



*2021 PSE Integrated Resource Plan*

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## Regional Transmission Resources

*This appendix describes the Pacific Northwest transmission system and the constraints that currently impact PSE; the opportunities for expanding transmission capabilities; how transmission is modeled in this IRP; and regional efforts to coordinate transmission planning and investment.*



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## 1. OVERVIEW

PSE buys and sells wholesale power and transmission with counterparties in the Pacific Northwest, California and Canada. To deliver remote, off-system power to our customers, PSE relies on the Pacific Northwest regional transmission system; however, that system is already constrained, especially the regional systems that serve the Puget Sound area.

These constraints present a growing challenge for PSE, because PSE moves significant amounts of energy and capacity into the Puget Sound area from resources in eastern Washington (east of the Cascades), the Mid-C trading hub, eastern Montana, and from resources along the I-5 corridor. The IRP portfolio modeling results confirm that PSE's capacity and resource needs due to CETA will dramatically increase PSE's need to cost effectively deliver off-system renewable resources to our service territory, and this rapid growth in renewable resources in locations outside the PSE service territory will put increased demand on transmission providers in the region.

PSE will work to optimize use of its existing transmission portfolio to meet our growing need for renewable resources in the near term, but in the long term, meeting CETA requirements will mean that the Pacific Northwest transmission system will need significant expansion and upgrades to keep pace. The main areas of high-potential renewable development are east of the Cascades (Washington and Oregon), in the Rocky Mountains (Montana, Wyoming), in the desert southwest (Nevada, Arizona) and in California.

This appendix describes the Pacific Northwest transmission system and the constraints that currently impact PSE; the opportunities for expanding transmission capabilities; how transmission is modeled in this IRP; and regional efforts to coordinate transmission planning and investment.



## 2. THE PACIFIC NORTHWEST TRANSMISSION SYSTEM

The power that PSE delivers to customers from remote, off-system resources travels through the Pacific Northwest transmission system in order to reach the Puget Sound area. The Bonneville Power Administration (BPA) owns and operates approximately 75 percent of the high-voltage transmission grid across eight states in the region. PSE is heavily reliant on BPA; currently, PSE has over 5,000 MW of long-term firm transmission under contract with BPA. This reliance is an ongoing risk to PSE's power costs due to escalating BPA rate pressure. For example, BPA's current BP-22 rate case proposes a 30 percent increase in transmission rates from 2021-2025: for 2022, the proposed rate increase is 11 percent.

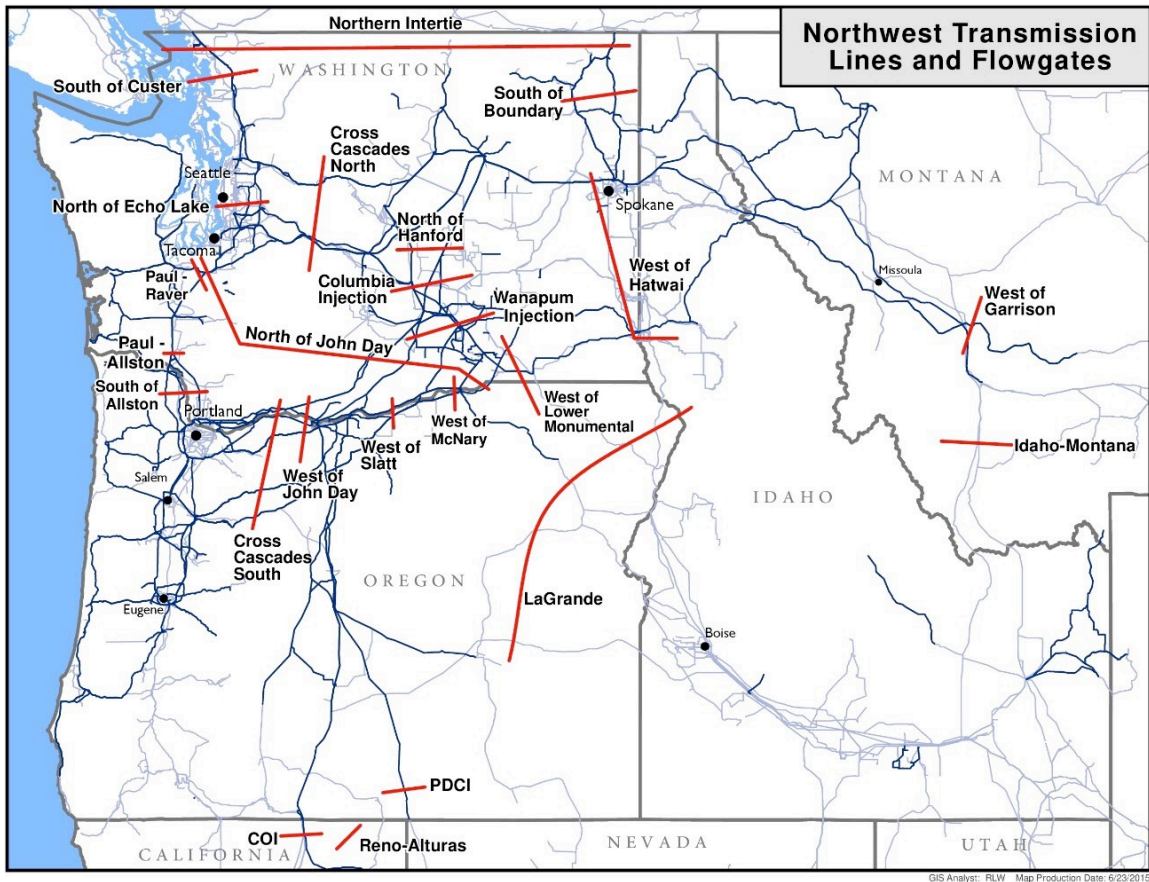
Power travels to PSE's service area through different paths and flowgates<sup>1</sup> on the BPA system from off-system resources. These flowgates are shown in Figure J-1. Due to load growth and/or additional renewable generation, many paths in the Pacific Northwest are already constrained, with little or no Available Transmission Capacity (ATC) available for purchase by regional transmission customers. As a result, the region experiences transmission constraints during various times of the year, sometimes resulting in curtailments of firm contractual transmission rights.

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*1 / A flowgate is defined as a transmission line or other equipment that is monitored for overloads incurred by normal operation conditions, such as congestion, and for the loss of another transmission line or equipment.*



Figure J -1: Graphical Representation of BPA Transmission System Flowgates



## The PSE Transmission Portfolio

PSE Merchant (PSEM) is responsible for obtaining the transmission service needed to serve PSE load and for scheduling the use of that transmission in an optimal manner to cost effectively meet customer demand. The transmission portfolio is managed to ensure firm delivery of off-system resources, participate in regional energy markets, optimize the energy portfolio, and ensure adequate delivery of energy during winter peak loads.

Figure J-2 summarizes PSE's BPA-contracted transmission. The transmission rights are divided into five resource group regions based on their geographic relationship to generic resources modeled in this IRP. See Chapter 5, Key Analytical Assumptions, for a description of the transmission constraints analysis.

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Figure J-2: Summary of BPA-contracted Transmission by Resource and Location

Resource/Location	Resource Group Region (See Chapter 5)	Current Contracted BPA Transmission (MW)	Notes
<b>Mid-C</b>	Central WA	2,050 MW	1,500 MW available for market purchases, remainder for hydro contracts
<b>Lower Snake River</b>	Eastern WA	500 MW	350 MW in use, 150 MW available in 2024
<b>Hopkins Ridge</b>	Eastern WA	150 MW	Not included in transmission constraint model in Chapter 5
<b>Goldendale</b>	Southern WA/ Gorge	330 MW	
<b>Mint Farm</b>	Western WA	335 MW	
<b>TransAlta/Centralia</b>	Western WA	100 MW	Used for Centralia PPA ending in 2026
<b>Colstrip</b>	Montana	750 MW	
<b>PG&amp;E Exchange</b>	Western WA	600 MW	300 MW bi-directional, not included in transmission constraint model in Chapter 5

PSEM's transmission portfolio consists of transmission rights on PSE's system and BPA transmission for off-system resources. PSEM holds BPA transmission rights from the Mid-C trading hub for meeting winter peak demands and for trading to economically optimize the power portfolio. In addition, PSEM has transmission rights on the Southern Intertie, California/Oregon Intertie (COI), Montana Intertie, and the Colstrip Transmission System. The Southern Intertie and COI transmission rights are used for a seasonal exchange with PG&E. PSEM also uses contracted BPA transmission rights to access the Western Energy Imbalance Market (EIM) through transmission paths with PacifiCorp, Portland General and Idaho Power.



Figure J-3: BPA-managed Flowgates and PSE Off-system Resources

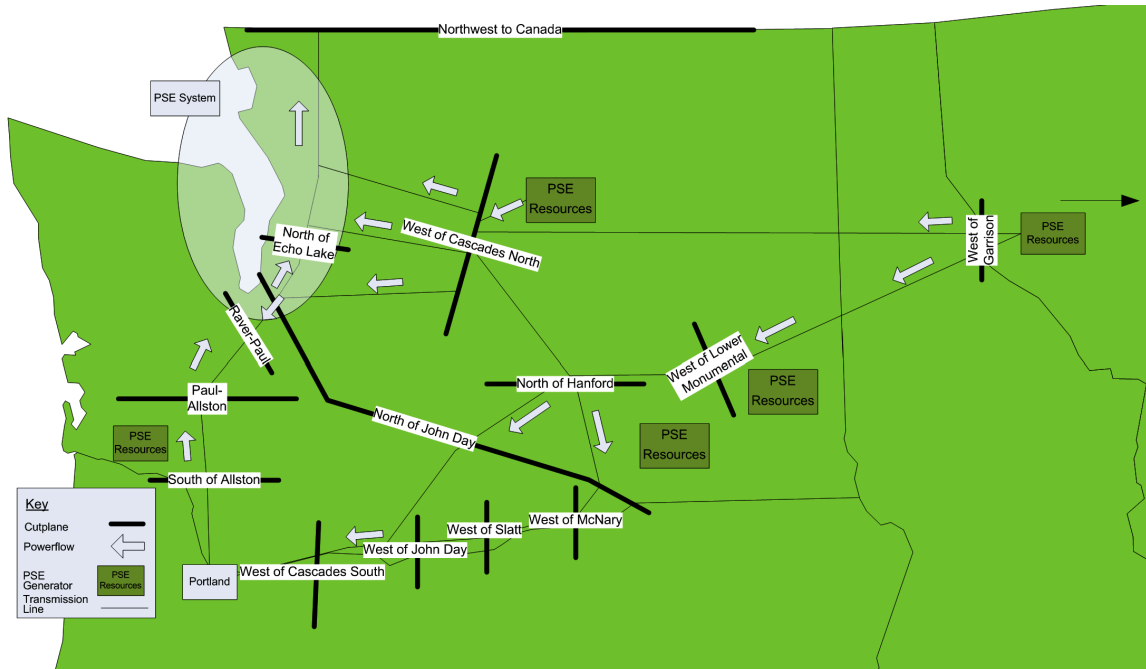


Figure J-3 is an overview of PSEM's off-system resources overlaid with the BPA-managed flowgates. Below is a summary of the most significant flowgates and paths affecting delivery of energy from remote resources to PSE's service area.

- The majority of energy from PSE's eastern Washington resources flows across the constrained West of Cascades North flowgate and into the Puget Sound area. This flowgate is most constrained during heavy winter loading periods.
- A portion of the energy flowing from eastern Washington resources also flows over the West of Cascades South flowgate, and as it travels to loads in the Puget Sound area, it flows over the North of John Day and Raver – Paul flowgates. The West of Cascades South flowgate is most constrained during heavy winter loading periods, while the North of John Day and Raver – Paul flowgates are typically most constrained during heavy summer loading periods.
- Energy from PSE resources in Montana flow over the West of Garrison flowgate.
- Congestion issues in the Puget Sound area are monitored by the North of Echo Lake flowgate and the Northern Intertie. Generation from PSE resources located in Skagit and Whatcom Counties is particularly important in reducing curtailment risk on the North of Echo Lake flowgate.
- Energy from PSE's Lower Snake River Wind Project flows across the West of Lower Monumental flowgate.

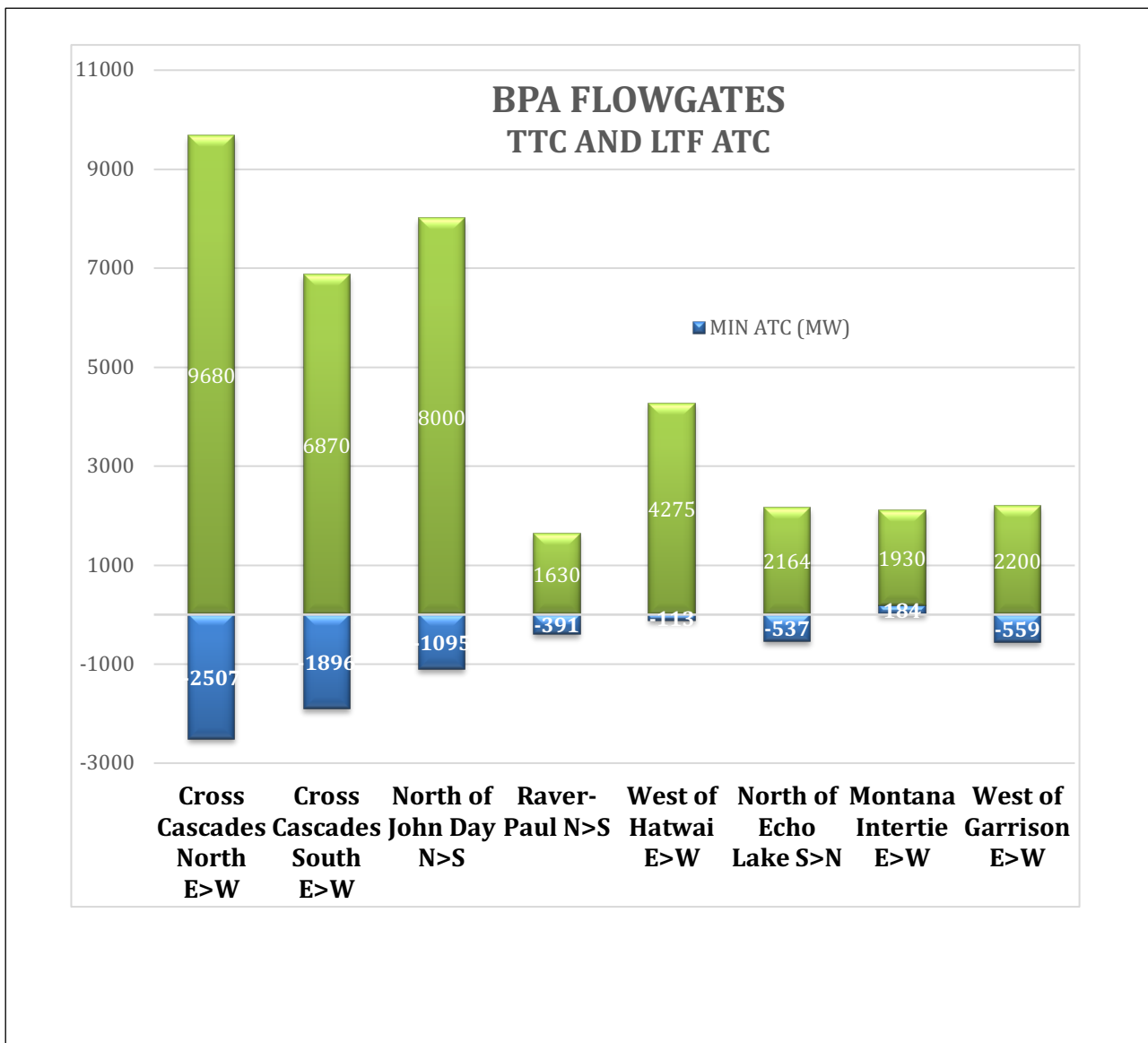
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Some paths, like West of Garrison, are designed to operate close to their limits, others are not; the latter group presents areas of the system where PSE sees a particular importance in continuing to study, develop and possibly construct new transmission.

Figure J-4 lists the amount of total transmission capability and Available Transmission Capability on BPA flowgates that affect delivery of off-system resources to PSE. This table highlights a constrained regional transmission, especially on transmission lines that would deliver energy from outside the Puget Sound area.

*Figure J-4: BPA Flowgates Affecting Delivery of Off-system Resources to PSE's System  
Total Transmission Capability and Long-term Firm Available Transmission Capability*







### 3. OPPORTUNITIES FOR EXPANDING REGIONAL TRANSMISSION CAPABILITY

#### BPA TSR Study and Expansion Process (TSEP)

BPA performs annual TSEP (formerly known as Network Open Season [NOS]) studies that combine various Transmission Service Requests (TSRs) from transmission customers into a single study. The TSEP process was designed to obtain financial commitments from transmission customers in advance of any new facility construction. For long-term transmission requests, the process analyzes impacts and new transmission facility requirements on an aggregated basis. Customers that submit a TSR in OASIS (Open Access Same-time Information System) by the study deadline can elect to be included in the annual TSEP cluster study.

A TSR submitted to BPA by PSE could result in TSEP study results with costly upgrades and completion dates of 10 years or longer. For example, the cost of Montana-to-Washington upgrade projects identified in the 2020 TSEP study (in response to requests from other customers) is currently estimated at \$1.4 billion, and the earliest completion date is 2030. PSE is likely to see more high-cost and long lead-time proposals in the constrained areas of BPA's system, especially in cross Cascades transmission areas. There is no commitment risk for PSE to submit TSRs in constrained areas of BPA's system since contracts are not awarded until construction is under way, but we would want such a strategy to align with areas that have high potential for renewables development.



## 2019 TSEP Study

PSE participated in the 2019 TSEP study. The table below lists the outcomes of the study for PSE TSRs. PSE was awarded transmission for the Goldendale Generation Plant but the Hopkins Ridge TSR resulted in a need to either resolve local transmission constraints or an upgrade called the Walla Walla Project.

Figure J-5: Summary of 2019 TSEP Study Results for PSE TSRs<sup>2</sup>

Project	Start Date	End Date	MW	Status
Hopkins Ridge (Central Ferry Substation)	3/1/2024	1/1/2027	75	Walla Walla Project or resolution of local transmission constraints
Goldendale (2 TSRs)	11/1/2021	3/1/2024	27	Awarded

## 2020 TSEP Study

In May 2020, BPA published the results of the 2020 TSEP Cluster Study. The cluster study was comprised of 62 TSRs totaling 3,871 MW of incremental transmission service. PSE did not submit any TSRs that took part in the study. A total of 17 TSRs submitted by four BPA transmission customers listed PSE as a Point of Delivery (POD). The results of those 17 TSRs are listed in Figure J-6 along with the required upgrade projects. These results are indicative of the cost and timing of future upgrades for future TSRs of BPA transmission to PSE.

Figure J-6: Summary of 2020 TSEP Study Results for Third Parties with PSE PODs

PSE POD	First Start Date	Last End Date	Total MW Requested	Upgrade Required (Cost \$M)	Energization Date
COVNGTN230PSEI	12/1/21	1/1/31	970	Schultz-Raver Project (\$42.6)	Fall 2025
PSEI_CENTCNTGS	12/1/21	11/1/24	7	Schultz-Raver Project (\$42.6) PSAST Projects	Fall 2025
PSEI_STHCNTGS	12/1/23	12/1/28	200	Schultz-Raver Project (\$42.6) Schultz-Wautoma (\$0) Covington-Chehalis (\$12.6)	Fall 2025 Spring 2022 Fall 2024

2 / Refer to BPA's TSEP Page:  
<https://www.bpa.gov/transmission/CustomerInvolvement/TSRStudyExpansionProcess/Pages/default.aspx>



### Future TSEP Studies

BPA announced that it will perform another TSEP in 2021 to identify transmission projects required to grant new Transmission Service Requests as part of its ongoing efforts to address constraints. The 2021 study will take into account the 2016, 2019 and 2020 TSEP cluster study results and prior NOS study results.

### Montana Transmission

Wind resources in Montana are attractive because of their higher capacity factors and diverse seasonal output compared to the Washington wind currently in PSE's energy portfolio. The retirement of Colstrip Units 1 and 2 provided for an opportunity to evaluate Montana wind resources in PSE's 2018 RFP, allowing for the potential repurposing of Colstrip transmission to PSE's service territory. The impact of such repurposing on the available transfer capacity for PSE's portion of the Colstrip Transmission System is being studied by NorthWestern Energy, as well as by affected systems such as BPA.

### Idaho and Wyoming Transmission

PSE is evaluating potential investment in transmission service on the Boardman to Hemingway (B2H) and Gateway West projects. These investments would provide access to Idaho and Wyoming renewable resources. Wyoming wind is particularly attractive because of its capacity factors and diverse wind profiles and is being evaluated as a potential resource in this IRP. In order to deliver resources from B2H to PSE load, PSE will also need to acquire BPA transmission from the Boardman location (newly proposed Longhorn Substation) to PSE's system. BPA will perform a study in 2021 to determine availability of that transmission service by 2026. We expect the results of that study later in 2021.

PSE is conducting a due diligence assessment of B2H and each Gateway West segment that includes an evaluation of project permitting, construction schedules, construction cost estimates and project risks. This assessment is planned to be completed during 2021 and will inform PSE's future decision. The following is a high-level summary of the B2H and Gateway West transmission projects.



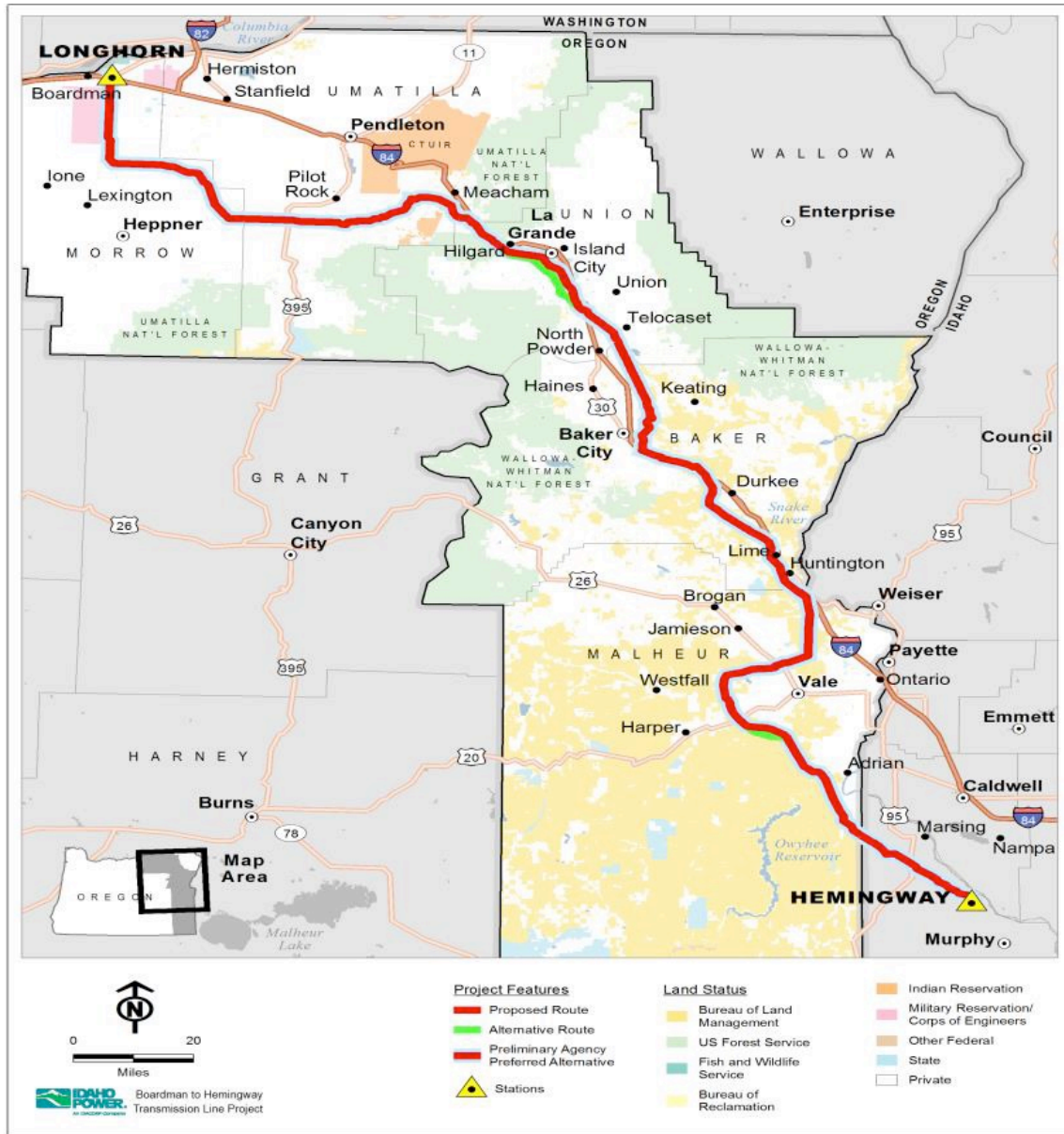
### Boardman to Hemingway (B2H)

PSE is evaluating an investment in 400 MW of currently available east to west capacity on the B2H project, with a potential for another 200 MW for a total of 600 MW of transmission. An investment in B2H, along with potential investments in one or more segments of Gateway West, would provide PSE access to high-value wind and solar resources in southern Idaho, western Wyoming and eastern Wyoming (see Figure J-7).

The B2H project is a proposed 500 kilovolt transmission line that will run approximately 290 miles across eastern Oregon and southwestern Idaho. It will connect the proposed Longhorn Substation four miles east of Boardman, Oregon, to Idaho Power's existing Hemingway Substation in Idaho. Idaho Power is partnering with PacifiCorp to fund and construct B2H and to obtain necessary permits for a planned 2026 or later in-service date. Construction is expected to take three to four years to complete.



Figure J-7: B2H Route Map



## Gateway West

In addition to B2H, PSE is evaluating transmission investments in one or more segments of Gateway West, starting at the eastern Wyoming substation Aeolus (see Figure J-8) and terminating at the Hemingway Substation in southern Idaho. The completion date for two of the three segments is not yet determined. PacifiCorp is the primary transmission provider for Gateway West and is partnering with Idaho Power on portions of the southern Idaho segment. The three segments of Gateway West that PSE is evaluating are discussed below.

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**HEMINGWAY TO POPULUS.** This western segment is located in southern Idaho. Along with B2H, it would provide PSE access to southern Idaho renewable resources including wind and solar projects. There is not yet a firm construction date for this segment.

**POPULUS TO BRIDGER/ANTICLINE.** This segment is located in southern Idaho and western Wyoming. Along with Hemingway to Populus, it would provide PSE access to western Wyoming wind and solar resources. Similar to the Hemingway to Populus segment, there is not yet a firm construction date for this segment.

**BRIDGER/ANTICLINE TO AEOLUS.** PacifiCorp completed construction of this line in 2020. The line runs from western Wyoming to eastern Wyoming, and it would provide PSE access to high-capacity wind resources in eastern Wyoming.

Figure J-8: Gateway West Route Map





# 4. FUTURE REGIONAL TRANSMISSION STRATEGIES

## Transmission Strategies

Four strategies could be implemented to ensure sufficient transmission for the delivery of off-system renewable projects to PSE's system.

- **Strategy 1:** Repurpose the existing BPA transmission portfolio. Use Mid-C and Montana transmission for renewables, and co-locate new renewable resources at existing PSE generating facilities.
- **Strategy 2:** Connect resources directly to PSE system or acquire off-system renewables through a PSE transmission intertie.
- **Strategy 3:** Contract with BPA for additional transmission either directly or through third parties (developers, resellers).
- **Strategy 4:** Build new transmission.

### Strategy 1

PSEM has approximately 1,500 MW of transmission at Mid-C which is currently used for market purchases. Some portion of Mid-C transmission could be used to take delivery of new renewable projects that interconnect at Mid-C or that deliver to Mid-C. The capacity credit for the transmission could be retained by having access to purchasing energy at the Mid-C market hub during winter peak events.

PSE has future transmission opportunities at several existing off-system generating facilities. A portion of PSE's Colstrip transmission could be repurposed for delivery of Montana wind and/or pumped hydro as the coal units retire. At the Lower Snake River wind plant, PSE has additional BPA interconnection and transmission rights to build new wind capacity. Renewable resources could also be co-located at the Goldendale and Mint Farm generating stations to share the BPA transmission rights from those locations.



### Strategy 2

PSE has some available transmission on the main network and interties for delivery of energy from utility-scale projects or for contract with a third party for renewable PPAs.

### Strategy 3

PSE could contract with BPA for additional transmission rights at candidate project locations for future resources by submitting TSRs and participating in BPA's annual cluster study. Additional BPA contracted transmission could also be secured through third parties such as renewable project developers and resellers of transmission. Due to current and anticipated regional transmission constraints, newly contracted BPA transmission service will likely require costly major upgrades and longer time lines to complete construction projects before new transmission service could commence.

### Strategy 4

New regional transmission capacity will likely need to be constructed to meet the CETA requirements by 2045. As noted above, PSE is considering the Boardman to Hemingway and Gateway West transmission projects to access renewable resources in Idaho and/or Wyoming. In addition to those projects, PSE will assess existing rights of way for opportunities to access renewable energy zones in Washington state. PSE will also need to evaluate future greenfield transmission development with possible partners in the region. This will be an ongoing effort over the next several years since greenfield transmission projects can take 15 to 20 years to permit and put into service.

## Future Transmission Considerations

Historically, PSE has required that any new resources secure long-term firm (LTF) transmission up to the nameplate rating of the generation. This policy was implemented to reduce the risk of being unable to deliver energy or produce RECs due to insufficient transmission. PSE is now considering acquisition of less than nameplate capacity of LTF transmission for renewable resources because the intermittent output of renewable resources usually leaves transmission idle, and there is often short-term transmission available (firm and non-firm) to purchase or redirect. This new policy could lower the future transmission need for renewable resources required to meet CETA and better optimize PSE's transmission portfolio.

This IRP includes a sensitivity analysis, Sensitivity E: Firm Transmission as a Percentage of Resource Nameplate, that tests the impact on portfolio cost when firm transmission is under-built for renewable resources. Sensitivity E analyzed the tradeoff between savings from avoided firm transmission contracts and costs from transmission-limited energy curtailment. Sensitivity E found that there is generally little benefit in under-building transmission for standalone wind and solar





resources due to the amount of time these resources spend producing power near nameplate capacity. However, Sensitivity E did not include analysis of the impact of short-term firm and non-firm transmission, which may result in more favorable economics for variable energy resources and justify under-built transmission scenarios. Furthermore, Sensitivity E did show that co-located resources, such as wind and solar facilities which share the same interconnection, may benefit from under-built transmission due to complimentary generation shapes. The results of Sensitivity E are highly site-specific and further analysis must be completed on a case-by-case basis, but there is evidence that LTF transmission may not need to equal resource nameplate capacity into the future. For further detail on Sensitivity E, please see Chapter 5, Key Analytical Assumptions, and Chapter 8, Electric Analysis.

In May 2020, BPA began offering a new transmission product called long-term Conditional Firm Service (CFS). This is a form of Long-term Firm Point-to-point (LTF PTP) transmission service with either a limit on the number of hours per year that it can be curtailed or based upon system conditions. The CFS inventory is posted, and it presents another limitation with respect to some of the previously identified flowgates. The NOEL and West of Hatwai flowgates are showing zero Conditional Firm Inventory (CFI), but there is CFI along the Cross Cascades North flowgate. This flowgate is fully subscribed for the winter months of the year but typically has ATC during the remaining months. There is still some uncertainty about how effective this product will be with new renewable projects; PSE will evaluate CFS on a case-by-case basis when it is available from BPA. The cost for CFS is the same as LTF PTP.

In 2019, CAISO began to study the benefits of an Extended Day Ahead Market (EDAM) that would be available to its Energy Imbalance Market (EIM) participants and could be implemented as soon as 2022. This new market would allow EIM entities to participate in the current CAISO day ahead market. Initial studies have shown additional benefits of integrating a day ahead market construct on top of the EIM. Like the EIM, EDAM is being considered as a voluntary construct. In order to participate in EDAM, a utility would need to be a member of EIM. PSE is a member of the EIM and will continue to participate in the development of EDAM with other EIM entities and CAISO. One transmission-related aspect of the EDAM is to optimize transmission rights from participants and to make available unused/unsold transmission from transmission providers. As a result, the EDAM could help to optimize regional transmission and inform PSEM's future strategies on transmission acquisition.



## 5. REGIONAL TRANSMISSION PLANNING EFFORTS

PSE became a member of the newly formed NorthernGrid in 2020. As a Regional Planning Organization (RPO), NorthernGrid was formed as an association for the purpose of coordinating regional transmission planning for NorthernGrid members and facilitating compliance with certain FERC requirements relating to transmission planning (including Order Nos. 890 and 1000) for those members who are required (or may elect) to comply with such requirements. It is a successor organization to ColumbiaGrid, which formerly provided the same RPO services as NorthernGrid for PSE and other regional entities. NorthernGrid combines entities from ColumbiaGrid and the Northern Tier Transmission Group (NTTG).

### FERC Orders 890 and 1000

PSE has long recognized the need for open, transparent and coordinated transmission planning and has consistently been ahead of regulation in its regional planning practices. The Federal Energy Regulatory Commission (FERC) has issued a series of orders, although two are regarded as seminal. These are Orders 890 and 1000, which have important and universal application to regulated transmission providers.

In the late 2000s, FERC recognized that “undue discrimination existed under the pro forma Open Access Transmission Tariff (OATT).”<sup>3</sup> The OATT had been in place since 1996, when it was mandated by FERC in Order 888.<sup>4</sup>

FERC Order 890, issued in February 2007, has three main goals: 1) strengthen the OATT to ensure that it achieves its original purposes of remedying undue discrimination; 2) provide greater specificity to reduce opportunities for undue discrimination and facilitate the Commission’s enforcement; and 3) increase transparency in the rules applicable to planning and use of the transmission system.<sup>5</sup> FERC highlighted the six most critical types of reforms made in Order 890:

1. Increase nondiscriminatory access to the grid by eliminating the wide discretion that transmission providers currently have in calculating Available Transfer Capability (ATC).<sup>6</sup>

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3 / FERC Order 890 ¶1

4 / *Ibid*

5 / *Ibid*

6 / *Ibid* at ¶2



2. Increase the ability of customers to access new generating resources and promote efficient utilization of transmission by requiring an open, transparent and coordinated transmission planning process.<sup>7</sup>
3. Increase the efficient utilization of transmission by eliminating artificial barriers to use of the grid.<sup>8</sup>
4. Facilitate the use of clean energy resources such as wind power.<sup>9</sup>
5. Strengthen compliance and enforcement efforts.<sup>10</sup>
6. Modify and improve several provisions of the OATT and clarify others that have proven ambiguous.<sup>11</sup>

The requirements of Order 890 are far-reaching and mandate changes and more open reporting in PSE's local and regional transmission planning, including the development of Attachment K with stakeholder participation.<sup>12</sup>

Issued in July 2011, FERC Order 1000 built upon the openness and transparency requirements of FERC Order 890 by requiring greater regional participation. Order 1000 includes provisions requiring transmission providers to:

- participate in a regional transmission planning process that evaluates transmission alternatives at the regional level that may resolve the transmission region's needs more efficiently and cost-effectively than alternatives identified by individual public utility transmission providers in their local transmission planning processes;<sup>13</sup>
- have in place a method, or set of methods, for allocating the costs of new transmission facilities selected in a regional transmission plan for purposes of cost allocation;<sup>14</sup> and
- amend their OATTs to describe procedures that provide for the consideration of transmission needs driven by Public Policy Requirements in the local and regional transmission planning processes.<sup>15,16</sup>

The requirements of FERC Order 1000 are designed to improve coordination across the regional planning processes by developing and implementing procedures for joint evaluation and the sharing of information between transmission providers and balancing authority areas. All regulated utilities are required to participate in a regional planning organization.

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7 / *Ibid* at ¶3.

8 / *Ibid* at ¶4

9 / *Ibid*.at ¶5

10 / *Ibid*.at ¶6

11 / *Ibid* at ¶7.

12 / *Ibid* at ¶437.

13 / FERC Order 1000 ¶6

14 / *Ibid* at ¶9

15 / *Ibid* at ¶203

16 / *Public Policy Requirements are defined as transmission needs driven by public policy requirements established by state or federal laws or regulations. (FERC Order 1000 ¶2)*



### ColumbiaGrid and NorthernGrid

In 2006, before FERC had issued its mandates in Orders 890 and 1000, PSE became a founding member of ColumbiaGrid, a non-profit membership corporation and regional planning organization. ColumbiaGrid's goals were to improve the operational efficiency, reliability and planned expansion of the Pacific Northwest transmission grid. ColumbiaGrid provided a number of services, including annual transmission system assessments, producing a regional biennial transmission plan and identifying transmission needs. ColumbiaGrid also facilitated a coordinated planning process for the development of multi-party transmission system projects. Members included PSE, Avista, BPA, Chelan County Public Utilities District (PUD), Grant County PUD, Seattle City Light, Snohomish PUD and Tacoma Power.

Efforts started several years ago to form a single, larger regional planning organization in the Pacific Northwest that combined ColumbiaGrid members with members of NTTG. NTTG was a group of transmission providers and customers who were actively involved in the sale and purchase of transmission capacity that delivered electricity to customers in the Northwest and Mountain states. The new entity was named NorthernGrid, combining the names of the two groups. NTTG members joining NorthernGrid included Idaho Power, MATL, NorthWestern Energy, Portland General Electric and PacifiCorp.

On August 20, 2019, PSE and six other FERC-regulated utilities<sup>17</sup> filed the Funding Agreement and individual concurrences forming NorthernGrid in FERC docket ER19-2650-000. The NorthernGrid Funding Agreement also includes non-jurisdictional utilities, including BPA.<sup>18</sup> As explained in the opening of this section, NorthernGrid is an unincorporated association formed for the purpose of coordinating regional transmission planning for NorthernGrid members and facilitating compliance with certain FERC requirements relating to transmission planning (including Order Nos. 890 and 1000) for those members who are required (or may elect) to comply with such requirements.<sup>19</sup> In the Funding Agreement, member utilities requested an effective date of October 31, 2019, continuing until December 31, 2021, when the agreement will need to be renewed. FERC approved the Funding Agreement in a Delegated Order on October 28, 2019.

PSE, along with other regulated NorthernGrid entities, submitted its revised Attachment K under NorthernGrid to FERC on September 6, 2019, with a requested effective date of January 1, 2020 in FERC docket ER19-2760-000. On December 27, 2019 FERC issued an Order rejecting the proposed Attachment K tariff changes relating to Regional Planning, Cost Allocation and

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<sup>17</sup> / NorthWestern Energy, Avista, Idaho Power, MATL (Montana-Alberta Tie-Line), PacifiCorp, Portland General Electric

<sup>18</sup> / Non-Jurisdictional entities, such as BPA, participate by choice in these regional planning organizations.

<sup>19</sup> / NorthernGrid Funding Letter, Recital Number One.

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Transmission needs driven by Public Policy Requirements. FERC did not find issue with PSE's revised Local Plan in Attachment K. PSE, and the other regulated NorthernGrid entities, submitted an updated Attachment K filing on January 29, 2020 in FERC docket ER20-882-000 requesting an effective date of April 1, 2020. FERC approved the revised Attachment K tariff filing on March 31, 2020, approving the April 1, 2020 effective date.

For the 2020 calendar year, PSE retained its Attachment K through ColumbiaGrid until April 1, 2020 and switched its planning tariff to the NorthernGrid Attachment K on April 1, 2020. ColumbiaGrid unwound its corporate status and dissolved prior to the end of 2020.

Participation in a regional planning organization like ColumbiaGrid or NorthernGrid, while mandated by FERC, also gives utilities an opportunity to develop a coordinated regional plan and allocate costs for transmission improvement projects that cross over more than one utility. The coordinated efforts can provide solutions on a larger scale than local planning efforts if more than one member is experiencing the same constraint issue. It also provides outside stakeholders another opportunity to share project suggestions and designs for consideration in regional planning. Given PSE's location in western Washington and the number of non-jurisdictional utilities in the Pacific Northwest, participation in a regional planning organization has been valuable, especially as these non-jurisdictional entities otherwise would not participate in a regional market.