

Puget Sound Area – Northern Intertie (PSANI) Upgrade

There are a large number of transmission facilities in the Puget Sound area and it is not uncommon to have one or more of these facilities out of service for scheduled maintenance or for forced outage. If one or more of the transmission facilities is unavailable during peak load conditions, south-to-north power schedules may need to be curtailed to be able to maintain reliable service and meet Canadian Treaty obligations. Such curtailments can require local utilities to acquire more expensive thermal generation in the local area.

Over the past decade, BPA along with other Puget Sound Area electric utilities have been concerned about the ability to economically and reliably operate their transmission systems to serve load and meet power transfer commitments between the Northwest and British Columbia. The Puget Sound Area Study Team (PSAST) was formed to develop alternative service plans to expand transmission system in the Puget Sound Area. ColumbiaGrid led the “One Utility” study with representation from BPA, Puget Sound Energy, Seattle City light, Snohomish PUD, Tacoma Power and Powerex.

Expansion of the transmission system in the Puget Sound area is necessary to reduce curtailments and maintain current 1500 MW South-to-North intertie capability. PSAST examined a variety of alternative plans of service and arrived at six major projects to improve the transfer capability through the Puget Sound area. One of the six is this project which includes a 500/230 kV transformer bank addition at Raver Substation (4 single phase transformers), associated substation reconfigurations of 230 kV yard at Covington and Raver and line re-terminations.