



DOE Electricity Advisory Committee Meeting
Arlington, Virginia
October 29, 2010

Minutes

EAC Members in Attendance

Richard Cowart, Chair
Regulatory Assistance Project

The Honorable Lauren Azar, Vice
Chair
Wisconsin Public Utilities
Commission

Guido Bartels, IBM

Rick Bowen, Alcoa

Frederick Butler
Salmon Ventures Ltd.

Ralph Cavanagh
Natural Resources Defense Council

Lisa Crutchfield
National Grid USA

The Honorable Robert Curry
New York State Public Service
Commission

José Delgado

Roger Duncan

Robert Gramlich
American Wind Energy Association

Michael Heyeck
American Electric Power

Joseph Kelliher
NextEra Energy, Inc.

Edward Krapels
Anbaric Holdings

Barry Lawson
National Rural Electric Cooperative
Association

Ralph Masiello
KEMA

David Nevius
North American Electric Reliability
Corporation

Irwin Popowsky
Pennsylvania Consumer Advocate

Wanda Reder
S&C Electric Company

Brad Roberts
Electricity Storage Association

The Honorable Tom Sloan
Kansas House of Representatives

The Honorable Barry Smitherman
Public Utility Commission of Texas

Richard Vague
Energy Plus Holdings, LLC

Mike Weedall
Bonneville Energy Administration

Gordon van Welie
Independent System Operator of
New England

Brian Wynne
Electric Drive Transportation
Association

EAC Members not in Attendance

Dian Grueneich

DOE staff in attendance

Cathy Zoi
Office of Electricity

Larry Mansueti
Office of Electricity

Patricia Hoffman
Office of Electricity

Sam Baldwin
Office of EERE

David Meyer
Office of Electricity

Non DOE staff in attendance

Gina McCarthy
U.S. Environmental Protection Agency

Natalie Kempkey
Energetics, Incorporated

Emily Fisher
Edison Electric Institute

Akanimo Udo
Energetics, Incorporated

Peggy Welsh
Energetics, Incorporated

Amy Konigsburg
Energetics, Incorporated

Steve Nadel
ACEEE

Walter Short
National Renewable Energy
Laboratory

Cami Dodge
Energetics, Incorporated

Welcome and Opening Remarks

Rich Cowart, Chairman of the DOE Electricity Advisory Committee (EAC) opened the meeting at 8:30 am EDT.

Cathy Zoi, Under Secretary of the U.S. Department of Energy, welcomed EAC members and stated that provisions within the American Reinvestment and Recovery Act (ARRA) are a down payment on the transformation of the electrical grid. She encouraged the EAC to provide advice on issues such as:

- The best method to gather evidence and success stories about grid modernization and transferring it across the country.
- How to ensure that all the players in the electricity industry have access to new innovations.
- Moving research and development innovation into the market place.

Ms. Zoi addressed potential work products the EAC could produce. Work products from the EAC would likely come in short bursts but also provide long term advice and briefs on topics requested by DOE. The DOE is looking for their wisdom and advice that will help the Administration over the next 10-12 months. Ms. Zoi concluded her remarks with her congratulations to the EAC members.

Presentation by Ms. Patricia Hoffman on How DOE is Organized to Provide Leadership on Electricity Delivery

Patricia Hoffman, Assistant Secretary for Electricity Delivery and Energy Reliability (OE) of DOE, began her presentation by stating that Secretary of Energy Steven Chu is trying to integrate many parts of the DOE. Ms. Hoffman's presentation focused on OE's research and development (R&D), but also looked at deployment and OE's efforts to sure that technology is integrated into the consumer market place. Ms. Hoffman discussed the OE's budget of \$186 million and its mission to encourage the development of a reliable electricity system, create innovation and partnerships with all the electricity sectors and utilities.

Ms. Hoffman raised the point that the OE received \$4.5 billion from the American Recovery and Reinvestment Act (ARRA) and is looking for synergies amongst all the electricity stakeholders through long term planning efforts looking ahead as far as 50 years. Ms. Hoffman also emphasized the need to develop the electricity workforce and to ensure that states have technical assistance.

Goals of the Electricity Advisory Committee

Chairman Cowart announced that the EAC is required by law to have subcommittees on energy storage technologies and on smart grid technologies. He introduced the chairs of these subcommittees, Mr. Fred Butler, Chairman of the Smart Grid Subcommittee and Mr. Ralph Masiello, Chairman of the Energy Storage

Subcommittee. Mr. Cowart said that today's meeting is just the beginning of an extended conversation. He suggested that the group identify and develop near-term study topics.

Lauren Azar, EAC Vice Chair, stated that the U.S. tries to tackle big problems by implementing big solutions. She pointed out that shale natural gas can act as a potential as bridge fuel for electrical generation, adding that the European Union is ahead of the United States on natural gas and that the EAC should consider natural gas as a fundamental fuel source.

Mr. Butler, Chairman of the Smart Grid Subcommittee, stated that Smart Grid is front and center in the discussion of developing a clean energy economy. Mr. Butler told potential subcommittee members that he would like to discuss the definition of smart grid and map out the challenges ahead.

Mr. Masiello, Chair of the Energy Storage Subcommittee, stated that one of his goals for the subcommittee was to examine how to anticipate whether a new storage technology is ready for use by private-sector entities.

Presentation by Ms. Gina McCarthy Perspectives On Managing Emissions and the Impact On Electric Delivery Systems.

Ms. Gina McCarthy, Assistant Administrator for Air and Radiation, U.S. EPA, stated that the EPA has a legal obligation to regulate carbon emissions. She went further to state that 120 million Americans live in areas that don't meet EPA emissions standards and that much of that pollution has come from power plants. The EPA is now considering a transport rule that will take care of pollution problems associated with transport of emission products over long distances.

Ms. McCarthy told EAC members that older dirty facilities have not always been replaced by newer, cleaner facilities. Ms. McCarthy told the EAC members that the public health benefits yielded from pollution control represent a significant and worthy investment for the country.

The EPA needs the EAC's help to address this issue while maintaining reliable and affordable electricity for consumers. Ms. McCarthy further stressed her point by stating that the proposed EPA rulemaking will help modernize the grid and that the Administration has been talking about these issues with various government entities. Ms. McCarthy expressed that many of the EAC members are working with other groups to achieve a smarter grid and that everyone in the public and private sectors needs to work together to design a smart grid strategy.

Ms. McCarthy concluded her presentation by asking the question "Are we going to create a situation where we need to do too much, too soon, and can we bear those costs?" The EPA is looking at the timeline to answer this question. She encouraged

the private sector to work to add generation, maintain reliability, and help protect public health.

Presentation by Ms. Emily Fisher, Edison Electric Institute (EEI) on the status of Smart Grid in 2010.

Emily Fisher, Attorney for Edison Electric Institute (EEI), stated that U.S emissions have decreased significantly since 1990; however, reliability remains a key issue. She added that the electricity industry and EEI are always in the market to deploy new technologies, e.g. natural gas as a bridge fuel to cleaner electricity generation. Although the economic downturn has affected demand for electricity, demand will likely rebound in the near future. EEI is keen to address greenhouse gas emissions, as are most utility companies. While recognizing the need to lower emission, Ms. Fisher cautioned that there is a limit to what utilities can achieve under new and proposed regulations.

Ms. Fisher pointed out that regulators sometimes don't provide cost recovery when requiring implementation of pollution reduction measures by utilities, which puts further financial stress on utilities and consumers. She went further and stated that EEI supports the need for federal climate change legislation and calls for federal coordination to support the implementation of the legislation. EEI believes that federal legislation, although costly, would provide much needed certainty for future investments.

Comments and Question/Answer with Ms. McCarthy and Ms. Fisher

Member Barry Smitherman commented that he believed it was important to focus efforts on a regional basis. Mr. Smitherman arguing that it was impossible for the entire country to build consensus on the issues that have been discussed so far.

Member Tom Sloan inquired if the EPA regulations will address older natural gas plants. Ms. McCarthy stated that the EPA is focusing on coal plants but regulations will be implemented across the board. She also agreed with Mr. Smitherman's earlier point that issues can be best dealt with at a regional level.

Member Rick Bowen requested comments from Ms. McCarthy on EEI's estimate that EPA regulations will cost industry and utilities \$200 billion by 2015. Ms. McCarthy answered that she couldn't provide an estimate and that these estimates are worst case scenarios that are based on what EPA might propose.

Member Irwin "Sonny" Popowsky stated that greenhouse gases (GHGs) could yield a happy co-benefit. He then asked Ms. McCarthy about EPA's working assumption in terms of CO2. Ms. McCarthy stated that the EPA is working with states and regions to ensure effective implementation of CO2 reductions and energy efficiency will be encompass the entire process.

Member Joe Kelliher inquired about clean electrical generation initiatives and if they required Congressional action. Ms. Fisher stated that it depends on what the initiative included. She also mentioned that the U.S. court system has not always sided with the EPA regarding the boundaries of their authority. Ms. McCarthy commented that industry has a good feel of where EPA rules and regulations are going and that ample time is available to get ready for those regulations.

Mr. Kelliher went on to say that he did not believe it was efficient for the EAC to advise DOE on issues that are rooted in EPA decisions. Chair Cowart responded by stating that the EPA may wish to hear from DOE as to on issues relating to regulation flexibility and help EPA identify potential problems and solutions. This could help put in place a structure that could move forward with greater certainty.

Vice Chair Lauren Azar stated that with regard to EPA regulations, the government and the EAC should examine the individual states on a plant by plant basis too. A single blanket approach even within regions may not work for all the states. The more the EAC and DOE work to minimize economic inequities the better off the country will be.

Mr. Rick Bowen said he believed utilities should be cautious in making assumptions about future regulations and then investing on that basis. Utilities could make significant expenditures only to realize at a later time that the U.S. can't address the issue of GHGs.

Presentation by Sam Baldwin and Walter Short on Potential for High Penetration Variable Renewable Integration

Sam Baldwin, Chief Technology Officer, Office of Energy Efficiency and Renewable Energy and Walter Short, Principal *Policy Analyst and Group Manager*, National Renewable Energy Laboratory (NREL), gave presentations on the Renewable Electricity Futures (REF) study. The REF is looking to identify opportunities by developing a detailed bottom-up evaluation. It does not look at carbon policy, but is rather a policy neutral analysis. Mr. Baldwin stated that the REF study discussed energy-linked challenges including energy price volatility, dependence on and cost of imported fossil fuels, potential fossil fuel supply constraints, health & environmental impacts, climate change impacts, and water and land impacts.

Potential responses to these challenges included more efficient use of energy, shift from distributed fossil to low-carbon electricity sources, and low-carbon electricity generation.

Mr. Baldwin reported that developing a modern electrical grid means building a flexible grid. The industry and government needs to look at synergies between various renewable sources of energy. The REF study examines a mix of generators on both a seasonal basis and an hourly basis. Mr. Baldwin laid out general

assumptions made in the study. The REF does not assume technology breakthroughs, but does assume aggressive energy efficiency measures and widespread use of plug-in hybrid vehicles.

Walter Short, Principal Policy Analyst and Group Manager, National Renewable Energy Laboratory (NREL), continued the presentation by stating that to understand the value of variable generators, the Regional Energy Deployment Systems computer model (ReEDS) can be used to optimize the regional expansion of electricity generation. ReEDS will consider load options, storage, and rapid start generators to help mitigate variability. ReEDS integrates renewables into electrical grid system, but does not specify certain types of renewables. The model also incorporates run time, down times, level of operation for nuclear and coal generation.

So far the ReEDS model had identified some issues with incorporating renewable sources of energy into the electrical grid, but these challenges can be managed with sustained effort. Early findings suggest that there could be issues involving curtailments and transmission congestion.

Comments and Question/Answer with Mr. Baldwin and Mr. Short

Member Mike Weedall commented that Bonneville Power Administration has 3,000 megawatts of wind generation today and the Northwest region of the U.S. experiences negative pricing at times. This issue of integrating renewable energy onto the electrical system in a better way needs to be addressed.

Subcommittee Chair Ralph Masiello commented that the REF study is ambitious and it would be the first report of its kind to provide detailed results. In order to reach consensus the database used should be open sourced and allow for more interaction with other groups. If a closed database is used, credibility can be lost.

Subcommittee Chair Fred Butler commented on the regional differences with regard to renewable energy. He cited as an example that the potential for solar power isn't located only in the southwest part of the U.S., but all over. Does the ReEDS model recognize potential resources and industries throughout the U.S.? Mr. Baldwin answered Mr. Butler's question by saying that the studies will reflect only what's economical viable.

Mr. Barry Smitherman inquired about matching up assumptions made by the model when most parts of country are not in an ISO. Mr. Short replied that results may facilitate the penetration of some renewables.

Member Robert Gramlich inquired if the REF study's results identified issues such as fast dispatch, regional pooling, better forecasting, and balancing coordination, and transmission infrastructure needed to help the industry maintain reliability. Mr.

Short responded by stating that Mr. Gramlich's list was great and that it is well supported in their studies.

Member Michael Heyeck echoed Mr. Gramlich's suggestion, adding that interconnection standards, interconnection visibility and dispatch are solvable problems that the EAC could work to address too, although these issues are sometimes politically controversial.

Potential for High Penetration Variable Renewables Integration, Continued Presentation from Mr. David Nevius, NERC

David Nevius, Senior Vice President, North American Electric Reliability Corporation (NERC) provided a presentation on a NERC report about accommodating high levels of variable generation. Mr. Nevius provided an overview of NERC's Integration of Variable Generation Task Force (IVGTF) explaining that it is made up of technical experts from industry. To-date, the IVGTF's focus has been on reliability.

Mr. Nevius pointed out wind generation doesn't correlate over time with electricity demand. Only 8 – 26% of wind's "nameplate" capacity is available at times of peak demand for electricity. The ability to adjust to ramp-ups and downs of wind generation is needed to help maintain balance between supply and demand. System planning and operation changes will be needed to integrate renewables while maintaining reliability.

Presentation by Mr. Steve Nadel, ACEEE, on Energy Efficiency As A Power Resource

Steve Nadel, Executive Vice President, American Council for an Energy Efficient Economy (ACEEE) gave a presentation on energy efficiency as an energy resource citing analysis that suggests that there is as much as 23% energy efficiency potential in all sectors of the economy. Mr. Nadel pointed out that energy efficiency can be achieved by introducing devices to consumers in way that empowers them to respond to energy demand.

Mr. Nadel reported that energy efficiency budgets are going up for U.S. gas and electric programs, suggesting some projections estimate that by 2020 such spending will be in the range of \$5 billion to \$12 billion per year. Mr. Nadel told EAC members that Vermont, for example, has achieved a 9% cumulative saving as a result of measures implemented across all sectors of its economy.

Mr. Nadel also emphasized that to achieve and implement energy efficiency, one needs to make the business case for it. Decoupling is a prime example of a business case for implementing/achieving energy efficiency measures. He went on to discuss opportunities that present themselves at wholesale level, such as considering energy efficiency as part of transmission planning and paying location marginal pricing for energy efficiency at the wholesale level, just as FERC is proposing for

demand response. Continuing to update standards and residential/commercial codes is another tool that can be used to achieve energy efficiency savings.

Presentation by Mr. David Kathan, FERC, on Demand Response as a Power System Resource

David Kathan, PhD, Senior Economist, Office of Energy Policy Innovation, Federal Energy Regulatory Commission (FERC) gave a presentation focused in the issue of demand response (DR) as a power system resource. Mr. Kathan reported that FERC has been collecting data on DR to determine a classification system. DR can be viewed as either dispatchable or non-dispatchable. Utilities could use dispatchable DR to meet their supply needs and help maintain reliability. From an economic point of view, DR could be a market-based program.

Mr. Kathan outlined FERC's National Action Plan on DR which was issued in June 2010. Mr. Kathan emphasized that the plan was developed in an open and transparent way. FERC worked with the DOE Office of Electricity to put together an implementation proposal to present to Congress. Three areas identified for potential DR include: Providing the states with assistance; tools and materials such as cost effectiveness tests; and a national communication program for customer engagement.

Comments and Question/Answer with Mr. Nadel and Mr. Kathan

General Comments regarding the presentations

Mr. Nadel suggested that the EAC should work towards consensus on what should be done at the federal, state and wholesale level. Mr. Kathan suggested that the EAC could work to develop a set of best practices on monitoring and verification, best policies for DR, and educating customers about energy efficiency and DR. Mr. Kathan also encouraged the EAC to support efforts at the NIST level and at the state level.

Member Brad Roberts inquired about the charging impact of electric vehicles (EV). Mr. Kathan stated that the impacts of EVs were not directly studied by FERC and that the subject needs to be examined more closely.

Member Michael Heyeck stated that all efforts relating to grid modernization must be sustainable. He highlighted that the European Union countries were well on their way to achieving their 20/20/20 target (reduce emissions by 20%, increase energy efficiency and renewables penetration by 20% by the year 2020). Mr. Kathan responded that FERC's models include future growth projections that take demand response and energy efficiency into account. Additionally, distributed generation is seen as a potential game changer.

Member Ralph Cavanagh suggested that the U.S. university system needs bulking up in energy efficiency and that DOE could play a role in supporting that.

Member Rick Bowen stated that with regard to energy efficiency and long term sustainability, ISOs and MISOs have such products available, but those products comes at a price. DR, unlike energy efficiency, occurs only in competitive markets and in response to appropriate price signals. Mr. Bowen questioned the level of demand and prices for DR products when economy recovers.

Member Fred Butler expressed that the EAC should focus on how energy efficiency can affect people's utility bills. In response to that, Mr. Nadel and Mr. Kathan provided an open invitation to continue working with them on that issue and more.

Member Joseph Kelliher questioned if shared jurisdiction between the state and federal government was tenable and if there should be an attempt to clarify jurisdiction. Vice Chair Azar stated that there will be continued litigation unless it is clarified by Congress. Chair Cowart commented that shared jurisdiction is an issue the EAC could consider.

Member Mike Weedall had some specific points for the EAC. 1) There is robust activity for DR at the wholesale level; and 2) 50% of technologies that are needed to achieve savings are not commercially available. Mr. Weedall stated that the EAC could discuss how to move those technologies into the economy and in consumers' hands.

Member Barry Smitherman commented that customers must have information from smart meters in order to better manage their energy use and control demand. Deployment of smart meters needs to be a priority.

Discussion on organization and potential work of the EAC

Member Joseph Kelliher inquired about who exactly the EAC is reports to – advising the OE alone; advise through OE on matters relating to the DOE more generally; or provide advice through DOE to the wider federal government?

Ms. Hoffman recommended the EAC focus on advice to OE. OE can then decide what to do with the information provided by the EAC. Mr. Meyer added that the EAC's broader perspective will be recognized by everyone in the DOE and broader federal government.

Member Ralph Cavanagh stated that the EAC has provided advice on resource adequacy and regional transmission and siting issues.

Member Michael Heyeck did not believe there was any clear process for converging on rights of way for transmission. He suggested the EAC look into the impediments to convergence and encouraged the DOE to provide direction on areas of research

and development the EAC should examine. Chair Cowart built on Mr. Heyeck's comment by encouraging Ms. Hoffman and Mr. Meyer to provide specific questions for the EAC.

Member Wanda Reder brought the issue of work force adequacy to the attention of the EAC. She suggested the EAC should look at attrition rates and examine the challenge to sustain the industry's recent level of effort, especially with new technologies. She stated that EAC needs to be bold in its approach to technology, accept that it's there, and focus on what prevents the industry from moving forward. Ms. Reder expanded her comment by stating that on the workforce front, DOE could partner with the Department of Labor and Department of Education. Additionally, the EAC could help resolve how states work with the federal government on this subject.

Member Rob Gramlich suggested three issues that the EAC could examine: 1) DOE's efforts on transmission corridors; 2) power marketing administrations and their role as transmission leaders; 3) R&D priorities as mentioned per Ms. Zoi's remarks.

Member Guido Bartels stated that there are three very good EAC studies available. The 2010-2012 EAC could examine these reports and identify gaps or if the reports are still relevant. Mr. Bartels thought that the EAC should look at consensus possibilities on topics outlined today.

Member Gordon Van Welie believed that the EAC needed to identify a scope of work and prioritize the most important issues. Mr. Van Welie cited possible discussion topics, including transmission, renewables, and the consequences of EPA rules. He went on to propose a couple questions for the EAC to think about: How do you deal with retiring power stations? How do you solve that problem and integrate renewables?

Chair Cowart suggested that the relationship between EPA's expected rulemaking and electric system reliability could be a near-term topic for the EAC to discuss. Chair Cowart went on to state that forging a working relationship between DOE and EPA could create a process by which the two entities could call on each other for evaluations. E.g., the EPA could call on DOE to evaluate where reliability problems could occur when environmental rules are implemented.

Vice Chair Azar believed that political barriers are the real problems that need to be addressed. More specifically, these barriers include issues arising between fully regulated and less regulated states, and how the costs for infrastructure expansion should be allocated.

Member Lisa Crutchfield expressed that the EAC should examine the issue of achieving carbon reductions while maintaining reliability in the most cost effective manner. The EAC could assess the impact on retail customers and identify possible common goals for state and federal government to achieve this. Ms. Crutchfield

stated that the EAC could prioritize common goals for the federal government and possibly state governments too. Ms. Crutchfield concluded her statement by suggesting that minimal targets for building codes and energy efficiency standards will be key, as the industry and government move forward on this issue.

Member Rick Bowen echoed Ms. Crutchfield's comments about examining the issues of carbon reduction and maintaining reliability in a cost effective manner. Mr. Bowen continued by suggesting study topics such as an assessment of the impacts of new EPA regulations, impacts of renewables, addressing corridor issues, and transmission/infrastructure needs, such as for natural gas.

Member Tom Sloan suggested that transmission corridors are not politically possible. He expressed caution regarding a 50-year planning horizon, as recently suggested by U.S. Energy Secretary Steven Chu. Mr. Sloan raised concern about today's customers paying for tomorrow's investments. Mr. Sloan also raised concerns about cost recovery, returns on investment, and EPA regulations on natural gas plants. He went on to state that the EAC could examine ways to promote regional and state coordination among transmission companies. Mr. Sloan concluded his comments by suggesting that the EAC focus on smart grid on the T&D side and offset the loss of generation capacity.

Member Brian Wynn stated that electric vehicles are double edge swords: carbon gains will be realized, but there will be other complications. Electric transportation – e.g. battery manufacturers and all those in the value chain – should be included in the study topics. Mr. Wynn volunteered to chair a working group on the issue. Chair Cowart expressed that he agreed with Mr. Wynn on the importance of the issue and that electric vehicles are implicitly included in other topics.

Member Brad Roberts suggested another study topic around the issue of renewables and cost. What would a major increase in renewables - photovoltaic, energy efficiency, DR, storage – cost, what would be the impacts, and how do they relate to each other? Chair Cowart expanded on Mr. Roberts' point by suggesting that if the EAC performed this type of assessment, they could draw from existing material.

Member Barry Lawson raised several points on effective ways for EAC members to communicate with each other and provide useful materials and advice to the DOE. Whatever work the EAC undertakes, members should refer back to previous EAC reports and not duplicate work. DOE should send EAC members e-mail links to the reports, not attachments. Mr. Lawson expressed interest in working with Mr. Gramlich on storage issues. The EAC could write and disseminate a quick-hitting brief on the benefits of transmission and negative impacts of not having the transmission we need. Keeping electricity affordable and reliable should be a thread running through all EAC study topics. Ms. Peggy Welsh responded to Mr. Lawson's concern about emailing attachments by announcing the development of a SharePoint site to enable members to access reports.

Member Robert Curry believed that the day's discussion was focusing too much on whether to forge ahead on new issues or support existing ones. He reminded the group of all the talent in the room and that the EAC should consider how to best support efforts that already exist.

Member Guido Bartels reminded the EAC that things went quiet after EAC reports were handed over to the DOE in 2008/2009. Although EAC members don't agree on everything, Mr. Bartels expressed that short documents on what the EAC actually agrees upon would be powerful.

Subcommittee Chair Fred Butler briefly discussed the major education challenge facing consumers on electricity issues. He suggested the EAC help the DOE think of ways to deal with that obstacle. Member Irwin "Sonny" Popowsky echoed this statement, pointing out that EAC conversations are very different from what's being said in the media where ideas such as cap and trade are scoffed at. The EAC needs to develop a no-regrets strategy.

Subcommittee Chair Ralph Masiello stated that the EAC has not addressed distributed generation (DG) and that it needs to be examined. The electric industry has long maintained a division between transmission and distribution, while smart grid, DG, and the internet are breaking down that division and others across the traditional electricity sector. The EAC should examine those issues.

Public Comment

Joe Watson, Exelon Corporation was the only member of the public to make a comment. Mr. Watson was particularly interested in comments that had been made about emissions and the interaction between EPA and DOE in light of FERC's involvement on this issue too. Mr. Watson asked if it would be an interagency function or more bilateral. Ms. Hoffman answered Mr. Watson's question by stating that an interagency approach would be used.

Final Comments

Chair Cowart suggested that the EAC form a small working group on the EPA/DOE/FERC process on emission rulemaking.

Member Roger Duncan stated that smart grid and distributed generation are blurring the traditional distinction between utilities as electricity producers and customers as electricity consumers. Mr. Duncan offered a new term to describe this blurring, "prosumer," meaning a fusion of producer and consumer. He echoed earlier comments about the importance of educating consumers. Mr. Duncan ended his comments by stressing the importance of establishing a set of priorities for the EAC and work to identify where the EAC will have the biggest impact.

Chair Cowart requested a meeting or conference call among DOE and subcommittee chairs to begin formulating a work plan and to lay out some initial tasks.

Ms. Hoffman assured EAC members that the DOE will have a set of suggested questions and priorities for committee members to respond to for the next meeting. She then provided EAC members with some issues she and the DOE are grappling with. Ms. Hoffman expressed that her biggest concerns were congestion and corridor issues. Other concerns include the need for strategies to foster greater resiliency, uncertainty about the platforms that are being built and whether they will support the system of the future, providing certainty given the current mix of business models, cost impacts, and if the right ecosystems to foster innovation are being built.

Ms. Hoffman also stated her concerns over fair market value and whether costs were being driven up or if cost-effective solutions were being provided. She added that advice or solutions to right of way issues and building new poles and platforms would be useful too. Metrics for success or showing progress would be useful.

Vice Chair Ms. Azar, Member Mr. Butler, Member Mr. Heyeck, and Chair Cowart volunteered to be peer reviewers for the NREL study.

Adjournment

Chair Cowart thanked all EAC members for attending the first meeting for 2010. He stated that he and DOE would convene and report back on their findings of the meeting. He and the DOE will recruit members for other work groups and will send out members' contact information, and information on travel reimbursement procedures via email. The meeting was concluded at 3:00 p.m. EDT.

Respectfully Submitted and Certified as Accurate,



Richard Cowart
Regulatory Assistance Project
Chair
DOE Electricity Advisory Committee

January 15, 2011

Date