

Proposal for Economic Study of Orrington-South Interface

Before the ISO New England Planning Advisory Committee

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About RENEW

An association of the renewable energy industry and environmental advocates united to promote large-scale renewable energy in the Northeast.



































































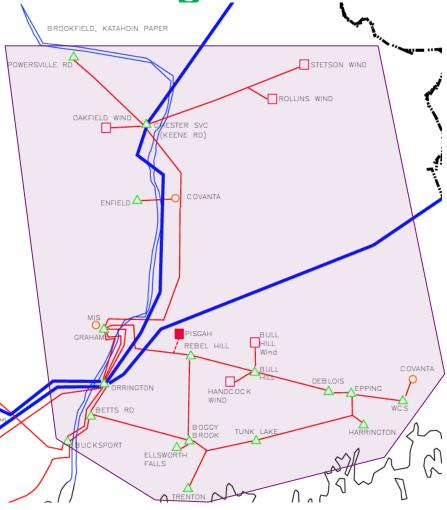








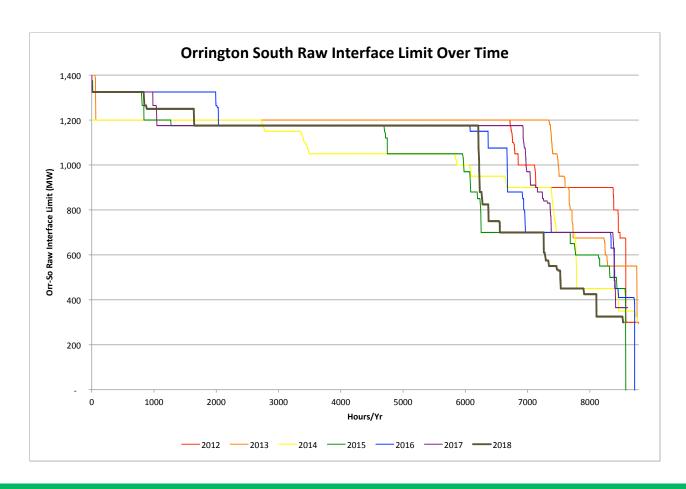
Orrington-South Interface



Wind energy resources behind the interface are seeing higher levels of curtailment.



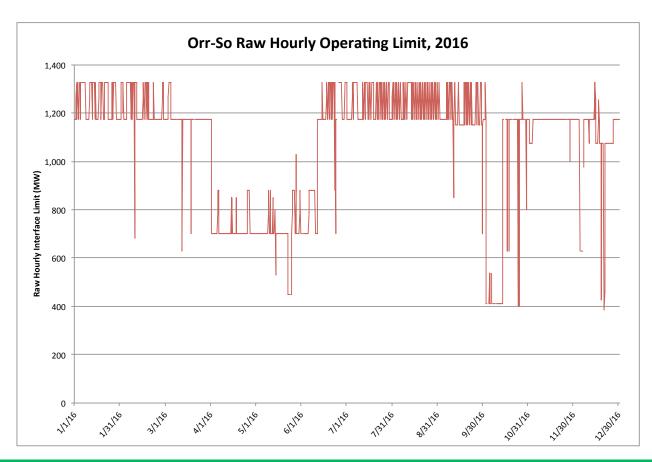
Interface Limits over Time



The raw data shows the limit of 1,325 MW was reached in only 11% of the hours in 2017. The interface limit was 1,175 MW for the majority of the year. It spent a significant portion of the year at or below 700 MW.



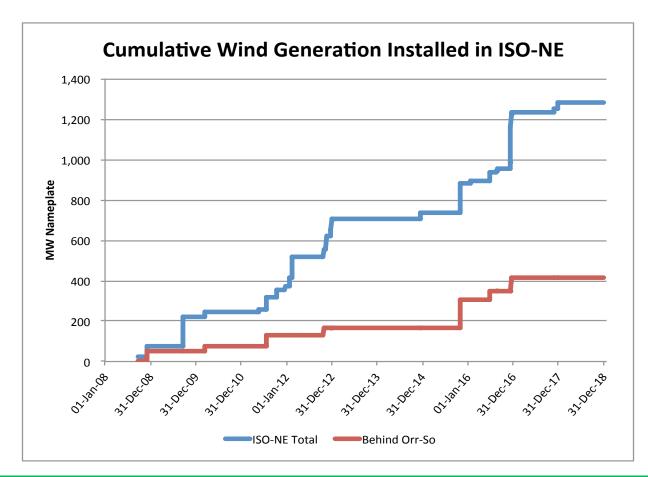
Observations on Raw Limits



The levels of congestion and "bottled in" energy in past studies have been lower than actual observed levels largely due to a mismatch between the interface limit assumption and the reality of lower interface limits in actual operations.



Changes to 2015 Study



Two reasons upgrades today at the interface compared to 2015 might show economic benefits: (1) Switching from 2015 study's raw planning limit for the interface to realistic hourly operating limits; and (2) Generation located behind the interface has increased since 2015.



RENEW Proposal

Evaluate the economic impact metrics of two alternate upgrades targeting the Orrington-South interface.

- 0 The base case would use the actual, raw hourly operating limits reported for 2016, modified to approximate the addition of the Coopers Mills STATCOM (CMS) which was added to the system in November 2018.
- 1 Scenario 1 would evaluate the impact of adding a transmission device with an equivalent impact on the Orrington-South interface as the dispatch of a nearby, large synchronous generator.
- 2 Scenario 2 would evaluate the impact of adding a new 345 kV transmission path from Orrington to Maine Yankee.