

# *Transmission Update*

July 2008

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## Summary

- ✓ Welcome to the Seventeenth National Wind Coordinating Collaborative (NWCC) Transmission Update! Kevin Porter of Exeter Associates, Inc. led the July 7, 2008, Transmission Update conference call. As always, this written brief is being distributed after the call to conference call participants, other NWCC members and participants, and to interested NWCC observers.
- ✓ This update features the Wyoming Infrastructure Authority's open season process for transmission capacity on the proposed Wyoming-Colorado Intertie transmission line project, and the Bonneville Power Administration's Network Open Season for generator interconnection requests.
- ✓ Specific topics covered in this brief include:
  - How it may be possible to help finance new transmission through open season pre-subscriptions
  - How a Network Open Season system may help facilitate interconnection processing and finance new transmission
- ✓ Steve Waddington from the Wyoming Infrastructure Authority (WIA) described WIA's open season process and Elliot Mainzer from the Bonneville Power Administration (BPA) discussed BPA's Network Open Season and results from the recent initial offering.

## Wyoming-Colorado Intertie Open Season

### Background

The Wyoming Colorado Intertie transmission project (WCIP) is being jointly developed by WIA, Trans-Elect, and the Western Area Power Administration (WAPA), with the intent to expand transmission capacity across the constrained path referred to as TOT3 between Wyoming and Colorado. The initial planning study for the project indicates that 800 to 900 MW can be transferred from Wyoming to Colorado via a 345 kV line. The line could be developed in two phases, with the first phase starting at the Public Service Company of Colorado's (PSCO) Pawnee Substation in Colorado and terminating near the Laramie River Station near Wheatland, Wyoming. A second phase would run from the Laramie River Station to the Dave Johnson coal plant and could add

another 425 MW. Construction may begin by 2011 and the tentative operation date is 2012. An open season to allocate transmission capacity is being held, and depending on the market response, the proposed transmission line could be double-circuited to allow more generation to be put on the line.

#### **Open Season**

Steve Waddington from WIA said this project had been in development for several years and was aimed at alleviating some of the transmission constraints between Wyoming and the Denver area. The partners (WIA, TransElect, and WAPA) hired CRA International to conduct the open season auction for transmission capacity. The open season is currently underway and several bidders have already expressed interest, indicating that demand may very well be greater than available supply. Mr. Waddington said the final auction would be held on July 31<sup>st</sup> in a two-step descending clock format. He noted they should have the results available by August 4<sup>th</sup>.

WIA also intervened in PSCO's pending integrated resource plan (IRP) at the Public Service of Colorado. PSCO's IRP calls for 825 MW of wind, with 500 MW of that scheduled for 2013 or 2014. WIA would like wind in Wyoming to have a chance at competing for that RFP, and thought that the WCIP project would be even more viable if wind projects in Wyoming had earlier access to PSCO's need for wind. WIA and PSCO reached a settlement wherein PSCO will conduct a Request For Proposals (RFP) sometime this fall for 500 MW of wind power from Wyoming for 2013 or 2014 delivery, coinciding with the proposed on-line date for the WCIP.

#### **Discussion**

A caller asked if the right-of-ways for the WCIP had been defined and/or approved yet. Mr. Waddington said that preliminary corridor work had been conducted in preparation for a routing proposal, but there was considerable work still to be done in securing the right-of-ways. He also noted that the route was entirely over private lands, which should save on some permitting work.

A caller asked if the WCIP had experienced any significant public opposition. Mr. Waddington said there had not been any to date and that the partners had done a lot of work gaining acceptance and support from county officials and PUC Staff.

One caller wanted to know whether the size of the line could be upgraded if the bids exceeded the capacity. Mr. Waddington said they had studied the possibility of upgrading the line to 500 kV but found that the underlying grid could not support that voltage level.

A caller asked Mr. Waddington to discuss the timing of the open season and how it follows the regulatory schedule for the PSCO IRP docket in Colorado. Mr. Waddington said PSCO's IRP had proposed to stagger wind RFPs as needed. WIA intervened in the case, which led to the settlement agreement for the 500 MW wind RFP being accelerated to late 2008 for delivery in 2013 or

2014, matching with the expected operation date of the WCIP.

A caller mentioned that the Colorado RPS differentiates between wind power from Wyoming and wind power from Colorado. Mr. Waddington noted that renewable energy generation in Colorado receives a 125 percent bonus under the Colorado RPS, but that this is irrelevant, as PSCO is soliciting wind power not to meet the Colorado RPS, but because it is in the interest of their customers. In the end, the comparison between Colorado and Wyoming wind would be made on the economics.

A caller asked if the landowners would be getting a single payment as compensation or if they would be receiving a continuing revenue stream from the line. Mr. Waddington said that traditionally landowners had received a one-time compensatory payment, but that many landowners now want revenue streams. He said this point was still being negotiated.

A caller asked if the bidders in the PSCO RFP would be able to make their bids contingent on getting capacity on the WCIP. Mr. Waddington said this would be the case, and, conversely, bidders in the WCIP open season are able to make their bids contingent on winning the PSCO RFP. Additionally, the WCIP open season includes a grace period for bid winners; if conditions change, they can cancel their bids.

A caller asked what Mr. Waddington meant when he said that the system could not support a line upgrade to 500 kV. Mr. Waddington explained that there was currently no 500 kV at all in the area, so if they wanted to build a 500 kV line, the entire area grid would need some major upgrading. He noted that they really needed a new large regional high-voltage line, such as the High Plains Express, to provide much needed additional grid support.

A caller asked if WIA was considering holding open seasons for other projects, such as the High Plains Express. Mr. Waddington said he hoped this initial open season would be successful, adding that it was part of an exploration of other transmission line development models. They are having on-going discussions with the Federal Energy Regulatory Commission (FERC) exploring an anchor-tenant type model, and FERC was quite receptive to the idea. The anchor-tenant model would work well for something like the TransWest Express, a direct current line for mostly wind power from Wyoming to Arizona. Several wind developers have indicated they are interested in taking an ownership position in exchange for priority transmission access. Mr. Waddington noted this was not exactly in line with the open-access rules; therefore, WIA would need to petition FERC for a declaratory order authorizing it. It is, however, a model used extensively in pipeline development and could be adapted to electric transmission using a 50/50 split, where 50 percent is pre-subscribed and 50 percent is open-access. The caller asked if WIA was currently pursuing that FERC declaratory order and what the possible

timing for it would be. Mr. Waddington said that National Grid had recently withdrawn from the TransWest Express project, and WIA and the other partners were working on transition arrangements. Once that is settled, the next step would be to apply for the declaratory order.

## **Bonneville Power Administration Network Open Season**

### **Background**

BPA had a large number of transmission requests in its transmission service request queue. In April 2008, BPA had 38 customers with over 300 requests, totaling more than 14,000 MW of new transmission requests. Many of these requests were for transmission service for new generation, and, like many other transmission providers, BPA also has received increasingly greater numbers of generator interconnection requests. In 2005, BPA received 11 generator interconnection requests worth about 2,300 MW, eight of which were for wind projects representing 900 MW. In 2006, BPA received 26 requests worth 4,700 MW, and 25 of those were for wind projects representing 4,600 MW. In 2007, BPA received 31 generation interconnection requests, 29 of which were for wind power projects. At the end of 2007, BPA had 52 active requests in its queue for a total of 12,580 MW, with 47 of those requests for wind power representing 10,420 MW.

To address requests in its transmission service request queue, BPA introduced a new cluster study-based network open season process. BPA filed a petition to implement the network open season process with FERC in March 2008, followed by some amendments to its tariff language in May 2008. FERC issued a declaratory order on June 13, 2008, accepting BPA's suggested tariff revisions to implement the network open season.

### **Network Open Season**

Elliot Mainzer from BPA said the network open season was an attempt to solve some complicated problems involving the entire BPA network and the overwhelming number of requests sitting in their transmission service request queue. As in other regions, transmission issues in the Northwest include the remoteness of the wind power projects requesting service and the large cost of financing transmission construction. He said it was difficult to conduct traditional system impact and system facility studies on a serial basis and there needed to be a way to weed out the "speculative" projects in order to move forward with the projects that are ready to proceed.

Mr. Mainzer said BPA had been working on the network open season for over a year and had developed a Precedent Transmission Service Agreement (PTSA), modeled on similar agreements used in the natural gas industry for pipelines. The PTSA is an offer of transmission service that is contingent on certain precedent terms and conditions. In order to fulfill those conditions, BPA must determine that it can offer the transmission service at its embedded rates and that any needed transmission construction complies with BPA's requirements

under the National Environmental Policy Act. Currently, the network open season only applies to transmission lines within BPA, not to BPA's regional interties.

Mr. Mainzer said the first open season window opened on April 15<sup>th</sup> and ended May 15<sup>th</sup>. Transmission customers then had a month to sign and return the PTSA and post a deposit equal to a year's worth of transmission service. Mr. Mainzer said that 14,464 MW worth of PTSAs were sent out to transmission service customers and that as of the June 27<sup>th</sup> deadline, BPA had received 6,410 MW worth of completed PTSAs and \$82 million worth of deposits. The next step for BPA is to restack the queue with the PTSA requests and to remove any projects for which a PTSA agreement does not exist. Mr. Mainzer said that the projects that are removed and any other new projects can make subsequent transmission service requests and can participate in future network open seasons.

After that, Mr. Mainzer explained that the next step is for BPA to examine the projects in the new queue and see which projects are in areas where there is existing transmission capacity to accommodate them, and can therefore be processed individually. All other projects will then become part of a large cluster study for the BPA grid as a whole. Mr. Mainzer speculated that BPA would most likely be required to upgrade their two major pathways: West of McNary and Seattle to Portland. BPA is prepared to make these upgrades if there are adequate PTSAs to justify the investment required. He said that eventually BPA would probably need to apply the network open season to their interties. Mr. Mainzer ended by saying BPA was very pleased with the response to the network open season.

## Discussion

A caller wanted to know what type of generation sources were represented among the 6,410 MW of returned PTSAs. Mr. Mainzer said the returned PTSAs included about 74 percent wind power, with the rest a mix of other resources, including natural gas and geothermal.

A caller asked who would be paying for the cost of the grid expansion. Mr. Mainzer said the embedded rates being used to evaluate the requests included a 5 to 15 percent increase to accommodate the expense of building the transmission. He noted, however, that if any particular line turns out to be expensive and only has a few subscribers, that may lead to incremental cost increases that may, in turn, require a BPA rate case.

A caller wanted to know if the existing customers are going to be satisfied with a rate increase due to the network open season. Mr. Mainzer said that most of their existing customers also participated in the network open season and understand that there is a need for the transmission.

A caller noted that BPA was perhaps killing two birds with one stone by

reforming their queuing practices and enabling the Northwest Wind Integration Plan. Mr. Mainzer said they knew transmission was needed to integrate more wind successfully, but financing that transmission was a big hurdle. With the network open season process, BPA hopes to provide the financing for new transmission.

A caller wanted to know what portion of the 6,410 MW would be moving ahead and what will happen to the rest. Mr. Mainzer explained that some subset of that amount will fit into existing transmission capacity and will go to the projects at the top of the queue. The rest will be studied as a cluster.

A caller asked if the cluster study would fit with the mega-transmission projects being proposed in the region, such as the proposed Canada-to-California line. Mr. Mainzer said that there was a lot of regional transmission planning development activity, and BPA is trying to figure out where they fit in. Under any plan, however, BPA will mostly likely need to reinforce its backbone transmission lines, and BPA did not want to wait. In fact, they were hoping BPA's plans would accelerate the regional transmission planning and development process.

A caller asked if BPA was seeking a FERC order for a network open system for their regional interties. In its order, FERC asked BPA to focus on expanding BPA's regional intertie capacity for future open seasons. Mr. Mainzer said they are focusing on processing what they have now from the current network open system. He said regional talks are going to be challenging, as there are many issues. For example, the network open system raises the issue of the importance of regional flexibility with respect to wind integration, which will need to be addressed. Mr. Mainzer noted that BPA will soon be 30 percent wind power (by capacity) and there is a need to accelerate discussion on regional wind integration strategies and regional transmission planning.

A caller wanted to know if BPA had thought about coordinating the network open season with utility RFPs. Mr. Mainzer said they had talked about it internally at BPA and thought about creating a coordination agreement other utilities. However, BPA thought their best approach would be to stick to a strict schedule for their network open seasons, making sure they were on the same dates each year and hoping the utilities will then coordinate their RFPs with these dates.

A caller asked how the network open season process could apply to other areas where upgrades are needed. Mr. Mainzer said the network open season was a system-wide approach and the WIA open season model would probably work very well for single transmission lines. BPA's pricing system follows traditional embedded pricing where WIA's open season auction falls into the FERC market clearing price model. The caller wanted to know if WIA's auction would have a price cap. Mr. Waddington said WCIP would be a

merchant line ultimately owned by TransElect and that the tariff will be based on the market clearing price.

A caller asked Mr. Mainzer to provide an update about the conditional firm transmission service BPA plans to offer. Mr. Mainzer said conditional firm transmission service should be available by March 2009 and would be offered as a bridge product between now and when the new transmission capacity becomes available. Mr. Mainzer expects the conditional firm transmission service will be based on a maximum number of hours transmission service is curtailed, as there appears to be little interest in transmission curtailments based on system conditions.

Mr. Mainzer commented that the Western Renewable Energy Zones (WREZ) initiative seemed to be moving ahead and that there were many good ideas on aggregating the demand for renewable energy to feed into transmission development. He noted that the open season approach solves the major issue of cost allocation in conjunction with demand aggregation.

Doug Larson from the Western Interstate Energy Board concluded the call by giving a brief update on the WREZ process. He said that a Steering Committee and Technical Working Groups had been formed and will soon be completing their respective work plans. He noted they had already received feedback concerning the aggressive timeline and were working on a new schedule that will allow time to incorporate all the environmental issues that need to be examined. Mr. Larson said that by the end of 2008, the Steering Committee might have a proposal for zones to put out for public comment.

## **Implications**

Open seasons for transmission may be a new and innovative method for financing new transmission and avoiding the "chicken and egg" phenomenon. In addition, BPA has used an open season process to determine which projects in BPA's transmission service request queue are ready to proceed and which projects are not.

The robust response to BPA's open season, and the apparent strong interest in WIA's open season, indicate there is high demand for new transmission, particularly from the wind industry. Continuing innovations such as open seasons will be necessary to solve the "chicken and egg" dilemma of building new transmission.

**For more  
Information**

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Wyoming Infrastructure Authority, <http://www.wyia.org/>

Wyoming-Colorado Intertie Transmission Project,  
<http://www.wyia.org/wci/index.html>

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BPA Network Open Season Information  
<http://www.transmission.bpa.gov/business/IssuesPolicySteeringCmttee/default.cfm?page=ipqm>

BPA Analysis of Network Open Season Results  
[http://www.transmission.bpa.gov/business/IssuesPolicySteeringCmttee/documents/2008\\_NOS\\_Final\\_PTSA\\_Results\\_07\\_07\\_2008.pdf](http://www.transmission.bpa.gov/business/IssuesPolicySteeringCmttee/documents/2008_NOS_Final_PTSA_Results_07_07_2008.pdf)

FERC Declaratory Order on BPA Network Open Season  
[http://www.transmission.bpa.gov/business/IssuesPolicySteeringCmttee/documents/FERC\\_Order\\_Granteeing\\_NOS\\_Tariff\\_Changes.pdf](http://www.transmission.bpa.gov/business/IssuesPolicySteeringCmttee/documents/FERC_Order_Granteeing_NOS_Tariff_Changes.pdf)