

**EXH. CLS-4  
DOCKET UE-20\_\_\_\_  
2020 PSE PCORC  
WITNESS: CINDY L. SONG**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent**

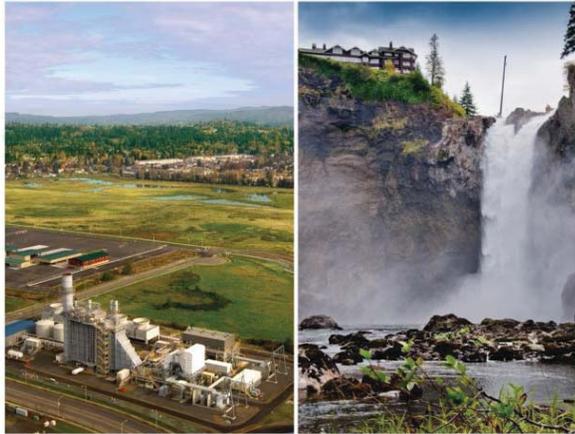
**Docket UE-20\_\_\_\_**

**THIRD EXHIBIT (NONCONFIDENTIAL) TO THE  
PREFILED DIRECT TESTIMONY OF**

**CINDY L. SONG**

**ON BEHALF OF PUGET SOUND ENERGY**

**DECEMBER 9, 2020**



# 2018 All Resources RFP

*June 8, 2018*



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SECTION 1. RESOURCE NEED

This document constitutes a Request for Proposals ("RFP") from qualified third parties ("respondents") to supply electric resources to Puget Sound Energy, Inc. ("PSE" or "the Company"). It is an All Resources RFP, meaning that any electric generation source, energy storage resource and renewable energy credits ("RECs") will be considered, consistent with the requirements described herein. PSE is simultaneously filing a Demand Response RFP. Both RFPs may be found on our web site at <http://www.pse.com/RFP>. This web site also includes a set of frequently asked questions ("FAQs") to share information that may be of common interest to bidders. All Resources RFP FAQs can be found by clicking the All Resources RFP hyperlink.

## 1. Resource Need

PSE's electric resource acquisition process is guided by our integrated resource planning analysis, which evaluates and establishes the Company's capacity (physical reliability) and renewable energy (policy driven)<sup>1</sup> needs on a biennial basis, consistent with WAC 480-100-238. Our most recent *Integrated Resource Plan* includes a detailed discussion of PSE's electric planning standard and describes our methodology for analyzing the Company's resource needs. The *Integrated Resource Plan* can be found on PSE's web site at <http://www.pse.com/irp>.

Since publishing the 2017 IRP, PSE has updated the assessment of its capacity and renewable resource needs. The peak capacity need was updated for two reasons:

1. Updated load forecast to reflect the Company's current economic demand forecast.
2. 100 MW of additional Mid-C transmission that became available after the 2017 IRP was finished.

The following chart includes the updates referenced above and conservation from the 2017 IRP, but does not include demand response.

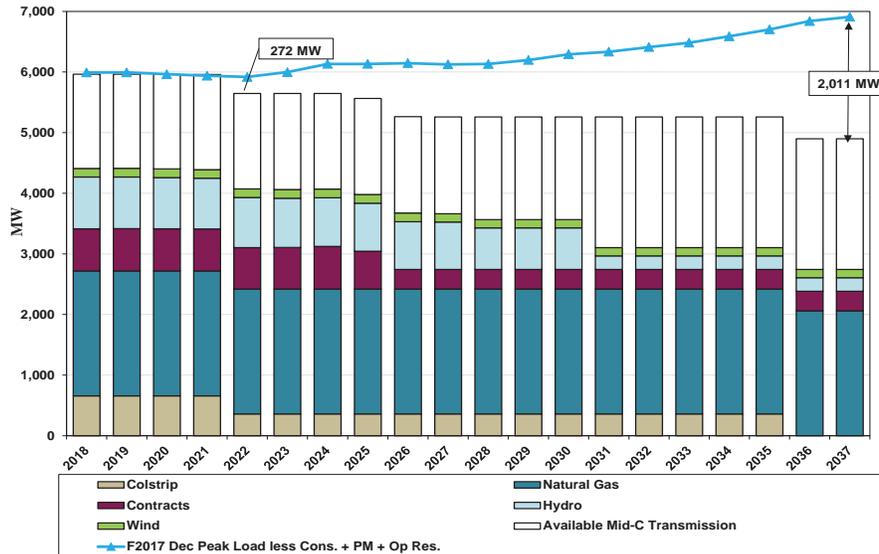
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<sup>1</sup> PSE has a legal obligation to meet the requirements of the Energy Independence Act, Chapter 19.285 RCW. The Energy Independence Act requires PSE to acquire qualifying eligible renewable resources and/or renewable energy credits to meet 3 percent, 9 percent and 15 percent of its load by 2012, 2016 and 2020, respectively.

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SECTION 1. RESOURCE NEED

Table 1. *Electric Resource Capacity Need*



PSE has a modest capacity need prior to 2021, which grows to 272 MW in 2022 after the retirement of Colstrip 1&2.

Table 2. *Electric Resource Capacity Need, Peak Deficit/(Surplus)*

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
28	29	1	(21)	272	351	486	569	881	867	873	939	1,033	1,075	1,153	1,224	1,330	1,443	1,940	2,011

As part of the retirement of Colstrip units 1&2, the company has the opportunity to request that BPA redirect the transmission capacity from Garrison to Mid-C. If transmission rights from Colstrip 1&2 are redirected to the Mid-C, PSE would not have a substantial capacity need until 2024. The table below shows PSE’s resource capacity need, if 300 MW of Colstrip transmission capacity is redirected.

Table 3. *Electric Resource Capacity Need, if Colstrip 1&2 transmission is redirected, Peak Deficit/(Surplus)*

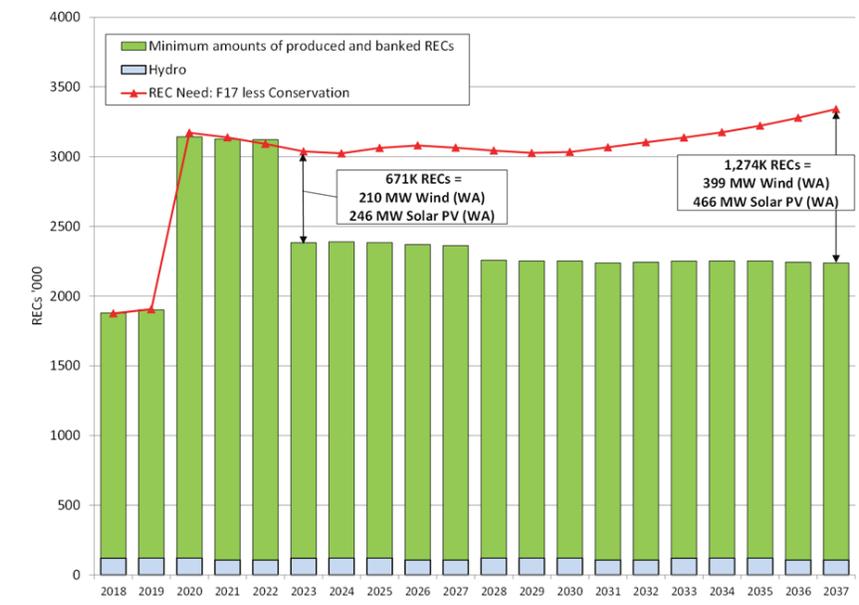
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
28	29	1	(21)	(42)	36	171	253	565	551	557	623	717	759	837	908	1,015	1,128	1,624	1,695

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SECTION 1. RESOURCE NEED

The renewable energy need was also updated with a new load forecast to reflect the Company's current economic demand forecast.

Table 4. *Renewable Energy Need*



Renewable resources are preferred, but not required, to be online by the end of 2022 to meet a substantial need for 671,000 renewable energy credits (RECs) beginning in 2023. PSE is willing to consider earlier start dates to capture the higher value of renewable energy tax incentives associated with earlier commercial online dates. PSE will evaluate the tradeoff between the cost benefit associated with the higher tax incentives versus the carrying cost of acquiring the resource ahead of need.

## SECTION 2. RESOURCES REQUESTED

## 2. Resources Requested

### Resource Characteristics

PSE will consider electric generation, capacity, storage and REC-only product proposals from a wide variety of technologies and fuel sources, consistent with the evaluation criteria described in **Exhibit A**. The Company encourages qualified respondents representing small-<sup>2</sup> or large-scale renewable and capacity projects to participate in the RFP. PSE prefers proposals for resources located on PSE's system or those with secure long-term firm delivery to PSE's system. PSE prefers existing and yet-to-be constructed resources with commercial operation dates through September 31, 2022 for capacity resources and December 31, 2022 for renewable resources. An online date after the preferred date will not disqualify a project from participating in the RFP. New renewable resources coming online after 2022 may elect to include a short-term REC-only product to help meet PSE's renewable need in the years until the operating unit is online. This would be an acceptable, but not required, bridging option.

This RFP process may or may not result in one or more transactions by PSE, depending on the economic and qualitative benefits such transaction(s) would provide for our ratepayers. PSE reserves the right to modify the RFP to comply with changes to federal, state or local laws, or regulatory policy.

Table 5. *Resources Requested*

Resource	Description
As Produced	E.g. on and off-shore wind, run-of-river hydro, solar, tidal, etc.
Baseload	7x24, delivered as firm
Intermediate	Dispatchable
Dispatchable/On Peak or Heavy Load Hours	6x16 (Mon-Sat) (HE <sup>3</sup> 0700-2200); seasonal (Nov-Feb, Dec-Feb or Nov-Mar)
Super Peak Products	HE 0700-1000 and HE 1800-2100, Nov-Jan
Operating Reserves (regulating or contingency)	Automatic generation control (spinning reserve)
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

<sup>2</sup> For qualified facilities 5 MW or less, respondents are encouraged to sell power pursuant to electric tariff rate Schedule 91.

<sup>3</sup> hour ending ("HE")

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SECTION 2. RESOURCES REQUESTED

Resource	Description
Storage	E.g. battery storage (lithium-ion, flow, etc.), pumped hydro, etc.
REC-only product	RECs that will be produced beginning in year 2022 or later; minimum quantity of RECs that will be considered is 25,000 RECs per year (volume can be fixed or tied to the actual quantity of RECs generated from an eligible renewable resource)

**Capacity Resources**

PSE’s capacity needs are greatest in winter; therefore, resources will be evaluated based on an ability to fill winter deficits while minimizing summer surpluses. PSE will consider the seasonality of the generation, our ability to control the project’s output to match our resource needs (up to and including real-time dispatch and displacement), and contractual mechanisms to shape project output to our needs.

**Storage Resources**

Energy storage encompasses a wide range of technologies capable of shifting energy usage from one time period to another. PSE will evaluate all proposed energy storage technologies on a least-cost and best-fit basis consistent with our most recent IRP analysis, and based on the RFP evaluation process and proposal requirements described herein. PSE’s evaluation criteria and minimum proposal requirements are further described in RFP exhibits A and B.

PSE’s 2017 IRP modeled three energy storage alternatives: lithium-ion batteries, flow batteries and pumped hydro. The IRP generally describes the way in which PSE views the advantages and disadvantages of storage, and quantitatively evaluates the costs and operational characteristics of generic storage resources. Table 6 depicts the generic energy storage peak capacity values assumed in the IRP. For more on the integrated resource planning analysis that informs PSE’s RFP evaluation process, see IRP Chapters 4 and 6. Storage characteristics and assumptions are further detailed in IRP Appendix D. The IRP can be viewed online at <http://www.pse.com/irp>.

**Table 6. Generic Energy Storage Peak Capacity Value Modeling Assumptions, excerpted from PSE’s 2017 IRP Appendix D, Figure D-19**

2016 \$	Units	Li-Ion Battery 2-hr	Li-Ion Battery 4-hr	Flow Battery 4-hr	Flow Battery 6-hr	Pumped Storage
Nameplate Capacity	MW	25	25	25	25	25
Winter Capacity	MW	15	22	19	20	25
Capacity Credit	%	60%	88%	76%	80%	100%

SECTION 2. RESOURCES REQUESTED

**REC-only Products**

The Company seeks proposals for REC-only products to help meet the renewable energy requirements of the Energy Independence Act, Chapter 19.285 RCW. PSE is receptive to offers containing varying term lengths, quantities and pricing. RECs must come from a “renewable resource” and must be sourced from a facility that meets the definition of an “eligible renewable resource” as defined in RCW 19.285.<sup>4</sup>

**Contract Types**

PSE will consider the acquisition of generation from proposals under the following mechanisms: (1) ownership arrangements, including co-ownership arrangements in which PSE retains adequate dispatchability and rights of control; (2) power purchase agreements of varying lengths greater than four years, including power bridging agreements defined as short-term “bridges” to long-lead resources; 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, and environmental cost, and which quantify the cost for assuming those risk factors.

All proposals must comply with Washington’s Emissions Performance Standards (“EPS”).<sup>5</sup> Additionally, WAC 174-407 prevents electric utilities in Washington state, including PSE, from entering into contracts of five or more years when the supply is from unspecified sources, coal generation (with the exception of coal transition power<sup>6</sup>) or other resources that emit above the greenhouse gas limit.

**Ownership**

The PSE ownership mechanism anticipates a proposal pursuant to which PSE would ultimately own the resource or a significant interest therein. This may be accomplished at various stages of development using a variety of approaches such as sale of development rights, joint development by the respondent and PSE, 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. Although PSE is willing to consider a wide range of arrangements, the prototype term sheet included as **Exhibit H** to this RFP presumes that PSE would acquire its ownership interest in the

<sup>4</sup> Additional information about minimum proposal requirements for a REC-only product proposal is provided in Section 10 of Exhibit B.

<sup>5</sup> Washington’s Emissions Performance Standards (WAC 173-407, filed June 19, 2008, updated March 24, 2018) require new and modified baseload electric generation to meet a greenhouse gas limit of 970 pounds per megawatt hour (lbs/MWh). The EPS applies to all baseload electric generation for which electric utilities enter into long-term financial commitments on or after July 1, 2008.

<sup>6</sup> Engrossed Second Substitute Senate Bill 5769 establishes the requirements under which PSE may enter into a long-term financial commitment with coal transition power.

SECTION 2. RESOURCES REQUESTED

project prior to the commencement of construction and would fund its ownership share on a pro rata basis.

**Power Purchase Agreements**

Any proposal for a power purchase agreement ("PPA") must specify the generation asset(s) underlying the agreement, and provide assurances of its commercial availability on or before September 31, 2022 for capacity resources and December 31, 2022 for renewable resources. PSE will consider non-unit contingent products delivered to BPAT.PSEI.<sup>7</sup> A prototype term sheet for Gas Tolling Agreements is included as **Exhibit I** and a prototype term sheet for Wind PPAs is included as **Exhibit J** to this RFP.

**PURPA Qualifying Facility Agreements**

Any agreement that may be executed by PSE and the respondent for the purchase and sale of power from a qualifying facility under PURPA will be subject to any federal enactments that apply to the purchase and sale of such power.

**Temporal Exchange Agreements**

The Company'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.

**REC-only Product Agreements**

The *WSPP Service Schedule R, Renewable Energy Certificate Transactions With And Without Energy* shall be the standard agreement used for a REC-only product. The current WSPP Agreement is available online at <http://www.wspp.org/documents.php>.

RECs must come from a "renewable resource" and must be sourced from a facility that meets the definition of an "eligible renewable resource" as defined in RCW 19.285. All RECs must be fully transferable via WREGIS to PSE, free from any rights of others.

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<sup>7</sup> 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 Puget Sound Energy, Inc. ("PSEI") and BPAT.

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### SECTION 3. SCHEDULE AND PROCESS

### 3. Schedule and Process

The following schedule is subject to adjustment based on WUTC review and the actual pace of the evaluation process. Updates will be posted online at <http://www.pse.com/RFP>.

Table 7. *2018 All Resources RFP Schedule*

Date	Milestone
March 29, 2018	Draft RFP filed with WUTC
May 29, 2018	Public comment period closes
June 28, 2018	WUTC expected to approve PSE's All Resources RFP <sup>8</sup>
July 9, 2018	PSE hosts bidder conference <sup>9</sup>
July 13, 2018 <sup>10</sup>	PSE releases final RFP solicitation
August 3, 2018	Mutual Confidentiality Agreements due to PSE
August 17, 2018	Offers due to PSE
Late Q1 2019	PSE selects final short list, notifies respondents
To follow	Post-proposal negotiations

#### 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. The Company will consider a number of quantitative and qualitative factors to reasonably compare proposals with diverse attributes. Each proposal will be evaluated based on its compliance with this RFP (including the term sheet and contractual provisions set forth in **Exhibits H-J**) and according to the following set of criteria, which are described in detail in **Exhibit A**.

- Compatibility with resource need
- Cost minimization
- Risk management
- Public benefits

<sup>8</sup> The WUTC is planning to address the All Resources and Demand Response RFPs at an open meeting on June 14, 2018. If no approval decision is made on June 14, the decision would likely be made at the June 28 open meeting.

<sup>9</sup> RFP bidders' conference details and registration instructions will be posted at [www.pse.com/rfp](http://www.pse.com/rfp) as they become available.

<sup>10</sup> This is an estimated date based on the schedule outlined above. The actual final filing date will be within 30 days of a commission order approving the draft RFP, consistent with WAC 480-107-015(2c).

SECTION 3. SCHEDULE AND PROCESS

- Strategic and financial considerations

Initially, proposals will be screened based on the proposal cost, a portfolio evaluation designed to assess the interaction of the resource within PSE’s power portfolio, and the qualitative criteria described in **Exhibit A**. Upon completing the initial screening, PSE will select the most favorable proposals for a more thorough due diligence evaluation. This process may require further interaction with the respondents and requests for additional information. The due diligence process will include more in-depth review based on the same five primary criteria, individual and portfolio risk analysis, and resource flexibility analysis. The portfolio risk analysis evaluates the interaction and risk levels of the most favorable resources and combinations of resources within PSE’s power portfolio. To quantify the flexibility value of different resources, PSE will use the Plexos model and will apply the same methodology used in its 2017 IRP. PSE’s RFP evaluation process and analytic tools are generally consistent with those used in the Company’s most recent integrated resource plan.<sup>11</sup>

Proposals that best meet PSE’s resource need at the lowest reasonable cost and least risk to the Company will be placed on a short list for further discussion with the respondent(s). Such discussions may lead to negotiations of the terms and conditions of definitive agreements.

**Negotiations and Contracts**

PSE may elect to negotiate price and non-price factors with any respondent 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 RFP and may terminate or modify the RFP at any time without liability or obligation to any respondent. This 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 RFP process is complete. PSE reserves the right to negotiate only with those respondents and other parties who propose transactions that PSE believes, in its sole opinion, to have a reasonable likelihood of being executed substantially as proposed.

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<sup>11</sup> PSE’s most recent IRP can be found at <http://www.pse.com/irp>. Three key sections of the IRP that describe PSE’s Electric Resource analysis include Chapter 4 (Key Analytical Assumptions), Chapter 6 (Electrical Analysis) and Exhibit N (Electrical Analysis). Additional topics of interest (e.g. demand forecasting, wholesale market risk and operational flexibility) can be found in the IRP’s Table of Contents.

SECTION 4. PROPOSAL REQUIREMENTS

**4. Proposal Requirements**

**Confidentiality Agreement**

Two signed originals of the Mutual Confidentiality Agreement (**Exhibit C**) are due no later than August 3, 2018. PSE will return one fully executed agreement to the respondent.

To the extent required by law or regulatory order, PSE will make available to the public a summary of all proposals received and the final ranking of all such proposals.

In accordance with the requirements of Washington Administrative Code (“WAC”) 480-107-145, PSE will retain all information pertinent to this RFP process for a period of seven years or until the Company concludes its next general electric rate case, whichever is later. PSE shall have no obligation under this RFP to provide the models and data used in its evaluation process to respondents or other third parties except to the extent required by law or regulatory order. The Company may provide such models and data to the extent consistent with its business needs.

**RFP Proposal**

To ensure that all proposals are thorough and complete, PSE requests that respondents present their bid information as outlined below.

**Table 8. Proposal Contents Checklist**

Proposal Element	Section Reference
Summary Data Form	Exhibit D
Proposal Requirements: <ul style="list-style-type: none"> <li>• Description of Offer</li> <li>• Capital costs, pricing and delivery</li> <li>• Summary commercial offer term sheet</li> <li>• Description of project and project status</li> <li>• Technical and operations</li> <li>• Fuel supply</li> <li>• Interconnection and transmission</li> <li>• Legal and financial</li> <li>• Additional information for development projects</li> </ul>	Exhibit B
Proposals must also comply with the following	Section 4, following this table

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SECTION 4. PROPOSAL REQUIREMENTS

Proposal Element	Section Reference
requirements described herein: <ul style="list-style-type: none"><li>• Signatures and certifications</li><li>• Tax-incentive risk and environmental attributes</li><li>• No assignment</li><li>• Eligibility and conflict of interest disclosure</li><li>• Validity, deadlines and regulatory approval</li></ul>	

Respondents are expected to provide complete information in their original submittals. Failure to provide all of the requested information will not disqualify a respondent, but may result in lower prioritization during the evaluation process.

**Signatures and Certifications**

Each proposal must contain the signature of a duly authorized officer or agent of the respondent submitting the proposal. The respondent's duly authorized officer or agent shall certify in writing 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 by collusion to obtain for itself any advantage over any other respondent.

**Tax-Incentive Risk and Environmental Attributes**

Each proposal 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.

**SECTION 4. PROPOSAL REQUIREMENTS**

All proposals must state that all environmental attributes<sup>12</sup> associated with the proportionate share of the subject project, if any, will accrue to the ownership and beneficial use of PSE.

**No Assignment**

All proposals shall state that there will be no assignment of proposals during the evaluation or negotiation stage of this 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.

**Eligibility and Conflict of Interest Disclosure**

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.

This RFP will accept proposals from all third-party project developers or owners, marketing entities, or other utilities that meet the project requirements and comply with the process guidelines described herein. Subsidiaries or affiliates of PSE are not eligible to respond to this RFP and the Company shall not consider any response it receives from any such subsidiary or affiliate. Affiliates of the Company include any entity, corporation or person in any chain of successive ownership of PSE or any entity affiliated with such entity in a successive chain of ownership.

**Validity, Deadlines and Regulatory Approval**

Each proposal shall specify the date through which the proposal is valid. Proposals must also state the dates by which definitive agreements must be completed and approved by the boards of directors or other management bodies of PSE and the respondent, and applicable regulatory approvals must be provided to support the proposed project schedule.

Respondents should note that regulatory approvals for resources to be acquired may not be obtained until sometime during the latter half of 2019 or later. PSE may seek regulatory review of its anticipated resource purchases, exchanges, acquisitions or costs associated therewith. Such regulatory review could include receipt by PSE from the WUTC of approvals and orders, as applicable (for example, through a power cost-only rate proceeding), pertaining to and

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<sup>12</sup> "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.

**SECTION 4. PROPOSAL REQUIREMENTS**

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 this regard, any proposed price may not be unilaterally changed by the respondent prior to the finalization of such agreements and approvals. It is preferred that the respondent provide proposals that remain valid for a period that allows for negotiation of definitive agreements and applicable management and regulatory approvals.

In addition to being subject to the jurisdiction of the WUTC, PSE is also regulated by the Federal Energy Regulatory Commission ("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: (1) approval by FERC prior to transferring FERC-jurisdictional assets; and (2) 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. In reviewing filings under Section 203, 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.

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's overall corporate position.

SECTION 5. CREDIT REQUIREMENTS

## 5. Credit Requirements

PSE will not accept collateral thresholds, credit ratings triggers, general adequate assurances language or similar language that might require the Company to provide performance assurance. However, PSE's credit risk department may require the seller to provide performance assurance. With few exceptions, PSE will expect sellers with sub-investment-grade credit ratings (or being of similar creditworthiness) to provide performance assurance acceptable to the Company.

PSE may require negative control provisions<sup>13</sup> in any definitive agreements that the respondent and PSE might execute in connection with the respondent's proposal, in addition to any provisions that may be included in the prototype term sheets for ownership agreements (**Exhibit H**), gas tolling agreements (**Exhibit I**), or wind power purchase agreements (**Exhibit J**).

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<sup>13</sup> "Negative control provisions" means covenants restricting respondent business practices that could jeopardize respondent's ability to perform its obligations.

SECTION 6. CONTACT INFORMATION AND PROPOSAL SUBMISSION

**6. Contact Information and Proposal Submission Instructions**

Proposals shall be submitted, along with all attachments and electronic files, as described below.

Table 9. *Deliverables and Deadlines*

Deliverable	Date Due	Format
<b>Mutual Confidentiality Agreement</b> <i>(Exhibit C)</i>	August 3, 2018	Two (2) signed originals
<b>RFP Proposal</b> <i>(See Section 4 and Exhibit B for Proposal Requirements)</i>	August 17, 2018	<ul style="list-style-type: none"> <li>• One bound execution copy with an original signature (see <b>Section 4</b>)</li> <li>• One additional bound copy</li> <li>• One electronic copy (on USB flash drive)</li> </ul>

Proposals shall be submitted to PSE by the due date via U.S. mail, courier service, or hand delivery to the following address:

Ms. Sheri Maynard  
 Assoc. Energy Resource Planning & Acquisitions Analyst  
 425-462-3114  
 sheri.maynard@pse.com

<p><b>Address for U.S. Mail:</b></p> <p>Ms. Sheri Maynard                  Puget Sound Energy                  EST-09E                  P.O. Box 97034                  Bellevue, WA 98009-9734</p>	<p><b>Address for courier or hand delivery:</b></p> <p>Ms. Sheri Maynard                  Puget Sound Energy                  EST-09E                  355 110<sup>th</sup> Ave. NE                  Bellevue, WA 98004-5862</p>
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All costs to participate in the RFP process, including preparation of proposals, negotiations, etc., are the responsibility of the respondent.

*2018 All Resources RFP:*

## Exhibit A. Evaluation Criteria

EXHIBIT A. EVALUATION CRITERIA

*Evaluation Criteria*

PSE’s evaluation of new long-term electric generation resources is based on an assessment of five primary criteria:

- Compatibility with resource need
- Cost minimization
- Risk management
- Public benefits
- Strategic and financial

Each criterion is further delineated into more detailed criteria elements, as described in the following tables.

*1. Compatibility with Resource Need*

Criteria Element	Description
1. Timing	<p>PSE prefers proposals that offer:</p> <ul style="list-style-type: none"> <li>• energy and/or capacity in a time frame consistent with PSE’s needs</li> <li>• substantial assurance of being commercially available according to the schedule proposed</li> <li>• flexibility in development schedule and/or contract start date to accommodate PSE’s timing needs</li> </ul>
2. Match to need through ownership	<p>Proposals that offer generation from an underlying asset that closely matches PSE’s annual capacity requirements, or that offer output which can be controlled by PSE are preferred to those that rely on shaping through short- or long-term arrangements.</p>
3. Match to need through contract	<p>PSE prefers proposals that provide a fixed annual price and closely match PSE’s annual capacity requirements.</p> <p>PSE seeks proposals that provide fixed transmission capacity from BPA’s system to PSE’s system and closely match PSE’s annual capacity requirements.</p>

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EXHIBIT A. EVALUATION CRITERIA

Criteria Element	Description
4. RPS requirement	Proposals in which qualified renewable generation and/or RECs are closely aligned with PSE's renewable need as mandated by the Energy Independence Act, Chapter 19.285 RCW.
5. Operational flexibility	<p>PSE prefers proposals that offer control of project output whereby the Company may respond to seasonal and real-time fluctuations in load/resource balance and system reliability events. This includes, for example, dispatch or displacement of the project in real time and, for jointly-owned projects, the ability for PSE to elect to use generation output that would otherwise be displaced by the other owner for reliability purposes.</p> <p>Additionally, PSE prefers proposals that provide the ability to carry operating reserves.</p>
6. Performance within existing PSE generation portfolio	<p>Analyses will include such factors as:</p> <ul style="list-style-type: none"> <li>• impact on system reliability</li> <li>• system dispatch and displacement</li> <li>• location with respect to the regional transmission system and PSE's electric system</li> <li>• impacts on system reserves, load following, integration costs and other factors</li> </ul>
7. Resource mix/diversity	<p>The diversity of resource technology and fuel types will be considered in a manner consistent with PSE's <i>Integrated Resource Plan</i>.<sup>1</sup> Specific considerations shall include:</p> <ul style="list-style-type: none"> <li>• technology type</li> <li>• fuel supply type</li> <li>• fuel supply source</li> <li>• fuel supply reliability, including control and deliverability</li> </ul>

<sup>1</sup> PSE's most recent *Integrated Resource Plan* can be found at [www.pse.com/irp](http://www.pse.com/irp).

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EXHIBIT A. EVALUATION CRITERIA

2. Cost Minimization

Criteria Element	Description
1. Resource cost	<p>PSE prefers proposals that provide the lowest reasonable cost throughout the project life, taking into account the price of the proposal and other factors that impact PSE's overall cost.</p> <p>Such factors include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• capital cost</li> <li>• financing cost</li> <li>• operation and maintenance cost</li> <li>• expected or potential carbon control or mitigation costs</li> <li>• fuel and fuel transportation cost</li> <li>• fixed and variable power purchase agreement cost</li> <li>• transmission cost</li> <li>• ancillary services</li> <li>• integration costs</li> <li>• transmission system upgrades</li> <li>• cost to rebalance debt/equity ratio for imputed debt and consolidated debt</li> <li>• cost of credit facilities</li> <li>• transaction costs and other management costs, etc.</li> <li>• cost to meet environmental compliance, including capital improvements and/or capacity limitations and restrictions</li> <li>• renewable energy credits or other environmental attributes</li> </ul>
2. Transmission	<p>PSE prefers long-term firm delivery of energy to its service area. In the absence of the assurance of firm delivery at the time of the proposal, PSE prefers proposals that provide a high likelihood of acquiring adequate transmission rights.</p> <p>Proposals that do not include long-term firm transmission to PSE's service area, that would produce congestion or increase PSE's transmission costs will be compared unfavorably with other proposals and/or will be assessed the additional cost to PSE as part of the evaluation process.</p>
3. Portfolio cost impact	<p>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.</p>

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EXHIBIT A. EVALUATION CRITERIA

3. Risk Management

Criteria Element	Description
1. Status and schedule	<p>All else being equal, PSE prefers operating projects first, projects under construction second, and development projects third.</p> <p>With respect to development projects, PSE prefers proposals that demonstrate the respondent has the experience and financial resources to complete the project and has made significant progress in securing necessary permits, property rights, equipment, regulatory approvals, water rights, wastewater and disposal rights, project agreements and all other rights or arrangements necessary for a completely commercially operational project within the time frame proposed for commercial operation.</p>
2. Price volatility	Proposals that provide significant long-term control of fixed and variable costs are preferred.
3. Resource flexibility and stability	<p>PSE prefers proposals that provide flexibility for expansion to meet PSE's growing needs as required.</p> <p>Proposals that include project agreements and all other rights and arrangements coterminous with power purchase delivery periods or project life are preferred.</p>
4. Resource Technology	<p>Proposals based on commercially-proven technology with demonstrated long-term reliability and performance history are preferred.</p> <p>Proposals based on technologies whose output may be controlled are preferred.</p>
5. Long-term flexibility	PSE prefers proposals that offer the Company the flexibility to adjust its position in a resource long term, up to and including termination.
6. Project risk	<p>Proposals that minimize risk for timely plant completion within cost projections are preferred.</p> <p>Proposals that minimize exposure to environmental risk or other potential liability, including expected or potential carbon control or mitigation costs, are preferred.</p>

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EXHIBIT A. EVALUATION CRITERIA

Criteria Element	Description
7. Impact on PSE’s overall risk position	<p>Proposals and combinations of proposals will be evaluated to determine the impact of the proposal(s) on PSE’s overall risk position with respect to PSE’s generation portfolio.</p> <p>Risk scenarios will include factors such as hydroelectric production variation, wind generation variability, fuel price volatility, carbon control costs, and power market price volatility.</p> <p>Additional risk scenarios will examine the correlation between fuel prices and power market prices, and alternative market price scenarios. Other considerations will include exposure to transmission congestion and costs.</p> <p>All else being equal, PSE prefers proposals that result in lower generation portfolio performance risk.</p>
8. Environmental and permitting risk	<p>PSE’s evaluation process will include an assessment of the following criteria:</p> <ul style="list-style-type: none"> <li>• status in acquiring needed permits</li> <li>• risk associated with future environmental regulation and taxes, including greenhouse gas emissions</li> <li>• compliance with state RPS</li> <li>• compliance with regional generator performance standards and import standards</li> </ul>
9. Respondent risk	<p>PSE will consider information requested in <b>Section 4</b> of the RFP document and <b>Exhibit B</b> in determining the risk associated with the financial condition and performance of a respondent and any third parties relied upon by the respondent. Lower-risk respondents are preferred.</p>
10. Ability to deliver as proposed	<p>PSE will use the information provided in response to <b>Exhibit B</b> to evaluate the experience and qualifications of the project team, an important consideration when judging a respondent’s ability to deliver a commercially operable project in the time frame proposed. PSE prefers respondents with proven track records.</p> <p>Information submitted in response to <b>Exhibit B</b>, which addresses project development status and schedule, will also be used to evaluate the respondent’s ability to meet the proposed commercial operation date.</p>

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EXHIBIT A. EVALUATION CRITERIA

Criteria Element	Description
11. Status of transmission rights	<p>The ability to transmit power from the project site to one or more points on PSE’s electric system is a requirement (particularly to points on the system where the deliveries may be used to serve load with limited or no transmission congestion).</p> <p>PSE will use information provided in <b>Exhibit B</b> and, if necessary, the PowerWorld software tools, to assess whether and to what extent the required transmission will be available, and whether and to what extent the necessary transmission paths are constrained.</p>
12. Security and control	<p>Proposals that supply firm, fixed price fuel supply are preferred.</p> <p>Proposals that offer alternative methods of managing price volatility will be favorably considered.</p> <p>Proposals that supply firm energy and capacity are preferred.</p>
13. Federal regulatory approvals	<p>PSE will consider the effect of any federal regulatory approvals that would result from accepting the proposal, including, but not limited to, requirements under Sections 203 and 205 of the Federal Power Act. Proposals that eliminate or minimize the effect of any such federal regulatory approvals are preferred.</p>

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EXHIBIT A. EVALUATION CRITERIA

4. *Public Benefits*

Criteria Element	Description
1. Environmental impacts	<p>Proposals that minimize environmental impacts are preferred. Environmental impacts refer to the full range of issues evaluated in an environmental impact statement or environmental assessment.</p> <p>PSE will consider information supplied in response to <b>Exhibit B</b> in its evaluation of the environmental impacts of a proposed acquisition.</p>
2. Resource location	<p>Proposed resources located such that they provide benefits to the regional and PSE transmission systems, or require minimal or no transmission upgrades are preferred.</p> <p>Proposals that are not dependent upon constrained transmission or fuel transportation paths are preferred.</p> <p>Proposed resources located within PSE’s service territory are preferred.</p>
3. Community impacts	<p>Proposals that demonstrate support from public, local, state and federal government entities and Native American Tribes, if applicable, as well as other stakeholders, are preferred.</p>

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EXHIBIT A. EVALUATION CRITERIA

5. *Strategic and Financial*

Criteria Element	Description
1. Capital structure impacts	<p>PSE's quantitative analysis will impute the anticipated equity cost needed to offset any adverse effects on its capital structure associated with accounting requirements (e.g., FASB ASC 810) that may require PSE to consolidate the respondent's balance sheet.</p> <p>All else being equal, PSE prefers proposals that avoid risks associated with a requirement to consolidate a respondent's financials with PSE's financials (e.g., pursuant to FASB ASC 810).</p> <p>All else being equal, proposals are preferred that would not increase PSE's exposure to adverse impacts on its financial position (e.g., by requiring PSE to impute debt, to account for the transaction as a capital lease (e.g., under FASB ASC 840), to account for or report the transaction as a financial derivative transaction (e.g., pursuant to FASB ASC 815), by otherwise adversely affecting PSE's financial leverage, operating leverage, credit rating, cash flow, income statement or balance sheet, or by imposing credit requirements or increasing liquidity risk).</p>
2. Future exposure to environmental regulations and/or taxes	<p>Proposals for resources with lower potential exposure to future environmental regulations and/or taxes are preferred.</p>
3. Guarantees and security	<p>PSE will consider information provided in response to <b>Exhibit B</b> to determine whether it will require any additional guarantees or credit support pursuant to <b>Section 5</b> of the RFP document.</p> <p>PSE's credit risk department may require the seller to provide performance assurance. PSE will expect sellers with sub-investment-grade credit ratings (or being of similar creditworthiness) to provide performance assurance acceptable to the Company.</p> <p>PSE will not accept collateral thresholds, credit ratings triggers, general adequate assurances language or similar language that might require the Company to provide performance assurance.</p>

*2018 All Resources RFP:*

## Exhibit B. Proposal Requirements

## EXHIBIT B. PROPOSAL REQUIREMENTS

*Proposal Requirements*

This exhibit outlines the minimum requirements for submitting a proposal in response to PSE's All Resources RFP. This information will be used to evaluate incoming proposals using the evaluation criteria described in *Exhibit A*. During the course of the evaluation, respondents may be asked to clarify proposal details or to supply additional information needed to provide a thorough due diligence review. A list of sample data requests is posted online at <http://www.pse.com/RFP>.

**Mutual Confidentiality Agreement**

Submit two signed copies of the Confidentiality Agreement (*Exhibit C*) by August 3, 2018.

**Proposal Requirements**

PSE requests that respondents submit their proposals in the format shown in *Table 1*. Proposals are due to PSE by August 17, 2018.

*1. Proposal Requirements: Table of Contents*

Section	Table of Contents	Page
	Summary Data Form ( <i>Exhibit D</i> ), <a href="http://www.pse.com/RFP">http://www.pse.com/RFP</a>	Exhibit D
1	Description of offer	B-2
2	Capital costs, pricing and delivery	B-2
3	Summary commercial offer term sheet	B-5
4	Description of project and project status	B-5
5	Technical and operations	B-6
6	Fuel supply	B-8
7	Interconnection and transmission	B-8
8	Legal and financial	B-9
9	Additional information for development project	B-9
10	REC-only product	B-11
11	Additional requirements described in <i>Section 4</i> of the RFP document, including: <ul style="list-style-type: none"> <li>• Signatures and certifications</li> <li>• Tax-incentive risk and environmental attributes</li> <li>• No assignment</li> <li>• Eligibility and conflict of interest disclosure</li> <li>• Validity, deadlines and regulatory approval</li> </ul>	Section 4, page 9
	List of attachments	

EXHIBIT B. PROPOSAL REQUIREMENTS

**Summary Data Form**

Complete the Summary Data Form (**Exhibit D**) and return a live copy of the Excel form as part of your electronic proposal (on USB flash drive). This form is an input to our proposal database and should not be altered. Attach a printed copy to your proposal submission. The downloadable form is available online at <http://www.pse.com/RFP>.

**Proposal Data**

Please provide the following information, as applicable to your proposal. This list is designed to be a guideline and form of proposal to help ensure that PSE has the minimum information necessary to perform its preliminary review of proposals. Bidders should plan to provide all relevant information necessary to assess the Additional data requests may be submitted to bidders on an as-needed basis during the RFP process.

**Section 1. Description of offer**

- Project name
- Proposed commercial arrangement (as described in Section 2 of the RFP document, pages 6-7)
- Offer capacity (MW); for storage resources, include also MWh storage
- Offer timing:
  - For projects, identify energy delivery start date.
  - For PPAs, provide duration, beginning and end dates.
  - For PPAs, include seasonal shape, as applicable.
- Project owner and other projects completed to date
- Project developer and other projects completed to date

**Section 2. Capital costs, pricing and delivery**

PSE ownership

- For the purchase of an existing plant (in service), specify asset purchase price.
- For the purchase of development assets, specify development assets purchase price. Specify total capital cost to project build-out (exclude development assets). Please provide, separately, the financing costs if included in the total capital cost. PSE may prefer to finance the construction, provide the estimated payment schedule dates.

EXHIBIT B. PROPOSAL REQUIREMENTS

- Include major project capital and operating expenses, and documentation to support the reasonableness of the projections discussed below. This should include an itemized budget with a breakdown of projected capital costs, operating and maintenance costs, all costs associated with site acquisition and improvement, permitting, project construction, testing and commissioning, compliance with environmental and other applicable regulations (federal, state and local), and security. Project costs must be provided in an electronic Excel spreadsheet with formulas intact (with detail generally in the form set forth in *Exhibit F*).

Purchased power agreements

- Start and ends dates (as applicable)
- If a temporal exchange offer, 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. Indicate if price includes operating reserves, emission costs and/or transmission to PSE's system.

For power purchase agreements (“PPAs”) or tolling offers, respondents should provide the following information by month, at a minimum, as applicable.

- Provide a flat or escalating price per MWh for energy and environmental attributes produced.
- Include a fixed or escalating demand price in \$/kW month, start charges in \$/start, and contract heat rate, if applicable.
- State whether the price offer includes environmental attributes, operating reserves, and whether respondent assumes all environmental risk. If available as separate options, specify the price of each option.
- Attest that the proposal complies with existing local, state and federal environmental laws and regulations.
- State whether the price includes transmission to PSE’s system. If a wind project, state whether the seller will provide all scheduling, and state whether the seller will be responsible for all balancing charges and/or all wind integration costs for the project.
- Include respondent’s fixed annual or monthly payments associated with operation, maintenance and ownership costs.
- For project PPAs, state respondent’s underlying fixed and variable cost of production.
- Propose a combination of the above or other suitable alternatives, as applicable.
- All other things being 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.

**EXHIBIT B. PROPOSAL REQUIREMENTS**

- PPA price offers must be provided in an electronic Excel spreadsheet with formulas intact. Respondents must provide a separate Excel spreadsheet for each offer, if multiple offers are proposed.

As an option, respondents are requested to include a proposal wherein the respondent to fully assume the present and future costs of continued compliance with existing or future local, state, or federal environmental law and regulation. If provided, such proposal should specify the environmental risks that the respondent is assuming and the cost for assuming each one. Any such environmental risk provisions should be optional, to be included at PSE's election.

Respondents should be aware that the quantitative cost screening of proposals received in response to the RFP will include costs associated with delivering the energy to PSE's system as well as the costs associated with financial and accounting regulations. An imputed debt component will be calculated for all PPAs pursuant to the methodology of Standard and Poor's rating agency, as described below:

*Calculating imputed debt for PPAs*

The debt rating agencies view long-term purchased power agreements (PPAs) as creating fixed, debt-like financial obligations that act as substitutes for capital investment in generation capacity. Adjusting financial measures to incorporate PPA fixed obligations allows greater comparability to self-build generation. As a result, in the evaluation of PPAs in the RFP, PSE takes into account the cost of rebalancing the capital structure to maintain its credit rating. PSE's imputed debt calculation is based on S&P's methodology.

defined demand payments or a 50 percent factor applied to energy only PPAs, representing the implied capacity payment of the product. This yearly fixed obligation is then multiplied by PSE's risk factor (25 percent) as defined by S&P. The imputed debt is calculated based on present value of the future stream of risk-adjusted fixed obligations in any given year, discounted at 7 percent. In theory, to offset the imputed debt, more equity would be added based on the approved equity percentage in the capital structure, which is 45 percent. The added cost of the additional equity is the pre-tax cost of equity at 12 percent less the 7 percent for the implied cost of debt, which equals 5 percent.

*Sensitivity of imputed debt cost*

The cost impact of imputed debt on PPAs varies with the term of the contract, the proportion of the PPA associated with demand payment, and with the escalation of the PPA rate or demand payments. Assuming a flat, unescalated PPA rate, the imputed debt cost will increase the levelized cost for the demand portion of the PPA by approximately 1.1 percent on a 3-year PPA, 1.7 percent on a 5-year PPA, 3.0 percent on a 10-year PPA and 4.8 percent on a 20-year PPA. For energy only PPAs the impact is half of what is listed above.

EXHIBIT B. PROPOSAL REQUIREMENTS

***Section 3. Summary commercial offer term sheet***

General terms and conditions

Provide a summary commercial offer term sheet. See ***exhibits H, I and J*** for prototype ownership agreement, natural gas tolling and wind PPA term sheets. Respondents should be aware that the prototype term sheets may be the basis for any potential Definitive Agreement with PSE; however, the Company reserves the right to modify the outlined terms.

Include the following items, as applicable:

- Description: structure, product, type of service, underlying facility, etc.
- Seller
- Term and delivery periods
- Transmission: interconnection, delivery point, ancillary services, line losses, etc.
- Capacity/Quantity
- Price
- Fuel supply arrangements: supplier, delivery point, etc.
- Operating characteristics and limits: minimum run time, maximum starts, planned outages, etc.
- Scheduling coordinator/Imbalance charges
- Guaranteed heat rate
- Guaranteed availability/Volume
- Force majeure
- Credit support

***Section 4. Description of the project and project status***

- Project location: city, county and state.
- Provide general description of project and project site, and describe key project components. Provide a map showing the project area and neighboring parcels. Show anticipated layout of all project facilities including transmission tie lines and natural gas laterals, solar arrays or turbine strings if applicable, 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.

EXHIBIT B. PROPOSAL REQUIREMENTS

- Describe the project size (in acreage) and the land area controlled relative to project facilities. If the project can be expanded, describe the potential scope and conditions for additional development at the site.
- Provide a list of leases, easements, and/or other ownership documents demonstrating that the respondent has control of the intended project properties and the legal rights to construct, interconnect, operate and maintain the project as described throughout the life of the project.
- Project status: construction, development or operating, and status of all development and construction work completed to date. Provide commercial online date. Provide construction start date, as applicable. Development status should include the following information:
  - List of permits obtained and status of permits in progress
  - Identify transmission and integration secured, or pending requests
  - Identify status of any fuel supply agreements in place or in progress
  - Studies completed or in progress
- Facility nameplate capacity and any incremental capacity new and clean at ISO conditions, or specify temperature and elevation.

**Section 5. Technical and operations**

- Identify resource and technology type. Specify make, model, number of units and MW/unit. If solar, specify DC panel capacity and AC inverter output, degradation by year (typically not linear) and panel orientation (degrees from south facing).
- Identify facility and unit nameplate capacity (MW) and, if applicable, project heat rate (HHV) at ISO conditions, or specify temperature and elevation. For storage proposals, identify both MW capacity and MWh storage. Identify amount and duration of rated discharge (e.g., X MW for Y hours).
- Identify average December temperature for project location and the corresponding capacity rating (MW) at that temperature.
- Include O&M costs (\$/MWh, variable in operation as applicable). See **Exhibit F**.
- Facility outage/availability information: expected annual forced outage rate<sup>1</sup> (%), expected average annual planned maintenance requirements (days per year), expected timing of planned outages (for seasonal resources). Include the estimated annual unit availability, and any guaranteed minimum annual availability and level of production.

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<sup>1</sup> The “annual forced outage rate” should represent the expected annual forced outages excluding planned maintenance.

## EXHIBIT B. PROPOSAL REQUIREMENTS

- Facility operating characteristics and limits: minimum run time (hours), minimum down time (hours), minimum operating load (MW), minimum operating load allowable by permits (if applicable), heat rate when operating at minimum load or minimum load allowable by permits (if applicable), maximum starts (per day or other applicable timeframe), full lifetime cycle limits (as applicable and available), etc. Indicate whether facility is ten-minute start capable. Identify ramp rate, up and down if asymmetrical. For storage proposals, describe cycling limitations (e.g., cycle limit per day or other timeframe as applicable, full lifetime cycle limits as available).
- As applicable, provide facility start up time for hot, warm and cold starts (hours), specify amount of fuel (MMBtu) and electricity (MW) consumed during start-up cycle.
- Facility generation information for must-run and must-take resources, and intermittent resources (including biomass, wind, hydro, solar and geothermal proposals):
  - Estimated net annual capacity factor (%); indicate whether this is a year 1 estimate or an average lifetime estimate accounting for degradation over time
  - Provide the projected average net output in MWh in an Excel 12x24 matrix (**Exhibit E**); that is, for each hour of each month, indicate the number of MWh expected to be generated in a typical hour.
  - Provide five-minute dispatch data streams (at least one year). Provide a spreadsheet similar to Exhibit E, but for 365x288 data points.
  - If solar, identify irradiation data source.
- If resource will be shaped, either by another balancing authority area (BAA) in region or with local batteries, provide a brief description of the shaping arrangement. If plant will automatically shape, provide data and details for how the five-minute dispatches result in shaped power (e.g., via both five-minute dispatch data and respective 15-minute or hourly dispatches, or specify other timescale to which power is shaped).
- For storage proposals:
  - Identify projected lifetime of energy storage media and capacity degradation from new to end-of-life condition.
  - Identify facility's minimum state of charge (SOC) or impoundment of energy in percent of maximum SOC or impoundment.
  - Identify net electric round trip efficiency at both beginning of life and end of life for the storage medium, given a full charge/discharge or impoundment/withdraw cycle from minimum SOC to maximum SOC and back.
- For battery hybrid proposals:
  - Does the plant need a schedule for state of charge?
  - Is resource intended to time-shift for peak capacity, and if so, how is this controlled?

**EXHIBIT B. PROPOSAL REQUIREMENTS**

- Can the batteries provide up/raise ancillary services, and if so, how is this controlled?
- Can facility be curtailed via PSE's Energy Management System (EMS) or by CAISO Dispatch Operating Targets (DOTs)?
- Describe any known or likely operating limits due to permitting, legal, aesthetic, wildlife or other reasons.
- Describe how the underlying facility or contract meets the obligations of Washington's Emissions Performance Standards (WAC 173-407).
- Provide facility air emissions data for greenhouse gases, nitrogen oxides, sulfur, and particulate matter in tons/GWh or lb/MMBtu or as otherwise applicable.

***Section 6. Fuel supply***

- Specify primary fuel type; specify backup fuel type and storage capacity on-site, if applicable. Indicate whether fuel supply has been secured.
- Identify the maximum hourly and daily gas requirements of the plant at its rated capacity, with and without duct firing, if applicable.
- Indicate fuel transportation method and whether transportation has been secured.

***Section 7. Interconnection and transmission***

- Identify point of interconnection, point of receipt (if different from interconnection) and point of delivery. For the purposes of this RFP, the term "interconnection point" shall refer to the point at which the project is connected to the high voltage transmission system. Project must meet all required interconnection standards.
- Identify transmission provider(s). Has transmission been secured? Provide request queue number, if applicable.
- Identify interconnection provider. Has interconnection been secured? Provide request queue number, if applicable.
- Date of LGIA signing or expected signing.
- Expected date of interconnection capitalization.
- Are transmission and interconnection studies available, if requested? List studies available. List the status of all pending studies.
- Identify construction plans for any required interconnection facilities, and include status and schedule.

**EXHIBIT B. PROPOSAL REQUIREMENTS**

- Identify all long-term, firm, point-to-point, third-party transmission service arrangements that are in place or will be in place to facilitate the delivery of the electricity to PSE's transmission system.
- Specify the balancing authority area in which the project will reside.
- Provide all costs related to transmission services (including losses) and delivery of electricity to the point of delivery.
- For projects outside PSE's balancing authority area, describe the plan for supplying the following: operating reserves, resource integration (wind or otherwise), scheduling, regulating reserves, generation imbalance and any other required ancillary service.
- If the proposal does not include long-term firm delivery to PSE's system, the respondent should explain the following: the steps taken to obtain long-term firm transmission delivery to PSE's system and the expected timing of long-term firm transmission delivery. The respondent is also encouraged to discuss any alternate solutions to firm the delivery of energy and capacity to PSE's system over the term of the proposal.
- If proposing a qualifying renewable resource that is located outside the Pacific Northwest as defined for the Bonneville Power Administration in Section 3 of the Pacific Northwest Electric Power Planning and Conservation Act (94 Stat. 2698; 16 U.S.C. Sec. 839a), describe how the electricity from the facility will be delivered into Washington state on a real-time basis without shaping, storage, or integration services.
- Does the owner/developer plan to pursue eligibility through the Public Utilities Regulatory Policies Act and/or the Energy Facility Site Evaluation Council (EFSEC)?

***Section 8. Legal and financial***

- Describe any dependence on another entity (e.g., a fuel supplier or a steam host).
- Provide a deal diagram that shows all contractual parties, listed by their legal names, and their relationship with the project.
- Describe any pertinent legal issues, such as suits, disputes, administrative investigations or permitting issues.

***Section 9. Additional information for development projects***

Schedule

- Provide in a format, such as a Gantt chart, the most accurate schedule estimates available on the various project activities covering the period from the initiation of development activities through the project's proposed commercial operation date. Include a schedule item for each significant activity including:
  - project development

**EXHIBIT B. PROPOSAL REQUIREMENTS**

- permitting
  - interconnection
  - engineering
  - construction
  - startup
  - testing
  - commissioning
- Include any additional timelines applicable to the project that will demonstrate its status and plans.
  - Indicate all actions taken to ensure the schedule is met (such as placing orders for equipment with long lead times) and potential opportunities to improve the schedule.

Site Control

- Provide a list of leases, easements, and/or other ownership documents demonstrating that the respondent has control of the intended project properties and the legal rights to construct, interconnect, operate and maintain the project as described throughout the life of the project.

Environmental Siting

- Discuss known environmental issues relative to the development and operation of the project, including 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.
- Describe all wildlife or other environmental studies and assessments that have been performed related to the site and the project, including but not limited to 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.
- Describe methodologies for such studies and identify the person(s) or firm(s) who conducted and completed the work. If such studies are planned or in progress, describe the scope and schedule for completion, identify the person(s) or firm(s) performing the studies, and identify the methodologies to be employed. Describe measures that have or will be taken to mitigate all impacts of the project.

**EXHIBIT B. PROPOSAL REQUIREMENTS**

- Discuss plans to engage community and environmental stakeholders to support the proposed project or existing projects. Discuss ongoing community relations and environmental stakeholder relations.

Permits

- Identify project permits and any other local, state or federal government approvals or authorizations required to build and operate the project, as well as all permit or other government approval applications and requests with special emphasis on the key discretionary permits (such as a conditional use permit, site certificate and major air, wastewater and/or waste permits).
- Discuss the current status of applications and proceedings, the schedule and the approach to be used to obtain necessary permits and approvals.
- If the project is located in an area that is ceded land, may have been historically used by a Native American tribe, or if the project may impact tribal interests, specify whether the tribe has been consulted about the project.
  - If so, describe the consultation, including the names and phone numbers of those contacted, and the tribe's position on the project. Also specify any plans for further consultation with the tribe in future.
  - If not, indicate why the tribe has not been consulted and describe any plans to consult the tribe in future.
  - Is the respondent aware of any required tribal notifications, permit conditions or costs associated with any tribal agreement or promise? If so, please describe.

Construction

- Describe arrangements and commitments (contracts, letters of intent, and memoranda of understanding) that have been made, if any, for the construction of the project.
- Describe the contractual structure (including any existing agreements or forms of agreement) proposed for project design, procurement, and construction (e.g., turnkey; engineering, procurement and construction; multiple lump-sum purchase, etc.). For any approach other than turnkey, provide information on the organization and individual responsible for project management during this phase. If construction is completed, identify all open warranty issues.

***Section 10. REC-only products***

Any proposal for a REC-only product should provide the following information:

- Product must meet the requirements of RCW 19.285 (the Energy Independence Act), which include but are not limited to the following:

**EXHIBIT B. PROPOSAL REQUIREMENTS**

- RECs must be sourced from a facility that meets the definition of an “eligible renewable resource” and that comes from a “renewable resource” as defined in RCW 19.285.
- The facility must commence operation after March 31, 1999. Alternatively, for incremental generation produced from hydroelectric projects as a result of efficiency improvements to units owned by a qualifying utility and located in the Pacific Northwest or to hydroelectric generation in irrigation pipes and canals located in the Pacific Northwest (where the additional generation in either case does not result in new water diversions or impoundments), such improvements must be completed after March 31, 1999.
- The facility must be located in the Pacific Northwest as defined in RCW 19.285.
- REC-only product must comply with the definition of “renewable energy credit” in RCW 19.285.
- State whether the volume of RECs will be a fixed quantity or tied to the actual output of the facility. The minimum quantity that will be considered is 25,000 RECs per year.
- State the term for REC purchases offered in the proposal. All else equal, PSE prefers longer-term offers for REC-only products. PSE is interested in RECs produced from year 2022 or later.
- All RECs must be fully transferable via WREGIS to PSE, free from any rights of others.
- The provider will be responsible for covering all expenses associated with registering the eligible renewable resource with the Western Renewable Energy Generation Information System (WREGIS), or its successor, and in addition, the WREGIS certificate creation and transfer fees.
- Describe the source of the RECs, whether from market purchases and contracts or from owned or shared generation resources.
- Identify the facility(ies) from which the RECs will be sourced, including renewable resource type, commercial operation date, and facility location. Briefly describe the facility(ies), including how it meets the requirements of RCW 19.285.
- PSE is receptive to offers containing varying term lengths, quantities, and pricing options.

*2018 All Resources RFP:*

## Exhibit C. Mutual Confidentiality Agreement

EXHIBIT C. MUTUAL CONFIDENTIALITY AGREEMENT

*Mutual Confidentiality Agreement*

This Agreement, dated as of \_\_\_\_\_, 2018, 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 in \_\_\_\_\_ (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

**EXHIBIT C. MUTUAL CONFIDENTIALITY AGREEMENT**

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.

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, 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.

**EXHIBIT C. MUTUAL CONFIDENTIALITY AGREEMENT**

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.

EXHIBIT C. MUTUAL CONFIDENTIALITY AGREEMENT

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 \_\_\_\_\_, 2018.

PUGET SOUND ENERGY, INC.

By \_\_\_\_\_

Its \_\_\_\_\_

[OTHER PARTY]

By \_\_\_\_\_

Its \_\_\_\_\_

*2018 All Resources RFP:*

## Exhibit D. Summary Data Form

2018 All Resources RFP

EXHIBIT D. SUMMARY DATA FORM

*Summary Data Form*

Each proposal must include a live Excel copy of the Summary Data Form. This template is available online at <http://www.pse.com/RFP>.

Please do not modify any portion of the electronic form. It is designed as an input to our proposal database and may not function properly if altered.

**1. Contact Information**

Primary Contact			
Contact Name			
Contact Title			
Name of Company			
Mailing Address			
	City	State / Province	Zip Code
Office Phone			
Cell Phone			
Email			
Alternate Contact			
Contact Name			
Contact Title			
Name of Company			
Mailing Address			
	City	State / Province	Zip Code
Office Phone			
Cell Phone			
Email			

EXHIBIT D. SUMMARY DATA FORM

2. Offer Information			
<b>Proposed Commercial Arrangement</b>			
Respondent entity <i>(Owner / Developer)</i>	<input type="text"/>		
Is the respondent a subsidiary or affiliate of PSE? <i>(as defined in the All Source RFP Section II.3 under Information Requested from Respondents)</i>			<input type="checkbox"/> Check, if yes
Proposed commercial arrangement	<input type="text"/>		
Description of Other	<input type="text"/>		
Offer Capacity	<input type="text"/>	MW	
Briefly describe offer			
<input type="text"/>			
<b>General Facility Information</b>			
Project/Facility Name <i>(Proposal name)</i>	<input type="text"/>		
Project Location	City	County	State / Province
	<input type="text"/>	<input type="text"/>	<input type="text"/>
Project Status	<input type="text"/>		
Commercial Online Date	<input type="text"/>		
<i>For term agreements (PPAs, exchanges or transmission only products),</i>			
Term Start Date	<input type="text"/>	Term End Date	<input type="text"/>

2018 All Resources RFP

EXHIBIT D. SUMMARY DATA FORM

3. Resource and Delivery			
<b>Technology</b>			
<b>Resource Type</b>		If Market PPA (technology unspecified) or Exchange Agreement, skip ahead to the transmission section.	
<b>Description of Other</b>			
<b>Briefly describe technology (make, model, number of units)</b>			
<b>Facility Capacity</b>		<b>MW</b>	<b>Net capacity factor</b> <input type="text"/> %
<b>Nominal Heat Rate</b>		<b>Btu/kWh (HHV)</b>	
ISO conditions? <input type="checkbox"/> Check box, or specify		°F	feet
<b>Transmission and Interconnection</b>			
<b>Point of Interconnection</b>			
<b>Point of Delivery</b>			
<b>Transmission Provider(s)</b>			

*2018 All Resources RFP:*

## Exhibit E. Energy Delivery

2018 All Resources RFP

EXHIBIT E. ENERGY DELIVERY

*Energy Delivery*

Complete the table below and provide an electronic copy with your proposal. A live Excel version of the table is available for download at [www.pse.com/rfp](http://www.pse.com/rfp).

<b>Project</b>		If resource is intermittent, specify whether output is in average MWh or cumulative MWh
<b>Net Project Capacity (MW)</b>		
<b>Annual Generation (MWh)</b>		

Hour Ending	Project Megawatt Hours (MWh) in AC												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
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16													
17													
18													
19													
20													
21													
22													
23													
24													
<b>Total</b>													

*2018 All Resources RFP:*

## Exhibit F. Project Costs

2018 All Resources RFP

EXHIBIT F. PROJECT COSTS

**Project Costs**

Complete the following project capital and operating cost tables, and include an electronic copy with your proposal. An Excel version of this exhibit is available for download at [www.pse.com/rfp](http://www.pse.com/rfp).

**1. Project Capital Cost**

		Are costs in nominal dollars or real? <b>Nominal</b>														Assumed escalation rate? 0%		Additional
		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040	2041	2042	Information
<b>Project Buildout Capital Costs (as applicable)</b>																		
Land Acquisition	\$																	
Engineering	\$																	
Permitting	\$																	
Development Fees	\$																	
Other Development Costs	\$																	
Generation Facility	\$																	
O&M Building	\$																	
Project Substation	\$																	
Generation Equipment:	\$																	
Wind Turbines	\$																	
Solar Array(s)	\$																	
Combustion Turbine / Generator	\$																	
Steam Turbine	\$																	
Spare Parts	\$																	
Pipeline Build-out	\$																	
Environmental Management / Containment	\$																	
Remaining Balance of Plant Construction	\$																	
Other (Taxes, Insurance, Etc)	\$																	
Contingency	\$																	
Initial Working Capital	\$																	
Start Up Power Credit: Sales of Test Power	\$																	
<b>Ongoing Capital Costs During Project Operation(as</b>																		
Incremental Capital Needs (Please list)	\$																	
Major Maintenance	\$																	
Combustion Inspection	\$																	
Hot Gas Path	\$																	
Turbine Refurbishments	\$																	
Plant Upgrades	\$																	

Are sales taxes assumed to be included in each line item?

2018 All Resources RFP

EXHIBIT F. PROJECT COSTS

2. Operating Expenses

Are costs in nominal dollars or real? *Nominal* Assumed escalation rate? 0%

Generation Statistics (as applicable per resource type)

		2018	2019	2020	2021	2022	2023	2024	2025	2040	2041	2042	Additional Information
Nameplate Capacity (same as form)	MW												
Forced Outage Rate	%												
Planned Outage Rate	%												
Annual Availability Factor	%												
Net Capacity Factor	%												
Net Annual Generation (AC)	GWh												

Fixed Operating Expenses (as applicable per resource type)

		2018	2019	2020	2021	2022	2023	2024	2025	2040	2041	2042	Additional Information
O&M - General	\$/kW-yr												
Transmission - Electric to Point of Delivery	\$/kW-yr												
Insurance	\$												
Property Tax	\$												
Asset Management Fee	\$												
Environmental Monitoring	\$												
Outside Services	\$												
Other	\$												
Fuel:													
Primary Fuel Source	\$/kW-yr												
Secondary Fuel Source	\$/kW-yr												
Primary Fuel Transportation	\$/kW-yr												
Secondary Fuel Transportation	\$/kW-yr												
Service Agreements:													
Turbine / Generator O&M - Service Agreement	\$/kW-yr												
Remaining Plant O&M - Service Agreement	\$/kW-yr												
Capacity Payment	\$/kW-yr												
Water / Wastewater Treatment	\$/kW-yr												
Spare Parts	\$/kW-yr												
Parasitic Power	MWh / yr												
Permit Requirements	\$												
O&M Service Agreement - Wind	Total \$												
Development Fee	\$												
Land Leases	\$												

Variable Operating Expense (as applicable per resource type)

		2018	2019	2020	2021	2022	2023	2024	2025	2040	2041	2042	Additional Information
O&M - General	\$/ MWh												
Transmission - Electric to Point of Delivery	\$/ MWh												
Fuel:													
Primary Fuel Transportation	\$/ MMBtu												
Secondary Fuel Transportation	\$/ MMBtu												
Service Agreements:													
Turbine / Generator O&M - Service Agreement	\$/ MWh or \$/FFH												
Remaining Plant O&M - Service Agreement	\$/ MWh or \$/FFH												
Chemicals	\$/ MWh												
Production Payments to Developer	\$/ MWh												
Landowner Royalties	\$/ MWh												
Fuel Cost Per Unit	\$/ Bone Dry Ton												
Emissions Cost	\$/ MWh												

Are sales taxes assumed to be included in each line item? Yes



*2018 All Resources RFP:*

## Exhibit G. Schedule of Estimated Avoided Cost

EXHIBIT G. SCHEDULE OF ESTIMATED AVOIDED COST

*Schedule of Estimated Avoided Cost*

***Consistent with WAC 480-107-055, this schedule of estimated avoided costs is intended to provide only general information to potential bidders about the cost of new power supplies. It does not provide a guaranteed contract price for electricity or capacity.***

Estimated avoided costs are discussed throughout Puget Sound Energy's ("PSE") 2017 Integrated Resource Plan ("IRP") and in detail in section 4 of Appendix N: Electric Analysis to the 2017 IRP ("Appendix N"). The current IRP is available on PSE's web site at <http://www.pse.com/IRP>.

Table No. 1 provides the nominal price forecast of monthly prices at the Mid-Columbia ("Mid-C") power trading market on a monthly basis for flat load. These prices are based upon PSE's estimates of currently projected market prices for electricity as provided for in WAC 480-107-055(2). These forecasted prices are consistent with the "Base + CAR only" estimated monthly prices for Mid-C market prices derived using PSE's AURORA forecast model and do not include system integration, shaping or transmission costs. System integration, shaping or transmission costs can be applied to decrement these prices. Currently, integration costs can range between \$3.02/MWh (OATT Schedule 13) and \$3.15/MWh (PSE 2017 IRP, page D-43) for a wind resource. This "Base + CAR Only" scenario in the 2017 IRP removes federal clean power plan compliance for the electric portfolio in the context of the base scenario assumptions but incorporating the compliance of Washington State's Clean Air Rule ("CAR"). This estimated avoided energy cost information is not a guaranteed contract price but provides general information to potential bidders.

2018 All Resources RFP

EXHIBIT G. SCHEDULE OF ESTIMATED AVOIDED COST

1. 2018-2037 Avoided Energy Costs as Projected as the Estimated Monthly Prices for Mid-C Market in PSE's 2017 Integrated Resource Plan

2018-2037 Avoided Energy Costs as Projected as the Estimated Monthly Prices for Mid-C Market in PSE's 2017 Integrated Resource Plan (Nominal \$/MWh)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Annual
2018	31.15	30.89	28.82	24.41	21.65	21.62	27.89	30.19	29.94	28.71	27.51	28.55	27.61
2019	29.74	29.29	27.64	24.91	22.72	22.27	28.21	30.56	30.94	30.06	27.69	28.56	27.71
2020	29.43	29.29	27.73	24.87	22.28	22.85	28.93	31.15	32.15	32.05	29.66	29.67	28.34
2021	31.21	31.27	28.91	26.02	23.36	23.82	30.12	32.71	33.52	32.18	30.92	31.16	29.60
2022	32.93	33.33	30.47	28.53	26.57	27.44	33.04	35.96	36.82	35.98	34.72	33.90	32.47
2023	35.13	35.81	32.66	30.36	29.13	29.90	35.64	38.62	39.51	40.79	38.79	36.94	35.27
2024	37.01	38.62	35.08	32.71	31.51	31.58	37.99	41.65	42.97	42.20	39.46	39.45	37.52
2025	40.60	41.97	38.71	36.91	35.43	34.92	42.20	45.57	46.80	45.86	43.18	43.15	41.27
2026	44.87	46.21	43.40	39.90	37.40	38.11	45.93	49.72	50.61	51.14	47.81	46.97	45.17
2027	47.85	49.28	46.31	42.70	40.10	40.75	48.68	52.68	53.42	52.98	50.37	49.78	47.91
2028	50.87	51.89	48.99	46.13	44.44	43.97	51.72	56.10	56.36	56.78	54.59	52.87	51.23
2029	53.83	55.67	51.83	48.25	45.85	45.23	54.83	59.55	60.06	60.20	57.05	55.80	54.01
2030	56.83	58.50	53.86	50.80	47.73	46.09	57.40	61.82	63.06	62.38	59.30	59.14	56.41
2031	59.84	61.59	56.73	54.49	51.47	49.09	60.71	65.32	66.79	65.83	63.11	62.63	59.80
2032	63.34	64.33	60.11	56.58	52.37	52.84	63.69	69.04	70.32	70.13	68.21	66.37	63.11
2033	66.96	67.97	62.83	60.23	56.59	55.91	66.95	72.51	73.42	72.30	70.45	69.25	66.28
2034	69.65	70.23	64.08	61.88	59.32	56.67	68.85	74.71	75.56	74.83	73.17	71.72	68.39
2035	72.45	73.49	67.78	64.22	59.37	57.05	71.53	78.53	80.06	78.72	76.81	75.44	71.29
2036	75.00	76.00	69.85	66.30	60.46	58.88	73.76	80.59	83.10	80.47	78.50	78.47	73.45
2037	77.57	78.09	71.78	68.66	63.78	60.56	75.52	82.63	85.24	82.37	81.49	81.18	75.74

The 2018 All Resources RFP seeks capacity resources as early as 2022 to meet resource needs described in Section 1 of the All Resources RFP document. Table No. 2 shows the peak capacity credit of gas-fired, wind, solar, battery storage and market resources starting in 2022. The peak capacity credit of these resources is expressed as a percentage of equivalent gas peaker capacity. For a detailed discussion of PSE's approach to determining the peak capacity of resources refer to Chapter 6, Section 2 of PSE's 2017 IRP, which can be found on our web site at [www.pse.com/irp](http://www.pse.com/irp).<sup>1</sup>

<sup>1</sup> See Effective Load Carrying Capability of Resources section beginning on page 6-8 of Chapter 6 of the 2017 IRP.

2018 All Resources RFP

EXHIBIT G. SCHEDULE OF ESTIMATED AVOIDED COST

2. *Estimated Peak Capacity Credit of Resources*

Resource	Nameplate (MW)	Peak Capacity Credit Based on 5% LOLP <sup>2</sup>
Gas-fired Generation	239 MW	100%
Montana Wind	100	49%
Eastern Washington Wind	100	16%
Offshore Washington Wind	100	51%
Market Reliance	1,580	99%
Eastern Washington Solar	50	2%
Resource	Nameplate (MW)	Peak Capacity Credit Based on EUE at 5% LOLP <sup>2,3</sup>
Lithium-ion Battery, 2hr, 25 MW max per hour	25	60%
Lithium-ion Battery, 4hr, 25 MW max per hour	25	88%
Flow Battery, 4hr, 25 MW max per hour	25	76%

<sup>2</sup> Loss of load probability (“LOLP”)

<sup>3</sup> Since batteries are energy-limited resources, using the loss of load probability metric does not capture the frequency, magnitude and duration of outages. For these resources, PSE uses expected unserved energy (EUE) to appropriately capture the risks associated with these resources.

*2018 All Resources RFP:*

## Exhibit H. Prototype Ownership Term Sheet

EXHIBIT H. 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).

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.

PSE prefers proposals consistent with the sort of ownership arrangement described in this Term Sheet. Nevertheless, PSE is willing to review and evaluate alternative ownership structures on the basis set forth in the RFP, taking into consideration the different or additional economic, legal, regulatory, tax, risk management, financing, credit support, contractual and other implications presented by such alternative proposals.

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

EXHIBIT H. PROTOTYPE OWNERSHIP TERM SHEET

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 could be transferred to PSE at various stages of development and using a variety of approaches. Possibilities include, for example, joint development by Respondent and PSE, 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. Although PSE is willing to consider a variety of arrangements, this Term Sheet presumes that PSE would acquire an ownership interest in a Project (as defined below under “Respondent and the Project”) either (i) prior to the commencement of its construction or (ii) after it has already commenced commercial operations.

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.<sup>1</sup>

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.

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<sup>1</sup> 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 H. PROTOTYPE OWNERSHIP TERM SHEET

<b>Respondent and the Project</b>	<p>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 2 MW (the “<u>Project</u>”).</p> <p>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 can be placed in service, which shall be no later than December 1, 2022. PSE prefers Projects that can be placed in service by [            ]. 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.</p>
<b>Certain Definitive Agreements</b>	<p>PSE expects that the agreements necessary to complete the potential transaction described in this Term Sheet (the “<u>Definitive Agreements</u>”) would include, among others: (1) a PSA for the sale by Respondent to PSE of all of the Project, 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 “<u>Guarantor</u>”), which would guaranty Respondent's obligations and those of Respondent's affiliates under the Definitive Agreements (the “<u>Respondent Guaranty</u>”).</p> <p>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).</p>
<b>Closing</b>	<p>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.</p>
<b>Transaction Taxes</b>	<p>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.</p>
<b>Regulatory</b>	<p>PSE expects that the following regulatory approvals, among others, might</p>

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<b>Approvals</b>	<p>be required prior to Closing to implement a proposed transaction:</p> <p>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.</p>
<b>Representations, Covenants &amp; Warranties</b>	<p>The Definitive Agreements would contain representations, covenants and warranties of each party that are customary for similar transactions</p>
<b>Terms and Conditions For Projects Under Development</b>	<p>If Respondent's proposal involves an unbuilt Project, PSE is willing to consider contracting to either (i) transfer to PSE the responsibility for its completion, start-up and commissioning, or (ii) having Respondent keep responsibility for its completion, start-up and commissioning pursuant to a separate engineering, procurement and construction or similar contract arrangements (collectively, "EPC") that would be put in place at the Closing under the PSA.</p> <p>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:</p> <ul style="list-style-type: none"><li>• performance and technical specifications of the Project;</li><li>• performance guarantees;</li><li>• major equipment and systems and vendors;</li><li>• major subcontractors;</li><li>• the status of permit applications;</li><li>• the status of contractors' and vendors' obligations and warranties; and,</li><li>• the schedule for completion of the Project and other related information and data.</li></ul> <p>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</p>

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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.

In the event that Respondent plans to retain responsibility for the completion, start-up and commissioning of the Project pursuant to an EPC arrangement, PSE expects that the following additional terms and conditions would apply to the proposed transaction:

***Installment Payments***

The consideration allocable to the cost of completion of the Facility would be payable in predetermined installment amounts through Final Completion (as defined below) as set forth in a funding schedule to be incorporated in the Definitive Agreements, with the first payment due at Closing. The Definitive Agreements would also set forth the procedure for invoicing and payment of all remaining amounts due.

***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.

***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)

**EXHIBIT H. PROTOTYPE OWNERSHIP TERM SHEET**

involves individually an amount in excess of \$[\_\_\_\_\_]² or (ii) is proposed after the aggregate value of prior change orders or modifications is \$[\_\_\_\_\_]³, 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

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<sup>2</sup> Amount to depend on facts pertaining to the particular Project, including but not limited to the Project's size and cost.

<sup>3</sup> Amount to depend on facts pertaining to the particular Project, including but not limited to the Project's size and cost.

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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.

***Liquidated Damages and Performance Bonuses***

Respondent would be liable for scheduled liquidated damages if Respondent fails to achieve Substantial Completion of the Project by an agreed upon date, as well as performance liquidated damages for failure to meet the Minimum Performance Guarantees agreed to in the Definitive Agreements.

***Additional Representations, Warranties and Covenants of Respondent***

PSE expects that the Definitive Agreements would include the following additional representations, warranties and covenants in the event that Respondent retains responsibility for the completion, start-up and commissioning of the Project:

- (1) Respondent would cause the Project to be 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

**EXHIBIT H. PROTOTYPE OWNERSHIP TERM SHEET**

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.

**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

EXHIBIT H. PROTOTYPE OWNERSHIP TERM SHEET

nature of such assurance.

<b>Limitations on Liability</b>	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.
<b>Indemnification</b>	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.
<b>Due Diligence</b>	<p>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 "<u>Due Diligence Period</u>"), 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.</p> <p>PSE expects that PSE's due diligence would include a review of the following, among other things:</p> <ul style="list-style-type: none"><li>• all technical matters relating to the Project;</li><li>• construction, engineering and transmission agreements, and any other commercial arrangements relating to the Project;</li><li>• legal and regulatory matters (including the availability and terms of all required permits and licenses);</li><li>• information systems, human resources (subject to applicable legal confidentiality and other restrictions), insurance matters; and</li><li>• any other matters associated with the development, permitting, design, engineering, construction, interconnection, start-up, commissioning, operation and maintenance of the Project.</li></ul> <p>PSE agrees that its due diligence review shall not unreasonably disrupt Respondent's (or Respondent's affiliates') business or the business of</p>

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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 and monitor 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.

**Expenses**

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.

*2018 All Resources RFP:*

## Exhibit I. Prototype Natural Gas Tolling Agreement Term Sheet

EXHIBIT I. PROTOTYPE NATURAL GAS TOLLING AGREEMENT TERM SHEET

*Prototype Natural Gas Tolling Agreement Term Sheet*

**Background** This Prototype Natural Gas Tolling 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 natural gas-fired electric generating facility. It is intended to identify certain, but not all, of the elements of a potential transaction that would be embodied in a definitive Tolling Agreement.

PSE prefers proposals consistent with the terms described in this Term Sheet. However, PSE will consider pricing structures that are different from the structure contained in this Term Sheet, if proposed.

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** A natural gas-fired electric generation facility with a [planned] nameplate capacity of [\_\_\_\_\_] MW to be [developed and] owned by Seller and located [\_\_\_\_\_].

EXHIBIT I. PROTOTYPE NATURAL GAS TOLLING AGREEMENT TERM SHEET

<b>Transaction</b>	<p>Seller shall provide to Buyer the Tolling Services beginning [_____] <sup>1</sup> (the "Delivery Date") through the expiration of the Term whereby Buyer shall deliver fuel to the Generating Facility at the Gas Delivery Point, the fuel shall be converted into energy at the Generating Facility by the Seller and the energy generated shall be delivered to Buyer at the Energy Delivery Point pursuant to a Tolling Agreement. Buyer prefers to be the exclusive recipient of Tolling Services from the Generating Facility, but will consider non-exclusive arrangements.<sup>2</sup></p> <p>All ancillary services from the Generating Facility, as further described and defined below, as well as any associated electrical capacity rights shall accrue to Buyer.</p>
<b>Term</b>	<p>The Tolling Agreement shall be effective when signed and shall terminate [_____] years from the Delivery Date (the "Term").</p>
<b>Gas Delivery Point</b>	<p>[_____] ("Gas Delivery Point").</p>
<b>Energy Delivery Point</b>	<p>[_____] ("Energy Delivery Point").</p>
<b>Contract Price</b>	<p>The Contract Price, and the components thereof, are set forth in Schedule I attached hereto. The Contract Price includes the Monthly Capacity Payment, Variable O&amp;M Charge, Start-Up Charge and Heat Rate Adjustment (as described in "Guaranteed Heat Rate" and Schedule II).</p>
<b>Gas Arrangements</b>	<p>Buyer will be responsible for making arrangements and paying all costs associated with fuel supply and transportation to the Gas Delivery Point.</p>
<b>Guaranteed Heat Rate</b>	<p>[_____] MMBtu/MWh. Seller shall be entitled to an adjustment if the Facility exceeds or fails to meet the Guaranteed Heat Rate in any month during the Term after the Delivery Date, as calculated pursuant to Schedule II attached.</p>
<b>Ancillary Services</b>	<p>All commercial products produced by or related to the Generating Facility, including but not limited to spinning reserves, operating reserves, black</p>

<sup>1</sup> If the Generating Facility is under development, the Delivery Date shall be the Commercial Operation Date.

<sup>2</sup> For purposes of this template, PSE has assumed that it will be the exclusive toller. If Respondent has an alternative proposal, it should cover scheduling issues between the multiple offtakers.

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start capability, balancing energy, reactive power and regulation service.

**Test Power;  
Test Fuel** Buyer and Seller shall, as part of the negotiation of the definitive agreements, mutually decide how to allocate responsibilities with respect to test fuel and test power, including, among other things, the provision of test fuel to the Generating Facility by Seller, the purchase of test power by Buyer or third parties, or other appropriate arrangements.

**Commercial  
Operation<sup>3</sup>** Commercial Operation shall mean, with respect to the Generating Facility, that date designated by Seller and confirmed by Buyer on the Generating 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 Generating Facility has been executed, (ii) the Generating 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 Generating Facility and the sale of energy, capacity and Ancillary Services therefrom ("Commercial Operation").

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, 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 \$[ ] per MW of the Generating Facility's expected nameplate capacity. If the Commercial Operation Date has not been achieved within [ ] days after the Guaranteed Commercial Operation Date, Seller shall be in default under the Tolling Agreement and Buyer shall be entitled to terminate the Tolling Agreement and seek damages or exercise other remedies at law or equity.

**Development  
Milestones<sup>4</sup>** 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 necessary permits, achieving financial closing, the commencement of physical construction, etc. The guaranteed Development Milestone dates shall be

<sup>3</sup> To be included if the Generating Facility is under development or construction.

<sup>4</sup> To be included if the Generating Facility is under development.

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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 \$[ ] per MW of the Generating Facility's expected nameplate capacity. 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.

**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 obtain all certifications, permits, licenses and approvals necessary to construct, operate and maintain the Generating Facility and to perform its obligations under the Tolling Agreement.

**Transmission Services; Interconnection**

During the Term, Seller shall be responsible for delivery of the energy generated by the Generating 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 Generating 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 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.

**Capacity Tests**

Prior to the Delivery Date, Seller shall establish the tested capacity (the "Tested Capacity") of the Generating 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 redetermine the Generating Facility's Tested Capacity. If as the result of any performance test, the Tested Capacity of the Generating 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

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Capacity shall have been restored.

**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 electric and natural gas 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;** 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").

**Imbalances** 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 arrange and be responsible for the costs of any fuel transportation required to deliver fuel to the Gas Delivery Point and shall schedule or arrange scheduling services with its fuel transporters to so deliver the fuel to the Gas 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 Generating Facility's output prior to the Energy Delivery Point.

Buyer shall be obligated to pay, or reimburse Seller for the payment of, any pipeline imbalance charges related to an imbalance of natural gas scheduled to be delivered to the Gas 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 Generating Facility to the extent

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that such imbalance was caused by the operation of the Generating Facility, the failure of the Generating Facility to operate or Seller's failure to comply with the Agreed Scheduling Practices.

**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 Generating Facility before the Delivery Date which shall set forth the protocol under which the Parties shall perform their respective obligations under the Tolling 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 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 natural gas 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 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 Generating Facility

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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  
Guarantee**

Seller shall provide Buyer with a guarantee that the Generating Facility availability shall be no less than the percentages indicated on Schedule III for each month after the Delivery Date (the "Minimum Monthly Availability"). Generating Facility availability shall be calculated using a methodology agreed to by the Parties that is generally consistent with the method prescribed by the Generating Facility's equipment manufacturers.

If the Generating Facility fails to meet the Minimum Monthly Availability in any month after the Delivery Date, the Monthly Capacity Payment for such month shall be reduced as determined pursuant to Schedule III.

**Credit Support**

Upon execution of the Tolling Agreement, if Buyer deems it necessary due to the credit position of Seller, Seller shall provide Buyer with a guaranty, cash collateral and/or letter of credit in forms and amounts acceptable to Buyer. 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 Tolling 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:

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 Generating Facility fails to demonstrate a Tested Capacity at least

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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 Tolling Agreement.

**Termination** Buyer may terminate the Tolling Agreement if Seller fails to achieve Commercial Operation by [\_\_\_\_\_].<sup>5</sup>

If an Event of Default shall have occurred, the non-defaulting Party shall have the right to terminate the Tolling 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 Tolling 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 Tolling Agreement, plus the reasonable transactional costs of the non-defaulting Party entering into a new tolling arrangement. Any such calculations shall be based on reasonable assumptions as to future Generating Facility operations, differences between a replacement contract and the Tolling Agreement, discount rate and similar considerations, as reasonably determined by the non-defaulting Party.

**Indemnification** The Tolling Agreement shall include customary indemnification obligations between the Parties including for liabilities related to fuel prior to delivery to Seller at the Gas Delivery Point and energy once delivered to Buyer at the Energy Delivery Point.

**Limitation of Liability** Unless expressly provided in the Tolling 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

<sup>5</sup> To be included if the Generating Facility is under development

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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 Tolling 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.

<b>Title; Risk of Loss</b>	Buyer shall retain title to fuel provided by Buyer to Seller to be converted to energy. The title to all energy generated by the Generating Facility as a result of the conversion of such fuel to energy in the Generating Facility shall vest in Buyer immediately upon generation thereof. Notwithstanding the foregoing, risk of loss of fuel supplied by Buyer shall transfer from Buyer to Seller at the Gas Delivery Point and Seller shall bear the risk of loss of energy generated at the Generating Facility until it is transferred from Seller to Buyer at the Energy Delivery Point.
<b>Dispute Resolution</b>	Certain specified technical disputes shall be referred to a single technical expert (to be designated by the parties in the Tolling Agreement) for expedited, binding resolution; other disputes shall proceed through judicial resolution. The Parties shall waive their rights to jury trial, and shall consent to jurisdiction in King County, Washington.
<b>Governing Law</b>	The Tolling 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.
<b>Assignment</b>	Neither Party shall assign any of its rights or obligations under the Tolling 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 Tolling Agreement or the revenues or proceeds thereof in connection with any financing, (ii) transfer or assign the Tolling Agreement to an affiliate or (iii) transfer or assign the Tolling 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.

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*Schedule I  
Contract Price<sup>6</sup>*

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

<sup>6</sup> Illustrative pricing structure only. Respondent may propose an alternative structure.

*Schedule II*  
*Heat Rate Adjustment Calculation<sup>7</sup>*

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<sup>7</sup> To be provided by Respondent.

*Schedule III*  
*Availability Guarantee and Liquidated Damages<sup>8</sup>*

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<sup>8</sup> To be provided by Respondent.

*2018 All Resources RFP:*

## Exhibit J. Prototype Wind PPA Term Sheet

EXHIBIT J. PROTOTYPE WIND PPA TERM SHEET

*Prototype Wind PPA Term Sheet*

**Background** This Prototype Wind 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 energy products to PSE from a new wind electric generating facility. 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”).

PSE prefers proposals consistent with the terms described in this Term Sheet. However, PSE will consider pricing structures that are different from the structure contained in this Term Sheet, if proposed.

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”).

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<b>Generating Facility</b>	A wind energy generating project with a planned nameplate capacity of [____] MW to be developed by Seller and located [_____]. <sup>1</sup>
<b>Product</b>	Wind generated electrical energy from the Generating Facility as delivered to the Point of Delivery and all renewable energy credits and any and all environmental attributes associated with the wind generated energy, as further described and defined below, as well as any associated electrical capacity rights shall accrue to Buyer.
<b>Term</b>	The PPA shall be effective when signed and shall terminate [____] years from the Commercial Operation Date (as defined below under "Commercial Operation") (the "Term").
<b>Point of Delivery</b>	[_____] ("Point of Delivery").
<b>Contract Quantity</b>	[____]% of the net electrical output of the Generating Facility, and any capacity rights, as well as all Green Attributes (as described below).
<b>Contract Price</b>	\$(____) per MWh of energy delivered by the Generating Facility 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.
<b>Green Attributes</b>	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 (other than with respect to Test Power, as described below).
<b>Electrical Output</b>	Buyer agrees to buy, at the Point of Delivery, [____]% of the total amount of electrical energy produced by the Generating Facility (the "Net Electricity") at all times during the Term on an "as generated" basis, subsequent to the Commercial Operation Date and also as stipulated in

<sup>1</sup> This Term Sheet generally contemplates offers for wind generation from facilities to be constructed; however, Buyer shall entertain offers from existing wind facilities as well and, in such case, certain provisions of this Term Sheet pertaining, for example, to construction obligations of Seller, shall not apply.

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the "Test Power" section below.

**Test Power and Green Attributes** Subsequent to the commissioning of the first wind turbine generator included in the Generating Facility, but before the Commercial Operation Date, Buyer shall purchase [ ]% of 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 index price for power at the time of purchase.

**Commercial Operation** Commercial Operation shall mean, with respect to the Generating Facility, that date designated by Seller and confirmed by Buyer on which ninety-five percent (95%) of the wind turbines 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 (iii) all related facilities and rights have been completed or obtained, including all interconnection facilities and substations, to allow for continuous operation of the Generating Facility and the sale 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 as soon as reasonably possible thereafter.

Commercial Operation shall mean, with respect to any turbine, that the following conditions have been fulfilled: (i) the turbine is able to generate electricity, (ii) the turbine has been satisfactorily tested, as evidenced by an officer's certificate of Seller and a confirmation from Buyer (which confirmation shall not be unreasonably withheld or delayed) and (iii) all related facilities and rights have been completed or obtained, including all interconnecting facilities and substations, to allow for continuous operation of the turbine and the sale of energy and Green Attributes to the Point of Delivery.

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, subject to

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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 \$[ ] per MW with respect to each wind turbine that does not achieve Commercial Operation by such date. If the Commercial Operation Date has not been achieved within [ ] days after the Guaranteed Commercial Operation Date, Seller shall be in 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**

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 the receipt of all applicable permits, commencement of physical construction, completion of construction of foundations, etc. 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 to be agreed upon in the definitive agreements. If the Commercial Guaranteed 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.

**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 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 wind and availability data during the period of curtailment. Seller shall use reasonable efforts to sell energy and Green Attributes generated by the Generating Facility

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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 and such amounts received 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 the Bonneville Power Administration ("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.

<b>Transmission Services; Interconnection</b>	During the Term, Seller shall be responsible for delivery of the energy generated by the Generating Facility (less applicable transmission losses) 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.
<b>Metering</b>	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.
<b>Scheduling Coordinator; Imbalances; and Wind Integration Charges</b>	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.

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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 so deliver the energy to the Point of Delivery. Buyer shall arrange and be responsible for transmission services at and 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. 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 Point of Delivery. Seller shall be responsible for all Charges applicable to the Generating Facility's output prior to 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 "wind integration charge" or similar charge imposed by BPA or any other transmission provider, including charges resulting from or attributable to the integration of wind generation resources into the transmission system of such transmission provider.

**Taxes** Seller shall be responsible for and shall pay all taxes incurred by Seller or Buyer on the energy and Green Attributes 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 produced and sold at and beyond the Delivery Point.

**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

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maintained by Seller or its designee in accordance with those practices, methods, and acts that are commonly used by a significant portion of the wind 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 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.

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**

Seller shall provide Buyer with a guarantee that the overall Generating Facility availability shall be no less than [\_\_]% (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.

In addition to the availability guarantee, Seller shall provide Buyer with an annual output guarantee (the "Minimum Annual Output") in an amount equal to [\_\_\_\_\_] MWh, subject to adjustments pertaining to curtailments of the Generating Facility requested by Buyer, Buyer's failure to perform under the PPA and force majeure events. 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.

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**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 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:

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

Subsequent to the Commercial Operation Date, Seller fails to achieve the Minimum Annual Output 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 [\_\_\_\_\_].

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, if applicable, 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

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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 transactional costs of the non-defaulting Party 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.

<b>Indemnification</b>	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.
<b>Limitation of Liability</b>	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.
<b>Dispute Resolution</b>	Certain specified technical disputes shall be referred to a single technical expert (to be designated by the parties in the PPA) for expedited, binding resolution; other disputes shall proceed through judicial resolution. The Parties shall waive their rights to jury trial, and shall consent to jurisdiction in King County, Washington.
<b>Governing Law</b>	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.
<b>Assignment</b>	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,

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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 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.