



April 14, 2010

Mr. Berhanu Tesema  
Bonneville Power Administration  
TPP/OPP-3  
7600 NE 41st Street, Suite 340  
Vancouver, WA 98662

Dear Mr. Tesema,

This letter is to request that the Bonneville Power Administration develop cost estimates and implementation schedules for three transmission projects that have been developed by the ColumbiaGrid Puget Sound Area Study Team. The projects are part of an overall plan that has been developed to improve system reliability and reduce the potential for curtailments of transfers between the Northwest and British Columbia.

The three projects include:

The addition of a third 500/230 kV transformer at Covington Substation

1. The new transformer would be similar in size and electrical characteristics to the Pearl 500/230 kV transformer.
2. The 230 kV sides of the two existing 500/230 kV transformers would be connected to one of the 230 kV buses (east or west) and the new transformer would be connected to the other 230 kV bus.
3. The existing double circuit Raver-Covington-Tacoma 500 kV line would be converted from a phase tied line between Raver and Covington to two separate circuits and the newly created circuit would feed the new transformer. An additional 500 kV termination at Raver would also be needed.
4. There are two options under consideration for the 500 kV connections.
  - a. Option 1 includes a new 500 kV breaker and a half substation at Covington with three bays. Each bay would include one 500 kV line and one transformer.
  - b. Option 2 would connect the 500 kV side of the new transformer as a line terminated transformer in the same way as the existing transformers. In this option it would also be possible to locate the new transformer at Raver rather than Covington if that would be advantageous.

Rebuilding the Seattle City Light Bothell-SnoKing-Maple Valley 230 kV double circuit line: While this line is a Seattle City Light facility, the Study Team felt that BPA would most likely be the entity that rebuilds this facility.

1. The existing double circuit line would be replaced with a new double circuit line capable of carrying 3000 amperes on each circuit. For the system studies, it was assumed that the new circuit would have 2-1272 MCM conductors per phase but other options should be considered as long as the capability is at least 3000 amperes per circuit.
2. The new double circuit line would retain the same terminations as the existing line although it is expected that the line termination equipment would need to be upgraded.

Expanding the Northern Intertie RAS scheme.

1. The current scheme opens the two Ingledow-Custer lines following the loss of the two Custer-Monroe 500 kV lines. This project would expand the scheme to take the same action for the combined loss of the Chief Joseph-Monroe 500 kV line and the Monroe-SnoKing-Echo Lake 500 kV line. It is anticipated that this new RAS capability would only be used during maintenance outages of one or the other line although it is possible that it would be left in service at all times as a safety net. The new scheme would include the ability for the operators to set arming levels (e.g., the scheme may be set to operate only if the northern intertie transfer level was above 500 MW).

In addition to the above projects there is a Puget Sound Energy project to add a second 230/115 kV transformer at Portal Way. While Puget Sound Energy is taking the lead on developing a cost estimate and schedule for this project, Bonneville involvement will be required to estimate the cost of changes required at Custer Substation.

The Puget Sound Area Study Team is nearing the finalization of their plan and would appreciate it if Bonneville would supply these cost estimates and schedules by June 17, 2010. If you have any questions or would like to meet and discuss this further, please let me know.

Sincerely,



Jeffrey C. Miller  
Vice President, Planning  
ColumbiaGrid