emissions 17 percent below 2005 levels by 2020, set in 2009 at the Copenhagen UNFCCC talks, is "ambitious but achievable."

Environmental Protection Agency Releases Carbon Pollution Standards for New Sources (January 8) EPA released its revised carbon pollution standards for new power plants, the first federal regulations to address greenhouse gas (GHG) emissions from power plants. The rule is seen as a key component of the President's Climate Action Plan. The new source performance standards include mandates that new coal-fired power plants deploy carbon capture and storage (CCS), in order to meet the new 1,100 tons of CO2 per megawatt hour emissions limit. While these standards are not expected to result in a dramatic reduction of CO2 emissions, as carbon-intensive coal power use is already declining, the rules set a precedent for future regulation of existing power plants. EPA is accepting comments on the proposed rule until March 10, and will hold a public hearing on February 6 in Washington, DC. Draft regulations for existing power plants are expected to be released in June.

Research Articles and Reports

Emissions of Methane in U.S. Exceed Estimates (November 25) A new study published in the Proceedings of the National Academy of Sciences found that US methane emissions are 1.5 times greater than EPA estimates and up to 1.7 times greater than EDGAR estimates. Fifteen researchers analyzed 12,700 measurements of atmospheric methane concentrations sampled in 2007 and 2008 by the DOE and NOAA. The analysis found that methane discharges from livestock are twice as great as conventional estimates, and discharges from oil and gas activity are about five times conventional estimates. Methane discharges in Kansas, Texas and Oklahoma, accounted for a quarter of US anthropogenic methane emissions. The study calls into question EPA and EDGAR assessments, which rely on average methane discharge rates for individual sources and have found methane emissions to be declining.

CDP Finds Many U.S. Companies Factor Carbon Prices into Business Strategies (December 5) Even in the absence of a comprehensive, national CO2 regulatory framework, the Carbon Disclosure Project (CDP) has found that U.S. companies routinely consider carbon pricing when conducting business planning. The company's annual corporate disclosure survey found that carbon price planning reflects a private sector expectation that the U.S. will eventually adopt a regulatory approach to climate change. Twenty-nine companies disclosed use of carbon pricing in their strategic planning and estimated carbon prices ranging from $6-60 per ton of CO2 equivalent.

Study Reveals World on Path to 4 Degrees Celsius Warming (January 1) A new study published in *Nature* indicates that unless GHG emissions are cut, global temperature will rise at least 4 degrees Celsius by 2100, twice as much as the internationally agreed 2 degrees Celsius threshold. The study, conducted by the University of New South Wales (UNSW) and the Universite Pierre et Marie Curie in Paris, broke scientific ground with a new climate model that identified forces controlling cloud changes in nature. The study found that water does not just rise to 15 kilometers and form clouds as previous models have suggested. As a result, fewer clouds will form as the temperature rises, reflecting less heat back into space, which further warms the earth.

Changes for Obama climate goals do not need congressional ok (January 22) The Center for the New Energy Economy (CNEE) at Colorado State University released a report with 200 recommendations on how President Obama could use executive authority to advance his Climate Action Plan. The report grew out of a meeting last year between the President and Bill Ritter, former Colorado Governor and Director of CNEE, and was developed with input from over 100 CEOs and experts from research and policy. The report contains five action areas: doubling energy efficiency, financing renewable energy, more responsible natural gas production, alternative fuels and vehicles development and assisting utilities in adapting to new forms of energy. You can find the full report here.

White roofs beat 'green' roofs on climate change, says Berkeley Lab study (January 12) According to a new study from Lawrence Berkeley National Laboratory, white roofs reflect three times as much sunlight as green roofs and have significantly lower life-cycle costs, making them a much more cost-effective investment for reducing global warming. The study also finds that dark roofs are dangerous in warm climates or heat waves and should be phased out for public health reasons.