



Status of Montana Transmission Availability – August 2017

This is a high level discussion, is preliminary and for use by parties interested in transmission export capacity out of Montana.

What is the status of Montana transmission availability for the potential development of renewable resources within Montana for delivery west of Montana?

NorthWestern has done substantial work on this topic previously. A transmission planning report was completed in 2012 for the Montana to Washington/Colstrip Upgrade Project which has been viewed as “low hanging fruit” for transmission capacity out of Montana to Washington and Oregon.

Existing Transmission Capacity

It is also instructive to understand the current situation and transmission availability out of Montana. First, NorthWestern is currently posting 146 MW of long-term, firm Available Transmission Capacity (ATC) from NorthWestern to the interface with the Bonneville Power Administration (BPA). This capacity has been available for quite some time. In addition, based on our latest information, we expect another 100 MW of ATC to BPA to become available on January 1, 2019 and another 25 MW on January 1, 2022. The information is based upon commitments and postings on NorthWestern’s Open Access Same-time Information System (OASIS). As a result, that information is public. In addition, approximately 300 MW of capacity on the Colstrip Transmission System (CTS), controlled by Puget Sound Energy, will become unutilized when Colstrip Units 1&2 are shut down.

As a result, in the relative near term (by transmission permitting and construction standards), about 270 MW on NorthWestern’s transmission system to BPA could be available and 300 MW on Puget controlled transmission could become available. Of course, availability to specific project locations within Montana may be dependent on local capacity available at the project locations. Consequently, the numbers above should be used as a high level guide.

NorthWestern and BPA have also been involved in a dispute over the availability of another 184 MW of capacity from Montana to BPA. This capacity, BPA contends, can only be accessed on the Montana Intertie and would carry with it the BPA Montana Intertie transmission rate. NorthWestern has long contended, without prevailing, that the NorthWestern system is more than adequate to deliver directly to BPA at the MT/BPA interface to the level of BPA’s capacity west of Garrison and thus utilize this available capacity. This dispute is on-going with no clear resolution in site, but the 184 MW of capacity exists. It is just a matter of its cost.



Below is an excerpt from the BPA Administrator's discussion regarding the Montana Intertie in the draft BPA ROD which was released June 13, 2017. It addresses the Montana Intertie issue that has been brewing for a number of years:

"I have also carefully considered the perspectives of key stakeholders on the Montana Intertie and Townsend-to-Garrison rates. Consistent with my decision in the BP-16 Rate Case, I have decided to make no changes at this time. BPA encourages and will continue to partner in efforts supporting economic growth in the region, including the development of renewable generation resources in Montana. And while BPA will continue to process transmission service requests pursuant to its Open Access Transmission Tariff, I believe achieving utility-scale development of renewable resources in Montana will require the active engagement of other regional utilities, transmission planners, policymakers, and other interested stakeholders in a regional setting. This is much like what occurred decades ago for the Colstrip Generation Project, which resulted in the building of the Montana Intertie. The goal would be a comprehensive commercial and policy framework that appropriately balances the opportunities, risks and costs of such development, including interconnection, provision of ancillary services and potential upgrades to BPA's transmission system. To that end, BPA is willing to help establish and actively participate in a thoughtful, cohesive process to address barriers to the development of renewables in Montana."

Montana to Washington/Colstrip Upgrade

The most recent study of the Montana to Washington/Colstrip upgrade, which included project costs, is a plan of service study conducted by NorthWestern with BPA and Avista in 2012. A summary of the study report follows.

The study assumed all four Colstrip Units and the Corette Plant were on line. The system configuration assumed some upgrades on the Avista system that are required for another project and these costs total \$38 million. The BPA upgrades included additional series compensation in the West of Hatwai cut-plane.

The costs estimated in the report were: BPA system - \$126.7 million and the CTS - \$87 million. These costs do not include the SSR mitigation at Colstrip. The estimate from the GE study for torsional filters for SSR was between \$24 million and \$32 million. With Colstrip 1&2 retired, these costs may be slightly higher than 1/2 of these estimates. Sixty percent may be a fair estimate. It should be noted that if BPA increased series compensation on its system without changes on the CTS, the SSR mitigation is still required.

In the 2012 study, while there are some limiting conditions beyond the scope of this paper, the transfer limits were increased to 4800 MW West of Hatwai (increase of 550 MW over seasonal operating limits) and 3100 MW Montana to the Northwest (MT-NW) (900 MW above existing transfer capability



It is important to note that this plan of service assumed a number of other projects were completed on both the BPA and Avista systems. Updates to the study work would be needed to determine if all of the work was completed and what are the actual impacts of these facilities. Cost updates would also be required.

Before BPA could take action on the upgrades on its system, it has maintained that it must enter into an Environmental Impact Statement (EIS) process. For the EIS process started in 2012 and later stalled due to lack of transmission service requests on BPA's system to support the investment, it was expected to take two years before the BPA Administrator issued a record of decision. This process includes public meetings and formal comment periods. The major concern in the 2012 EIS was the location of the series compensation station between Missoula and Taft. It is anticipated, that since it has been five years since the start of the last EIS process on the upgrade, the process would need to be started anew. On the NorthWestern system, an EIS process was not expected to be required since the work was all substation related and did not include linear facilities.

Summary

There is currently 146 MW of long-term, firm ATC on the NorthWestern system to BPA to accommodate generation development and it is expected that an additional 100 MW will be available by 2019 and 25 MW additional by 2022. There is 184 MW of capacity on the Montana intertie currently. NorthWestern contends that it has parallel capacity of up to 184 MW on its underlying system to interface with BPA. That dispute is ongoing, but there is no dispute that 184 MW is unutilized currently. When Colstrip Units 1&2 are decommissioned, about 300 MW of Puget capacity becomes available, although it is unknown what Puget may want to do with the capacity at that time. Overall this totals 755 MW of existing capacity that may be available.

Non-wires upgrades of the Colstrip Transmission System and accompanying upgrades of BPA and Avista's systems could yield additional transfer capacity of 900 MW from MT-NW and 550 MW west of Haitwai. Costs projected in the 2012 study included: NorthWestern - \$87 million, BPA - \$127 million and \$38 million in upgrades on Avista's system that were part of other planned projects.

Consideration must be made today of the changes in generation at Colstrip and the shutdown of Corette. The changing resource mix in Montana may impact the transfer capabilities of the existing and expanded transmission system. It is also important to note that where potential projects are located in Montana may have impact on interconnection and transmission costs locally.