2021 ALL-SOURCE RFP

for Renewable and Peak Capacity Resources

June 1, 2021 Revised

PUGET SOUND ENERGY

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List of Exhibits

This All-Source Request for Proposals (" the All-Source RFP") seeks bids from qualified parties ("respondents" or "bidders") to supply up to 1,669 GWh of Clean Energy Transformation Act ("CETA") eligible resources and up to 1,506 MW of capacity resources to Puget Sound Energy, Inc. ("PSE" or "the Company"). It is an All-Source RFP, meaning that PSE will consider any electric resource or energy storage resource that can meet all or part of the Company's resource need, consistent with the requirements described herein. The All-Source RFP will be available on PSE's web site at the following link: http://www.pse.com/RFP.

While proposals for demand response ("DR") and distributed energy resources ("DER") are welcome to participate in this All-Source RFP, PSE will file a draft targeted DER RFP by November 15, 2021 and issue a final targeted DER RFP in early 2022 after developing technical and operational requirements for a virtual power plant platform in mid-2021. The targeted RFP will communicate PSE's virtual power plant requirements to bidders and should help reduce the costs to PSE customers associated with individual DR and DER bids (as bidders will not need to include a distribution platform with their proposals). See Section 2 for more information about the resources eligible to participate in this All-Source RFP procurement and the targeted DER RFP.

PSE will pursue a resource procurement process that is accessible and fair for all bidders. PSE encourages all bidders able to meet the requirements of this All-Source RFP to participate, including bidders representing minority-, women-, disabled- and veteran-owned businesses. PSE encourages bidders interested in partnering with PSE to support supplier diversity through inclusive, competitive procurement processes.

This All-Source RFP process may or may not result in one or more transactions by PSE. PSE reserves the right to modify and/or cancel this All-Source RFP to comply with changes to regulatory policy, or federal, state, or local laws.

1. Resource Need

The integrated resource planning analysis, which evaluates and establishes the Company's capacity (physical reliability) and renewable energy (policy driven)[1] needs, consistent with WAC 480-100-620, guides PSE's electric resource acquisition process. PSE's most recent Integrated Resource Plan (the "2021 IRP") includes a discussion of the electric planning standard and describes the methodology for analyzing the Company's resource needs. PSE filed the 2021 IRP in April 2021. The 2021 IRP includes an assessment of PSE's resource needs and can be found on PSE's web site at the following link: http://www.pse.com/irp.[2]

[1] *PSE has a legal obligation to meet the requirements of the Energy Independence Act, Chapter 19.285 RCW and the Clean Energy Transformation Act ("CETA"), Chapter 19.405 RCW. The Energy Independence Act, also known as Washington state's renewable portfolio standards, requires PSE to acquire qualifying eligible renewable resources and/or renewable energy credits to meet 15 percent of its load. CETA sets statewide policy goals for the elimination of coal-fired resources by December 31, 2025, 80 percent carbon free generation and overall carbon neutral electricity by 2030, and 100 percent carbon free electricity by 2045.*

[2] *See also WUTC Docket Nos. UG-200305 (natural gas) and UE-200304 (electric).*

SECTION 1. RESOURCE NEED

Washington state's RPS and renewable energy requirements calculate the required amount of renewable resources as a percentage of megawatt hour (MWh) sales; therefore, when MWh sales decrease, so do the amount of renewables PSE needs. Achieving demand-side resource targets has precisely this effect. Demand-side resources, including conservation, decrease sales volumes, which then decrease the amount of renewable resources needed. Consistent with the 2021 IRP, demand-side resources include energy efficiency, the Washington State Energy Code ("WSEC") and federal and state equipment codes and standards, distribution efficiency and customer-owned solar PV. Figure 1 shows PSE's renewable needs before and after 2021 IRP demand-side resources levels.

The 2021 IRP demonstrates a need for additional resources to help meet PSE's peak capacity and Washington state's Clean Energy Transformation Act ("CETA") compliance needs. Given these objectives, PSE's analysis of proposals will focus on a resource's ability to meet all or part of its capacity, CETA, or both needs at the lowest reasonable cost to customers. PSE will evaluate any commercially viable electric generation, storage, or other resource type or technology, provided that the resource complies with all applicable laws and regulations, and meets the minimum qualification requirements described in Section 4 of this All-Source RFP. Resources that offer both (i) a material capacity contribution and (ii) attributes consistent with CETA needs will receive the benefit of both value streams in PSE's analysis.

As noted above and further described in Section 2 below (Eligible Resources), PSE plans to file a draft targeted DER RFP in November 2021. PSE anticipates that the types and amounts of resources to be solicited in the targeted DER RFP will generally be consistent with the demand response, distributed energy resource solar, and distribution-system interconnected distributed energy resource battery resource additions identified in the Electric Preferred Portfolio presented in the 2021 RFP (29 MW, 80 MW and up to 25 MW, respectively) for the period 2022 to 2025. PSE may modify these targets as a result of the Clean Energy Implementation Plan to be filed with the Commission in October 2021. When the targeted DER RFP is finalized and approved, PSE may revise the total CETA-compliant renewable energy and capacity need sought through this All-Source RFP, described below, to take into account the amount of demand response and distributed energy resources (solar and battery) to be sought through the DER RFP. PSE will provide stakeholders, potential bidders and other interested parties with a resource need update when more definitive information becomes available.

SECTION 1. RESOURCE NEED

PSE has a need for CETA-compliant resources

Washington state has two renewable energy requirements. The first is the state's renewable portfolio standard ("RPS"),[3] which requires PSE to meet specific percentages of its load with renewable resources or renewable energy credits ("RECs") by specific dates. Under the statute (RCW 19.285) Washington utilities must meet 15 percent of retail sales with renewable resources by 2020. PSE has acquired sufficient qualifying renewable resources to meet its forecast RPS obligations through the RFP period, including the ability to bank RECs. Existing hydroelectric resources may not be counted towards RPS goals except under certain circumstances for new run-of-river plants and efficiency upgrades to existing hydro plants. Given the size of the CETA need presented below, PSE does not expect to have an RPS need in addition to the CETA need.

The second renewable energy requirement is Washington state's Clean Energy Transformation Act.[4] CETA requires that at least 80 percent of electric sales in Washington be met by non-emitting or renewable resources by 2030, and 100 percent by 2045. Whereas hydro resources and other non-emitting resources do not qualify as renewable resources for the purpose of meeting the requirements of Washington's RPS, certain hydro resources and other non-emitting resources do count toward meeting the compliance requirements of CETA. For a full definition of CETA-compliant resources, see RCW 19.405.[5]

[3] *Energy Independence Act (aka. Washington state's "renewable portfolio standard"): RCW 19.285 (November. 7, 2006), https://app.leg.wa.gov/rcw/default.aspx?cite=19.285*

[4] *Clean Energy Transformation Act: RCW 19.405 (May 7, 2019), https://app.leg.wa.gov/RCW/default.aspx?cite=19.405.*

[5] *See footnote 3.*

Figure 1. ***Renewable resource need***

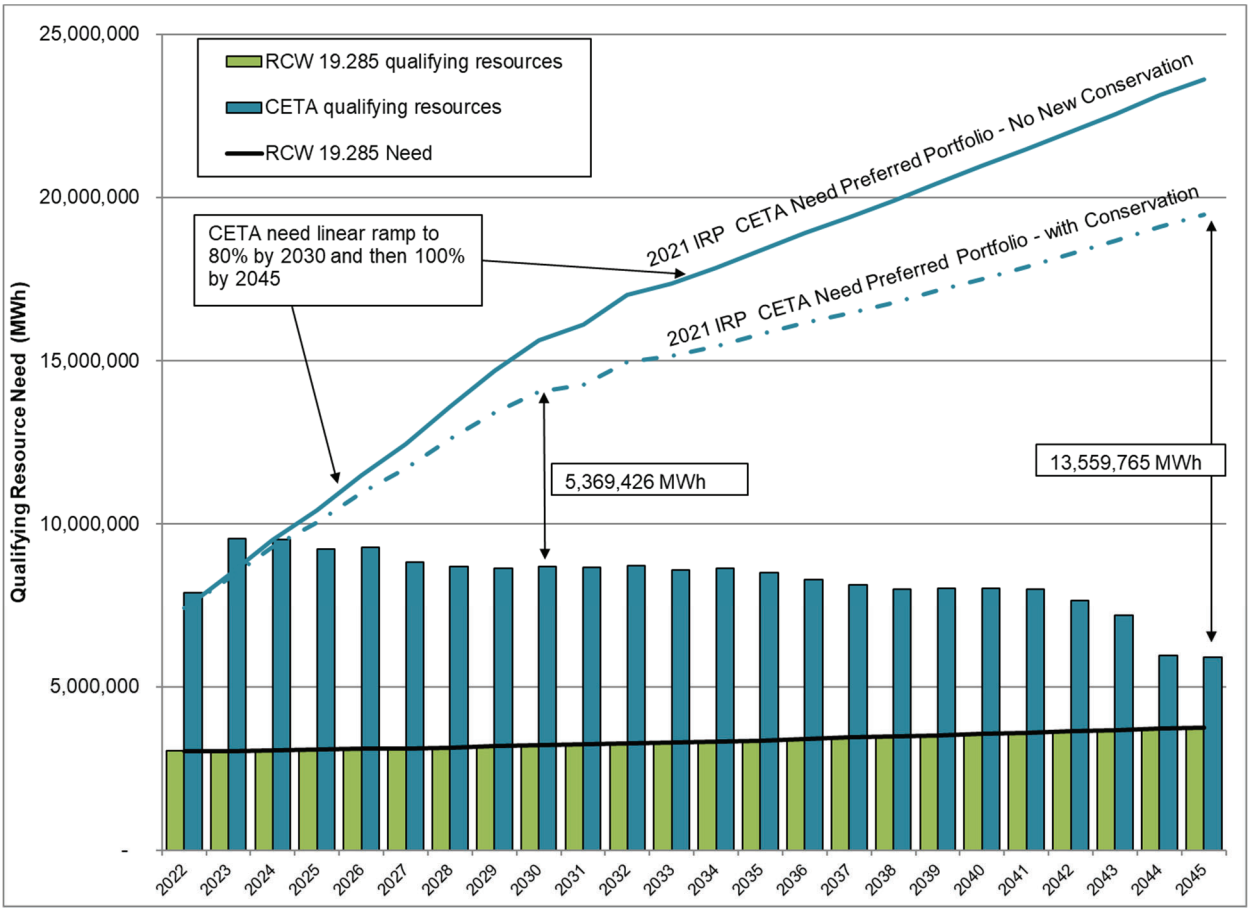

Table 1. ***CETA need by year***

CETA Need in GWhs	2022	2023	2024	2025	2026
CETA qualifying resources	7,398	9,045	9,087	8,963	9,016
2021 IRP Draft CETA Energy Target - Mid with Conservation	7,398	8,345	9,297	10,059	10,958
CETA Need/(Surplus)	0	(699)	210	1,096	1,942
Net Hydro CETA energy additions	(499)	(499)	(442)	(275)	(273)
Adjusted CETA Need/(Surplus)	(499)	(1,198)	(232)	821	1,669
Need Assuming 36% Capacity Factor (WA Wind) (MW)				260	529
Need Assuming 24% Capacity Factor (East WA Solar) (MW)				391	794

* CETA need figures in Table 1 above may be revised to take into account resources sought through the targeted DER RFP when finalized and approved.

To align PSE's procurement approach with the IRP's ramping strategy to meet the Company's 2030 CETA requirement, PSE prefers to acquire enough CETA-eligible resources by the end of 2025 to meet the IRP's 2026 target. The total need for CETA-eligible clean energy resources is 1,669 GWh by 2026 growing to 5,369 GWh by 2030. Table 1 provides an approximate strategy,

or glide path, for meeting the CETA needs identified the 2021 All-Source RFP by 2026. All eligible resource types, wind, solar, DR, DER, and other CETA-eligible resources will be evaluated[6] based on their ability to help meet this need and the capacity need identified below. The All-Source RFP does not include resource-specific targets.

PSE has a need for new capacity resources

PSE's demand forecast demonstrates a need for 369 MW of new electric capacity resources in 2026 that is expected to increase to 527 MW in 2027. This forecast reflects PSE's F2020 normal peak load forecast. It also includes the impact of the removal of PSE's interests in Colstrip units 3 and 4 from PSE's portfolio after 2025; the expiration of the Centralia Power Purchase Agreement ("PPA"); the addition of the resources PSE acquired through the 2018 All-Resources RFP; and the addition of intermediate-term hydro contracts.

PSE's current transmission portfolio includes approximately 1,500 MW of firm transmission rights that deliver energy from the Mid-C trading hub to the PSE load center. Chapter 7 of the 2021 IRP[7] included a market risk assessment that evaluated the ongoing availability of the short-term power contracts associated with the transmission rights. PSE modeled a five- and ten-year resource adequacy assessment.[8]

As a result, PSE proposes to address market risk by gradually reducing the short-term market purchase limit, associated with the transmission rights from the Mid-C trading hub, from approximately 1,500 MW to about 500 MW by the year 2027. This reduction in market reliance increases the capacity need. To replace those short-term contracts, PSE will seek firm resource adequacy qualifying capacity contracts, compliant with CETA. Numerous regional entities, including PSE, are collaborating on the development of a regional resource adequacy ("RA") program.[9] Should PSE determine the program meets the needs of PSE customers, it will be incorporated into future planning activities and operation. PSE will work with successful bidders to be designated as participating RA resources in the RA program, if appropriate. Table 2 outlines a strategy, or glide path, to address the capacity need. The total market reliance reduction and glide path proposed in Table 2 are not binding. PSE intends to conduct further analysis of the proposed market reliance reduction and hold a workshop in Q3 2021 to share its analysis with stakeholders. PSE may adjust its strategy, if it determines that doing so would be in the best interest of customers; for example, if PSE receives new information that suggests an alternate reduction or glide path would be optimal, or if selected resources with different proposed timing can help meet PSE's capacity need and reduce costs.

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[6] Glide path is indicative. The timing of actual resource acquisitions will maximize customer benefits.

[7] 2021 IRP Chapter 7: https://oohpseirp.blob.core.windows.net/media/Default/Reports/2021/Final/07.IRP21_Ch7_032921.pdf

[8] Puget Sound Energy, "2021 Integrated Resource Plan," issued April 1, 2021, www.pse.com/irp.

[9] "Resource Adequacy Program," Northwest Power Pool, https://www.nwpp.org/about/workgroups/12.

Figure 2. ***Capacity need forecast***

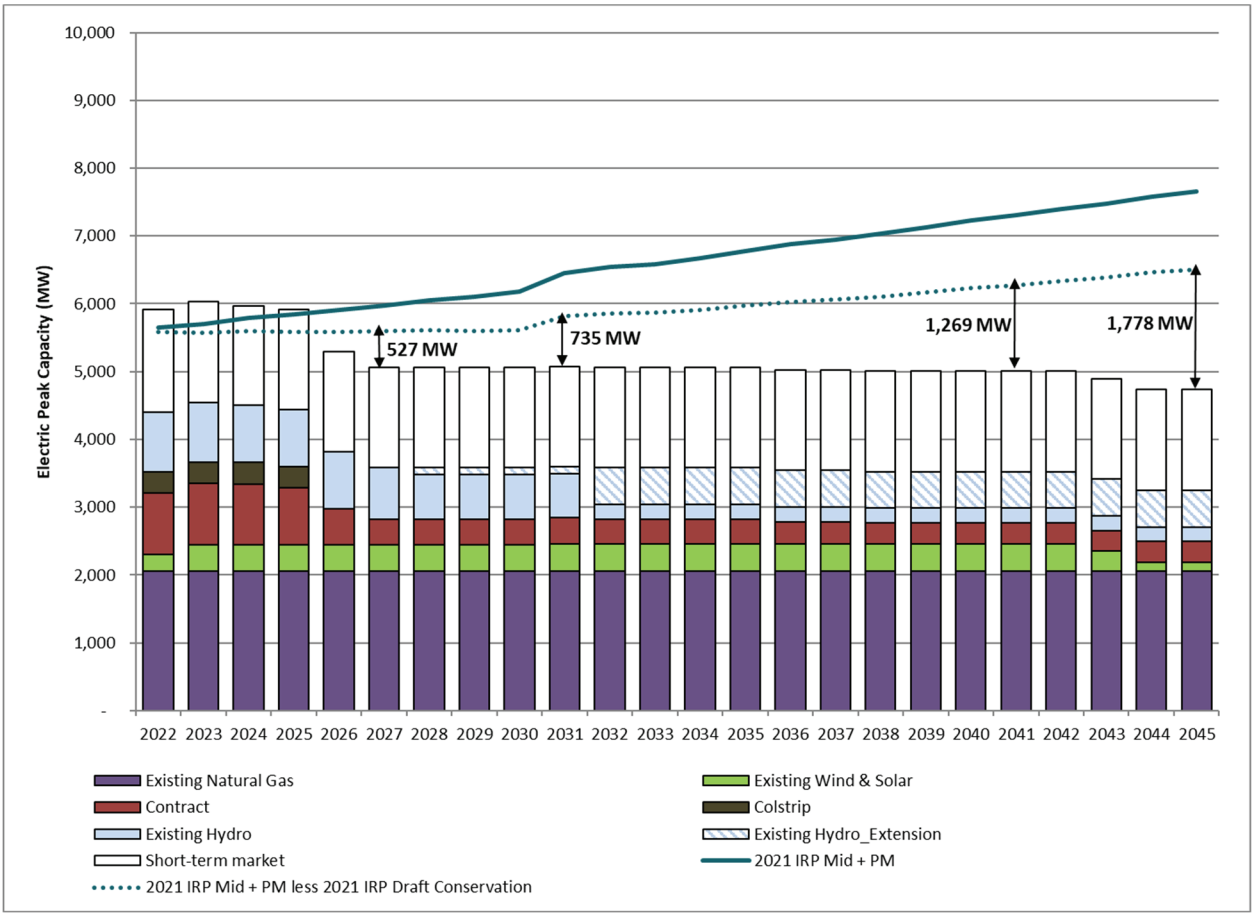


Table 2. ***Cumulative capacity need by year[10]***

Need/(Surplus) and Additions in MW	2022	2023	2024	2025	2026	2027
2021 Draft IRP Need/(Surplus)	(230)	(350)	(306)	(257)	369	527
Reduced Market Reliance Need		185	372	574	776	979
Total Resource Need/(Surplus)	(230)	(165)	66	317	1,145	1,506
Net Hydro Capacity Additions	(101)	(106)	(71)	(71)	(71)	
Adjusted Total Resource Need/(Surplus)	(331)	(271)	(5)	246	1,074	1,506
Estimated Glide Path of Incremental Resource additions		300	300	300	300	306

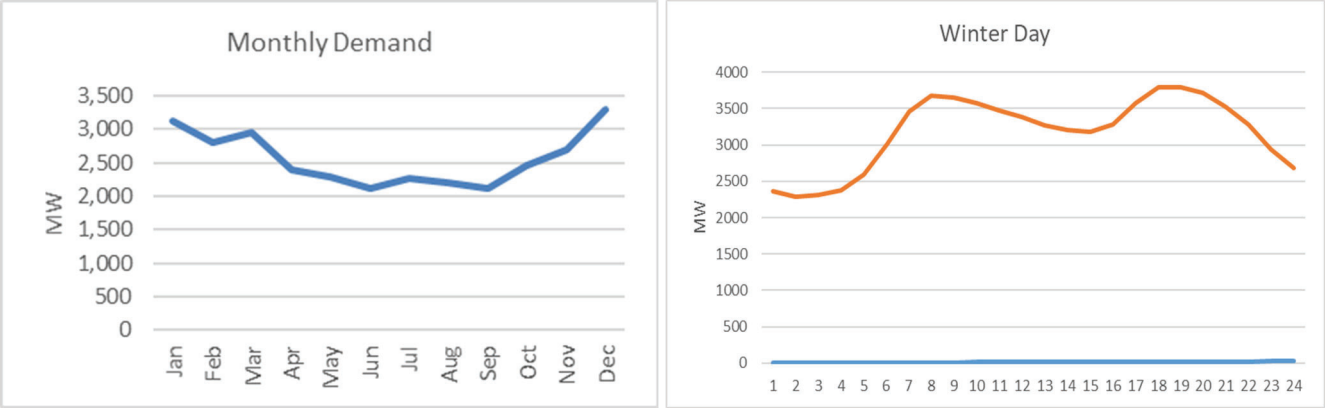
* Capacity need figures in Table 2 above may be revised to take into account resources sought through the targeted DER RFP when finalized and approved.

Although PSE's resource need is expressed as a winter peak (Figure 2 above), PSE also has seasonal and daily capacity needs. PSE's effective load carrying capability ("ELCC") quantitative

[10] *Glide path is indicative. The timing of actual resource acquisitions will maximize customer benefits.*

analysis will favor resources with production shapes that align well with PSE's load or that offer the ability to dispatch to meet load. Proposals that can help meet seasonal (Nov.-Feb., Dec.-Feb. or Nov.-Mar.), heavy load hour (HE 0700-2200), and super peak (HE 0700-1000 and 1800-2100, Nov.-Jan.) needs, while reducing surpluses off peak, will benefit in PSE's quantitative analysis. Figure 3 illustrates PSE's typical monthly load shape and its hourly load shape for a typical winter day.

Figure 3. ***PSE's typical monthly and hourly shapes***



Evaluating the capacity contribution of resources

PSE's analysis expresses a resource's contribution to capacity as its effective load carrying capability ("ELCC"). ELCC is an approach to comparing the relative peak capacity contribution of resources with different operating characteristics. The ELCC, or peak capacity benefit, is the contribution of a resource to meeting a utility's coincident peak capacity need. Because ELCC values are highly dependent on the load characteristics and mix of resources in a utility's portfolio, they are unique to each utility.

PSE will calculate ELCC values consistent with the 2021 IRP methodology for generic resources.[11] The Phase 1 quantitative analysis will approximate the ELCC value of each proposed RFP resource using the ELCC value of a comparable generic resource from PSE's 2021 IRP analysis. Figure 4 presents the ELCC values for the generic resources from the 2021 IRP preferred portfolio. The Phase 2 quantitative analysis will be based on resource-specific ELCC values calculated for each Phase 2 resource.

[11] *For the 2021 IRP, PSE started with the GENESYS model from the Northwest Power and Conservation Council ("NPCC") power supply adequacy assessment for 2023. The GENESYS model was developed by the NPCC and the Bonneville Power Administration (BPA) to perform regional-level load and resource studies. More information about PSE's resource adequacy modeling tools and approach are described in Chapter 7 of the 2021 IRP.*

Figure 4. ***Generic ELCC values by resource type and location (RFP Phase 1)***[12]

Resource Type	Resource	ELCC
Thermal Resources	CCGT[13]+Duct Firing	100.0%
	Peaker - Frame	100.0%
	Peaker - Reciprocating	100.0%
Renewable Resources	WA Wind Offshore	48.4%
	WY Wind East	40.0%
	WA Wind	17.8%
	MT Wind East	21.8%
	Biomass	95.0%[14]
	MT Wind Central	30.1%
	East WA Solar	4.0%
Capacity-Only Resources	Li-Ion 2-hour	12.4%
	Li-Ion 4-hour	24.8%
	Flow 4-hour	22.2%
	Flow 6-hour	29.8%
	Pumped Storage	37.2%
Hybrid Resources	WA Solar, Li-ion, 25MW/50MWh, 82% RT efficiency	14.4%
	WA Wind, Li-ion, 25MW/50MWh, 82% RT efficiency	23.6%
	MT East Wind, pumped storage, 8-hr, 80% RT efficiency	54.3%

Evaluating the capacity contribution of RFP resources: Phase 1

In Phase 1 of the All-Source RFP evaluation process, PSE's quantitative analysis will approximate the ELCC value of each proposed RFP resource using the ELCC value of a comparable generic resource from PSE's 2021 IRP analysis (Figure 4 above). For variable energy resources, PSE will compare the 8760 generation profiles provided by bidders to verify general consistency with the associated generic resource assumption. If PSE identifies a proposal that significantly differs from the associated generic assumption and the bidder provides independently verified third-party support for their generation output profile, PSE would take that into consideration in its analysis.

[12] For a complete list and discussion of the generic ELCC values and associated assumptions used in PSE 2021 Integrated Resource Plan ("IRP"), see also Chapter 7 (Resource Adequacy Analysis) of the 2021 IRP, which can be found online at https://pse-irp.participate.online/2021-irp/reports.

[13] Combined Cycle Gas Turbine ("CCGT") plant

[14] The 2021 IRP assumes that biomass does not have a firm fuel supply, therefore, the ELCC would be 0 percent. The All-Source RFP will assume a generic ELCC of 95 percent for biomass proposals that meet the following minimum criteria described in Section 4 of the RFP: "Biomass, biofuel or other generation resources requiring fuel must provide in their proposals a fuel supply plan that demonstrates the firm availability of the fuel supply (either through an agreement or other equivalent means) to support the proposed capacity for the proposed term."

If a bidder cannot provide this support, the generic ELCC assumption would be used. The All-Source RFP requires a minimum of one year of wind resource or solar irradiance data.

At the end of Phase 1, PSE intends to select a candidate pool of resources for portfolio optimization analysis that represent the best-performing proposals from different resource types and technologies to test the performance of combinations of resources toward achieving a lowest reasonable cost portfolio. This means that the ELCC values of one resource type compared to another is less important in Phase 1 because PSE will select a representative sampling of resources for further consideration, subject to meeting the minimum criteria defined in the All-Source RFP.

Evaluating the capacity contribution of RFP resources: Phase 2

Because an individual project's ELCC will vary, the Phase 2 quantitative analysis will be based on resource-specific ELCC values calculated for each Phase 2 resource. Resource-specific ELCC values will take into account a resource's exact location, generation shape, characteristics of the resource (e.g., ability to dispatch, duration of output, etc.) and the availability of firm delivery to PSE's load center. PSE will also take into account resource-specific "fuel" supply for resources that can demonstrate a more favorable fuel supply than assumed in PSE's generic ELCC assumptions, such as a firm fuel supply for biomass, a more favorable wind resource or solar irradiance (via a third-party verified 8760 data), or a demonstrated ability to charge during a loss of load event for storage.

See also Section 3 (Schedule and Process) of the All-Source RFP for a description of PSE's RFP evaluation process and tools.

ELCC workshop

PSE received a number of comments from stakeholders on its draft All-Source RFP with questions about the Company's ELCC assumptions and how they will be reflected in the 2021 RFP evaluation process. The Company would like to offer an opportunity to stakeholders and bidders to learn more about the modeling approach and assumptions used to derive its generic resource ELCC assumptions, how the generic and resource-specific ELCC values will be used in the RFP analysis, and how the resource-specific ELCC values are different than the generic ELCC assumptions.

To that end, PSE will host an ELCC workshop in August 2021. PSE plans to circulate reference materials for stakeholder consideration prior to the workshop to allow interested parties to formulate comments and questions ahead of time, and to ensure a robust discussion. Stakeholders will be invited to comment on PSE's ELCC assumptions at that time. PSE will post information about the workshop on its RFP web site and notify stakeholders as more information becomes available. To be added to PSE's stakeholder distribution list, please contact the AllSourceRFPmailbox@pse.com.

2. Eligible Resources

In order for a proposal to be considered, the bidding entity must demonstrate that it currently owns or has legally binding rights to develop or market the project(s). The bidder must also demonstrate an ability to meet the minimum requirements for eligibility, which can be found in Section 4 of this All-Source RFP.

Resource characteristics

PSE will consider power purchase agreements and ownership agreements for CETA-compliant electric generation, capacity-only resources, storage resources and demand side resources from any commercially proven technology.[15] PSE requires delivery of as-generated renewable energy on a firm hourly schedule with all associated environmental attributes.

PSE has a dual need for resources to help meet the CETA requirement to achieve an 80 percent renewable or non-emitting resource portfolio by 2030, and to help meet the capacity need described in Section 1. PSE's capacity needs are greatest in winter; therefore, PSE will evaluate resources based on their ability to fill winter deficits while minimizing off-peak surpluses. Resources that are dispatchable, are shaped to meet winter peak needs, or with generation profiles that align well with PSE's load shape (Section 1) will perform best in PSE's analysis. PSE will consider the seasonality of the generation, the ability to control the project's output to match PSE's resource needs (up to and including real-time dispatch and displacement), and contractual mechanisms to shape project output to need. CETA-compliant non-emitting resources that can also meet capacity needs are most preferred. Proposals must be consistent with the proposal requirements described in Section 4 (Minimum Proposal Requirements), and Exhibit B (Proposal Requirements Forms) to this All-Source RFP. PSE encourages qualified respondents representing small projects (≥5 MW)[16] or large-scale projects to participate in this All-Source RFP.

[15] *PSE is not seeking REC-only products in this All-Source RFP because the company currently has sufficient renewable resources and banked RECs to meet its RPS obligations through the RFP period, and RECs will not be needed for CETA compliance until 2030.*

[16] *Qualified facilities with nameplate capacities of 5 MW or less may sell power to PSE pursuant to electric tariff rate Schedule 91.*

Table 3. ***Eligible resources***

Resource	Description (including but not limited to)	Ownership	Notes
CETA-eligible energy	Renewable resources including new and existing wind, biomass, hydroelectric, etc.	PPA and ownership	Resource must meet RCW 19.405.040
Baseload generation	Hourly, daily, or seasonally shaped or block products and unit contingent bids	PPA and ownership	System purchases must meet RCW 80.80
Capacity products	Capacity call options, dispatchable resources, storage (BESS, pump hydro, etc.)	PPA and ownership [17]	BESS products have use case requirements (pages 16-18)
Temporal exchanges	Temporal exchanges (e.g., year round, seasonal), November-February; 7x16, 7x24, or 6x16 product with delivery to PSE on west side of Cascades	PPA	System exchanges must meet RCW 80.80
Hybrid resources	A combination of renewable resources, storage, or capacity products such as solar + BESS, wind + BESS, wind + solar, etc.	PPA and ownership	
Demand-side resources	Aggregated distributed resources, demand response, other customer located resources, etc.	PPA	See pages 18-20
Other resource not specified above	Any commercially available resource that meets or partially meets PSE's identified CETA and capacity needs.		

Energy delivery

This All-Source RFP seeks incremental capacity and renewable energy to meet PSE's projected capacity and CETA needs. PSE will only consider resources that provide firm delivery to PSE's system or to a delivery point identified in Table 4 at the end of this section. PSE will only assign a capacity value to resources that (i) are located within PSEI's balancing area authority ("BAA") (at PSE's load center, PSEI.System, and west of the Cascades), (ii) demonstrate that the project has an achievable plan to secure long-term firm transmission that will deliver to PSE's system at

[17] *Due to the unique risks associated with ownership of battery energy storage systems, PSE prefers PPA agreements for such resources.*

BPAT.PSEI[18] prior to the project's commercial operation date ("COD"), or (iii) are consistent with the POD capacity eligibility in Table 4. In general, resources that meet both PSE's renewable and capacity needs will evaluate better than resources that only meet one of these needs. A bidder proposing to interconnect a resource on PSE's system will need to demonstrate that it has included all incremental costs to deliver energy from the resource to PSE's load. The bidder can do this by requesting interconnection and transmission service from PSE's Transmission Provider, subject to the terms of its Open Access Transmission Tariff ("OATT"). Bidders can determine these costs by requesting from PSE's Transmission Provider network resource interconnection service ("NRIS"), or bidders can request energy resource interconnection service ("ERIS") and long-term firm, point-to-point transmission service. These requests will allow PSE's Transmission Provider to study the need for system upgrades to accommodate interconnection and transmission service for the proposed resource. Preference will be given to developers seeking full deliverability to PSE's system, including a preference to bidders with NRIS interconnection service. Bidders with long-term, point-to-point service will also be considered. Energy storage proposals must demonstrate that they have been studied as a resource and a load and provide their state of charge and discharge assumptions in order to meet the use case specified on pages 16 to 18.

Additionally, bidders who are certified with the Federal Energy Regulatory Commission ("FERC") as qualified facilities ("QFs") are encouraged to participate in this RFP. Such bidders should submit bids under the FERC interconnection process, as detailed above. PSE is currently developing an agreement and associated procedures for interconnection and transmission of QF resources. If approval for such a QF interconnection, transmission agreement and procedures is granted to PSE during the process of this RFP, eligible bidders may switch to the QF interconnection and transmission process and study parameters, provided that the bidder is already certified with FERC as a QF. In such case, PSE will notify all bidders of the opportunity to make that switch.

Table 4 identifies PSE transmission assets that are available to bidders for the delivery of renewable energy and capacity products to PSE in response to this All-Source RFP. The details around this transmission can be found in Exhibit H. In addition to the points of delivery ("POD") identified in Table 4, bidders may, at their own expense, deliver on PSE's system west of the Cascades or at BPAT.PSEI. All proposals must include delivery costs, transmission and integration, to PSE's system or to one of the PODs in Table 4. Additionally, since PSE actively markets unscheduled transmission rights to reduce costs, proposals delivering to the PODs below will be evaluated with the transmission costs from the POD to PSE's system as a cost adder to the proposal. See Exhibit H for further details.

[18] *BPAT.PSEI is a transmission scheduling point in BPA Transmission Service's ("BPAT") Open Access Same-time Information System ("OASIS"), which represents 24 separate interconnections between the balancing authority areas of PSE ("PSEI") and BPAT.*

Click Bonneville Power Administration ("BPA") OATT rates[19] to be redirected to the current transmission rates posted on the BPA's website. Click PSE OATT rates[20] to be redirected to PSE's OASIS website. From the home page, open the "TARIFF" folder and then open the "PSEI Current OATT Prices 2020 06 01" Excel file.

Table 4. ***Summary of PSE transmission assets available for delivery of proposed resources***

Location/ Resource	Amount	Date of first availability	Point of delivery	Eligibility for capacity credit	Notes	Transmission OATT cost included in evaluation?
MIDC	Up to 1000 MW	1/1/2024	MIDCREMOTE (BPA)	Yes; however, VERS not eligible for capacity credit		Yes
California Oregon Intertie (COI)	Up to 300 MW, Mar 1 - Oct 31	1/1/2024	COB/MALIN (PSEI) Alternately JOHNDAY (BPA)	No capacity credit for winter months. Capacity contribution during summer season consistent with IRP ELCC assumptions.	Bidder responsible for alternative Nov-Feb delivery plan	Yes
Centralia	Up to 100 MW	1/1/2026	PAUL (BPA)	Yes, per IRP ELCC assumption		Yes
Lower Snake River (Central Ferry)	Up to 150 MW	3/1/2024	CENTRAL FERRY (BPA)	Yes, per IRP ELCC assumption		Yes

[19] *BPA OATT Rates, last updated Oct., 1, 2019, https://www.bpa.gov/Finance/RateInformation/RatesInfoTransmission/FY20-21/2020%20Transmission%20Rates%20Summary.pdf.*

[20] *PSE OASIS website, http://www.oatioasis.com/psei/.*

Questions about the OATT processes of PSE and BPA should be directed to the relevant Transmission Provider. Contact information for PSE's Transmission Provider can be found on the home page of PSE's OASIS website at http://www.oatioasis.com/psei/. Contact information for BPA's Transmission Provider can be found at https://www.bpa.gov/Contact/Pages/Contact-Information-Transmission.aspx.

PSE Land Available for Bidder Use in this RFP

Bidders with proposals that contemplate the use of PSE land may find publicly available information about PSE-owned land through the County assessor/recorder/auditor's offices of the respective counties where property is located. A bidder who has conducted due diligence as to siting and permitting feasibility (including zoning and environmental considerations) for a particular project on PSE-owned land can contact PSE's Facility Services or Property Management teams. It should be noted that bidders must demonstrate a percentage of site control and that permitting for long lead-time studies must have begun in order to meet the minimum requirements of this RFP (please see the non-price scoring rubric in Exhibit A for details on site control and permitting progress scoring).

Any new or supplemental information related to land available for bidder use in this RFP that may become available during the bid preparation period will be posted to PSE's RFP web site.

Operational status

PSE will accept project proposals for new or existing resources. For capacity resources, deliveries must begin no later than December 31, 2026. To align with PSE's first CEIP, PSE is seeking renewable resources beginning no later than December 31, 2025. Project COD may occur after this date; however, the bidder will be responsible for including interim firm supply arrangements to bridge the gap ("power bridging agreement"). PSE will evaluate any interim supply arrangements as part of the entire proposal and will not bifurcate the evaluation of the interim supply arrangements and the project. All resources, including interim supply agreements, must meet all applicable laws and the minimum requirements of this All-Source RFP.

Storage resources

Energy storage encompasses a wide range of technologies capable of storing energy in one time period for use in another (among other potential benefits).[21] PSE will evaluate all proposed energy storage technologies on a lowest reasonable cost and best-fit basis, consistent with PSE's

[21] *For more information, please see the Commission's Report and Policy Statement on Treatment of Energy Storage Technologies in Integrated Resource Planning and Resource Acquisition, Docket UE-151069 and U-161024.*

most recent IRP analysis,[22] and based on the evaluation process described in Section 3 and Exhibit A (Evaluation Criteria and Scoring) of this All-Source RFP.

PSE's resource acquisition team engaged Power Systems Consultants to perform a qualitative and quantitative analysis to identify potentially favorable locations within PSE's contiguous system (west of the Cascades) for siting energy storage. The report is designed to be a starting point for bidders in determining potential lower risk locations (with respect to network upgrade costs) for interconnection of energy storage resources into PSE's transmission system. See Exhibit I (Energy Storage System Location Study) for a copy of the report.

As described in Section 6 of this RFP (see Table 8), each RFP proposal may include up to three offer configurations. To allow for consistent evaluation, PSE is asking battery energy storage systems ("BESS") to include a "Base Configuration". Bidders are also free to propose two alternate configurations with operating characteristics they feel best balance costs and performance during peak events.

The Base Configuration (pricing, O&M costs, lifecycle, and warranties) should reflect the following operating characteristics:

- Full cycle – PSE may charge and discharge all usable energy[23] two times per day up to 60 days per year.

Table 5. ***BESS base configuration characteristics***

Full Cycles Per Year	Maximum Annual MWh Discharged
2 cycles/day & 60 days/year	1,752 MWh per installed MW

Due to the unique risks associated with ownership of battery energy storage systems, PSE prefers PPA agreements for such resources. PSE prefers lithium ion or lithium iron phosphate battery technology for ownership proposals. Proposals for PSE ownership of battery energy storage resources must meet the following minimum requirements:

- Proposals should include a conceptual site layout.
- Proposals should include only batteries and associated equipment (transformers, inverters, controllers, etc.) from industry-recognized top-tier battery suppliers and integrators.[24]

[22] Evaluation will be consistent with IRP methodologies. For more on the IRP analysis that informs PSE's All-Source RFP evaluation process, see IRP Chapters 5 and 8. Storage characteristics and assumptions are further detailed in IRP Appendix D. The IRP can be viewed online at http://www.pse.com/irp.

[23] Usable energy will be evaluated as the total energy available to be discharged, without voiding the warranty or minimum state of charge requirements, and is defined as rated MW capacity multiplied by hours of run time at rated capacity.

[24] Some examples of top-tier battery manufacturers include Samsung, BYD, LG Chem, Tesla, A123, Beacon Power, NEC, Saft, NGK and Toshiba.

- Proposals should include a full description of the battery technology proposed including history of successful implementation for the application proposed.
- Proposals should indicate the names of the manufacturers of all the major system components along with their history in providing equipment in similar applications.
- Proposals should state the design life of the batteries selected and detail plans for operation as they degrade in performance, as well a plan for ultimately replacing and recycling the batteries upon end of life.
- Proposal should include a fire protection system and address fire and explosive gas detection, prevention, and mitigation.
- Proposals should include a description of the manufacturer warranties/guarantees for all major equipment in the system including batteries, inverters, control systems, generator step-up ("GSU") transformers, etc.
- Proposals should include a conceptual description of the proposed cooling system.
- Proposals should include documentation including system and equipment compliance with appropriate governing agencies and standards including Federal Energy Regulatory Commission ("FERC"), North American Electric Reliability Corporation ("NERC"), Western Electric Coordinating Council ("WECC"), Underwriters Laboratories ("UL"), Institute of Electrical and Electronics Engineers ("IEEE"), National Electrical Code ("NEC"), Industry Foundation Classes ("IFC"), etc., as applicable.
- All proposed design engineering firms and project constructors should have proven expertise and experience in projects of similar scope and size.

If available at the time of bid submittal, provide comprehensive engineering design documents and drawings well in advance of project construction. If available, bidders should also provide one-line diagrams, three-line schematics, communication plans and protocols used, and a list of tags and alarms used in the battery management system ("BMS"). If unavailable at the time of bid submittal, PSE will request this information during the evaluation or negotiation process. Projects will be required to meet all PSE requirements and specifications.

Demand side resources

On April 1, 2021, PSE will issue a Request for Information ("RFI") for distributed energy resources ("DERs"), including demand response ("DR"). The RFI will be the first step in a separate targeted RFP process for DERs that will address a significant increase in the need for such resources identified in PSE's 2021 IRP preferred portfolio published on April 1, 2021. The IRP shows PSE adding 634 MW of distributed batteries, solar and demand response in its service territory by 2030, with 156 MW between 2022 and 2025. To prepare for this significant amount of DERs, PSE has accelerated its plans for developing a virtual powerplant platform ("VPP") upfront, which is necessary for the operational integration of such a sizeable DER presence on PSE's system as dispatchable network resources.

PSE plans to develop the technical and operational requirements for the VPP over the next four to six months, followed by filing with the Washington Utilities and Transportation Commission ("WUTC") a draft targeted DER RFP by November 15, 2021. This targeted DER RFP will clearly communicate to bidders the VPP requirements and platform the Company will need, and allow DR and DER proposals to be structured optimally within a common PSE-provided VPP environment. PSE is also working on a new state interconnection process for DERs of up to 80 MW, which potentially will streamline the interconnection process to PSE's transmission system for resources that otherwise would interconnect under the FERC process. Bidders submitting proposals in the targeted DER RFP will have the benefit of information provided in that RFP specifying the VPP development work and integration with the resulting platform.

Both the All-Source RFP and the forthcoming targeted DER RFP evaluations are expected to conclude in mid-2022.[25] Each RFP would be separately evaluated through short list selection. At the end of the evaluation process, the short list from the targeted DER RFP could be included in a combined portfolio analysis with the short list from the All-Source RFP. PSE further describes its approach in Section 3 (Schedule and Process).

The All-Source RFP and targeted DER RFP are separate RFPs; bidders may choose to submit proposals into one or both of the RFPs. Bidders who choose to submit proposals into the All-Source RFP must meet the minimum requirements outlined below and in Section 4 of the All-Source RFP. PSE anticipates that the targeted DER RFP would include many of the same general requirements as the All-Source RFP, though, it may contain some additional requirements specific to distributed energy resources or the CEIP development process.

Demand response

Demand response programs are resources that control customer load. To be eligible for the All-Source RFP, DR resources, whether stand alone or aggregated programs[26], must exceed the 5 MW (AC) nameplate threshold. In addition to the minimum requirements in Section 4, DR proposals must meet the following requirements:

- Winter events will occur during weekday peak hours, between 7 a.m. to 10 a.m., and 5 p.m. to 9 p.m., from November 1 through February 28 (29).[27] PSE may call DR events outside these time windows, but bidders will not necessarily be expected to provide the same level of curtailment.
- The combined total duration of events from November 1 through February 28/29 shall be no more than 42 hours per individual product, and PSE shall call up to 10 events.

[25] *PSE will provide more information about the targeted DER RFP as it becomes available.*
[26] *Aggregated resources must fill out customer acquisition plans on Tab 3d (DR_DER_System) of Exhibit B.*
[27] *PSE uses a daily forecast high below 40 degrees Fahrenheit and/or a forecast low below 30 degrees Fahrenheit to trigger a higher state of readiness for peak load. DR events can also be triggered at any time to address system emergency conditions within the program parameter constraints.*

- Capacity must be dispatchable with one of the following notification options: (1) hour ahead, (2) day ahead, or (3) a combination of hour ahead and day ahead.
- Bidder will incur damages for failing to deliver contracted capacity during dispatch event.
- Bidder must provide measurement and evaluation plan. See Exhibit K for an overview of PSE's preferences.
- Bidder must provide a marketing plan or demonstrate the ability to enroll customers.
- Bidder must demonstrate a plan to achieve interconnection (if applicable).
- Bidder must be able to provide data to PSE in the format identified in Exhibit K.

As described in Section 6 of this RFP (see Table 8), each RFP proposal may include up to three offer configurations. To allow for consistent evaluation, PSE is asking demand response to include a base offer with a maximum program duration of up to 5 years (ending in year 2027). Bidders may also propose two alternate configurations, which may extend through year 2032.

Distributed Energy Resources

Distributed Energy Resources ("DERs") are resources that plan to interconnect on PSE's distribution system. To be eligible for the All-Source RFP, DERs, whether standalone or aggregated programs,[28] must exceed the 5 MW (AC) nameplate threshold.[29] In addition to the minimum requirements in Section 4, DER bidders must choose how they wish to be evaluated, and meet the associated minimum requirements specified below (in parenthesis):

- Variable energy resources (Exhibit B, Tab 3a),
- Flexible capacity (Exhibit B, Tab 3b),
- Energy storage (Exhibit B, Tab 3c),
- As a DR resource (Exhibit B, Tab 3d), or
- A combination of the above types.
- Additionally, for all DER types bidder must demonstrate a plan to achieve interconnection (if applicable).

Contract types

PSE will consider the acquisition of resources from proposals under the following mechanisms:

(1) ownership arrangements, including co-ownership arrangements in which PSE retains dispatchability and rights of control;

[28] *See footnote 24*

[29] *Qualified facilities with nameplate capacities of 5 MW or less may sell power to PSE pursuant to electric tariff rate Schedule 91.*

(2) power purchase agreements ("PPAs") of varying lengths;

- resource-specific PPAs up to 20 years,[30]
- standalone system PPAs with terms between four (4) and five (5) years,[31] or
- power-bridging agreements up to five (5) years, defined as short-term "bridges" tied to a long-lead resource with a COD after 2025 (long-lead resource may be offered as a PPA or ownership); or

(3) temporal exchange agreements.

With regard to either an ownership arrangement or a power purchase agreement, PSE is interested in alternatives wherein the respondent fully assumes the risk of fuel supply, fuel price, environmental cost and deliverability, and which quantify the cost for assuming those risk factors.

All proposals must comply with Washington's Emissions Performance Standards.[32] Additionally, Chapter 480-100 WAC prevents electric utilities in Washington state, including PSE, from entering into contracts of five (5) or more years when the supply is from unspecified sources, coal generation, or other resources that emit above the greenhouse gas limit.

All proposals must be compliant with the requirements of CETA[33], which sets statewide policy goals for the elimination of coal-fired resources by December 31, 2025, 80 percent carbon-free generation and overall carbon neutral electricity by 2030, and 100 percent carbon-free electricity by 2045.

Ownership

The PSE ownership mechanism anticipates a proposal pursuant to which upon achieving commercial operation, or some subsequent date, PSE would ultimately own the resource or a significant interest therein. These mechanisms include development by the respondent followed by transfer to PSE, initial purchase of power by PSE with transfer of ownership occurring later, or other approaches that may be mutually beneficial and result in PSE's ownership of the resource.[34] Although PSE is willing to consider a wide range of arrangements, the prototype term sheet

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[30] PSE will also consider contract terms longer than 20 years if the developer can demonstrate the asset has a useful life greater than 20 years.

[31] Washington's Emissions Performance Standards (Chapter 173-407 WAC, updated September 19, 2018) require new and modified baseload electric generation to meet a greenhouse gas limit of 925 pounds per megawatt hour (lbs/MWh). The Emissions Performance Standards apply to all baseload electric generation for which electric utilities enter into long-term financial commitments on or after July 1, 2008.

[32] See footnote 29.

[33] Clean Energy Transformation Act: RCW 19.405 (May 7, 2019), https://app.leg.wa.gov/RCW/default.aspx?cite=19.405.

[34] To minimize risk to customers and ensure that capacity resources will be online when needed, PSE prefers relatively mature development and construction stage resources for this All-Source RFP.

included as Exhibit E to this All-Source RFP presumes that PSE would acquire its ownership interest on the commercial online date and would fund its ownership share on a pro rata basis.

Power purchase agreements

Any proposal for a power purchase agreement ("PPA")[35] must specify the generation asset(s) underlying the agreement, and provide assurances of its commercial availability consistent with the resource needs defined in Section 1. PSE will consider contracts with terms greater than four (4) years and up to 20 years for power from a specific generation facility. PSE will also consider contract terms longer than 20 years if the developer can demonstrate the asset has a useful life greater than 20 years. PSE will consider non-unit contingent capacity products with terms less than five (5) years. Exhibit F to this All-Source RFP is a prototype term sheet for capacity and/or energy agreements, and Exhibit G to this All-Source RFP is a prototype term sheet for clean energy PPAs.

Temporal exchange agreements

PSE's obligations pursuant to any temporal exchange agreement will be subject to Federal Energy Regulatory Commission ("FERC") acceptance. Additionally, any transmission service component of the exchange would be pursuant to the applicable transmission provider's Open Access Transmission Tariff or reciprocal agreement and would be payable by the respondent.

The prototype term sheets appended to the RFP do not contemplate every type of resource or proposal that may be bid into this RFP. Bidders should view the term sheets as presenting provisions that PSE generally expects in a contractual arrangement. Bidders are invited to propose term sheet edits with their bid submissions, which may also include proposed language particular to the project resource type.

[35] *For a PPA with an option to purchase the asset during or at the end of the contract life, if contracted, ASC 842 accounting standard will require PSE to consolidate the financial information of the asset.*

3. Schedule and Process

RFP schedule

The following schedule is subject to adjustment based on Washington Utilities and Transportation Commission ("WUTC") review and the actual pace of the evaluation process. Updates will be posted online at http://www.pse.com/RFP.

Table 6. ***2021 All Source RFP Schedule***[36]

Date	Milestone
April 1, 2021	Draft All-Source RFP filed with WUTC
May 17, 2021	Public comment period ends[37]
June 15, 2021	WUTC review period ends; decision anticipated
June 30, 2021	PSE issues final All-Source RFP to bidders
July 2021	PSE hosts bidders' conference[38]
August 2021	PSE hosts workshop to discuss ELCC assumptions[39]
August or September 2021	PSE hosts workshop to review further analysis of market reliance reduction[40]
September 1, 2021	Offers due to PSE
October 1, 2021	PSE posts to its RFP web site compliance report consistent with the requirements of WAC 480-107-035(5)
January 2022	PSE provides opportunity for bidders to revise/augment their Customer Benefit Plans by January 31, 2022 once PSE's CEIP is finalized

[36] *Consistent with the Final Order of WUTC Docket No. UE-200413, PSE will file a draft targeted DER RFP on or before November 15, 2021. As explained in PSE's March 15, 2021 petition filed in WUTC Docket No. UE-200413, the DER targeted RFP evaluation process is expected to be shorter than the All-Source RFP evaluation process. PSE anticipates that it would complete its evaluation of these resources around the time the All-Source RFP short list is expected to be selected.*

[37] *WAC 480-107-017(3) allows interested parties to submit comments within 45 days after a draft RFP is filed. Based on an April 1, 2021 filing date, this period would close on Sunday, May 16, 2021. The schedule above assumes the comment period would close on the next business day.*

[38] *The All-Source RFP bidders' conference details and registration instructions will be posted at www.pse.com/rfp as they become available.*

[39] *PSE will host a workshop to discuss the methodology and assumptions used to derive its generic resource ELCC assumptions, how the generic and resource-specific ELCC values will be used in the RFP analysis, and how the resource-specific ELCC values are different than the generic ELCC assumptions. PSE plans to circulate reference materials for stakeholder consideration prior to the workshop.*

[40] *PSE will conduct further analysis of its proposed market reliance reduction and share this analysis with stakeholders in a workshop in Q3 of 2021.*

Q1 2022	PSE completes Phase 1 screening process and selects Phase 2 candidates, notifies bidders
Q2 2022	PSE selects All-Source RFP short list, notifies bidders
To follow	Post-proposal negotiations
To follow	PSE files with the WUTC compliance report consistent with the requirements of WAC 480-107-145(2)

Evaluation process

PSE will follow a structured evaluation process designed to screen and rank individual proposals based on an evaluation of costs, risks, and benefits. These include resource cost, market-volatility risks, demand-side uncertainties and benefits, resource dispatchability, effects on system operation, credit and financial risks to the utility, the risks to ratepayers, public policy, and Washington state and federal government requirements. PSE will consider a number of quantitative and qualitative factors to compare proposals with diverse attributes. PSE will evaluate each proposal based on its compliance with this All-Source RFP and according to the criteria described in Section 4 (Minimum Requirements) and Exhibit A (Evaluation Criteria and Scoring) to this All-Source RFP.

Intake process

PSE's evaluation process will begin with the automated intake of proposals through a newly designed web platform. Bidders will download the RFP forms from PSE's RFP web site (www.pse.com/rfp), and submit the completed forms and attachments through the platform. The platform will be accessible by a link from the RFP web site when the final RFP is issued.

Proposals will be tested for completeness and adherence to minimum criteria requirements (described in Section 4) in two ways during the intake process. First, the automation process will perform a real-time validation of proposal completeness and adherence to certain minimum criteria. If the automated system determines that a proposal is incomplete or fails to meet required criteria, it will generate an error-specific response, allowing the bidder to adjust the proposal and resubmit it by the due date. Second, because certain minimum criteria may be difficult to confirm with a simple algorithm, PSE's resource acquisition team will perform a preliminary eligibility screening to verify that all proposals accepted by the system appear to meet the minimum requirements. If a proposal is determined to be ineligible based on the screening, PSE will notify the bidder and the bidder will be given three business days to remedy the proposal (the "cure period").

Phase 1: Screening phase

Once the intake process is complete, PSE will divide its RFP evaluation into two phases. In Phase 1, PSE will conduct a preliminary cost analysis and qualitative risk screening to produce a list of the most promising resources for further consideration. PSE will use its Excel-based portfolio screening model ("PSM"), the Aurora model and the scoring approach for price and non-price factors presented in Exhibit A (Evaluation Criteria and Scoring) to screen and rank proposals based on the bidder's responses to Exhibit B (Proposal Requirements Forms). The qualitative review will include an assessment of the risks, benefits and viability factors set forth in the qualitative evaluation rubric provided in Exhibit A, including: counterparty and project viability, status of site control, status of permitting, deliverability (interconnection and transmission), and contribution to CETA customer benefit and equity considerations. PSE will score proposals based on the information provided by bidders and any further due diligence required to verify that the information provided is accurate and complete. In conducting due diligence and risk assessment, the resource acquisition team will consult as necessary with subject matter experts from specific functional areas throughout the company. Upon completing its evaluation, the resource acquisition team will combine its quantitative and qualitative screening results to produce a Phase 1 ranking for each proposal. See Exhibit A for the ranks and weights associated with price and non-price factors considered by PSE, and a description of PSE's approach to scoring individual proposals.

At the end of Phase 1, PSE will select a candidate list of proposals that will proceed to Phase 2 for portfolio optimization analysis (the "Candidate List"). PSE will select a pool of resources that represents the best-performing proposals from different resource types generally consistent with the resource type categories presented in the effective load carrying capability ("ELCC") discussion in Chapter 7 of the 2021 Integrated Resource Plan ("IRP"). PSE may further refine those categories based on the actual proposals received and other factors, such as whether the resources proposed are delivering to PSE's system or to Mid-C. Portfolio optimization will test the performance of combinations of resources toward achieving a lowest reasonable cost portfolio. PSE will stack resources by type and advance proposals to Phase 2 that are price-competitive within each resource stack. In determining price-competitiveness, PSE will look for scoring gaps and establish cut-off points, such that the resources included in Phase 2 amount to at least 150 percent of the resource need. PSE may also hold in reserve a certain number of proposals that fall short of the cut-off point, in the event that one or more of the selected proposals are subsequently withdrawn or eliminated for any reason, including unacceptable risks or fatal flaws identified during the course of additional due diligence.

Proposals that fail to substantiate a viable resource, lack credible detail,[41] involve unacceptable risks or prohibitive costs, or otherwise fail to meet the minimum proposal requirements defined in Section 4 of the All-Source RFP will not be further considered. Any proposal that does not meet

[41] *All respondents will be required to submit a completed Exhibit B to the All-Source RFP to qualify for consideration in this RFP.*

the minimum requirements of this RFP in the preliminary eligibility screening will be disqualified and will not receive a Phase 1 price or non-price score.

All bidders will be notified of their selection status at the end of Phase 1. Bidders whose proposals have been selected to proceed to Phase 2 will be given an opportunity to submit an updated best and final offer price ("BAFO"). The BAFO may not be higher than the original price, and no other aspect of the proposal may be changed. If no BAFO is submitted, the original bid price will be used in Phase 2.

Phase 2: Optimization phase

During Phase 2 of the RFP evaluation process, PSE will continue to use its PSM financial model and the Aurora model to analyze combinations of proposals to determine the best resource solution to meet PSE's capacity need at the lowest reasonable cost[42], subject to certain modeling constraints (e.g., transmission constraints). Lowest reasonable cost is defined in WAC 480-107-007 and 480-100-605, and is determined through analysis of a number of specified costs and risks, including the costs and risks associated with compliance with CETA and other applicable state laws and regulations. The costs and risks associated with compliance with CETA include the customer benefit and equity considerations outlined in RCW 19.405.040(8). PSE's evaluation process and the information respondents are required to provide in the bid forms, as well as through further data requests and due diligence as needed, are intended to identify the lowest reasonable cost resource solutions. PSE will compare different portfolio mixes to determine how each portfolio performs in a range of potential future pricing scenarios. The model creates optimal, integrated portfolios for each scenario considered in the analysis. In Phase 2, PSE may also perform analyses aimed at producing a resource portfolio that meets the capacity and renewable need while maximizing customer benefit indicators ("CBIs") prioritized by the ongoing public participation and advisory group process with stakeholders (please visit www.cleanenergyplan.pse.com for a timeline and description of the customer benefit and equity stakeholder process). This analysis could help identify the resource mix that best aligns with CETA customer benefit and equity goals, consistent with the considerations outlined in RCW 19.405.040(8). Exhibit A to this All-Source RFP provides further details on how PSE will qualitatively evaluate the customer benefit plans submitted by respondents and associated CBIs. PSE intends to provide more information and updates on the ongoing CBI work, as available, at the bidders' conference.

In Phase 2, PSE reserves the right to conduct additional due diligence, as necessary, on the Candidate List proposals. This may include engaging with respondents regarding various aspects

[42] *Lowest reasonable cost is defined in WAC 480-107-007 and 480-100-605 to mean "the lowest cost mix of generating resources and conservation and efficiency resources determined through a detailed and consistent analysis of a wide range of commercially available resources. At a minimum, this analysis must consider re-source cost, market-volatility risks, demand-side resource uncertain-ties, resource dispatchability, resource effect on system operation, the risks imposed on the utility and its customers, public policies regarding resource preference adopted by Washington or the federal government, and the cost of risks associated with environmental effects, including emissions of carbon dioxide. The analysis of the lowest reasonable cost must describe the utility's combination of planned resources and related delivery system infrastructure and show consistency with chapters 19.280, 19.285, and 19.405 RCW."*

of the proposals to verify proposal claims with supporting data and documents from the respondent, engaging third-party consultants to independently verify resource performance, or using other publicly available information. PSE will assess proposed edits to the term sheets submitted from bidders by screening for terms and conditions that present unreasonable or excessive risk to PSE or its customers. PSE will assess such risk on a pass/fail basis. If PSE determines that a proposal contains such unacceptable terms or conditions, the bidder will be given three business days to remedy, consistent with the cure period allowed for the correction of other non-conforming criteria or fatal flaws. Term sheet redlines that pass the screening should not be deemed as having been accepted by PSE in any subsequent negotiation with a shortlisted bidder; final terms will be determined through negotiations with selected counterparties. PSE reserves the right to suspend negotiations with any bidder and initiate discussions with an alternate Phase 2 candidate at its sole discretion and in the best interests of the Company and its customers.

At the end of Phase 2, PSE will place on a short list proposals that best align with the Company's overall objective to select a resource or portfolio of resources that best meet PSE's resource needs and can be delivered to its system at the lowest reasonable cost considering risk, in compliance with all applicable laws and regulations, and consistent with the public interest. Short list proposals are those identified for further discussions, which may lead to negotiations of the terms and conditions of definitive agreements. Proposals that PSE determines present unacceptable risks, or that otherwise fail to meet the minimum proposal requirements defined in Section 4 of the All-Source RFP will not be selected for the short list. Proposals that are not cost-competitive with other alternatives will not be selected for the short list. All bidders will be notified of their selection status at the end of Phase 2.

Coordination and co-optimization of the All-Source and DER RFPs

PSE anticipates the analysis of the All-Source and targeted DER RFPs could be coordinated in the following way. Each RFP would be separately evaluated through short list selection. During Phase 2 of the All-Source RFP evaluation, the analysis may include a sensitivity that considers optimized portfolio scenarios in which the DER RFP targets are and are not fully met. At the end of the evaluation process, the short list from the targeted DER RFP could be included in a combined portfolio analysis with the short list from the All-Source RFP.

This approach would allow for a fair comparison of distributed resources in both RFPs, and concurrent evaluation to identify the best resources from both RFPs. Because distributed resources and demand response would have two opportunities to propose (through the All-Source RFP and the targeted DER RFP), the resources would be considered to meet specific requirements identified in the CEIP (and subsequent targeted DER RFP) and to help meet the broader electric portfolio need identified in the All-Source RFP, regardless of the RFP into which the resources were bid. Specific needs associated with CEIP programs and targets cannot be known until the CEIP is approved.

Quantitative modeling

The RFP will use modeling tools and methodologies that are consistent with the 2021 Integrated Resource Plan ("IRP"). PSE will use the Aurora model in both phases for the All-Source RFP quantitative analysis. Aurora is a production cost model that will be used for optimal resource selection (also known as long-term capacity expansion modeling) and hourly economic dispatch. In phases 1 and 2 of the All-Source RFP, Aurora will be used to evaluate all proposals in conjunction with the baseline generic portfolio based on the 2021 IRP resource strategy. Consistent with RCW 19.280.030(3)(a)(iii) and the 2021 IRP, the social cost of greenhouse gases ('SCGHG") is included as a cost adder to emitting resources in the long-term capacity expansion model.

PSE plans to use the results of the sub-hourly Plexos flexibility analysis for generic resources that was published in PSE's final 2021 IRP report. PSE will also use a portfolio screening model ("PSM"), which is an Excel-based financial model, to compile the fixed and variable costs of proposals. See Exhibit A to this All-Source RFP for additional details about the quantitative modeling.PSE's All-Source RFP evaluation process is informed and guided by the integrated resource planning process ("IRP process"), and includes methodologies and assumptions that are generally consistent with those used in the IRP process.

Respondents should be aware that the quantitative cost screening of proposals received in response to the All-Source RFP will include costs associated with delivering the energy to PSE's system as well as the costs associated with financial and accounting regulations. PSE's analysis will also include a cost adder for PPAs, consistent with rules set forth by CETA and codified in Chapter 80.28.410 RCW, which states as follows:

> *(2)(b) For the duration of a power purchase agreement, a rate of return of no less than the authorized cost of debt and no greater than the authorized rate of return of the electrical company, which would be multiplied by the operating expense incurred by the electrical company under the power purchase agreement. (Chapter 80.28.410 RCW)*

PSE's current authorized cost of debt is 5.50 percent and authorized rate of return is 7.39 percent.

Independent evaluator

In early February 2021, subsequent to receiving approval from the WUTC in Docket No. UE-210037, PSE hired Bates White to provide independent evaluator ("IE") services for the 2021 All-Source RFP. For information about PSE's IE selection process and the qualifications of Bates White, please see PSE's petition dated January 19, 2021 in Docket No. UE-210037 on the WUTC web site (www.utc.wa.gov).

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Role and scope of the IE

Consistent with the requirements in WAC 480-107, the following sections describe the role and scope of the IE: (i) Role and expectations, (ii) Responsibilities and tasks, and (iii) Deliverables.

Role and expectations

The function of the IE is to consult with PSE, as needed, on the procurement activities in the 2021 RFPs as described below. The IE will:

- ensure that PSE's 2021 RFP process is conducted fairly, transparently, and properly;
- participate in the design of the 2021 RFPs;
- evaluate the unique risks, burdens, and benefits of each bid;
- provide to PSE the IE's minutes of meetings and the full text of written communications between the IE and PSE and any third-party related to the IE's execution of its duties;
- verify that PSE's inputs and assumptions, including capacity factors and capital costs, are reasonable;
- assess whether PSE's process of scoring the bids and selection of the initial and final shortlists is reasonable;
- prepare a final report to the WUTC after reconciling rankings with PSE in accordance with WAC 480-107-035(3) that must:
    - include an evaluation of the competitive bidding process in selecting the lowest reasonable cost acquisition or action to satisfy the identified resource need, including the adequacy of communication with stakeholders and bidders; and
    - explain ranking differences and why the IE and PSE were or were not able to reconcile the differences.

The IE will participate in meetings with the WUTC and PSE, on an as-needed basis, to discuss its findings. If called upon to testify, the IE may serve as an expert witness in proceedings.

The IE will be given reasonable access to information, meetings and communications related to offers submitted by all respondents. The IE will immediately report to PSE and the WUTC any perceived attempt by any individual or party, including any PSE self-build or affiliate bidders, to improperly influence any findings determined by the IE, or to challenge or interfere with their independent role in the solicitation process. See also Section 4 subsection Eligibility and Conflict of Interest Disclosure for more information about self-build and affiliate bids.

Responsibilities and tasks

In support of the functions discussed above, the IE responsibilities and tasks will include the following:

- Review and provide feedback and recommendations on PSE's draft 2021 RFPs, including stakeholder comments. Assess the 2021 RFPs' design, including review of the adequacy, accuracy and completeness of solicitation materials to ensure compliance with the WUTC's Purchase of Electricity Rules and consistency with accepted industry standards and practices. The IE will participate in the design of the RFP and provide feedback to PSE on the draft 2021 RFPs prior to their release.
- Advise on the consistency of solicitation activities with the WUTC's rules and procedures and PSE's WUTC-approved 2021 RFPs.
- Advise on the evaluation process, including recommending data requests, as needed, to supplement the information requested from bidders in the 2021 RFPs to allow for a full and fair evaluation of proposals.
- Assess whether the quantitative and qualitative bid evaluation criteria and methodologies are applied to all bids in a fair and non-discriminatory manner and whether PSE's process of scoring the bids and selection of the initial and final shortlists is reasonable. The IE will be provided reasonable access to the evaluation meetings and documentation of PSE's Business Initiatives and cross-functional teams, in order to credibly assess the bid evaluation and selection processes.
- Verify that PSE's inputs and assumptions, including capacity factors and capital costs, are reasonable. The IE will be provided with a description of how the evaluation models function, including the inputs and outputs of all models used during the evaluation process.
- Assess whether PSE's process of scoring the bids and selection of the initial and final shortlists is reasonable The IE will score and rank qualifying bids based on PSE's modeling output and an independent qualitative assessment using the RFP's ranking criteria and methodology and consult with PSE to reconcile any ranking differences. If a bidder makes material changes to its bid after shortlist selection, PSE and the IE will rerank bids according to the revised bid.
- Monitor the evaluation processes and promptly submit recommendations to PSE's resource acquisition manager to ensure that no bidder has an information advantage and that all respondents or counterparties, if applicable, receive access to relevant communications in a non-discriminatory manner.

Deliverables

- Prepare a final written report as to whether or not PSE's competitive bidding process, evaluation process and decisions were reasonable and appropriate and were applied in a transparent, fair and non-discriminatory manner for all offers received. The report will explain why the IE and PSE were (or were not) able to reconcile any ranking differences. The IE will protect confidential bidder information subject to the terms of the confidentiality agreement included in the IE RFP and consistent with the terms of the confidentiality agreement included in the 2021 RFPs.

- Provide to PSE the IE's minutes of meetings and the full text of written communications between the IE and the utility and any third-party related to the IE's execution of its duties.
- Participate as an independent witness or in an advisory capacity during administrative hearings, as required, before the WUTC in any associated proceedings.

Negotiations and contracts

PSE may elect to negotiate price and non-price factors with any bidder whose proposal has been shortlisted. During negotiations, PSE will continue to update its economic and risk analysis on an as-needed basis to reflect any additional or revised factors that may impact the total cost of a proposed resource.

PSE has no obligation to enter into definitive agreements with any respondent to this All-Source RFP and may terminate or modify the All-Source RFP at any time without liability or obligation to any bidder. This All-Source RFP shall not be construed as preventing PSE from entering into any agreement that it deems appropriate at any time before, during, or after the All-Source RFP process is complete. PSE reserves the right to negotiate only with those bidders and other parties who propose transactions that PSE believes, in its sole opinion, to have a reasonable likelihood of being executed substantially as proposed.

4. Proposal Requirements

Confidentiality agreement

Each bid submittal shall include a signed and scanned copy of the Mutual Confidentiality Agreement (Exhibit C to this All-Source RFP), which is due no later than September 1, 2021. PSE will return one fully executed scanned Mutual Confidentiality Agreement to the respondent.

Consistent with the requirement in WAC 480-107-023, PSE must provide the IE with all data and information necessary to perform a thorough investigation of the bidding process and responsive bids. Consistent with the requirements of WAC 480-107-035, PSE will make available on its website a summary of all proposals received within 30 days of the close of the bidding period.[43] PSE will also file a final summary report with the WUTC pursuant to WAC 480-107-145.

Additionally, in accordance with the requirements of WAC 480-107-145, PSE will retain all information pertinent to this All-Source RFP process for a period of seven (7) years or until PSE concludes its next general electric rate case, whichever is later. Except to the extent required by law or regulatory order, PSE shall have no obligation under this All-Source RFP to provide the models and data used in its evaluation process to respondents or other third parties.

All-Source RFP Proposal Requirements

PSE expects respondents to provide complete information in their original submittals. PSE will not consider proposals that provide insufficient information to substantiate the project or offer. Minimum qualifying criteria are defined later in this section.

To ensure that all proposals are thorough and complete, PSE has developed Exhibit B (Proposal Requirements Forms), which includes a checklist for respondents to complete in Tab 1. See also Figure 5 below. All respondents must complete a set of Exhibit B forms, including any required attachments identified therein, for each proposal submitted.[44] Additional information, such as a cover letter or other attachments not specifically required in Exhibit B, may be provided as part of a respondent's proposal and will be considered supplementary information to the required Exhibit B forms.

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[43] PSE will post a non-confidential summary of proposals consistent with the requirements of WAC 480-107-035. Past proposal summaries have included a PSE-assigned Project ID#, the state in which the proposed resource is located, the resource type, the operating status of the resource, project COD, term start/end, commercial structure (contract type) and nameplate capacity. For storage resources, PSE includes both capacity (MWh) and duration (hours). For DR resources, PSE typically includes a capacity range (over the program life) and the customer class. Unless otherwise required by law or regulatory order, PSE will not include any specific confidential information (e.g., bid price, owner/developer name, project name, or specific project location) in any non-confidential summary of proposals.

[44] Bidders may submit one proposal, which may contain up to three offers, per set of Exhibit B forms. See Section 6, subsection Evaluation Fees, for the definition of "proposal" and the definition of "offers" for the purposes of this All-Source RFP.

Exhibit B shall be considered the primary proposal document. While it is the bidder's responsibility to ensure that all information provided in Exhibit B is true and accurate, if PSE identifies an inconsistency between the Exhibit B forms and other proposal contents, PSE will seek to clarify the discrepancy with the respondent with a data request. The respondent will be given three (3) days to correct the discrepancy.

PSE has designed the Exhibit B Excel file to be an automated key input to PSE's All-Source RFP proposal database and models. Respondents may not add, remove or modify tabs in Exhibit B. PSE will reject Exhibit B forms, if respondents add, remove or modify tabs in the Exhibit B file. Any changes to the integrity, or failure to complete the required fields of Exhibit B will result in a validation error response and the web platform will not accept the proposal until the error is corrected.

Figure 5. ***Proposal content checklist (Exhibit B, Tab 1)***

1. Proposal Content Checklist

Required for all RFP proposals. (Do not remove tab.)

Proposal element	Required for	Section		Select response from drop-down list
Required proposal contents	**All proposals**	**Exhibit B**		
Proposal Content Checklist	All proposals	Tab 1	1	
Commercial Details	All proposals	Tab 2a	2	
Offer Details	All proposals	Tab 2b	3	
Facility	All proposals	Tab 3	4	
Variable Energy	Variable energy (also DERs, if applicable)	Tab 3a	5	
Flexible Capacity	Flexible capacity (also DERs, if applicable)	Tab 3b	6	
Energy Storage	Energy storage (also DERs, if applicable)	Tab 3c	7	
DR_DER_System	DRs, DERs, system resources	Tab 3d	8	
Energy Output (8760)	Variable resource proposals	Tab 4	9	
Integration and Transmission	All proposals	Tab 5	10	
Development - Projects Detail	Development or construction project proposals	Tab 6	11	
Ownership - Capital Costs	Proposals including asset sale offers	Tab 7	12	
Ownership - Operating Costs	Proposals including asset sale offers	Tab 8	13	
Bid Certification and contacts	All proposals	Tab 9	14	
Mutual Confidentiality Agreement	All proposals	Exhibit C	15	
Prototype Term Sheet (by offer structure)	All proposals (or specify Schedule C)	Exhibit E, F and G	16	
PSE Customer Consent Letter	Proposals for projects with a pending request for or agreement for PSE transmission or integration	Exhibit J	17	

Proposals must be substantially complete consistent with the requirements of this RFP.

Proposals that do not provide sufficient information to substantiate a project or offer will not be considered in this RFP.

Minimum qualifying criteria

PSE considers a variety of evaluation criteria when making resource decisions, as described in Exhibit A (Evaluation Criteria and Scoring) to this All-Source RFP. PSE has also identified a set of minimum qualifying criteria to help respondents craft proposals designed to best meet the objectives of this solicitation. Proposals must meet minimum criteria for consideration in this RFP.

For all proposals (as applicable)

- Bidders must submit a complete proposal by the due date specified in Section 6 of the All-Source RFP, including the Proposal Requirements Forms (Exhibit B to this All-Source RFP)[45] and all required attachments indicated therein, the Mutual Confidentiality Agreement (Exhibit C to this All-Source RFP) and the term sheet (Exhibit E, F or G to this All-Source RFP) with proposed edits (if any). PSE has provided respondents with a proposal contents checklist (Exhibit B, Tab 1 to this All-Source RFP). PSE will not consider proposals that do not provide sufficient information to substantiate a project or offer.
- Bidder must submit by the proposal due date the appropriate bid fee, as specified in Section 6 of the All-Source RFP.
- Each proposal (if applicable) shall acknowledge and state that PSE disclaims and shall not assume any risk associated with the potential expiration of (or the respondent's or other project entity's ability to utilize) any then applicable federal or state tax incentives, cash grant programs, or similar programs meant to support a relevant resource.
- All proposals shall state that there will be no assignment of proposals during the evaluation or negotiation stage of this All-Source RFP and that, in the event the respondent and PSE negotiate and execute definitive agreements based on the respondent's proposal, the definitive agreements and obligations thereunder shall not be sold, transferred, or assigned, or pledged as security or collateral for any obligation, without the prior written permission of PSE. Any project lender who takes an assignment of the definitive agreements for security and exercises any rights under such agreements will be bound to perform such agreements to the same extent.
- PSE will not accept conceptual projects in this RFP. At a minimum, all qualifying bids must:
    - Have a nameplate capacity greater than 5 MW[46]
    - Demonstrate site control consistent with guidance in the non-price scoring matrix in Exhibit A (Evaluation Criteria and Scoring) for both the project and any other project-related infrastructure (e.g., generation tie-line, etc.). At a minimum, provide non-binding letters of intent for the site.
    - If applicable, start the interconnection process by September 1, 2021 (date by which the proposal is due subject to a cure period (three business days), as described in Section 3 on page 24), and provide an interconnection queue number.
    - Bidder must provide proposed transmission plan. See Tab 5 in Exhibit B (Proposal Requirement Forms).

[45] *Bidders may not modify the contents or structure of the Exhibit B forms in any way. The forms are designed to be inputs to our modeling process. Validation errors in the submission process will result from attempting to modify the forms or a failure to complete the forms, and the proposal will not be accepted by PSE's online platform until the errors are corrected.*

[46] *Qualified facilities with nameplate capacities of 5 MW or less may sell power to PSE pursuant to electric tariff rate Schedule 91.*

  - Identify required permits and approvals, and their status, and provide a schedule for completion as part of the overall project schedule. At a minimum, projects must have started the permitting process and demonstrate a plan for completion of the permitting process, including a habitat study.
  - Include an overall project development and construction schedule for meeting the commercial operation date.[47]

- For capacity resources, deliveries must begin no later than December 31, 2026. To align with PSE's first CEIP, PSE is seeking renewable resources beginning no later than December 31, 2025. Proposals must include a plan to deliver energy and/or capacity by the relevant dates specified above.
- Respondents must specify a point of interconnection and firm transmission path to or on PSE's system, or to one of the delivery points identified in Section 2, Table 4. Additionally, respondent will be responsible for arranging balancing and interconnection services for resources outside PSE's balancing authority. PSE will not accept deliveries at the project's busbar, unless the project interconnects at one of the delivery points specified in Table 4 or on PSE's system. Respondents must also meet all requirements specified in Section 2, subsection Energy Delivery.
- Generation projects requiring fuel must provide the following:
  - Gas-fired generation proposals must provide a plan to achieve firm fuel delivery to supply the proposed nameplate of the proposal (which may or may not be the entire output of a plant) for the proposed term.
  - Biomass, biofuel or other generation resources requiring fuel must provide in their proposals a fuel supply plan that demonstrates the firm availability of the fuel supply (either through an agreement or other equivalent means) to support the proposed capacity for the proposed term.
  - Standalone energy storage projects must demonstrate the ability to charge and discharge as required to meet the need. (PSE requires batteries to be studied additionally as a load. The standalone energy storage project will need to establish both a generation interconnection with transmission for the generation and a means to charge the load either through retail load service or transmission service.)
- Wind project proposals must confirm that the project has, at minimum, one (1) year of verifiable supporting data, adjusted to account for long-term wind speed trends. PSE reserves the right to require additional data and engage third-party consultants to independently verify project performance.

[47] *PSE's intent is to minimize a variety of project execution risks, including the risk that a project(s) commercial operation date may be delayed or otherwise unable to deliver as promised to meet PSE's capacity needs*.

- Solar project proposals must confirm that the project has at least one year of verifiable supporting irradiance data. PSE reserves the right to require additional data and engage third-party consultants to independently verify project performance.
- For development projects, proposals must describe the respondent's labor plan. Preference will be given to projects constructed with high labor standards, including family-level wages, benefits and opportunities for local workers and businesses.[48]
- All proposals must state that all environmental attributes [49] associated with the proportionate share of the subject project, if any, will accrue to the ownership and beneficial use of PSE. PSE will not accept REC-only proposals at this time.
- Bidder must provide a customer benefit plan consistent with the provisions in RCW 19.405.040(8). See Exhibit B (Proposal Requirements Forms), Tab 2a, "Customer Benefits from Transition to Clean Energy" and "Diversity, Equity and Inclusion" sections, which guide bidders to describe a proposed plan. Bidders may also provide a separately attached written diversity commitment, policy, or plan in addition to their responses to Exhibit B.
- All proposals must comply with all applicable laws, regulations and executive orders, including environmental laws, such as the Emissions Performance Standards.[50]
- PSE will not accept credit requirements imposed on PSE by the respondent.
- Respondents must certify to adhere to all applicable safety laws, guidelines and industry practices. If proposal is selected for acquisition, PSE reserves the right to review and assess at least the previous three (3) year safety performance of companies responding to this RFP to ensure that they meet acceptable standards.
- Proposal will certify that if selected for acquisition, the respondent will be responsible for meeting its scheduled deadlines. PSE will require the respondent to accept the risk and agree to pay liquidated damages for failing to meet contractual milestones. PSE may impose credit requirements based on the respondent's credit rating.
- Proposals must identify the geographical boundaries of the overall project by map, sketch or drawing, depict all property ownerships within those boundaries on the map, sketch or drawing and provide real estate agreements demonstrating respondent's degree of project site control for the purposes of the proposed project. PSE prefers proposals that further provide complete copies of all real estate agreements demonstrating control, and

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[48] PSE prefers projects that utilize a Project Labor Agreement or Community Workforce Agreement for major construction activities associated with the construction of the project. Respondents shall make commercially reasonable efforts to ensure that such Project Labor Agreement or Community Workforce Agreement is eligible to be certified by the Washington Department of Labor and Industries under the standards of the Washington State Clean Energy Transformation Act (RCW 19.405).

[49] "Environmental attributes" means generally credits, benefits, reductions, offsets and other beneficial allowances with respect to fuel, emissions, air quality, or other environmental characteristics, resulting from the use of certain generation resources or the avoidance of emissions.

[50] System PPAs longer than five years are eligible to participate in this All-Source RFP; however, they must comply with the Emissions Performance Standards (Chapter 173-407 WAC) and Chapter 480-100 WAC, which require disclosure of the underlying resource or resource pool to verify compliance with the standards.

independent third-party confirmation of property ownership, such as title insurance commitments or policies for each property with copies of all exceptions. For property not under control for the project, PSE prefers proposals that include a summary of property owner contacts and the status of negotiations with those property owners.

- Proposals must identify required permits and approvals, their status, and provide a schedule for completion as part of the overall project schedule. PSE prefers proposals that further demonstrate a respondent's permitting acumen (e.g., providing a permitting plan or demonstrating progress, identifying required studies and status, successful outreach to lead agencies and stakeholders, indicating past success permitting other projects in the area). Bidders should have begun permitting or long lead-time studies, such as habitat studies. If permitting or studies have not begun, bidders should present a plan for receiving or completing the aforementioned, respectively.
- Development proposals must include sufficient detail to substantiate a viable project and to adequately assess risk. For example, wind proposals must also provide the information listed below. Other resource types should plan to provide a similar level of detail and expect a similar level of scrutiny.
    - Proposals should include only turbine models from industry-recognized top-tier wind turbine suppliers.
    - Proposals should include full description of turbine model(s) to be used including history of successor models and relevant improvements that are expected in the proposed model.
    - Proposals should indicate anticipated date of third-party certification of proposed turbine model(s) along with the name of the recognized industry third-party providing certification.
    - Proposals should describe the design life of the turbine models. If existing turbines are included in the proposal, their expected remaining life should be clearly documented in the proposal.
    - Proposals should include documentation of a turbine site-suitability review performed by a third-party or by the turbine OEM. Proposed turbines should be documented as being suitable for the site including, but not limited to, the following factors:
        - Average wind speed
        - Turbulence
        - Extreme wind speeds
        - Extreme temperature ratings
    - Proposals should include documentation indicating the plant's ability to comply with FERC order 661-A *Standard Interconnection Agreements for Wind Energy and*

Other Alternative Technologies. The plant's ability to provide appropriate voltage ride-through and voltage support should be clearly documented.

- Proposals should include an avian risk plan with planned avian monitoring and mitigation actions.

For ownership proposals

In addition to the minimum qualifying criteria required for all proposals (above), PSE has identified the following additional criteria for ownership proposals:

- PSE will only accept proposals for ownership at or after COD.
- If project is selected, PSE will require comprehensive engineering design documents and drawings well in advance of project construction. Projects will be required to meet all PSE requirements and specifications.
- Bidders shall certify that all proposed design engineering firms and project constructors will have proven expertise and experience in projects of similar scope and size.
- Proposals should include details on the proposed service and maintenance plan for major turbine equipment.
- Proposals should include a description of the manufacturer warranties/guarantees for major equipment and the GSU/step-up transformers.

Battery energy storage systems

Due to the unique risks associated with ownership of battery energy storage systems, PSE prefers PPAs for such resources. In addition to the applicable requirements in the sections above, proposals for PSE ownership of battery energy storage resources must meet the minimum requirements identified in Section 2 of this All-Source RFP.

Demand response and distributed energy resources proposals

In addition to the applicable requirements in the sections above, DR and DER resources must meet the minimum requirements identified in Section 2 of this All-Source RFP.

Signatures and certifications

Each electronic proposal must include a scanned copy of the Bid Certification Form (Exhibit B, Tab 9) signed by a duly authorized officer or agent of the respondent submitting the proposal. By signing the form, the respondent's duly authorized officer or agent certifies that:

- The respondent's proposal is genuine; not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation; and is submitted in conformity with any anti-competitive agreement or rules.
- The respondent has not directly or indirectly induced or solicited any other respondent to submit a false or sham proposal.
- The respondent has not solicited or induced any other person, firm, or corporation to refrain from proposing.
- The respondent has not sought to obtain for itself any advantage over any other respondent by collusion.

Code of conduct, eligibility and conflict of interest disclosure

This All-Source RFP will accept proposals from all third-party project developers or owners, marketing entities, or other utilities that meet the minimum requirements and comply with the process guidelines described in this All-Source RFP. All respondents shall disclose in their proposals any and all relationships between themselves, the project and/or members of their project team and PSE, its employees, officers, directors, subsidiaries, or affiliates.

Code of conduct

PSE is committed to a culture of ownership, accountability, honesty, integrity and trust. In conducting this RFP, PSE will follow its Code of Conduct. This Code of Conduct outlines the honest and ethical manner in which all employees and board of directors at Puget Energy, Inc., Puget Sound Energy, and related subsidiaries are expected to behave, with each employee having a duty to uphold the Code of Conduct.

The Federal Energy Regulatory Commission's ("FERC") regulations governing the sales of energy and/or capacity at market-based rates impose restrictions on transactions between "market-regulated power sales affiliates" and their affiliated traditional franchised public utilities with captive wholesale or retail customers. Under FERC regulations, "affiliate" is defined in 18 C.F.R. section 35.36(a)(9).

Washington state law and regulations define what constitutes an "affiliated interest," which is different than how FERC defines "affiliate." In Washington, affiliated interest is defined in RCW 80.16.010.

Self-build proposals

PSE does not plan to submit a self-build proposal in the 2021 All-Source RFP.

Subsidiary or affiliate proposals

Subsidiaries or affiliates of PSE will be eligible to submit proposals in response to this All-Source RFP. Each respondent to PSE's All-Source RFP must disclose any subsidiary or affiliate relationship to PSE in Exhibit B, Tab 2a to this All-Source RFP. All respondents, including affiliates and subsidiaries of PSE, shall follow a consistent process for submittal. PSE will treat all respondents, including affiliates and subsidiaries of PSE, in a fair and consistent manner throughout the evaluation. Consistent with the provisions in WAC 480-107-023 and -024, the All-Source RFP evaluation team will neither give preferential treatment or special consideration to any subsidiary or affiliate of PSE to ensure no unfair advantage occurs, nor will PSE or its independent evaluator disclose the contents of its All-Source RFP evaluation or competing proposals to subsidiaries or affiliates of PSE prior to the information becoming publicly available. The IE will immediately report to PSE and the WUTC any perceived attempt by any individual or party to improperly influence any findings determined by the IE, or to challenge or interfere with their independent role in the solicitation process.

Validity, deadlines and regulatory approval

Bid validity and deadlines

PSE anticipates selecting a short list in Q2 2022. Unless a bid is withdrawn, PSE will assume that it is valid through completion of the RFP. PSE further assumes that proposals will remain valid for a period that would allow for negotiation and execution of definitive agreements, including any applicable management and regulatory approvals.

Regulatory approvals

Regulatory approvals for resources acquired may not be obtained until the latter half of 2023 or later. PSE may seek post-closing regulatory review of any resource purchases, exchanges, acquisitions, or associated costs that result from this RFP. Such regulatory review could include receipt by PSE from the Washington Utilities and Transportation Commission ("WUTC") of approvals and orders, as applicable, pertaining to and confirming the inclusion of the full amount of any asset purchase price plus PSE's transaction costs and other amounts allocable to the construction, start-up, testing and commissioning of the project, as applicable, in PSE's rate base. Such approvals and/or orders to be in form and substance satisfactory to PSE in its sole discretion.

In addition to being subject to the jurisdiction of the WUTC, PSE is also regulated by the FERC. FERC's jurisdiction and authority over the activities of PSE are defined in the Federal Power Act and include certain aspects of the acquisition of electric power. In particular, Sections 203 and 205 of the Federal Power Act require, respectively, (i) approval by FERC prior to transferring FERC-jurisdictional assets a value in excess of $10,000,000; and (ii) certain filings by PSE to support its authorization to sell power and related products at market-based rates.

Pursuant to Section 203 of the Federal Power Act, FERC has approval authority over any acquisition by PSE of public utility facilities subject to FERC jurisdiction with a value in excess of $10,000,000. In reviewing filings under Section 203 of the Federal Power Act, FERC considers the effect on competition, rates, and regulation. FERC's approval of such an acquisition will be based on a finding that it is "consistent with the public interest."

FERC has authorized PSE to sell power at market-based rates pursuant to Section 205 of the Federal Power Act. As a condition of its authority to sell power at market-based rates, PSE must demonstrate to FERC that it does not possess market power in the relevant markets. Acquisition by PSE of generation or power resources may require PSE to demonstrate that it continues to lack market power after the resource acquisition. In addition, FERC's regulations prohibit PSE from engaging in the wholesale purchase of energy or capacity from an affiliate without first seeking FERC authorization. As a result, PSE may be required to seek prior FERC approval of any transaction with an affiliated entity.

Accordingly, PSE will evaluate all proposals in light of the requirements of the Federal Power Act and the effect that such regulatory requirements and review may have on PSE.

5. Credit Requirements

PSE will not accept collateral thresholds, credit ratings triggers, general adequate assurances language or similar language that might require PSE to provide performance assurance. PSE developed this policy in order to protect its customers and to avoid undue costs, especially in the event of an industry-triggered credit downgrade.

PSE will require respondents to provide performance assurance. PSE will expect respondents with sub-investment-grade credit ratings (or being of similar creditworthiness), or whose credit ratings drop below investment grade, to provide performance assurance acceptable to PSE. Non-investment grade entities have inherent default risks. Collateral requirements are utilized to mitigate such risks. When certain PPAs are in default, physical supply will be affected. The collateral gives PSE an option to purchase market power to bridge the gap and, in turn, protect its ratepayers from both cost and reliability risks. This is consistent with standard industry practices.

In addition to any provisions included in the prototype term sheets for ownership agreements (Exhibit E to this All-Source RFP), capacity and/or energy agreements (Exhibit F to this All-Source RFP), or clean energy power purchase agreements (Exhibit G to this All-Source RFP) PSE may require negative control provisions[51] in any definitive agreements.

[51] *"Negative control provisions" means covenants restricting respondent business practices that could jeopardize respondent's ability to perform its obligations.*

6. Proposal Submission

Submission process, deliverables and deadlines

PSE is developing a web platform for respondents to confidentially submit electronic proposals to this All-Source RFP. PSE will provide a link to the platform and instructions for proposal submission on the RFP web site (www.pse.com/rfp) once the final RFP is issued, or soon thereafter.

Questions or comments about the All-Source RFP may be submitted to AllSourceRFPmailbox@pse.com. PSE will post answers to questions on its RFP web site. RFP schedule updates and any supplemental informational updates associated with this RFP will also be posted to PSE's RFP web site.

Table 7. ***Deliverables and deadlines***

Deliverable	Date Due	Format
All-Source RFP proposal *(See Section 4 and Exhibit B for Proposal Requirements)*	September 1, 2021	• One electronic copy of the proposal via PSE's confidential electronic proposal submission web platform (instructions will be provided on www.pse.com/rfp when the final RFP is issued) ○ Proposal must include one complete Excel copy of the Exhibit B (Proposal Requirements) forms and all required attachments (as indicated therein) [52] ○ Proposal must include one signed scanned copy of Exhibit C (Mutual Confidentiality Agreement) ○ Proposal must also include a signed scanned copy of the Bid Certification Form (Exhibit B, Tab 9) in addition to the live version included in the Excel form
Bid fee	September 1, 2021	• See Table 8 for details about the bid fee.

[52] *Respondents may not add, remove or modify tabs in Exhibit B (Proposal Requirements Forms). PSE has designed this Excel file to be a key input to PSE's All-Source RFP proposal database and models. PSE will reject Exhibit B forms, if respondents add, remove or modify tabs in the Exhibit B file. Any changes to the integrity of, or a failure to complete the required fields of, the Exhibit B file will result in a validation error response and the web platform will not accept the proposal until the error is corrected.*

Proposal requirements forms (Exhibit B)

PSE is committed to providing bidders with the guidance needed to successfully complete Exhibit B and to navigate the newly designed proposal submission process. PSE will not simply reject bids due to a data entry error or a misunderstood direction for a specific field. To help bidders successfully submit their proposals, PSE will provide the following:

- a downloadable user instruction manual on how to navigate and use the RFP submission portal and its core features and functions,
- a downloadable user reference on typical expected data validation error messages,
- a live demonstration at the bidders' conference to show bidders how to submit a proposal and what to expect with the automated screening,
- unlimited access to submit and resubmit proposals during the RFP submission window, and
- a three-day curing period after the RFP due date to allow bidders to remedy an unacceptable term or condition, or other non-conforming criteria or fatal flaw in a proposal.

Respondents may also reach out to RFP team staff through the All-Source RFP mailbox (AllSourceRFPmailbox@pse.com) with questions about Exhibit B and the automated submission process.

Respondents should note that the bid submittal deadline is not subject to the three-day cure period. It is expected that respondents will plan ahead to submit their bids on time, allowing for sufficient time to seek advice from the RFP team, in the event of any data entry errors. Bidders are encouraged to submit early to confirm that their proposal forms will be accepted by the automated system. Bidders will have until the due date to delete and resubmit forms and other supporting files from the portal.

PSE has undertaken a significant automation effort to help improve the efficiency and accuracy of the RFP process. Exhibit B is the primary input to this process. The automation project is currently in the testing phase, with efforts ongoing to support a successful and satisfactory user experience when completing the Exhibit B bid forms and submitting proposal materials. If technical issues are identified during testing that may negatively impact the user experience, the Exhibit B file will be corrected and an update will be provided on PSE's web site (http://www.pse.com/rfp) and in Docket UE-210220 (https://www.utc.wa.gov/casedocket/2021/210220). PSE will notify stakeholders of any updates to the Exhibit B forms. To be added to the RFP stakeholder distribution list, contact AllSourceRFP@pse.com.

Evaluation fees

A bidder shall complete a separate set of proposal requirements forms (Exhibit B) and submit a separate bid fee for each proposal submitted. For the purposes of this RFP, a proposal is defined as a bid for the same resource containing up to three (3) total offer options. Bidders may submit more than one proposal. Proposals are not mutually exclusive.

An offer is defined as an option within a single proposal for the same resource, or co-located resources. Offers may vary options such as capacity (MW), term, start or end dates, pricing structure, transmission delivery point, some combination of co-located resources, or other proposal elements.

Table 8 presents the evaluation fees applicable to this All-Source RFP.

Table 8. ***Evaluation fees***

<table>
<tr>
<td>Bid fee</td>
<td>

Bid fees will be due on the proposal due date specified in Table 7, subject to the cure period (three business days) described in Section 3 (Evaluation Process, Intake Process).
PSE will provide instructions for submitting the bid fee on the RFP web site (www.pse.com/rfp) once the final RFP is issued or soon thereafter.
Bid fees will be assessed per proposal based on the total (aggregated) nameplate of the project:
<table>
<tr><td>Proposal Size</td><td>Bid Fee</td></tr>
<tr><td>≥5 – 10 MW</td><td>$2,500</td></tr>
<tr><td>10 – 20 MW</td><td>$5,000</td></tr>
<tr><td>≥20 MW</td><td>$10,000</td></tr>
</table>

Bidder may submit one (1) proposal and include up to two (2) additional offers (same resource or resources) for a single bid fee. An offer could include different terms, such as PPA/BTO/PPA with purchasing option, etc.
Bidders may submit more than one proposal for a separate bid fee.
Proposals are not mutually exclusive.
Bid fees will be used to help offset the costs that PSE will incur while reviewing proposals. Costs may include, but are not limited to,

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<table>
<tr><td></td><td>acquiring the services of third-party resources to perform independent analysis, conducting studies, engaging legal services, etc.</td></tr>
<tr><td>Bid refund policy</td><td>• Bid fees are non-refundable, unless a proposal is withdrawn before the submittal deadline.
• If a proposal does not meet the minimum eligibility requirements specified in Section 4, the bidder will be notified and will have three (3) days to remedy the proposal.</td></tr>
<tr><td>Success fee</td><td>• PSE may enter into negotiations and seek to execute contracts for shortlisted resources.
• Upon contract execution, successful bidders may be charged a success fee to recover the incremental costs associated with due diligence work or legal services associated with negotiations.</td></tr>
<tr><td></td><td>• The success fee will be capped per proposal based on the total (aggregated) nameplate of the project:
<table>
<tr><th>Project size</th><th>$/MW maximum</th><th>Success fee maximum</th></tr>
<tr><td>≥5 – 80 MW</td><td>$650 / MW</td><td>$50,000</td></tr>
<tr><td>>80 – 150 MW</td><td>$800 / MW</td><td>$105,200</td></tr>
<tr><td>≥150 MW</td><td>$1000/MW</td><td>$[250,000]</td></tr>
</table>
<table>
<tr><td>Example I:
If a project with an aggregate nameplate capacity totals 80 MW, the maximum success fee would be determined as follows:</td><td>Example II:
If a project with an aggregate nameplate capacity totals 160 MW, the maximum success fee would be determined as follows:</td></tr>
<tr><td>• (0-80 MW) * $650 = $52,000 = X</td><td>• (0-80 MW) * $650 = $52,000 = A</td></tr>
<tr><td></td><td>• (81-150 MW) * $800 = $55,200 = B</td></tr>
<tr><td></td><td>• (151-160 MW) * $100 = $9,000 = C</td></tr>
</table></td></tr>
</table>

	Proposal Success Fee (I) = MIN(X, $50000) = $50,000	Proposal Success Fee (II) = MIN(A + B + C , $250000)= $116,200

All costs to participate in the All-Source RFP process, including the preparation of proposals, negotiations, etc., are the responsibility of the respondent.

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit A. Evaluation Criteria and Scoring

Evaluation Criteria and Scoring

The goal of the All-Source RFP is to select the resource or mix of resources that best meet the need expressed in Section 1 of this All-Source RFP at the lowest reasonable cost and least risk, while taking into account the public interest. See Section 3 of the All-Source RFP for a description of the evaluation process, including a discussion of the quantitative and qualitative analysis performed in each phase.

PSE's evaluation of new long-term electric generation resources is based on a combined quantitative and qualitative assessment of all proposals that meet the minimum requirements of the All-Source RFP. Taken together, the quantitative and qualitative evaluation criteria assess the feasibility of proposals and measure each proposal's ability to satisfy compatibility with resource need, cost minimization, contribution to Clean Energy Transformation Act ("CETA") customer benefit and equity provisions, risk management, and strategic and financial considerations.

As described in Section 3 of the All-Source RFP, PSE divides its evaluation process into two phases: a screening phase (Phase 1) and a portfolio optimization phase (Phase 2). In Phase 1, resource proposals are evaluated and scored based on the quantitative and qualitative metrics described in this exhibit. The proposals are then ranked according to the weighted average of their price (quantitative) and non-price (qualitative) scores. The weights of the price and non-price scores in the combined scoring are 70 percent and 30 percent, respectively. Only those proposals that satisfy the RFP minimum requirements will receive a qualitative or quantitative score. The evaluation team will continue to check for any non-conforming criteria or fatal flaws throughout the evaluation process.

PSE will use the results of the individual quantitative portfolio analysis and qualitative evaluation to identify the list of resources selected to advance to the portfolio optimization modeling in Phase 2. The portfolio optimization analysis tests the portfolio impacts of potential resource combinations and determines the best mix of proposals to meet PSE's resource needs at the lowest reasonable cost. The results of the portfolio optimization will determine the preferred resource portfolio to be selected for the short list.

Quantitative metrics and price score (70%)

PSE's quantitative analysis primarily relies on the portfolio benefit metric. As measured and evaluated, portfolio benefit is a holistic economic indicator that captures all of the benefits, energy/production costs, capacity contribution, renewable credits, and emission reductions of a resource relative to the alternatives identified in PSE's 2021 IRP preferred portfolio.[1] PSE's quantitative analysis also considers the levelized cost of energy, which is a traditional metric used by the industry to compare the cost of resources with the same or similar operating

[1] *See 2021 IRP Preferred Portfolio*

characteristics; however, this metric does not take into account a resource's contribution toward meeting PSE's physical capacity or renewable energy resource needs.

PSE seeks proposals for resources that provide the lowest reasonable portfolio cost, taking into account the price of the proposal, the proposal's contribution to CETA and capacity needs, the term of the proposal and other factors that impact PSE's overall cost. Depending upon whether the proposed structure is for a power purchase agreement or an ownership arrangement, such cost factors include, but are not limited to, those listed in Table 1 below.

Table 1. ***Proposal cost factors that impact PSE's overall cost***

Cost Factor	PPA	Ownership
Capital cost		X
Financing cost (rate of return)		X
Operation and maintenance cost		X
Expected or potential carbon control or mitigation costs	X	X
Fuel and fuel transportation cost	X	X
Fixed and variable power purchase agreement cost*	X	
Transmission cost	X	X
Ancillary services	X	X
Integration costs	X	X
Transmission system upgrades	X	X
Cost to rebalance debt/equity ratio for imputed debt and consolidated debt **	X	X
Cost of credit facilities		X
Transaction costs and other management costs, etc.	X	X
Cost to meet environmental compliance, including capital improvements and/or capacity limitations and restrictions		X
CETA provision allowing utilities to earn a return on PPAs	X	
Renewable energy credits or other environmental attributes	X	X

* Assumes all relevant capital, financing and O&M costs included in PPA price.

** Individual analysis includes PPA return; imputed debt will be considered for the purposes of consolidated company balance sheet and credit analysis prior to any contracting.

Aurora is a production cost model that will be used for optimal resource selection (also known as long-term capacity expansion modeling) and hourly economic dispatch. PSE will use a proprietary, Excel-based portfolio screening model ("PSM") to compile the fixed and variable costs submitted by the bidders. PSE adds individual proposals to the power portfolio and uses the Aurora model to re-optimize generic resource selection and portfolio dispatch to meet the needs while satisfying all of the constraints. This creates a new portfolio and portfolio cost that can be compared to the all-generic portfolio. The portfolio benefit of each proposal is calculated by taking the cost of the all-generic portfolio less the cost of the portfolio with the new proposal.

Consistent with RCW 19.280.030(3)(a)(iii) and the 2021 IRP, the social cost of greenhouse gases ('SCGHG") is included as a cost adder to emitting resources in the long-term capacity expansion model. Proposals with a positive portfolio benefit reduce the net electric portfolio costs relative to a generic-only portfolio, whereas proposals with a negative portfolio benefit increases the net electric portfolio costs. In Phase 1, proposals will be grouped into resource categories based on resource and/or technology type, and assigned price scores based on their relative proposal-specific Portfolio Benefit per MW of offered nameplate. As described in Section 3 of the All-Source RFP, a selection of price-competitive projects from each resource category will proceed to the Phase 2 portfolio optimization stage based on their combined quantitative and qualitative scores (see below), such that at least 150 percent of the renewable and capacity resource needs are represented. In Phase 2, PSE's portfolio optimization modelling will determine the optimal combination of resources to meet both the CETA renewable need and the capacity need at the lowest portfolio cost. The portfolio optimization will capture projects' CETA-renewable energy credit contribution and capacity credit contribution (based on project-specific effective load carrying capability, or "ELCC", values) with the balance of their costs; projects that provide a material contribution to both capacity and CETA needs will generally perform more favorably due to the benefit produced by the dual value streams.

In the Phase 2 portfolio optimization modelling, PSE may perform analyses aimed at producing a resource portfolio that meets the capacity and renewable need while maximizing customer benefit indicators ("CBIs") prioritized by the ongoing public participation and advisory group process with stakeholders. Any analysis performed by the resource acquisition team is anticipated to follow an approach similar to the Clean Energy Implementation Plan ("CEIP") team's work on customer benefits and include the prioritization of CBIs developed through the ongoing public participation and advisory group process with stakeholders.

The metrics calculated by the Aurora model to assess the relative competiveness of individual proposals are described in Table 2. PSE will conduct sensitivity analysis that consider different load and market price assumptions and scenarios.

Table 2. ***Metrics calculated by Aurora to assess RFP proposals***

Metric	Description	Value
Portfolio benefit *($)*	Difference between the net present value portfolio revenue requirement with the proposed project in the portfolio replacing an equivalent amount of generic resource, and the net present value portfolio revenue requirement of the all-generic portfolio. Projects may have a portfolio benefit by displacing higher cost capacity resources, renewable resources, or a combination of both.	Higher is better. Useful for comparing projects of similar size and technology type. Used to determine the least cost combination of resources that meets PSE's resource needs.

Metric	Description	Value
Portfolio benefit per offered Nameplate ($/MW)	Net present value of a proposed project's portfolio benefit divided by the net present value of the project's offered nameplate capacity.	Higher is better. Useful for comparing different project sizes and technologies. Used along with qualitative metrics in establishing an initial ranking of projects for inclusion in the portfolio optimization.
Levelized cost of energy *($/MWh)*	Net present value of a proposed project's revenue requirement divided by the net present value of the project's generation.	Lower is better. Useful for comparing projects that have the same or similar operating characteristics. Less useful for projects with low or no generation.

Qualitative metrics and non-price score (30%)

PSE has developed for the 2021 All-Source RFP a qualitative rubric designed to assign value and score certain key non-price elements of resource proposals that meet the minimum requirements described in Section 4 of the RFP. The qualitative rubric is structured to capture what PSE considers to be the principal qualitative elements, risks and benefits of the proposals, while also recognizing that certain elements may not apply in the same manner to all types of resources, in particular demand-side resources. In such instances, the evaluation team will apply the breakout categories indicated in the rubric in order to score such proposals on an equivalent basis.

After proposals pass through the automated intake process (described in Section 3 of the All-Source RFP), the evaluation team will conduct a preliminary qualitative screening to verify that the minimum criteria have been met and to check for non-conforming criteria or fatal flaws that would eliminate proposals from further consideration. Common examples of non-conforming criteria or fatal flaws include, but are not limited to: proposals with insurmountable or otherwise prohibitive feasibility constraints, inability to permit the project or deliver energy, commercially unproven technology, excessive counterparty risk, safety risk, and regulatory or legal risk associated with noncompliance that could adversely affect PSE. Any proposal identified to have non-conforming criteria or fatal flaws will be notified and given three (3) days to remedy (the "cure period").

In Phase 1, PSE will perform additional due diligence, where necessary, to dig deeper into the unique risks and merits of particular proposals, verify proposal claims, clarify offer details, and answer any outstanding questions. To do this, the evaluation team may:

- submit data requests to respondents for clarification of proposal details or for further information to help illuminate the particular risks and benefits of proposals,

- discuss elements of the proposals with respondents by phone,
- draw on publically available and non-confidential information as per the Mutual Confidentiality Agreement (Exhibit C) to better understand key elements of the proposals (such as transmission availability, local support/opposition, or the likelihood of successful permitting),
- utilize a third-party consultant to help assess the reasonableness of resource data,

The resource evaluation team will assign qualitative scores based on the information that bidders provided in their proposals, as well as PSE's experience in the market and as a resource owner/operator, and on publicly available information. The evaluation team will also consult as necessary with subject matter experts from specific functional areas throughout the company.

PSE's qualitative scoring rubric is provided as Table 3 beginning on page A-6. Bidders should note the following:

- Any proposal that receives a score of "0" in the Project Viability, Site Control Status, Permit/Studies, Energy Delivery or the CETA customer benefit plan category will be deemed to have failed to meet the minimum criteria of the 2021 All-Source RFP and disqualified from further consideration (provided that such failure to meet minimum criteria has not been remedied within the three-business-day cure period).
- For categories that require a greater degree of judgement in assessing risk (Counterparty Viability, Project Viability and CETA customer benefit plan), the rubric indicates factors that the evaluation team will consider when assigning appropriate scores. Bidders should therefore ensure that the information in their bids adequately addresses these factors.

Table 3. *Qualitative scoring rubric*

Evaluation Categories	Weight		Points	Score
Counterparty Viability *Screening based on 2 key areas listed below. The total sum is applied towards this category.*	10%	x	_/ 6	
Experience Level				
Bidding Entity (company) or Team has no demonstrable experience implementing **at least 1** similar size and technology deployment			1	
Bidding Entity (company) or Team has demonstrable experience implementing **at least 1** similar size and technology deployment			2	
Bidding Entity (company) or Team has demonstrable experience implementing ≥ **5** similar size and technology deployments			3	
Counterparty Stability				
Bidder assessed to have weak or limited financial profile and/or has been engaged in recent material disputes or legal proceedings			1	
Bidder assessed to have an acceptable financial profile and/or has not been engaged in recent material disputes or legal proceedings			2	
Bidder assessed to have a strong financial profile and has not been engaged in recent material disputes or legal proceedings			3	
* Material legal proceedings within past five years. PSE will generally consider legal breaches of greater than $5 million to be material				
Project Viability *Screening based on applicable areas listed below. The total sum of the respective applicable areas is applied towards this category.*	10%	x	_/ 9 or _/8 (DROPS)	
Financing Plan (All Projects)				
Plan provided but no actionable progress made			1	
Project Financing yet to be achieved but in progress			2	
Balance Sheet Financed or Financial arrangement established			3	
Supply Chain (Transmission Interconnected projects)				
<5% Project Major Equipment inventory secured / No arrangements made			1	
<50% but >=5% of Project Major Equipment inventory / Safe Harbored Equipment / or Pre-existing arrangements			2	
>50% Project Major Equipment Inventory or Construction Complete			3	
Program Design (DR and Aggregated DER only)				
Plans provide little or no details to evaluate robustness of execution plan			1	
Plans provide general overview without necessary details to evaluate some areas of the robustness of outlined execution			2	
Detailed plans describing among other items, overall program design and management, system integration, operations, dispatch, and performance guarantees.			3	
IT Security and Data Privacy (DR and Aggregated DER only)				
Little or no information provided on IT security and data privacy			0	
IT security and data privacy information provided: Bidder does not have SOC2 Type 2 certification, but is prepared to pursue it if selected.			1	
IT security and data privacy information provided: Bidder already holds a SOC2 Type 2 certification / project does not require access to customer data so SOC2 Type 2 does not apply.			2	
Technology Risk (All Projects)				
Non-commercial / unproven technology			0	
Commercial scale technology with minimal fleet deployment history (for ownership proposals: minimal operational experience of similar technology at PSE)			1	
>5 deployments with similar asset with > 5 years of fleet deployment history			2	
>10 deployments with similar asset with >10 years of fleet deployment history			3	
* PSE may differentiate between technology upgrades and new classes of technology in assigning scores for deployment				

EXHIBIT A. EVALUATION CRITERIA AND SCORING

Site Control / Customer Acquisition Status	10%	x	_ / 3
Project Site and Gen-tie Line (Transmission-interconnected projects and single POI distribution projects)			
No executed land agreements / Not feasible	0		
>25% Executed land agreements / Low probability of complete site control	1		
>50% Executed land agreements / Demonstrated consistent progress in complete site control	2		
>75% Executed Land agreements / High probability of complete site control	3		
Customer / Site Acquisition Plan (DR and Aggregated DER only)			
Plan provides little or no detail about how sites / customers will be identified, what constitutes a qualifying site, or what marketing tactics will be utilized.	0		
Plan provides a general overview without necessary details to evaluate some areas on the robustness; may not include an assessment of market potential within PSE service territory.	1		
Detailed plan describing how sites will be identified, customer acquisition timeline and tactics, market potential, and timeline of resource additions.	2		
Detailed plan and some customers / sites already identified.	3		

Permitting and Studies	10%	x	_ / 5
Permitting or long lead-time studies (such as Habitat Studies) not begun / no plan submitted	0		
Permitting or long lead-time studies (such as Habitat Studies) not begun / plan submitted	1		
Permitting and long lead-time studies (such as Habitat Studies) begun	2		
Discretionary permits filed	3		
Discretionary permits obtained / Only Non-discretionary permits required	4		
All permits obtained/Not required*	5		

Energy Delivery	25%	x	_ / 4
Interconnection and Transmission (on and off PSE system)			
No Interconnection Request Submitted -and- No Transmission Plan (see Exh B Tab 5) Submitted	0		
Interconnection Request submitted -and- Transmission Plan (see Exh B Tab 5) submitted	1		
Executed Interconnection Agreement and Transmission Service Request submitted -or- Executed Transmission Service Agreement and Interconnection Request Submitted	2		
[Executed Interconnection Agreement and Transmission Service Request submitted with at least one study completed (Feasibility or System Impact or Facilities)] -or- [Executed Transmission Service Agreement and Interconnection Request Submitted with at least one study completed (Feasibility or System Impact or Facilities)]	3		
Executed Transmission Service Agreement and Executed Interconnection Agreement	4		
BONUS POINT: Executed NRIS Interconnection Agreement -or- Executed NITS Agreement (on PSE system ONLY)	+1		
DER/DR projects interconnected to the distribution system (on PSE system only)			
No interconnection submitted -or- Deliverability not feasible	0		
Completed application for Schedule 152	2		
Preliminary review indicates delivery is feasible	3		
Transmission distribution study complete (if applicable) -or- Interconnection approved -or- Not required (DR)	4		

CETA Equity Plan	35%	x	_ / 5
No CETA Equity plan provided	0		
Plan submitted - Minimally addresses all areas	1		
Strongly addresses two (2) of the five CBI areas and minimally addresses the remaining three (3) CBI areas	2		
Strongly addresses three (3) of the five CBI areas and minimally addresses the remaining two (2) CBI areas	3		
Strongly addresses four (4) of the five CBI areas and minimally addresses the remaining one (1) CBI area	4		
Strongly addresses all five (5) CBI areas (Environmental, Economic, Health, Energy and Non-Energy Benefits, and Energy Security and Resiliency)	5		

* For certain types of resources (e.g. DERs, DR), interconnection and transmission award may not be required

Additional information used during qualitative evaluation

PSE will use information provided by the bidder as well as information available in the public domain to make an informed evaluation of the maturity and readiness of the project in the categories of counterparty viability, project viability, site control/customer acquisition status, permitting and studies, energy delivery, and CETA customer benefit plan. PSE will evaluate each proposal based on the merits of the quality and completeness of information sought in each of those categories. The information provided below serves to aid bidders to build as complete a proposal as possible in order to achieve the highest qualitative score attainable for their project.

A. Counterparty viability

Experience

- Direct experience implementing similar size and technology deployment in the United States
  - Summary CV of all key project team members
  - Company structure and organization
  - List of previous projects and technology types
- Previous safety performance record

Counterparty stability

- Credit history and stability
- Financial reports/10K/ CPA certified for previous 3 years
- Material legal proceedings within past five years. (PSE will generally consider legal breaches of greater than $5 million to be material)

B. Project viability

Financial plan

- Project financing
- Project's development history
- Project's ownership taxonomy
- Interconnection and transmission cost with studies complete

Supply chain

- Bill of laden
- Supply agreements
- Fuel supply agreements (if applicable)

Technology risk

- Installed project lists
- OEM fleet monitoring statistics

C. Site control

Project site and gen-tie line

- Binding letters of land use agreement
- Non-binding letters of land use agreement
- Ownership documentation
- Evidence of local community support for the proposed project

D. Permitting and studies

- Engineering studies
- Habitat studies
- Environmental impact studies
- State and/or federal discretionary permits
- Commercial and/or residential permits

E. Energy delivery

- Transmission plan
- Interconnection request and/or agreements
- Transmission request and/or agreements
- Feasibility, system impact, and/or facilities study

F. CETA customer benefit plan

CETA customer benefit indicators

The 2021 All Source RFP requires bidders to submit an equity plan that at a minimum addresses the questions in Tab 2a of Exhibit B under Equity Plan. Bidders are strongly encouraged to submit additional material with more detail, as appropriate, to help PSE assess the credibility and viability the bidder's equity plan. The equity plan should be guided by the principles set forth in RCW 19.405.040(8) of the Clean Energy Transformation Act, which states:

(8) In complying with this section, an electric utility must, consistent with the requirements of RCW 19.280.030 and 19.405.140, ensure that all customers are benefiting from the transition to clean energy: Through the equitable distribution of energy and nonenergy benefits and reduction of burdens to vulnerable populations and highly impacted communities; long-term and short-term public health and environmental benefits and reduction of costs and risks; and energy security and resiliency.

PSE will evaluate a bidder's Equity Plan based on the degree to which it identifies and explains specific plans and/or ways that the proposal addresses the CETA customer benefits and incorporates diversity, equity and inclusion. PSE will also look for

commitments from bidders to carry out those plans and/or track the contributions of the proposed project. Bidders are encouraged to include in their Equity Plans the methods by which non-energy benefits may be quantified, which the evaluation team may consider in the qualitative evaluation.

The five customer benefit indicators ("CBI") categories in the qualitative rubric are: 1) environmental 2) economic 3) health 4) energy and non-energy benefits and 5) energy security and resiliency. These are based on indicators presented by PSE's IRP team in its February 10, 2021 public presentation to stakeholders. Work on developing CBIs is still ongoing through the CETA Equity Advisory Group and CEIP public participation process, and PSE may incorporate the findings of that work in the qualitative rubric when issuing the final All-Source RFP on July 1, 2021. As described above, PSE may perform analyses in the Phase 2 portfolio optimization modeling aimed at producing a resource portfolio that meets the capacity and renewable need while maximizing CBIs prioritized by the ongoing public participation and advisory group process with stakeholders.

Exhibit A Appendix: Sample Rubric

		Quantitative metrics and price score - 70%			Qualitative metrics and non-price score - 30%								Total - 100%	
					10%	10%	10%	10%	25%	35%				
					- / 6	- / 9*	- / 3	- / 4	- / 4 (5/4 possible)	- / 5				
ID	Project Name	Portfolio Benefit / Name plate	Relative Price Score	Price Score Ranking	Counter-party Viability	Project Viability*	Site Control	Permit	Energy Delivery	CETA	Non-Price Score	Non-Price Score Ranking	Overall Score	Overall Ranking
1	Wind Project 1 - Offer 1	300.0	100	1	6	9	3	4	4	5	100	1	100.00	1
2	Wind Project 1 - Offer 2	275.0	92	3	6	9	3	4	4	5	100	1	94.17	2
3	Wind Project 3	300.0	100	1	6	9	3	4	4	1	72	6	91.60	3
4	Wind Project 4	0.0	0	4	6	9	3	4	4	5	100	1	30.00	4
5	Wind Project 5	-50.0	-17	5	6	9	3	4	4	5	100	1	18.33	5
6	Wind Project 6	-500.0	-167	6	6	9	3	4	4	5	100	1	-86.67	6

Summary of scoring scenarios

1	**Setup:** ID 1 and 2 - Two different offers for the same project; same non-price scores in all categories; only difference is in pricing structure, which results in different portfolio benefits. **Result:** Project 1 - Offer 1 will score higher due to higher price score. It also shows how is the price is determined relative to the highest quantitatively ranked project.
2	**Setup:** ID 1 and 3 - Two different projects; same portfolio benefit/nameplate and same price scores; only difference in qualitative evaluation is Project 2 addresses limited CETA benefits. **Result:** Project 1 - Offer 1 will score higher due to higher non-price score.
3	**Setup:** ID 1 and 4, 5, 6 - Different projects; same non-price scores for all projects; different portfolio benefit/nameplate for each project shows how price score is determined relative to the highest quantitatively ranked project. **Result:** Shows what the price score would be if Portfolio Benefit / Nameplate is $0, slightly negative, or very negative.

Notes:

1 *In Phase 1 of the RFP evaluation, each resource type will be compared to others within its resource group. A cut of a certain number of top ranked projects of each resource group based on clear scoring gaps will be selected to advance to Phase 2 of the evaluation.*

2 *The maximum score for "Project Viability" is 8 for a DR/DER resource.*

Last Modified - 05/28/2021
Form Version: AS202107.01

Exhibit B. Proposal Requirement Forms

Instructions for Bidders

The Proposal Requirement Forms enclosed (Exhibit B) are designed to capture the minimum information necessary for PSE to perform its preliminary review of the RFP proposals. Bidders should plan to provide all relevant information necessary to assess their proposals. PSE may also send additional data requests to bidders on an as-needed basis during the RFP process.

1 **To be eligible to participate in this RFP, the respondent must fully complete and include an Excel copy of the Exhibit B forms enclosed.** A downloadable copy of the forms template can be found at http://www.pse.com/RFP.

2 **Complete a separate Exhibit B for each proposal submitted**.You may submit up to three (3) offers for each proposal.

For the purposes of this RFP, a proposal is defined as a bid for the same resource containing up to three (3) total offer options, one of which is the base offer. In other words, the base offer, plus up to two (2) additional offers constitute the three (3) total offer options contained within a single proposal. Proposals are not mutually exclusive, meaning that more than one proposal can be selected from the same respondent.

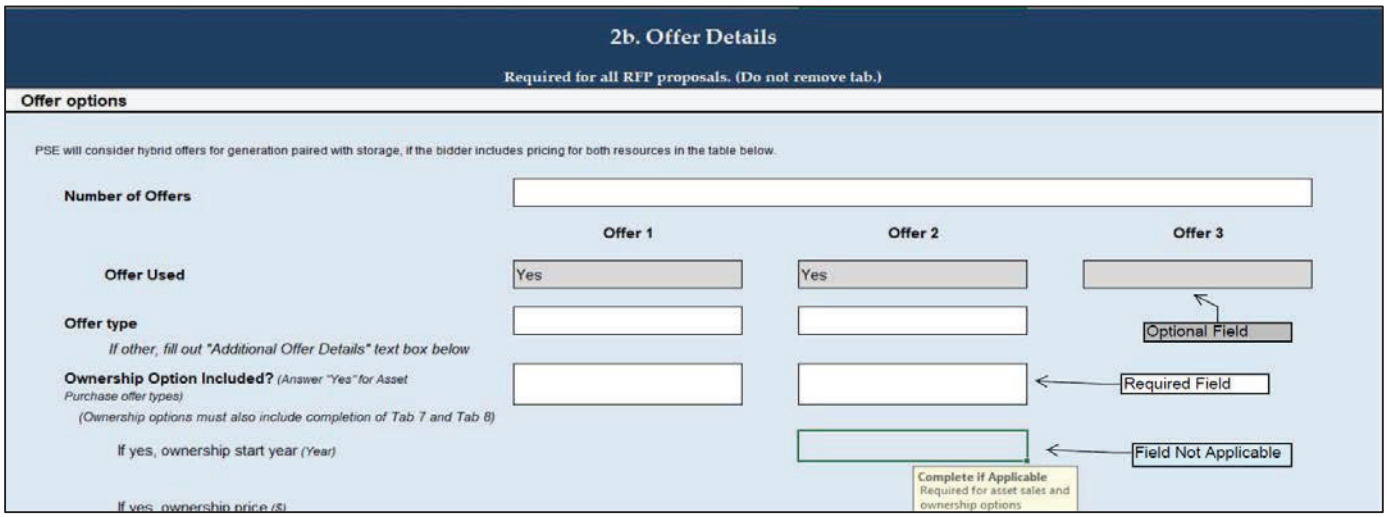
For the purposes of this RFP, an offer is defined as an option within a single proposal for the same resource, or combination of co-located resources. The initial resource along with the terms provided is known as the base offer. A respondent may submit up to two (2) additional offers per proposal. Those offers may vary options such as capacity (MW), term, start or end dates, pricing structure, transmission delivery point, some combination of co-located resources, or other proposal elements.

3 **Respondents may not modify any part of the Exhibit B forms**. PSE has designed this Excel file to be a key input to PSE's All-Source RFP proposal database and models. PSE will reject Exhibit B forms, if respondents add, remove or modify tabs in the file. Any changes to the integrity, or failure to complete the required fields, of the Exhibit B file will result in an validation error response and the web platform will not accept the proposal until the error is corrected.

4 Respondents who do not fully complete the Exhibit B forms or who return a modified Exhibit B that is no longer functional as an input to our proposal database and models will not meet the minimum requirements of this All-Source RFP. If a proposal does not meet the minimum eligibility requirements of the RFP (see Section 4 of the All-Source RFP) the bidder will be notified and will have three (3) business days to remedy the proposal.

5 Bidders are encouraged to follow file naming guidance where provided in Exhibit B to submit additional documentation as required herein or to provide additional detail to support a response. Guidance can typically be found where bidder would indicate whether additional material has been provided.

6 The Exhibit B form utilizes conditional formatting throughout the sheet to help guide respondents to ensure that the appropriate information is submitted. Fields that are required to be completed are white with a black outline. When utilizing the form, certain responses to questions will result in additional fields becoming visible. This is to communicate that additional fields are required to be completed. The form is meant to be reactive, such that respondents will only provide the information required for their bids. Optional fields are shaded gray, and should be completed if applicable to the bid. Bidders are encouraged to fill out the gray shaded fields, if applicable, to limit the need for data requests. Fields shaded light blue (the same color as form background) with no outline are not applicable to the bid, based on responses provided by the bidder, and they do not need to be completed. The following field and color guide should help clarify the visual differences between the three field types used in the form:



7 PSE has undertaken a significant automation effort to help improve the efficiency and accuracy of the RFP process. Exhibit B is the primary input to this process. The automation project is currently in the testing phase, with efforts ongoing to support a successful and satisfactory user experience when completing the Exhibit B bid forms and submitting proposal materials. If technical issues are identified during testing that may negatively impact the user experience, the Exhibit B file will be corrected and an update will be provided on PSE's RFP web site (http://www.pse.com/rfp) and in Docket UE-210220 (https://www.utc.wa.gov/casedocket/2021/210220). PSE will notify stakeholders of any updates to the Exhibit B forms. To be added to the RFP stakeholder distribution list, contact AllSourceRFP@pse.com.

To avoid system errors during proposal submission caused by version inconsistencies, bidders should plan to download the current version of Exhibit B from PSE's RFP web site (http://www.pse.com/rfp) or Docket UE-210220 (https://www.utc.wa.gov/casedocket/2021/210220) once the final All-Source RFP is formally issued on June 30, 2021. PSE will provide clear proposal submittal instructions on its web site once the All-Source RFP has been issued.

8 **Have questions about the form?** Contact us at AllSourceRFPmailbox@pse.com.

1. Proposal Content Checklist

Required for all RFP proposals. (Do not remove tab.)

Proposal element	Required for	Section		Select response from drop-down list
Required proposal contents	**All proposals**	**Exhibit B**		
Proposal Content Checklist	All proposals	Tab 1	1	
Commercial Details	All proposals	Tab 2a	2	
Offer Details	All proposals	Tab 2b	3	
Facility	All proposals	Tab 3	4	
Variable Energy	Variable energy (also DERs, if applicable)	Tab 3a	5	
Flexible Capacity	Flexible capacity (also DERs, if applicable)	Tab 3b	6	
Energy Storage	Energy storage (also DERs, if applicable)	Tab 3c	7	
DR_DER_System	DRs, DERs, system resources	Tab 3d	8	
Energy Output (8760)	Variable resource proposals	Tab 4	9	
Integration and Transmission	All proposals	Tab 5	10	
Development - Projects Detail	Development or construction project proposals	Tab 6	11	
Ownership - Capital Costs	Proposals including asset sale offers	Tab 7	12	
Ownership - Operating Costs	Proposals including asset sale offers	Tab 8	13	
Bid Certification and contacts	All proposals	Tab 9	14	
Mutual Confidentiality Agreement	All proposals	Exhibit C	15	
Prototype Term Sheet (by offer structure)	All proposals (or specify Schedule C)	Exhibit E, F and G	16	
PSE Customer Consent Letter	Proposals for projects with a pending request for or agreement for PSE transmission or integration	Exhibit J	17	

Proposals must be substantially complete consistent with the requirements of this RFP.

Proposals that do not provide sufficient information to substantiate a project or offer will not be considered in this RFP.

Minimum qualifying criteria for all proposals (as defined in RFP Section 4)		Select response from dropdown list
Does bidder acknowledge that a bid fee is required, as specified in Section 6 of the All-Source RFP?	1	
Does the bidder confirm that the respondent currently owns or has legally binding rights to devleop or market the project(s)?	2	
Does the bidder acknowledge that PSE disclaims and shall not assume any risk associated with any applicable federal or state tax incentives or other programs meant to support a relevant resource?	3	
Does the resource have a nameplate capacity greater than 5 MW?	4	
Has the bidder submitted a request for interconnection? *If yes, provide interconnection queue number on Tab 5.*	5	
Does this project provide a reasonable and achievable plan and schedule for acquiring long-term, firm transmission to PSE's system on the identified path? *See Tab 5*	6	
Has the respondent verified either through the TSR process or based on information publicly available on the transmission provider's OASIS site that the identified path has sufficient available transmission capacity (ATC)?	7	
Is the resource located within PSE's contiguous system (west of Cascades)?	8	
If Yes: Does the proposal demonstrate that the resource has the ability to secure network integration or firm, point-to-point transmission service?	9	
If No: Has the bidder specified a transmission path to PSE's system (BPAT.PSEI west of Cascades)? *See All Source RFP, Section 2 and Exhibit H.*	10	
Is the bidder planning to deliver to one of the delivery points identified in Section 2 of the All-Source RFP (Table 4)? *PSE will not accept deliveries at the project's busbar, unless the project interconnects at one of the delivery points specified in Table 3 or on PSE's system.*	11	
If the resource is a generation facility requiring fuel, does the proposal include firm fuel arrangements for the duration of the contract term? *See tabs 3 and 6*	12	

Gas-fired generation proposals must indicate that firm delivery transportation has been arranged. Biomass, biofuel, or other generation resources requiring fuel proposals must demonstrate a fuel supply plan. Standalone energy storage projects must demonstrate the ability to charge and discharge as required to meet the need. See Section 2 of the All-Source RFP for more about standalone storage project requirements.

For wind or solar resources, does respondent have at least one year of verifiable supporting data with historical wind generation and solar irradiance observations?	13	
If yes, please submit.	14	
Is the project operational, under construction, or in development?	15	

All else equal, PSE prefers operational projects/programs first, projects under construction second, and projects//programs in development third.
PSE will not consider conceptual projects in this RFP. Market or energy transfer projects, etc., should select "operational".

If development or construction, please answer the following: Did respondent include an overall project schedule for meeting the commercial operation date?	16	
Does the proposal demonstrate site control for the project and any other project-related infrastructure (e.g., generation tie-line, etc.) consistent with guidance in the non-price scoring matrix in Exhibit A? *At a minimum, does the proposal include non-binding letters of intent for the site?*	17	

Has the bidder identified required permits and approvals and their status, and provided a schedule for completion as part of the overall project schedule? *See Tab 6*	18	
Has the bidder started the permitting process?	19	
Has the bidder demonstrated progress toward completion of a habitat study?	20	
Does the proposal describe the respondent's labor plan (including family-level wages, benefits and opportunities for local workers and businesses)?	21	
Will the project be able to deliver to PSE system (west of Cascades) on or before December 31, 2025 for renewable resources, or on or before December 31, 2026 for capacity resources?	22	
If not, has bidder proposed a plan to deliver energy and/or capacity starting by the required time?	23	
Has the bidder provided a project map, sketch or drawing that meets the minimum qualifying requirements specified in Section 4 of the All-Source RFP? *Must identify the geographical boundaries of the overall project and depict all property ownerships within those boundaries.*	24	
Does the proposal include all associated environmental attributes of the project? *"Environmental attributes" means generally credits, benefits, reductions, offsets and other beneficial allowances with respect to fuel, emissions, air quality, or other environmental characteristics, resulting from the use of certain generation resources or other avoidance of emissions.*	25	
Has respondent provided an customer benefit plan consistent with the requirements of RCW 19.405.040(8)? *See Tab 2a*	26	
If yes, bidder may also provide a separately submitted written diversity commitment, policy, or plan in addition to their responses on Tab 2a.	27	
Respondent agrees to adhere to all applicable safety laws, guidelines and industry practices.	28	
Does the proposal comply with all existing local, state and federal laws, regulations, and executive orders, including environmental laws? (e.g., Wash. state's emissions performance standards, RCW 80.80 and rules set forth in WAC 173-407)	29	
Respondent has read Sections 4 and 5 of the RFP and acknowledges that the respondent will be responsible for meeting all contractual milestones as scheduled and may be required to pay liquidated damages if they are missed. PSE may also impose credit requirements based on the respondent's credit rating.	30	
Respondent agrees that definitive agreements and obligations thereunder shall not be sold, transferred, assigned, or pledged as security or collateral for any obligation, without the prior written permission of PSE.	31	

Additional minimum qualifying criteria for ownership proposals (as defined in Section 4)		**Select response from dropdown list**
In addition to the minimum qualifying criteria required for all proposals (above), PSE has identified the following additional criteria for ownership proposals / ownership options.		
Is ownership transfer proposed to occur before, on, or after COD?	1	
Respondent has read Section 4 of the All-Source RFP and acknowledges that if selected, PSE will require comprehensive engineering design documents and drawings well in advance of project construction, and that projects will be required to meet all PSE requirements and specifications.	2	
Respondent attests that all proposed design engineering firms and project constructors will have proven expertise and experience in projects of similar scope and size.	3	
Proposal includes details about the proposed service and maintenance plan for major turbine equipment.	4	
Proposal includes descriptions of the manufacturer warranties / guarantees for major equipment and the GSU / step-up transformers	5	

2a. Commercial Details

Required for all RFP proposals. (Do not remove tab.)

Respondent Summary

Respondent *seller/owner/developer*

Is the bidder a subsidiary or affiliate of PSE? *see RFP Section 4*

If yes, please specify the subsidiary or affiliate

Examples of affiliates include, but are not limited to: *PSE (aka. "self-build"), British Columbia Investment Management Corporation (BCIMC), Alberta Investment Management Corporation (AIMCO), Canada Pension Plan Investment Board (CPPIB), Ontario Municipal Employees Retirement System (OMERS), Dutch pension fund manager PGGM, or any of their affiliates and subsidiaries.*

Briefly describe any prior experience working with PSE
e.g., prior RFPs, prior projects/contracts, existing contracts

Experience and qualifications

Is the respondent the owner of the facility?

If not, specify owner.

Describe owner's experience and specify other projects completed to date.

Is the respondent the developer of the facility?

If not, specify developer.

If developer is different from owner entity above, describe experience and specify other projects completed to date.

Please submit a summary CV for all key team members
(include "Summary CV" in filename of submitted document)

Legal and financial

Submit a deal diagram attachment that shows all contractual parties, listed by their legal names, and their relationship with the project.
(include "deal diagram" in filename of submitted document)

Is the project dependent on another entity? *(e.g. fuel supplier or steam host)*

If yes, please describe.

Does the project have any known legal issues?

If yes, please describe. Include suits, disputes, administrative investigations, permitting issues, les pendens, apparent or known property boundary ambiguities, trespasses, or encroachments, and any other pertinent legal issues.

In the past five years, has the bidder filed for bankruptcy, been determined to be insolvent or been forced into receivership?

In the past five years, has the bidder or any of its executive officers been convicted of a felony?

Please provide a description of all material litigation to which bidder has been a party at any point in the past five years, including a summary of its resolution or current status. For purposes of this question, "material" means all claims in excess of $5 million.

Does the bidder have CPA certified or independently audited financial records for the previous 5 years?

If yes, please submit previous 2 years of information. *(include "Financial Records" in filename of submitted document)*

Does the bidder have a corporate credit rating by a credit rating agency?

If yes, please describe.

If the project is a development project, how does the respondent plan to finance the project?

Customer Benefit Plan

Please submit an customer benefit plan, if available. In addition, please answer the questions in the following sections.
(include "Customer Benefit Plan" in filename of submitted document)

Customer Benefits from Transition to Clean Energy

Will the proposed resource improve the equitable distribution of energy and non-energy benefits to highly impacted communities and vulnerable populations?

Please provide summary description *(1088 characters maximum)*

2b. Offer Details

Required for all RFP proposals. (Do not remove tab.)

Proposal options

Offer structures included in the proposal *Select the response below that best summarizes the offer structure options included in the proposal.*

Proposal includes

Offer options

PSE will consider hybrid offers for generation paired with storage, if the bidder includes pricing for both resources in the table below.

Number of Offers

	Offer 1	Offer 2	Offer 3
Offer Used			
Offer type *If other, fill out "Additional Offer Details" text box below*			
Ownership Option Included? *(Answer "Yes" for Asset Purchase offer types)* *(Ownership options must also include completion of Tab 7 and Tab 8)*			
If yes, ownership start year *(Year)*			
If yes, ownership price *($)*			
Resource Type			
If other, describe.			
Offer capacity *(MW at POI)*			
Commercial Operation Date *(mm/dd/yyyy)*			
Term start *(mm/dd/yyyy)*			
Term end *(mm/dd/yyyy)*			
Pricing type *(PSE preference is fixed price and uses a 7.39% discount rate to compare different offers)*			
If fixed price *(PSE preference)*			
Capacity *($/kW-year)*			
Energy *($/MWh)*			
If escalating price			
1st year capacity price *($/kW-year)*			
Annual escalation *(%)*			
1st yr energy price *($/MWh)*			
Annual escalation *(%)*			
If market index premium / discount			
Mid-C spread *($/MWh)*			
Contract heat rate *(Btu/kWh)*			
Other charges *(If yes, please explain in additional offer details field, below)*			

Additional offer details

Use the text field below to describe other relevant details about the three offers listed above that are not already specified in the table. For example, offer 1 may have a different transmission delivery point than offers 2 and 3, or one or more of the offers may include generation paired with storage. Please do not use this field to provide a menu of additional offer options. PSE will only evaluate the three (3) offers listed in the table above.

For PPAs, also include bidder's underlying fixed and variable cost of production. All else equal, PSE prefers a pricing structure that closely mirrors the actual cost structure of the project. In this way, the developer's and PSE's interests with respect to scheduling and dispatch, would be aligned. For temporal exchange agreements, include start and end dates for delivery to PSE, start and end dates for delivery returned by PSE, energy volume (MWh) and price per MWh.

Proposals containing one or more ownership options (e.g., existing resource, turnkey, development assets) must also complete Tab 7. Project Capital Costs and Tab 8. Operating Cost. Specify below any financing costs and the associated estimated payment schedule dates, if included in the total capital cost (Tab 7). PSE may prefer to finance the construction.

Does pricing of this project assume the use of tax incentives?

If pricing is contingent upon receiving tax credits, specify the tax credits.

Production tax credit (%)

Investment tax credit (%)

Method of qualification for safe harbor and description of the work

If utilizing safe harbor equipment:

What is the qualifying year of the equipment? — qualifying year (yyyy)

When does the safe harbor provision for the equipment expire? — expiration year (yyyy)

(i.e., date project must be online to receive them)

If pursuing safe harbor based on start of construction:

Project start year to qualify for renewable tax credit — qualifying year (yyyy)

Target completion date to qualify for the renewable tax credit — completion date (yyyy)

Does pricing above include all current and future environmental attributes?

Confirm that pricing above includes transmission to identified PODs

defined as listed in Exhibit H

Confirm that pricing above includes balancing and integration charges.

Confirm that pricing above includes firm hourly scheduling

Does pricing above include emission costs?

3. Facility Detail

(Do not remove tab.)

Resource information summary

Complete this tab to provide general information about the project. Provide additional project details on the relevant tab(s) listed below.

Tab 3a. Variable energy resources - wind, solar, run-of-river hydro, other
Tab 3b. Flexible capacity energy resources
Tab 3c. Energy storage resources
Tab 3d. DR, DER, market resources

Please ensure that the Tab 4. Energy Output (8760) is also completed as noted / required.

Hybrid / DER proponents, please complete all individual resources tabs (3a,3b, and 3c) as needed, as well as Tab 5. Interconnect & Transmission, if applicable.

General facility information

Project/Facility name *(proposal name)*

Resource location

City / Town

County

State / Province

Latitude *(use Decimal degrees formatting, i.e. 47.610378)*

Longitude *(use Decimal degrees formatting, i.e. -122.200676)*

Real estate

Project size (in acreage) acres

Submit a map showing the project area and neighboring parcels.

(include "Project Map" in filename of submitted document)

Show anticipated layout of all project facilities including transmission tie lines and natural gas laterals, solar arrays or turbine strings. If applicable, show substations, roads, collection systems, met towers for wind resources, and service buildings. Indicate the location of the transmission line with which the project will interconnect.

Does the project have all necessary leases, easements or other ownership documents to operate the facility throughout the life of the project? *PSE may request this documentation, if the project advances to the second phase of the RFP.*

Describe the land area controlled relative to project facilities.

Provide additional detail below, submit supporting documentation as needed — Additional detail submitted?

(include "Land Area" in filename of submitted document)

Provide a general description of project and project site, and describe key project components.

Provide additional detail below, submit supporting documentation as needed — Additional detail submitted?

(include "Project Description" in filename of submitted document)

Can the project be expanded?

If yes, include a description of the potential scope and conditions for additional development at the site.

Site control

List percentage of total site (including gen-tie lines) under executed land agreements. (%)

PSE may request this documentation, if the project advances to the second phase of the RFP.

Describe the type of land agreements (e.g. deeds, leases, easements, options, or rights of first refusal to construct, etc.) and/or other ownership documents demonstrating that the respondent has or can administratively gain control of the intended project properties and the legal rights to

If proposal is selected for Phase 2 (due diligence) evaluation, PSE will request copies of these documents for review.

Provide additional detail below, submit supporting documentation as needed

Additional detail submitted?

(include "Land Agreements" in filename of submitted document)

Permitting

Submit a permitting checklist for all permits and authorizations required to build and operate the project and, if applicable, the associated generation tie-line.

(include "Permit Checklist" in filename of submitted document)

Include all project permits and any other local, state or federal government approval applications or authorizations required to build and operate the project and generation tie-line. Place special emphasis on key discretionary permits (such as a CUP, site cert and major air, wastewater and/or waste permit). Indicate the status and agency with jurisdiction for each permit or authorization required. For permits and approval applications planned or in progress, include the expected completion dates.

Does respondent have all discretionary permits required to begin construction on the facility?

If the project requires a generation tie-line to interconnect to the high voltage transmission system, does the respondent have all discretionary permits required to construct the tie-line?

Discuss the current status of applications and proceedings, and the schedule and approach to obtain the necessary permits and approvals.

Provide additional detail below, submit supporting documentation as needed

Additional detail submitted?

(include "Permit Status" in filename of submitted document)

Is the project located in an area that is ceded land, may have been historically used by a Native American Tribe, and/or that may impact tribal interests?

If yes, has the Tribe been consulted about the project?

Provide details in the space provided below. If the Tribe has not been consulted, state why not and describe any such consultation plans for the future.

Is the respondent aware of any required tribal notifications, permit conditions or costs associated with any tribal agreement or promise?

If yes, please describe in the space below.

Environmental siting

Are there any known environmental issues relative to the development and construction of the project?

If yes, briefly explain below and describe mitigations to be employed. Include impacts to air, water, flora and fauna, energy and natural resources, environmental health, shoreline use, housing, aesthetics, recreation, historic and cultural preservation, transportation, public service and utilities. Describe measures that will be taken to mitigate all impacts of the project.

Provide additional detail below, submit supporting documentation as needed — Additional detail submitted?

(include "Environmental Issues" in filename of submitted document)

Have any environmental studies or assessments been performed related to the site and project?

If yes, are the studies available, if requested?

Are any additional environmental studies or assessments in progress?

Submit a list of environmental studies completed, in progress and planned.

(include "Environmental Studies" in filename of submitted document)

Include wildlife monitoring reports, biological assessments, environmental assessments, environmental impact statements, environmental media sampling reports (air, soil or groundwater), flood control measures or other risk mitigations identified at the site, and any other relevant studies.

Include in the list the status of each study, the person(s) or firm(s) responsible for conducting and completing the work, and their methodologies. For planned or in progress, describe the scope and schedule for completion.

Does respondent have a plan to engage the community and environmental stakeholders to support the proposed project?

Discuss the plan and any ongoing community relations and environmental stakeholder relations.

Provide additional detail below, submit supporting documentation as needed — Additional detail submitted?

(include "Community Plan" in filename of submitted document)

Facility emissions

Are there any known or likely operating limits due to permitting, legal, aesthetic, wildlife or other reasons?

If yes, please describe.

Describe how the underlying facility or contract meets the obligations of Washington's Emissions Performance Standards (WAC 173-407).

Public engagement

Is respondent aware of any community or environmental stakeholder concerns associated with the facility?

Discuss ongoing community relations and environmental stakeholder relations. Include any known public support for the project.

Provide additional detail below, submit supporting documentation as needed

Additional detail submitted?

(include "Community Relations" in filename of submitted document)

Development projects, see also Tab 6. Development Projects Detail, subparts Environmental Siting and Permitting.

3a . Facility Detail for Variable Energy Resources

Not required for non-unit contingent System PPAs. Required for all other RFP proposals. (Do not remove tab.)

Variable Energy Resource Summary

	Offer 1	Offer 2	Offer 3
Solar Resource			
Resource status			
If operating, remaining useful life. *(years)*			
Wind Resource			
Resource status			
If operating, remaining useful life. *(years)*			
Run of River Hydro			
Resource status			
If operating, remaining useful life. *(years)*			
Other Used			
Resource status			
If operating, remaining useful life. *(years)*			

Solar

	Offer 1	Offer 2	Offer 3
Describe design.			
Solar panels			
Manufacturer(s)			
Plant DC capacity *(MW)*			
Annual degradation %			
Panel orientation (from facing south) *degrees*			
Inverter			
Manufacturer(s)			
Efficiency %			
Plant AC nameplate capacity			
Maximum *(MW)*			
Maximum *(MVA)*			
Minimum *(MW)*			
Ramping control			
Ramp up *MW/min*			
Ramp down *MW/min*			
Describe			
Energy output			
Estimated net annual capacity factor %			
Nov to Feb capacity factor %			
Is resource shaped?			

Include 8760 data on Tab 4. (If more than one resource, use the combined output. If shaped, use shaped output.)

8760 data source (onsite data, estimated, etc)			
Independent resource assessment completed			
If so, please submit.			

(include "Solar Independent Resource Assessment" in filename of submitted document)

O&M Costs

Variable O&M Costs *$/MWh* *assumed included in offer price*			
Escalation rate to be used with above *%*			

Wind

	Offer 1	Offer 2	Offer 3
Describe design.			
Describe any site suitability studies completed.			
Does proposal include avian risk plan?			
Does plant comply with FERC order 661-A?			
Wind turbine			
Manufacturer(s)			
Model(s)			
Describe any expected upgrades / revisions in proposed model from current / historical models.			
Describe certifier and date of third-party certification of proposed turbine model(s).			
Hub height *(ft)*			
Number of turbines			
Plant AC nameplate capacity			
Maximum *(MW)*			
Maximum *(MVA)*			
Minimum *(MW)*			
Ramping control			
Ramp up *MW/min*			
Ramp down *MW/min*			
Describe			
Energy output			
Estimated net annual capacity factor *%*			
Nov to Feb capacity factor *%*			
Is resource shaped?			

Include 8760 data on Tab 4. (If more than one resource, use the combined output. If shaped, use shaped output.)

8760 data source (onsite data, estimated, etc)			
Independent resource assessment completed			
If so, please submit.			

(include "Wind Independent Resource Assessment" in filename of submitted document)

O&M costs

Variable O&M costs *assumed included in offer price*	*$/MWh*			
Escalation rate to be used with above	*%*			

Run-of-river hydro

		Offer 1	Offer 2	Offer 3
Describe design.				
Facility				
Head	*(ft)*			
Number of units				
Plant AC nameplate capacity				
Maximum	*(MW)*			
Maximum	*(MVA)*			
Minimum	*(MW)*			
Ramping control				
Ramp up	*MW/min*			
Ramp down	*MW/min*			
Describe				
Energy output				
Estimated net annual capacity factor	*%*			
Nov to Feb capacity factor	*%*			
Is resource shaped?				

Include 8760 data on Tab 4. (If more than one resource, use the combined output. If shaped, use shaped output.)

8760 data source (onsite data, estimated, etc)				
Independent resource assessment completed				
If so, please submit.				

(include "Hydro Independent Resource Assessment" in filename of submitted document)

Operations				
Forced outage rate	*%*			
Mean time to repair	*hrs*			
O&M costs				
List variable O&M costs *assumed included in offer price*	*$/MWh*			
List escalation rate to be used with above	*%*			
Annual planned maintenance				
Expected average days per year				
Expected timing month / season				
Estimated annual unit availability *(provide value on % of year basis)*				

Other

		Offer 1	Offer 2	Offer 3
Describe design.				
Plant AC nameplate capacity				
Maximum	*(MW)*			
Maximum	*(MVA)*			
Minimum	*(MW)*			
Ramping control				
Ramp up	*MW/min*			
Ramp down	*MW/min*			

Describe				
Energy output				
Estimated net annual capacity factor	%			
Nov to Feb capacity factor	%			
Is resource shaped?				
Include 8760 data on Tab 4. (If more than one resource, use the combined output. If shaped, use shaped output.)				
8760 data source (onsite data, estimated, etc)				
Independent resource assessment completed				
If so, please submit.				
(include "Other Independent Resource Assessment" in filename of submitted document)				
O&M costs				
List variable O&M costs.	*$/MWh*			
assumed included in offer price				
List escalation rate to be used with above.	%			

Ownership Options

For offers that include ownership options for flexible capacity resources, please complete the following additional tabs:

Tab 7. Ownership - Capital Costs
Tab 8. Ownership - Operating Costs

3b . Facility Detail for Flexible Capacity Resources

Not required for non-unit contingent System PPAs. Required for all other RFP proposals. (Do not remove tab.)

Flexible Capacity Resource Summary

		Offer 1	Offer 2	Offer 3
Flexible Capacity Resource				
Flexible Capacity Resource Type				
Resource status				
If operating, provide remaining useful life.	(years)			

Capacity

		Offer 1	Offer 2	Offer 3
Plant AC Nameplate capacity				
ISO conditions				
Maximum capacity	(MW)			
Minimum capacity	(MW)			
Winter (0 deg F, 1000 ft elevation)				
Maximum capacity	(MW)			
Minimum capacity	(MW)			
Summer (90 deg F, 1000 ft elevation)				
Maximum capacity	(MW)			
Minimum capacity	(MW)			
Capacity limited by permits?				
If yes, describe.				
Nov to Feb availability	%			

Capability

		Offer 1			Offer 2			Offer 3		
Facility start-up time		Hot	Warm	Cold	Hot	Warm	Cold	Hot	Warm	Cold
Start-up cost	($)									
Start-up fuel	(MMBtu)									
Start-up cooling state / Registered cooling time	(hours)									
Start-up ramp rate	(MW/min)									
Applied when running the resource from zero to min capacity										
Ten-minute start capable										
Maximum starts	(per day)									
Describe cycling limitations.										
Ramp rates										
Ramp up	MW/min									
Ramp down	MW/min									
Describe										

Heat rate	Offer 1 Load point (MW)	Offer 1 Average heat rate (BTU/kWh)	Offer 2 Load point (MW)	Offer 2 Average heat rate (BTU/kWh)	Offer 3 Load point (MW)	Offer 3 Average heat rate (BTU/kWh)
Load point 1						
Load point 2						
Load point 3						
Load point 4						
Load point 5						
Load point 6						

Load point 7							
Load point 8							
Load point 9							
Load point 10							
Load point 11							
Operations							
Forced outage rate	%						
Mean time to repair	(hours)						
Annual planned maintenance							
Expected average days per year							
Expected timing month/season							
Estimated annual unit availability *(provide value on % of year ba*							
Costs							
Variable O&M costs *assumed included in offer price*	$/MWh						
Fixed O&M *assumed included in offer price*	$/kW-yr						
Escalation rate to be used with above	%						

Fuel

Fuel requirements

Hourly fuel requirements

At rated capacity	lb/MMBtu						
With duct firing, if applicable	lb/MMBtu						

Daily fuel requirements

At rated capacity	lb/MMBtu						
With duct firing, if applicable	lb/MMBtu						

		Fuel source		Fuel source		Fuel source	
Average emissions rate data		Primary	Secondary	Primary	Secondary	Primary	Secondary
CO2	lb/MMBtu						
NOx	lb/MMBtu						
SOx	lb/MMBtu						
Particulate matter	lb/MMBtu						
Provide additional detail as needed.							

Fuel supply

Fuel source

Primary fuel				
Secondary fuel, if applicable				
Storage on site?				
If yes, for how long at rated capacity?	(days)			
Has fuel supply been secured?				
If yes, please submit a fuel supply plan. *(include "Firm Fuel Supply Plan" in filename of submitted document)*				
If no, please describe.				

Fuel transportation

Is fuel transportation included in price?				
If no, describe.				
Has fuel transportation been secured?				
Describe fuel transportation method.				

Ownership Options

For offers that include ownership options for flexible capacity resources, please complete the following additional tabs:

Tab 7. Ownership - Capital Costs
Tab 8. Ownership - Operating Costs

3c . Facility Detail for Energy Storage Resources

Not required for non-unit contingent System PPAs. Required for all other RFP proposals. (Do not remove tab.)

Energy Storage Resource Summary

		Offer 1	Offer 2	Offer 3
Energy Storage Resource				
Energy Storage Resource type				
If other, describe.				
Resource status				
If operating, provide remaining useful life.	(years)			
Source for charging storage system				
If offsite, describe.				

System design

		Offer 1	Offer 2	Offer 3
Storage medium				
Technology				
Manufacturer				
Max state of charge	%			
Min state of charge	%			
Capacity (power / energy) degradation impact on cycles				
Define cycles and any additional information on states of charge assumptions.				
Inverter (if applicable)				
Manufacturer				
Model				
Integration				
Name of Integrator				
Describe relevant experience of integrator				
Cooling System				
Provide summary description of proposed cooling system.				
Fire Protection System				
System addresses fire and explosive gas detection, prevention, and mitigation?				
Provide summary description of fire protection system.				

Capacity

		Offer 1	Offer 2	Offer 3
Plant AC nameplate capacity				
Maximum discharge power	(MW)			
Maximum discharge power	(MVA)			
Minimum discharge power	(MW)			
Maximum charge power	(MW)			
Maximum charge power	(MVA)			
Minimum charge power	(MW)			
Power capacity degradation	% per cycle			
Energy maximum	(MWh)			
Energy minimum	(MWh)			
Energy capacity degradation	% per cycle			
Augmentation required?				

Describe augmentation schedule				
Energy output *(intended for pumped hydro resources only)*				
Estimated net annual capacity factor	%, year 1			
Nov to Feb capacity factor	%, year 1			
Estimated net average annual energy output	MWh			
Nov to Feb average energy output	MWh			
Control and operations				
Ramping control				
Ramp up	MW/min			
Ramp down	MW/min			
Describe				
Charging / Discharging				
Charge efficiency	%			
Discharge efficiency	%			
Total Round Trip efficiency	%			
Plant control				
Does owner control the energy storage?				
Does the plant need a schedule for state of charge?				
Is the resource intended to time-shift for peak capacity?				
If yes, describe control.				
Can the energy storage provide operational flexibility?				
If yes, describe control, impact of lifespan.				
Can the facility be curtailed via PSE's Energy Management.				
Operations				
Forced outage rate	%			
Mean time to repair	(hours)			
O&M costs				
Variable O&M costs *assumed included in offer price*	$/MWh			
Fixed O&M *assumed included in offer price*	$/kW-yr			
Annual planned maintenance				
Expected average days per year				
Expected timing month/season				
Estimated annual unit availability *(provide value on % of year basis)*				
Ownership Options				
For offers that include ownership options please include the following:				
Expected life span for energy storage system	(years)			
Describe any additional augmentation and recycling of batteries that are included at end of life span				
Describe design engineering firms and project constructors proven expertise and experience in projects of similar scope and size				
Proposals should include documentation including system and equipment compliance with appropriate governing agencies and standards including Federal Energy Regulatory Commission (“FERC”), North American Electric Reliability Corporation (“NERC”), Western Electric Coordinating Council (“WECC”), Underwriters Laboratories (“UL”), Institute of Electrical and Electronics Engineers (“IEEE”), National Electrical Code (“NEC”), Industry Foundation Classes (“IFC”), etc., as applicable				
Compliance documentation submitted *(include "Compliance Documentation" in filename of submitted document)*				
If available at the time of bid submittal, provide a comprehensive engineering design documents and drawings well in advance of project construction. If available, bidders should also provide one-line diagrams, three-line schematics, communication plans and protocols used, and a list of tags and alarms used in the battery management system (“BMS”). If unavailable at the time of bid submittal, PSE will request this information during the evaluation or negotiation process. Projects will be required to meet all PSE requirements and specifications.				
Engineering documentation submitted *(include "Engineering Documentation" in filename of submitted document)*				

For offers that include ownership options for flexible capacity resources, please complete the following additional tabs:

Tab 7. Ownership - Capital Costs
Tab 8. Ownership - Operating Costs

3d . Facility Detail for DR, DER, or System Resources

Required for all other RFP proposals. (Do not remove tab.)

Demand Response, Distributed Energy Resources, or System Resource Summaries

	Offer 1	Offer 2	Offer 3
DR Resource			
DER Resource			
System Resource			

Demand response ("DR")

The Base DR offer (Offer 1) can be up to a maximum of 5 years in duration (ending year 2027). Bidder may also include two alternate offers (Offer 2 and Offer 3), which may extend through year 2032.

System design

	Offer 1	Offer 2	Offer 3
Program specifics			
Describe design.			
Types of loads			
Types of customers			
Marketing plan			
Submit detailed marketing plan if available.			
(include "DR Marketing Plan" in filename of submitted document)			
Provide summary marketing plan / demonstrate ability to enroll customers.			
Measurement & evaluation plan			
Submit detailed measurement and evaluation plan if available.			
(include "DR Measure and Eval Plan" in filename of submitted document)			
Provide summary of measurement and evaluation plan, consistent with Exhibit K.			
Integration			
Describe design.			
Describe interface.			
Describe communications protocols.			
IT Security			
Does the Respondent have a SOC2 Type II audit report issued within the past 12 months?			
If no, please indicate latest audit and plans for SOC2 Type II certification.			
If not applicable, please explain why.			
Does the Respondent provide US-only hosting options?			
If no, please describe hosting options and plans for US-only hosting.			
If not applicable, please explain why.			
Does the Respondent support encryption of data in transit using SSH or TLS1.2 or later?			
If no, please describe how encryption of data in transit is supported.			
If not applicable, please explain why.			
Does the Respondent support encryption of data at rest using AES256 or better?			

If no, please describe how encryption of data a								
If not applicable, please explain why.								
Does the Respondent support SAML2.0 for single sign on?								
If no, please describe how single sign on is su								
If not applicable, please explain why.								
Capacity		Time ahead		Time ahead		Time ahead		
		Day	1 Hour	Day	1 Hour	Day	1 Hour	
Winter power capacity by year (AC)								
assumed to be 30 deg F								
2023	(MW)							
2024	(MW)							
2025	(MW)							
2026	(MW)							
2027	(MW)							
2028	(MW)							
2029	(MW)							
2030	(MW)							
2031	(MW)							
2032	(MW)							
Summer power capacity by year (AC)								
assumed to be 85 deg F								
2023	(MW)							
2024	(MW)							
2025	(MW)							
2026	(MW)							
2027	(MW)							
2028	(MW)							
2029	(MW)							
2030	(MW)							
2031	(MW)							
2032	(MW)							
If additional availability can be provided, please describe.								
Pricing								
Capacity charge								
2023	($/kW-year)							
2024	($/kW-year)							
2025	($/kW-year)							
2026	($/kW-year)							
2027	($/kW-year)							
2028	($/kW-year)							
2029	($/kW-year)							
2030	($/kW-year)							
2031	($/kW-year)							
2032	($/kW-year)							
Customer benefit sharing								
Offer include customer benefit sharing?								
If yes, describe.								
Per participant annual incentive								
2023	*($/participant)*							
2024	*($/participant)*							
2025	*($/participant)*							
2026	*($/participant)*							
2027	*($/participant)*							
2028	*($/participant)*							
2029	*($/participant)*							
2030	*($/participant)*							
2031	*($/participant)*							
2032	*($/participant)*							

Normalized incentive based on delivered capacity				
2023	*($/kW-yr)*			
2024	*($/kW-yr)*			
2025	*($/kW-yr)*			
2026	*($/kW-yr)*			
2027	*($/kW-yr)*			
2028	*($/kW-yr)*			
2029	*($/kW-yr)*			
2030	*($/kW-yr)*			
2031	*($/kW-yr)*			
2032	*($/kW-yr)*			
Total costs				
to include capacity charges, customer incentives and any other pricing elements				
2023	($'s)			
2024	($'s)			
2025	($'s)			
2026	($'s)			
2027	($'s)			
2028	($'s)			
2029	($'s)			
2030	($'s)			
2031	($'s)			
2032	($'s)			
Costs breakdown				
Program startup costs	*% of total*			
Software licensing	*% of total*			
Marketing / Recruitment	*% of total*			
Equipment capital	*% of total*			
Equipment installation	*% of total*			
Equipment maintenance	*% of total*			
Participant incentives	*% of total*			
Customer service	*% of total*			
Tracking and reporting, M&V	*% of total*			
Other (please specify)	*% of total*			
Total (should equal 100%)	*% of total*	0.00%	0.00%	0.00%

Distributed energy resource ("DER")

Note: Use facility tabs (3a,3b,3c) for the specific resources used for the DER, in addition to the main required tabs.

Program specifics			
Describe design			
Types of customers/Site			
Assessment and acquisition plan			
Submit assessment and acquisition plan if available. *(include "DER Assessment and Acquisition Plan" in filename of submitted document)*			
Provide summary of assessment and acquisition plan.			
Integration			
Describe design.			
Describe interface.			
Describe communications protocols.			
IT Security			
Does the Respondent have a SOC2 Type II audit report issued within the past 12 months?			
If no, please indicate latest audit and plans for SOC2 Type II certification.			
If not applicable, please explain why.			

Does the Respondent provide US-only hosting options?				
If no, please describe hosting options and plans for US-only hosting.				
If not applicable, please explain why.				
Does the Respondent support encryption of data in transit using SSH or TLS1.2 or later?				
If no, please describe how encryption of data in transit is supported.				
If not applicable, please explain why.				
Does the Respondent support encryption of data at rest using AES256 or better?				
If no, please describe how encryption of data at rest is supported.				
If not applicable, please explain why.				
Does the Respondent support SAML2.0 for single sign on?				
If no, please describe how single sign on is su				
If not applicable, please explain why.				
Pricing				
Describe pricing.				
Provide any energy charges.	$/kWh			
Provide any capacity charges.	$/kW			
Customer benefit sharing				
Project include customer benefit sharing?				
If yes, please describe.				
System Resources				
Describe design.				
System				
Specified?				
If yes, describe.				
Plant AC capacity				
Maximum	(MW)			
Maximum	(MVA)			
Minimum	(MW)			
Dispatchable?				
If yes, can it be shaped?				
Ramping control				
Ramp up	%			
Ramp down	%			
Describe				
Events				
Number of events - winter	integer			
duration	(hrs)			
Number of events - summer	integer			
duration	(hrs)			
Description of measurement and verification				
Energy output				

Estimated net annual capacity factor	%, year 1			
Nov to Feb capacity factor	%, year 1			
Include 8760 data on Tab 4. (If more than one resource, use the combined output. If shaped, use shaped output.)				
8760 data source (onsite data, estimated, etc)				
Independent resource assessment completed				
If so, please submit *(include "Market Independent Resource Assessment" in filename of submitted document)*				

4. Variable Energy Output Profile for Intermittent Resources (8760)

Not required for baseload or dispatchable resources. Required for all other RFP resources. (Do not remove tab.)

	Offer 1	Offer 2	Offer 3
Energy Profile Used			
Project capacity at POI (MW)			
Project annual output at POI (MWh)			

* Note the 8760 data should be based on historical data, when possible.
* Offers that include multiple resources (wind, solar, energy storage, etc) or is shaped, should submit the combined 8760 output.
* Please format data to at most 4 decimal places (shown in the table below)

	Offer 1	Offer 2	Offer 3
Hour ending	**POI MW**	**POI MW**	**POI MW**
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
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46			
47			
48			
49			
50			

Printed version of Tab 4 shows page 1 only.

5. Interconnection and Transmission

Required for all RFP proposals. (Do not remove tab.)

Delivery Path

Is project a DR or DER?

If project is a DR or DER, please use the following text box to clarify any information with respect to interconnection and transmission.

For all others (non-DER), please specify the information below.

Point of interconnection ("POI")

Point of receipt ("POR") *if different from the POI*

Point of delivery ("POD")

Interconnection

Interconnection provider

Type of interconnection request

Has interconnection been secured for the project?

Has interconnection been requested for the project?

If yes, provide LGIA queue number.

Date of LGIA signing or expected signing.

State any needed interconnection upgrades and associated costs.

Expected completion date for interconnection upgrades.

List in table below all available or in progress interconnection studies and status.

Study type	Study number	Status	Received/ Estimated completion date	Study performed by

Does the project require construction of a tie-line to the POI?

If yes:

How long is the tie-line? *(miles)*

Expected completion date of the tie-line

Submit a map showing the tie-line route relative to the project and the POI. Include the development, design and construction work as part of the attached detailed project development schedule described on Tab 6. Development Projects Detail.

Describe the location of the tie-line relative to the project and the POI. Include the development/construction status of the tie-line. Describe relevant permitting and land rights matters associated with the tie-line on Tab 6. Development Projects Detail in the site control and permitting sections.

Are there any other construction plans for any interconnection facilities?

If yes, describe below.

Transmission service

Transmission provider(s).	
Does the project request to use PSE's transmission as identified in Exhibit H?	
If project interconnected on PSE System, west of Cascades:	
Has transmission been secured for the project?	
If yes, what type of transmission service has been secured?	
Has transmission been requested for the project?	
If yes, what type of transmission service has been requested?	
If yes, provide TSR queue number.	
When does respondent expect to have long-term firm transmission for the project?	

If project is not interconnected on PSE System, west of Cascades, or utilizing PSE's transmission indicated in Exhibit H:

Complete table below as it pertains to each wheel required to deliver energy to PSE.

Number of transmission wheels in developer transmission plan.	

Complete a column below for each wheel.

Transmission wheels *specified above*	1	2	3
Transmission provider for each wheel			
POR			
POD			
Sink			
Cost for each wheel *($/kW-month)*			
Has transmission been secured for this wheel?			
Has transmission been requested for this wheel?			
If yes, provide TSR queue number.			
When does respondent expect to have long-term firm transmission for the project?			

List in table below all available or in progress transmission studies and status.

Study type	Study number	Status	Received/ Estimated completion date	Study performed by

Is there anything else PSE needs to know about your transmission plan? For example, are there any alternate solution(s) to firm the delivery of energy to PSE's system over the term of the proposal? Describe below.

Energy Storage - load request

Does energy storage project require a separate transmission service to charge the device?

If yes, please describe transmission status to required for charging.

Ancillary services

Project balancing authority

Please provide the following responses to party responsible for Ancillary services:

Service	Party responsible
Operating reserves	
Resource integration (intermittent resources)	
Scheduling	
Regulating reserves	
Generation imbalance	
Other required ancillary service(s)	

Specify other

PURPA qualifying facilities

Is respondent proposing a QF resource located outside the Pacific Northwest as defined for the BPA in Section 3 of the Pacific Northwest Electric Power Planning Conservation Act (94 Stat. 2698; 16 U.S.C. Sec 839a)?

If yes, describe how electricity from the facility will be delivered to Washington state on a real-time basis without shaping, storage or integration services.

Does the owner/developer plan to pursue eligibility through the PURPA?

6. Development - Details

Required for development and construction projects. Not required for operating projects or non-unit-contingent offers. (Do not remove tab.)

Schedule

Submit a detailed project development schedule covering the period from the initiation of development activities through the project's proposed COD. *(e.g., Gantt chart)*

Include the most accurate estimates available for each of the following:

Project development	Construction	Include any additional timelines applicable to the project that will demonstrate its status and plans
Permitting	Startup	Include any actions taken to ensure the schedule is met (e.g., long-lead equipment orders)
Interconnection	Testing	Include any potential opportunities to improve the schedule
Engineering	Commissioning	

Construction

Have any arrangements or commitments been made for the construction of the project?
(e.g., contracts, LOIs, MOUs)

Describe the contractual structure proposed for project design, procurement and construction, and any arrangements or commitments for project construction. *(e.g., turnkey; engineering, procurement and construction (EPC); multiple lump-sum purchase, etc.)*

Provide additional detail below, submit supporting documentation as needed — Additional detail submitted?

(include "Development contractual structure" in filename of submitted document)

Describe any arrangements or commitments that have been made for either safe harbored and/or major equipment.

Provide additional detail below, submit supporting documentation as needed — Additional detail submitted?

(include "Development safe harbor and major equipment" in filename of submitted document)

Submit information about the organization and individual responsible for project management during this phase.

(include "Development project management" in filename of submitted document)

Has the respondent established a labor plan?

If yes, please submit the labor plan

(include "Labor Plan" in filename of submitted document)

If yes, is it consistent with RCW 82.08.962 and 82.12.962:

- High standards?
- Family-level wages?
- Benefits?
- Opportunities for local workers and businesses?

Will the project utilize a Project Agreement or Community Workforce Agreement for major construction activities associated with the construction of the project?

Does the respondent agree to make commercially reasonable efforts to ensure that such Project Agreement or Community Workforce Agreement is eligible to be certified by the Washington Department of and Industries under the standards of the Washington State Clean Energy Transformation Act (RCW 19.405)?

Will the project utilize apprenticeship during the construction phase of the project?

If the project is a renewable project that qualifies for a one and two-tenths (1.2) multiplier of the environmental attributes generated from the project, will the additional renewable attributes resulting from the use of apprenticeship accrue to PSE throughout the term of the PPA at the offer price specified in the proposal?

Briefly describe the labor plan.

If construction is completed, are there any open warranty issues?

If yes, submit a list of open warranty issues.

(include "Development warranty issues" in filename of submitted document)

7. Ownership - Capital Costs

Required for proposals containing asset sale offers. (Do not remove tab.)

Are costs in nominal dollars or real? | **Assumed escalation rate?**

	A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AC
1	**Project buildout capital costs (as applicable)**		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	Additional Info
2	Land acquisition	$																																				
3	Engineering	$																																				
4	Permitting	$																																				
5	Development fees	$																																				
6	Other development costs	$																																				
7	Generation facility	$																																				
8	OM building	$																																				
9	Project substation	$																																				
10	Generation equipment:	$																																				
11	Wind turbines	$																																				
12	Solar array(s)	$																																				
13	Combustion turbine / generator	$																																				
14	Batteries	$																																				
15	Power control systems / inverters	$																																				
16	Steam turbine	$																																				
17	Spare parts	$																																				
18	Pipeline build-out	$																																				
19	Environmental management / containment	$																																				
20	Remaining balance of plant construction	$																																				
21	Other (taxes, insurance, etc.)	$																																				
22	Contingency	$																																				
23	Initial working capital	$																																				
24	Start up power credit: sales of test power	$																																				
25																																						
26	**Ongoing capital costs during project operation (as applicable)**		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	Additional Info
27	Incremental capital needs *(please list)*	$																																				
28	Major maintenance	$																																				
29	Combustion inspection	$																																				
30	Hot gas path	$																																				
31	Turbine refurbishments	$																																				
32	Plant upgrades	$																																				
33																																						
34																																						
35																																						
36	**Are sales taxes assumed to be included in each line item?**																																					

8. Ownership - Operating Costs

Required for proposals containing asset sale offers. (Do not remove tab.)

Are costs in nominal dollars or real? **Assumed escalation rate?**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	**Generation statistics (as applicable per resource type)**		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Additional Info.
2	Net capacity	MW																										
3		MWh																										
4	Forced outage rate	%																										
5	Planned outage rate	%																										
6	Annual availability factor	%																										
7	Net capacity factor	%																										
8	Net annual generation (AC)	GWh																										
9																												
10																												
11	**Fixed operating expenses (as applicable per resource type)**		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Additional Info.
12	O&M - general	$/kW-yr																										
13	Transmission - electric to point of delivery (POD)	$/kW-yr																										
14	Insurance	$																										
15	Property tax	$																										
16	Asset management fee	$																										
17	Environmental monitoring	$																										
18	Outside services	$																										
19	Other	$																										
20	Fuel:																											
21	Primary fuel source	$/kW-yr																										
22	Secondary fuel source	$/kW-yr																										
23	Primary fuel transportation	$/kW-yr																										
24	Secondary fuel transportation	$/kW-yr																										
25	Service agreements:																											
26	Turbine / Generator O&M - service agreement	$/kW-yr																										
27	Remaining plant O&M - service agreement	$/kW-yr																										
28	Capacity payment	$/kW-yr																										
29	Water / Wastewater treatment	$/kW-yr																										
30	Spare parts	$/kW-yr																										
31	Parasitic power	MWh / yr																										
32	Permit requirements	$																										
33	O&M service agreement - wind	Total $																										
34	Development fee	$																										
35	Land leases	$																										
36																												
37																												
38																												
39	**Variable operating expense (as applicable per resource type)**		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	Additional Info.
39	O&M - general	$ / MWh																										
40	Running cost - Additional cost (over and above fuel and VO&M cost) incurred for each hour that the unit is online.	$/h																										
41	Transmission - electric to point of delivery (POD)	$ / MWh																										
42	Fuel:																											
43	Primary fuel transportation	$ / MMBtu																										
44	Secondary fuel transportation	$ / MMBtu																										
45	Service agreements:																											
46	Turbine / Generator O&M - service agreement	$ / MWh																										
47	Remaining plant O&M - service agreement	$ / MWh																										
48	Chemicals	$ / MWh																										
49	Production payments to developer	$ / MWh																										
50	Landowner royalties	$ / MWh																										
51	Fuel cost per unit	$ / Bone Dry Ton																										
52	Emissions cost	$ / MWh																										
53																												
54	**Are sales taxes assumed to be included in each line item?**																											

9. Bid Certification and Contacts

Required for all RFP proposals. (Do not remove tab.)

Bid certification

The respondent hereby certifies that this proposal is genuine; not made in the interest of, or on behalf of, any undisclosed person, firm or corporation; and is submitted in conformity with any anti-competitive agreement or rules. The respondent has not directly or indirectly induced or solicited any other bidder to submit a false or sham proposal. The respondent has not solicited or induced any other person, firm or corporation to refrain from proposing. The respondent has not sought by collusion to obtain for itself any advantage over any other respondent. False certification will result in disqualification of bid and forfeiture of the bid fee.

Note In addition to providing a fully intact copy of the live Exhibit B forms (in Excel format), bidder must provide a signed copy of Tab 9. A PDF scan of the signed tab must be submitted electronically along with Exhibit B and all other attachments. Please include "Bid Certification Signature" in filename of submitted document.

Proposal name *locked field populates from proposal Tab 3*	
Submitted by *full legal name of entity*	
Name of respondent entity *if different from above*	
Signature of an Officer of respondent entity *or other duly authorized agent*	

(include "Bid Certification Signature" in filename of submitted document)

Name of signatory	
Title of signatory	
Date signed	

Please provide a signed copy of Tab 9 (scanned PDF file), along with the complete live Excel proposal form.

Do not remove Tab 9 (or any other tab) from the Exhibit B proposal file.

Primary contact

Contact name	
Contact title	
Name of company	
Mailing address	
City	
State/Province	
Zip code	

Primary phone	
Email	
Alternate contact (optional)	
Contact name	
Contact title	
Name of company	
Mailing address	
City	
State/Province	
Zip code	
Primary phone	
Email	

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit C. Mutual Confidentiality Agreement

Mutual Confidentiality Agreement

This Agreement, dated as of , 2021, is entered into between Puget Sound Energy, Inc. ("PSE") and _____ ("_____"). PSE and _____ are sometimes referred to in this Agreement as "Party," and collectively as "Parties."

1. The Parties intend to enter into discussions regarding one or more potential transactions between the Parties involving the acquisition of electrical generation output or an interest in power generation facilities (or both). In the course of these discussions, each Party may disclose Confidential Information to the other. For the purposes of this Agreement, "Confidential Information" means any information or data disclosed in connection with such discussions in any form or media whatsoever by either Party (the "Disclosing Party") to the other Party (the "Receiving Party") which (a) if in tangible form, or other media that can be converted to readable form, is clearly and conspicuously marked as proprietary, confidential or private on each page thereof when disclosed; or (b) if oral or visual, is identified in writing as proprietary, confidential or private at the same time it is disclosed. "Confidential Information" includes all originals, copies, notes, correspondence, conversations and other manifestations, derivations and analysis of the foregoing.

2. Confidential Information shall not include information that (a) is or becomes generally available to the public other than by reason of the Receiving Party's breach of this Agreement; (b) the Receiving Party can reasonably demonstrate (i) was known by the Receiving Party, prior to its disclosure by the Disclosing Party, without any obligation to hold it in confidence, (ii) is received from a third party free to disclose such information without restriction, (iii) is independently developed by the Receiving Party without the use of Confidential Information of the Disclosing Party; (c) is approved for release by written authorization of the Disclosing Party, but only to the extent of such authorization; or (d) is related to the transmission of power, including but not limited to, any information which must be disclosed to the transmission function of a Party as part of any transmission request or information exchange that is required to be made public pursuant to Federal Energy Regulatory Commission or other governmental rules and regulations. Notwithstanding anything to the contrary set forth in this Agreement, the Receiving Party shall not be obligated to keep confidential any Confidential Information that (A) is required by law or regulation to be disclosed (including, without limitation, any summary or ranking of any proposal by the Disclosing Party constituting Confidential Information that PSE is required by law or regulation to make available to the public), but only to the extent and for the purposes of such required disclosure or (B) is required to be disclosed in response to a valid order or request of a court or other governmental authority having jurisdiction or in pursuance of any procedures for discovery or information gathering in any proceeding before any such court or governmental authority, but only to the extent of and for the purposes of such order, provided that the Receiving Party, who is subject to such order or discovery, gives the Disclosing Party reasonable advance notice (e.g., so as to afford the Disclosing Party an opportunity to appear, object and obtain a protective order or other appropriate relief

regarding such disclosure). The Receiving Party, who is subject to such order or discovery, shall, at the Disclosing Party's expense, use reasonable efforts to assist the Disclosing Party's efforts to obtain a protective order or other appropriate relief; provided, that the Disclosing Party acknowledges and agrees that the Receiving Party shall have no obligation or responsibility to appear before, or to make any showing to, any court or any other governmental authority in connection with protecting any Confidential Information from disclosure by such court or governmental authority, and such responsibility shall be solely that of the Disclosing Party.

3. The Parties acknowledge that PSE is a public utility regulated by the Washington Utilities and Transportation Commission ("Commission") and that its decisions regarding one or more potential transactions between the Parties involving the acquisition of electrical generation output or an interest in power generation facilities, together with related Confidential Information, may be subject to review by the Commission. Notwithstanding the provisions of Section 2, in the event that such PSE decisions are at issue in a proceeding before the Commission, PSE will seek, at its own expense, a protective order from the Commission with "highly confidential provisions" to protect against the disclosure of Confidential Information to competitors and the public. Disclosure of Confidential Information by either of the Parties to the Commission, its staff, counsel for the Commission or Public Counsel in the Attorney General's Office, or their internal advisors, in connection with any such proceeding will not violate this Agreement, nor will the filing with the Commission of generic bid summaries made in compliance with WAC 480-107-035 or -145.

4. Each party acknowledges and agrees that it has no proprietary or exclusive right to any tax matter, tax idea, tax structure or tax treatment related to any potential transaction or transaction between the Parties and that no such tax matter, tax idea, tax structure or tax treatment shall be deemed to be the Confidential Information of either Party.

5. The Receiving Party shall, subject to the other provisions of this Agreement, (a) use the Confidential Information only for purposes of evaluating one or more potential transactions between the Parties involving power generation facilities or the output thereof; (b) restrict disclosure of the Confidential Information only to employees, advisors, contractors (including any independent evaluator engaged pursuant to WAC 480-107-023), agents, representatives and active or potential investors or lenders of the Receiving Party and affiliates ("Representatives") with a "need to know"; (c) advise such Representatives of the confidential nature of the Confidential Information and their obligation to keep such information confidential; and (d) copy the Confidential Information only as necessary for those Representatives who are entitled to receive it, and ensure that all confidential notices are reproduced in full on such copies. A "need to know" means that the Representatives require the Confidential Information to perform their responsibilities in evaluating or pursuing one or more potential transactions between the Parties involving power generation facilities or the output thereof.

6. Confidential Information shall be deemed to be the property of the Disclosing Party. This Agreement shall not be interpreted or construed as granting any license or other right under or with respect to any patent, copyright, trademark, trade secret or other proprietary right. The Receiving Party shall, within 30 days of a written request therefor by the Disclosing Party, either return all of the Disclosing Party's Confidential Information (or any designated portion thereof) to the Disclosing Party or destroy all such Confidential Information (or any designated portion thereof) and provide an officer's certificate as to the destruction of such Confidential Information; provided, that PSE, as a Receiving Party, shall not be obligated to return to the Disclosing Party any proposal by the Disclosing Party, or any information related thereto, constituting Confidential Information, and PSE will retain all such proposals and information for the period set forth in Washington Administrative Code 480-107-145(1), which requires PSE to retain such materials for a period of at least seven (7) years from the completion of the RFP process, or the conclusion of PSE's next general electric rate case, whichever is later.

7. Neither this Agreement nor any discussions or disclosure hereunder shall (a) be deemed a commitment to any business relationship or contract for future dealing with another Party or (b) prevent either Party from conducting similar discussions with any third party, so long as such discussions do not result in the use or disclosure by the Receiving Party of Confidential Information protected by this Agreement. If the Parties elect to proceed with any transaction, then all agreements, representations, warranties, covenants and conditions with respect thereto shall be only as set forth in a separate written agreement to be negotiated and executed by the Parties.

8. Each of the Parties acknowledges that the Confidential Information received from another Party constitutes valuable confidential, commercial, business and proprietary information of the Disclosing Party and serious commercial disadvantage or irreparable harm may result for the Disclosing Party if the Receiving Party breaches its nondisclosure obligations under this Agreement. In such event or the threat of such event, the Disclosing Party shall be entitled to injunctive relief, specific performance and other equitable relief without proof of monetary damages. In any action to enforce this Agreement or on account of any breach of this Agreement, the prevailing Party shall be entitled to recover, in addition to all other relief, its reasonable attorneys' fees and court costs associated with such action.

9. This Agreement may not be assigned by either Party without the prior written consent of the other Party. No permitted assignment shall relieve the Receiving Party of its obligations hereunder with respect to Confidential Information disclosed to it prior to such assignment. Any assignment in violation of this Paragraph 9 shall be void. This Agreement shall be binding upon the Parties' respective successors and assigns.

10. This Agreement shall be deemed to be effective as of the date first above written, and shall continue thereafter for a period of seven (7) years or, if later, upon the conclusion of PSE's next general electric rate case.

11. No Party shall be liable to another Party for any consequential, indirect, incidental, special, exemplary or punitive damages arising out of or related to this Agreement.

12. This Agreement shall be interpreted, construed and enforced in accordance with the laws of the state of Washington, without regard to such state's choice of law principles to the contrary. Each of the Parties irrevocably consents to the exclusive jurisdiction and venue of any state or federal court located in King County, Washington, with regard to any legal or equitable action or proceeding related to this Agreement.

13. This Agreement represents the entire understanding between the Parties with respect to the confidentiality, use, control and proprietary nature of any information disclosed by the Disclosing Party to the Receiving Party and the subject matter hereof and supersedes all prior communications, agreements and understandings relating thereto. The provisions of this Agreement shall not be modified, amended or waived, except by a written instrument duly executed by both of the Parties.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of , 2021.

PUGET SOUND ENERGY, INC.

By _____

Its _____

[OTHER PARTY]

By _____

Its _____

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit D. Schedule of Estimated Avoided Cost

Schedule of Estimated Avoided Cost

This schedule of estimated avoided cost, as prescribed in WAC 480-106-040 and filed with the WUTC in Docket No. UE-190665, identifies the estimated avoided cost and does not provide a guaranteed contract price for electricity. The schedule only provides general information to potential respondents about the avoided costs. The schedule of estimated avoided costs includes the following two tables:

- **Table 1:** 2022-2041 avoided energy costs, based on the Company's forecast of market prices for the Mid-C Market in PSE's 2021 Integrated Resource Plan ("IRP") filed on April 1, 2021, pursuant to WAC 480-106-040(a).

- **Table 2:** 2021-2041 avoided capacity costs by resource type, as estimated in the Company's 2021 IRP filed on April 1, 2021. Pursuant to WAC 480-106-040(b)(ii), the 2021 IRP results for 2022-2025 are replaced with the "projected fixed costs of a simple-cycle combustion turbine".

Table 1. ***2021 IRP forecast of Mid-C market prices***

(Nominal $/MWh)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.
2022	26.56	27.65	20.55	15.10	9.49	11.31	21.01	22.88	24.31	23.59	24.69	27.53	21.19
2023	25.24	26.50	19.77	14.79	9.70	10.29	20.13	21.93	23.68	23.11	24.42	27.09	20.53
2024	24.49	25.82	18.79	13.88	7.17	9.23	18.46	22.35	24.00	22.97	24.39	26.06	19.79
2025	24.49	25.82	18.97	12.83	7.53	9.73	18.21	22.47	24.22	22.79	23.80	26.50	19.75
2026	24.38	26.73	18.20	13.87	7.99	9.55	18.67	22.57	24.01	23.09	23.99	26.99	19.97
2027	28.08	28.91	19.71	15.44	9.14	10.75	22.01	26.84	28.62	28.87	29.00	31.20	23.19
2028	28.71	29.47	19.64	16.52	9.08	11.20	23.79	28.14	32.15	31.02	30.01	33.37	24.42
2029	29.33	31.29	19.63	20.07	8.87	11.50	23.61	30.20	35.24	32.07	28.96	34.85	25.44
2030	29.05	30.29	18.28	18.75	8.06	10.96	22.71	29.93	34.66	32.94	30.73	34.61	25.05
2031	28.42	30.42	18.22	18.19	8.55	11.12	22.13	29.98	34.53	32.65	29.03	34.49	24.78
2032	28.24	29.21	18.31	19.43	10.21	10.67	23.05	29.05	33.67	34.86	32.28	35.65	25.38
2033	29.08	31.54	19.17	19.67	9.61	11.64	24.84	29.95	34.57	37.49	36.03	37.07	26.69
2034	29.79	32.26	19.17	19.69	10.51	12.34	27.12	30.25	36.25	37.68	35.17	38.81	27.40
2035	31.00	35.33	19.95	22.93	11.60	12.60	27.03	32.04	37.97	36.64	32.09	40.27	28.25
2036	31.90	35.40	20.49	21.57	11.51	13.52	29.25	34.32	39.07	38.76	38.04	42.85	29.71
2037	32.89	35.55	19.90	20.06	11.58	12.92	30.46	34.47	38.51	38.58	35.59	42.87	29.43
2038	33.05	34.31	19.61	20.59	12.34	12.73	30.02	34.49	38.54	38.11	34.60	43.72	29.33
2039	31.29	33.46	18.20	19.01	10.72	12.48	30.87	34.28	40.25	38.63	36.81	43.64	29.12
2040	31.22	33.69	17.21	18.62	10.00	12.67	30.73	33.44	41.90	38.88	37.62	46.67	29.38
2041	32.16	35.50	18.23	21.07	10.60	12.79	29.37	38.67	45.79	37.02	35.39	48.41	30.39

Table 2. ***2021 IRP forecast of avoided capacity cost***

(Nominal $/kw-yr)			
	Baseload resource	Wind resource	Solar resource
2022	$ 95.27	$ 16.96	$ 3.81
2023	$ 95.27	$ 16.96	$ 3.81
2024	$ 95.27	$ 16.96	$ 3.81
2025	$ 95.27	$ 16.96	$ 3.81
2026	$ 95.27	$ 16.96	$ 3.81
2027	$ 95.27	$ 16.96	$ 3.81
2028	$ 95.27	$ 16.96	$ 3.81
2029	$ 95.27	$ 16.96	$ 3.81
2030	$ 95.27	$ 16.96	$ 3.81
2031	$ 95.27	$ 14.67	$ 3.43
2032	$ 95.27	$ 14.67	$ 3.43
2033	$ 95.27	$ 14.67	$ 3.43
2034	$ 95.27	$ 14.67	$ 3.43
2035	$ 95.27	$ 14.67	$ 3.43
2036	$ 95.27	$ 14.67	$ 3.43
2037	$ 95.27	$ 14.67	$ 3.43
2038	$ 95.27	$ 14.67	$ 3.43
2039	$ 95.27	$ 14.67	$ 3.43
2040	$ 95.27	$ 14.67	$ 3.43
2041	$ 95.27	$ 14.67	$ 3.43
2042	$ 95.27	$ 14.67	$ 3.43
2043	$ 95.27	$ 14.67	$ 3.43
2044	$ 95.27	$ 14.67	$ 3.43
2045	$ 95.27	$ 14.67	$ 3.43

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit E. Prototype Ownership Term Sheet

Prototype Ownership Term Sheet

Background

This Prototype Ownership Term Sheet ("Term Sheet") sets forth the current requirements that PSE wants the Respondent to address or incorporate into any proposal made to PSE that contemplates the ultimate ownership of Respondent's project by PSE. It is intended to identify certain, but not all, of the elements of a potential transaction that would be embodied in Definitive Agreements (defined below). This Term Sheet may serve as the basis for a project in development or in operation. The terms presented and bracketed herein are indicative of PSE's expectations and may be subject to negotiation depending upon the particular nature of the proposal and other factors.

PSE has endeavored to identify in this Term Sheet those provisions that would be applicable generally to all Respondents and relevant to any potential transaction arising out of a proposed PSE ownership arrangement involving the sale of a project to PSE. PSE recognizes, however, that the particular facts and circumstances relevant to Respondent's project may vary from the transaction structure described in this Term Sheet, so certain proposals may not incorporate all elements of a PSE ownership arrangement outlined in this Term Sheet.

PSE also recognizes that Respondent may have other reasons (whether legal, regulatory or relating to financing) that may cause Respondent to propose that PSE purchase equity interests (such as limited liability company interests or limited partnership interests) in a project company that owns a generation project, rather than sell the project outright to PSE. By submitting its proposal, Respondent acknowledges that the RFP, including this Term Sheet, has been prepared by PSE as part of PSE's ongoing process of integrated resource planning and that PSE is considering alternative arrangements for the procurement of generation resources. This Term Sheet is an integral part of, and subject to, the terms and conditions of the RFP. This Term Sheet shall not be interpreted as an offer, agreement or commitment by PSE to acquire any generation resource. Also, this Term Sheet shall not limit, restrict or obligate PSE with regard to the conduct of its integrated resource planning process, the potential implementation of any plan or program of resource procurement or the actual procurement of any generation resources.

PSE reserves the right to reject any and all proposals received in response to the RFP, request the submission of different proposals for other

generation resources and/or seek to acquire generation resources from one or more parties other than any Respondent. PSE may also modify, change, supplement or delete any and all provisions of this Term Sheet, or withdraw and cancel the RFP.

General Ownership Structure

"PSE ownership arrangement" means a proposal pursuant to which PSE would ultimately own the resource. Ownership shall be transferred to PSE on or after the Commercial Operations Date ("COD") and using a variety of approaches. Possibilities include, for example, development by Respondent followed by the transfer to PSE, an initial purchase of power by PSE from a generation resource with transfer of ownership later, or other mutually beneficial approaches. PSE will not acquire an ownership interest in a Project (as defined below under "*Respondent and the Project*") prior to COD.

This Term Sheet sets forth certain terms and conditions which would be embodied in a purchase and sale agreement (the "PSA") pursuant to which PSE would acquire 100% of all assets, properties and rights of the Project from Respondent.[1]

If Respondent's proposal contemplates a PSE ownership arrangement, in addition to containing the other submissions required by the RFP, Respondent will need to set forth in its proposal substantial additional details. PSE will need to review supporting documents, information and data regarding the timing, price, terms and conditions of a proposed sale of the Project to PSE and, in the case of a Project under development, a budget, schedule and other information regarding the funding of construction, operation and maintenance of the Project.

[1] *These assets, properties and rights of the Project would include all of the associated real and personal property, tangible and intangible property, assets, equipment, components, facilities, interconnections, systems, spare and replacement parts, permits, intellectual property, and contractual, expansion and other rights currently held or acquired in the future that are necessary, useful, held for use or appropriate for the ownership, planning, development, permitting, design, engineering, construction, interconnection, transmission, use, operation, maintenance, repair and expansion of the Project.*

EXHIBIT E. PROTOTYPE OWNERSHIP TERM SHEET

Respondent and the Project

This Term Sheet assumes that Respondent is the owner of a generation project currently operating or under development and having a nameplate capacity of not less than 5 MW (the "Project").

In its response to the RFP, in addition to the other submissions that should accompany a proposal that contemplates the sale of all of the Project to PSE, Respondent needs to specify the date by which the Project will be placed in service, which shall be no later than [_____] (consistent with Section 1 of the RFP). At the placed in service date, the Project shall be in full compliance with all technical, performance and operating criteria and standards and the requirements of the RFP, applicable laws, regulations, permits and governmental authorities having jurisdiction over the parties or the Project.

Certain Definitive Agreements

PSE expects that the agreements necessary to complete the potential transaction described in this Term Sheet (the "Definitive Agreements") would include, among others: (1) a PSA for the sale by Respondent to PSE of all of the Project, (2) if required, a power purchase agreement ("PPA") and (2) if PSE deems it necessary due to the credit position of Respondent, a guaranty by a creditworthy affiliate of Respondent acceptable to PSE (the "Guarantor"), which would guaranty Respondent's obligations and those of Respondent's affiliates under the Definitive Agreements (the "Respondent Guaranty").

The execution and delivery of the Definitive Agreements would be subject, among other things, to PSE's completion of due diligence to its satisfaction and the approval of the transaction by each party's board of directors (or other appropriate management body).

Closing

The Closing would occur after receipt by the parties of all consents, authorizations and approvals and the satisfaction or waiver of conditions precedent specified in the Definitive Agreements. At the Closing, PSE would purchase the Project from Respondent, free and clear of all liens, charges, encumbrances, and conflicting or competing claims.

Early Termination

At any time before Closing, the Definitive Agreement may be terminated upon the occurrence of any of the following events:

- By mutual written consent of the Parties;

- By Purchaser or Seller in the event any non-appealable law becomes effective, or a final order is issued, which prohibits the completion of the Proposed Transaction;

- By Purchaser or Seller, as applicable, if

  (i) the other Party breaches any representation, warranty or covenant in the Build Transfer Agreement,

  (ii) such breach would result in a failure of, or inability of the other Party to satisfy the applicable Closing conditions(s), and

  (iii) such breach has not been cured to Purchaser's or Seller's, as applicable, reasonable satisfaction within thirty (30) days following receipt of written notice of such breach or an extended cure period not to exceed the Outside Closing Date;

- By either Party, upon the bankruptcy of the other Party;

If validly terminated, then all further obligations of the Parties will end (other than those which are intended to survive termination), and the Parties will be entitled to pursue all rights or remedies available at law or in equity.

Default

The definitive agreements shall include customary events of default ("Events of Default") including for failure to make payments when due, failure to perform a material obligation, breach of representation or warranty, bankruptcy, failure to maintain required credit support, etc.

In addition to customary Events of Default, the following shall be additional Events of Default, subject to extension for delays caused by Buyer or force majeure events and compliance by Seller of its obligation to mitigate such delays:

Failure to achieve a certain Development Milestones within [180] days after the guaranteed date therefor (as described above).

Failure to achieve the Commercial Operation Date within [180] days after the Guaranteed Commercial Operation Date (as described above).

Termination	Buyer may terminate the Definitive Agreements if Seller fails to achieve Commercial Operation by the date that is [180] days after the Guaranteed Commercial Operations Date. If an Event of Default shall have occurred, the non-defaulting Party shall have the right to terminate the Definitive Agreements and, in such case, each Party shall pay the other all amounts due for all periods prior to termination. In addition, the defaulting Party shall make a termination payment to the non-defaulting party. Any termination payment under the Definitive Agreements shall be based on a comparison of NPV of payments that non-defaulting Party reasonably expects to be applicable in the market under a replacement contract covering the same services to the NPV of the then remaining payments under the Definitive Agreements, plus the reasonable transactional costs of the non-defaulting Party entering into a new ownership arrangement. Calculations based on reasonable assumptions as to future Generating Facility operations, differences between a replacement contract and the Definitive Agreements, discount rate and similar considerations, as reasonably determined by the non-defaulting Party.
Transaction Taxes	Respondent would be responsible for the payment of all sales, conveyance, transfer, excise, real estate excise, business and occupation or similar transaction taxes assessed with respect to or imposed on either party relating to PSE's purchase of the Project or otherwise in connection with a potential transaction. PSE would agree to cooperate with Respondent to minimize the parties' respective transaction taxes.
Regulatory Approvals	PSE expects that the following regulatory approvals, among others, might be required prior to Closing to implement a proposed transaction: Receipt of FERC approval under Section 203 of the Federal Power Act; and Expiration of any waiting period (or obtaining of any approval required) under Hart-Scott-Rodino.
Representations, Covenants & Warranties	The Definitive Agreements would contain representations, covenants and warranties of each party that are customary for similar transactions
Terms and Conditions For	If Respondent's proposal involves a development Project, PSE requires that the Respondent keep responsibility for its completion, start-up and commissioning pursuant to a separate engineering, procurement and

Projects Under Development

construction or similar contract arrangements (collectively, "EPC") in accordance with PSE requirements.

In either case, the Definitive Agreements would include detailed schedules showing the Project's design, engineering and construction status. These schedules will need to include:

- performance and technical specifications of the Project;
- performance guarantees;
- major equipment and systems and vendors;
- major subcontractors;
- the status of development activities including real estate, permitting, interconnection and transmission, etc. ;
- the status of contractors' and vendors' obligations and warranties; and,
- the schedule for completion of the Project and other related information and data.
- labor agreements

The Definitive Agreements would also require Respondent to provide access to the Project to certain designated PSE employees, representatives and agents so that they can observe and monitor the manufacture, fabrication, assembly, installation, construction, start-up, testing and commissioning of the Project and any parts or components of it. PSE's employees, representatives and agents would also be permitted access to the premises of contractors, vendors and consultants and attend meetings and review and copy information, data and documents in connection with PSE's due diligence review. PSE's employees, representatives and agents would be required to observe Respondent's (and Respondent's contractors') rules regarding safety, security and confidentiality and would not interfere with or hinder the construction of the Project, unless in cases of imminent threat. Respondent will be required to make contractors, equipment suppliers, and vendors or personnel available to provide necessary training to PSE personnel who will be responsible for operation of the project after hand over.

Labor

To the extent possible and subject to any collective bargaining agreement of Seller or its affiliates, if any, Seller shall make a good faith effort given its

commercial requirements to hire local workers (such as local unionized workforce) during construction of the Generating Facility and as permanent employees for the operation of the Generating Facility and performance of Seller's obligations under the terms of the definitive agreement. Seller shall use commercially reasonable efforts to use apprenticeship labor to meet the Washington State Apprenticeship and Training Council requirements so as to allow Purchaser to qualify for the statutory one and two-tenths (1.2) multiplier for quantifying the Attributes from the Generating Facility.

As required by WAC 480-107-075, Respondent shall furnish to Purchaser from time to time, upon Purchaser's reasonable request, and in any event not more than once annually, a report detailing the use by Seller of diverse businesses, including but not limited to women-, minority-, disabled-, and veteran-owned businesses, and a report detailing the application of the labor standards in RCW 82.08.962 and 82.12.962.

Respondent's Completion of the Project

Subject to certain approval rights of PSE, Respondent would be responsible for the direction of, and the cost and expense necessary, incidental to or appropriate for, the construction, completion, start-up and commissioning of the Project, including mobilization, design, engineering, procurement, supply, supervision, and testing expenses (with the exception of such expenses related to fuel for certain tests as set forth below). Guarantor would unconditionally guarantee Respondent's payment, performance, warranty and other obligations with respect to the design, engineering, construction and completion of the Project in accordance with the criteria set forth in the Definitive Agreements. Respondent would cause construction of the Project to be performed or supervised by an EPC contractor experienced in the design, engineering and construction of electric generating facilities similar to the Project and in accordance with applicable laws, regulations, permits, the standards and criteria of original equipment manufacturers, good industry practices and insurance requirements. PSE may require that labor agreements be in place for construction of the project.

Respondent shall use commercially reasonable efforts to achieve the agreed upon Development Milestones for the Generating Facility, which shall include "interim" major milestones, such as receipt of all applicable permits, EPC contract execution, commencement of physical construction, commencement and completion of generation tie-line construction, completion of construction of foundations, generation equipment

commitment date, energization date, and test energy date. The guaranteed major Development Milestone dates shall be subject to extension for delays caused by PSE or force majeure events, subject to compliance by Respondent of its obligation to mitigate such delays. In the event Respondent fails to achieve a major Development Milestone on or before the guaranteed date therefor, Respondent shall be required to pay to PSE "interim" liquidated damages for each day of delay beyond the applicable guaranteed date in an amount per day of [$200] per MW of the Generating Facility's Planned Nameplate Capacity. If certain major Development Milestones have not been achieved within [180 days] after the guaranteed date therefor, it shall be an Event of Default under the Definitive Agreements and PSE shall be entitled to terminate the Definitive Agreements and seek damages or exercise other remedies at law or equity. Interim liquidated damages shall be credited against the amount of any delay liquidated damages payable for a failure to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date and if any such credits are not fully utilized as of the Commercial Operations Date, Buyer shall refund such remaining amount of interim liquidated damages to Respondent. If the Guaranteed Commercial Operation Date ultimately is achieved despite Seller's failure to satisfy one of more of the other major Development Milestones, Buyer shall refund such interim liquidated damages to Seller.

Respondent shall not be permitted to achieve Commercial Operation of the Project unless the Final Nameplate Capacity equals or exceeds [ninety-five percent (95%)] of the Planned Nameplate Capacity. If the Commercial Operation Date is achieved, but the Final Nameplate Capacity is less than one hundred percent (100%) of the Planned Nameplate Capacity, Seller shall make a one-time payment of liquidated damages to Purchaser in the amount of [Two Hundred Thousand Dollars ($200,000)/MW] for each MW that the Final Nameplate Capacity is below the Planned Nameplate Capacity.

Respondent shall provide a Guaranteed Commercial Operation Date for the Generating Facility. The Guaranteed Commercial Operation Date shall be extended for delays caused by PSE or force majeure events (with extensions for force majeure events not to exceed [180] days in the aggregate), subject to compliance by Respondent of its obligation to mitigate such delays. In the event Respondent fails to achieve Commercial Operation on or before the Guaranteed Commercial Operation Date, Respondent shall be required to pay to PSE liquidated damages for each day of delay beyond the Guaranteed Commercial Operation Date in the amount per day of [$200] per MW of the Generating Facility's Planned

Nameplate Capacity. If the Commercial Operation Date has not been achieved within [180] days after the Guaranteed Commercial Operation Date, it shall be an Event of Default under the Definitive Agreements and Buyer shall be entitled to terminate the Definitive Agreements and seek damages or exercise other remedies at law or equity.

Change Orders:

In completing the construction of the Project, Respondent would notify PSE, in writing, prior to making any proposed change order or any other modification to the design, component parts or equipment or operational characteristics of the Project that (A) (i) involves individually an amount in excess of $[_____] or (ii) is proposed after the aggregate value of prior change orders or modifications is $[_____], or (B) which would reasonably be expected to adversely affect the operational characteristics, reliability or costs of operation and maintenance of the Project. PSE would have ten (10) days to notify Respondent in writing that PSE does not consent to the proposed change order or modification described by Respondent in such notice; otherwise PSE would be deemed to concur with the proposed change order or modification.

Otherwise, Respondent shall have the right, without PSE's consent, to make such substitutions of parts, materials and/or equipment in completing the construction of the Project as would not be reasonably expected to adversely affect the operational characteristics, reliability or costs of operation or maintenance of the Project. Respondent agrees to provide PSE with a list of such substitutions on a monthly basis and at Substantial Completion and Final Completion (each as defined below). In the event Respondent fails to provide timely notice to PSE of any proposed change order or modification of the nature or effect described above, and such change order or modification results in a material adverse change to the operational characteristics, reliability or costs of operation and maintenance of the Project, the Definitive Agreements would set forth mutually agreed upon rights and remedies.

For purposes of this Term Sheet, “Substantial Completion” means the completion of the Project, the completion of the facilities necessary to interconnect the Project to the electric grid and to receive water, fuel supplies and other supplies and services, and the delivery of all permits, interim manuals sufficient for interim operations during the period between Substantial Completion and Final Completion, and other deliverables necessary for PSE to operate the Project on a commercial basis in accordance with the requirements of the Definitive Agreements at an

electrical output not less than and, if applicable, a heat rate not greater than certain "Minimum Performance Guarantees" to be agreed to in the Definitive Agreements. "Final Completion" shall mean the final completion by Respondent of all items of work remaining at Substantial Completion, delivery of all outstanding deliverables, including manuals and lien releases from contractors and vendors, clean-up of the site and removal of all equipment.

No later than at Final Completion, Respondent would provide PSE with statutory lien releases from the EPC contractor and its subcontractors furnishing services, equipment or goods used in the design, engineering, equipping, construction and completion of the Project, evidencing that all amounts due to such parties have been paid or bonded around, such that PSE and the Project would not be liable for payment of any such amounts owed.

Subsequent to Closing, PSE would be the owner of and receive one hundred percent (100%) of all energy products produced in connection with the start-up, testing and commissioning of the Project.

Development Milestones

Seller shall use commercially reasonable efforts to achieve the agreed upon Development Milestones for the Generating Facility, which shall include "interim" major milestones, such as receipt of all applicable permits, EPC contract execution, commencement of physical construction, commencement and completion of generation tie-line construction, completion of construction of foundations, generation equipment commitment date, energization date, and test energy date. The guaranteed major Development Milestone dates shall be subject to extension for delays caused by Buyer or force majeure events, subject to compliance by Seller of its obligation to mitigate such delays.

In the event Seller fails to achieve a major Development Milestone on or before the guaranteed date therefor, Seller shall be required to pay to Buyer "interim" liquidated damages for each day of delay beyond the applicable guaranteed date in an amount per day of [$200] per MW of the Generating Facility's Planned Nameplate Capacity. If certain major Development Milestones have not been achieved within [180] days after the guaranteed date, it shall be an Event of Default under the Definitive Agreements and Buyer shall be entitled to terminate the PPA and seek damages or exercise other remedies at law or equity.

Interim liquidated damages shall be credited against the amount of any delay liquidated damages payable for a failure to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date and if any such credits are not fully utilized as of the Commercial Operations Date, Buyer shall refund such remaining amount of interim liquidated damages to Seller. If the Guaranteed Commercial Operation Date ultimately is achieved despite Seller's failure to satisfy one of more of the other major Development Milestones, Buyer shall refund such interim liquidated damages to Seller.

Additional Representations, Warranties and Covenants of Respondent

PSE expects that the Definitive Agreements will include the following additional representations, warranties and covenants:

(1) Respondent will cause the Project to be developed, designed, engineered, equipped and constructed in accordance with the provisions of the Definitive Agreements so as to meet the Minimum Performance Guarantees and other criteria set forth in the Definitive Agreements and be Substantially Complete and commercially operable on or before a guaranteed Substantial Completion date;

(2) Respondent will provide a full "wrap" of obligations with respect to the Project and all equipment warranties and cause Guarantor to guarantee Respondent's obligations;

(3) Respondent would at all times maintain sufficient rights and entitlements to such services and facilities as may be necessary to develop, construct and complete the Project so that upon Substantial Completion the Project may be operated on a commercial basis;

(4) Respondent would obtain and maintain during the construction of the Project, at Respondent's cost and expense, builder's risk insurance, the terms, conditions, limits of coverage and other provisions of which are normal and customary;

(5) Respondent, with PSE's commercially reasonable cooperation and assistance, would at Respondent's cost be responsible for applying for, obtaining and maintaining and complying with all permits and other governmental authorizations necessary or appropriate for the construction, start-up, testing, ownership, occupancy, use, operation and maintenance of the Project; and

(6) Respondent would cause all equipment warranties (the terms and conditions of which PSE will have the right to approve) to be in full force with the respective contractors and vendors and fully assignable to PSE, and Respondent will assign such warranties to PSE as of Substantial Completion of the Project.

Project Managers and Independent Engineer

Each of the parties would designate a construction project manager no later than the date of Closing. Notices, correspondence and other communication required or contemplated by the Definitive Agreements relating to the construction of the Project would be made through the parties' respective construction project managers, except as otherwise agreed.

An independent engineer would be retained, at Respondent's expense, to verify Respondent has achieved the performance levels and other criteria required to meet Substantial Completion and Final Completion under the Definitive Agreements. PSE and Respondent would select the independent engineer from a mutually agreed list of qualified engineers included in the Definitive Agreements.

Availability Guarantee

For Projects which include an initial purchase of power by PSE from a generation resource with transfer of ownership later, the availability guarantee shall be as set forth in the relevant provision of the Prototype Clean Energy PPA Term Sheet found in Exhibit G to this RFP.

Respondent Guaranty Requirements

If PSE determines that Respondent alone is not sufficiently creditworthy, PSE will require Respondent to have Guarantor provide PSE with the Respondent Guaranty, pursuant to which Guarantor would guarantee the performance by Respondent and Respondent's affiliates of Respondent's obligations to or for the benefit of PSE under the Definitive Agreements. The Guarantor would also guaranty the payment of any damages, losses, liabilities, costs and expenses incurred by PSE and payable by Respondent or Respondent's affiliates) under the Definitive Agreements. The parties would address in the Definitive Agreements the circumstances, if any, in which PSE might require adequate assurance by Respondent or Guarantor of Respondent's performance under the Definitive Agreements, and the nature of such assurance.

Limitations on Liability

The Definitive Agreements shall provide that notwithstanding anything to the contrary, in the event of a breach of the obligations of one of the parties or otherwise, such party would be liable for direct damages only, and under

no circumstances shall such party be liable to the other party for consequential (including, without limitation, lost profits, business interruption and the like), incidental, punitive, exemplary or similar damages.

Indemnification

The Definitive Agreements would also set forth provisions by which each party would indemnify, hold harmless and defend the other party and its affiliates, directors, officers, employees, representatives and agents from and against certain losses with respect to false or inaccurate representations and warranties or breaches of covenants and obligations under the Definitive Agreements.

Due Diligence

For a specified period commencing on the date PSE notifies Respondent that Respondent's proposal has been selected as a potential transaction (this period, and any extensions to it that the parties may agree upon, the "Due Diligence Period"), PSE would be entitled to conduct an in-depth due diligence review of the Project, Respondent, Guarantor and any affiliate of Respondent that would be a party to a Definitive Agreement. Respondent agrees to fully cooperate (and cause Respondent's affiliates to fully cooperate) with PSE and to facilitate this process.

PSE expects that PSE's due diligence would include a review of the following, among other things:

- all technical matters relating to the Project;
- construction, engineering and transmission agreements, and any other commercial arrangements relating to the Project;
- legal and regulatory matters (including the availability and terms of all required permits and licenses);
- information systems, human resources (subject to applicable legal confidentiality and other restrictions), insurance matters; and
- any other matters associated with the development, permitting, design, safety, engineering, construction, interconnection, start-up, commissioning, operation and maintenance of the Project.

PSE agrees that its due diligence review shall not unreasonably disrupt Respondent's (or Respondent's affiliates') business or the business of Respondent's directors, officers, employees and agents. The Due Diligence Period would terminate automatically in the event of the termination of the Term Sheet by either party.

	During the Due Diligence Period, Respondent and Respondent's affiliates would provide access to the Project to certain designated PSE employees, representatives and agents so that they could observe, monitor, and assess the manufacture, fabrication, assembly, installation, construction, start-up, testing and commissioning of the Project and any of its parts or components. PSE's employees, representatives and agents would also be permitted access to the premises of contractors, vendors and consultants, attend meetings and review and copy information, data and documents in connection with PSE's due diligence review. PSE would be subject to and would be required to observe Respondent's (and Respondent's contractors') rules regarding safety, security and confidentiality and PSE would not interfere with or hinder the construction of the Project.
Dispute Resolution	The Definitive Agreements would contain provisions for the resolution of disputes, and the exclusive forum for the resolution of any dispute arising under or in connection with this Term Sheet or the Definitive Agreements would be King County, Washington or if no such court will accept jurisdiction, in any state or federal court of general jurisdiction in the State of Washington, or if no such court will accept jurisdiction, in any court of competent jurisdiction in the United States) with respect to any proceeding relating to the Definitive Agreements.
Expenses	Unless otherwise provided for in the RFP, Each party would bear its own legal, accounting, regulatory and other professional fees and expenses and other costs associated with the RFP and a potential transaction, regardless of whether a transaction is consummated.
Assignability	The parties would not be permitted to assign the Definitive Agreements or their respective rights and obligations under them without the prior written consent of the other party, such consent not to be unreasonably withheld or delayed.

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit F. Prototype Capacity and/or Energy Agreement Term Sheet

Prototype Capacity and/or Energy Agreement Term Sheet[1]

Background

This Prototype Capacity/Energy Agreement Term Sheet ("Term Sheet") sets forth the current requirements that PSE wants the Respondent to address or incorporate into any proposal made to PSE that contemplates generating energy products for PSE from a [Generation / Storage] facility ("Facility"). It is intended to identify certain, but not all, of the elements of a potential transaction that would be embodied in a definitive Capacity/Energy Agreement. This Term Sheet may serve as the basis for a proposal involving a Facility in development or in operation. The terms presented and bracketed herein are indicative of PSE's expectations and may be subject to negotiation depending upon the particular nature of the proposal and other factors.

By submitting its proposal, Respondent acknowledges that the RFP, including this Term Sheet, has been prepared by PSE as part of PSE's ongoing process of integrated resource planning and that PSE is considering alternative arrangements for the procurement of energy products. This Term Sheet is an integral part of, and subject to, the terms and conditions of the RFP. This Term Sheet shall not be interpreted as an offer, agreement or commitment by PSE to acquire any energy product. Also, this Term Sheet shall not limit, restrict or obligate PSE with regard to the conduct of its integrated resource planning process, the potential implementation of any plan or program of resource procurement or the actual procurement of any energy product.

PSE reserves the right to reject any and all proposals received in response to the RFP, request the submission of different proposals for other energy products and/or seek to acquire energy products from one or more parties other than any Respondent. PSE may also modify, change, supplement or delete any and all provisions of this Term Sheet, or withdraw and cancel the RFP.

Parties

Puget Sound Energy, Inc. ("Buyer") and [_____] ("Seller").

[1] *This indicative term sheet lays out key terms for capacity and/or energy proposals in response to PSE's 2021 All Source RFP. The terms assume bidders are proposing a Capacity Agreement; however, this may also include other resources such as dispatchable energy storage, CETA qualified hydro, and system sales.*

EXHIBIT F. PROTOTYPE CAPACITY AND/OR ENERGY AGREEMENT TERM SHEET

[Generating / Storage / System Purchase] Facility	A [generation/storage facility or system purchase] with a [planned/operational] nameplate capacity of [____] MW [to be developed and] owned by Seller and located [_____]. With a monthly capacity guarantee and dispatchability as outlined in [Schedule II]
Transaction	Seller shall provide to Buyer the Capacity/Energy Services beginning [_____](the "Delivery Date") through the expiration of the Term. If the Facility is under development, the Delivery Date shall be the Commercial Operation Date. Energy generated shall be delivered to Buyer at the Energy Delivery Point pursuant to this Capacity/Energy Agreement. Buyer prefers to be the exclusive recipient of capacity/energy services from the Facility, but will consider non-exclusive arrangements. All ancillary services from the [_____ Facility], as further described and defined in Schedule II, as well as any associated electrical capacity rights shall accrue to Buyer.
Term	The Capacity/Energy Agreement shall be effective when signed and shall terminate [____] years from the Delivery Date (the "Term").
Energy Delivery Point	[_____] ("Energy Delivery Point").
Contract Price	The Contract Price, and the components thereof, are set forth in Schedule I attached hereto.
Commercial Operation[2]	Commercial Operation shall mean, with respect to the Facility, that date designated by Seller and confirmed by Buyer on which at least [ninety-five percent (95%)] of the nameplate capacity constituting the Facility has been placed in commercial operation, as evidenced by an officer's certificate of Seller and a confirmation from Buyer (which confirmation shall not be unreasonably withheld or delayed), but such date shall be no earlier than the date upon which the following have occurred: (i) the interconnection agreement for the Facility has been executed, (ii) the Facility has been satisfactorily tested and (iii) all related facilities and rights have been completed or obtained, including all interconnection facilities and substations, to allow for continuous operation of the Facility and the sale

[2] *To be included if the Facility is under development or construction.*

of energy, capacity and Ancillary Services therefrom ("Commercial Operation").

Seller shall provide a Guaranteed Commercial Operation Date for the Facility. The Guaranteed Commercial Operation Date shall be extended for delays caused by Buyer or force majeure events, subject to compliance by Seller of its obligation to mitigate such delays. In the event Seller fails to achieve Commercial Operation on or before the Guaranteed Commercial Operation Date, Seller shall be required to pay to Buyer liquidated damages for each day of delay beyond the Guaranteed Commercial Operation Date in the amount per day of [$200] per MW of the Facility's expected nameplate capacity. If the Commercial Operation Date has not been achieved within [180] days after the Guaranteed Commercial Operation Date, Seller shall be in default under the Capacity/Energy Agreement and Buyer shall be entitled to terminate the Capacity/Energy Agreement and seek damages or exercise other remedies at law or equity.

If the Commercial Operation Date is achieved, but the Final Nameplate Capacity is less than one hundred percent (100%) of the Planned Nameplate Capacity, Seller shall make a one-time payment of liquidated damages to Purchaser in the amount of [Two Hundred Thousand Dollars ($200,000)/MW] for each MW that the Final Nameplate Capacity is below the Planned Nameplate Capacity.

Development Milestones[3]

Seller shall use commercially reasonable efforts to achieve the agreed upon Development Milestones for the Facility, which shall include "interim" major milestones, such as receipt of all necessary permits, EPC contract execution, achieving financial closing, the commencement of physical construction, commencement and completion of generation tie-line construction, completion of construction of foundations, generation equipment commitment date, energization date, and test energy date. The guaranteed Development Milestone dates shall be subject to extension for delays caused by Buyer or force majeure events, subject to compliance by Seller of its obligation to mitigate such delays. In the event Seller fails to achieve the agreed upon major Development Milestones on or before the prescribed guaranteed date therefore, Seller shall be required to pay to Buyer "interim" liquidated damages for each day of delay beyond the prescribed date in the amount per day of [$200] per MW of the Facility's expected nameplate capacity. If certain major Development Milestones have not been achieved within [180] days after the guaranteed date therefor, it shall be an Event of Default under the Capacity/Energy

[3] *To be included if the Facility is under development.*

	Agreement and Buyer shall be entitled to terminate the Capacity/Energy Agreement and seek damages or exercise other remedies at law or equity. Interim liquidated damages shall be credited against the amount of any delay liquidated damages payable for a failure to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date and if any such credits are not fully utilized as of the Commercial Operations Date, Buyer shall refund such remaining amount of interim liquidated damages to Seller. If the Guaranteed Commercial Operation Date ultimately is achieved despite Seller's failure to satisfy one of more of the other major Development Milestones, Buyer shall refund such interim liquidated damages to Seller.
Labor	To the extent possible and subject to any collective bargaining agreement of Seller or its affiliates, if any, Seller shall make a good faith effort given its commercial requirements to hire local workers (such as local unionized workforce) during construction of the Facility and as permanent employees for the operation of the Facility and performance of Seller's obligations under the terms of the Capacity/Energy Agreement. Seller shall use commercially reasonable efforts to use apprenticeship labor to meet the Washington State Apprenticeship and Training Council requirements so as to allow Purchaser to qualify for the statutory one and two-tenths (1.2) multiplier for quantifying the Attributes from the Facility. As required by WAC 480-107-075, Seller shall furnish to Purchaser from time to time, upon Purchaser's reasonable request, and in any event not more than once annually, a report detailing the use by Seller of diverse businesses, including but not limited to women-, minority-, disabled-, and veteran-owned businesses, and a report detailing the application of the labor standards in RCW 82.08.962 and 82.12.962.
Standard of Operation	Seller shall operate the Facility in accordance with the practices, methods, acts, guidelines, standards and criteria of relevant system operators or reliability councils, and all applicable Laws. Seller shall obtain all certifications, permits, licenses and approvals necessary to construct, operate and maintain the Facility and to perform its obligations under the Capacity/Energy Agreement.
Transmission Services; Interconnection	During the Term, Seller shall be responsible for delivery of the energy generated by the Facility (less applicable transmission losses) to the Energy Delivery Point and Buyer shall be responsible for arranging, at Buyer's expense, all transmission services from the Energy Delivery Point. Seller shall be responsible for all costs of interconnection of the Facility and any associated network upgrades required by Buyer's transmission function or

any other transmission provider. It shall be the specific responsibility of Seller to have secured transmission necessary to deliver the energy to Buyer's system. Buyer shall consider arrangements whereby Seller secures such transmission rights from the Facility to Buyer's system and assigns those transmission rights to Buyer, with Buyer taking on responsibility for the costs of transmitting such energy to Buyer's system.

Capacity Tests

Prior to the Delivery Date, Seller shall establish the tested capacity (the "Tested Capacity") of the Facility pursuant to a performance test conducted in accordance with procedures to be agreed upon by the Parties. Each Party shall have the right to request a limited number of additional performance tests at the expense of the requesting party to re-determine the Facility's Tested Capacity. If as the result of any performance test, the Tested Capacity of the Facility is less than [____] MW (the "Minimum Capacity"), the Monthly Capacity Payment shall be appropriately reduced until such time that Seller shall have demonstrated, to Buyer's reasonable satisfaction, that the Tested Capacity shall have been restored.

Metering

Subject to the requirements of the interconnection agreement for the Facility, Seller shall be responsible for the provision, maintenance, reading and testing of all electric metering equipment in conformance with all applicable regulatory requirements, with Buyer having rights to inspect, observe tests and conduct its own tests in its reasonable discretion.

Scheduling Coordinator; Imbalances

Buyer shall be responsible for arranging all scheduling services necessary to ensure compliance with applicable regional power scheduling regulations and protocols. Buyer and Seller shall prepare and put in place certain mutually acceptable scheduling protocols to be followed by Buyer, including the nature and extent of information to be utilized to prepare schedules and the policies and practices to be applied to such information by Buyer in connection therewith ("Agreed Scheduling Practices").

Seller shall arrange and be responsible for any transmission services required to deliver energy to the Energy Delivery Point and shall schedule or arrange scheduling services with its transmission providers to so deliver the energy to the Energy Delivery Point. Buyer shall arrange and be responsible for transmission services at and from the Energy Delivery Point and shall schedule or arrange for scheduling services with its transmission providers to receive energy at the Energy Delivery Point.

Buyer shall be responsible for all transmission charges, ancillary service charges, electrical losses and any other transfer-related charges

(collectively, "Charges") attributable to or assessed for energy delivered to Buyer at and after the Energy Delivery Point. Seller shall be responsible for all Charges applicable to the Facility's output prior to the Energy Delivery Point.

Seller shall be obligated to pay, or reimburse Buyer for the payment of, any generation imbalance charges related to the over-generation or under-generation of energy scheduled to be generated by the Facility to the extent that such imbalance was caused by the operation of the Facility, the failure of the Facility to operate or Seller's failure to comply with the Agreed Scheduling Practices.

Resource Adequacy Program

Purchaser may participate in the regional Resource Adequacy (RA) Program to be administered by a regional organization, which is yet to be determined. In such case, Purchaser would intend for the Seller to be designated as a participating RA resource in the RA program, with Purchaser acting as RA Coordinator. Seller anticipates working with Purchaser to enable Seller to qualify as a participating resource in the RA program.

Energy Imbalance Market

Purchaser participates in the Energy Imbalance Market ("EIM") operated by the CAISO. For resources within Purchaser's Balancing Authority Area ("BAA") Purchaser may intend for the Seller to be designated as a participating resource (or its equivalent from time to time) in the Energy Imbalance Market, with Purchaser acting as Scheduling Coordinator (as defined in the CAISO Open Access Transmission Tariff) for the Facility. In such case, Purchaser and Seller should expect to work together to complete the technical review described in Section 3.3 of the EIM BP, which shall identify improvements to the Facility required for the Facility to be designated as a participating resource in the Energy Imbalance Market. Upon conclusion of the technical review, Seller shall cause any required improvements to the Facility to be implemented, at Seller's sole cost and expense. Seller anticipates working with Purchaser to enable Seller to qualify as a participating resource in the Energy Imbalance Market and, if applicable, the Extended Day Ahead Market.

Taxes

Seller shall be responsible for and shall pay all taxes incurred by Seller or Buyer on the energy, capacity and Ancillary Services produced and sold prior to the Delivery Point. Buyer shall be responsible for and shall pay all taxes incurred by Seller or Buyer on energy, capacity and Ancillary Services produced and sold at and beyond the Delivery Point. Buyer shall be

responsible for and shall pay all taxes incurred by Seller or Buyer associated with the acquisition and delivery of fuel to the Facility.

Operation and Maintenance

Seller and Buyer shall endeavor to develop written operating procedures ("Operating Procedures") for the Facility before the Delivery Date which shall set forth the protocol under which the Parties shall perform their respective obligations under the Capacity/Energy Agreement and shall include, without limitation, procedures concerning the following: (i) the method of day-to-day communications, (ii) key personnel lists for Seller and Buyer, including an appointed authorized representative for each Party, and (iii) forced outage and planned outage reporting.

During the Term, the Facility shall be operated and maintained by Seller or its designee in accordance with those practices, methods, and acts, that are commonly used by a significant portion of the [_____] industry in prudent engineering and operations to design and operate such electric equipment lawfully and with safety, dependability, efficiency, and economy, including any applicable practices, methods, acts, guidelines or standards and criteria of governing regulatory bodies and reliability councils and all applicable requirements of law.

Outages

No later than ninety (90) days prior to the beginning of each calendar year during the Term, Seller shall provide Buyer with a non-binding detailed planned outage schedule for the forthcoming year and Seller shall be excused from providing electricity during any planned outage.

Seller shall furnish Buyer with as much advance notice as practicable of any proposed or necessary maintenance outages. The Parties shall work to plan such outage to mutually accommodate, as practicable, the reasonable requirements of Seller and the reasonable requests of Buyer, taking into account the desire of Buyer to have the Facility available during peak periods.

Seller shall promptly provide written notice to Buyer, to the extent information is available, of the reason, timing, expected duration and the impact upon the energy output of any forced outage. Seller also shall provide to Buyer, in a form reasonably acceptable to Buyer, a monthly report of forced outages.

Availability/ Round-trip

Seller shall provide Buyer with a guarantee that the Facility availability shall be no less than the percentages indicated on Schedule III for each month after the Delivery Date (the "Minimum Monthly Availability"). Facility

Efficiency Guarantee	availability shall be calculated using a methodology agreed to by the Parties that is generally consistent with the method prescribed by the Facility's equipment manufacturers. Seller shall pay to Buyer liquidated damages if the Facility fails to meet the Minimum Monthly Availability in any contract year after the Commercial Operation Date. If the Facility fails to meet the Minimum Monthly Availability in any month after the Delivery Date, the Monthly Capacity Payment for such month, if applicable, shall be reduced as determined pursuant to Schedule III. Seller's failure to cause the Project to achieve an Availability Factor of at least [eighty five percent (85%)] for any two consecutive Contract Years, commencing on the first anniversary of the Commercial Operation Date will be grounds for default. For storage projects, Seller guarantees a [____] round-trip efficiency guarantee throughout the terms of the agreement.
Credit Support	Upon execution of the Capacity/Energy Agreement Seller shall maintain an investment grade credit rating. If Seller does not have or cannot maintain the required credit rating, Seller shall provide Buyer with a guaranty, cash collateral and/or letter of credit in forms acceptable to Buyer in the amount of [$125,000 per MW]. In addition to the foregoing security, Seller shall furnish Buyer with a lien on its interest in the Facility to secure Seller's obligations to Buyer. Buyer shall agree to subordinate such lien as may be reasonably necessary to accommodate Seller's first lien construction and/or permanent financing of the Generation Facility. Buyer shall not be required to provide credit support or performance assurance of any kind to Seller.
Default	The Capacity/Energy Agreement shall include customary events of default ("Events of Default") including for failure to make payments when due, failure to perform a material obligation, breach of representation or warranty, bankruptcy, failure to maintain required credit support, etc. In addition to customary Events of Default, the following shall be additional Events of Default, subject to extension for delays caused by Buyer or force majeure events and compliance by Seller of its obligation to mitigate such delays: Subsequent to the Delivery Date, Seller fails to achieve the Minimum Monthly Availability for any [_____] consecutive contract months or for any [_____] contract months during the Term.

	The Facility fails to demonstrate a Tested Capacity at least equal to the Minimum Capacity in three successive capacity tests performed after the Delivery Date; provided that Seller is provided a reasonable period of time after any failure to achieve the Minimum Capacity in any capacity test to resolve the problem prior to conducting a subsequent capacity test. Each Party shall have a duty to mitigate damages and covenants that it shall use commercially reasonable efforts to minimize any damages it may incur as a result of the other Party's default or non-performance of the Capacity/Energy Agreement.
Termination	Buyer may terminate the Capacity/Energy Agreement if Seller fails to achieve Commercial Operation by [_____].[4] If an Event of Default shall have occurred, the non-defaulting Party shall have the right to terminate the Capacity/Energy Agreement and, in such case, each Party shall pay the other all amounts due for all periods prior to termination. In addition, if applicable, the defaulting Party shall make a termination payment to the non-defaulting party. Any termination payment under the Capacity/Energy Agreement shall be based on a comparison of the net present value of the payments that the non-defaulting Party reasonably expects to be applicable in the market under a replacement contract covering the same services to the net present value of the then remaining payments under the Capacity/Energy Agreement, plus the reasonable transactional costs of the non-defaulting Party entering into a new capacity/energy arrangement. Any such calculations shall be based on reasonable assumptions as to future Facility operations, differences between a replacement contract and the Capacity/Energy Agreement, discount rate and similar considerations, as reasonably determined by the non-defaulting Party.
Indemnification	The Capacity/Energy Agreement shall include customary indemnification obligations between the Parties including for liabilities related to energy once delivered to Buyer at the Energy Delivery Point.
Limitation of Liability	Unless expressly provided in the Capacity/Energy Agreement, a Party's liability shall be limited to direct actual damages only, which direct actual damages shall be the sole and exclusive remedy and all other remedies or damages at law or equity are waived. Neither Party shall be liable to the other Party for consequential, incidental, punitive, exemplary or indirect

[4] *To be included if the Facility is under development*

	damages, lost profits or other business interruption damages, whether such damages are allowed or provided by statute, in tort, under any indemnity provisions or otherwise except and only to the extent that any actual or liquidated damages expressly provided for in the Capacity/Energy Agreement include an element of profit or other type of damages which are otherwise disclaimed and except to the extent required through indemnification on account of third party claims.
Dispute Resolution	The Capacity/Energy Agreement would contain provisions for the resolution of disputes, and the exclusive forum for the resolution of any dispute arising under or in connection with this Term Sheet or the Capacity/Energy Agreement would be King County, Washington or if no such court will accept jurisdiction, in any state or federal court of general jurisdiction in the State of Washington, or if no such court will accept jurisdiction, in any court of competent jurisdiction in the United States) with respect to any proceeding relating to the Capacity/Energy Agreement.
Expenses	Unless otherwise provided for in the RFP, Each party would bear its own legal, accounting, regulatory and other professional fees and expenses and other costs associated with the RFP and a potential transaction, regardless of whether a transaction is consummated.
Governing Law	The Capacity/Energy Agreement shall be governed by the laws of the State of Washington, without regard to conflicts of laws principles. Venue shall be in King County, Washington.
Assignment	Neither Party shall assign any of its rights or obligations under the Capacity/Energy Agreement without the prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned or delayed, except that either Party may, without the other Party's consent, (i) transfer, sell, pledge, encumber or assign the Capacity/Energy Agreement or the revenues or proceeds thereof in connection with any financing, (ii) transfer or assign the Capacity/Energy Agreement to an affiliate or (iii) transfer or assign the Capacity/Energy Agreement to any person or entity succeeding to all or substantially all of the assets of such Party; provided that in the case of clauses (ii) or (iii) above, the assignee agrees to be bound by all terms and conditions and, in the case of an assignment by Seller, either the assignee or its guarantor possesses the same or better credit rating as Seller or provides credit support reasonably acceptable to Buyer.

Schedule I
Contract Price[5]

Monthly Capacity Payment	Variable O&M Charge	Start-Up Charge
($ per MW of Tested Capacity	($ per MWh)	($ per start)

[5] *Illustrative pricing structure only, actual pricing structure will be based on capacity resource type proposed. Respondent may propose an alternative structure.*

Schedule II
Monthly Capacity and Dispatch Schedule[6]

Month	Monthly Capacity	Dispatch Parameters / Operating Characteristics
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

[6] *Illustrative only, actual capacity and dispatch structure will be based on capacity resource type proposed. Respondent may propose an alternative structure.*

Schedule III
Availability Guarantee and Liquidated Damages[7]

[7] *To be provided by Respondent.*

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit G. Prototype Clean Energy PPA Term Sheet

Prototype Clean Energy[1] PPA Term Sheet

Background

This Prototype Clean Energy PPA Term Sheet ("Term Sheet") sets forth the current requirements that PSE wants the Respondent to address or incorporate into any proposal made to PSE that contemplates the sale of clean energy products to PSE, either on a unit-contingent or not unit-contingent basis. It is intended to identify certain, but not all, of the elements of a potential transaction that would be embodied in a definitive power purchase agreement ("PPA"). This Term Sheet may serve as the basis for a proposal involving a clean energy generating facility [and/or a storage facility] in development or in operation. The terms presented and bracketed herein are indicative of PSE's expectations and may be subject to negotiation depending upon the particular nature of the proposal and other factors.

By submitting its proposal, Respondent acknowledges that the RFP, including this Term Sheet, has been prepared by PSE as part of PSE's ongoing process of integrated resource planning and that PSE is considering alternative arrangements for the procurement of energy products. This Term Sheet is an integral part of, and subject to, the terms and conditions of the RFP. This Term Sheet shall not be interpreted as an offer, agreement or commitment by PSE to acquire any energy product. Also, this Term Sheet shall not limit, restrict or obligate PSE with regard to the conduct of its integrated resource planning process, the potential implementation of any plan or program of resource procurement or the actual procurement of any energy product.

PSE reserves the right to reject any and all proposals received in response to the RFP, request the submission of different proposals for other energy products and/or seek to acquire energy products from one or more parties other than any Respondent. PSE may also modify, change, supplement or delete any and all provisions of this Term Sheet, or withdraw and cancel the RFP.

Parties

Puget Sound Energy, Inc. ("Buyer") and [_____] ("Seller").

Generating Facility

For unit-contingent agreements:

A clean energy electric generating facility [and/or a storage facility] with a planned nameplate capacity of [____] MW [and with a storage capacity of

[1] *Clean energy means energy produced by a renewable or non-emitting generating facility.*

	[__] MW x [__] hours] to be developed by Seller and located [_____].[2] [The anticipated inverter load ratio (DC/AC) is [___].]
	For non-unit-contingent agreements:
	A shaped clean energy alternative product.
Product	For unit-contingent agreements:
	Clean electrical energy from the Generating Facility as delivered to the Point of Delivery and all Green Attributes associated with the generated energy, as further described and defined below, as well as any associated electrical capacity rights shall accrue to Buyer.
	For non-unit-contingent agreements:
	The shaped 8760 clean energy alternative product is as follows: [__].
Term	The PPA shall be effective when signed and shall terminate [10/12/15/20][3],[4] years from the Commercial Operation Date (as defined below under "Commercial Operation") (the "Term").
Point of Delivery	[ ] in e-tag scheduling documentation ("Point of Delivery").
Contract Quantity	100% of the net electrical output of the Generating Facility, and any capacity rights, as well as all Green Attributes (as described below).
Contract Price	$[____] per MWh of energy delivered to the Point of Delivery and all Green Attributes (defined below) associated therewith (the "Contract Price"). The Contract Price shall (i) become applicable on the Commercial Operation Date, (ii) remain in effect for the Term and (iii) not be subject to change by Seller or Buyer for any reason.

[2] *This Term Sheet generally contemplates offers for clean energy generation from facilities to be constructed; however, Buyer also shall entertain offers from existing facilities and non-unit-contingent offers and, in such case, certain provisions of this Term Sheet pertaining, for example, to construction obligations of Seller, shall not apply.*

[3] *Non-unit contingent market PPAs must comply with Washington State's emission performance standards. PPAs with term lengths five years or longer must specify the associated resource or pool of resources and demonstrate compliance with the standards.*

[4] *PSE will consider contract terms longer than 20 years if the developer can demonstrate the asset has useful life longer than 20 years.*

Green Attributes	All environmental, renewable energy or green attributes of any kind or nature, current or future, whether in the form of renewable energy credits or certificates ("RECs"), green tags, emissions credits or allowances or other credits or allowances similar to the foregoing ("Green Attributes") shall be conveyed to Buyer and are included in the Contract Price.
Electrical Output	Buyer agrees to buy all of the energy delivered by Seller to the Point of Delivery in accordance with the PPA (the "Delivered Energy"), subsequent to the Commercial Operation Date and also as stipulated in the "Test Power" section below.
Test Power and Green Attributes	Subsequent to the commissioning of the first [wind turbine generator/PV module] included in the Generating Facility, but before the Commercial Operation Date, Buyer shall purchase the electric power (and associated Green Attributes) produced by the Generating Facility prior to the Commercial Operation Date (collectively, "Test Products"). The price for such Test Products shall be equal to [70% of the applicable Intercontinental Exchange Mid-Columbia day ahead index price for power at the time of purchase].
Commercial Operation[5]	Commercial Operation shall mean, with respect to the Generating Facility, that date designated by Seller and confirmed by Buyer on which at least [ninety-five percent (95%)] of the nameplate capacity constituting the Generating Facility have been placed in commercial operation, as evidenced by an officer's certificate of Seller and a confirmation from Buyer (which confirmation shall not be unreasonably withheld or delayed), but such date shall be no earlier than the date upon which the following have occurred: (i) the interconnection agreement for the Generating Facility has been executed, (ii) the Generating Facility has been satisfactorily tested and commissioned, and (iii) all related facilities, governmental approvals, permits and land rights have been completed or obtained, including all interconnection facilities and substations, to allow for continuous operation of the Generating Facility at its expected output and the sale and delivery of energy and Green Attributes therefrom ("Commercial Operation"). The "Commercial Operation Date" shall be the date that the Generating Facility achieves Commercial Operation. Seller shall use commercially reasonable efforts achieve Commercial Operation for any remaining [wind turbines/PV modules] as soon as reasonably possible thereafter. If the Commercial Operation Date is achieved, but the Final Nameplate Capacity is less than one hundred percent (100%) of the

[5] *To be included if the Facility is under development or construction.*

Planned Nameplate Capacity, Seller shall make a one-time payment of liquidated damages to Purchaser in the amount of [Two Hundred Thousand Dollars ($200,000)/MW] for each MW that the Final Nameplate Capacity is below the Planned Nameplate Capacity.

Seller shall provide a Guaranteed Commercial Operation Date for the Generating Facility. The Guaranteed Commercial Operation Date shall be extended for delays caused by Buyer or force majeure events (with extensions for force majeure events not to exceed [180] days in the aggregate), subject to compliance by Seller of its obligation to mitigate such delays. In the event Seller fails to achieve Commercial Operation on or before the Guaranteed Commercial Operation Date, Seller shall be required to pay to Buyer liquidated damages for each day of delay beyond the Guaranteed Commercial Operation Date in the amount per day of [$200] per MW of the Generation Facility's Planned Nameplate Capacity. If the Commercial Operation Date has not been achieved within [90] days after the Guaranteed Commercial Operation Date, it shall be an Event of Default under the PPA and Buyer shall be entitled to terminate the PPA and seek damages or exercise other remedies at law or equity.

Development Milestones[6]

Seller shall use commercially reasonable efforts to achieve the agreed upon Development Milestones for the Generating Facility, which shall include "interim" major milestones, such as receipt of all applicable permits, EPC contract execution, commencement of physical construction, commencement and completion of generation tie-line construction, completion of construction of foundations, generation equipment commitment date, energization date, and test energy date. The guaranteed major Development Milestone dates shall be subject to extension for delays caused by Buyer or force majeure events, subject to compliance by Seller of its obligation to mitigate such delays. In the event Seller fails to achieve a major Development Milestone on or before the guaranteed date therefor, Seller shall be required to pay to Buyer "interim" liquidated damages for each day of delay beyond the applicable guaranteed date in an amount per day of [$200] per MW of the Generating Facility's Planned Nameplate Capacity. If certain major Development Milestones have not been achieved within [180] days after the guaranteed date therefor, it shall be an Event of Default under the PPA and Buyer shall be entitled to terminate the PPA and seek damages or exercise other remedies at law or equity. Interim liquidated damages shall be credited against the amount of any delay liquidated damages payable for a failure to achieve the Commercial Operation Date by the Guaranteed Commercial

[6] *To be included if the Facility is under development.*

Operation Date and if any such credits are not fully utilized as of the Commercial Operations Date, Buyer shall refund such remaining amount of interim liquidated damages to Seller. If the Guaranteed Commercial Operation Date ultimately is achieved despite Seller's failure to satisfy one of more of the other major Development Milestones, Buyer shall refund such interim liquidated damages to Seller.

Labor

To the extent possible and subject to any collective bargaining agreement of Seller or its affiliates, if any, Seller shall make a good faith effort given its commercial requirements to hire local workers (such as local unionized workforce) during construction of the Generating Facility and as permanent employees for the operation of the Generating Facility and performance of Seller's obligations under the terms of the PPA. Seller shall use commercially reasonable efforts to use apprenticeship labor to meet the Washington State Apprenticeship and Training Council requirements so as to allow Purchaser to qualify for the statutory one and two-tenths (1.2) multiplier for quantifying the Attributes from the Generating Facility.

As required by WAC 480-107-075, Seller shall furnish to Purchaser from time to time, upon Purchaser's reasonable request, and in any event not more than once annually, a report detailing the use by Seller of diverse businesses, including but not limited to women-, minority-, disabled-, and veteran-owned businesses, and a report detailing the application of the labor standards in RCW 82.08.962 and 82.12.962.

Standard of Operation

Seller shall operate the Generating Facility in accordance with the practices, methods, acts, guidelines, standards and criteria of relevant system operators or reliability councils, and all applicable laws. Seller shall, at its sole cost and expense, obtain all certifications, permits, licenses and approvals necessary to construct, operate and maintain the Generating Facility and to perform its obligations under the PPA.

Curtailments

Under no circumstances shall Buyer have any liability or owe any damages to Seller due to any curtailment of the Generating Facility; provided, however, that if Buyer requests Seller to curtail energy deliveries for economic reasons, Buyer shall pay to Seller the Contract Price for the lost energy production based on actual availability data during the period of curtailment. Seller shall use reasonable efforts to sell energy and Green Attributes generated by the Generating Facility during any such curtailment at the best price reasonably available in the market at the time of sale in order to minimize negative financial impacts to Buyer. Seller may sell the energy at a negative prices in Seller's sole discretion; provided that

	in no event will Buyer be required to credit or true-up Seller for any costs or losses associated with the sale of energy at a negative price. Any amounts received by Seller as a result of such mitigation sale shall be credited to the account of Buyer and applied as a credit in favor of Buyer in the invoice for the immediately succeeding month. Notwithstanding the foregoing, in the event that Seller is required to curtail energy deliveries from the Generating Facility in response to a force majeure event, an "emergency condition," or any other event or circumstance declared by BPA or any other transmission provider (including the transmission function of Buyer), Buyer shall have no liability to Seller on account of any such curtailment.
Transmission Services; Interconnection	During the Term, Seller shall be responsible for delivery of the energy to the Point of Delivery and Buyer shall be responsible for arranging, at Buyer's expense, all transmission services from the Point of Delivery. Seller shall be responsible for all costs of interconnection of the Generating Facility and any associated network upgrades required by BPA, Buyer's transmission function or any other transmission provider. It shall be the specific responsibility of Seller to have secured transmission necessary to deliver the energy to Buyer's system. Buyer shall consider arrangements whereby Seller secures such transmission rights from the Generating Facility to Buyer's system and assigns those transmission rights to Buyer, with Buyer taking on responsibility for the costs of transmitting such energy to Buyer's system. Buyer shall also consider alternative arrangements where the Point of Delivery shall be at an appropriate point on Buyer's system.
Metering	Subject to the requirements of the interconnection agreement for the Generating Facility, Seller shall be responsible for the provision, maintenance, reading and testing of all metering equipment in conformance with all applicable regulatory requirements, with Buyer having rights to inspect, observe tests and conduct its own tests in its reasonable discretion.
Scheduling Coordinator; **Imbalances; and Integration Charges**	Seller shall be responsible for arranging all scheduling services necessary to ensure compliance with applicable regional power scheduling regulations and protocols. Seller shall prepare and put in place certain mutually acceptable scheduling protocols to be followed by Seller, including the nature and extent of information to be supplied to Buyer in connection with the scheduling of the Generating Facility.

Seller shall arrange and be responsible for any transmission services required to deliver energy to the Point of Delivery and shall schedule or arrange scheduling services with its transmission providers to deliver the energy to the Point of Delivery. Buyer shall arrange and be responsible for transmission services from the Point of Delivery and shall schedule or arrange for scheduling services with its transmission providers to receive energy at the Point of Delivery. Seller shall be responsible for all charges for transmission or wheeling services, ancillary services, imbalance, control area services, congestion, location marginal pricing differentials, electrical losses, and any other transfer-related charges (collectively, "Charges") attributable to or assessed for energy delivered to Buyer at the Point of Delivery. Buyer shall be responsible for all Charges from and after the Point of Delivery.

Seller shall be obligated to pay, or reimburse Buyer for the payment of (in the event any obligation is imposed in this respect on Buyer), any generation imbalance charges related to the over-generation or under-generation of energy scheduled to be generated by the Generating Facility, except if such charges directly result from the unexcused failure of Buyer to receive scheduled energy.

Seller shall be responsible for and obligated to pay any integration charge or similar charge imposed by BPA or any other transmission provider, including charges resulting from or attributable to the integration of resources into the transmission system of such transmission provider.

Resource Adequacy Program

Purchaser may participate in the regional Resource Adequacy (RA) Program to be administered by a regional organization, which is yet to be determined. In such case, Purchaser would intend for the Seller to be designated as a participating RA resource in the RA program, with Purchaser acting as RA Coordinator. Seller anticipates working with Purchaser to enable Seller to qualify as a participating resource in the RA program.

Energy Imbalance Market

Purchaser participates in the Energy Imbalance Market ("EIM") operated by the CAISO. For resources within Purchaser's Balancing Authority Area ("BAA") Purchaser may intend for the Seller to be designated as a participating resource (or its equivalent from time to time) in the Energy Imbalance Market, with Purchaser acting as Scheduling Coordinator (as defined in the CAISO Open Access Transmission Tariff) for the Facility. In such case, Purchaser and Seller should expect to work together to complete the technical review described in Section 3.3 of the EIM BP,

which shall identify improvements to the Facility required for the Facility to be designated as a participating resource in the Energy Imbalance Market. Upon conclusion of the technical review, Seller shall cause any required improvements to the Facility to be implemented, at Seller's sole cost and expense. Seller anticipates working with Purchaser to enable Seller to qualify as a participating resource in the Energy Imbalance Market and, if applicable, the Extended Day Ahead Market.

Taxes

Purchaser shall pay all Washington State sales and use taxes arising out of or with respect to the purchase or sale of energy and/or Green Attributes that are imposed by any taxing authority at or after the Point of Delivery (regardless of whether such Washington State sales and use taxes are imposed on Purchaser or Seller). Seller shall pay all other taxes, including taxes arising out of or with respect to the purchase or sale of energy and/or Green Attributes that are imposed by any taxing authority prior to the Point of Delivery, taxes based on or measured by net income, business and occupation taxes, public utility taxes, property taxes, replacement taxes and/or special assessments that may be levied upon the Generating Facility as well as state or local sales taxes applicable to the construction, maintenance, repair or operation of the Generating Facility.

Operation and Maintenance

Seller shall develop written operating procedures ("Operating Procedures") for the Generating Facility before the applicable initial delivery date which shall set forth the protocol under which the Parties shall perform their respective obligations under the PPA and shall include, without limitation, procedures concerning the following: (i) the method of day-to-day communications, (ii) key personnel lists for Seller and Buyer, including an appointed authorized representative for each Party and (iii) forced outage and planned outage reporting.

During the Term, the Generating Facility shall be operated and maintained by Seller or its designee in accordance with those practices, methods, and acts that are commonly used by a significant portion of the clean energy powered electric generation industry in prudent engineering and operations to design and operate such electric equipment lawfully and with safety, dependability, efficiency, and economy, including any applicable practices, methods, acts, guidelines or standards and criteria of governing regulatory bodies and reliability councils and all applicable requirements of law.

Outages	No later than ninety (90) days prior to the beginning of each calendar year during the Term, Seller shall provide Buyer with a non-binding detailed planned outage schedule for the forthcoming year. Seller shall furnish Buyer with as much advance notice as practicable of any proposed or necessary maintenance outages. The Parties shall work to plan such outage to mutually accommodate, as practicable, the reasonable requirements of Seller and the reasonable requests of Buyer. Except to the extent necessary or advisable in accordance with prudent operating practices, no planned outages or routine maintenance shall be scheduled during the months of November, December, January, or February. Seller shall promptly provide written notice to Buyer, to the extent information is available, of the reason, timing, expected duration and the impact upon the energy output of any forced outage. Seller also shall provide to Buyer, in a form reasonably acceptable to Buyer, a monthly report of forced outages.
Availability/ Output Guarantees	For unit-contingent offers from wind projects: Seller shall provide Buyer with a guarantee that the overall Generating Facility production-based availability shall be no less than [95%] (the "Minimum Annual Availability"). Seller shall pay to Buyer liquidated damages if the Generating Facility fails to meet the Minimum Annual Availability in any contract year after the Commercial Operation Date. Annual wind turbine availability shall be calculated using a methodology agreed to by the Parties. For unit-contingent offers from solar projects: Seller shall provide Buyer with an annual output guarantee (the "Minimum Annual Output") in an amount equal to [_____] MWh. Seller shall pay to Buyer liquidated damages if the Generating Facility fails to meet the Minimum Annual Output in any contract year after the Commercial Operation Date. For all unit-contingent offers: In addition to the availability/output guarantee described above, Seller shall provide Buyer with an availability guarantee during the months of November, December, January, and February (the "Guaranteed Winter

Period Availability") of [95%]. Seller shall pay to Buyer liquidated damages if the Generating Facility fails to meet the Guaranteed Winter Period Availability in any contract year after the Commercial Operation Date.

Seller's failure to cause the Project to achieve an Availability Factor of at least [eighty five percent (85%)] for any [two consecutive Contract Years, commencing on the first anniversary of the Commercial Operation Date will be grounds for default.

Credit Support

Upon execution of the PPA, if Buyer deems it necessary due to Seller's credit position, Seller shall provide Buyer with a guaranty, cash collateral and/or letter of credit in forms and amounts acceptable to Buyer in the amount of [$125,000 per MW]. In addition to the foregoing security, Seller shall furnish Buyer with a lien on its interest in the Generating Facility to secure Seller's obligations to Buyer. Buyer shall agree to subordinate such lien as may be reasonably necessary to accommodate Seller's first lien construction and/or permanent financing of the Generation Facility. Buyer shall not be required to provide credit support or performance assurance of any kind to Seller.

Default

The PPA shall include customary events of default ("Events of Default") including for failure to make payments when due, failure to perform a material obligation, breach of representation or warranty, bankruptcy, failure to maintain required credit support, etc.

In addition to customary Events of Default, the following shall be additional Events of Default, subject to extension for delays caused by Buyer or force majeure events and compliance by Seller of its obligation to mitigate such delays:

Failure to achieve certain Development Milestones within [180] days after the guaranteed date therefor (as described above).

Failure to achieve the Commercial Operation Date within [180] days after the Guaranteed Commercial Operation Date (as described above).

Subsequent to the Commercial Operation Date, Seller fails to achieve the Minimum Annual Availability/Minimum Annual Output for any [__] consecutive contract years or for any [__] contract years during the Term.

	Subsequent to the Commercial Operation Date, Seller fails to achieve the Guaranteed Winter Period Availability for any [__] consecutive contract years or for any [__] contract years during the Term. Each Party shall have a duty to mitigate damages and covenants that it shall use commercially reasonable efforts to minimize any damages it may incur as a result of the other Party's default or non-performance of the PPA.
Termination	Buyer may terminate the PPA if Seller fails to achieve Commercial Operation by the date that is [180] days after the Guaranteed Commercial Operations Date. If an Event of Default shall have occurred, the non-defaulting Party shall have the right to terminate the PPA and, in such case, each Party shall pay the other all amounts due for all periods prior to termination. In addition, the defaulting Party shall make a termination payment to the non-defaulting party. Any termination payment under the PPA shall be based on a comparison of the net present value of the payments that the non-defaulting Party reasonably expects to be applicable in the market under a replacement contract covering the same products (e.g., energy and Green Attributes) to the net present value of the then remaining payments under the PPA, plus the reasonable costs of the non-defaulting Party arising as a result of such Event of Default, including the costs of entering into a new supply or sales arrangement. Any such calculations shall be based on reasonable assumptions as to future Generating Facility operations, differences between a replacement contract and the PPA, discount rate and similar considerations, as reasonably determined by the non-defaulting Party.
Indemnification	The PPA shall include customary indemnification obligations between the Parties including for liabilities related to energy once delivered to Buyer at the Point of Delivery.
Insurance	Seller shall be expected to maintain insurance in an amount customary for the industry.
Limitation of Liability	Unless expressly provided in the PPA, a Party's liability shall be limited to direct actual damages only, which direct actual damages shall be the sole and exclusive remedy and all other remedies or damages at law or equity are waived. Neither Party shall be liable to the other Party for

consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, whether such damages are allowed or provided by statute, in tort, under any indemnity provisions or otherwise except and only to the extent that any actual or liquidated damages expressly provided for in the PPA include an element of profit or other type of damages which are otherwise disclaimed and except to the extent required through indemnification on account of third party claims.

Dispute Resolution

The PPA would contain provisions for the resolution of disputes, and the exclusive forum for the resolution of any dispute arising under or in connection with this Term Sheet or the PPA would be King County, Washington or if no such court will accept jurisdiction, in any state or federal court of general jurisdiction in the State of Washington, or if no such court will accept jurisdiction, in any court of competent jurisdiction in the United States) with respect to any proceeding relating to the PPA.

Expenses

Unless otherwise provided for in the RFP, Each party would bear its own legal, accounting, regulatory and other professional fees and expenses and other costs associated with the RFP and a potential transaction, regardless of whether a transaction is consummated.

Governing Law

The PPA shall be governed by the laws of the State of Washington, without regard to conflicts of laws principles. Venue shall be in King County, Washington.

Assignment

Neither Party shall assign any of its rights or obligations under the PPA without the prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned or delayed, except that either Party may, without the other Party's consent, (i) transfer, sell, pledge, encumber or assign the PPA or the revenues or proceeds thereof in connection with any financing, (ii) transfer or assign the PPA to an affiliate or (iii) transfer or assign the PPA to any person or entity succeeding to all or substantially all of the assets of such Party; provided that in the case of clauses (ii) or (iii) above, the assignee agrees to be bound by all terms and conditions. In addition, with respect to any proposed assignment by Seller: (a) either the assignee or its guarantor must possess the same or better credit rating as Seller, or provide credit support reasonably acceptable to Buyer; and (b) the assignee or its affiliates must have a minimum of three (3) years' experience in the clean energy generation and operation business, including owning, controlling or operating for at least three (3)

years a minimum of [five hundred (500) MW] of clean energy generation capacity.

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit H. PSE Transmission Available for Bidder Proposals in this RFP

PSE Transmission Available for Bidder Proposals in this RFP

PSE Merchant has identified certain point-to-point ("PTP") transmission contracts that are available for resource proposals that may assist PSE in meeting its resource need at the lowest reasonable cost. PSE reviewed its transmission contracts and determined that for the 2021 RFP it is operationally feasible to accommodate deliveries of third party generation to the specific points of delivery ("POD") listed below. Bidders will be required to demonstrate that their project has an achievable plan to secure long-term firm transmission, integration, and balancing services to deliver a firm hourly schedule at the specific POD by the project commercial operation date ("COD"). Resources delivering to PODs not on PSE's system (listed in Table 1) will be assigned costs consistent with the transmission provider's open access transmission tariff ("OATT"). For example, resources delivering to MIDCREMOTE will be assigned OATT costs for the additional leg of BPA point to point transmission from MIDCREMOTE to PSE's System. These costs are included in the analysis to account for the inherent opportunity cost, but are not paid for by the bidder.

As noted in Section 2 of the All-Source RFP, PSE will only assign a capacity value to resources that (i) are located within PSEI's balancing area authority ("BAA") (at PSE's load center, PSEI.System, and west of the cascades), (ii) demonstrate that the project has an achievable plan to secure long-term firm transmission that will deliver to PSE's system at BPAT.PSEI or (iii) are consistent with the POD capacity eligibility in Table 1 below.[1]

Mid-Columbia ("MIDC")

PSE Merchant has existing BPA long-term firm PTP transmission that can be utilized to deliver energy from an identified generation source to PSE's system. Bidders will need to deliver energy to BPA's MIDCREMOTE POD. Projects interconnecting on the MIDC transmission system will need to deliver to BPA's MIDCREMOTE; this may require bidders to secure transfer arrangements with a local PUD. Bidders must demonstrate that deliveries at MIDCREMOTE are fully integrated, balanced, and will be delivered on a firm hourly schedule. Consistent with PSE's objective to reduce resource adequacy risk associated with market reliance, PSE will not be assigning any capacity credit for variable energy resources delivered to the MIDCREMOTE POD.

California Oregon Intertie ("COI")

PSE has a seasonal exchange with PG&E in which PG&E delivers energy to PSE from November to February. PSE Merchant has two legs of PTP transmission service from the California Oregon Border (COB)/Malin to PSE system for energy delivery. The southern leg of transmission is on the COI and the northern leg of transmission is on BPA's system starting at JOHNDAY. PSE will consider bidder proposals that deliver to PODs COB/Malin or JOHNDAY during non-winter

[1] *BPAT.PSEI is a transmission scheduling point in BPA Transmission Service's ("BPAT") Open Access Same-time Information System ("OASIS"), which represents 24 separate interconnections between the balancing authority areas of PSE ("PSEI") and BPAT.*

months (March – October). PSE will not guarantee acceptance of delivery in the winter months (Nov-Feb), bidder can propose an alternate delivery point(s) or arrange another third party offtaker. Bidders must demonstrate that deliveries to COB/Malin or JOHNDAY are fully integrated and balanced and can be delivered on a firm hourly schedule. Resources delivered at Malin and John Day will have effective load carrying capabilities ("ELCCs") adjusted to reflect summer peak contribution.

Centralia

PSE will consider projects that deliver to BPA's PAUL POD starting January 1, 2026. Bidders must demonstrate that deliveries to BPA's PAUL POD are fully integrated, balanced, and will be delivered on a firm hourly schedule.

Lower Snake River (LSR)

PSE Merchant has 150 MW of new BPA PTP transmission starting on March 1, 2024. PSE will consider projects that deliver to CENTRALFERRY POD. Bidders must demonstrate that deliveries to CENTRALFERRY POD are fully integrated and balanced.

Table 1. Summary of PSE transmission assets available for delivery of project proposals

Location/ Resource	Amount	Date of first availability	Point of delivery	Eligibility for capacity credit	Notes	Transmission OATT cost included in evaluation?
MIDC	Up to 1,000 MW	1/1/2024	MIDCREMOTE (BPA)	Yes; however, VERS not eligible for capacity credit		Yes
California Oregon Intertie (COI)	Up to 300 MW, Mar 1 - Oct 31	1/1/2024	COB/MALIN (PSEI) Alternately JOHNDAY (BPA)	No capacity credit for winter months. Capacity contribution during summer season consistent with IRP ELCC assumptions.	Bidder responsible for alternative Nov-Feb delivery plan	Yes
Centralia	Up to 100 MW	1/1/2026	PAUL (BPA)	Yes, per IRP ELCC assumption		Yes

EXHIBIT H. PSE TRANSMISSION AVAILABLE FOR BIDDER PROPOSALS IN THIS RFP

Location/ Resource	Amount	Date of first availability	Point of delivery	Eligibility for capacity credit	Notes	Transmission OATT cost included in evaluation?
Lower Snake River (Central Ferry)	Up to 150 MW	3/1/2024	CENTRAL FERRY (BPA)	Yes, per IRP ELCC assumption		Yes

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit I. Energy Storage System Location Study

Energy Storage System Location Study
For: Puget Sound Energy

Prepared by Tracy Rolstad (Technical Director)
Power Systems Consultants
Client Reference: Puget Sound Energy
PSC Reference: JU8426
Revision: Final
Date: 04 August 2020

Contents

Figures and Tables

1. Introduction

Puget Sound Energy (PSE) engaged Power Systems Consultants (PSC) to perform a qualitative and quantitative analysis for siting a possible Energy Storage System (ESS) within the PSE electrical system. PSE filed a draft All-Source Request for Proposals (RFP) for peak capacity resources on May 4, 2020. Interconnection studies of an ESS onto a transmission system can result in the need for significant and costly network upgrades, depending upon interconnection location. This report serves as a starting point for proponents or bidders into the RFP as an aid to determine potential / lower risk locations (with respect to network upgrade costs) for interconnection of energy storage resources (and others) into PSE's transmission system.

The ESS is expected to perform in a manner consistent with the FERC defined Network Resource Interconnection Service. In general, this study is like a Feasibility Study in concept, but not necessarily in scope. Screening techniques examined the potential ESS capacity available at several Puget stations. Detailed analysis (like those completed for a Feasibility Study) was not performed.

The FERC definition of Network Resource Interconnection Service (below) can be used as a contextual guide in order to understand the purpose of this study.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service Allows Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur.

The Interconnection Study for Network Resource Interconnection Service shall assure that Interconnection Customer's Large Generating Facility meets the requirements for Network Resource Interconnection Service and as a general matter, that such Large Generating Facility's interconnection is also studied with Transmission Provider's Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on Transmission Provider's Transmission System, consistent with Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources are displaced by the output of Interconnection Customer's Large Generating Facility. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific customer or Point of Delivery. The Transmission Provider may also study the Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the Transmission Provider must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

1.1. Disclaimer

Note that all the information used for the study is available to any member of the public either directly (i.e. geo-location from the Department of Homeland Security) or via non-disclosure agreements with the Western Electricity Coordinating Council (for WECC base cases).

Some information (one-lines and station configurations) used (as an analytical aid) is based on FERC Form 715 submissions that pre-date (circa October 2001) the CEII classification of FERC 715 data. Station configurations and interconnections were confirmed with recent imagery.

The best possible data and analytical technique was used for this study; however, no warranty is offered by Power Systems Consultants for fitness of use of any data associated with this report or the contents of the report itself. PSC did not perform a purposeful review of base cases, maps, or one-lines for accuracy.

This study was completed outside of the OATT and is intended to broadly inform interested readers. It does not replace any OATT driven processes or documentation nor is it intended to do so. The results in this document do not indicate that available transmission exists or that a station is suitable for interconnection from an official FERC LGIA process viewpoint.

1.2. Energy Storage System (ESS) Discussion and Example

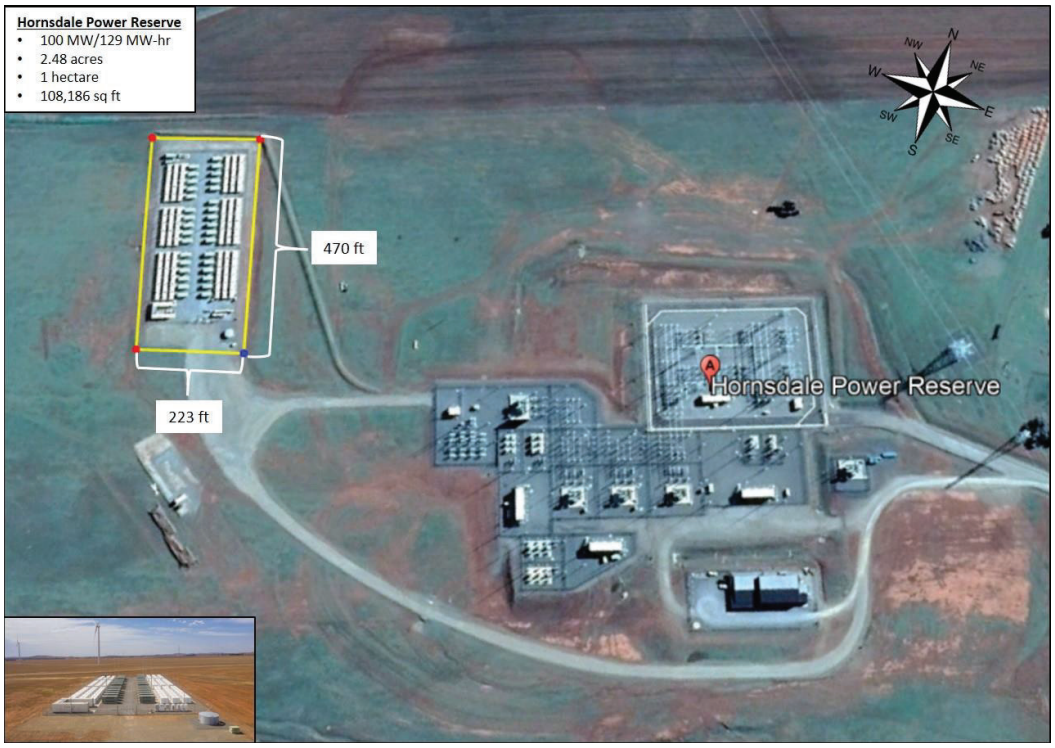
Modern utility scale ESS's store energy in the form of electro-chemical or mechanical energy, then convert that energy into electrical energy when appropriate, based on sophisticated controls schemes.

Examples of electro-chemical storage include Lead Acid, Nickel-Cadmium, Lithium-Ion, and Molten Salt amongst others. Flow batteries are another type of electro-chemical battery, with Redox being an example. Mechanical energy storage examples include Flywheels, Pumped Hydro, and Compressed Air Energy Storage systems.

The study effort is agnostic to energy storage technology type and focuses primarily on the requirements of the ESS to interconnect on the PSE transmission system.

An example of a deployed Energy Storage System (located in South Australia) is shown in Figure 1.1. This is presently the world's largest ESS that uses Lithium Ion batteries. The purpose of introducing this project is to give a sense of relative scale associated with a high energy capacity/high power ESS.

Figure 1.1 Hornsdale Power Reserve ESS



2. Methodology

Two methodologies were employed for this study. A qualitative and quantitative method.

The qualitative method is a high-level review to determine potential for interconnection at the substation and to determine the potential to site an ESS in the area (PSE's property is not available for siting the ESS for this analysis). If a substation meets the evaluation metrics (detailed below) for the qualitative method, the locations will be further studied with the quantitative method.

The quantitative method is a high-level power flow analysis of the PSE transmission system, using official WECC databases to review the system performance with the addition of an ESS during charging and discharging conditions, for a multitude of system conditions and system contingencies.

These details of the qualitative and quantitative methods are discussed in the relevant section below.

2.1. Qualitative Method

Overhead imagery was utilized to determine the location of Puget's substations. This imagery was analysed in conjunction with WECC base cases and FERC 715 filings (pre 2001) that contain one-line drawings of the Puget system. We note that prior to October 2001 FERC 75 filings were available to the public. The stations were geo-located, mapped, locations were populated in the power flow-based cases, and then substations were created in the power flow base cases in order to support more detailed analysis using modelling and simulation tools.

2.1.1. Substation Interconnection Suitability

PSC examined the candidate substations to determine their suitability for expansion to accommodate interconnection of an ESS to the substation. This study assumes the ESS is sited off of PSE land in the area near the substation. Evaluation metrics are as below:

- Must interconnect to an existing Puget station
- Interconnects to PSE "native" network west of Cascades, no wheeling
- No radial or "return loop" transmission
- Above >100 kV point of interconnection (POI) per following details:
    - At least 4 lines for 115 kV candidate stations
    - Or non-radial 230 kV station
- Expansion space "in-the-gravel" in the station exists
- Development potential of existing station for interconnection is evident
    - Open space is desirable
    - Heavy residential presence is not desirable
    - Must pass the "Good Neighbor" test, which from an electric utility perspective has the following attributes:
        - Use of eminent domain proceedings is the absolute last resort with condemnation only used for those projects that are extremely mission critical and are supported politically.
        - The minimal number of landowners are impacted by a project and those landowners are justly compensated at prevailing rates.
        - Projects are developed with a focus on maximizing the use of existing "encumbered" properties.

        - Land use should be reasonably consistent with its present use and the addition of electric utility infrastructure should be designed to be as unnoticeable as possible
        - Early involvement of the public in the development process is a must and the public should be encouraged to provide constructive input and alternative projects/locations
        - The public knows their neighbourhood best and can suggest minimum impact alternatives
        - Successful "Good Neighbor" projects leave the affected area better than it was before the project was executed.
- Identify substation configuration allows for additional breaker position
    - Ring bus, breaker and a half, double bus double breaker is preferred.
    - Main bus (with aux bus) has questionable reliability and could result in additional upgrades, up to rebuilding the substation to a different configuration.
    - Main bus (without aux bus) has poor reliability and is not suitable for interconnection of an ESS and would require substation upgrades, up to rebuilding the substation to a different configuration
        - An internal failure of a circuit breaker causes loss of entire station
- Identify existing unused breaker position (breaker not installed)
- Identify if the substation area allows for expansion
    - Examine available space inside substation fence
    - Examine available space outside substation fence
- If substation has 115 kV and 230 kV voltages, preference should be given to interconnect at the 115-kV side, unless interconnection at 230 kV results in substantial benefits.

2.1.2. ESS Siting Suitability

PSC examined how practical ESS siting near the substation is. This examination included:

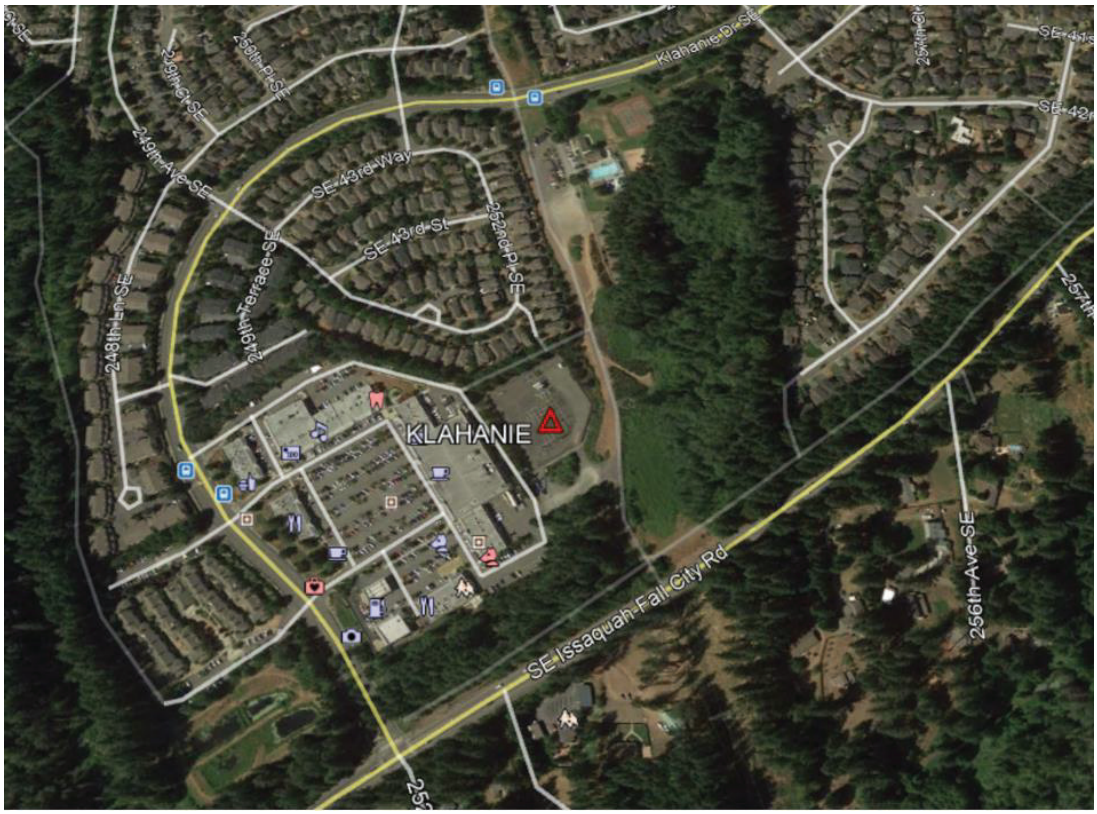
- Land use and Zoning compatibility
    - Imagery analysis and general land usage was examined using tools such as Google Earth and Land Grid. These tools provide a means to develop a general qualitative sense of how favourable the location near a particular PSE station might be for an ESS project.
    - Highly residential areas, constraints for possible transmission rights-of-ways to the PSE station, schools, hospitals, and other notable land uses indicate that that specific PSE station was less desirable as a practical location to interconnect an ESS.
- Environmental Constraints
    - Overhead imagery analysis was performed in order to identify the possibility of complicated environmental constraints.
        - For example, the PSE Snoqualmie Falls station met the basic requirements of electrical connectivity but clearly it is not a desirable location for additional development. Thus, that station was not a candidate for further analysis.

2.2. Qualitative Method - Example

Two examples of qualitative review (i.e. go or no-go) of candidate stations are briefly discussed as follows.

The Klahanie station (Figure 2.1) would be characterized as a high “risk” or red station. The Klahanie station is not desirable for an ESS interconnection due to its lack of space, residential encroachment, and general lack of development potential.

Figure 2.1 Undesirable Station: Klahanie



The Alderton station (Figure 2.2) is an example of a low "risk" (i.e. green station) that has desirable attributes associated with the station such as:

- Space for development in the immediate area
- Space in the station for expansion
- Fairly rural area that might be more easily support new rights-of-way, station expansion, or ESs siting

Figure 2.2 Desirable Station: Alderton

2.3. Quantitative Method

PSC used WECC power flow base cases to examine the PSE transmission system for the list of substations feasible for ESS interconnection. PSC used the PowerWorld (version 21) power flow ATC tool to perform analysis that approximates a "light-weight" generation interconnection feasibility screening study. This study is not a feasibility study under the OATT, but rather an informational screening that could aid an RFP respondent in determining where to queue for a detailed LGIA interconnection request. These POI's were examined as charging (load) and discharging (generating) resources.

- Study Cases (WECC PowerWorld *.pwb power flow cases):
    - 2029-2030 Heavy Winter
        - Case used was 30HW1a1.pwb
    - 2030 Heavy Summer
        - Case used was 30HS1a.pwb
        - A 2029 HS case was originally used but then rejected due to an incomplete PSE transmission project that caused contingency performance issues (29HS1a1.pwb)
    - Off-peak load case (at consultants' discretion) which was the 2030 Light Spring case (30LSP1Sa.pwb)
- ESS studied as generation (discharging) and also as a load (charging)
    - ESS was studied one at a time
        - No groups or combinations of ESS's were studied
        - Only single ESS's were studied
- Only one interconnection per site location (either 115 kV or 230 kV, not both)
- Determine maximum ESS size at each location that results in acceptable system performance, for NERC TPL-001-4 PSE P0, P1 (N-1), and P6 (N-1-1) contingencies, while studying limited and sensitive neighbouring contingencies.

2.3.1. Quantitative Software Use and Approach

The results of the qualitative analysis and study were obtained using the "ATC" tool of PowerWorld Simulator. The details for implementing this in PowerWorld are briefly described as follows:

- Create an ALL WECC injection group of generators to dispatch against
    - The following metrics were used to select generators:
        - Pmax>10 MW
        - Pgen>10 MW
        - Pmin>0
    - ALL WECC injection group metrics (from 30HS case)
        - Number of generators is 2272
        - Total MW injection is ~191,294 MW
- Insert a single ESS (i.e. generator) and create an injection group for each station in Table 3.1
- Create an auto-inserted list of contingencies for Area 40
- Performed "Iterated Linear then Full Ctg" ATC analysis
    - Ignore elements with OTDFs < 3.0
    - Ignore elements with PTDFs<3.0
    - Report only:
        - 20 Transfer Limiters
        - 3 Limiters per ctg
        - 3 Limiters per element
- The results were manually inspected and those limiting elements and/or contingencies that were not relevant to the ESS were ignored for further analysis.
    - One may view this as machine aided learning to determine those contingencies and electrical system elements that are truly associated with electrical service to the ESS sites.
        - Many of these ignored elements/contingencies were 500 kV elements/contingencies with remedial action schemes or near their limits in the base case (for example various series capacitors associated with the California Oregon Intertie, etc).

- The metrics associated with the quantitative analysis are noted below:
    - All elements with valid ratings were scanned for performance with the ATC tool for PO, P1, and P6 conditions of the NERC TPL-001-4 standard
        - Summer Emergency ratings were RATEA
        - Winter Emergency ratings were RATEC
        - Spring Emergency ratings were RATEG
    - P1 & P6 contingencies were those in the Northwest >100 kV
        - P1: 1135 out of 5081 contingencies were examined for detailed P1 performance
            - The smaller list of contingencies was selected using the Linear ATC tool which determined those contingencies sensitive to the PSE BESS sites.
        - P6: 1107 out of 144,453 contingencies were examined for detailed P6 performance
            - The smaller list was tested for performance using the Iterated Linear feature of the ATC tool. The larger amount was screened with the linear ATC tool.

3. Results

The results of the qualitative and quantitative analysis are listed below.

3.1. Qualitative Results

The results of the qualitative analysis and study were obtained in an iterative fashion. The list of candidate stations was then inspected both in PowerWorld Simulator and with overhead imagery to cull undesirable locations. The results follow:

- 382 total PSE initial stations (based on software results).
    - The 382-station count may not be a figure that exactly matches the number of stations that PSE has. This is due to the software requirement for a tapped line to be modeled with a bus, which might not be representative of an actual substation bus.
    - These 382 stations were geo-located.
- 36 PSE stations were kept for overhead imagery analysis based on the following:
    - Is 230 kV non-radial service.
    - Or is > 4 lines of 115 kV non-radial service.
    - And within PSE network
        - Determined from geo-location and bus ownership
    - Substation configuration metrics were not included in determining of the initial candidate stations.
- The 36 PSE stations were analysed and grouped by the following criteria for risk regarding ESS site location and interconnection:
    - Substation area analysis
    - Surrounding area analysis
    - Refined understanding of interconnection based on imagery analysis
- 12 stations (of the 36) were assigned “green”, for initial low risk ESS interconnection
- 8 stations (of the 36) were assigned “yellow”, for initial medium risk ESS interconnection
- 16 stations (of the 36) were assigned “red”, for high risk due to not meeting the initial qualitative screening metrics

3.1.1. Candidate Stations

Table 3.1 lists the 20 PSE stations that were analysed in detail. These stations were visually inspected with recent overhead imagery and are organized by color for low risk and medium risk substations. As previously stated, the substation configuration metrics were not used for the initial candidate stations and will be addressed later in the report. Substations that are of a main bus configuration are highlighted in red.

Table 3.1 Qualitative Results for Low Risk (Green) and Medium Risk (Yellow) Stations

Sub Name	Nominal kV Range	# of Lines	Bus Configuration (low & high voltage)	Zone
Alderton	115.0 (only)	7	Main & Aux	PIERCE
Berry dale	115.0 to 230.0	7	Main & Aux / Brk & half	S.KING
Christopher	115.0 (only)	6	Main Bus	S.KING
Fredonia	13.8 to 230.0 (115kV)	2	Main Bus	SKAGIT
Frederickson	13.8 to 115.0	4	Main Bus	PIERCE
Lake Tradition	115.0 (only)	8	Main Bus	N.KING
March Point	115.0 to 230.0	12	Main & Aux / Xfrm Term	SKAGIT
Midway	115.0 (only)	6	Main & Aux	S.KING
Sammamish	115.0 to 230.0	11	Main & Aux / Main & Aux	N.KING
Saint Clair	115.0 to 230.0	7	Main & Aux / DB-DB	THURSTN
Talbot Hill	115.0 to 230.0	14	Main & Aux / DB-DB	S.KING
Tono	115.0 (only)	4	Main & Aux	THURSTN
Bellingham	115.0 (only)	11	Brk & half	WHATCOM
Krain Corner	57.5 to 115	6	Main Bus	PIERCE
O'Brien	115.0 to 230.0	11	Main & Aux / Xfrm Term	S.KING
Portal Way	115.0 (only)	5	Main & Aux	WHATCOM
S. Bremerton	115.0 to 230.0	6	Main & Aux / Xfmr Term	KITSAP
Sedro Woolley	115.0 to 230.0	12	Main & Aux / Brk & half	SKAGIT
Starwood	115.0 (only)	4	Main Bus	S.KING
White River	115.0 to 230.0	12	Main & Aux / DB-DB	PIERCE

Table 3.2 lists those stations that were deemed high risk and thus not selected for more detailed analysis.

Table 3.2 Qualitative Results for High Risk (Red) Stations

Sub Name	Nominal kV Range	# of Lines	Substation Type	Zone
ARCO C	115.0 (only)	4	Main Bus	WHATCOMI
BAKER SW	115.0 (only)	4	Main Bus	SKAGIT
BALDI	230.0 (only)	2	Tap	S.KING
CASCADE	34.5 to 230.0	3	Xfmr Term/Main Bus	KITTITAS
COTAGEBR	115.0 (only)	4	Main Bus	N.KING
ELECTHTS	57.5 to 115.0	5	Xfmr Term/Main Bus	PIERCE
HORSRNCH	230.0 (only)	3	Main Bus	N.KING
HRNCHTAP	230.0 (only)	2	Tap	N.KING
KLAHANIE	230.0 (only)	2	Tap	N.KING
LAKESIDE	115.0 (only)	7	Main Bus	N.KING
MINTFARM	13.8 to 230.0	1	Main (Gen Interconnection)	Portland Area
NOVELTYH	115.0 to 230.0	7	Main & Aux/Main Bus	N.KING
OLYMPA P	115.0 (only)	9	Main Bus	THURSTN
SHUFFLETON	115.0 (only)	4	Main & Aux	S.KING
SNOQ SW	2.0 to 115.0	5	Main Bus	N.KING
FREDONIA	13.8 to 115.0	4	Main Bus	SKAGIT

Note that there are two Fredonia stations, one serves a gas turbine power plant and the second serves local load. The “red” Fredonia station is the load serving station. Although these stations are “red” (or less desirable for ESS integration) they may be worthy of further review and analysis.

3.2. Quantitative Results

3.2.1. Quantitative Results

Table 3.3, 3.4, and 3.5 lists the results from the quantitative analysis. The gen/load limit is equivalent to the discharge/charge limit for the ESS at the listed station for TPL-001-4 P0, P1, and P6 conditions (for the most limiting element). Units for the limits are MW. Note that we omit the negative sign for load since the sign is implicit in the definition of load.

Results shown in the tables indicate the ESS sizes for the different substations on an individual bases, meaning the potential size for a single ESS to be placed at any one of the locations listed. The results are not meant to indicate that the ESS sizes listed can be installed for all locations simultaneously.

BPA 500 kV contingencies (such as the Raver-Paul 500 kV line loss) were noted, but not considered as limiting contingencies since it is known that these contingencies have remedial action schemes associated with them. BPA has historically planned its system for P1 outages and has not necessarily planned (and built) its system to perform for P6 outages (without operator action).

A 2030 Light Spring case was examined to test performance under P0, P1, and P6 conditions to determine if there was any notable sensitivity to light spring conditions (in addition to the Heavy Summer and Heavy Winter cases).

Table 3.3 P0 Quantitative Results

Quantitative Results - P0 Results in MW (Green shaded stations are low risk; yellow shaded stations are medium risk)								
Substation	**2030 Heavy Summer**		**2030 Heavy Winter**		**2030 Light Spring**		**Maximum ESS Size**	
	Generating	**Charging**	**Generating**	**Charging**	**Generating**	**Charging**	**Generating**	**Charging**
Alderton	725	(790)	872	(823)	886	(998)	725	(790)
Berrydale	982	(248)	1077	(273)	1031	(569)	982	(248)
Christopher	751	(419)	1031	(648)	842	(622)	751	(419)
Frederickson	432	(316)	485	(440)	404	(466)	404	(316)
Fredonia	510	(803)	679	(873)	538	(878)	510	(803)
Lake Tradition	725	(534)	993	(701)	888	(837)	725	(534)
March Point	664	(367)	834	(367)	701	(412)	664	(367)
Midway	550	(263)	711	(333)	558	(368)	550	(263)
Saint Clair	520	(546)	756	(732)	810	(854)	520	(546)
Sammamish	409	(677)	517	(818)	546	(702)	409	(677)
Talbot Hill	754	(768)	935	(916)	834	(896)	754	(768)
Tono	755	(445)	567	(524)	548	(699)	548	(445)
Portal Way	443	(565)	441	(772)	337	(740)	441	(565)
Sedro Woolley	779	(950)	935	(1134)	867	(995)	779	(950)
South Bremerton	426	(328)	471	(341)	457	(420)	426	(328)
White River	872	(802)	1029	(945)	955	(887)	872	(802)

Charging limits have a parenthetical ( ) used in order to clearly indicate that the number is a charging (i.e. load) value. The maximum ESS sized is determined by the maximum size that the ESS can operate for all cases. Therefore, the minimum value between the three seasonal cases determines the maximum ESS size for performance under P0 conditions.

Table 3.4 P1 Quantitative Results

Quantitative Results – P1 Results in MW (Green shaded stations are low risk; yellow shaded stations are medium risk)								
Substation	**2030 Heavy Summer**		**2030 Heavy Winter**		**2030 Light Spring**		**Maximum ESS Size**	
	Generating	**Charging**	**Generating**	**Charging**	**Generating**	**Charging**	**Generating**	**Charging**
Alderton	96	(366)	510	(581)	529	(655)	96	(366)
Berrydale	756	(167)	848	(181)	702	(437)	702	(167)
Christopher	552	(217)	758	(362)	613	(386)	552	(217)
Frederickson	135	(96)	308	(314)	266	(388)	135	(96)
Fredonia	110	(532)	161	(619)	124	(585)	110	(532)
Lake Tradition	518	(136)	811	(425)	664	(545)	518	(136)
March Point	272	(214)	555	(189)	485	(271)	272	(189)
Midway	432	(164)	530	(207)	446	(262)	432	(164)
Saint Clair	45	(254)	239	(423)	311	(685)	45	(254)
Sammamish	323	(99)	411	(370)	495	(425)	323	(99)
Talbot Hill	552	(242)	741	(459)	688	(590)	552	(242)
Tono	437	(85)	275	(374)	282	(543)	275	(85)
Portal Way	105	(446)	392	(628)	284	(614)	105	(446)
Sedro Woolley	287	(589)	577	(715)	450	(700)	287	(589)
South Bremerton	313	(89)	301	(27)	375	(185)	301	(89)
White River	583	(579)	838	(434)	715	(592)	583	(434)

Charging limits have a parenthetical ( ) used in order to clearly indicate that the number is a charging (i.e. load) value. The maximum ESS sized is determined by the maximum size that the ESS can operate for all cases. Therefore, the minimum value between the three seasonal cases determines the maximum ESS size for performance under P1 conditions.

Table 3.5 P6 Quantitative Results

Quantitative Results – P6 Results in MW (Green shaded stations are low risk; yellow shaded stations are medium risk)								
Substation	**2030 Heavy Summer**		**2030 Heavy Winter**		**2020 Light Spring**		**Maximum ESS Size**	
	Generating	**Charging**	**Generating**	**Charging**	**Generating**	**Charging**	**Generating**	**Charging**
Alderton	134*	(76*)	448	(205)	324	(290)	134*	(76*)
Berrydale	515*	(52*)	847	(90)	707	(336)	515*	(52*)
Christopher	484*	(57*)	756	(337)	610	(386)	484*	(57*)
Frederickson	99*	(86*)	275	(284)	222	(389)	99*	(86*)
Fredonia	9*	(378)	101	(421)	69	(479)	9*	(378)
Lake Tradition	521*	(44*)	805	(387)	664	(545)	521*	(44*)
March Point	9*	(54)	201	(62)	172	(78)	9*	(54)
Midway	428*	(56*)	512	(121)	444	(218)	428*	(56*)
Saint Clair	39*	(412)	147	(528)	159	(633)	39*	(412)
Sammamish	323	(46*)	411	(370)	495	(445)	323	(46*)
Talbot Hill	450*	(48*)	622	(359)	889	(896)	450*	(48*)
Tono	592	(122*)	267	(339)	548	(698)	267	(122*)
Portal Way	11*	(446)	185	(362)	298	(614)	11*	(362)
Sedro Wolley	48*	(590)	519	(622)	447	(755)	48*	(590)
South Bremerton	314	(89*)	79	(23*)	375	(185)	79	(23*)
White River	365*	(13*)	382	(121*)	714	(750)	365*	(13*)

Charging limits have a parenthetical ( ) used in order to clearly indicate that the number is a charging (i.e. load) value. The maximum ESS sized is determined by the maximum size that the ESS can operate for all cases. Therefore, the minimum value between the three seasonal cases determines the maximum ESS size for performance under P6 conditions. Those limits with an asterisk (*) indicate that a pre-existing limit was ignored, and the first non-zero ATC transfer limit was recorded for the ESS charging and discharging contingency based limit.

4. Analysis

A review of Table 3.2, Table 3.3, and Table 3.4, indicate to the user the following:

- A single ESS performs for both discharging (generator) and charging (load) depending upon the substation location
    - Between 248 MW – 802 MW under P0 conditions
    - Between 45 MW – 434 MW for P1 conditions
    - Between 9 MW – 122 MW for P6 conditions
- Summer ratings can be most limiting and generally (but not always) summer may be the defining season for limiting an ESS.
    - This is due to limits being thermally based and higher summer temperatures causing de-rating of thermally limited equipment.
- Pre-existing conditions exist that should be examined in greater detail if any of these ESS locations are considered for interconnection.
- Limitations exist for P6 summer operations
    - Note that for ESS limits indicated with an asterisk (*) in the tables indicate there pre-existing P6 issues may exist.
- Some P6 contingencies may, surprisingly, perform better than P1 contingencies
    - The reasons for this are complex but in many cases the P1 limiting element is removed from service by the P6 contingency and thus a higher limiting element is relevant.

Table 4.1 shows the results for each substation on a contingency category bases, and also shows the maximum size for the ESS when generating or charging. Similarly, to before, the maximum size is the minimum value across the three contingency categories (i.e. P0, P1, and P6).

Further, the table shows the Total Maximum size of the ESS. The Total Maximum size is the minimum value (absolute) between the generating and charging values and represents the maximum size of the ESS that allows for unconstrained use during varying seasonal load conditions, varying operating conditions, and varying contingencies. The Total Maximum size is the value used to show the potential ESS size that might be achieved for NRIS while limiting the risk of additional costly network upgrades (transmission line rebuilds / reconductoring, etc.) outside of those required for interconnection to the substation.

The Operational Agreements determined with the developer could increase the Total Maximum size beyond the P6 charging limitations of the ESS listed in the table below.

Table 4.1 Combined Quantitative Results

Substation	Substation Type	P0 Results		P1 Results		P6 Results		Maximum ESS		Total Maximum
		Generating	Charging	Generating	Charging	Generating	Charging	Generating	Charging	
Alderton	Main & Aux	725	(790)	96	(366)	134*	(76*)	96	(76*)	76*
Berrydale	Main & Aux	982	(248)	702	(167)	515*	(52*)	515*	(52*)	52*
Christopher	Main Bus	751	(419)	552	(217)	484*	(57*)	484*	(57*)	57*
Fredonia	Main Bus	404	(316)	135	(96)	99*	(86*)	99*	(86*)	86*
Frederickson	Main Bus	510	(803)	110	(532)	9*	(378)	9*	(378)	9*
Lake Tradition	Main Bus	725	(534)	518	(136)	521*	(44*)	518	(44*)	44*
March Point	Main & Aux	664	(367)	272	(189)	9*	(54)	9*	(54)	9*
Midway	Main & Aux	550	(263)	432	(164)	428*	(56*)	428*	(56*)	56*
Sammamish	Main & Aux	520	(546)	45	(254)	39*	(412)	39*	(254)	39*
Saint Clair	Main & Aux	409	(677)	323	(99)	323	(46*)	323	(46*)	46*
Talbot Hill	Main & Aux	754	(768)	552	(242)	450*	(48*)	450*	(48*)	48*
Tono	Main & Aux	548	(445)	275	(85)	267	(122*)	267	(85)	85
Bellingham	Brk & half	441	(565)	105	(446)	11*	(362)	11*	(362)	11*
Krain Corner	Main Bus	779	(950)	287	(589)	48*	(590)	48*	(589)	48*
O'Brien	Main & Aux	426	(328)	301	(89)	79	(23*)	79	(23*)	3*
Portal Way	Main & Aux	872	(802)	583	(434)	365*	(13*)	365*	(13*)	13*
S. Bremerton	Main & Aux	725	(790)	96	(366)	134*	(76*)	96	(76*)	76*
Sedro Woolley	Main & Aux	982	(248)	702	(167)	515*	(52*)	515*	(52*)	52*
Starwood	Main Bus	751	(419)	552	(217)	484*	(57*)	484*	(57*)	57*
White River	Main & Aux	404	(316)	135	(96)	99*	(86*)	99*	(86*)	86*

Those limits with an asterisk (*) indicate that a pre-existing limit was ignored, and the first non-zero ATC transfer limit was recorded for the ESS charging and discharging contingency based limit. As stated above, the Operational Agreements determined with the developer could increase the Total Maximum size beyond the P6 charging limitations of the ESS.

Table 4.2 shows a summary of the results for this effort. The table provides the reader with a convenient listing of the Total Maximum ESS output and the location of the electrical point of interconnection studied, as well as substation type, and operating voltage.

Table 4.2 Location Summary with Maximum ESS Results

Substation	Substation Type	Voltage (kV)	Location		Total Maximum ESS (MW)
			Latitude	Longitude	
Alderton	Main & Aux	115.0	47.15343889	-122.2364972	76
Berrydale	Main & Aux	115.0	47.37802778	-122.1311389	52
Christopher	Main Bus	115.0	47.33708333	-122.23925	57
Fredonia	Main Bus	115.0	48.45461111	-122.4370556	86
Frederickson	Main Bus	115.0	47.08061111	-122.3646944	9
Lake Tradition	Main Bus	115.0	47.53069444	-122.0116944	44
March Point	Main & Aux	115.0	48.45713889	-122.5625	9
Midway	Main & Aux	115.0	47.40238889	-122.2943889	56
Sammamish	Main & Aux	115.0	47.68558333	-122.1498611	39
Saint Clair	Main & Aux	115.0	47.03511111	-122.7356111	46
Talbot Hill	Main & Aux	115.0	47.46863889	-122.1909722	48
Tono	Main & Aux	115.0	46.75538889	-122.8775	85
Bellingham	Brk & half	115.0	48.75938889	-122.4603889	11
Krain Corner	Main Bus	115.0	47.23511111	-121.9855	48
O'Brien	Main & Aux	115.0	47.40316667	-122.2432222	3
Portal Way	Main & Aux	115.0	48.90361111	-122.63	13
S. Bremerton	Main & Aux	115.0	47.53763889	-122.6913611	76
Sedro Woolley	Main & Aux	115.0	48.50458333	-122.204	52
Starwood	Main Bus	115.0	47.29038889	-122.3623056	57
White River	Main & Aux	115.0	47.239	-122.2096111	86

.

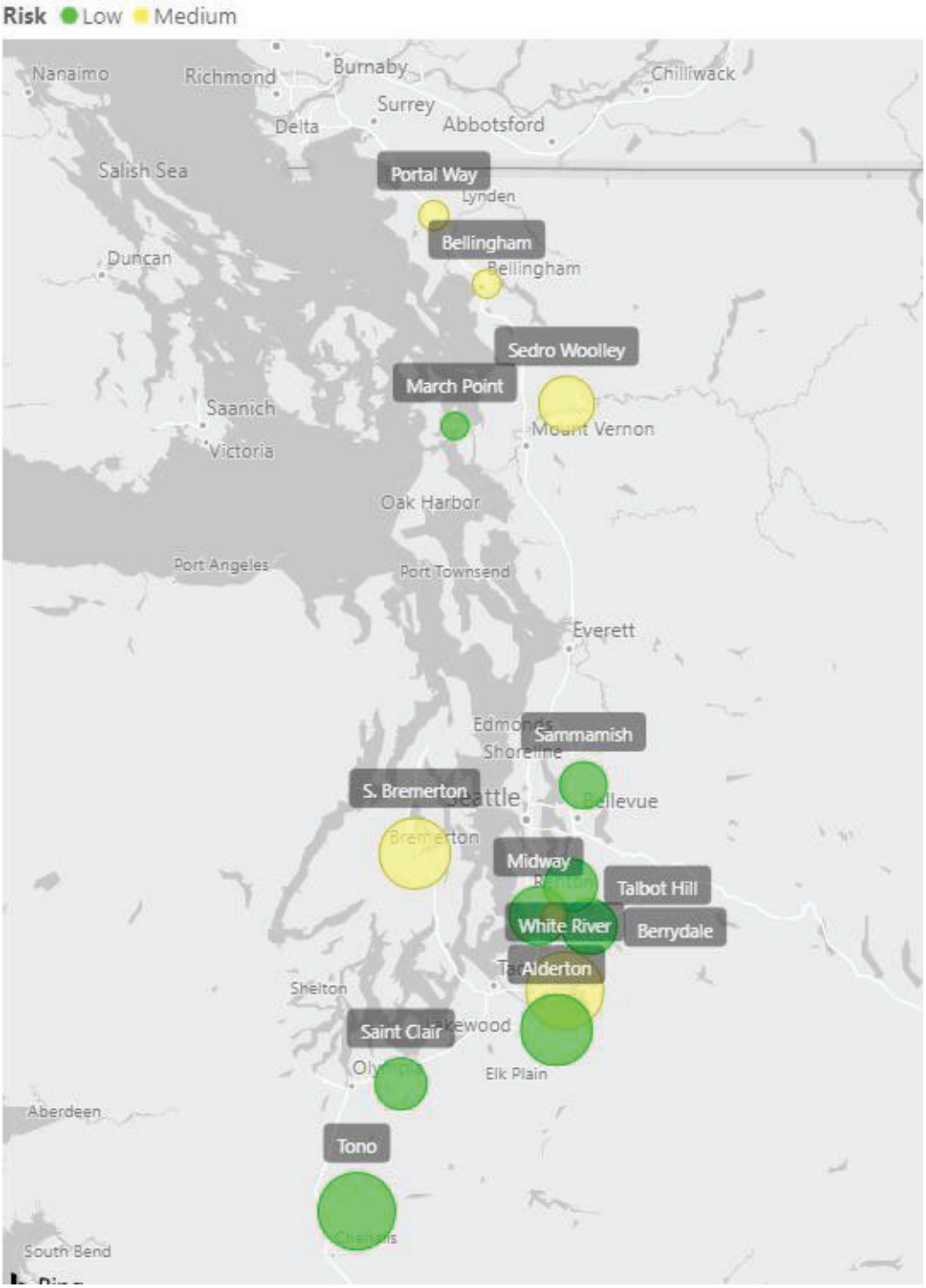
As discussed previously, the main bus substation configuration (without an aux bus) has questionable reliability and interconnecting at a main bus substation has the potential to result in the need for high network costs to rebuild the substation. The substations that are configured with just a main bus (with no aux bus) were removed from the results to create the final results table as show in Table 4.3 shows the final results summary of the results for this effort. The table provides the reader with a convenient listing of the Maximum ESS output and the location of the electrical point of interconnection studied, as well as substation type, and operating voltage.

Table 4.3 Final Results Table

Substation	Substation Type	Voltage (kV)	Location		Total Maximum ESS (MW)
			Latitude	Longitude	
Alderton	Main & Aux	115.0	47.15343889	-122.2364972	76
Berrydale	Main & Aux	115.0	47.37802778	-122.1311389	52
March Point	Main & Aux	115.0	48.45713889	-122.5625	9
Midway	Main & Aux	115.0	47.40238889	-122.2943889	56
Sammamish	Main & Aux	115.0	47.68558333	-122.1498611	39
Saint Clair	Main & Aux	115.0	47.03511111	-122.7356111	46
Talbot Hill	Main & Aux	115.0	47.46863889	-122.1909722	48
Tono	Main & Aux	115.0	46.75538889	-122.8775	85
Bellingham	Brk & half	115.0	48.75938889	-122.4603889	11
O'Brien	Main & Aux	115.0	47.40316667	-122.2432222	3
Portal Way	Main & Aux	115.0	48.90361111	-122.63	13
S. Bremerton	Main & Aux	115.0	47.53763889	-122.6913611	76
Sedro Woolley	Main & Aux	115.0	48.50458333	-122.204	52
White River	Main & Aux	115.0	47.239	-122.2096111	86

Figure 4.1 gives an approximate location of the substations with low and medium risk for interconnection. The figure shows that there are many opportunities throughout the native PSE system for interconnecting an ESS.

Figure 4.1 Location of Selected Stations



5. Conclusions and Recommendations

PSC believes that opportunities exist for Puget Sound Energy to install Energy Storage Systems in several stations without undue impact (or required network upgrades) to the surrounding electrical transmission system. We base this conclusion of performance under P6 outages during heavy summer and winter peak load conditions, as required for Network Resource Interconnection Service for use as a capacity resource on PSE's transmission system.

As previously stated, the results of this effort are to be used to help guide proponents to locations (with approximate capacities) that might offer success for interconnection of an ESS for NRIS with limited network upgrades. The formal LGIA process, as detailed under the Puget Sound Energy FERC Open Access Transmission Tariff (OATT), will define required system interconnection upgrades and any potential network upgrades as a result of the more detailed studies (power flow and transient), impacts of projects already in the interconnection que, affected neighbouring transmission providers, and short circuit analysis.

What this document is: Read Me

This collection of PowerPoint slides contains new and far imagery of various Puget Sound Energy substations/stations that met the following criteria for examination of installation of a Battery Energy Storage System (BESS):

- 115 kV station, 4 lines or greater
- 230 kV station
- Interconnected to the greater grid (i.e. no radial service to load type of stations).

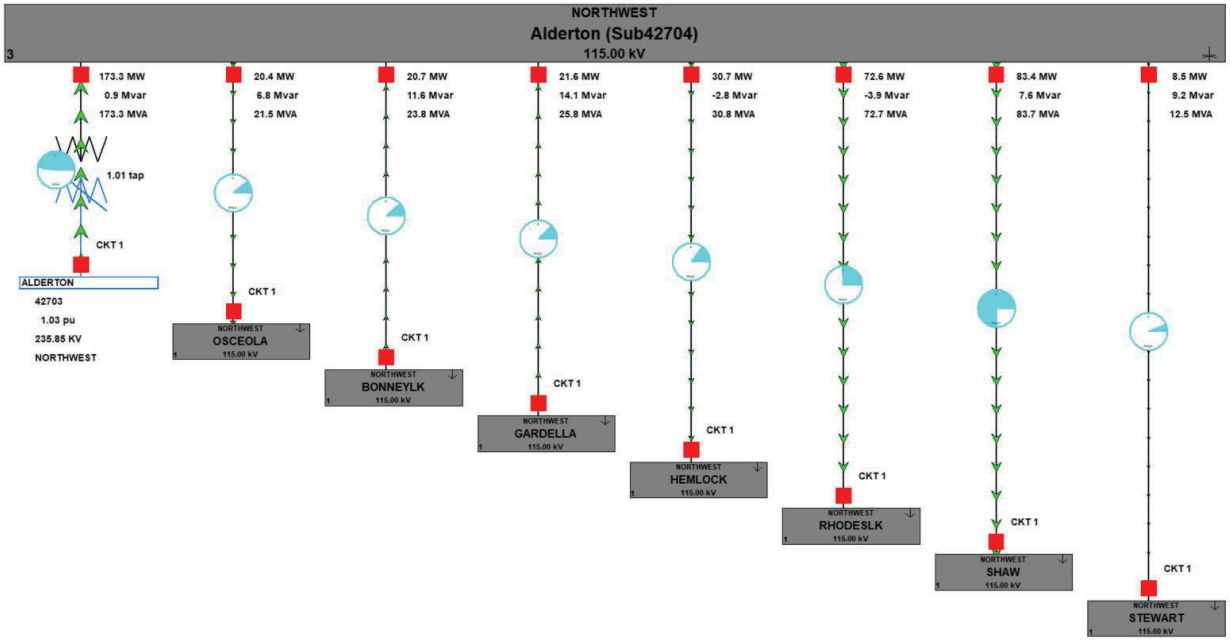
The candidate stations were identified using overhead imagery and other publicly available information. This information, although publicly available, is rather obscure so it is not particularly well know information. The Puget stations were identified and located geographically.

This information was then entered in publicly available WECC power flow bases cases (an NDA is required to access these cases) using PowerWorld Simulator (version 21). Substation records were created fo the Puget stations using PowerWorld Simulator (i.e. PWS). The '"number of tielines" feature for substations was used (along with voltage filters) to identify possible candidate stations. Note that the feature of "number of tielines" was added (at no cost). by PowerWorld Corporation as a direct result of this study being performed by Puget Sound Energy.

The resulting stations were then examined using the software tools GoogleEarth and LandGrid to determine the qualitative suitability for interconnection of a BESS to that station. Suitability metrics were nature of general zoning near the station, spare bays in station, expandability in station, etc.

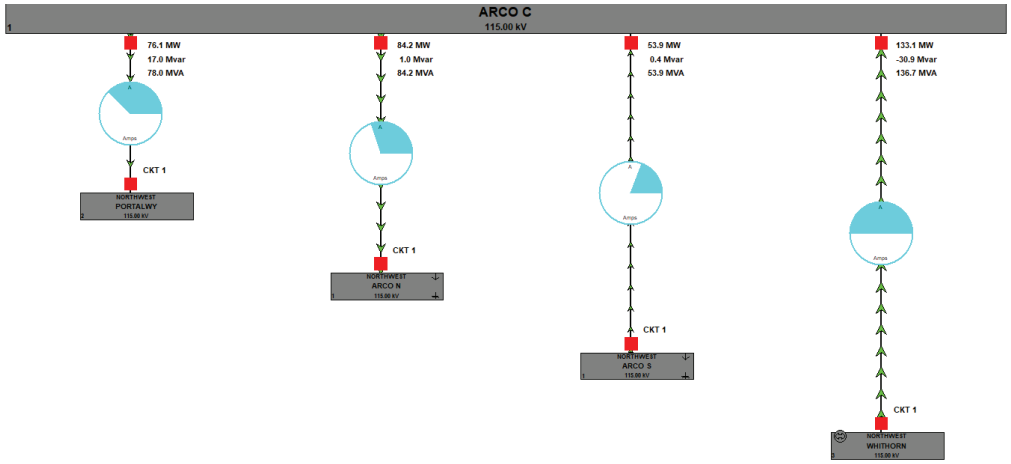
Sub Name	Alderton (Sub42704)
Sub Num	42704
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	7
# of Buses	3
Latitude	47.1534
Longitude	-122.236
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	PIERCE


Alderton (Sub42704)


NORTHWEST
Alderton (Sub42704)
115.00 kV
3
173.3 MW
0.9 Mvar
173.3 MVA
1.01 tap
CKT 1
ALDERTON
42703
1.03 pu
235.85 KV
NORTHWEST
20.4 MW
6.8 Mvar
21.5 MVA
CKT 1
NORTHWEST
OSCEOLA
115.00 kV
20.7 MW
11.6 Mvar
23.8 MVA
CKT 1
NORTHWEST
BONNEYLK
115.00 kV
21.6 MW
14.1 Mvar
25.8 MVA
CKT 1
NORTHWEST
GARDELLA
115.00 kV
30.7 MW
-2.8 Mvar
30.8 MVA
CKT 1
NORTHWEST
HEMLOCK
115.00 kV
72.6 MW
-3.9 Mvar
72.7 MVA
CKT 1
NORTHWEST
RHODESLK
115.00 kV
83.4 MW
7.6 Mvar
83.7 MVA
CKT 1
NORTHWEST
SHAW
115.00 kV
8.5 MW
9.2 Mvar
12.5 MVA
CKT 1
NORTHWEST
STEWART
115.00 kV

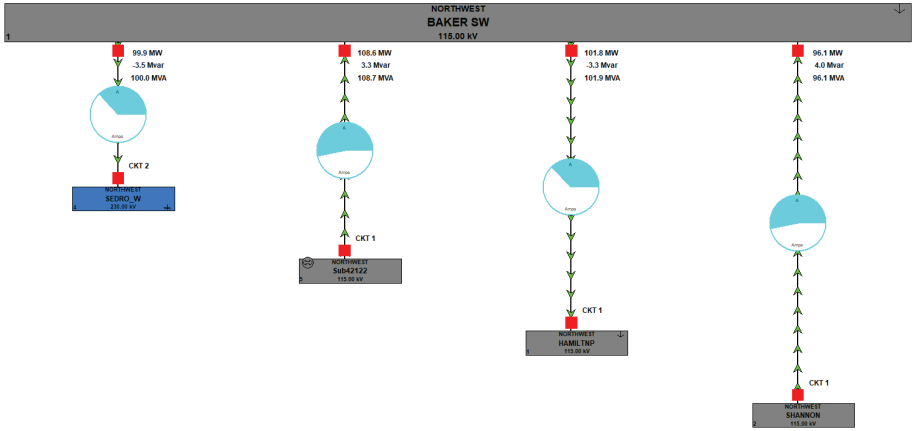
Sub Name	ARCO C
Sub Num	42004
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	4
# of Buses	1
Latitude	48.8868
Longitude	-122.727
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	WHATCOMI


ARCO C
Blaine Rd


ARCO C
115.00 kV
76.1 MW
17.0 Mvar
78.0 MVA
CKT 1
NORTHWEST
PORTALWY
115.00 kV
84.2 MW
1.0 Mvar
84.2 MVA
CKT 1
NORTHWEST
ARCO N
115.00 kV
53.9 MW
0.4 Mvar
53.9 MVA
CKT 1
NORTHWEST
ARCO S
115.00 kV
133.1 MW
-30.9 Mvar
136.7 MVA
CKT 1
NORTHWEST
WHITHORN
115.00 kV

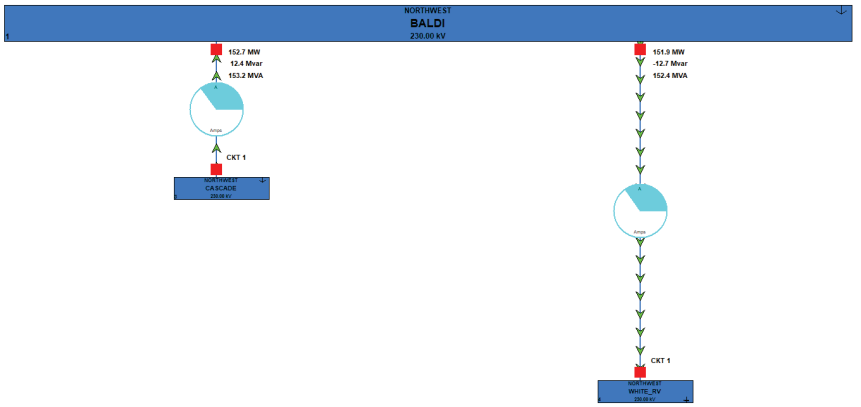
Sub Name	BAKER SW
Sub Num	42108
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	4
# of Buses	1
Latitude	48.5421
Longitude	-121.742
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	SKAGIT

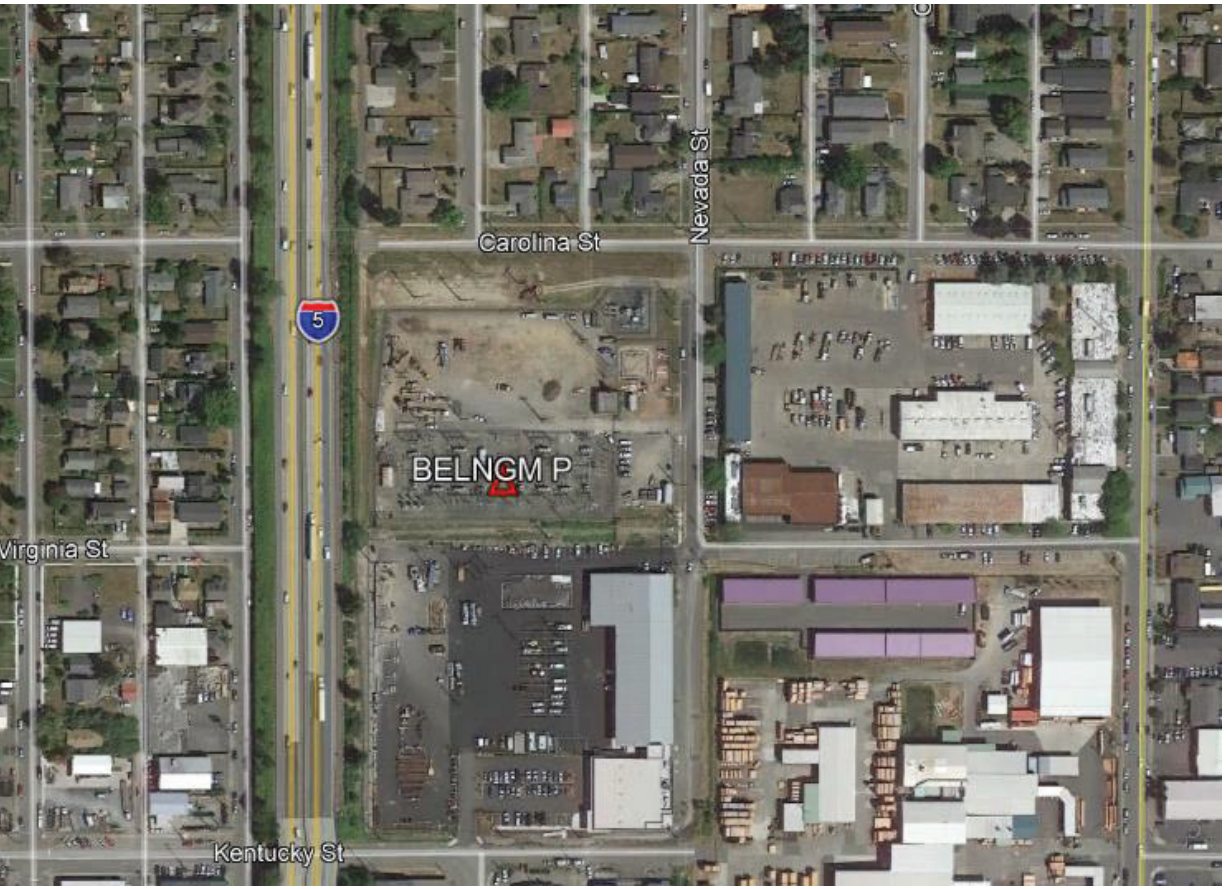

Baker River Rd
BAKER SW


NORTHWEST
BAKER SW
115.00 kV
99.9 MW
-3.5 Mvar
100.0 MVA
CKT 2
NORTHWEST
SEDRO_W
230.00 kV
108.6 MW
3.3 Mvar
108.7 MVA
CKT 1
NORTHWEST
Sub42122
115.00 kV
101.8 MW
-3.3 Mvar
101.9 MVA
CKT 1
NORTHWEST
HAMILTNP
115.00 kV
96.1 MW
4.0 Mvar
96.1 MVA
CKT 1
NORTHWEST
SHANNON
115.00 kV

Sub Name	BALDI
Sub Num	42568
Nominal kV(max)	230
Nominal kV Range	230.0 (only)
# of Tielines	2
# of Buses	1
Latitude	47.2681
Longitude	-121.757
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KINGI

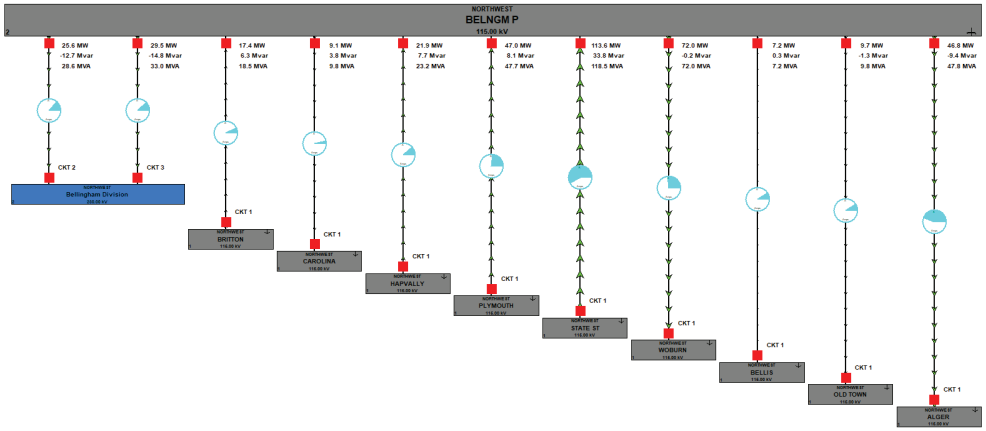

BALDI

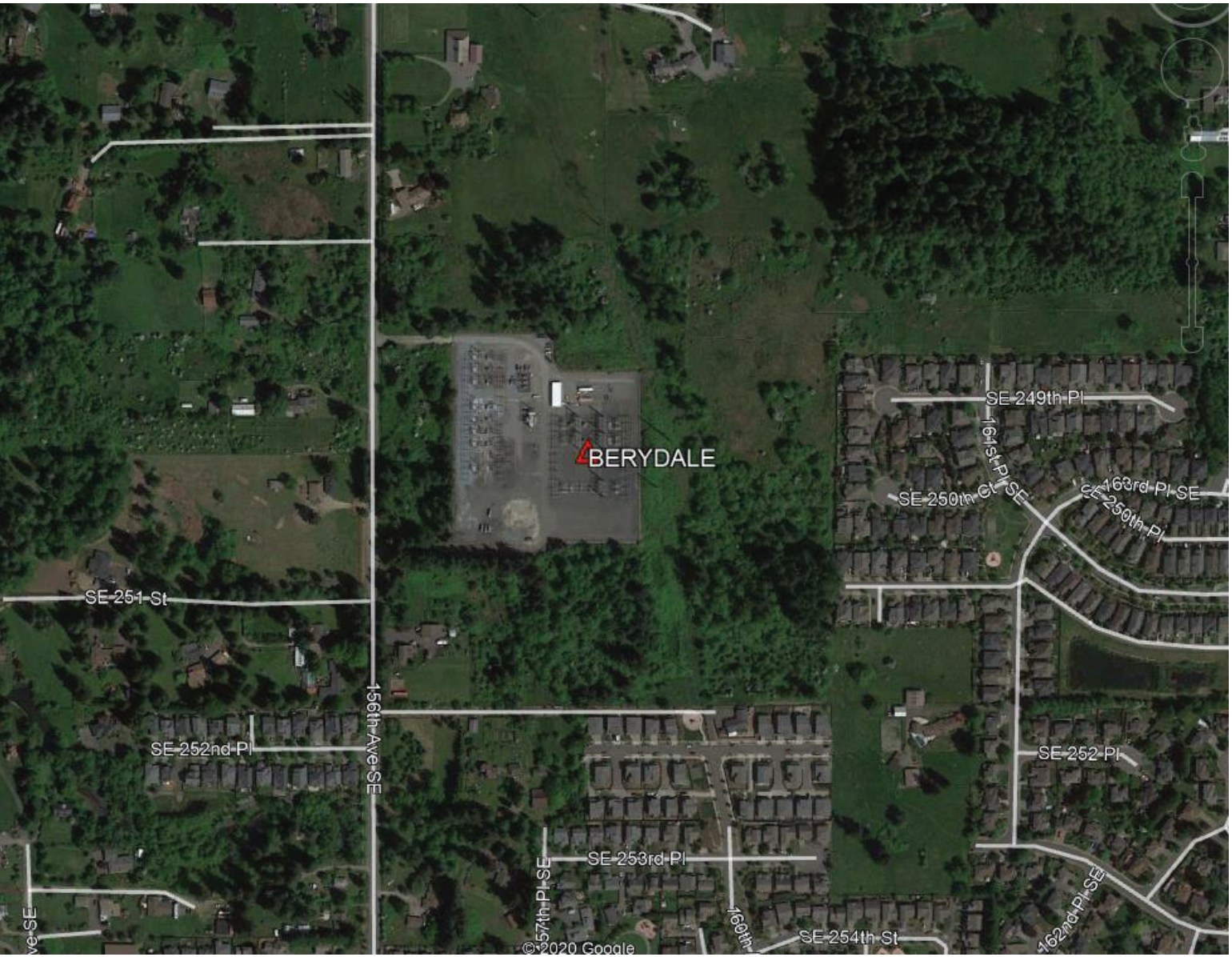

NORTHWEST
BALDI
230.00 kV
152.7 MW
12.4 Mvar
153.2 MVA
CKT 1
151.9 MW
-12.7 Mvar
152.4 MVA
CKT 1



Sub Name	BELNGM P
Sub Num	42002
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	11
# of Buses	2
Latitude	48.7594
Longitude	-122.46
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	WHATCOM

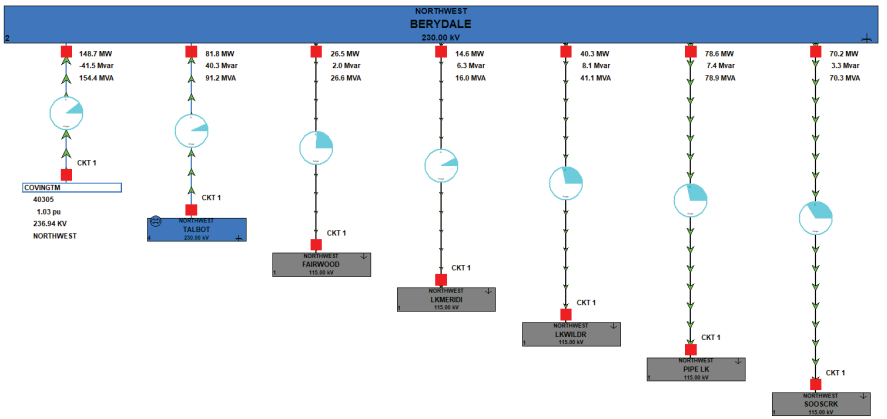

Carolina St
evada St
5
BELNGM P


NORTHWEST
BELNGM P
115.00 kV
25.6 MW
-12.7 Mvar
28.6 MVA
CKT 2
Bellingham Division
29.5 MW
-14.8 Mvar
33.0 MVA
CKT 3
17.4 MW
6.3 Mvar
18.5 MVA
CKT 1
BRITTON
9.1 MW
3.8 Mvar
9.8 MVA
CKT 1
CAROLINA
21.9 MW
7.7 Mvar
23.2 MVA
CKT 1
HAPVALLY
47.0 MW
8.1 Mvar
47.7 MVA
CKT 1
PLYMOUTH
113.6 MW
33.8 Mvar
118.5 MVA
CKT 1
STATE ST
72.0 MW
-0.2 Mvar
72.0 MVA
CKT 1
WOBURN
7.2 MW
0.3 Mvar
7.2 MVA
CKT 1
BELLIS
9.7 MW
-1.3 Mvar
9.8 MVA
CKT 1
OLD TOWN
46.8 MW
-9.4 Mvar
47.8 MVA
CKT 1
ALGER



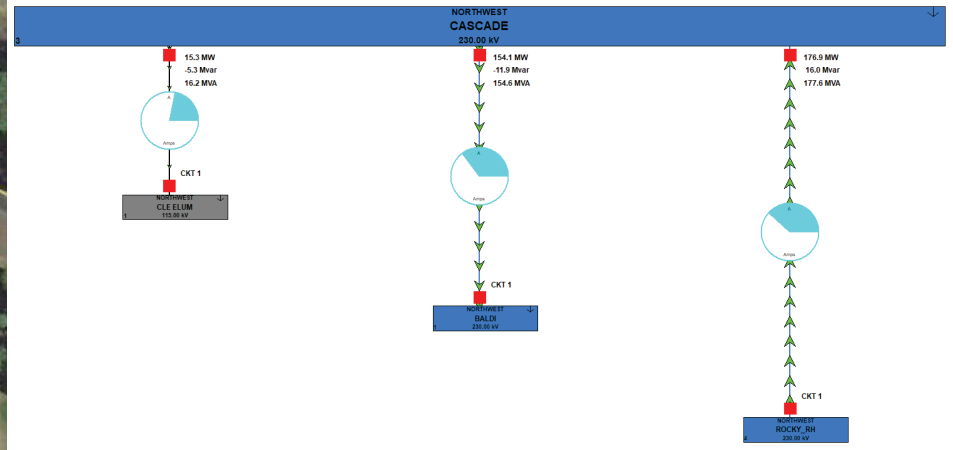
Sub Name	BERYDALE
Sub Num	42507
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	7
# of Buses	2
Latitude	47.378
Longitude	-122.131
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KING

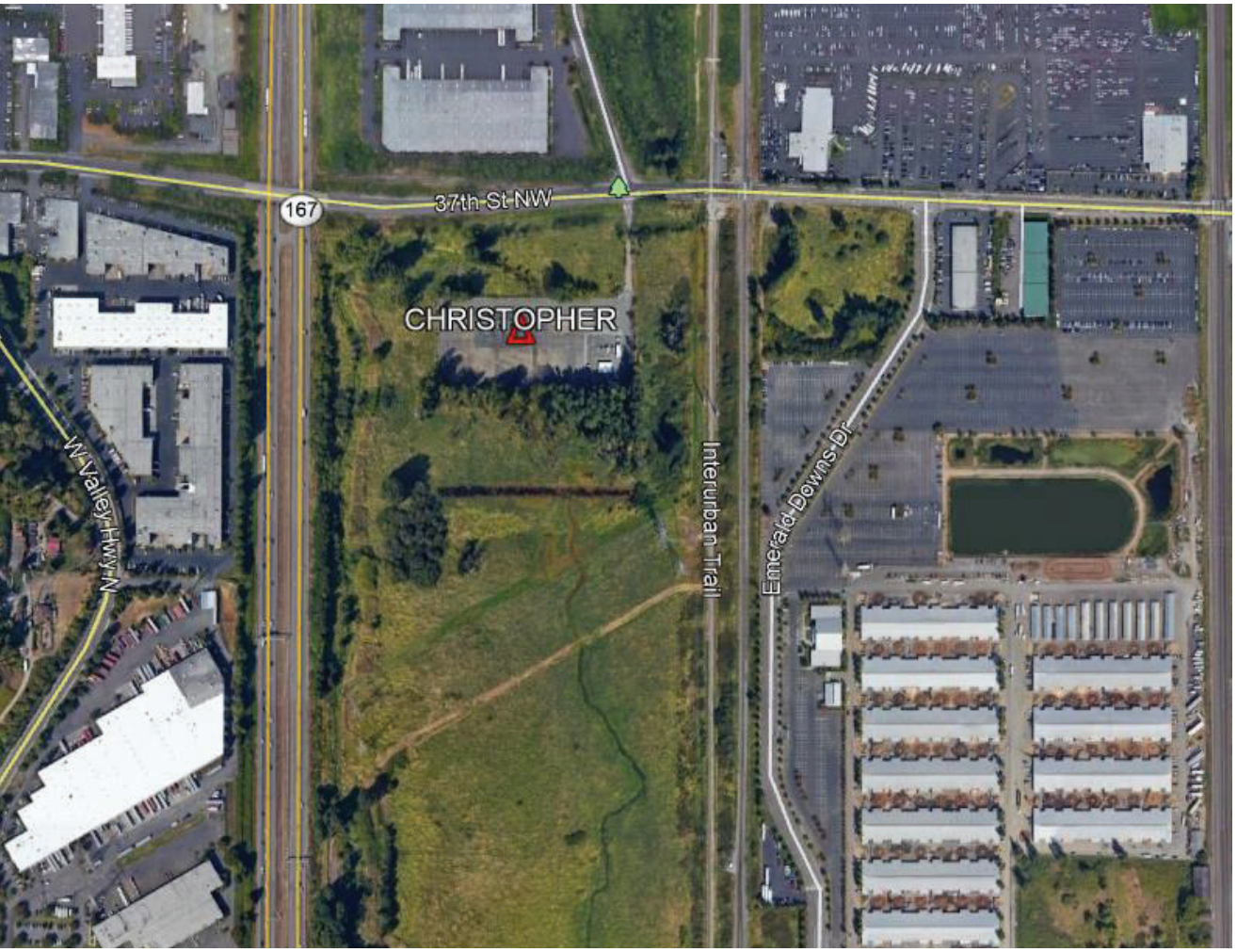

BERYDALE


NORTHWEST
BERYDALE
230.00 kV
148.7 MW
41.5 Mvar
154.4 MVA
CKT 1
COVINGTM
40305
1.03 pu
236.94 KV
NORTHWEST
81.8 MW
40.3 Mvar
91.2 MVA
CKT 1
NORTHWEST
TALBOT
230.00 kV
26.5 MW
2.0 Mvar
26.6 MVA
CKT 1
NORTHWEST
FAIRWOOD
115.00 kV
14.6 MW
6.3 Mvar
16.0 MVA
CKT 1
NORTHWEST
LKMERIDI
115.00 kV
40.3 MW
8.1 Mvar
41.1 MVA
CKT 1
NORTHWEST
LKWILDR
115.00 kV
78.6 MW
7.4 Mvar
78.9 MVA
CKT 1
NORTHWEST
PIPE LK
115.00 kV
70.2 MW
3.3 Mvar
70.3 MVA
CKT 1
NORTHWEST
SOOSCRK
115.00 kV

Sub Name	CASCADE
Sub Num	42312
Nominal kV(max)	230
Nominal kV Range	34.5 to 230.0
# of Tielines	3
# of Buses	3
Latitude	47.2021
Longitude	-120.969
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	KITTITAS

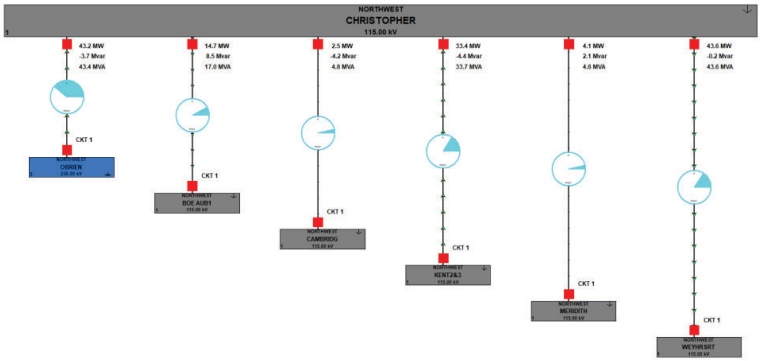

903
CASCADE

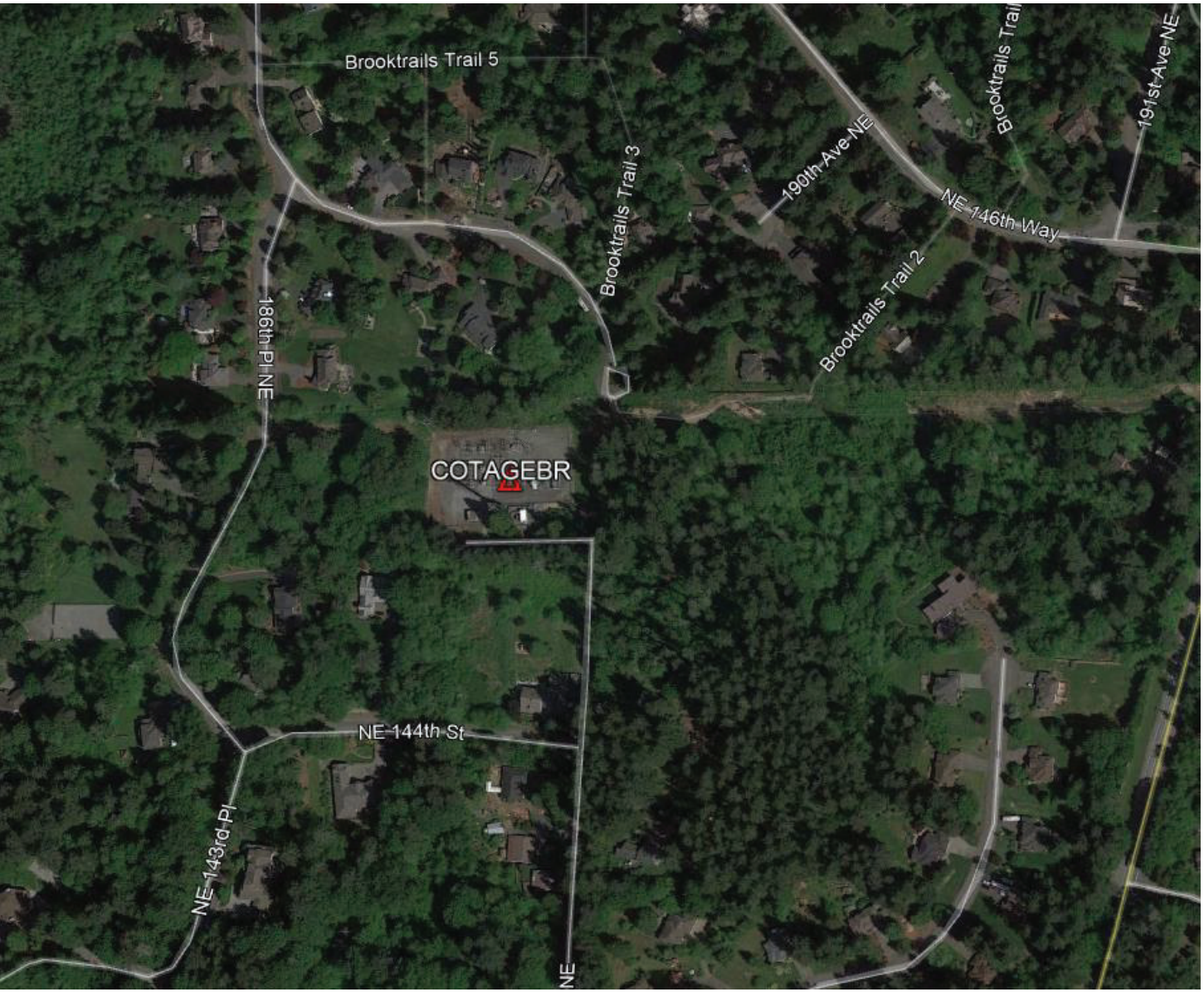

NORTHWEST
CASCADE
230.00 kV
15.3 MW
-5.3 Mvar
16.2 MVA
CKT 1
CLE ELUM
154.1 MW
-11.9 Mvar
154.6 MVA
CKT 1
BALDI
176.9 MW
16.0 Mvar
177.6 MVA
CKT 1
ROCKY_RH



Sub Name	CHRISTOPHER
Sub Num	42506
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	6
# of Buses	1
Latitude	47.3371
Longitude	-122.239
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KING

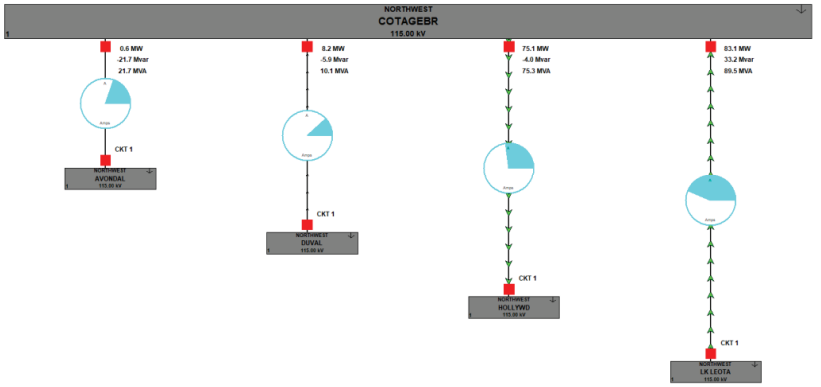

CHRISTOPHER


NORTHWEST
CHRISTOPHER
115.00 kV
43.2 MW
-3.7 Mvar
43.4 MVA
CKT 1
OSWEN
14.7 MW
8.5 Mvar
17.0 MVA
CKT 1
BOE AUBS
2.5 MW
-4.2 Mvar
4.8 MVA
CKT 1
CAMBRIDG
33.4 MW
-4.4 Mvar
33.7 MVA
CKT 1
KENTALS
4.1 MW
2.1 Mvar
4.6 MVA
CKT 1
MERIDITH
43.6 MW
-0.2 Mvar
43.6 MVA
CKT 1
WEYBRIGHT



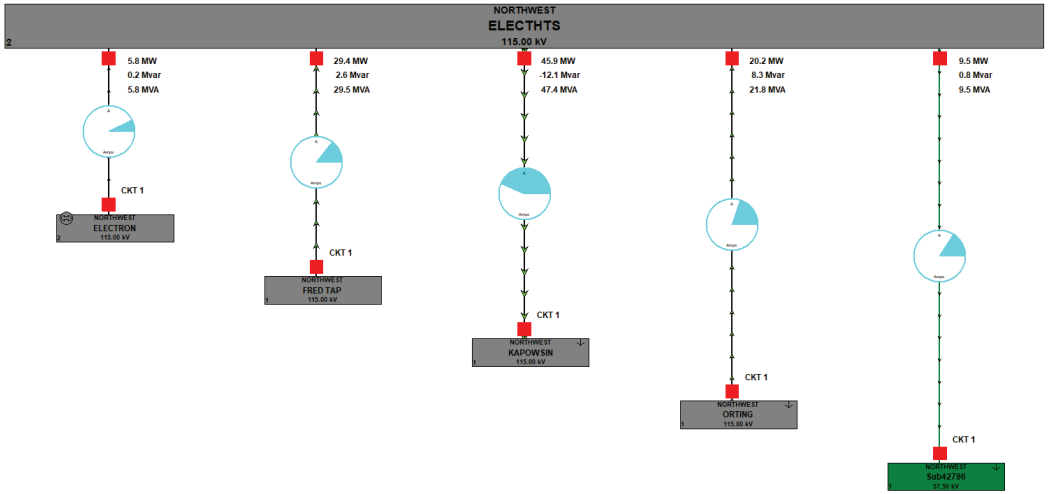
Sub Name	COTAGEBR
Sub Num	42310
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	4
# of Buses	1
Latitude	47.7325
Longitude	-122.088
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING


COTAGEBR
Brooktrails


NORTHWEST
COTAGEBR
115.00 kV
0.6 MW
-21.7 Mvar
21.7 MVA
CKT 1
AVONDALE
8.2 MW
-5.9 Mvar
10.1 MVA
CKT 1
DUVAL
75.1 MW
-4.0 Mvar
75.3 MVA
CKT 1
HOLLYWD
83.1 MW
33.2 Mvar
89.5 MVA
CKT 1
LK LEOTA

Sub Name	ELECTHTS
Sub Num	42705
Nominal kV(max)	115
Nominal kV Range	57.5 to 115.0
# of Tielines	5
# of Buses	2
Latitude	46.9931
Longitude	-122.181
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	PIERCE

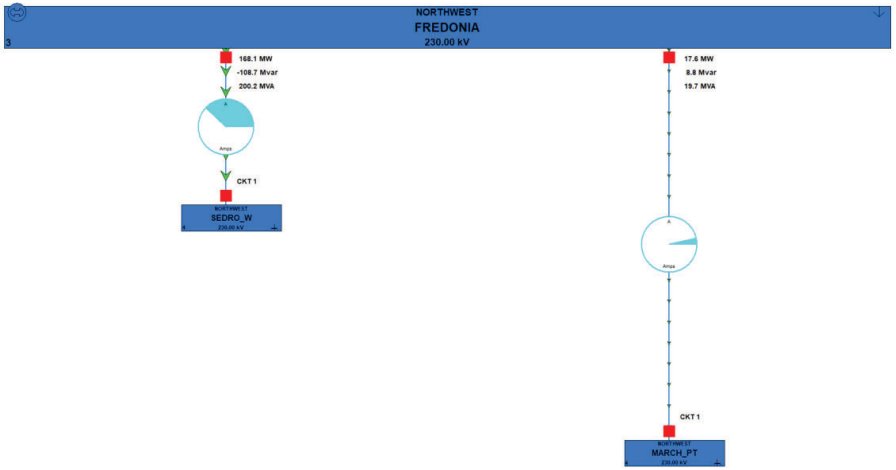

ELECTHTS

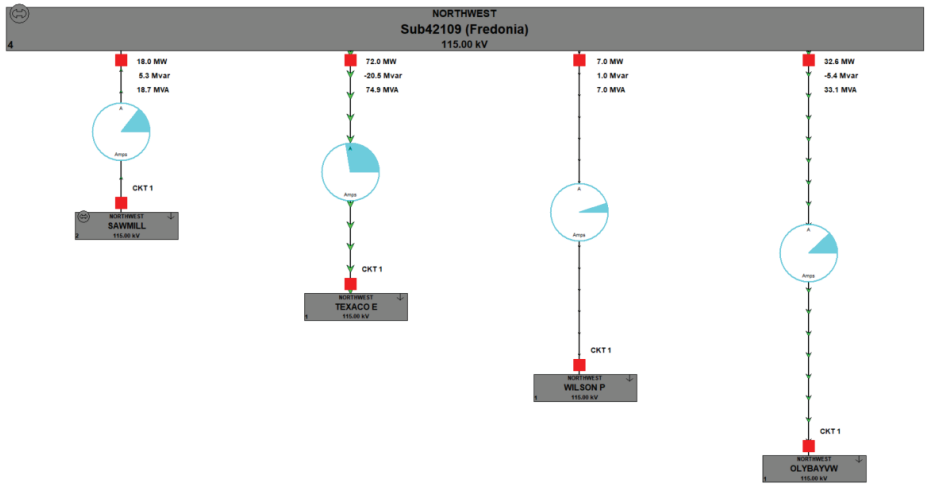

NORTHWEST
ELECTHTS
115.00 kV
2
5.8 MW
0.2 Mvar
5.8 MVA
CKT 1
NORTHWEST
ELECTRON
115.00 kV
29.4 MW
2.6 Mvar
29.5 MVA
CKT 1
NORTHWEST
FRED TAP
115.00 kV
45.9 MW
-12.1 Mvar
47.4 MVA
CKT 1
NORTHWEST
KAPOWSIN
115.00 kV
20.2 MW
8.3 Mvar
21.8 MVA
CKT 1
NORTHWEST
ORTING
115.00 kV
9.5 MW
0.8 Mvar
9.5 MVA
CKT 1
NORTHWEST
Sub42786
57.50 kV

Sub Name	FREDONIA
Sub Num	42113
Nominal kV(max)	230
Nominal kV Range	13.8 to 230.0
# of Tielines	2
# of Buses	3
Latitude	48.4546
Longitude	-122.437
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	SKAGIT

Sub Name	Sub42109 (Fredonia)
Sub Num	42109
Nominal kV(max)	115
Nominal kV Range	13.8 to 115.0
# of Tielines	4
# of Buses	4
Latitude	48.4546
Longitude	-122.437
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	SKAGIT

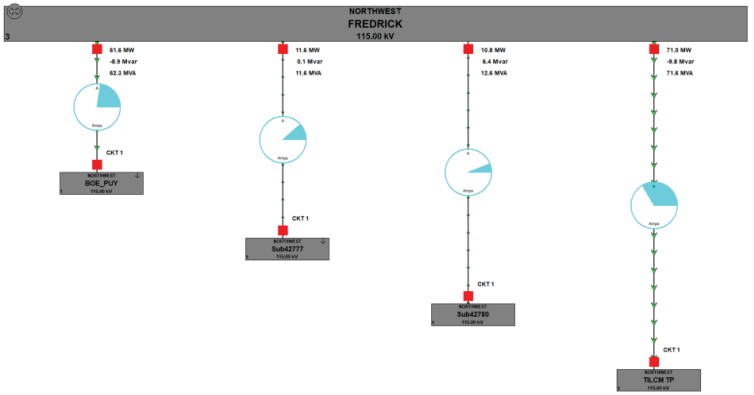

FREDONIA
Sub42109 (Fredonia)
Bail Rd


NORTHWEST
FREDONIA
230.00 kV
168.1 MW
-108.7 Mvar
200.2 MVA
CKT 1
SEDRO_W
17.6 MW
8.8 Mvar
19.7 MVA
CKT 1
MARCH_PT


NORTHWEST
Sub42109 (Fredonia)
115.00 kV
18.0 MW
5.3 Mvar
18.7 MVA
CKT 1
SAWMILL
72.0 MW
-20.5 Mvar
74.9 MVA
CKT 1
TEXACO E
7.0 MW
1.0 Mvar
7.0 MVA
CKT 1
WILSON P
32.6 MW
-5.4 Mvar
33.1 MVA
CKT 1
OLYBAYVW

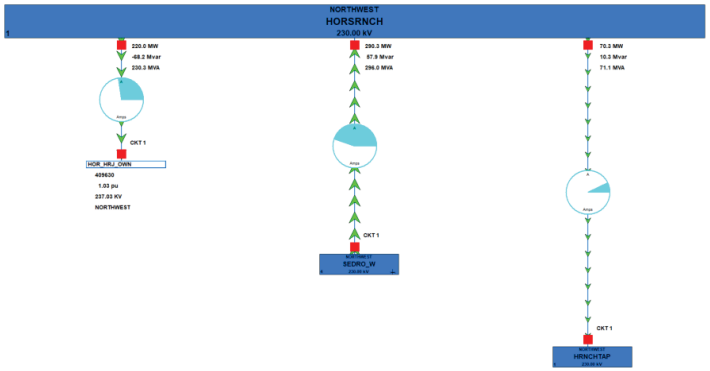
Sub Name	FREDRICK
Sub Num	42720
Nominal kV(max)	115
Nominal kV Range	13.8 to 115.0
# of Tielines	4
# of Buses	3
Latitude	47.0806
Longitude	-122.365
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	PIERCE


FREDRICK

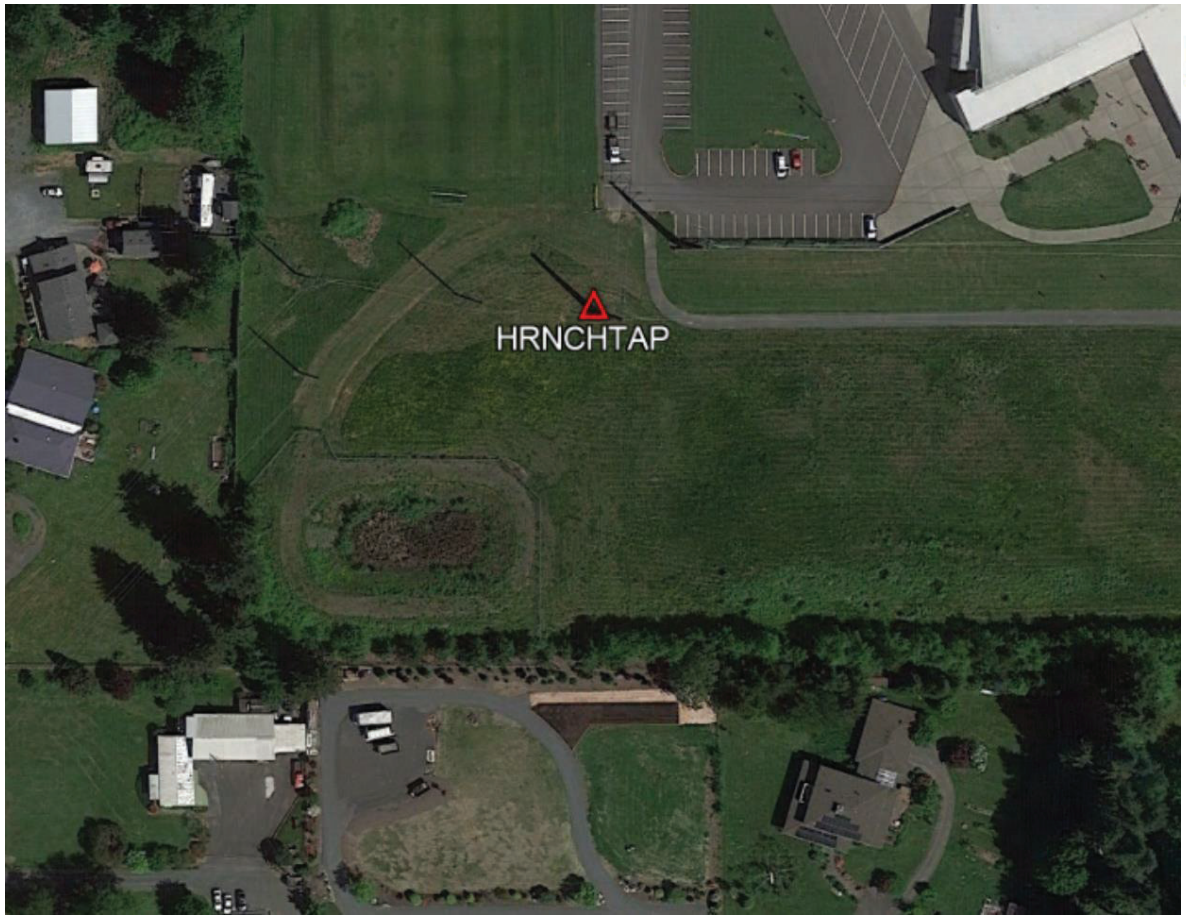

NORTHWEST
FREDRICK
115.00 kV
61.6 MW
-8.9 Mvar
62.3 MVA
CKT 1
BOE_PUY
11.6 MW
0.1 Mvar
11.6 MVA
CKT 1
Sub42777
10.8 MW
6.4 Mvar
12.6 MVA
CKT 1
Sub42780
71.0 MW
-9.8 Mvar
71.6 MVA
CKT 1
TILCM TP

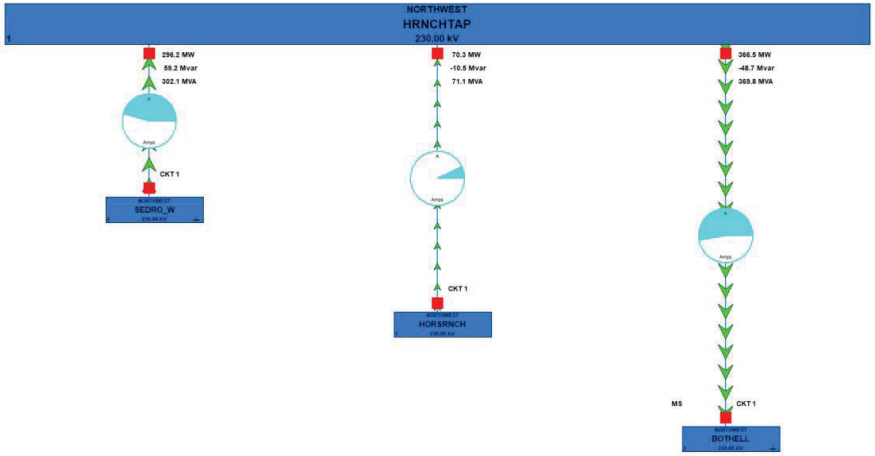
Sub Name	HORSRNCH
Sub Num	42320
Nominal kV(max)	230
Nominal kV Range	230.0 (only)
# of Tielines	3
# of Buses	1
Latitude	47.9718
Longitude	-122.113
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING

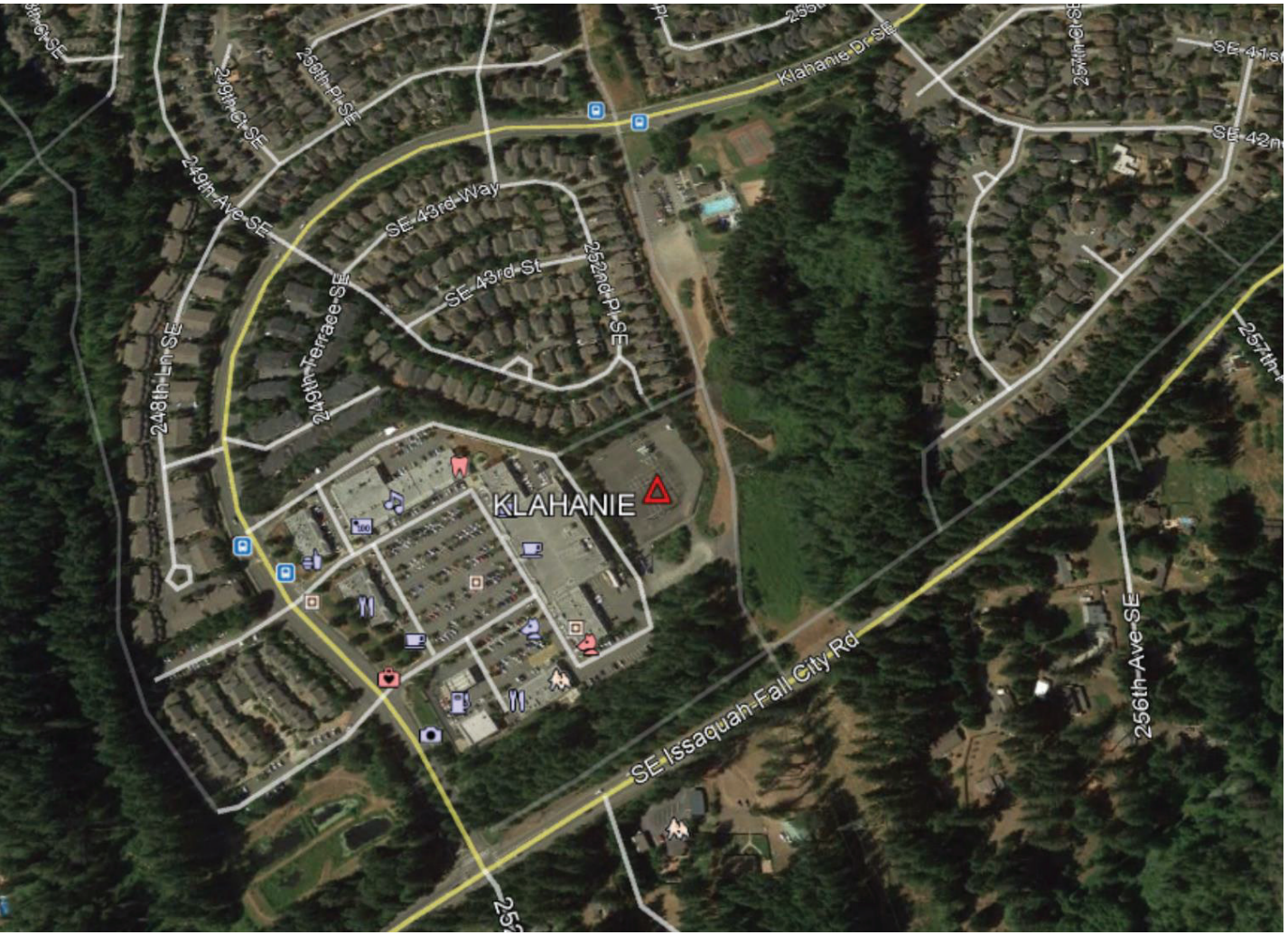

HORSRNCH


NORTHWEST
HORSRNCH
230.00 kV
1
220.0 MW
-68.2 Mvar
230.3 MVA
Area
CKT 1
HOR_HRJ_OWN
409630
1.03 pu
237.33 kV
NORTHWEST
290.3 MW
87.9 Mvar
296.0 MVA
Area
CKT 1
NORTHWEST
SEDRO_W
70.3 MW
10.3 Mvar
71.1 MVA
Area
CKT 1
NORTHWEST
HRNCHTAP

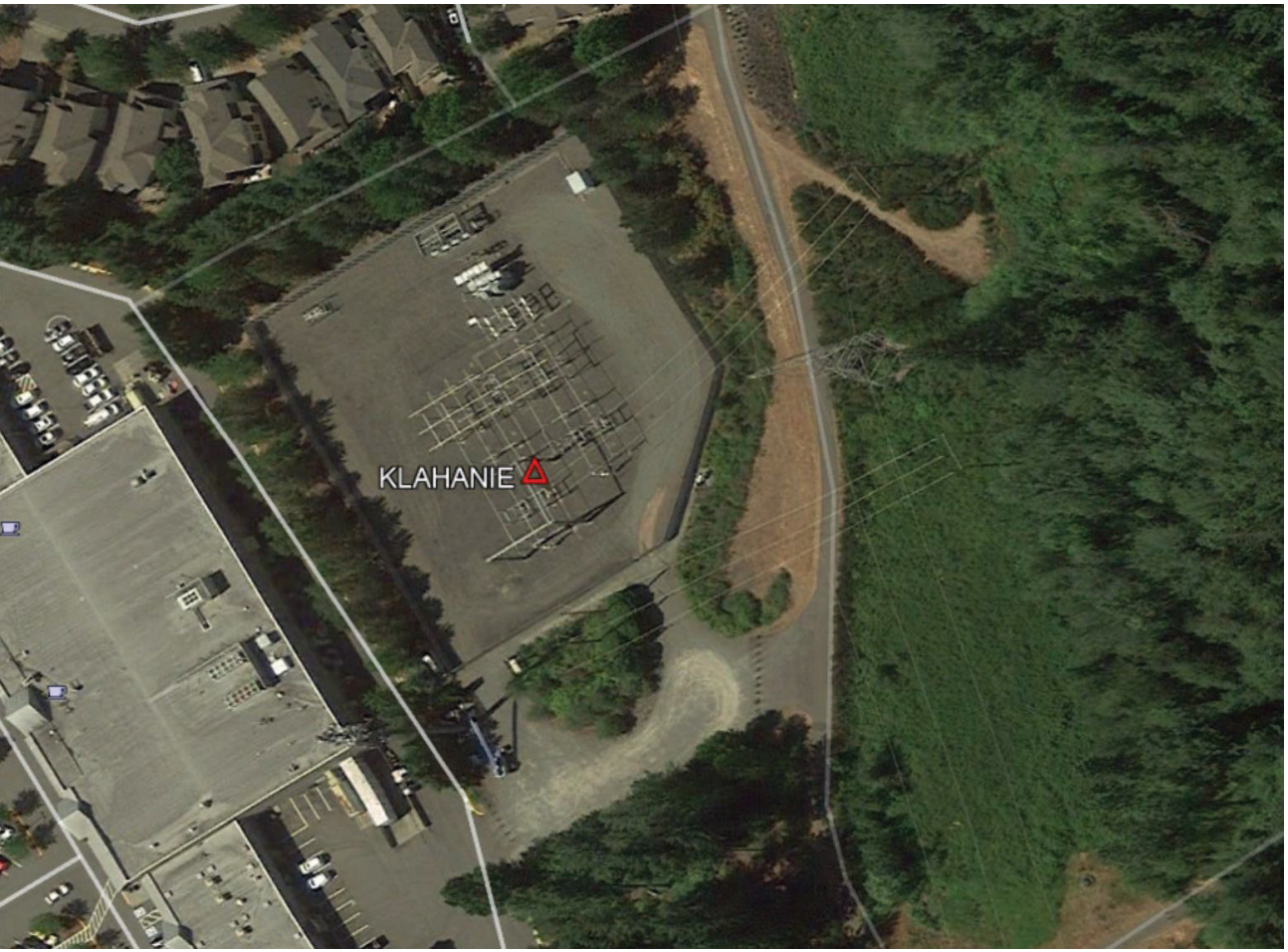
Sub Name	HRNCHTAP
Sub Num	42321
Nominal kV(max)	230
Nominal kV Range	230.0 (only)
# of Tielines	2
# of Buses	1
Latitude	47.9717
Longitude	-122.124
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING

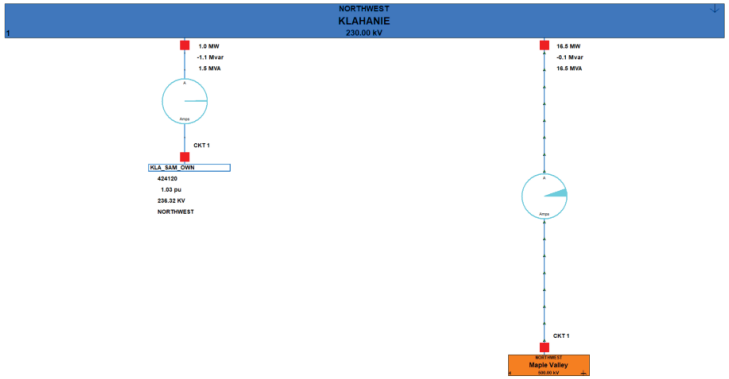

HRNCHTAP


NORTHWEST
HRNCHTAP
230.00 kV
1
296.2 MW
59.2 Mvar
302.1 MVA
CKT 1
SEDRO_W
70.3 MW
-10.5 Mvar
71.1 MVA
CKT 1
HORSRNCH
366.5 MW
-48.7 Mvar
369.8 MVA
MS
CKT 1
BOTHELL

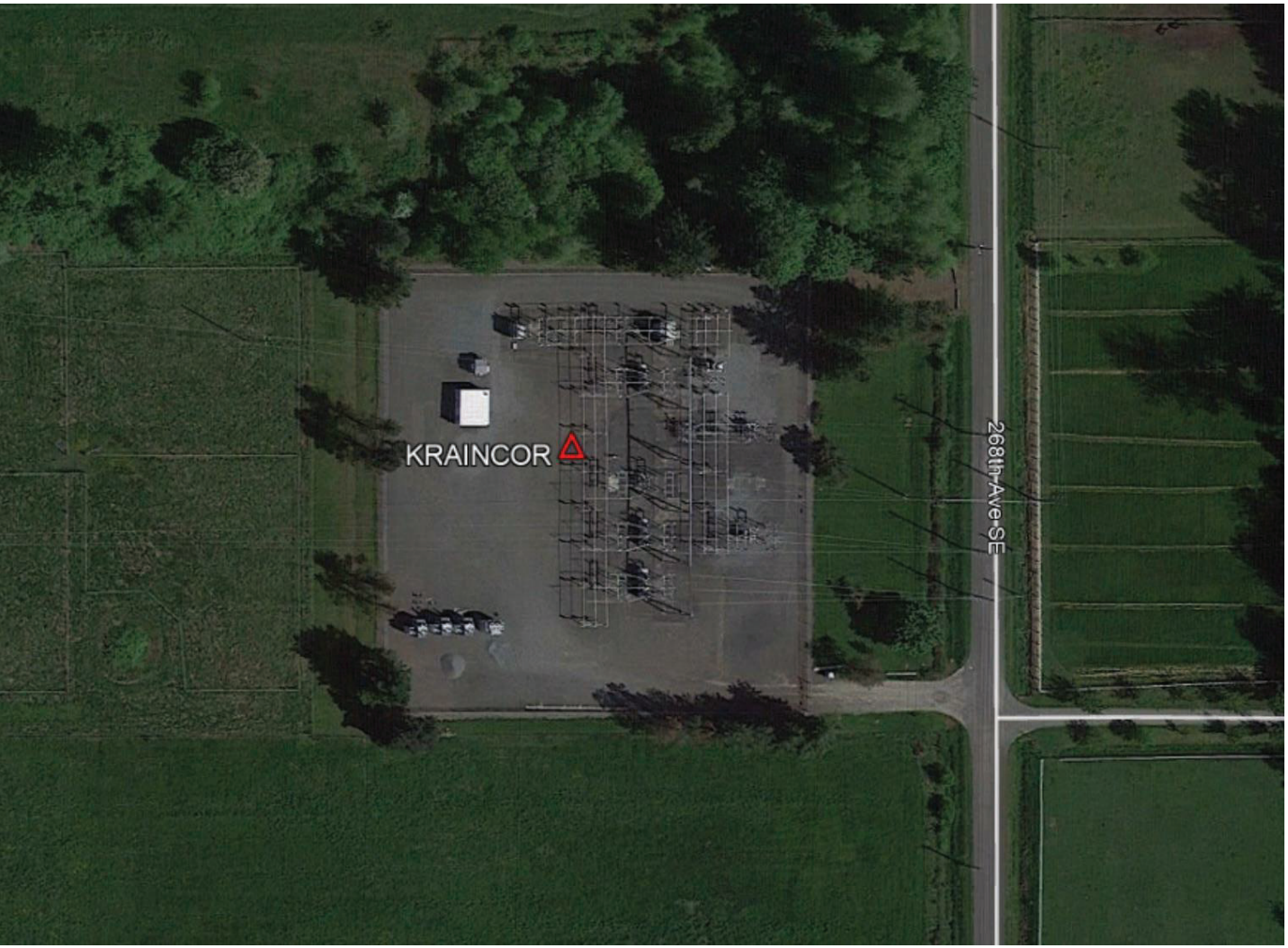


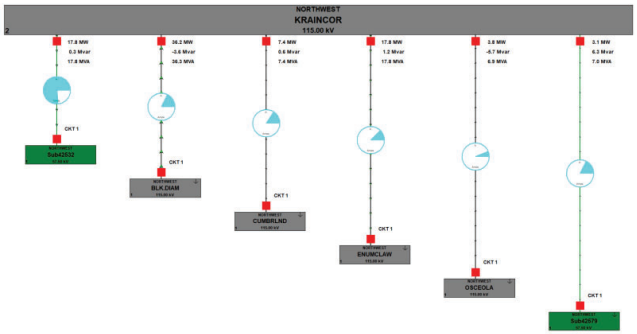
Sub Name	KLAHANIE
Sub Num	42412
Nominal kV(max)	230
Nominal kV Range	230.0 (only)
# of Tielines	2
# of Buses	1
Latitude	47.566
Longitude	-122.002
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING


KLAHANIE

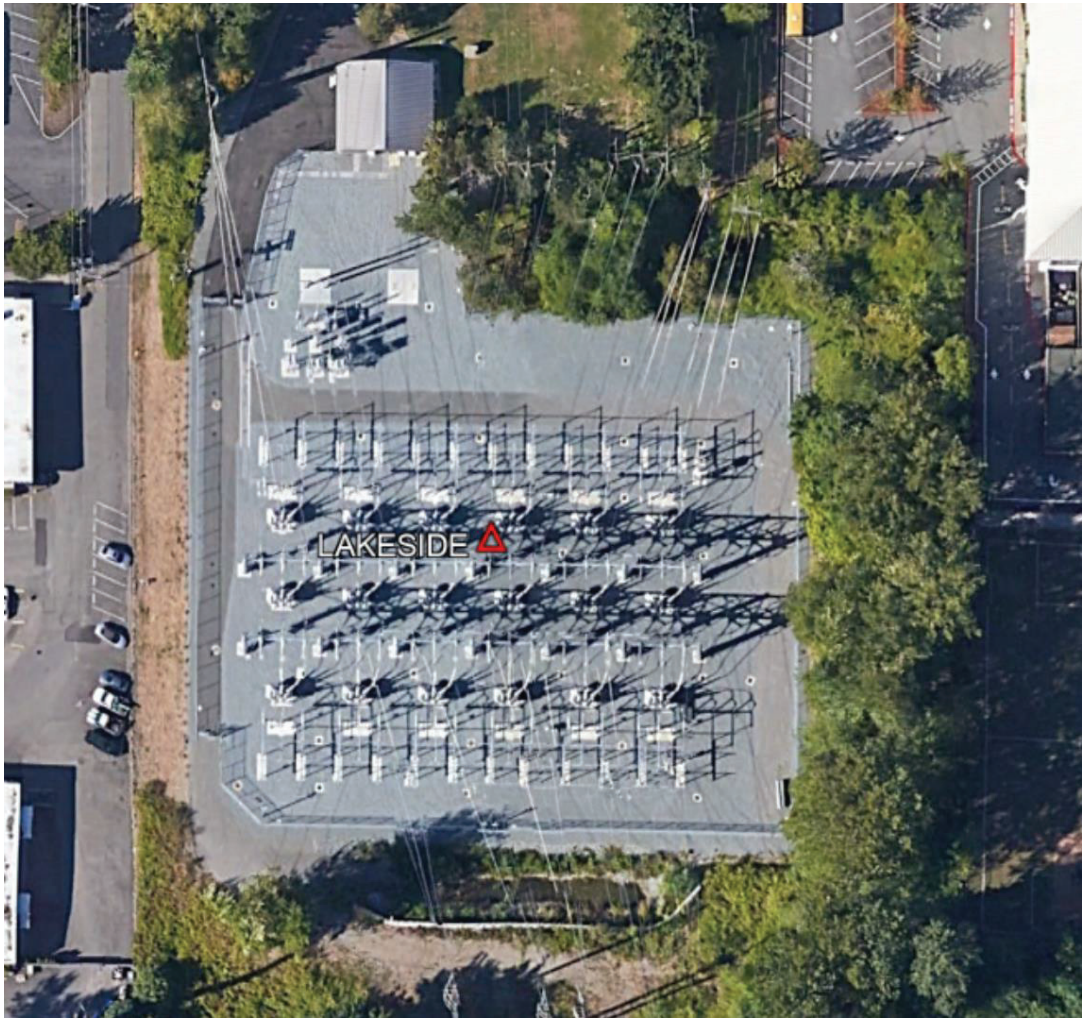

NORTHWEST
KLAHANIE
230.00 kV
1.0 MW
-1.1 Mvar
1.5 MVA
CKT 1
KLA_SAM_OWN
424120
1.03 pu
236.32 KV
NORTHWEST
16.8 MW
-0.1 Mvar
16.8 MVA
CKT 1
Maple Valley

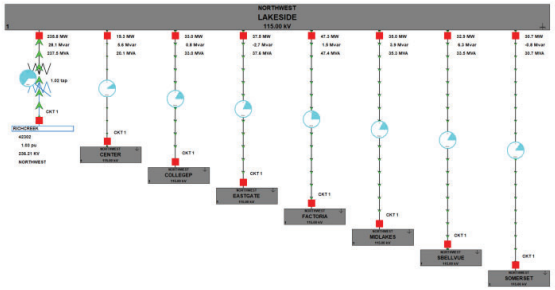
Sub Name	KRAINCOR
Sub Num	42509
Nominal kV(max)	115
Nominal kV Range	57.5 to 115.0
# of Tielines	6
# of Buses	2
Latitude	47.2351
Longitude	-121.986
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	PIERCE

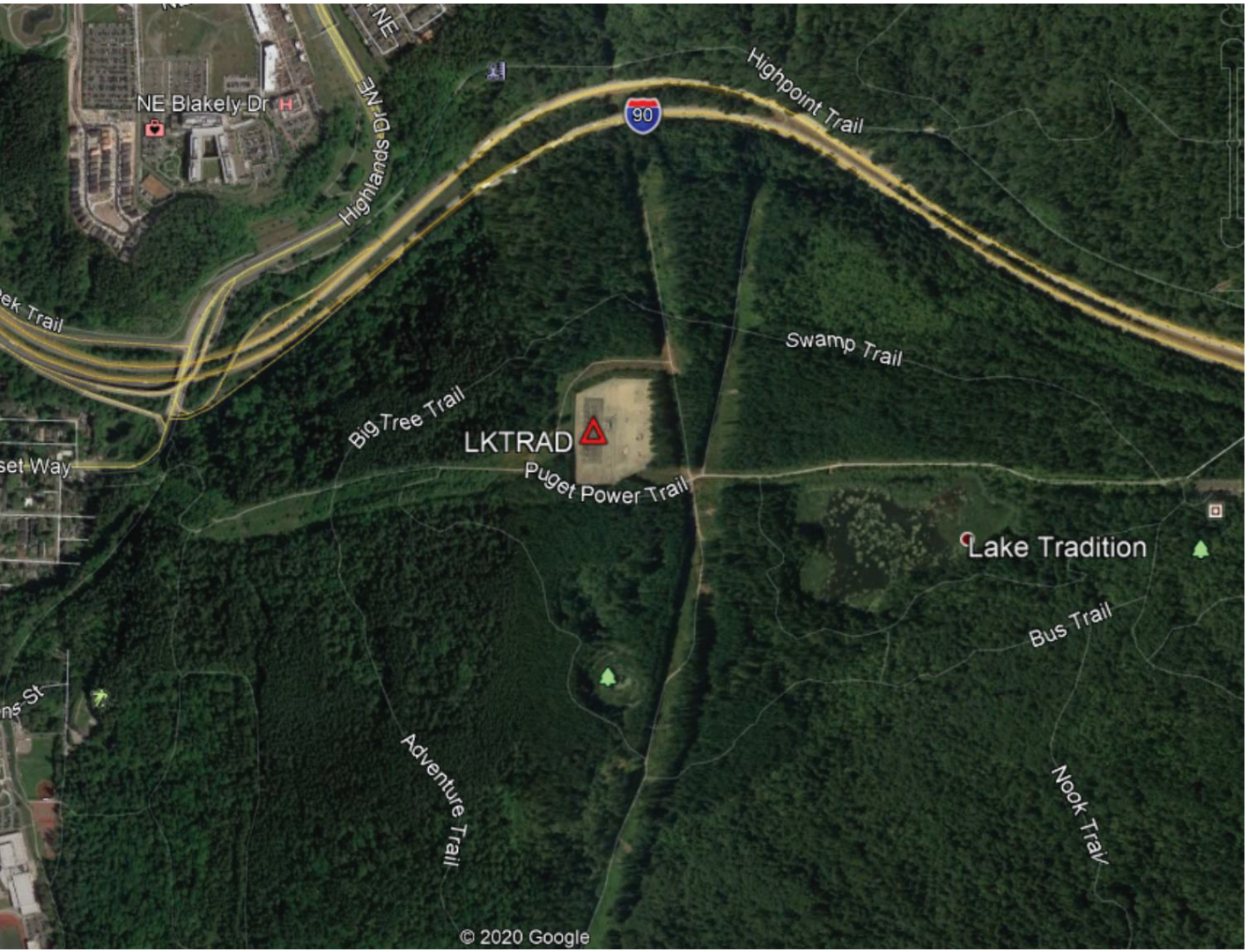

KRAINCOR
268th Ave SE


NORTHWEST
KRAINCOR
115.00 kV
17.8 MW
0.3 Mvar
17.8 MVA
CKT 1
36.2 MW
-3.6 Mvar
36.2 MVA
CKT 1
BLK.DIAM
7.4 MW
0.6 Mvar
7.4 MVA
CKT 1
CUMBRLND
17.8 MW
1.2 Mvar
17.8 MVA
CKT 1
ENUMCLAW
0.8 MW
-0.7 Mvar
0.9 MVA
CKT 1
OSCEOLA
3.1 MW
6.2 Mvar
7.0 MVA
CKT 1

Sub Name	LAKESIDE
Sub Num	42303
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	7
# of Buses	1
Latitude	47.5863
Longitude	-122.158
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING

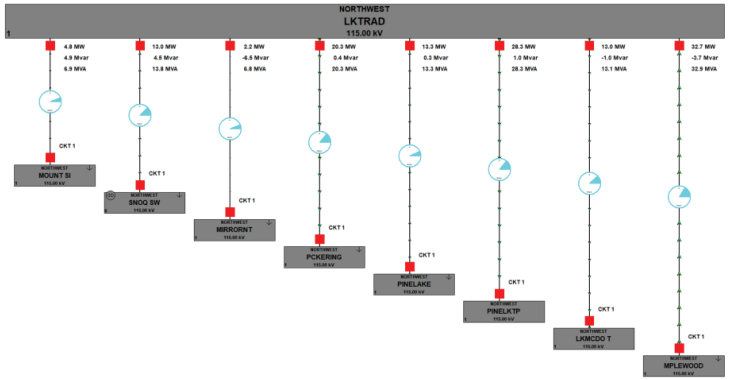

LAKESIDE

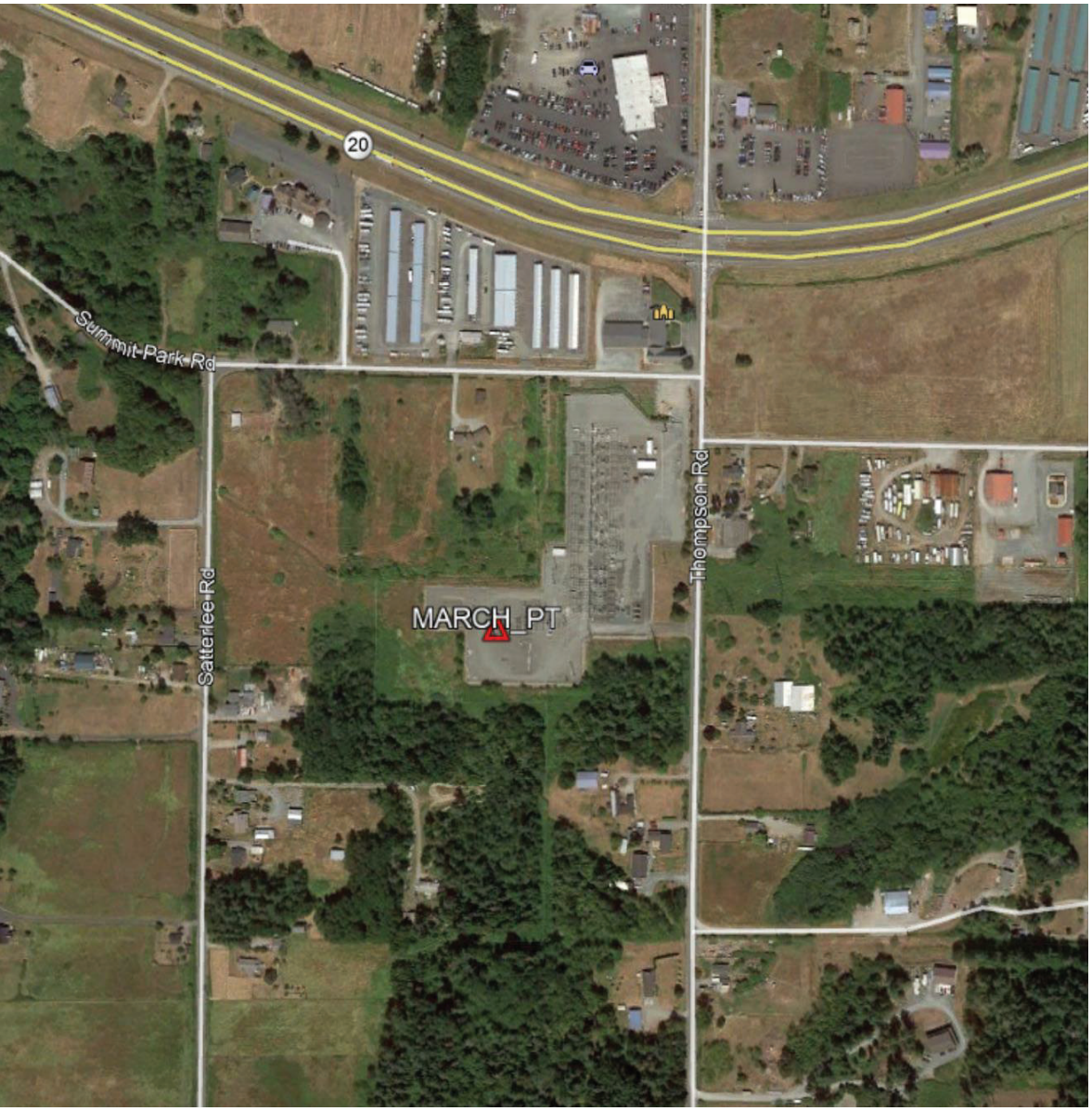

NORTHWEST
LAKESIDE
115.00 kV
CKT 1
RICHCREEK
40392
1.00 pu
206.31 kV
NORTHWEST
CENTER
COLLEGEP
EASTGATE
FACTORIA
MIDLAKES
SHELLVUE
SOMERSET



Sub Name	LKTRAD
Sub Num	42307
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	8
# of Buses	1
Latitude	47.5307
Longitude	-122.012
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING

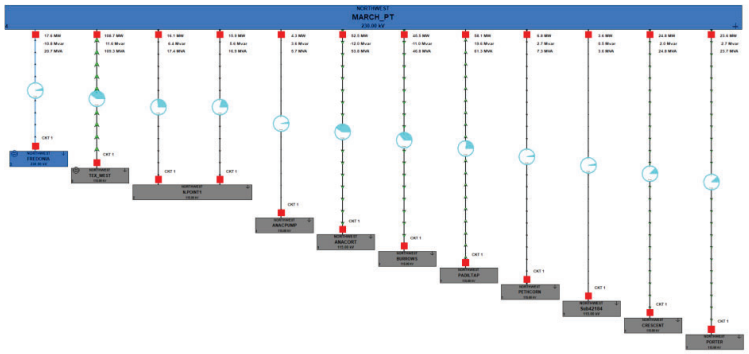

Big Tree Trail
Bonneville Bypass
LKTRAD
Puget Power Trail


NORTHWEST
LKTRAD
115.00 kV
1
4.8 MW
4.9 Mvar
6.9 MVA
CKT 1
MOUNT SI
13.0 MW
4.6 Mvar
12.8 MVA
CKT 1
SNOQ SW
2.2 MW
-6.5 Mvar
6.8 MVA
CKT 1
MIRRORNT
20.3 MW
0.4 Mvar
20.3 MVA
CKT 1
PCKERING
13.3 MW
0.3 Mvar
13.3 MVA
CKT 1
PINELAKE
28.3 MW
1.0 Mvar
28.3 MVA
CKT 1
PINELKTP
13.0 MW
-1.0 Mvar
13.1 MVA
CKT 1
LKMCDO T
32.7 MW
-3.7 Mvar
32.9 MVA
CKT 1
MPLEWOOD



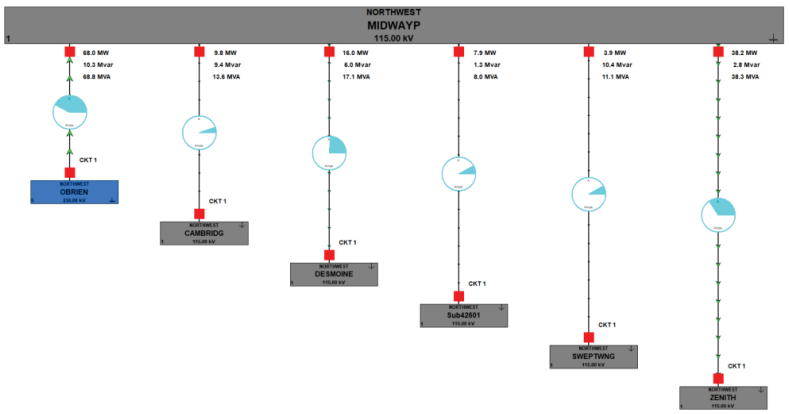
Sub Name	MARCH_PT
Sub Num	42104
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	12
# of Buses	4
Latitude	48.4571
Longitude	-122.562
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	SKAGIT


mmit Park Rd
Thompson Rd
MARCH_PT


MARCH_PT

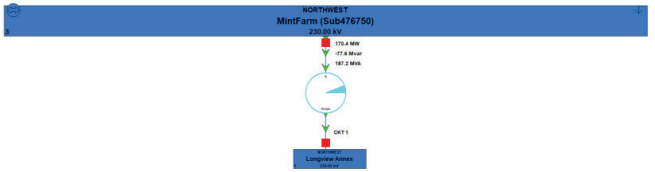
Sub Name	MIDWAYP
Sub Num	42520
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	6
# of Buses	1
Latitude	47.4024
Longitude	-122.294
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KING


MIDWAYP


NORTHWEST
MIDWAYP
115.00 kV
68.0 MW
10.3 Mvar
68.8 MVA
CKT 1
OBRIEN
9.8 MW
9.4 Mvar
13.6 MVA
CKT 1
CAMBRIDG
16.0 MW
6.0 Mvar
17.1 MVA
CKT 1
DESMOINE
7.9 MW
1.3 Mvar
8.0 MVA
CKT 1
Sub42601
3.9 MW
10.4 Mvar
11.1 MVA
CKT 1
SWEPTWNG
38.2 MW
2.8 Mvar
38.3 MVA
CKT 1
ZENITH

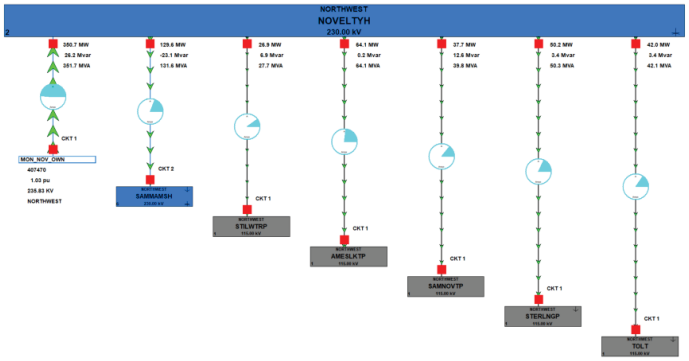
Sub Name	MintFarm (Sub476750)
Sub Num	47675
Nominal kV(max)	230
Nominal kV Range	13.8 to 230.0
# of Tielines	1
# of Buses	3
Latitude	0
Longitude	0
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	Portland Area


Prudential Blvd
MintFarm (Sub476750)
Hoehne Ave


NORTHWEST
MintFarm (Sub476750)
230.00 kV
170.4 MW
-77.6 Mvar
187.2 MVA
CKT 1
Longview Annex

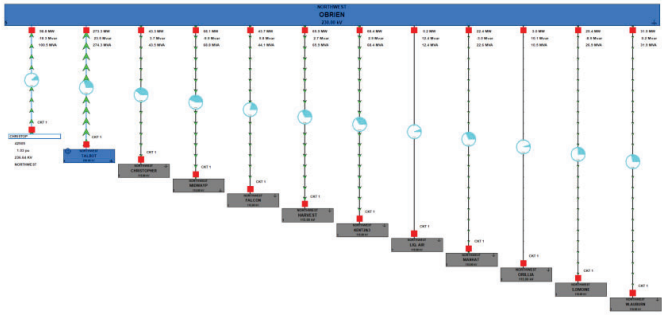
Sub Name	NOVELTYH
Sub Num	42304
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	7
# of Buses	2
Latitude	47.6877
Longitude	-122.01
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING

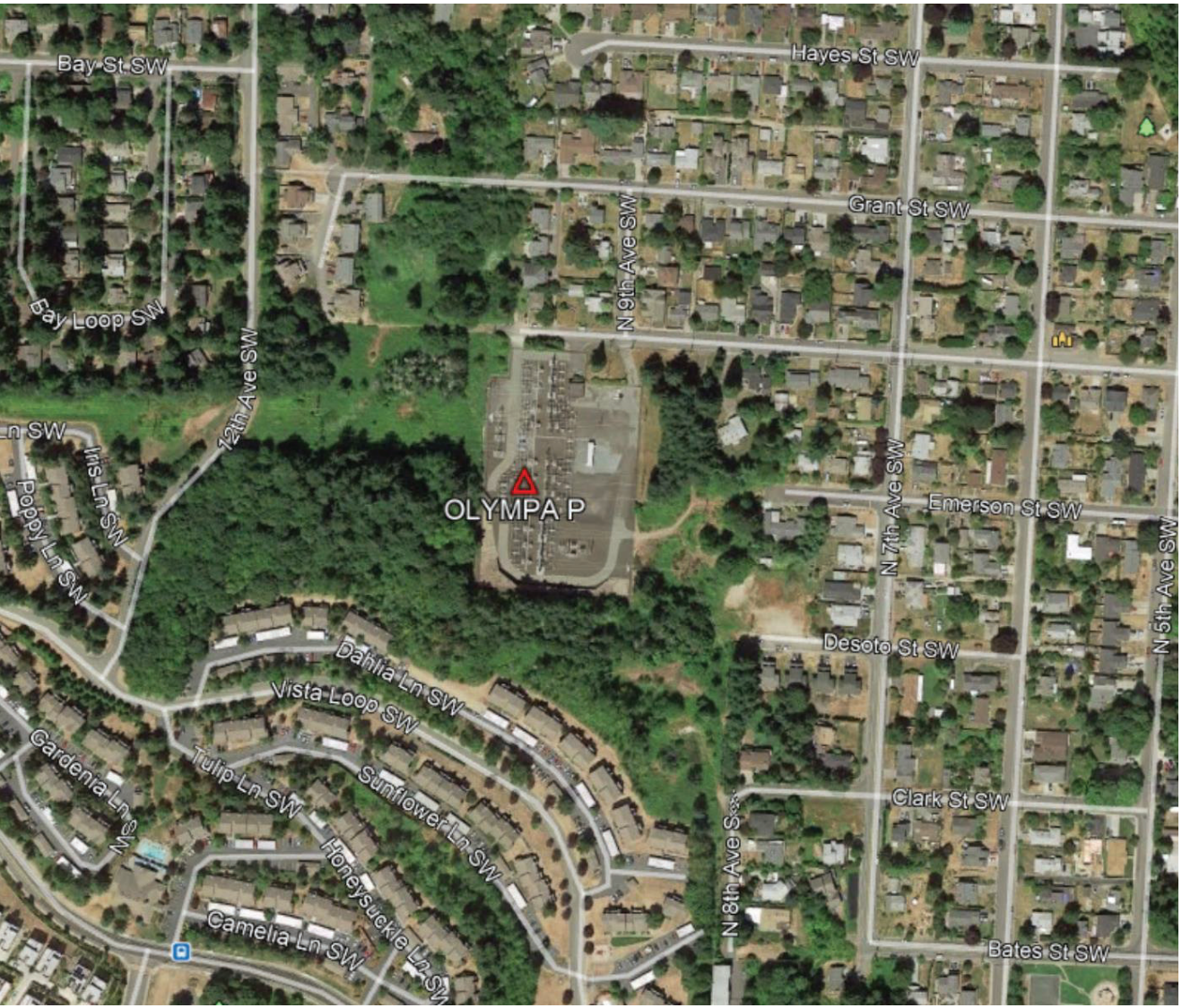

NOVELTYH
102nd St
NE 101st Ct
Ave NE


NORTHWEST
NOVELTYH
230.00 kV
350.7 MW
26.2 Mvar
351.7 MVA
CKT 1
MON_NOV_OWN
407470
1.03 pu
238.83 kV
NORTHWEST
125.6 MW
-23.1 Mvar
121.6 MVA
CKT 2
SAMMARSH
26.9 MW
6.9 Mvar
27.7 MVA
CKT 1
STLWTRP
64.1 MW
0.2 Mvar
64.1 MVA
CKT 1
AMESLKTP
37.7 MW
12.6 Mvar
39.8 MVA
CKT 1
SAMNOVTP
50.2 MW
3.4 Mvar
50.3 MVA
CKT 1
STERLNGP
42.0 MW
3.4 Mvar
42.1 MVA
CKT 1
TOLT

Sub Name	OBRIEN
Sub Num	42503
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	11
# of Buses	5
Latitude	47.4032
Longitude	-122.243
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KING

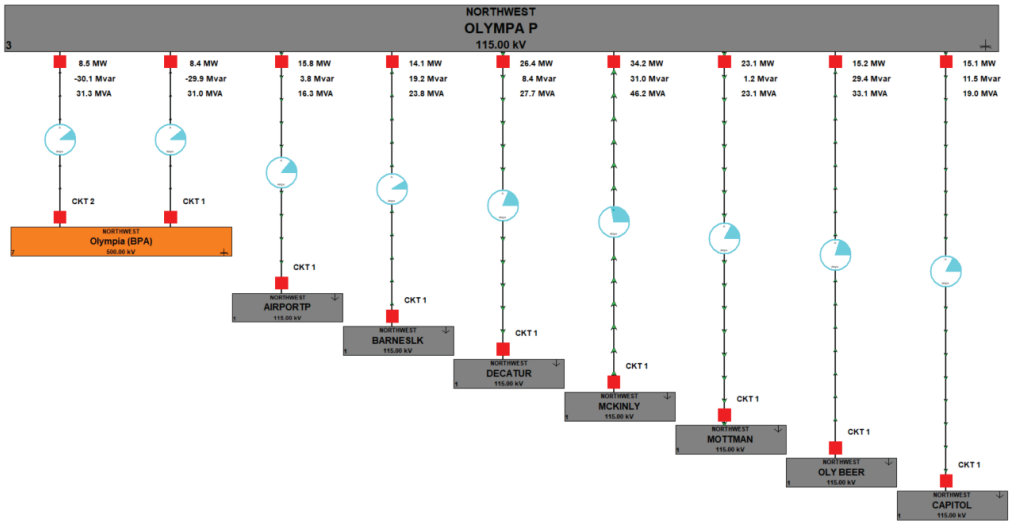

OBRIEN
Interurban Trail



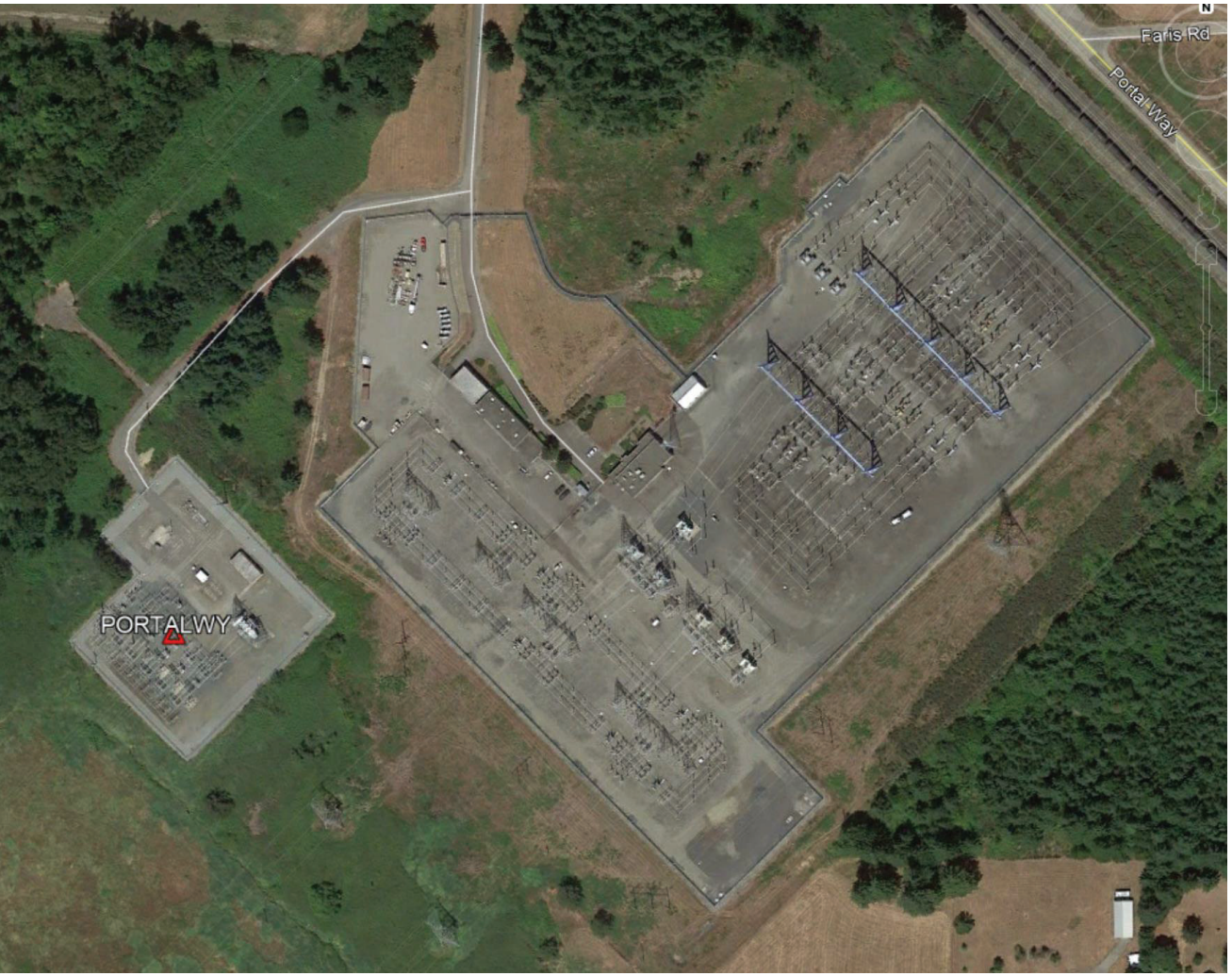


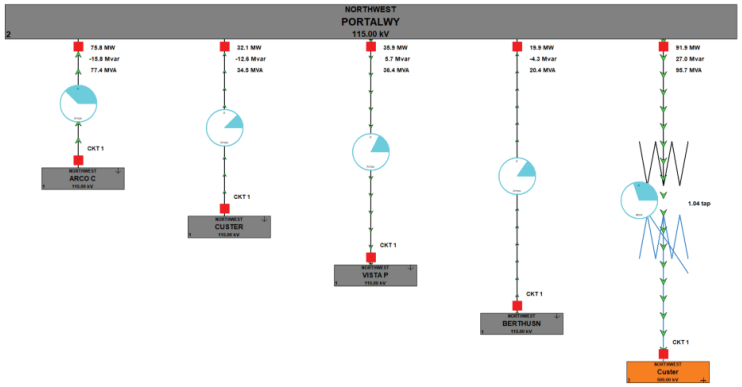
Sub Name	OLYMPA P
Sub Num	42800
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	9
# of Buses	3
Latitude	47.0191
Longitude	-122.916
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	THURSTN


N 9th Av
OLYMPA P


NORTHWEST
OLYMPA P
115.00 kV
3
8.5 MW
-30.1 Mvar
31.3 MVA
CKT 2
8.4 MW
-29.9 Mvar
31.0 MVA
CKT 1
NORTHWEST
Olympia (BPA)
500.00 kV
15.8 MW
3.8 Mvar
16.3 MVA
CKT 1
NORTHWEST
AIRPORTP
115.00 kV
14.1 MW
19.2 Mvar
23.8 MVA
CKT 1
NORTHWEST
BARNESLK
115.00 kV
26.4 MW
8.4 Mvar
27.7 MVA
CKT 1
NORTHWEST
DECATUR
115.00 kV
34.2 MW
31.0 Mvar
46.2 MVA
CKT 1
NORTHWEST
MCKINLY
115.00 kV
23.1 MW
1.2 Mvar
23.1 MVA
CKT 1
NORTHWEST
MOTTMAN
115.00 kV
15.2 MW
29.4 Mvar
33.1 MVA
CKT 1
NORTHWEST
OLY BEER
115.00 kV
15.1 MW
11.5 Mvar
19.0 MVA
CKT 1
NORTHWEST
CAPITOL
115.00 kV

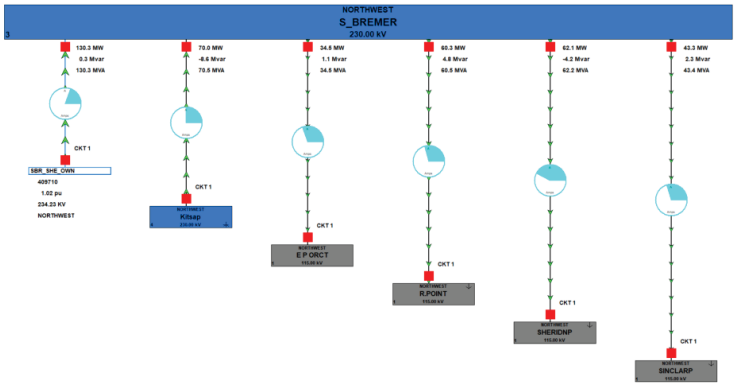
Sub Name	PORTALWY
Sub Num	42001
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	5
# of Buses	2
Latitude	48.9036
Longitude	-122.63
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	WHATCOM


N
Faris Rd
Portal Way
PORTALWY

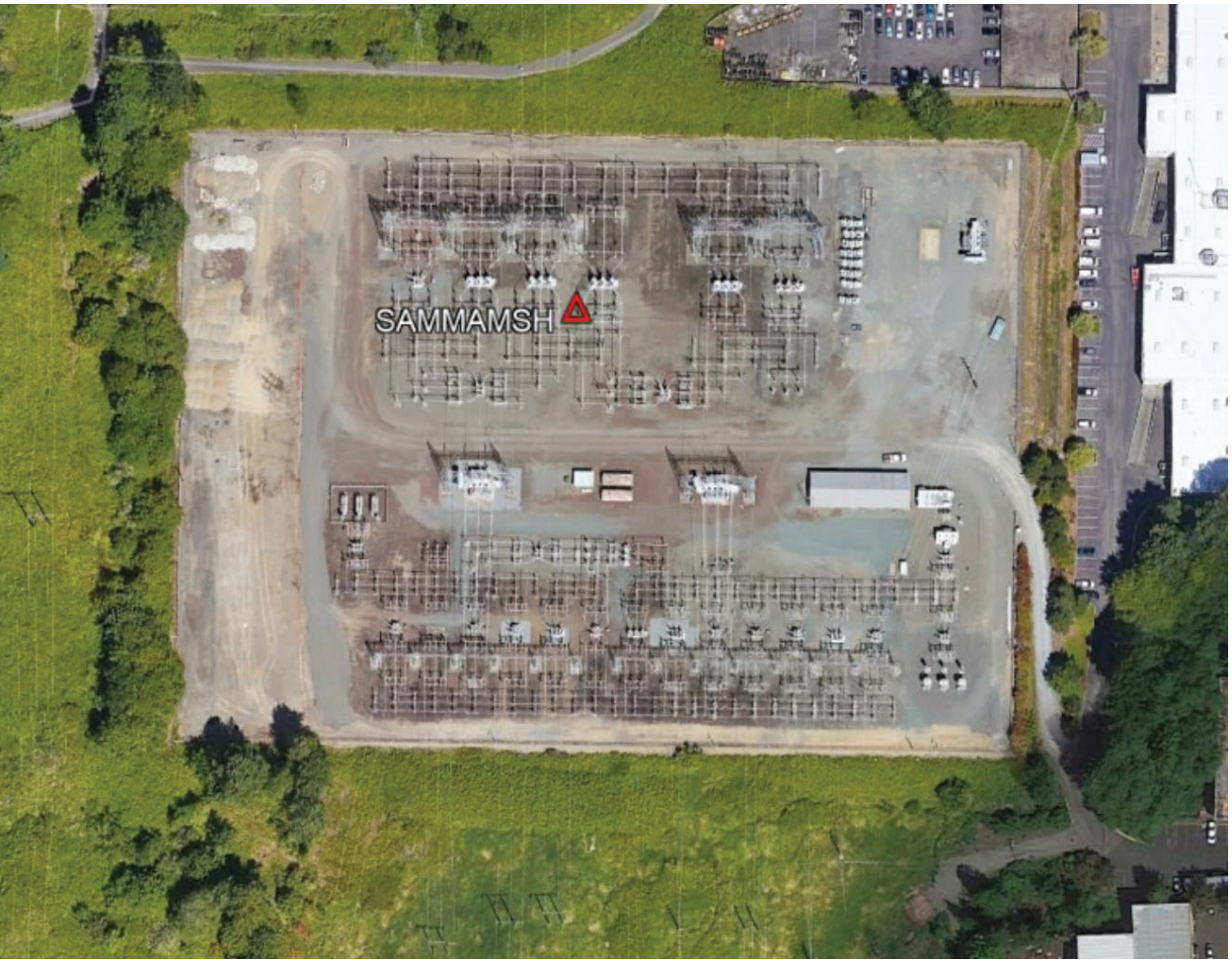

NORTHWEST
PORTALWY
115.00 kV
2
75.8 MW
-15.8 Mvar
77.4 MVA
CKT 1
ARCO C
32.1 MW
-12.6 Mvar
34.5 MVA
CKT 1
CUSTER
35.9 MW
5.7 Mvar
36.4 MVA
CKT 1
VISTA P
19.9 MW
-4.3 Mvar
20.4 MVA
CKT 1
BERTHUSN
91.9 MW
27.0 Mvar
95.7 MVA
1.04 tap
CKT 1
Custer

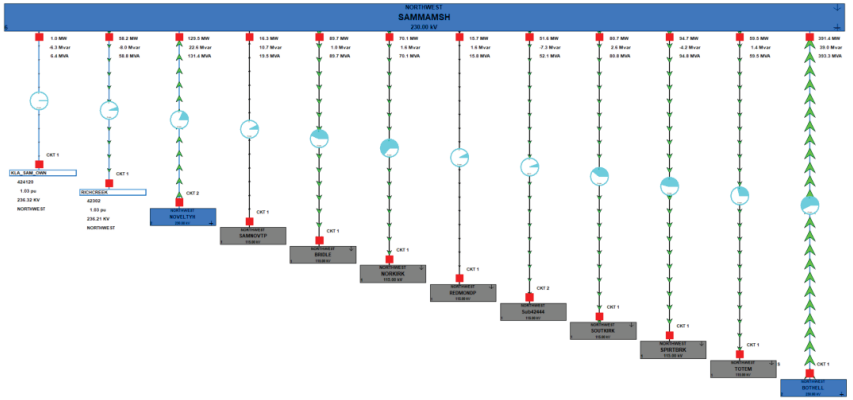
Sub Name	S_BREMER
Sub Num	42900
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	6
# of Buses	3
Latitude	47.5376
Longitude	-122.691
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	KITSAP


S_BREMER
Quarry St

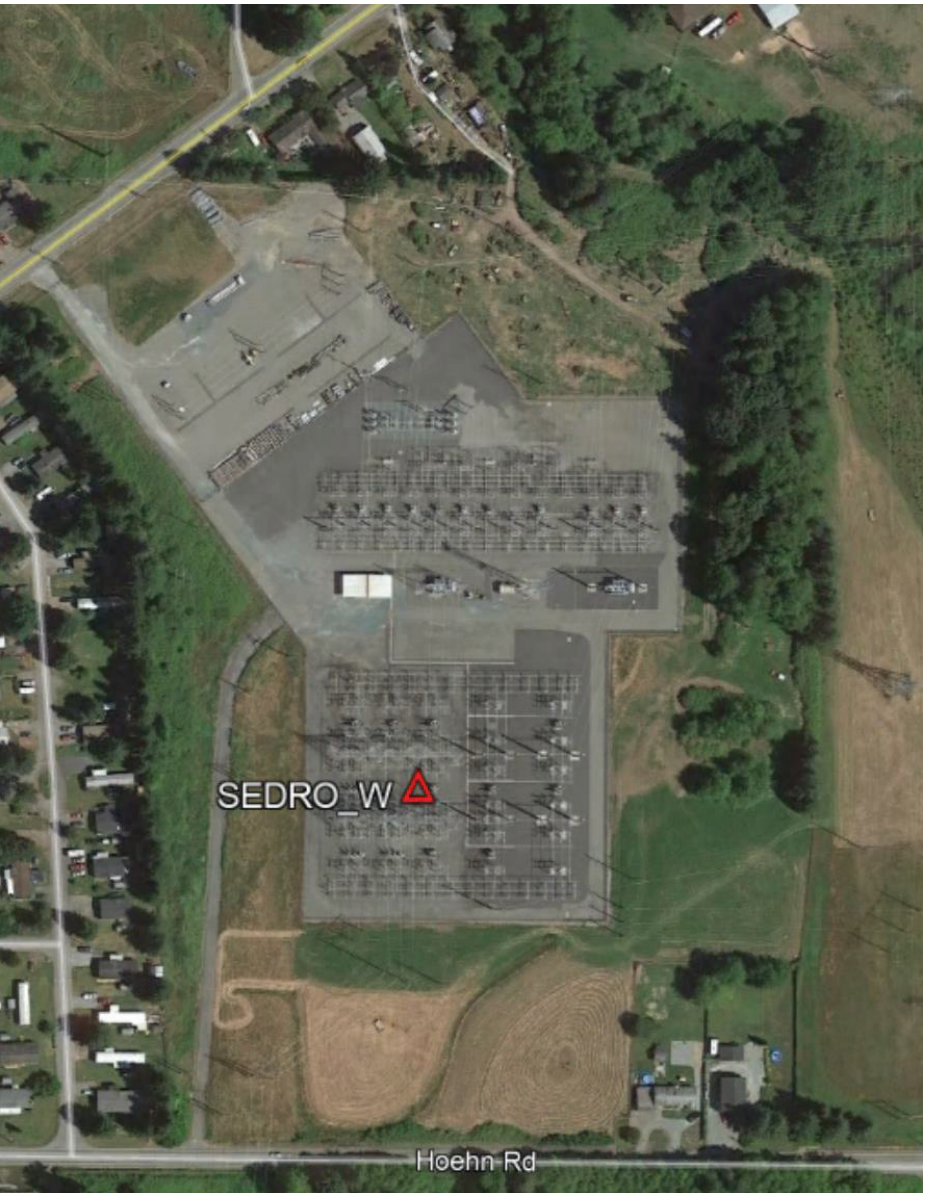

NORTHWEST
S_BREMER
230.00 kV
130.3 MW
0.3 Mvar
130.3 MVA
CKT 1
SBR_SHE_OWN
409710
1.02 pu
234.23 kV
NORTHWEST
70.0 MW
-8.6 Mvar
70.5 MVA
CKT 1
Kitsap
34.6 MW
1.1 Mvar
34.6 MVA
CKT 1
E P ORCT
60.3 MW
4.8 Mvar
60.5 MVA
CKT 1
R.POINT
62.1 MW
-4.2 Mvar
62.2 MVA
CKT 1
SHERCNP
43.3 MW
2.3 Mvar
43.4 MVA
CKT 1
SINCLARP

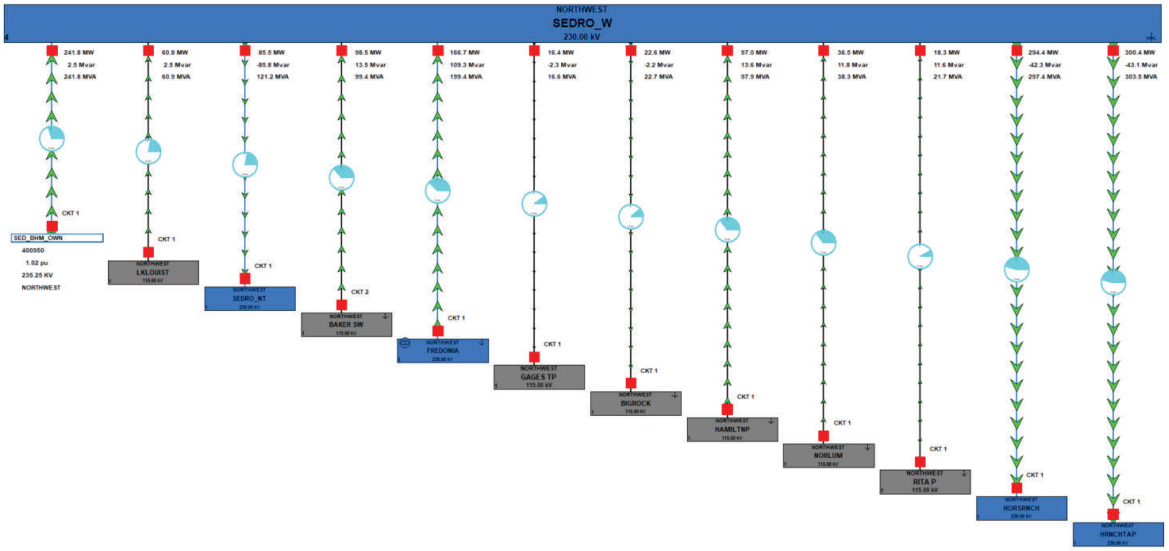
Sub Name	SAMMAMSH
Sub Num	42300
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	11
# of Buses	6
Latitude	47.6856
Longitude	-122.15
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING


SAMMAMSH

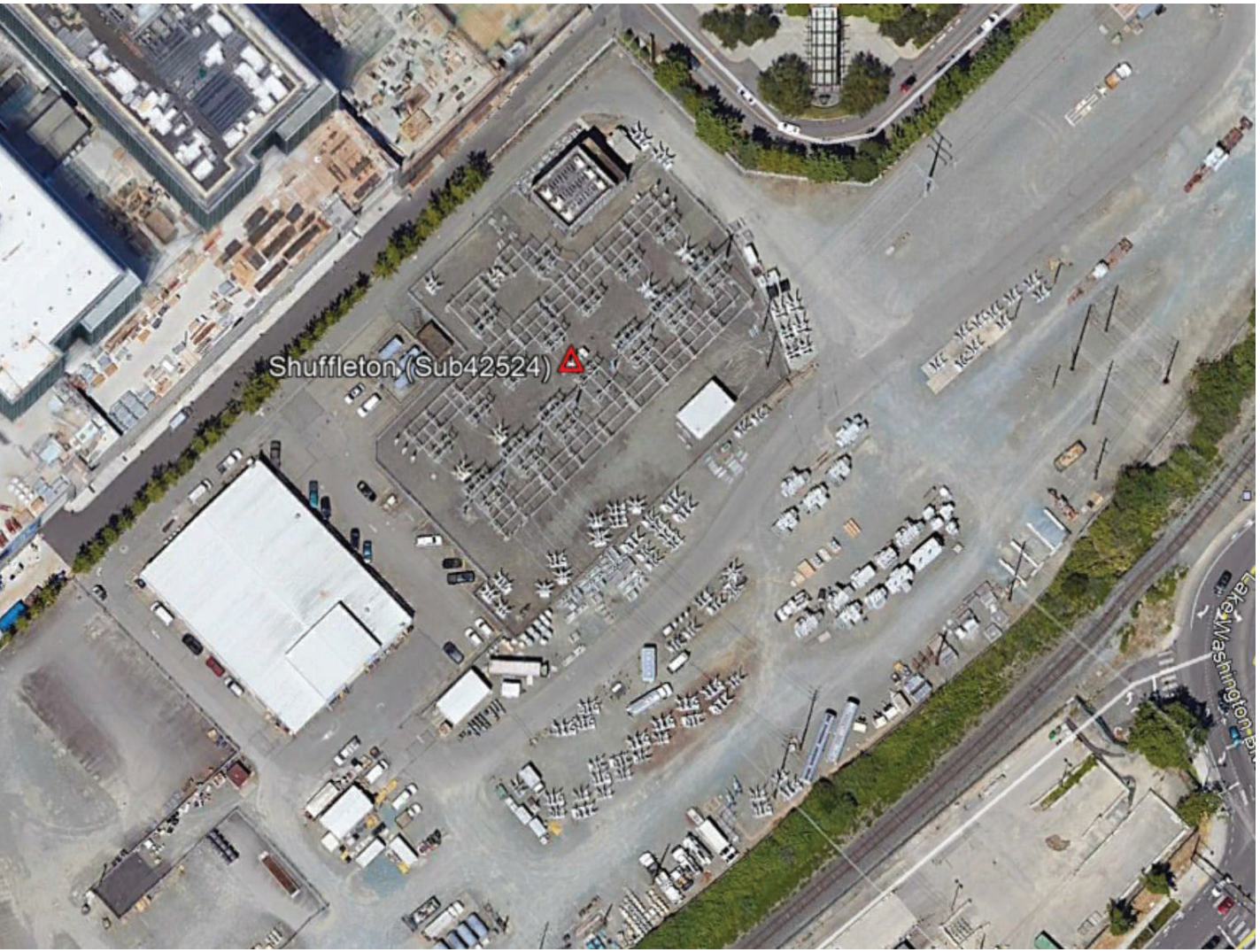

NORTHWEST
SAMMAMSH
230.00 kV

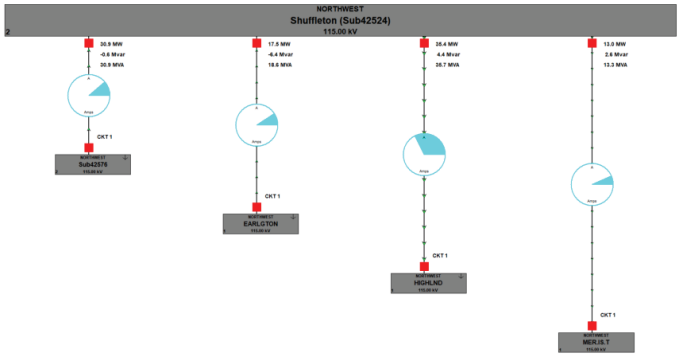
Sub Name	SEDRO_W
Sub Num	42100
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	12
# of Buses	4
Latitude	48.5046
Longitude	-122.204
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	SKAGIT

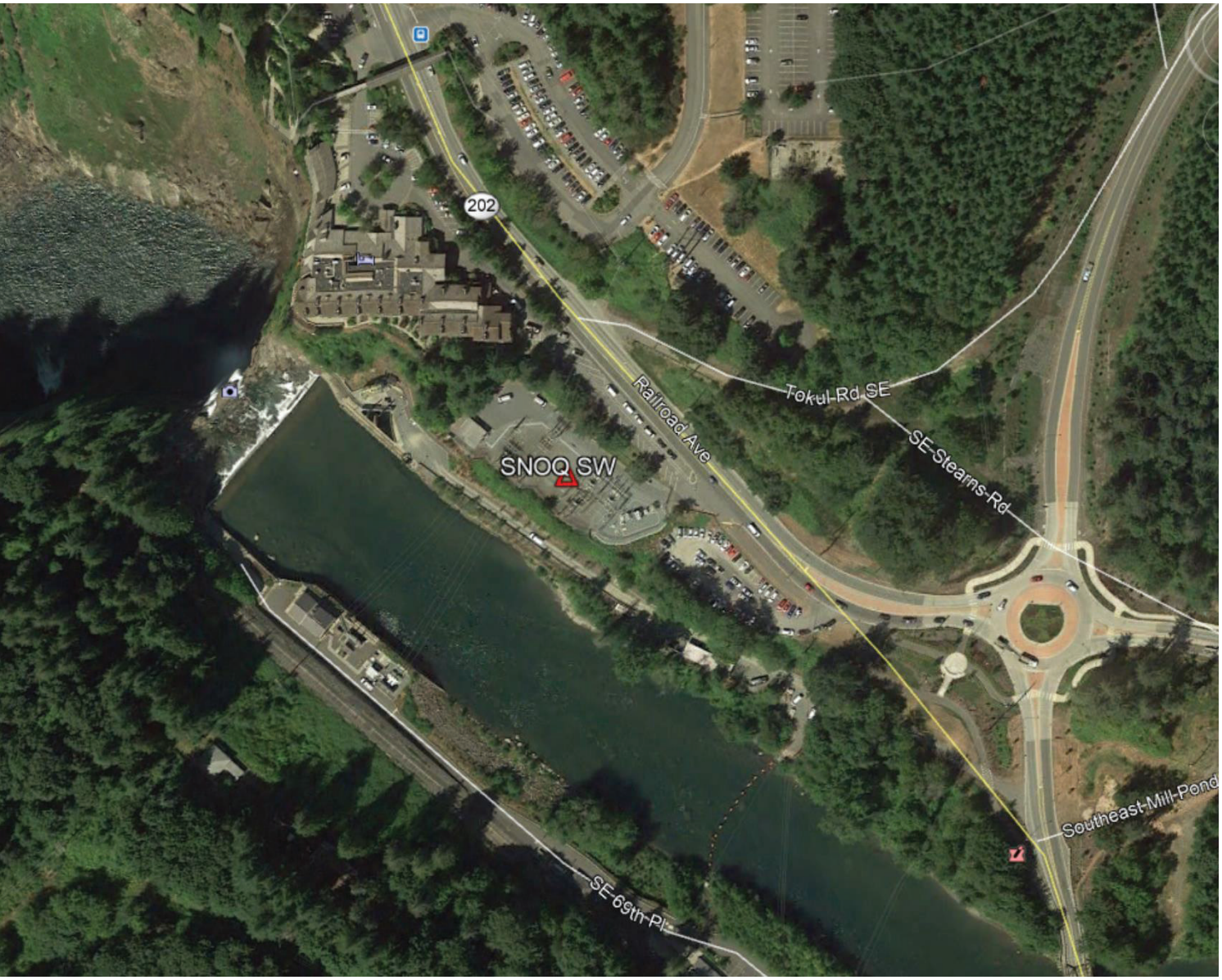

SEDRO_W
Hoehn Rd


NORTHWEST
SEDRO_W
230.00 kV
241.8 MW
2.5 Mvar
241.8 MVA
CKT 1
SED_BHM_OWN
400/950
1.02 pu
235.25 KV
NORTHWEST
60.8 MW
2.5 Mvar
60.9 MVA
LKLOUST
85.5 MW
-85.8 Mvar
121.2 MVA
SEDRO_NT
98.5 MW
13.5 Mvar
99.4 MVA
CKT 2
BAKER SW
166.7 MW
109.3 Mvar
199.4 MVA
FREDONIA
16.4 MW
-2.3 Mvar
16.6 MVA
GAGES TP
22.6 MW
-2.2 Mvar
22.7 MVA
BIGROCK
97.0 MW
13.6 Mvar
97.9 MVA
HAMILTNP
36.5 MW
11.8 Mvar
38.3 MVA
NORLUM
18.3 MW
11.6 Mvar
21.7 MVA
RITA P
294.4 MW
-42.3 Mvar
297.4 MVA
NORSRNCH
300.4 MW
-43.1 Mvar
303.5 MVA
WINCHTAP

Sub Name	Shuffleton (Sub42524)
Sub Num	42524
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	4
# of Buses	2
Latitude	47.5017
Longitude	-122.203
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KING

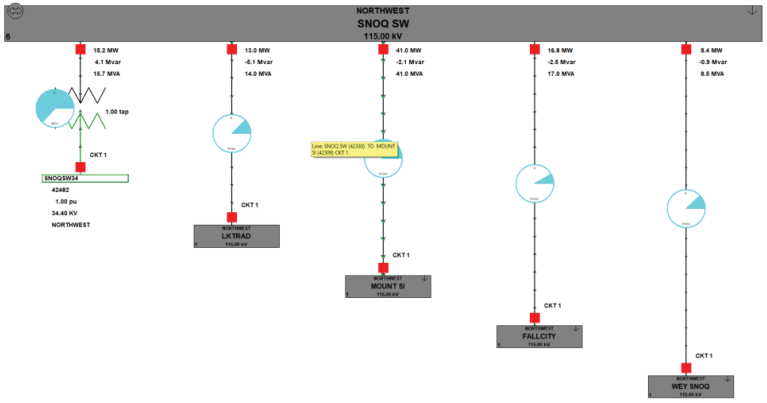

Shuffleton (Sub42524)
Washington


NORTHWEST
Shuffleton (Sub42524)
115.00 kV
30.9 MW
-0.6 Mvar
30.9 MVA
CKT 1
NORTHWEST
Sub42576
115.00 kV
17.9 MW
-6.4 Mvar
18.6 MVA
CKT 1
NORTHWEST
EARLTON
115.00 kV
35.4 MW
4.4 Mvar
35.7 MVA
CKT 1
NORTHWEST
HIGHLND
115.00 kV
13.0 MW
2.6 Mvar
13.3 MVA
CKT 1
NORTHWEST
MER.IS.T
115.00 kV



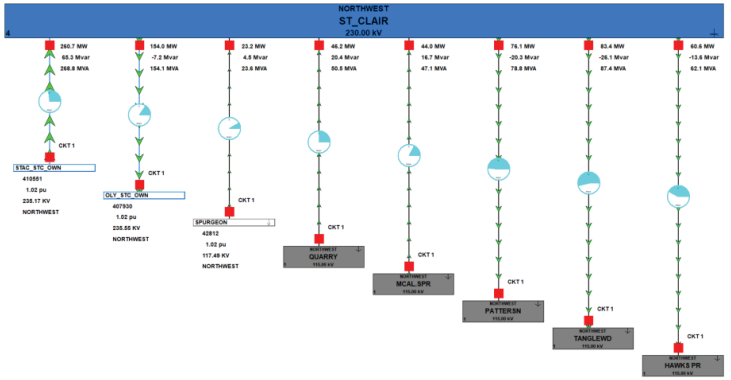
Sub Name	SNOQ SW
Sub Num	42330
Nominal kV(max)	115
Nominal kV Range	2.0 to 115.0
# of Tielines	5
# of Buses	6
Latitude	47.5413
Longitude	-121.836
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	N.KING

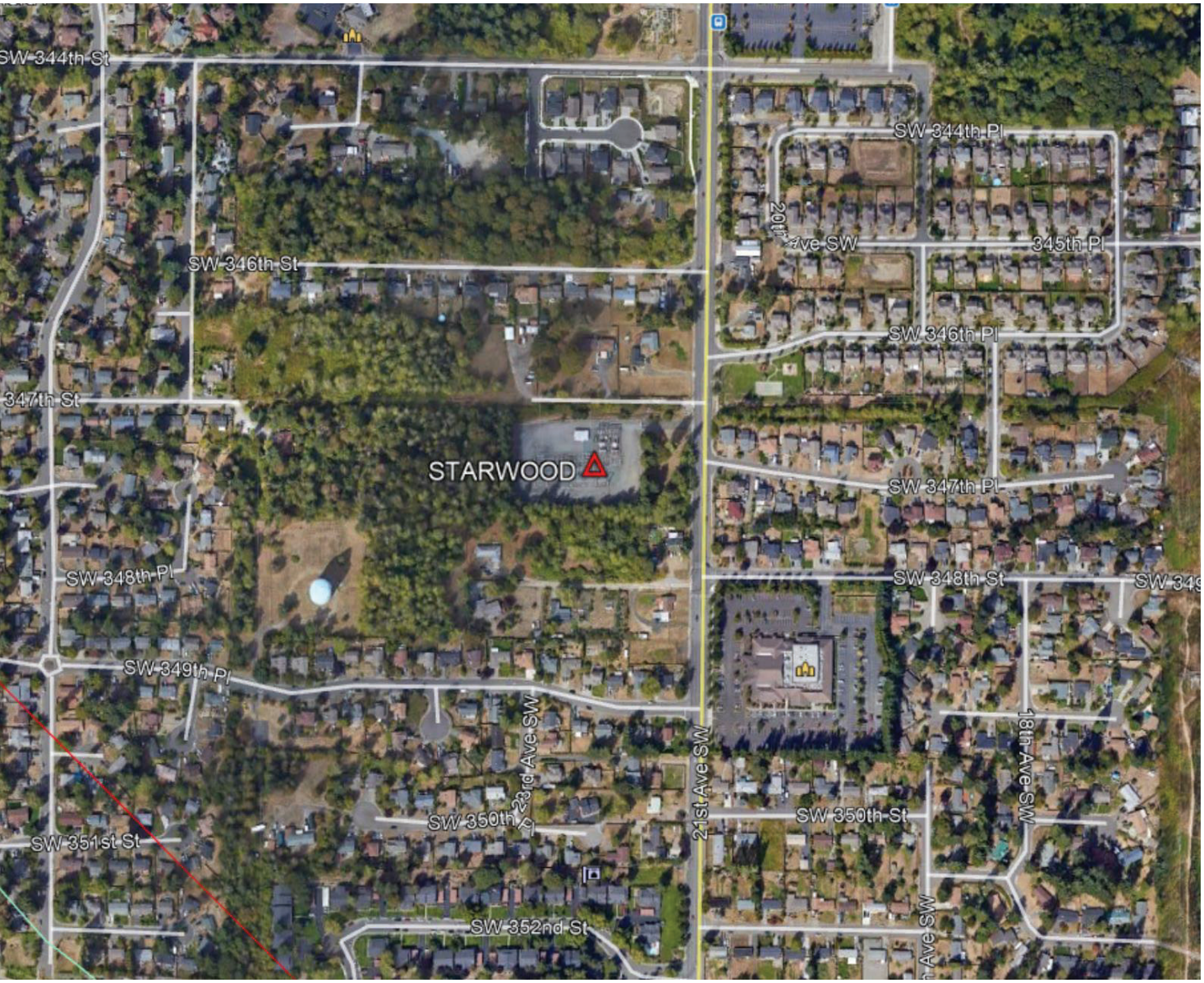

SNOQ SW
Railroad Ave


NORTHWEST
SNOQ SW
115.00 kV
16.2 MW
4.1 Mvar
16.7 MVA
1.00 tap
CKT 1
SNOQSW34
42482
1.00 pu
34.40 kV
NORTHWEST
13.0 MW
-5.1 Mvar
14.0 MVA
CKT 1
LKTRAD
41.0 MW
-2.1 Mvar
41.0 MVA
CKT 1
MOUNT SI
16.8 MW
-2.5 Mvar
17.0 MVA
CKT 1
FALLCITY
8.4 MW
-0.9 Mvar
8.5 MVA
CKT 1
WEY SNOQ

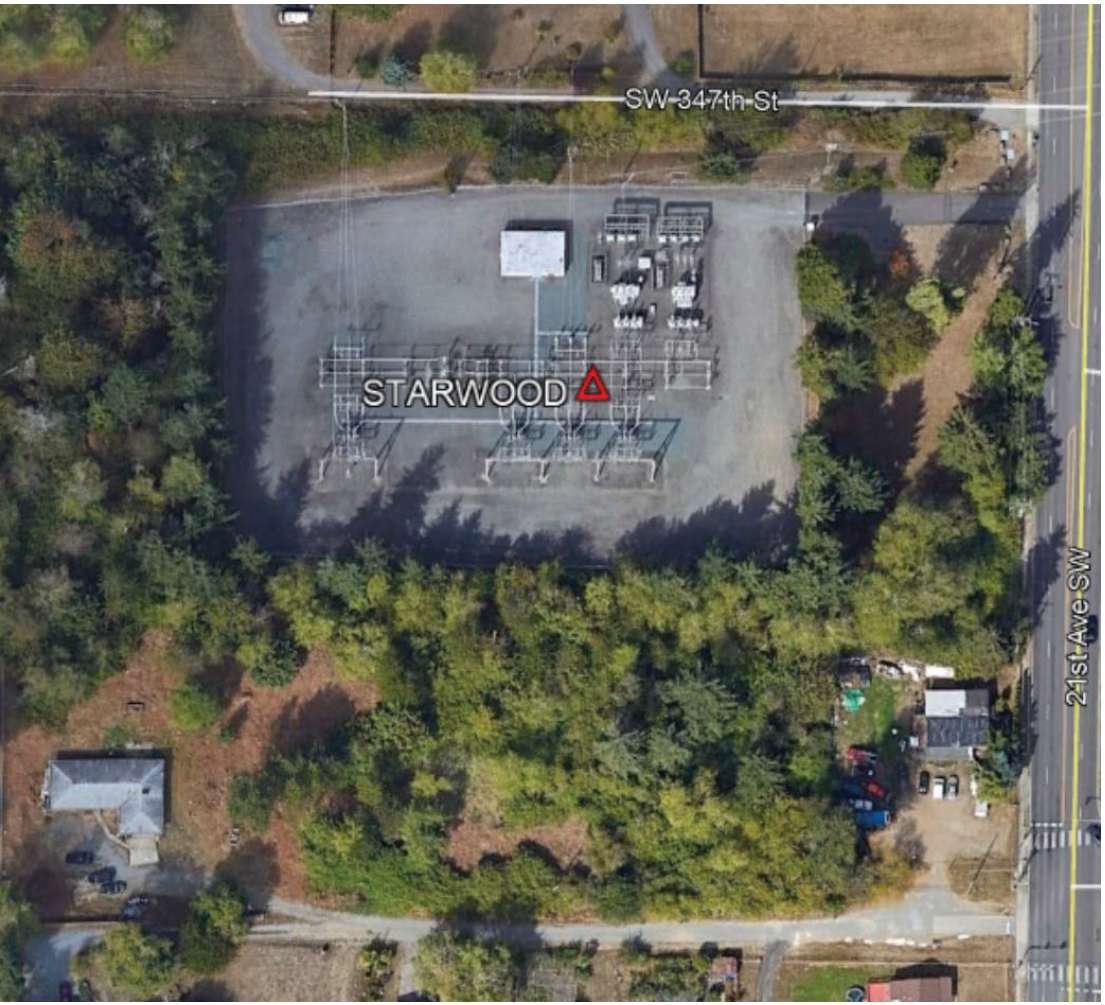
Sub Name	ST_CLAIR
Sub Num	42802
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	7
# of Buses	4
Latitude	47.0351
Longitude	-122.736
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	THURSTN

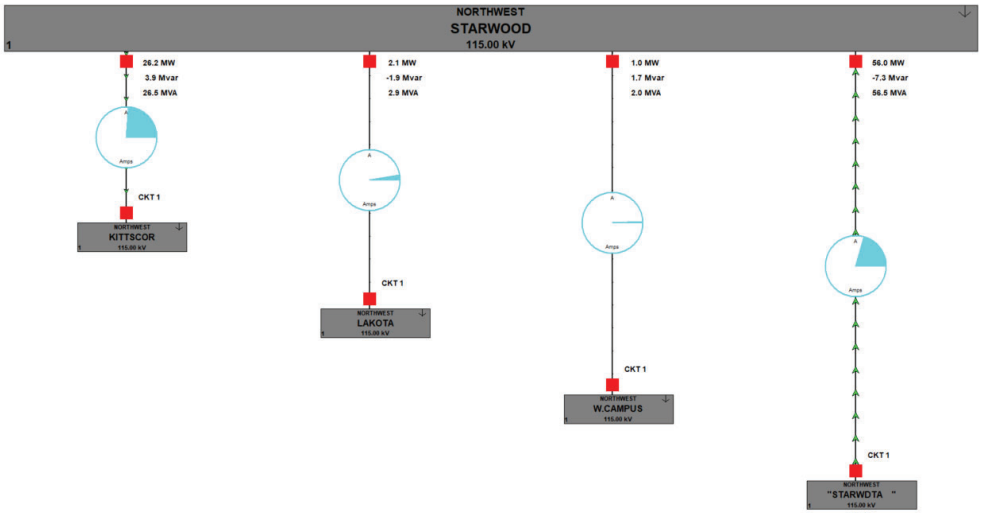

ST_CLAIR
510


NORTHWEST
ST_CLAIR
230.00 kV
260.7 MW
68.3 Mvar
268.8 MVA
CKT 1
STAC_STC_OWN
419561
1.02 pu
235.17 KV
NORTHWEST
154.0 MW
-7.2 Mvar
154.1 MVA
CKT 1
OLY_STC_OWN
407930
1.02 pu
235.55 KV
NORTHWEST
23.2 MW
4.9 Mvar
23.6 MVA
CKT 1
SPURGEON
42812
1.02 pu
117.49 KV
NORTHWEST
46.2 MW
20.4 Mvar
50.5 MVA
CKT 1
QUARRY
44.9 MW
16.7 Mvar
47.1 MVA
CKT 1
MCAL SPR
76.1 MW
-20.3 Mvar
78.8 MVA
CKT 1
PATTERSN
83.4 MW
-26.1 Mvar
87.4 MVA
CKT 1
TANGLEWD
60.6 MW
-13.6 Mvar
62.1 MVA
CKT 1
HAWKS PR



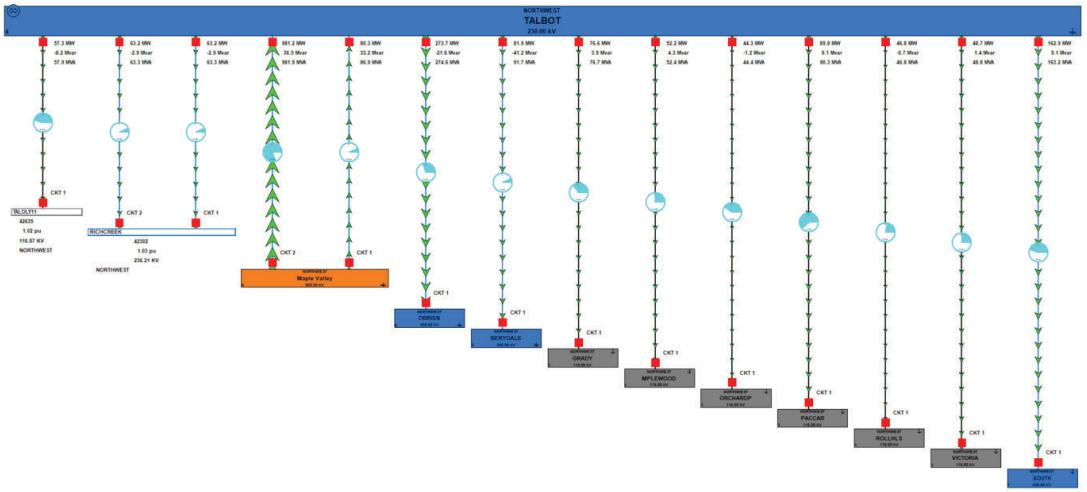
Sub Name	STARWOOD
Sub Num	42530
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	4
# of Buses	1
Latitude	47.2904
Longitude	-122.362
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KING


SW-347th-St
STARWOOD
21st-Ave-SW


NORTHWEST
STARWOOD
115.00 kV
26.2 MW
3.9 Mvar
26.5 MVA
CKT 1
NORTHWEST
KITTSCOR
115.00 kV
2.1 MW
-1.9 Mvar
2.9 MVA
CKT 1
NORTHWEST
LAKOTA
115.00 kV
1.0 MW
1.7 Mvar
2.0 MVA
CKT 1
NORTHWEST
W.CAMPUS
115.00 kV
56.0 MW
-7.3 Mvar
56.5 MVA
CKT 1
NORTHWEST
"STARWDTA "
115.00 kV

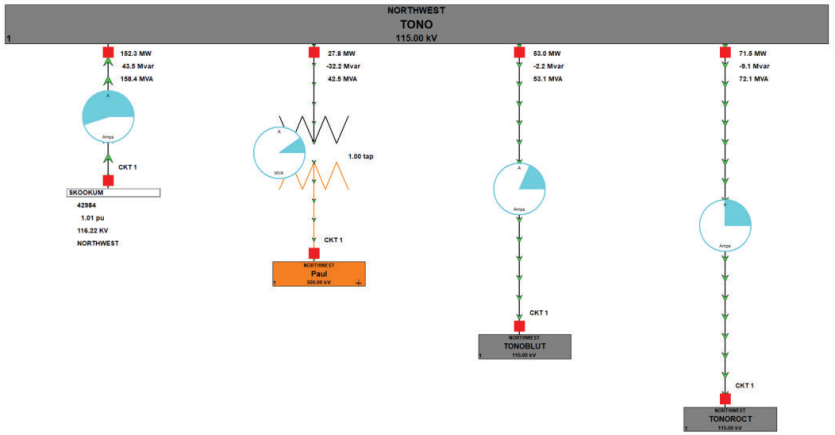
Sub Name	TALBOT
Sub Num	42500
Nominal kV(max)	230
Nominal kV Range	115.0 to 230.0
# of Tielines	14
# of Buses	4
Latitude	47.4686
Longitude	-122.191
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	S.KING


TALBOT


NORTHWEST
TALBOT
230.00 kV
CKT 1
CKT 2
CKT 1
CKT 2
CKT 1
CKT 1
CKT 1
CKT 1
CKT 1
CKT 1
CKT 1
CKT 1
CKT 1

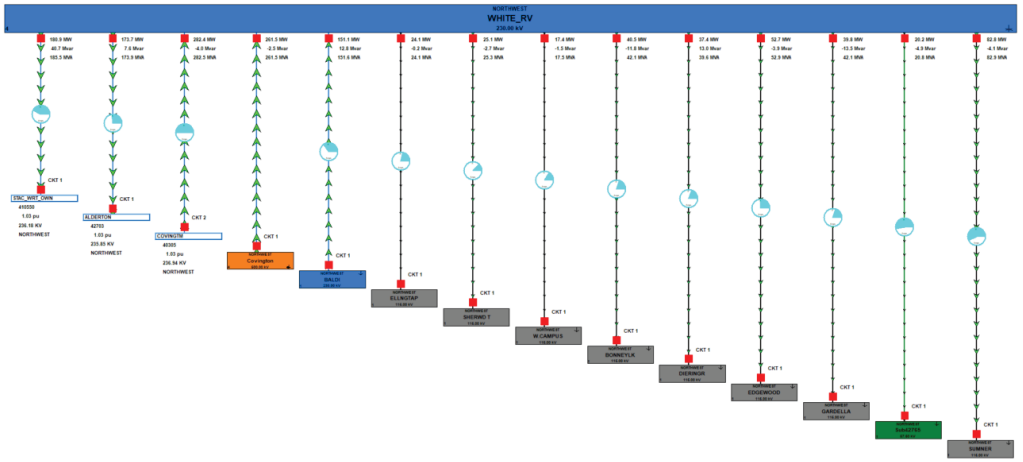
Sub Name	TONO
Sub Num	42806
Nominal kV(max)	115
Nominal kV Range	115.0 (only)
# of Tielines	4
# of Buses	1
Latitude	46.7554
Longitude	-122.877
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	THURSTN


TONO


NORTHWEST
TONO
115.00 kV
152.3 MW
43.5 Mvar
158.4 MVA
CKT 1
SKOOKUM
42984
1.01 pu
116.22 KV
NORTHWEST
27.0 MW
-32.2 Mvar
42.5 MVA
1.00 tap
CKT 1
NORTHWEST
Paul
83.0 MW
-2.2 Mvar
83.1 MVA
CKT 1
NORTHWEST
TONOBLUT
71.6 MW
-9.1 Mvar
72.1 MVA
CKT 1
NORTHWEST
TONOROCT

Sub Name	WHITE_RV
Sub Num	42700
Nominal kV(max)	230
Nominal kV Range	57.5 to 230.0
# of Tielines	12
# of Buses	4
Latitude	47.239
Longitude	-122.21
Data Maintainer	Puget Sound Energy
Area Name	NORTHWEST
Zone Name	PIERCE


WHITE_RV
Lakeland Hills Way
© 2020 Google


NORTHWEST
WHITE_RV
230.00 KV

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit J. PSE Customer Consent Letter

PSE Customer Consent Letter

_____ ("Customer") hereby voluntarily authorizes Puget Sound Energy's ("PSE") transmission department ("PSE Transmission") to share interconnection and metering information with PSE's marketing function employees, including but not limited to those in Energy Supply Merchant ("PSE Merchant"):

All information, including interconnection information, related to Customer's existing or proposed generating facility, as well as its integration into PSE transmission system.

PSE Transmission has not provided any preferences, either operational or rate-related, to Customer in exchange for Customer's authorization and consent to share interconnection information.

Customer understands that this authorization and consent shall be posted on PSE's OASIS website (https://www.oasis.oati.com/psei/index.html).

Customer

By: _____

Its: _____

Date: _____ ___

PUGET SOUND ENERGY

2021 All-Source RFP for Renewable and Peak Capacity Resources:

Exhibit K. Demand Response Addendum

Demand Response Addendum

Measurement and verification

Proposals will be evaluated on a variety of criteria including, but not limited to: demonstrated competence and experience, management structure and assigned personnel, quality of proposed equipment and services, pricing, performance guarantees, and other criteria as outlined in Exhibit A.

PSE reserves the right to contact a bidder at any time for clarifications about any part of the bidder's proposal. Proposal review questions and communications will focus on clarifying the information set forth by the contractor in the proposals and will not be an opportunity for the contractor to revise terms.

PSE prefers proposals that provide the lowest reasonable cost throughout the program or project life, taking into account the price of the proposal and other factors that impact PSE's overall cost. PSE intends to analyze the economic benefits of demand response proposals in a manner consistent with the Integrated Resource Plan ("IRP").

PSE will evaluate bids as described in Exhibit A. The benefits and costs shown in the tables below will be included in the bid evaluation process when applicable, quantifiable, and significant. PSE prefers proposals and combinations of proposals that result in the lowest impact on PSE's revenue requirements and rates when included in PSE's existing generation resource portfolio.

PSE will adjust the bidder's proposed capacity during the evaluation process using effective load carrying capability ("ELCC") as shown in Table 3. The ELCC used in this evaluation will be dependent on the bidder's proposed resource availability, i.e., frequency and duration of events. For example, a proposal with a program with no more than one, 4-hour event per day will be evaluated with an ELCC of 58 percent, while a program with up to two, 3-hour events per day with six hours of recovery time between events will be evaluated with an ELCC of 77 percent.

For the purposes of measurement and evaluation the respondent will:

- Provide participant data (to PSE and third-party evaluator) from a sufficient sample of customers for purposes of estimating average load impacts.
- Be called upon to provide meter and payment data, calculation methodologies and other relevant information related to enrolled participants.
- Conduct measurement and verification for estimation of load impacts (method to be agreed upon mutually with PSE, and verified by PSE and an independent contractor).

Table 1. ***Cost-effectiveness benefits for DR resources***

Benefits
Avoided capacity costs - System wide peak capacity - Local/Distribution peak capacity constraints (location specific)
Avoided energy costs - Alleviate consumption during short duration, high energy system supply cost periods - Events improve alignment between customer loads and available carbon-free generation

Avoided transmission and distribution costs
- Possible transmission cost savings where event capacity delivery is firm
- Location specific infrastructure upgrade deferrals
  ○ Substation Expansions
  ○ Feeder modifications
  ○ New substations

Avoided environmental compliance costs - Possible CETA compliance cost savings by shifting customer energy use to adjacent and available carbon-free generation periods

Table 2. ***Costs for DR resources***

Costs
Program administrator expenses
Program administrator capital costs
Financial incentive to participant
DR measure cost: Program administrator
DR measure cost: Participant contribution
Participant transaction costs
Participant value of lost service
Increased energy consumption
Environmental compliance costs

Table 3. ***ELCC based on frequency and duration of DR events***

Peak Capacity Credit for Demand Response			
DEMAND RESPONSE	**Capacity (MW)**	**Peak Capacity Credit Year 2027**	**Peak Capacity Credit Year 2031**
Demand Response, 3-hr duration, 6-hr delay, 10 calls per year	100	26.0%	31.6%
Demand Response, 4-hr duration, 6-hr delay, 10 calls per year	100	32.0%	37.4%

Data requirements

- Provide secure, data uploads into PSE's data tracking system.
- Provide participant data from a sufficient sample of customers for purposes of estimating average load impacts.

Table 4. ***Data support***

1. CIS and work management software	Describe your CIS and work management software, including how customer information is entered and updated, how scheduling of installations is accommodated, and how service requests and other necessary information are incorporated.
2. Interface requirements	Describe the process by which PSE's system is updated or fed with real time information, such as load curtailment activity and other predefined fields. Also, describe processes for providing updates/reports.
3. Data sharing and reporting	Respond in detail to the following: • What types of information/data will be exchanged with PSE, and how will this data be transferred in a secure manner? Is it pulled, pushed on a time basis, or both? • What access will PSE staff have to account status, and what information will be available? • What types of status reporting will be provided to PSE, with what level of detail, and with what frequency? • What are your data retention policies? • What is your QA/QC process for ensuring that your customer data is correct and valid?
4. Reliability and backup	Describe the protections and recovery methods for dealing with unforeseeable events (e.g., acts of nature, computer or hard drive failure in the computing resources, or security breaches) that may compromise vital customer or work management data.
5. Testing approach	Describe how the data transfer processes will be tested initially and how they will be checked during the project to assure functionality and accuracy.

Aggregated Customer Information

Table 5 below presents customer count and 2020 electricity sales data by North American Industry Classification Sytem ("NAICS") sector and by rate schedule for commercial and industrial ("C&I") customers. Table 6 presents electricity sales by rate schedule and by county for C&I customer segments.

Table 5. ***Customer count and electricity sales by sector and by rate schedule***

NAICS sector description	2020 GWh	Customer count by rate schedule[1]				Total count by sector
		Sch. 25[2]	Sch. 26	Sch. 31	Sch. 49	
		>50 kW and <=350 kW max. demand	>350 kW max. demand	>350 kW max. demand; delivery at 600 volts or higher	>=4,400 kVA demand; delivery at 50,000 volts or higher	
Accommodation and food services	205.3	683	40	7		**730**
Admin. support and waste management and remediation services	141.8	205	22	11	1	**239**
Agriculture, forestry, fishing and hunting	103.0	170	14	14		**198**
Arts, entertainment, and recreation	100.3	233	15	8		**256**
Construction	110.4	248	31	14		**293**
Educational services	255.9	445	49	72	1	**567**
Finance and insurance	114.5	198	21	6	1	**226**
Health care and social assistance	394.4	415	43	15		**473**
Information	352.8	145	14	8	2	**169**

[1] *Brief descriptions of rate schedules:*

Schedule 25: Small Demand General Service (>50 kW and <=350 kW max. demand customers)
Schedule 26: Large Demand General Service (>350 kW max. demand customers)
Schedule 31: Primary General Service (>350 kW with delivery at primary voltage (600 volts or higher))
Schedule 40: Large Demand General Service (>3aMW load on a distribution feeder)
Schedule 49: High Voltage General Service (Billing demands not less than 4,400 kVA and delivered at high voltage (50,000 volts or higher); customer provides all transformation and facilities beyond the point of delivery.

.

EXHIBIT K. DEMAND RESPONSE ADDENDUM

NAICS sector description	2020 GWh	Customer count by rate schedule[1]				Total count by sector
		Sch. 25[2]	Sch. 26	Sch. 31	Sch. 49	
		>50 kW and <=350 kW max. demand	>350 kW max. demand	>350 kW max. demand; delivery at 600 volts or higher	>=4,400 kVA demand; delivery at 50,000 volts or higher	
Management of companies and enterprises	24.8	27	6			**33**
Manufacturing	810.2	583	92	83	4	**762**
Mining	-	3		1		**4**
Other Services (except public administration)	95.7	457	21	13		**491**
Professional, scientific and technical services	131.8	189	23	8	1	**221**
Public administration	380.4	559	33	65	3	**660**
Real estate rental and leasing	293.2	486	55	11	1	**553**
Retail trade	708.4	962	156	21		**1,139**
Transportation and warehousing	196.0	180	25	22	1	**228**
Utilities	101.3	140	9	13	1	**163**
Wholesale trade	182.4	315	36	17		**368**
Not assigned	515.3	1,202	74	55		**1,331**
Total	**5,217.9**	**7,845**	**779**	**464**	**16**	**9,104**

Table 6. *Electricity sales (GWh) by county and by rate schedule*

County	Sales by rate schedule				Total sales by county
	Sch. 25	Sch. 26	Sch. 31	Sch. 40	
	>50 kW and <=350 kW max. demand	>350 kW max. demand	>350 kW max. demand; delivery at 600 volts or higher	>3aMW load on a distribution feeder	
Island	23.9	9.1	7.2	53.3	**93.5**
King	968.8	1,186.3	594.6	355.0	**3,104.7**
Kitsap	106.9	94.1	39.0	18.6	**258.6**
Kittitas	8.1	8.2	5.4		**21.7**
Pierce	140.3	134.6	131.6	11.5	**418.0**
Skagit	83.4	79.0	125.5	24.8	**312.7**
Thurston	142.9	166.7	235.8	46.0	**591.4**
Whatcom	123.6	93.7	147.3	41.8	**406.4**
Not assigned	5.3	5.6	-		**10.9**
Total	**1,603.2**	**1,777.3**	**1,286.4**	**551.0**	**5,217.9**