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PUBLIC SCOPING MEETING OF THE WEST-WIDE

ENERGY CORRIDOR ENVIRONMENTAL IMPACT STATEMENT

OCTOBER 25, 2005, 2:00 P.M.

MEETING 1-A

HELD AT:

COLORADO CONVENTION CENTER

700 - 14TH STREET

DENVER, COLORADO

SOUDER: Just a reminder. If you'd like to [inaudible] now, you're more than free to do that, if you like. CO02

LEHR: Afternoon. My name is Ron Lehr, L-E-H- R. I'm the western representative for the American Wind Energy Association.

I've provided the panel with a copy of a very preliminary outline of the concerns we'll want to raise in this process. And I'd like to go through and explain just briefly what we have in mind.

Wind energy will need transmission corridors that involve federal lands in the west, but the exact corridors and the precise timing are not available right now. We, the Wind Energy Association, and our colleagues at the West-Wind Wires, whom you will meet in Portland when you get there, want to help you identify the information that is available so that the corridors can be identified.

We want to add to these preliminary comments that I'm going to make today, as we get the chance to work on this some more with you and also some of the information that I'm going to tell you about has a chance to mature a little more.

The best information right now about wind

transmission needs is found in work by the various regional planning entities that do transmission planning in the region. And there will probably be some wind developers who will talk about particular projects. But, I will say that some of them also have confidentiality concerns about revealing where and the timing of the projects. So, I don't think the wind developers are going to be a complete source of information for this problem.

The draft wind report for the Western Governors Association's Clean and Diversified Energy Analysis Committee -- so-called CDEAC -- has the best information about the role of wind in the west, about making better use of existing transmission, which seems to me to be a prerequisite to adding, and the needs for new transmission corridors.

We've given you some information here about the projected demand for wind. We think it could play a very large role going forward in the electric sector, particularly as the fossil industry shows that it's unable to deliver stable prices to customers.

We've also cited the utility wind interest group, which is doing the best group of integration

of wind in the electric systems. That's something you need to understand that the costs of integrating this variable resource into the electric system are fairly modest. Not a show-stopper.

The markets that the wind projects in the west will serve -- I've characterized them as being local loads served on distribution levels by distributed community and locally-owned wind projects. I think this is really going to take off. It's taking off in the upper Midwest. Serving the regional population centers -- something that the Rocky Mountain Transmission Study identified -- with lines that will come out of the wind areas and serve what's the most urbanized part of the country. The west is the most urbanized part of the country. More people living here in SMSAs [phonetic] than any place else in the country.

And then, the third market is the west coast, where the loads are, and that will require large-scale lines for export. It's a longer-term phenomenon, in my opinion. It depends on some changes in the transmission grid in operations, which I'll refer to, later.

But, there will be competition and trade-offs among these three niches. If it's too expensive and troublesome to build in the Wyoming wind resource -- which is the best one in North America -- and ship to California, then local California winds of less energetic kinds will be developed, instead. So there's going to be some trade-off among those different markets.

So, we have to keep an eye on that in the scoping for this process, because that will determine how much and what kind of corridors will needs.

The wind resources to be served are enormous in the west. They've been characterized by the National Renewal Energy Lab in a Renewable Energy Atlas in the west; in some scenarios that the Segue [phonetic] Group has put together in a balanced energy plan; and I've given you the websites for all of those.

There's a chicken-and-egg or timing mismatch problems that go along with wind. Wind resources are so large and so well distributed that the wind developers will go wherever the transmission is. So, when I talk to them, they say, "tell me where the transmission's going to be -- we'll build you

some wind right there".

And, wind can be developed in a couple of years. You have to wait around, but can be mobilized quite quickly. Transmission takes a long time. And, I think we'll see in the west states following the lead of Texas and Minnesota in getting state laws that require identification of those resources and transmission needed to serve them. And, I think that'll start to happen in the time frame for this study. So, you'll start to see that development coming up while you're looking at this.

There's some wildlife issues with wind. The National Wind Coordinating Committee has the best information on that, and I've given you a reference to them.

And, back on the transmission policy framework -- that's in transition -- so, how that transition operates between where we are in the market today with bilateral operations among utilities, in a transition towards a more open market for the west for resources like wind to move power around -- that transition is going to really, I think, have a big impact on where the transmission corridors need to be. So, that's something I wanted to flag for

you, because I think it's going to be important.

One final point is that there's some work underway in Minnesota about compensating private land owners. I think it will be a rare situation where a transmission line will be located all in federal right-of-way. So, the feasibility of a federal right-of-way may turn on how acceptable a right-of-way is to private land owners. The methods that we have of compensating private land owners are, in my opinion, crude. And more sophisticated methods are under study now in Minnesota and may reflect more willingness by private owners to accept transmission. If that happens, then it could have impact on federal corridors, as well.

So, those are preliminary things that we wanted to identify. We'll keep working. We want to work with you to perfect some of these and, probably add some more. I know there's a couple that I though about that didn't get into this, and we'll be putting them into the other cities where you're visiting, and some written comments.

Thanks, very much.

POWER: Thank you, Ron. Evan Hanson with Williams.

West Wide Energy Corridor Programmatic EIS
American Wind Energy Association
Preliminary Comments Regarding Wind Transmission Corridors
Ron Lehr, AWEA Western Representative
Denver, October 25, 2005

1. Wind energy will need transmission corridors that involve federal lands in the West, but the exact corridors and precise timing are not available now.
    - AWEA and West Wind Wires will help to identify information that is available so that corridors can be identified. We will add to these preliminary comments and file additional documentation and comments in the PEIS scoping process.
    - The best information about wind transmission needs is found in work by SSG-WI, RMATS, NTAC, SWAT, the CAISO, and the CCPG. Wind developers can also make important contributions, but some will have confidentiality concerns. (For the RMATS Phase I report, see: http://psc.state.wy.us/htdocs/subregional/home.htm
    - The draft wind report for the WGA CDEAC contains the best current information about the role of wind in the West, making better use of existing transmission, and the needs for new transmission corridors. http://www.westgov.org/wga/initiatives/cdeac/comments.htm.

2. What is the projected demand for wind?
    - Wind hedges natural gas price risks. http://eetd.lbl.gov/ea/ems/reports
    - Wind offers stable priced electric energy that offsets higher cost fossil production. (www.awea.org)
    - Generation diversity is needed to counter economic impacts of blood and corruption for oil, the price of which drives natural gas prices.
    - Economic development in dying rural areas is a benefit of wind investment. (www.windpoweringamerica.org)
    - Wind uses no water.
    - Wind produces no pollution.
    - Integration costs and operational reforms to include wind among current electric generation resources is developing rapidly. The integration costs are modest. www.uwig.org.

3. What markets will wind serve?

- Local loads will be served on distribution levels by distributed, community and locally owned wind projects.
- Regional population centers will be served by wind projects that require additional transmission services, upgrades of existing transmission routes, and new corridors in some cases.
- West coast energy markets will be served by merchant wind plants that require additional investment in interstate transmission.
- There will be aggressive competition between and among these markets to serve loads. The outcomes are likely to involve extensive wind development in all three market segments.

4. What wind resources will need to be served with upgraded or additional transmission?
    - Wind resources in Western states have been extensively mapped by NREL. www.nrel.gov
    - The "Renewable Energy Atlas of the West estimates the renewable energy resources of the West, including wind. www.energyatlas.org
    - Scenarios that describe how wind development will occur are available from SSG-WI (www.ssg-wi.org) and in the WRA "Balanced Energy Plan for the West" (www.westernresourceadvocates.org)
    - SSG-WI's transmission planning efforts are being transferred to WECC. Integrated supply and demand scenarios for all resources, including wind, should result as WECC's planning functions start up.

5. Are there "chicken and egg" and timing mismatch problems here?
    - Wind resources in the West are so large, and so well distributed, that wind developers will develop where ever transmission is available.
    - Wind can be developed in two years. Transmission can take five or ten years or more to develop.
    - States will be following the lead of Texas and Minnesota, considering legislation to require their commissions and utilities identify wind development areas, plan and invest in transmission to serve them, and offering utilities current cost recovery and prudence findings insurance.

6. Are there wildlife issues with large scale wind development?
    - Wind can impact wildlife. The National Wind Coordinating Committee has identified the best science

on the topic and has recommended standards to addressing the issues (www.nationalwind.org)

7. Is the transmission policy framework in the West in transition?
    - Current bilateral markets are moving slowly toward more integrated regional market and grid operation structures. The state of progress in this transition will impact the need for corridors for the scenario that involves exports of wind from the interior West to West Coast energy markets.

8. What about private landowners?
    - Work is underway in Minnesota that could change the dynamics of private landowner compensation for transmission corridors. The feasibility of corridors on federal lands, where transmission also involves private lands could be impacted by this work.