Electricity Advisory Committee
Meeting
Washington, D.C.
September 25, 2008

Minutes

Members Present:
Linda Stuntz, Esquire, Stuntz, Davis, and Staffier, P.C. (Chair)
Yakout Mansour, California ISO (Vice Chair)
Paul J. Allen, Constellation Energy
Guido Bartels, IBM
Gerry Cauley, SERC Reliability Corporation
Jose Delgado, American Transmission Company
Rob Gramlich, American Wind Energy Association
The Honorable Dian Grueneich, California Public Utilities Commission
Michael Heyeck, American Electric Power
Hunter Hunt, Hunt Oil
Susan Kelly, American Public Power Association
Irwin Kowenski, Occidental Energy Ventures Corp.
Barry Lawson, National Rural Electric Cooperative Association
Ralph D. Masiello, KEMA
John McDonald, GE Energy
Steve Nadel, American Council for an Energy Efficient Economy
David Nevius, North American Electric Reliability Corporation
Brad Roberts, Electricity Storage Association
Enrique Santacana, ABB Inc.
The Honorable Tom Sloan, Kansas House of Representatives
The Honorable Barry T. Smitherman, Public Utility Commission of Texas
Dr. Robert J. Thomas, Cornell University
Vickie Van Zandt, Bonneville Power Administration
Bruce Walker, National Grid
Jonathan Weisgall, MidAmerican Energy

Members Not Present:
Ralph Cavanagh, Natural Resources Defense Council
Jeanne Fox, New Jersey Board of Public Utilities
Joseph Garcia, National Congress of American Indians
Malcolm Woolf, Maryland Energy Administration
Tom Standish, CenterPoint Energy

DOE Staff Present:
Michael Brairton, Office of Congressional and Intergovernmental Affairs
Patricia Hoffman, Office of Electricity Delivery and Energy Reliability
Kevin Kolevar, Office of Electricity Delivery and Energy Reliability
David Meyer, Office of Electricity Delivery and Energy Reliability
Elizabeth Mortenson, Office of Electricity Delivery and Energy Reliability
Elliott Nethercutt, Office of Electricity Delivery and Energy Reliability
Linda Silverman, Office of Energy Efficiency and Renewable Energy
Mark Whitenton, Office of Electricity Delivery and Energy Reliability

Others Present:
Stacy Angel, Environmental Protection Agency
John Crandall, Mizeur Group
Dan Dolan, Electric Power Supply Association
Bob Howatt, Maryland Energy Administration
John Hughes, ELCON
Heath Krakmuhs, American Transmission Company
Mark Maddox, Arcadian Networks
Terri Moreland, California ISO
Debra Raggio, Mirant
John Shelk, Electric Power Supply Association
John Siciliano, IWP News
Bruce Talley, ABB Inc.
Jonathan Tang, Electric Power Supply Association
Michele Tihami, IBM
Allison Trepod, SRI
Joe Waligorski, First Energy
Tenley Dalstrom, Energetics Incorporated
Mandy Warner, Energetics Incorporated
Peggy Welsh, Energetics Incorporated

Welcome and Opening Remarks

Linda Stuntz, Chair of the Department of Energy's Electricity Advisory Committee (EAC or Committee), opened the meeting at 3:35 pm EDT. Kevin Kolevar, the Department's Assistant Secretary for Electricity Delivery and Energy Reliability, stressed to EAC members the importance of the EAC's work as renewed attention is being paid to the modernization of the electric grid. Assistant Secretary Kolevar said that the work products of the EAC should serve to advise and inform the next Administration. Although it will complicate reaching consensus, he urged the EAC to develop recommendations that are specific and actionable. Furthermore, he encouraged EAC members not to limit their recommendations to changes in current state and Federal regulations only, but to think broadly. Assistant Secretary Kolevar expressed to the EAC

his expectation that the next Administration would welcome well-supported recommendations from the EAC.

Chair Stuntz reviewed the agenda for the day and invited all members to participate in the discussion.

Presentation of Draft EAC Report on Electricity Supply Adequacy

Chair Stuntz then reviewed the format for the electricity supply adequacy report and asked members to focus their discussion on the draft recommendations. She informed the members that any redundancy among the five chapters would be removed in the editing process. Chapters 1-4 have been drafted and she asked the team leader of each chapter to provide a brief presentation, focusing particularly on the recommendations within that chapter.

Chapter 1: Introduction

EAC Vice Chair Yakout Mansour, who serves as drafting team leader for Chapters 1 and 5, described the introduction as the chapter that will set the context for the report and will define the challenges to be addressed in the other chapters of the report. As an introduction, Chapter 1 will not include recommendations. He suggested that the next stage in development would be to align Chapter 1 with the other chapters. Vice Chair Mansour outlined Chapter 1, which discusses the status of existing electricity resources, transmission, control centers, human resources, and institutions. Chapter 1 also explores the planning challenges associated with electricity supply adequacy. The planning challenges addressed in Chapter 1 include fragmentation of the grid, the "100% green" misconception, fossil fuel challenges, demand response, interstate transmission issues, technology development versus implementation, the need to ensure the availability of a skilled workforce, and the need to develop useful analytical tools.

Chapter 2: Generation Supply Adequacy

Bob Howatt of the Maryland Energy Administration, speaking on behalf of Member Malcolm Woolf, discussed Chapter 2, which focuses on generation supply adequacy. Chapter 2 examines electricity supply issues from the generation perspective and includes several draft recommendations.

1) The first draft recommendation urges reduction of generation developers' financial risk. Mr. Howatt explained that the draft chapter includes discussion of options for addressing the growing costs of generation, including insurance pools for risk, and financial grants and programs.
2) The second draft recommendation promotes certainty in regulatory policies and legislation and advocates long-term extension of the production tax credit, the investment tax credit, and loans/grants.

3) The third draft recommendation supports development of a fair interconnection cost allocation system that recognizes system benefits, as an aid to building new transmission that will enhance bulk power flows.
4) The fourth draft recommendation promotes an improved generation planning process to address the challenge of slow and narrowly-focused generation planning.
5) The fifth draft recommendation advocates longer-term environmental certainty.
6) The sixth draft recommendation provides support for new technologies through grants and loan programs.
7) The seventh and final draft recommendation supports the adoption of a national Renewable Portfolio Standard.

Chapter 3: Demand-Side Resources

Member Steve Nadel, the team leader for the demand-side resources chapter, described both the overarching draft recommendations as well as specific draft recommendations under consideration in Chapter 3, which focuses on electricity supply adequacy issues from the perspective of demand-side resources. The overarching recommendation in Chapter 3 urges establishment of a national policy aimed at promoting sustainable and economically viable energy efficiency programs.

Mr. Nadel also discussed six specific draft recommendations. The draft recommendations are:

1) DOE should develop national measurement and verification standards for energy efficiency programs.
2) DOE should give high priority to updating Federal appliance/equipment standards and national model building codes.
3) DOE should develop and urge the adoption of utility business models that encourage and reward cost-effective energy efficiency investments, with benefits going to ratepayers.
4) DOE should provide more Federal technical assistance to states.
5) DOE should support and provide assistance for the development of regional demand resources.
6) DOE should urge RTOs and ISOs to enable demand resources to participate in ISO forward capacity markets.

Mr. Nadel also discussed the gaps that still exist in the draft chapter, including how to address integration of demand-side resource planning into the planning process, how to address reliance on market providers, and whether to promote increased research and development on energy efficiency. The drafting team will continue to revise the chapter to include these issues. Mr. Nadel requested EAC members provide comment on the draft recommendations and asked that those with relevant expertise provide input to Chapter 3.

Chapter 4: Transmission Adequacy

Member Mike Heyeck, leader of the transmission supply adequacy drafting team, discussed the draft recommendations presented in Chapter 4. He informed the EAC members that there are differing points of view among EAC members for Chapter 4 and at present, two different drafts of Chapter 4 exist. The drafting team will work with EAC members to develop a revised version of Chapter 4 that reflects text based on consensus.

Mr. Heyeck outlined the draft recommendations included in Chapter 4.

1) The first draft recommendation is that DOE should support state, regional, and interregional efforts to enhance transmission planning, as an essential step toward development of a robust transmission system. Mr. Heyeck explained that the chapter would address the fact that there is a national debate on the extent to which grid development is needed and whether the benefits would outweigh the costs.
2) The second draft recommendation is that DOE should identify and support adoption of "best practices" with respect to transmission planning, such as consideration of all demand- and supply-side options, "technology neutral" analysis, assessment of environmental impacts, and long planning horizons.
3) The third recommendation says that DOE should consider supporting legislation to expand FERC's backstop siting authority to include all new transmission projects of 345 kV and higher, and that DOE should exercise strong leadership in coordinating federal agencies' reviews of proposals to site transmission on federal lands. However, Mr. Heyeck reported that there are different opinions among EAC members as to how to approach transmission siting in this report. The drafting team will work to achieve consensus on this issue, but there may possibly have to be a discussion in the report on alternative points of view rather than one consensus-based recommendation because this issue is the most contentious issue in the report.
4) The fourth draft recommendation urges that DOE work with FERC to achieve greater regulatory certainty with regard to cost allocation and recovery for new transmission facilities. Mr. Heyeck explained that the members of the committee recognize the need for methodologies for allocating the cost of EHV facilities broadly, but he also noted that the members were concerned to ensure that costs would be controlled and that cost overruns for new transmission projects would subject to critical review.
5) The fifth draft recommendation encourages expansion of DOE efforts focused on enhancement of grid operations and management, and network integration of renewable resources; the issue of whether consolidation of balancing authorities should be encouraged is still under discussion.
6) The sixth draft recommendation urges DOE to support technological innovation and to undertake a new national research and development roadmap that provides incentives for early adopters.
7) The seventh draft recommendation urges DOE to work with FERC to support reduced barriers to transmission investment and to new transmission ownership structures, while ensuring that reliability is not jeopardized. In all cases, however, it is necessary to be clear beforehand who will be responsible for operating and maintaining new transmission facilities, and restoring them to service should outages occur.

Discussion of Draft Committee Report on Electricity Supply Adequacy

General Comments Concerning the Report

Chair Stuntz explained to the Committee that in finalizing the Electricity Supply Adequacy Report, the members should bear in mind that there would be opportunities to advocate further study by the EAC of any issues that could not be addressed in sufficient detail in the current report. The Committee's Designated Federal Officer, David Meyer, added that part of the EAC's December meeting would be devoted to developing a proposed EAC work program for 2009 for the consideration of DOE's new management. He urged the members to begin thinking about what items should be included in the workplan.

Vice Chair Mansour said that in his view the report must define electricity supply adequacy from a holistic perspective and "connect the dots" between Federal and state authority, integration of renewables and demand response, and other broad issues.

Member Dian Grueneich suggested the report include recommendations that DOE address market transformation issues on the demand side. She also recommended that the title of the report be changed to express a more positive theme.

Member Rob Gramlich said that for him the single most important thing for the report to do was to emphasize that the nation now has the opportunity, through increased reliance on renewables, to address climate change, energy security, and other environmental goals, but that additional transmission capacity was essential to achievement of those goals. Accordingly, the report's recommendations should give particular attention to actions needed to reduce the barriers to transmission development.

Member Hunter Hunt expressed concern that the report does not discuss the problems of transporting coal (by rail or barge). Any event that disrupts coal transportation creates a gap that is typically filled by gas-fired generation, thus increasing gas demand, gas prices, pipeline requirements, etc. He also noted that every chapter in the draft report argues for the provision of financial incentives. He believes that is a bad approach because it would tend to increase consumer prices unnecessarily. There are investors who would commit money to the electricity sector if there were greater regulatory certainty about what projects would be approved and how long the approval process would take. Accordingly, he urged that the report focus more explicitly on suggesting ways to reduce regulatory uncertainty.

Member Sue Kelly expressed concern that the draft report was oriented too much toward problems as they arise in the context of regional transmission organizations (RTOs), and that it should be revised to be more applicable to other contexts. She also suggested that the report needed to include a brief discussion on cyber security, which is currently

missing for the draft. Finally, Ms. Kelly proposed that the report recognize that many transmission-dependent utilities are willing to participate as co-funders in new transmission projects.

Member Jonathan Weisgall stressed that the report should be very clear about what actions the Committee regards as high priority and make forceful recommendations.

Member Gerry Cauley argued that the report must include all technologies and must be balanced in its discussion of renewable energy and conventional generation resources.

Mr. Heyeck suggested that the section on consumer benefits be moved to Chapter 1. He also suggested that matters related to compliance with requirements pertaining to any aspect of the bulk power system be included in Chapter 1.

Lack of a National Energy Policy
Member Jose Delgado believes that the report must recognize that at present there is no national energy policy, and that States have taken the lead on electricity supply adequacy issues. Ms. Grueneich agreed that there is no national energy policy and that the States have taken the lead on the matters of most importance to them. The report would be very unrealistic if it did not reflect this situation.

Generation and Transmission Planning
Member Delgado believes the report should recognize that new clean power generation can displace less clean power, but there are ample opportunities to do that in nearby markets – there is no need to move it long distances to achieve that goal. Mr. Delgado added that the report should advocate longer-term planning and he opposes a possible implication in the current draft that least-cost planning is bad. He said that the Federal government should not pick generation technologies for specific applications, but it must improve the process for reviewing proposed projects that require approvals from several Federal agencies. (Several other members supported planning over longer periods of time and agreed that it is very important to improve coordination among Federal agencies in such reviews.) Ms. Kelly suggested that greater reliance on long-term contracts is essential to fostering investment new generation, and she wished to see this addressed in the report.

Transmission Siting and Other Transmission Issues
Member Vickie VanZandt said that the transmission chapter suggests the possibility of linking the three U.S. interconnections by means of DC lines, and she believes that any such linkages should be approached with caution. Improving the networks within the interconnections should come first. She also suggests that the draft should emphasize the need for better modeling, particularly with respect to generation and load.

Member Barry Smitherman pointed out that in his experience no one likes transmission unless it is tied to renewable energy. He suggested that the report emphasize the need for local-oriented siting processes that allow affected consumers to participate fully. Chair Stuntz acknowledged that Texas has dealt very successfully with the challenges of

transmission siting. However, she pointed out that Texas is a very large state, with its own interconnection; other areas are faced with more complex situations.

Concerning coordination of Federal review of proposed transmission projects, Chair Stuntz advised the EAC members that DOE published an interim rule under Section 216(h) of the Energy Policy Act of 2005 on September 19, 2008. The interim rule establishes procedures DOE will use in fulfilling its responsibility to coordinate the Federal review process. She recommended that EAC members should consider whether DOE's authority in this area should be strengthened, whether DOE and the Congress need to devote additional resources to the task, or whether DOE needs to be more assertive in exercising its authority.

Member Barry Lawson recommended that the section advocating a national siting authority be softened. He also suggested that the section addressing consolidation of balancing areas be softened. Ms. VanZandt and Mr. Mansour, however, expressed support for consolidation of balancing areas.

With regard to the issue of advocating an EHV overlay, Mr. Gramlich recommended that the report encourage DOE to support the overlay and control area consolidation through studies and process facilitation. Member Santacana responded by suggesting that the report should address why countries around the world are installing very high voltage lines. Ms. VanZandt expressed support for EHV because such lines have smaller footprints and smaller line losses. She also supported EHV networks in each of the three interconnections rather than a national EHV overlay. Mr. Heyeck spoke in support of the EHV overlay system, noting that the system would be built in sections, which would provide opportunities for regional, state and local input to the design. He believes the report should focus on how to break down barriers that impede siting and cost allocation decisions.

Member Weisgall suggested that the report should explain why coordination among Federal agencies on transmission siting has not happened and also examine the process used for siting natural gas pipelines. Mr. Cauley stated that decision-making with regard to transmission development is not broken – the companies and regional planners are hard at work and the report should reflect that concept. Rather, he contended that the report needs to address the need for clarity and certainty on environmental and other regulatory requirements, and that a Federal backstop is essential to that certainty.

Demand

Mr. Cauley said that the report should call for mandated targets for demand-side resources, specifically for end-use consumption. Mr. Nadel noted that he personally would support such targets, and asked the Committee to let him know their opinion on this issue. Member Irv Kowenski expressed opposition to demand targets, saying that they would be arbitrary and would not necessarily lead to cost-effective results.

Vice Chair Mansour suggested that a large amount of money is already being spent on smart meters and other devices to monitor demand. He is concerned that devices, by themselves, are not a platform for effectiveness.

Member Hunt agreed that money is being spent on demand response, but he fears that demand response, if not implemented well, could discredit itself. There is a risk of establishing poorly designed government mandates that cannot perform.

Member Brad Roberts noted that smart grid and energy storage technologies are not cited in the demand chapter and that both need mention. Chair Stuntz informed the Committee that both energy storage technologies and smart grid must be connected to the electricity adequacy report through cross references or actually folding the white papers on those issues into one report. The Committee will discuss that later. Chair Stuntz reminded the EAC members that the adequacy supply report must define adequacy.

Costs

Mr. Nadel observed that energy efficiency is relevant to all of the chapters in the report and should be cited wherever appropriate. He also agreed with Ms. Grueneich that combined heat and power should also be discussed. He is also concerned that that the construction costs for new generation cited in the report are not up to date and believes that the EAC should seek more recent cost estimates.

Chair Stuntz reminded the EAC members that there was agreement to use Energy Information Administration numbers. Member Paul Allen added that since that agreement was made, there has been a step-change in the current situation and that if the most recent EAC report does not reflect the status of construction costs and the impacts of such rising costs on any new investments, then the report will be obsolete upon arrival.

Member Grueneich suggested the report discuss how costs are going up throughout the electric power delivery system.

Workforce

Ms. VanZandt suggested that the report mention the issues of how to deal with the worldwide competition for key components of power systems and the competition for a skilled workforce in the electricity sector.

Education

Member Ralph Masiello suggested that the report include support for technical research and development on putting transmission underground and other ways to make transmission more acceptable to the public. Ms. Kelly added that education should be a goal of the EAC report. She stated that the lack of understanding of the importance of transmission and how transmission works is great, and the report can help explain the issues and increase understanding.

Adjournment

Assistant Secretary Kolevar thanked the Committee for their hard work and indicated he looked forward to further discussions the next day. Chair Stuntz adjourned the first day of the EAC meeting at 6:00 pm EDT.

Respectfully Submitted and Certified as Accurate:

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Linda Stuntz, Esquire
Stuntz, Davis, and Staffier, P.C.
Chair
DOE Electricity Advisory Committee

November 28, 2008
Date