
The economic study request window is posted on the NorthernGrid website at <https://www.northerngrid.net>

Please return the completed form to: NWPP_NorthernGrid_Staff@westernpowerpool.org

NorthernGrid will undertake up to one Regional Economic Study to be performed each year at no cost to the requestor. Stakeholders may pay NorthernGrid to perform additional studies. Any Economic Study Request that seeks to the performance of individual assets shall not be performed.

Requesting Stakeholder Information

Date:	3/31/23
Requesting Stakeholder Company:	Rye Development
Address:	830 NE Holladay St.
City, State and Zip Code:	Portland, OR 97232
Contact Person:	Nathan Sandvig
Title:	Vice President
Phone Number:	(503) 309-2496
Email:	nathan@ryedevelopment.com

Describe the requested study of potential transmission solutions that could result in a net reduction in total production cost to supply system load, reduced congestion, or the integration of new resources and/or loads on an aggregate or regional basis.

Oregon Coast Range Pumped Storage, Transmission, and Economic Benefits Study

A total of 1GW (10GWh) pumped hydro storage facilities interconnecting at new substations on the 230kV line between Rogue and Fairview substations in Curry and Coos County, Oregon. These proposed pumped storage projects would have a projected in-service date of December 2032. This study would build upon the analysis of the 2022 Offshore Wind Study and examine the benefits of storage facilities on the west side of the Cascades. The projects could be used to integrate offshore wind in the Brookings and Coos Bay Call), provide shaping and firming of Oregon offshore wind to meet regional generation capacity needs, relieve congestion on transmission across the Coast Range and potentially relieve congestion on Cross Cascades transmission paths.

The three projects would be fully dispatchable across 1GW of generation and pumping.

Rye proposes that the study would be based on the assumptions and results of the NorthernGrid 2022 Economic Study: Offshore Wind in Oregon, specifically the 3GW of offshore wind assumed in that study along with any associated transmission upgrades.

Site	Capacity (MW)	Active Storage (acre-feet)	Single 8-hour Cycle Discharge (MWh)	Head (Feet)	L:H Ratio	Transmission Line Distance (Miles)	Landowner
1	207	1654	3840	560	9	4	Roseburg
2	318	2547	3600	920	5	9	Fairview (Pacific West Timber Company, Campbell Global, LLC)
3	550	4400	2970	1925	4	8	Rayonier

This proposed study would also build upon the results of the 2022 Pumped Storage Economic Study results by exploring the benefits of GW scale storage on the far western edge of the NorthernGrid planning region.

Additional technical details can be provided on request.