

Agenda Date: September 12, 2019  
Item Numbers: A3, A4 & A5

**Dockets: UE-190663, UE-190665, and UE-190666**  
**Company: Avista Corporation d/b/a Avista Utilities**  
**Puget Sound Energy**  
**Pacific Power & Light Company**

Staff: Kyle Frankiewich, Regulatory Analyst

### **Recommendation**

Staff does not recommend any action at this time. Staff intends to include these dockets for a decision by the commission at the October 10, 2019, open meeting.

### **Background**

On June 12, 2019, the Washington Utilities and Transportation Commission (commission) concluded its rulemaking under Docket U-161024 with an order amending, adopting, and repealing parts of the Washington Administrative Code (WAC). Among other changes, the commission added a new Chapter 480-106 WAC clarifying the implementation of the Public Utilities Regulatory Policies Act (PURPA), which requires utilities to purchase energy and capacity from small power producers, also called qualifying facilities (QFs). In the order adopting the new rules, the commission stated that Puget Sound Energy (PSE), Avista Corporation d/b/a Avista Utilities (Avista), and Pacific Power and Light Company (Pacific Power) “should refile their estimated avoided cost prices and revised tariffs within 60 days of the date of this Order.”<sup>1</sup>

Accordingly, the three electric utilities filed tariff revisions updating their tariffs implementing the requirements of 480-106 WAC on August 9, 2019. Discussions with the utilities and interested stakeholders have prompted commission staff (staff) to bring these tariff revisions to this open meeting for commission discussion and stakeholder input.

### **Discussion**

This memo compares and contrasts the companies’ approaches to implementing the new rule, and highlights areas of support, areas of disagreement, and areas that would benefit from more discussion. Staff identified various components of each company’s filing which do not align with staff’s interpretation of the new rule. Topics addressed in all three of the utilities’ filings are discussed by topic; items proposed to be implemented by individual utilities are discussed by company. Staff will continue to work with the companies to develop replacement pages to their tariff revisions that will ideally result in tariffs that are acceptable to stakeholders, companies, and the commission.

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<sup>1</sup> Docket U-161024, General Order R-597, ¶ 23.

Attachment A outlines the requirements of the new rule, describes the companies' various approaches to satisfying each requirement, and signals staff's level of support or concern for each item in each company's filing. Items are shaded green if staff supports the company's approach. Items shaded yellow represent items of concern, and items shaded red represent items that staff believes must be changed.

In implementing the new PURPA rule, staff evaluated company tariffs using the following criteria:

- *Accuracy*: Rates in tariff are fairly considered to be a utility's true avoided costs.
- *Transparency*: Members of the public can access and assess a utility's avoided cost inputs and calculation methodology to form their own opinions on a utility's outputs.
- *Simplicity*: Avoided cost calculation methodologies are simple to use and understand.
- *Consistency*: To the extent feasible, the companies' PURPA filings implement the new WAC 480-106 in a similar way. Any variances in approach are identified and justified.

### ***Filing components***

Staff compared the contents of each company's tariff with the requirements in the new chapter 480-106 WAC. Staff found some components that are required by the rule but are not yet included in the tariffs; those items are identified in Attachment A. The companies have thus far been amenable to addressing most of these components.

*Standard contract provisions for small QFs*: Staff is working with stakeholders to vet the standard power purchase agreements (PPAs) filed by the utilities. Staff has not yet performed an in-depth review of these contracts.

### ***Avoided cost of energy***

Table 1 compares the three utilities' market price forecasts over 20 years. Staff notes the variation across the companies' forecasts, but does not at this time dispute the reasonableness of any company's forecast. Avista and PSE have significantly lower price forecasts; relatedly, these two companies are using their draft IRP forecasts, which contemplate the impacts of the Clean Energy Transformation Act.

*On-peak / Off-peak adjustment*: Staff supports this adjustment as an easy-to-understand increase in precision of a company's estimated avoided cost of energy. This adjustment was included by Avista and Pacific Power.

*Seasonal / monthly adjustment*: Staff supports this type of adjustment as well, though the companies implemented the adjustment in different ways, creating variances across the three utilities' PURPA filings. Pacific Power implemented a summer/winter seasonal split, with differing on- and off-peak adjustments for each season. Avista's monthly adjustment factors combined with a lower market forecast results in a very low or negative adjustment factor during months with significant hydro and wind resources around the Mid-Columbia energy trading hub. Staff is working with Avista to better understand the price forecast and to develop options that can mitigate this complication while still aligning with the intent of PURPA and chapter 480-106

WAC. While PSE’s schedule of estimated avoided costs includes average monthly prices, the rates offered to QFs are annual averages. As seen in Table 1, PSE’s forecast is also quite low.

**Table 1. Avoided Energy Costs**

Year	Avista <sup>2</sup>				Pacific Power <sup>3</sup>			PSE <sup>4</sup>	
	24x7	On-peak	Off-peak	Weighted Average	Winter		Summer		Average
					On-Peak	Off-Peak	On-Peak	Off-Peak	
2020	\$23.99	\$26.46	\$19.04	\$23.18	\$25.55	\$19.13	\$36.22	\$25.37	\$21.58
2021	\$19.67	\$22.28	\$14.48	\$28.21	\$32.60	\$23.21	\$43.39	\$31.03	\$20.30
2022	\$19.98	\$22.40	\$15.14	\$28.05	\$34.33	\$21.95	\$45.09	\$31.91	\$19.08
2023	\$20.44	\$22.73	\$15.86	\$26.54	\$29.88	\$18.50	\$47.17	\$32.73	\$18.72
2024	\$21.61	\$23.74	\$17.36	\$28.00	\$27.43	\$17.47	\$53.72	\$37.09	\$19.57
2025	\$22.76	\$24.85	\$18.60	\$30.82	\$29.58	\$18.95	\$59.47	\$41.16	\$20.62
2026	\$24.27	\$26.10	\$20.64	\$32.54	\$31.80	\$20.41	\$62.19	\$42.93	\$22.05
2027	\$23.57	\$24.97	\$20.77	\$33.13	\$32.12	\$20.97	\$62.69	\$43.63	\$23.17
2028	\$25.02	\$26.04	\$22.97	\$34.88	\$33.62	\$21.97	\$66.15	\$46.15	\$23.48
2029	\$25.92	\$26.66	\$24.44	\$36.49	\$35.24	\$22.90	\$69.52	\$48.21	\$23.72
2030	\$26.72	\$26.92	\$26.34	\$37.90	\$35.18	\$23.57	\$72.90	\$50.34	\$24.14
2031	\$29.46	\$29.47	\$29.46	\$39.61	\$36.64	\$24.61	\$76.23	\$52.67	\$24.55
2032	\$29.78	\$29.69	\$29.99	\$41.28	\$38.80	\$25.95	\$78.55	\$54.72	\$26.09
2033	\$31.22	\$30.78	\$32.12	\$44.90	\$40.63	\$27.55	\$86.41	\$60.38	\$27.65
2034	\$32.83	\$32.12	\$34.27	\$47.33	\$42.24	\$28.44	\$92.37	\$64.26	\$29.49
2035	\$33.66	\$32.70	\$35.62	\$50.28	\$44.33	\$29.32	\$100.06	\$69.17	\$31.58
2036	\$35.82	\$34.79	\$37.92	\$50.71	\$43.94	\$29.91	\$101.08	\$69.35	\$32.39
2037	\$36.12	\$34.83	\$38.73	\$58.65	\$47.53	\$32.24	\$121.31	\$82.83	\$33.18
2038	\$38.81	\$37.51	\$41.45	\$61.56	\$51.08	\$34.17	\$125.93	\$86.74	\$35.93
2039	\$38.60	\$37.42	\$41.01	\$63.31	\$52.33	\$35.46	\$128.75	\$88.96	\$36.91

***Avoided cost of capacity***

*Capacity contribution adjustment:* All of the utilities’ rates include payment of the avoided cost of capacity through a dollar per megawatt-hour (\$/MWh) adder. The capacity contribution adjustment derates a QF’s capacity based on its expected contribution to a utility’ system peak. The methodology used to make this determination is contained within each company’s IRP. Staff supports this adjustment.

<sup>2</sup> Avista’s figures sourced from First Delivery 2020 rates table. Values for 2035-2039 extrapolated by staff based on supporting data.

<sup>3</sup> Pacific Power sculpts prices for different QF fuel types. The prices above are from fixed tilt solar, the lowest avoided energy price forecast in the company's tariff.

<sup>4</sup> PSE did not include an on- and off-peak adjustment to its avoided energy cost forecast.

*Capacity factor adjustment:* To arrive at a reasonable avoided cost of capacity, the value of capacity, which is lowered based on the capacity contribution adjustment, should then be spread across the expected number of generation hours such that the QF would collect the appropriate capacity contribution. For baseload resources, that value is spread across the 8,760 hours in a year. For intermittent resources, the capacity value should be spread across fewer hours. Accordingly, a balanced \$/MWh capacity adder should be derated based on the QF’s estimated capacity contribution, then grossed up based on the QF’s estimated capacity factor. Pacific Power and Avista included this adjustment, which staff supports. PSE has not yet filed replacement pages implementing this concept, but the company has been receptive to the revision.

**Table 2. Avoided Capacity Costs**

	Baseload	Wind			Solar		
	100% capacity contribution	Capacity contribution	Capacity factor	Avoided capacity value	Capacity contribution	Capacity factor	Avoided capacity value
Avista	\$11.20	0%	36.8%	\$0.00	0%	23.6%	\$0.00
PSE	\$10.27	16%	n/a	\$5.25	2%	n/a	\$4.41
Pacific Power <sup>5</sup>	\$1.91	12%	38.0%	\$0.59	54%	25.0%	\$4.12

*Dollar figures in \$/MWh. Avoided capacity costs above based on 15-year contract term.*

***Company-specific items***

Issues coded in red and yellow in Attachment A are being discussed among staff, the companies and other stakeholders. Staff is optimistic that most issues identified will be addressed by the time the commission revisits these dockets. Nonetheless, some company-specific issues require a more thorough explanation, provided below.

**Avista**

*Capacity payments and in-service date:* Avista included rates which more precisely implement the requirement in WAC 480-106-040(c) stating that the “avoided cost of capacity must account for any differences between the in-service date of the qualifying facility and the date of the next planned generating unit.” This results in rates with a higher capacity adder when a QF comes online later, as the levelized capacity payment is not ‘pulled’ into the first year, when a QF is not online to earn that payment. Staff views this implementation as truer to the language of the rule, but feels that PSE’s and Pacific Power’s implementations also align with the rule’s intent.

**PSE**

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<sup>5</sup> Pacific Power offers separate rates for fixed tilt solar and tracking solar. This table shows data for fixed tilt. Pacific Power also claims \$0 avoided capacity value for years 2021 and beyond based on its capitalized energy cost adjustment. The figures shown are for 2020 only, based on one sixth of the cost of a peaker. Finally, Pacific Power splits the capacity payment equally across two seasons, which are 8 months and 4 months. Staff calculated an annual figure for this table.

*Peaker proxy:* In its 2017 IRP, PSE plans to meet a capacity shortage for years 2019-2022 with market purchases not yet executed. However, the company's avoided capacity cost calculations do not use the "projected fixed costs of a simple-cycle combustion turbine unit" as a proxy for the company's avoided capacity value as required under WAC 480-106-040(b)(ii). PSE has not yet amended its filing to address this issue, but staff understand that the company intends to rectify this with replacement tariff pages and workpapers before the October 11, 2019, effective date.

*Capacity valuation-based timing of IRP resource selections:* PSE interpreted WAC 480-106-040(1)(b) as a directive to take a levelized average cost of all "next planned capacity additions identified in the succeeding twenty years" from its IRP. In staff's view, this is not a plain reading of the rule, but the material difference between these differing perspectives appears minimal at this time. That may change in a future IRP.

### **Pacific Power**

*Capitalized energy cost adjustment:* Pacific Power has included an adjustment that effectively offers an avoided capacity value of \$0 starting in 2021. The company contends that the value of capacity should be equal to any remaining costs after a resource's energy output is compared to the company's market forecast. The company is using a recently-acquired Oregon solar PPA as a representative project for capacity valuation. This project is expected to beat the market forecast over the life of the PPA, starting in 2025.<sup>6</sup>

The result of this approach is that, if the company's next planned capacity addition is projected to beat the company's market forecasts over a 15 year term enough to offset the project's capital costs, then no capacity payments are necessary or justified. Staff does not dispute the company's calculations, but is not at all convinced that the rationale is sound. Conversations are ongoing.

*Weakened implementation of peaker proxy method:* Pacific Power states in its cover letter that the selected market resource in its 2017 IRP is a one-month capacity resource. Its final portfolio selects this one-month resource at the peaks of the summer and winter seasons. The company then argues that implementing WAC 480-106-040(1)(b)(ii) means adding the cost of a peaker proxy for solely the two months in which its IRP tools select these one-month market resources. The upshot is that the company's peaker proxy implementation includes just one sixth of the fixed costs of a peaker plant. This is the main driver for why Pacific Power's baseload avoided capacity cost is so low in Table 2. Staff strongly disagrees with this adjustment, which runs counter to the plain meaning of the rule, and ignores staff's understanding of the intent behind WAC 480-106-040(1)(b)(ii).

*Next planned capacity resource:* Pacific Power contends that an RFP the company issued in 2017 for solar resources in Oregon should be used as the basis for the company's avoided cost calculations. Staff supports using the cost information from the RFP instead of the 2017 IRP, but

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<sup>6</sup> UE-190666 WP-1-Avoided-Cost\_Study-8-15-19 (R).xlsx, worksheet 'Redacted Exhibit2 – Planned Cap.' Costs in \$/MW-yr become negative in 2025 (cell E14).

notes that doing so will likely require a waiver, as the 2017 Oregon solar RFP was not “issued consistent with chapter 408-107 WAC.”<sup>7</sup> More concerning, however, is the company’s conflation of the planned 2021 start date for projects resulting from the RFP with the “next planned capacity resource addition identified in the succeeding twenty years in the utility’s most recently acknowledged integrated resource plan,” as specified in WAC 480-106-040(b). This interpretation has the effect of pulling the next selected WCA resource up six years, from 2027 to 2021.

Taken together, the three factors described above improperly reduce Pacific Power’s avoided capacity calculation to zero dollars over almost all of the standard contract term.

*Capacity contribution factors and the Western Control Area cost allocation methodology:* As seen in Table 2, Pacific Power’s capacity contribution for Washington solar is over 50 percent for its six-state system. This does not align with the commission’s cost allocation methodology. Staff will work with the company to address or mitigate this concern.

*Differentiation by fuel type, double-discounting, and confidentiality roadblocks:* Avista and PSE offer a set rate for energy provided by QFs of any type. The differences among their offered rates for baseload, wind and solar QFs stem solely from differences in capacity adders. Pacific Power has implemented on- and off-peak pricing unique to each of their two peak seasons: summer on-peak is 2 p.m. to 10 p.m., and winter on-peak is 6 a.m. to 8 a.m., then 5 p.m. to 11 p.m. This complicated tariff structure sends a detailed, if challenging, price signal to QFs, and Pacific Power has supported this proposal in its workpapers.

However, staff is concerned that implementing on- and off-peak adjustments as well as fuel type differentiation may lead to two adjustments for the same resource characteristics. Staff will continue working to understand this issue with the utilities and other stakeholders. Complicating matters are the confidentiality claims made by the company regarding its energy price forecast, and its use of confidential data obtained through a request for proposals (RFP) when non-confidential IRP proxy data could serve a similar function. Staff is working with the company to ensure that non-confidential information is available for third-party review.

*Interconnection queues and other delays outside of QFs’ control:* In the order codifying 480-106 WAC, the commission stated that, “If we become aware that interconnection issues are inhibiting the ability of QFs to effectively provide such alternatives [alternative sources of energy], we will consider initiating a proceeding to address those issues.”<sup>8</sup> While the companies maintain interconnection tariffs with the commission, the processing of interconnection requests and the management of which projects get connected and in what order is largely the domain of the Federal Energy Regulatory Commission (FERC).

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<sup>7</sup> WAC 480-106-040(1)(b)(i). The company contends that this RFP was issued before the current version of chapter 480-107 WAC was established. This is technically true, as chapter 480-107 WAC was modified slightly when chapter 380-106 WAC was adopted. However, the company never intended to issue its RFP pursuant to the version of chapter 480-107 WAC that was in place at the time. The company’s resource need identified in the 2017 IRP triggered the RFP requirement in chapter 480-107 WAC; that requirement was addressed in Docket UE-170885.

<sup>8</sup> U-161024, General Order R-597, ¶19.

Pacific Power's queue of interconnection requests is very long; the cumulative nameplate MW of projects in the utility's queue across its six-state system exceeds its peak load. This backlog creates a significant hindrance for prospective QF projects. Pacific Power recognizes this issue, recommending in its Schedule QF "that the Seller initiate its request for interconnection a minimum of twenty four (24) months ahead of the anticipated contract execution date to help ensure that necessary interconnection arrangements proceed in a timely manner... [QFs] larger than 20 MWs should initiate the request for interconnection forty eight (48) months ahead of the anticipated contract execution date."<sup>9</sup> Pacific Power has begun a public process for reform of its interconnection queue management process. The backlog is also a point of concern for staff and other stakeholders in the context of the company's recent acquisitions and its integrated resource planning. Staff is unaware of any significant issues with PSE's and Avista's interconnection queues.

***Other PURPA-related topics.***

*Energy storage:* Costs of battery storage are dropping quickly, and QF projects including storage are being pursued in other states. Staff has discussed with interested stakeholders the prospect of solar-plus-storage facilities under five MW, which would presumably be eligible for QF status, and hence eligible for standard terms and fixed rates under the new rule. However, FERC has not provided clarification on how to determine the power production capacity of a combined facility/battery operation. Therefore, staff recommends that the companies consider cases involving paired facilities on a case-by-case basis, and recommends that the commission avoid establishing a bright-line rule until FERC provides additional clarity on how to determine a paired facility's power production capacity.

*What are "fixed costs"?:* WAC 480-106-040(1)(b) requires a utility to calculate its avoided cost of capacity "based on the projected fixed cost of the next planned capacity addition" of its most recently acknowledged IRP. The peaker proxy requirement similarly references projected fixed costs. Staff understands "projected fixed costs" as comprised of, at minimum, the capital costs and fixed operations and maintenance (O&M) costs for a selected resource. Any avoided fuel costs and variable O&M costs would be represented in the avoided energy payment, which is valued based on market forecasts. Staff is working with the utilities to better understand other factors that are included in each utility's identification of the fixed costs of its next planned capacity addition. Thus far, staff's review of the adjustments made in the IRP process that results in this avoided cost calculation input has not revealed any concerns.

*Review of standard contracts:* At this time, staff is not prepared to offer a recommendation with regards to the standard contracts filed by the utilities. Staff is relying on the expertise of interested third-party stakeholders to vet the power purchase agreements that are now required to be filed per WAC 480-106-030(4). We will continue to work with the utilities and other stakeholders to ensure that the contracts align with the new rules and are in the public interest.

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<sup>9</sup> Docket UE-190666, Original Sheet No. QF.8.

*Necessity of all contract options as form contracts:* PURPA and FERC precedent establishes that QFs have the right to sell energy and capacity under a number of arrangements:

- As-available basis: energy only; avoided cost determined at time of delivery
- Pursuant to an agreement or legally enforceable obligation: energy and capacity; QF chooses either:
  - o Avoided cost at time of delivery; or
  - o fixed price as filed in a utility's schedule of estimated avoided costs

WAC 480-106-030(4) states, "All utilities shall file standard contract provisions for purchases from a qualifying facility with a capacity of five megawatts or less." Functionally, a vast majority of QFs will select the fixed price contract option; filing form contracts for the other contract options is more likely to be an exercise in bureaucratic box-checking than a valuable contribution to the tariff. Before requesting that utilities file form contracts for all options a small QF has the legal right to, staff requests guidance from the commission regarding expectations around the implementation of WAC 480-106-030(4).

### **Stakeholder comments**

After the utilities filed their tariff revisions, a number of stakeholders contacted staff to ask questions and provide feedback. Broadly, based on the initial filings, stakeholder concern focused on the confidentiality claims of the stakeholders. With revised filings from Avista and Pacific Power, stakeholders shifted their attention to the utilities' avoided cost calculations.

Staff has heard from stakeholders who intend to file written comments, but none have been filed to any of the three dockets as of Friday, September 6, 2019.

### **Conclusion**

Staff does not make any recommendation at this time. Staff intends to include these dockets for a decision by the commission at a later public meeting.