

ATTACHMENT C

Description of 2008 Network Open Season Projects Moving Forward with NEPA McNary-John Day

Location/Description: This is a 79-mile 500kV line that will start at BPA's McNary Substation in Oregon and cross the Columbia River with the existing lines, just north of the substation into Washington. The line would run parallel to the Columbia River for 75 miles, mostly within existing rights-of-way, then cross the Columbia River back into Oregon and end at BPA's John Day Substation.

Justification: Presently, numerous large wind generation projects are being proposed in southeast Washington and northeast Oregon which impact the West of McNary (WOM), West of Slatt (WOS) and West of John Day (WOJ) flow gates. These generation projects are being interconnected into the 115kV, 230kV and 500kV transmission systems. Based on the large amount of proposed generation interconnections and associated transmission service requests, a 500kV infrastructure project is needed to increase transmission capacity and relieve congestion across the WOM, WOS and WOJ flow gates. This project would enable BPA to transmit power from the McNary area to load centers west of the Cascade Mountains and to the Interties serving California.

Project Cost: \$246.5 million*

** This is an estimate based on direct cost and past experience and 2009 dollars. It is subject to change based on the results of environmental scoping and costs of materials when they are being procured for the build.*

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Description of 2008 Network Open Season Projects Moving Forward with NEPA Big Eddy-Station Z

Location/Description: This is a 28-mile, 500kV transmission line that would start at BPA's existing Big Eddy 500kV substation located just east of The Dalles, Ore. and run to a proposed new "Substation Z" near Goldendale, Wash.

Justification: Presently, numerous large wind generation projects are being proposed in southeast Washington and northeast Oregon which impact the West of McNary (WOM), West of Slatt (WOS) and West of John Day (WOJ) flow gates. These generation projects are being interconnected into the 115kV, 230kV and 500kV transmission systems. Based on the large amount of proposed generation interconnections and associated transmission service requests, a 500-kV infrastructure project is needed to increase transmission capacity and relieve congestion across the WOM, WOS and WOJ flow gates. This project would enable BPA to transmit power from the McNary area to load centers west of the Cascade Mountains and to the Interties serving California.

Project Cost: \$115 million*

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Description of 2008 Network Open Season Projects Moving Forward with NEPA

I-5 Corridor Reinforcement

Location/Description: This new 500kV line would be at least 70 miles long would run between a new substation near Castle Rock, Wash. to a new substation near BPA's existing Troutdale Substation in Troutdale, Ore. The exact path of this line would be determined after public input and environmental review is conducted.

Justification: The Southwest Washington and Northwest Oregon load service area includes the cities of Portland, OR and Vancouver, WA., which include high concentrations of industrial, commercial, and residential load. The generating resources serving this area are a mix of hydro and thermal plants. Within this load service area, three significant paths are monitored to ensure all lines stay within their thermal capabilities and maintain voltage stability. The paths are: South of Napavine, South of Allston, and Keeler-Pearl.

This line will support existing parallel paths in the area. These paths experience high loading during the summer combines with high amounts of north to south transfers from Canada through the Northwest to Canada.

This line is needed to support load growth, transmission requests, and to accommodate new generation. Construction of this line will help BPA avoid curtailing power to customers in the Portland, OR and Puget Sound areas.

Project Cost: \$342 million*

Proposed Schedule

- Project will take approximately 7 years from start to energization
- Environmental process/preliminary design – 3 years
- Material procurement and construction – additional 4 years

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Little Goose Area Reinforcement

Location/Description: This new 500kV transmission line would be approximately 40 miles long that would start at a new Central Ferry Substation and run to the existing Lower Monumental Substation.

Justification: BPA received signed Precedent Transmission Service Agreements (PTSA) for long-term firm transmission service totaling 1100 MW that will impact the 500kV transmission system between Lower Granite and Little Goose substations. The current system in that area must be reinforced to handle that amount of energy.

Stress on the Lower Snake Area transmission system is highest during spring off-peak load periods when the following conditions are most likely to coincide:

- High generation on Snake River hydro projects due to Spring and early Summer runoff
- High transfers from Montana to the Northwest, including high output at Western Montana Hydro plants
- High wind generation in SE Washington, including existing projects connected at 230kV and below.
- High transfers from Idaho to the Northwest
- Lower local load in SE Washington

Constructing this 500kV line will help relieve the system strain described above.

Project Cost: \$99 million*

Proposed Schedule

- Project will take approximately 4 years from start to energization
- Environmental Process/Design – 2-3 years
- Material Procurement and Construction – additional 1-2 years

** This is an estimate based on direct cost and past experience and 2009 dollars. It is subject to change based on the results of environmental scoping and costs of materials when they are being procured for the build.*

ATTACHMENT C

Description of 2008 Network Open Season Projects Moving Forward with NEPA West of Garrison Remedial Action Scheme

Location: The BPA system in the western Montana area consists of two 500kV lines from the Taft substation to Townsend, MT. where they interconnect with Northwest Energy (NWE). NWE owns the two 500kV lines from Townsend to Colstrip.

Justification: BPA received seven signed Precedent Transmission Service Agreements (PTSA) totaling 340 MW for transmission service with points of receipt in the western Montana area. To accommodate those requests, BPA must install specialized equipment on equipment associated with the lines mentioned above to meet the WECC reliability criteria and includes redundancy requirements for remedial action schemes. The equipment will allow BPA to meet regulatory requirements and avoid power interruptions and other system emergencies in the area.

The project also enables BPA to offer transmission service to Alternity Wind Power, LLC.

Project Cost: \$2.3 million*

Proposed Schedule

Proposed energization date for these improvements is September 2011.

** This is an estimate based on direct cost and past experience and 2009 dollars. It is subject to change based on the results of environmental scoping and costs of materials when they are being procured for the build.*