WESTERN TRANSMISSION AND WILDLIFE NEEDS AT A CROSSROADS
A Topical Workshop

Sponsored by: The Energy Foundation/National Wind Coordinating Collaborative/Western Resource Advocates

September 26, 2007; 1:00 p.m. – 5:30 p.m.
Fort Collins, Colorado

MEETING SUMMARY

Purpose

This workshop brought together transmission developers, lands and wildlife conservationists, renewable energy advocates, and other stakeholders to discuss how to optimally develop the transmission lines that access wind power and other renewable energy while protecting land and wildlife resources in the Western United States. The discussion focused on the following topics:

- Electricity demands and transmission requirements to support new energy (particularly renewables) in the West.
- The process transmission developers use and factors they assess, including environmental factors, when siting transmission lines (using proposed lines as examples).
- Lands and wildlife concerns/interests regarding new transmission in the West.
- Lands/wildlife criteria to consider in order to build a broad coalition of support for new transmission.
- Kinds of dialogue, exchange, partnerships needed to address lands/wildlife interests in planning new transmission.

Workshop Synopsis

Transmission Needs for Getting Electricity to Western Demand Centers and the Role of Renewables [*please see http://www.nationalwind.org/calendar/WesternTransmissionWildlifeNeedsCrossroadsTopicalWorkshop.htm for presentations slides*].

The first two speakers—Doug Larson, Western Interstate Energy Board (WIEB) and Dave Olsen, Center for Energy Efficiency and Renewable Technologies (CEERT)—reported on renewable energy's current and potential future role in meeting U.S. and the West's energy demand. Mr. Olsen suggested three steps for increasing renewable energy, and thereby decreasing carbon dioxide (CO2) emissions, while minimizing wildlife impacts:

1. Plan the electric system to minimize imports, e.g. use energy efficiency, smart grid, zero net energy buildings, local low-carbon resources
2. Plan transmission in a coordinated fashion to reduce impacts
3. Encourage and support power project developers to enhance, not just mitigate, ecosystem and habitat impacts

If California met its goal of 33% renewable energy by 2020, this would cut electricity-related CO2 by 25% to 1990 levels. However, this is far short of California's CO2 law calling for

80% below 1990 levels by 2050. The American Wind Energy Association (AWEA) and the U.S. Department of Energy are studying what 20% wind energy nationwide would look like and found it would require approximately 300,000 MW of wind by 2030, up to 100,000 MW of which might be in WECC (Western Electricity Coordinating Council).

How Are Transmission Lines Sited?

Next, transmission developers described the transmission siting process. Rob Kondziolka, Salt River Project, said the first step is evaluating whether transmission is needed. If there is a need, different scenarios to meet demand are modeled. The planning process is complicated by the various planning regions, which include local, sub-regional, and regional. At the sub-regional level, there are groups like Southwest Area Transmission (SWAT) which collaboratively plan transmission to maximize regional benefits while efficiently using the existing transmission system.

Bob Smith, Arizona Public Service, described three areas of permitting work for the Palo Verde hub to North Gila 500kV project:

1: Regional Studies and Scoping
2: Environmental Assessment
3: State Siting Process

In these areas, there is public participation ranging from briefings and interviews with key parties to public scoping sessions and information dissemination. An environmental consultant, in this case The Environmental Planning Group (EPG) studies potential impacts, ranks alternatives, and does environmental assessments. For an Arizona transmission project, the EPG prepares an application for a Certificate of Environmental Compatibility, which the transmission developer finalizes and files for approval. Where public lands are involved, NEPA is required and federal entities like the Bureau of Land Management (BLM) review and approve right-of-way applications and environmental assessments.

Mark Etherton with PDS Consulting, a developer of the SunZia Southwest Transmission Project, similarly outlined transmission development phases but as follows:

- Phase 0 - Project Concept (6 months – 1 Year)
  - ✓ Primary Purpose (Reliability, Resource Delivery, etc)
  - ✓ Technical Analysis via Regional Planning
  - ✓ Preliminary Environmental Screening
  - ✓ Foster Participation Interest
- Phase 1 – Project Development (2 – 5 Years)
  - ✓ Execute Development Agreement for Funding
  - ✓ Requirements for Permitting (NEPA, State, etc.)
- Phase 2 – Design and Construction (2 – 4 Years)
  - ✓ All activities related to constructing and energizing the new facilities to be operated as part of the grid

David Gaige from Burns & McDonnell provided information on some of the modeling tools available for cataloging sensitive habitats, homes, and other areas for transmission lines to avoid. He showed how mapping in layers is used to identify transmission routes with the least negative effects. Giving varying weights to different priorities, such as environmental preference versus engineering preference, can be used to plot alternative routes.

Paige Graening, National Grid, is working with Arizona Public Service on the TransWest Express line. She encouraged the conservationists participating to build relationships with their local utilities and utility commissions and to engage in processes like integrated planning proceedings.

Lands and Wildlife Issues to be Considered When Siting Transmission Lines

Four representatives from the wildlife and land conservation community spoke about the potential impacts of energy and transmission development on wildlife. Connie Young-Dubovsky, U.S. Fish and Wildlife Service (USFWS), led off by saying USFWS has trust authority over threatened and endangered species, migratory birds, interjurisdictional fisheries, and national wildlife refuges. The primary USFWS authorities that pertain to transmission development are:

- Endangered Species Act
- Migratory Bird Treaty Act
- Bald and Golden Eagle Protection Act
- National Wildlife Refuge System Improvement Act of 1997

The law does not permit any "take" of trust species and the USFWS wants to work with developers to avoid and minimize take. USFWS encourages adherence to the Avian Power Line Interaction Committee (APLIC) guidelines on avian protection from power lines and early consultation of the Service for proposed energy and infrastructure projects.

Amy Mall, Natural Resources Defense Council (NRDC), focused on non-wildlife environmental impacts of transmission such as visual, water quality, archeological, and economic. Clearing land for transmission lines temporarily or permanently alters the landscape, potentially influencing tourism in scenic areas or ecosystems. Associated sedimentation and erosion may also influence water quality. NRDC encourages collaboration on proposed projects to help avoid detrimental impacts.

Jay Pruett, The Nature Conservancy (TNC), talked about transmission lines as a source of habitat fragmentation. Fragmentation can disrupt wildlife corridors, thereby isolating populations and contributing to lower genetic diversity. Also, tall structures may disturb the reproduction of species such as lesser prairie chickens. TNC Oklahoma put together a GIS overlay map with layers showing prairie chicken habitat, migration corridors, bat caves, etc and hopes it can be a starting point for conversation about where to site lines to avoid sensitive areas.

Jonathan Proctor, Defenders of Wildlife, encouraged eco-regional planning. Priority conservation areas can be mapped and shared with transmission developers as a staring point for identifying the optimal areas to build lines. Mr. Proctor also encouraged developers to work with conservationists to set aside pristine habitat as part of their mitigation efforts.

Next Steps

Participants identified potential areas for parties to work together and what next steps would be involved. Particular emphasis was put on the following ideas:

- Work collaboratively on mapping tools with overlays for wildlife, habitat, renewable energy resources, existing infrastructure, etc. Encourage greater use of these tools earlier in the process.
- Find ways to get environmental representatives the resources (funding and staff) they need to be consistently involved in transmission planning and involved during early stages.
- Create a forum where transmission and generation can be discussed together; consider modeling after RMATS (Rocky Mountain Area Transmission Study). Other collaborative models mentioned included DOT highway siting, cooperating agencies, and technical advisory groups.
- Convene a forum for eco-regional renewable energy and transmission planning, possibly led by the Western Governors.
- Increase involvement in WGA Wildlife Corridors Initiative.

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Draft Agenda

1:00 – 1:15 Welcome, Introductions, and Agenda Review
- Introductions and purpose of Workshop

1:15 – 2:00 Transmission Needs for Getting Electricity to Western Demand Centers and the Role of Renewables
- Overview of electricity demand projections and transmission needs in the West
  - *Doug Larson, Western Interstate Energy Board*
- Role for renewables in meeting electricity demands
  - *Dave Olsen, CEERT*
- Questions and discussion

2:00 – 3:00 How Are Transmission Lines Sited?
- Using proposed lines, provide an overview of the process and factors that go into siting transmission lines
  - SunZia – *Mark Etherton, PDS Consulting, PLC and Rob Kondziolka, Salt River Project*
  - TransWest Express – *Paige Graening, National Grid and Bob Smith, Arizona Public Service*
  - Wyoming-Colorado Intertie – *David Gaige, Burns & McDonnell*
- Questions and discussion

3:00 – 3:15 BREAK

3:15 – 4:15 Lands and Wildlife Issues to be Considered When Siting Transmission Lines
- Overview of what kinds of impacts transmission lines are known for and considerations for transmission planners to think about when siting these lines
  - *Amy Mall, Natural Resources Defense Council*
  - *Jay Pruett, The Nature Conservancy*
  - *Jonathan Proctor, Defenders of Wildlife*
  - *Connie Young-Dubovsky, USFWS*
- Questions and discussion

4:15 – 5:25 Open Dialogue and Suggestions for Next Steps
- Roundtable discussion on how participants can constructively engage to find new solutions as lines are proposed and planned. Specifically:
  - What lands and wildlife criteria do you recommend be considered in siting transmission lines?
  - What lands and wildlife information/specific actions would enable support for a transmission line from a broad cross-section of stakeholders?

- What efforts/resources exist that can assist parties in participating effectively in transmission siting efforts?

5:25 – 5:30 Summary and Acknowledgments

5:30 Adjourn