



## Study Plan for Economic Study Request: Pumped Storage at Aeolus

### Request

In March of 2022, Black Canyon Hydro, LLC submitted to the NorthernGrid planning region a request for economic analysis of the Seminoe Pumped Storage [project](#). The high-level details are listed below.

1. 900 MW dispatchable pumping capability, 13-hour duration
2. 900 MW dispatchable generating capability, 10-hour duration
3. Proposed interconnection at the 500 kV Aeolus substation
4. Planned in-service date of June, 2029

The request states that the proposed project “can also reduce future congestion on the Gateway System, including at Aeolus, Clover/Mona while accommodating wind expansion in WY; provide shaping and firming of UT solar via the Clover/Mona area to meet capacity needs; provide system inertia that replaces lost inertia from coal retirements in WY and UT.”

### Analysis

Production cost modeling analysis will be used to determine if the pumped storage project would result in a net reduction in total production cost to supply system load or reduced congestion.

The production cost analysis will consist of the following:

1. Starting with the Anchor Data Set (ADS) from the Western Electric Coordinating Council (WECC), the topology will be modified to include 17 transmission projects submitted by the enrolled parties into the NorthernGrid 2022-2023 planning cycle as well as all submitted generation changes.
2. Production cost modeling will be run to establish the total production cost of the system over a year and identify areas of congestion
3. The pumped storage project will be modeled into the modified ADS
4. Production cost modeling will be run on the modified ADS and comparisons will be made to the initial production cost and congestion values. The results section in the report will address how the introduction of the Seminoe Pumped Storage project results in changes to annual energy output from the Wyoming wind facilities, total production cost, and congestion.

### Report

A report of the Economic Study Request, methodology, and findings will be complete by March 31, 2023, or other date agreed upon between the Parties. This economic study report will be a stand-alone report that will be included as an appendix to the Regional Transmission Plan. This report in no way constitutes an analysis for generation interconnection, load service, or transmission service; its findings may inform the regional transmission planning process.