July 7, 2020

Puget Sound Energy
IRP Team

RE: Feedback of Renewable Northwest, Transmission Constraints
Puget Sound Energy's June 30, 2020, Feedback Webinar Relating to Transmission Constraints for PSE's 2021 Integrated Resource Plan.

I. INTRODUCTION

Renewable Northwest thanks Puget Sound Energy ("PSE") for this opportunity to provide feedback as a stakeholder in PSE's 2021 Integrated Resource Plan ("IRP"). This feedback is a response to PSE's June 30, 2020, Feedback Webinar regarding the Transmission Constraints of the 2021 IRP.

Renewable Northwest participated in the Feedback Webinar on June 30, 2020. Below, we provide feedback based on PSE's slide deck regarding transmission constraints for PSE's 2021 IRP.

II. FEEDBACK

1. Renewable Northwest recognizes the complexity of the ongoing negotiations for PSE's sale of Colstrip Units 3 and 4, a sale which includes 185 MW of Colstrip Transmission System capacity. Because this sale is uncertain and subject to regulatory approvals, we recommend that PSE run as a sensitivity in the development of its 2021 IRP a scenario where the Colstrip transaction does not close to test if that transmission capacity could be utilized over the 23 year planning horizon of PSE's IRP to deliver a more optimal resource mix for PSE customers.

2. Renewable Northwest has identified a discrepancy in PSE's determination of transmission losses applied to Montana transmission. Slide 47 of PSE's June 30, 2020 slide deck regarding transmission constraints sums the sources of line losses to 7.3%. However, breaking out that

value to its constituent parts (2.7% loss for PSE Colstrip Transmission[1] and 1.9% loss for BPA[2]), there remains an unaccounted-for percentage of line losses represented in the 7.3% total. PSE acknowledged this error in the webinar presentation of the materials. We thank PSE for its diligence in catching this error and encourage PSE to revise the aggregate line losses associated with Montana transmission constraints to 4.6% in all relevant modeling and documents for the 2021 IRP.

3. Renewable Northwest appreciates PSE's decision to apply uniform integration costs for all renewables, in this case using BPA integration costs, given the finding published in the 2018 Montana Renewables Development Action Plan that the current Dynamic Transfer Capacity (DTC) at the Garrison interchange can facilitate the dynamic transfer of at least 1,000 MW of Montana wind.[3] PSE also mentioned on the June 30, 2020 webinar that a different integration rate is being considered for renewables integrated in PSE's Balancing Area (BA) such as dynamically transferred Montana wind. We support examination of this consideration.

4. Renewable Northwest encourages PSE to release information concerning projected costs related to its potential investment in the Boardman to Hemingway (B2H) project. We acknowledge that additional transmission builds offer a number of potential benefits including improved system reliability, improved flexibility to integrate additional renewable resources onto PSE's system, and expanded market access to meet PSE's energy needs.

5. Renewable Northwest supports PSE's consideration of a policy change to secure less than 100% long term firm (LTF) transmission capacity for renewable resources, which could improve the efficiency of PSE's transmission system.

6. Renewable Northwest supports a transmission capacity modeling approach optimizing certainty of PSE's near-term transmission availability, with particular attention to the timeline leading up to 2030, the milestone for PSE to reach greenhouse gas neutrality per compliance with the Clean Energy Transformation Act (CETA). While slide 24 of PSE's June 30, 2020 slide deck characterizes Tiers 1-3 by "First Year Available," slides 25 through 30 do not appear to align Tiers 1-3 within each Resource Group with any particular timeline, thus making it difficult to assess whether the modeling approach should rely on tiers as sensitivities or as time-dependent

[1] See https://www.oasis.oati.com/woa/docs/PSEI/PSEIdocs/PSEI_Current_OATT_Prices_2019_12_15.pdf.
[2] See https://www.bpa.gov/Finance/RateInformation/RatesInfoTransmission/FY20-21/2020%20Transmission%20Rates%20Summary.pdf.
[3] Montana Renewables Development Action Plan, Bonneville Power Administration, State of Montana (June 2018) at 9, *available at* https://www.bpa.gov/Projects/Initiatives/Montana-Renewable-Energy/Documents%20Montana/Montana-Renewables-Development-Action-Plan-June-2018.pdf.

periods. That said, Option 1 -- "Model tiers as distinct sensitivities" -- considers all potential transmission capacity additions in each Resource Group, independent from any presumptive timeline or measure of confidence. This option likely best represents the interplay of the various tiers within and across Resource Groups, with particular focus on the timeline to 2030, acknowledging high uncertainty beyond that point.

7. Renewable Northwest suggests that PSE expand its consideration of generic resources for the Montana Resource Group Region to include pumped storage. Montana has several candidate sites for pumped storage facilities, including a project that has already obtained most or all necessary regulatory and environmental approvals. Additionally, a pumped storage facility in Montana could potentially help to increase utilization of PSE's existing transmission resources in Montana, in combination with wind and solar resources.

8. Renewable Northwest suggests that PSE model its participation in a Regional Transmission Organization beginning in the year 2030. Renewable Northwest acknowledges that the eventuality of an RTO with PSE participation and the timeline for its creation are very uncertain. However, with EIM market enhancements such as the development of an extended day-ahead market continuing at pace[4] and a State-led market options study underway[5], Renewable Northwest believes that now is an appropriate time for PSE to develop an RTO scenario in its IRP. Such a scenario could include assumptions about transmission hurdle rates and increased availability of transmission, perhaps drawing upon the Western Interstate Energy Board's Western Flexibility Assessment for inspiration or guidance on what assumptions such a scenario might make.[6]

[4] See http://www.caiso.com/StakeholderProcesses/Extended-day-ahead-market.
[5] See https://annualmeeting.naseo.org/data/energymeetings/presentations/Moyer--Western-Regionalization-Study.pdf
[6] See https://westernenergyboard.org/wp-content/uploads/2019/12/12-10-19-ES-WIEB-Western-Flexibility-Assessment-Final-Report.pdf

III. CONCLUSION

Renewable Northwest thanks PSE for its consideration of this feedback. We look forward to continued engagement as a stakeholder in this 2021 IRP process.

Sincerely,

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