

RENEWABLES AND TRANSMISSION FORUM

*TRANSITION TO A REDUCED
CARBON ENERGY ECONOMY*

WASHINGTON PLAZA HOTEL
WASHINGTON, DC
FEBRUARY 22, 2010



Photos courtesy of DOE/NREL, Deb Hahn & Tom Maves

Hosted by the National Wind Coordinating Collaborative

In collaboration with the American Wind Energy Association, U.S. Department of Energy Office of Energy Efficiency and Renewable Energy, Midwestern Governors Association, National Association of State Energy Officials, National Hydropower Association, Great Lakes Wind Collaborative, Western Area Power Administration, Interwest Energy Alliance, and National Conference of State Legislatures

**February 22, 2010
Washington, DC**

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Acronym List

AWEA: American Wind Energy Association
CAISO: California Independent System Operator
CSP: Concentrated Solar Power
DOE: Department of Energy
EERE: Energy Efficiency and Renewable Energy (DOE, Office of)
EICP: Eastern Interconnection Planning Collaborative
ERCOT: Electric Reliability Council of Texas
FERC: Federal Energy Regulatory Commission
FOA: Funding Opportunity Announcement
GEA: Geothermal Energy Association
IOU: Investor Owned Utilities
ISO: Independent System Operator
MGA: Midwest Governors Association
NERC: North American Electric Reliability Corporation
NHA: National Hydropower Association
NWCC: National Wind Coordinating Collaborative
OE: Office of Electricity (DOE)
RETI: Renewable Energy Transmission Initiative
RTO: Regional Transmission Organization
SEIA: Solar Energy Industries Association
SPP: Southwest Power Pool
SSC: Stakeholder Steering Committee
UWIG: Utility Wind Integration Group
WECC: Western Electric Coordinating Council
WGA: Western Governors Association
WREZ: Western Renewable Energy Zone
WWSIS: Western Wind and Solar Integration Study

Meeting Summary

I. Introduction

Over 60 leaders participated in the *Renewables and Transmission Forum: Transition to a Reduced Carbon Energy Economy*. Wind, solar, hydropower, and geothermal industry representatives, state and federal regulatory and technical agency representatives, transmission experts, wildlife/habitat interests, and others gathered for a focused dialogue about inter- and intra-regional opportunities and challenges to integrate renewables onto the grid.

Discussants reflected on:

- How to engage other renewables in integration dialogue
- How to encourage cooperation among renewables and wildlife and conservation interests
- How the NWCC and others can advance the national dialogue in the absence of federal policy direction
- What new transmission planning paradigms serve evolving needs and interests

II. The National Picture: Renewables Transmission Initiatives

Representatives from the U.S. Department of Energy Office of Electricity, U.S. Department of Energy Office of Energy Efficiency and Renewable Energy, North American Electric Reliability Corporation, Federal Energy Regulatory Commission, and Western Grid Group provided perspectives on the current state of renewables and transmission nationwide.

David Meyer, U.S. Department of Energy, Office of Electricity (OE)

Mr. Meyer reflected on the Department of Energy's (DOE) Funding Opportunity Announcement (FOA) for Interconnection Wide Planning and Analysis and distinguished the purposes of transmission planning and siting and the role each process plays. He stated that the planning process must inform the siting process, but the two are not synonymous. Mr. Meyer iterated that, while it is important to incorporate land use and environmental considerations into the planning process, it will be imperative not to overload this process with information that is irrelevant; maintaining the distinction between siting and planning is important.

Steve Lindenberg, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE)

DOE's Office of Energy Efficiency and Renewable Energy is tasked with developing and demonstrating technologies and bringing them to the marketplace. Mr. Lindenberg stated that although their responsibilities differ from the Office of Electricity's, the two must interface and develop a carefully

orchestrated process for collaboration and communication. Mr. Lindenberg outlined two proposed initiatives within EERE that address the immediate needs of expanding renewable generation:

- examining the perspectives and needs of different generators and
- addressing environmental compliance among renewable generation types.

It is EERE's hope that the Fiscal Year 2011 budget will include these activities. Mr. Lindenberg expressed his belief that EERE and federal decision makers can combine efforts and work together.

Mark Lauby, North American Electric Reliability Corporation (NERC)

Mr. Lauby described NERC's role as the entity that develops and sets standards for ensuring electric reliability throughout the nation. According to NERC's 2009 [Long Term Reliability Assessment](#), approximately 260,000 MW of new renewable "nameplate" capacity (biomass, geothermal, hydro, solar, and wind) are included in forecasts for the coming ten years. Roughly 96 percent of this total is comprised of wind (229,000 MW) and solar (20,000 MW). More variable generation will require changes to the traditional transmission planning models, and with 32,000 miles of projected transmission expected to be built to accommodate new generation, success lies in the ability to coordinate.

Mr. Lauby discussed the strength of NERC to foster technical collaboration in the areas of demand response and storage capacity and offered the following recommendations:

- Forecasting techniques must be incorporated in day-to-day planning, and more comprehensive planning approaches are needed.
- Standard and non-confidential planning models are needed. Variable generation developers should support these models.
- Greater access to larger pools of generation and demand is critical.
- Stakeholders need to align interests and not focus on challenges.
- While all generation is not created equal, deference should not be shown to one or the other.

Mason Emmett, Federal Energy Regulatory Commission (FERC)

Mr. Emmett provided several observations on national transmission planning issues:

- In the absence of policy guidance, what should be the right process for determining certainty?
- The Eastern Interconnection States Planning Council (EISPC) and Eastern Interconnect Planning Collaborative (EIPC) can learn from the Western Interconnect's experience of cooperating and coordinating with stakeholders. These groups in the Eastern Interconnect will have the opportunity to ensure the collaborative processes produce a system that addresses stakeholder concerns.
- The introduction of large amounts of variable generation is complicated for the system; operational requirements may need to change to reflect the type of resources that are now being used to serve load.

Participants added the following observations:

- While citizens and politicians may support transmission development, utilities could oppose it.

- Federal initiatives need to be established to meet clear energy-related and climate targets.
- States with lower wind resources will develop renewables because of the economic benefits, but this creates a higher cost for power.
- Cost allocation methodologies should be different for intra- and inter-state transmission.

Merchant Transmission

A participant asked how merchant transmission projects intersect with planning processes that will be initiated as a result of the FOAs. Mason Emmett explained that merchant transmission lines are built by a third party for a particular use and the developer is charged negotiated rates for construction. Currently, large amounts of renewables rely on merchant transmission. However, this model has caused complications because merchant transmission owners are trying to recover costs using the justification that they are responding to identified need from investor owned utilities (IOU). Within existing regional transmission organizations (RTO), right of first refusal processes have allowed for projects to be abandoned. Individual merchant transmission projects that are seeking negotiated cost recovery are competing with projects cosponsored by incumbent IOUs and RTOs. This has created right of first refusal disputes in California.

Ziad Alaywan of TresAmigas Super Station offered further perspective on merchant transmission lines. Mr. Alaywan explained that after the approval of two merchant transmission lines to be constructed underneath San Francisco Bay, the Independent System Operator (ISO) modified its rules to give right of first refusal to utilities, effectively ending the possibility for merchant transmission providers to build projects for reliability. Mr. Alaywan noted that between 2008 and 2009, the California ISO (CAISO) received 44 merchant transmission proposals, none of which were for renewables or studied by CAISO. However, for economic-based projects in California, merchant transmission is being constructed. It is unknown how these trends will impact renewables in the West.

Dave Olsen, Western Grid Group

Mr. Olsen, a key participant and leader in the California Renewable Energy Transmission Initiative (RETI),¹ explained that there are two main premises behind the project: better planning and broad stakeholder support. With this in mind Mr. Olsen developed a *Proposal for National Standards to Guide Transmission Planning*. National standards, or principles, Mr. Olsen stated, will “help facilitate approvals and establish a basis for determining cost allocation and siting decisions.” A set of standards or principles such as these could facilitate the public debate and could include metrics for evaluating economic impacts, emissions, energy security contributions, demand and supply resources, utilization of existing grid assets, wildlife and ecosystem integrity, economies of scale, and stakeholder participation. Mr. Olsen concluded his remarks by reminding participants that in 2004, the NWCC developed a set of transmission planning principles and suggested it may be an appropriate time to develop a new set of

¹ RETI is a statewide initiative to help identify the transmission projects needed to accommodate renewable energy goals, support future energy policy, and facilitate transmission corridor designation and transmission and generation siting and permitting.

principles or metrics. When asked where the largest opposition to planning standards would be, Mr. Olsen replied that some technical planners and utilities may resist.

III. Wildlife and Conservation Interests

Representatives from The Wilderness Society, Association of Fish and Wildlife Agencies, and Sierra Club provided insight into what is necessary for garnering the support and participation of the wildlife and conservation communities in traditional transmission planning.

Chase Huntley, The Wilderness Society

1. **Analytics:** Mr. Huntley concurred with Mr. Olsen that acquiring technical assets, such as wildlife, land use and social data, is a key to successful transmission planning, but since analytics are proprietary and not always available to non-traditional stakeholders, this may be challenging. If these analytics drive planning, they should be available to those who participate in the process.
2. **Broad stakeholder participation:** A clear structural pathway for inclusion of all stakeholders will provide a means for iterative, meaningful participation.
3. **Access to data:** Common, reliable, and accessible data are keys to developing transmission planning standards or principles.
4. **Creativity:** Creativity and experimenting in planning should continue beyond conference dialogue. New spatial and modeling tools and other initiatives have been the basis for the potent environmental movement to protect places and conservation values within places.

Deb Hahn, Association of Fish and Wildlife Agencies

1. **Coordination:** Because states have a key management role, early coordination is essential to engaging them and securing their support.
2. **Standardized processes:** Participation by wildlife and conservation interests is often challenged by multiple processes; a standardized process would provide great benefit.
3. **Access to data:** Ms. Hahn echoed Mr. Huntley's sentiments: good GIS data is pivotal in the planning process.

Alex Levinson, Sierra Club

1. The success of expanding renewables, and subsequently transmission, must be tied to carbon reduction goals and timeframes, greenhouse gas emission reduction goals, and jobs and economic growth. Addressing these goals justifies renewables and transmission growth and will help garner public support.
2. Environmental protection and sensible siting that considers existing rights-of-way, zoning, and stakeholder concerns will expedite transmission build out.
3. Systems that incentivize and reward stakeholders who are willing to compromise should be promoted.

Participants added the following observations:

- The transmission planning process is iterative. While developing new transmission planning paradigms is a great opportunity, it will not be the last chance to modify planning processes. The industry has planned on an iterative basis for decades. Several participants agreed that transmission planning should continue to be an iterative process.
- Adequately funding intelligent research organizations and other non-governmental organizations in a process this large and long-term is complex. Those who have not been invited to participate until recently are not provided with the monetary assistance to attend meetings and actively participate.
- The results of the Western Governors' Association (WGA) Western Renewable Energy Zones (WREZ) planning process are promising because they were able to spatially model risk and qualitative engagement in the absence of quantitative analytics. Sharing these experiences with the Eastern Interconnect and the Electric Reliability Council of Texas (ERCOT) would be invaluable.
- It is only a recent notion that non-traditional stakeholders should be included in transmission planning processes. The FOAs will provide for a more level playing field among stakeholders and may mend the years of inadequate funding for non-traditional stakeholder participation.
- To see gains, we will have to create public policy by *producing* a plan as opposed to creating public policy that *leads* to a plan.
- The success of building new transmission for renewables is a policy issue. Everyone agrees on what the outcomes need to be and on the incentives that will drive development, but we need to establish an efficiency and demand-side generation system that represents the acceptable solution on which we can lay the transmission grid.
- With hope, economics will drive the transmission plan's target: will it be based on energy solutions or a scenario planning solution?

Charlie Smith, of the Utility Wind Integration Group (UWIG) and Chair of the NWCC Transmission Workgroup, provided closing remarks for the day. Mr. Smith reiterated the critical impact policy can and will have on transmission development. He reaffirmed that transmission planning processes must change to reflect the transition of our new energy economy and the interests of a new, diverse stakeholder group.

IV. Cost Allocation

Jim Hoecker, WIRES

Former FERC Chairman and current adviser to WIRES, Jim Hoecker provided an overview of WIRES Petition for Rule Making on Cost Allocation Principles. [WIRES](#) is a national nonprofit association of investor-, member-, and publicly-owned entities dedicated to promoting investment in a strong, well-planned, and environmentally beneficial high voltage electric transmission grid. In 2007, WIRES convened economists and industry experts to draft a set of principles on optimal approaches for addressing cost allocation. The report was used as the foundation for a petition filed in November 2009, which asks FERC to initiate a notice-and-comment rulemaking process and institute a rulemaking guide for formulations on cost allocation principles. The petition is supported by the Solar Energy Industries

Association (SEIA), American Wind Energy Association (AWEA), and others. The “rules of the road” of cost allocation would “...garner support for national policies on cost allocation,” Dr. Hoecker stated. It is extremely important for states and regions to continue to research solutions to cost allocation obstacles, even in the absence of FERC guidance. Dr. Hoecker expects to see some extraordinary collaborative processes in the near future and stressed that in Congress, at FERC, and within different regions, there will be very different opinions on how to standardize and allocate costs. WIRES delivered a briefing on Capitol Hill on March 9 which explored the basic concepts of cost allocation, why the issue is critical to the future of the grid, and what needs to be resolved by Congress, FERC, and other stakeholders to reduce the regulatory uncertainty about who will pay for the coming build-out. For more information on the petition, which outlines six reasons why FERC should act affirmatively on cost allocation, visit: http://www.wiresgroup.com/images/WIRES_Petition_on_Cost_Allocation_111209.pdf

Participants added the following observations:

- Joint costs of production make proportionately allocating costs challenging because transmission has many different purposes; a political decision may be necessary to determine how joint costs of production should be allocated.
- There are five Canadian provinces that are part of the Eastern Interconnect, yet FERC only has jurisdiction in the United States. Because of this, facilities that expand in Canada may serve U.S. markets. FERC should establish methodologies for coordinating development across borders and make certain that beneficiaries are paying the appropriate portion of costs.
- Modeling techniques may account for 5 to 15 years in the future; determining beneficiaries for 50 to 70 years is challenging. FERC should periodically examine cost allocation to see if demographic or other economic factors that may impact beneficiaries have changed.

V. Renewables’ Transmission Priorities and Initiatives for 2010: Industry Perspectives

Representatives from the Solar Energy Industries Association, National Hydropower Association, Geothermal Energy Association, and American Wind Energy Association provided their respective industry’s priorities for 2010 and their views on the coordination between renewables that is necessary to move transmission forward. The representative from the American Wind Energy Association also provided an update on federal climate change and energy legislation.

Fred Morse, Solar Energy Industries Association (SEIA)

Mr. Morse discussed the following issues related to generation potential and transmission and collaboration in the solar industry.

- **Generation Potential & Transmission:** Because Concentrated Solar Power (CSP) has fixed prices and plants in California have never missed one hour of peak time in 20 to 25 years, CSP remains a viable generation source for utilities in the West. SEIA has identified 12,000 megawatts of solar potential with signed power purchase agreements, but construction faces challenges without access to transmission.

- **Collaboration:** The greatest solar resources are not always aligned with afternoon peak times, but with storage, solar energy can complement wind energy well. SEIA and the American Wind Energy Association have aligned their transmission policies and produced a white paper titled “Green Power Superhighways: Building a Path to America’s Clean Energy Future” available for download [here](#).

Jeff Leahey, National Hydropower Association (NHA)

Mr. Leahey discussed issues related to generation potential and transmission in the hydropower industry.

- **Generation Potential & Transmission:** In an October 2009 report, NHA identified 66,000 megawatts of new hydropower potential that could be developed by 2025. Mr. Leahey highlighted the advantages of hydropower, including manageable costs and resources that are close to load centers. The hydropower industry agrees that new transmission infrastructure will be required to fully realize this potential.

Karl Gawell, Geothermal Energy Association (GEA)

Mr. Gawell discussed issues related to generation potential and transmission in the geothermal industry.

- **Generation Potential & Transmission:** It was not until recently, after additional geothermal resources were discovered, that access to transmission became an issue for the industry. Mr. Gawell stated that resilient and sustainable solutions to transmission issues are what all renewables need; a temporary fix is not the answer. It is believed that 40,000 to 80,000 megawatts of conventional geothermal energy are undiscovered in the West, but without transmission certainty, the industry cannot confirm how many systems they could feasibly construct. The industry is eager to see the results of the Western Electricity Coordinating Council’s (WECC) planning efforts in the West to determine what build out will look like in the next generation.

Tom Vinson, American Wind Energy Association (AWEA)

Mr. Vinson identified challenges and opportunities in transmission planning and provided an overview of current Federal legislation.

- **Challenges & Opportunities:** A lack of consensus in various regions about how costs should be allocated is a key transmission obstacle. This presents an opportunity for entities like FERC, NERC, and the NWCC to foster dialogue on a regional level by developing principles, engaging in outreach, and broadening the discussion beyond wind to include the transmission interests of other renewables. AWEA is concerned that individual utility plans will become aggregated on an interconnection-level.
- **Federal Legislation:** Because there is gridlock on Capitol Hill, it is unclear whether comprehensive climate change legislation that addresses transmission will move forward in 2010.

Participants added the following observations:

- Collaboration between DOE's Office of Electricity and Office of Energy Efficiency and Renewable Energy will be vital to the success of renewable integration.
- If we are to achieve our nation's goals and all renewable technologies are to reach their full potential, we must speak with one voice; transmission policies should be driven on a regional level. Several participants agreed with this sentiment, and NWCC leaders reminded the group that the NWCC invites all renewables to participate at events and tries to align its activities to be congruent to their agendas.
- Planning is important, but in the business of building infrastructure, there must be deadlines.
- Change has to come from policy guidance. Even though it is not in place yet, the NWCC is well-positioned to fill the policy void with good intentions, strength, and intelligence.

VI. Interconnection Level Analysis and Planning in the East, West, and ERCOT

Recipients of the Department of Energy's Funding Opportunity Announcement (FOA) for Interconnection Level Planning and Analysis discussed plans for inter-regional planning in ERCOT, Eastern, and Western Interconnects, including how new coordination will address stakeholder interests and concerns.

David Whiteley, Eastern Interconnection Planning Collaborative (EICP)

EICP was initiated by 24 planning authorities in the Eastern Interconnect and was awarded \$16 million under Topic A of the FOA, which calls for the development of an open and transparent stakeholder engagement process. Mr. Whiteley stated that EICP was close to issuing a straw proposal for forming a steering committee, which will include representation from the states and appropriate stakeholder sectors.² For more information on EICP's work, click [here](#).

Bradley Nickell, Western Electricity Coordinating Council (WECC)

Noting that transmission planners have not traditionally considered uncertainty, Mr. Nickell described some of the new tenets involved in today's more comprehensive planning approaches. WECC, which was awarded \$14.5 million for Topic A work under the FOA, will engage in a comprehensive planning approach, seeking to capture the interests and concerns of a broader, non-traditional stakeholder group. Mr. Nickell noted the DOE-awarded funds will be integral to securing stakeholder participation and helping relay the complexities of transmission planning. Similar to EICP, WECC will establish a steering committee that will guide the development of a set of analyses and transmission plans that identify new and upgraded infrastructure under a broad range of future scenarios. Mr. Nickell concluded his remarks by reminding participants that transmission planning "needs to flow to the environmental world" and that the necessary data to complete comprehensive planning should be accessible to all parties involved. For more information on WECC's SPSG work, click [here](#).

² The FOA requires that one-third of the steering committee must be comprised of state representatives.

Doug Larson, Western Interstate Energy Board (WIEB)

Mr. Larson discussed the Topic B portion of the FOA in the Western Interconnect, which will provide input from states and Canadian provinces in the West on regional transmission planning and will include representatives from Public Utility Commissions, State Governors, Provincial Premiers, and appointed members from Western Governors' Wildlife Council. Citing the value of sharing models and working cross-connectively, Mr. Larson said that Topic B activities will sync with ongoing sub-regional and WECC processes. It is imperative that the findings of the Western Wind and Solar Integration Study (WWSIS) are integrated into regional planning in the Western Interconnect. For more information on WGA SPSC work, [click here](#).

Mike Grable, Electric Reliability Council of Texas (ERCOT)

ERCOT, which operates 75 percent of the Texas electric grid, will not make any significant changes to their transmission planning processes in response to being awarded part of the FOA for Topics A and B, noted Mr. Grable. ERCOT will maintain the role they have held, which includes system reliability planning, but will encourage a longer study horizon. Mr. Grable informed participants that ERCOT is not an ISO, but rather a membership-based, 501(c)(4) nonprofit corporation that provides open access for all. The multi-constituency steering committee has not yet been formed, but Mr. Grable believes there is a significant opportunity to develop new synergies across stakeholder groups, especially within the solar arena. For more information on ERCOT work, [click here](#).

Ziad Alaywan, Tres Amigas

Mr. Alaywan discussed the Tres Amigas Super Station, a proposed multi-terminal AC/DC transmission superstation located in Clovis, New Mexico, that will connect to ERCOT and the Eastern and Western Interconnects. The proposed station is comprised of three converter stations with two miles of buried superconductor lines between each station, for a total of six miles of superconductor lines. Because Tres Amigas will not pass on construction and maintenance costs to anyone, it does not require regional approval to move forward; Mr. Alaywan expects construction to begin in late 2010. He stated that because ERCOT does its own scenario planning, it provides certainty to developers; this is not the case for the current WECC process.

Participants added the following observations:

- At what points do policymakers decide the parameters that should be used in transmission planning and planners engage policymakers to ensure technical work that is being done is useful and not just pejorative?
- While it is important to give non-traditional stakeholders a seat at the table and hear their perspectives, it will not move us in the right direction at the fastest speed. We must influence the right policymakers with the most convincing message: if we continue to study and not build, we will not lower our carbon footprint.
- Moving forward, it will be crucial for states to think beyond self-interest towards regional cooperation.

- FOA recipients will produce plans within 18 months, and while these plans will not be prescriptive, they will inform the legislative process and force it to move forward.

VII. Discussion: Trends, Opportunities, and Gaps: Transmission Planning and Renewables

Discussants' remarks sparked several discussions throughout the day and in the final session, select participants were asked to provide their thoughts on what they heard and how the dialogue could continue beyond the meeting.

Rich Halvey, Western Governors Association (WGA)

- The WREZ process will continue to inform discussions on which areas in the West will allow for larger-scale, high-voltage, long-distance transmission. The WREZ process will also examine transmission siting from the stakeholder perspective to learn from successful and unsuccessful projects.
- We must create an iterative process of policy and technical analysis that leads to decisions that states and regions can understand.

Matt Schuerger

- In the near future, more should be done to integrate energy efficiency into transmission planning.
- While conceptual planning does affect the current state of transmission planning, it does not dictate a specific process for moving forward with transmission development. Future scenario plans need to be framed in a way to help us make informative decisions now.

Mike Gregerson, Midwest Governors' Association (MGA)

- While officials on the state level are concerned about states' rights, they do want to see progress. Forums such as this, where the status of various processes are discussed, are extremely important.

Jay Caspary, Southwest Power Pool (SPP)

- Planning is an art, not a science. There are many good planning scenarios that have been developed, but for each day we wait and do not build, costs rise. Transmission must be thought of as an enabling asset, not an afterthought; we are doing a disservice by being conservative in our studies.
- Moving forward, planners have the opportunity to examine what reliability really is and its cost to customers.

Charlie Smith, Utility Wind Integration Group (UWIG)

- State economic interests are competing against national security interests. This is competition that stems from the tension about where transmission will be constructed, and it illustrates the importance of relinquishing some control for the common good.

Ron Lehr, American Wind Energy Association (AWEA)

- We can make a difference if we can get in the right setting and provide the right information and messaging. Those with financial control and decision-making capabilities are those who should be targeted.
- Integrating the contentious issues into the planning process will be critical to the success of transmission expansion.

Final Agenda

Renewables and Transmission Forum: Transition to a Reduced Carbon Energy Economy

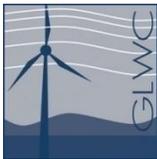


Energy Efficiency &
Renewable Energy



NATIONAL CONFERENCE
of STATE LEGISLATURES

The Forum for America's Ideas



February 22, 2010

Washington Plaza Hotel

10 Thomas Circle NW

Washington, DC

Draft Agenda/Outline

Meeting Objectives:

- Take stock of transmission development nationwide – where do renewables fit?
- Review federal, regional, and state-level transmission planning activities and identify integration opportunities and gaps.
- Receive updates on ERCOT and the Eastern and Western Interconnect planning processes.
- Engage in a focused dialogue to identify opportunities for engagement, resource needs, and other issues raised by participants.

7:30-8:15	Registration	Discussants
8:15-8:30	<u>I. Welcome, Introductions, & Meeting Purpose</u>	Abby Arnold & NWCC Steering Committee
8:30-11:15	<u>II. A. The National Picture: Renewables Transmission Initiatives</u> <ul style="list-style-type: none"> • <i>What collaborative efforts do you view as the most integral to the success of improving and expanding transmission? What collaboration among states or across regions do you view as integral to the success and improvement of transmission planning?</i> • <i>What are key federal initiatives with regard to transmission planning? What is your organization's role in implementing these initiatives?</i> • <i>How will new inter-agency coordination and transmission planning support integration of renewables on the transmission grid?</i> • <i>What role will FERC play in assessing cost allocation methodologies?</i> 	<i>David Meyer, DOE Office of Electricity</i> <i>Steve Lindenberg, DOE Office of Energy Efficiency and Renewable Energy</i> <i>Mark Lauby, NERC</i> <i>Mason Emmett, FERC</i>
	<u>II.B. The National Picture: Renewables Transmission Planning and Siting</u> <ul style="list-style-type: none"> • <i>What steps need to be taken to improve uniformity, consistency, and transparency in the siting of electrical transmission infrastructure that supports renewables?</i> • <i>What coordination and collaboration with renewables and transmission planners is necessary to move renewables and transmission forward in a manner that addresses wildlife and habitat concerns? What gaps should be addressed, and what opportunities should be harnessed to improve coordination effectiveness?</i> • <i>What role do state wildlife agencies and NGOs have in your respective regions?</i> 	<i>Dave Olsen, Western Grid Group</i> <i>Chase Huntley, The Wilderness Society</i> <i>Deb Hahn, AWFA</i> <i>Alex Levinson, Sierra Club</i>
11:15-11:30	Break	
11:30-12:30	<u>III. Discussion: Cost Allocation for Transmission</u> <ul style="list-style-type: none"> • <i>Guiding principles for assessing cost allocation:</i> <ul style="list-style-type: none"> • <i>Which methodologies in place have been successful? What opportunities exist to improve current methodologies?</i> • <i>Whose responsibility is it?</i> 	<i>Jim Hoecker, Husch, Blackwell, Sanders, LLP</i>

12:30-1:30	Lunch (served in meeting room)	
1:30-2:30	<p>IV. <u>Renewables' Transmission Priorities and Initiatives for 2010: Industry Perspectives</u></p> <ul style="list-style-type: none"> • <i>Where does each renewable industry fit in the picture? What are the gaps, opportunities, and challenges?</i> • <i>What coordination between renewables is necessary to move transmission forward?</i> 	<p><i>Dr. Fred Morse, Abengoa Solar/SEIA</i></p> <p><i>Jeff Leahey, NHA</i></p> <p><i>Karl Gawell, GEA</i></p> <p><i>Rob Gramlich, AWEA</i></p>
2:30-2:45	Break	
2:45-4:10	<p>V. <u>Interconnection Level Analysis and Planning in the East, West, and ERCOT</u></p> <ul style="list-style-type: none"> • <i>Inter-regional Transmission Planning: DOE awardees discuss plans for inter-regional planning in ERCOT, Eastern, and Western Interconnects.</i> <ul style="list-style-type: none"> ○ <i>How will new inter-regional planning coordination ensure transmission for renewables is integrated to the grid in a manner that addresses all stakeholder concerns?</i> ○ <i>How will the individual regional processes (ERCOT, Eastern, and Western Interconnects) be knitted together and whose responsibility is it? Is there need for a cross-interconnection process?</i> ○ <i>What opportunities for a broader stakeholder engagement process exist? What are the gaps?</i> ○ <i>How will EWITs and WWSIS study results be incorporated into the work you are doing?</i> ○ <i>How can Tres Amigas bridge the gaps in planning across regions and serve as an example for inter-regional coordination?</i> 	<p><i>David Whiteley, EIPC</i></p> <p><i>Bradley Nickell, WECC</i></p> <p><i>Doug Larson, WIEB/WGA</i></p> <p><i>Mike Grable, ERCOT</i></p> <p><i>Ziad Alaywan, Tres Amigas</i></p>

<p>4:10-5:15</p>	<p>VI. <u>Discussion: Trends, Opportunities, and Gaps: Transmission Planning and Renewables</u></p> <ul style="list-style-type: none"> • <i>Where do renewables fit into the picture? What are the gaps, opportunities, and challenges?</i> • <i>Who will fill what role?</i> • <i>What is needed to move renewables and transmission forward?</i> • <i>What is the connection between transmission planning and siting? Where will the discussion about siting renewables and transmission occur?</i> • <i>What is the role for energy efficiency and demand side management in planning for new transmission? Is new transmission needed to address carbon reduction?</i> 	<p><i>Charlie Smith, UWIG</i></p> <p><i>Rich Halvey, WGA</i></p> <p><i>Ron Lehr, AWEA</i></p> <p><i>Jay Caspary, SPP</i></p> <p><i>Beth Soholt, Wind on the Wires</i></p> <p><i>Mike Gregerson, MGA</i></p>
<p>5:15-5:30</p>	<p>VII. <u>Next Steps and Adjourn</u></p>	

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