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December 8, 2021

Via Electronic Filing

Amanda Maxwell
Executive Director
Washington Utilities & Transportation Commission
621 Woodland Square Loop SE
Lacey, WA 98503

Attn: Filing Center

Re: Avista Schedule 62 "Small Power Production and Cogeneration Schedule" Revisions
Docket No. UE-210815

Dear Ms. Maxwell:

Enclosed for filing in the above-captioned docket, please find the Comments of Northwest & Intermountain Power Producers Coalition and Renewable Energy Coalition.

Thank you for your assistance. Please do not hesitate to contact me with any questions.

Sincerely,

Irion A. Sanger

Enclosure

BEFORE THE WASHINGTON UTILITIES AND

TRANSPORTATION COMMISSION

In the matter of the AVISTA CORPORATION, d/b/a AVISTA UTILITIES, Schedule 62 "Small Power Production and Cogeneration Schedule" Revisions	DOCKET NO. UE-210815 NORTHWEST & INTERMOUNTAIN POWER PRODUCERS COALITION'S AND RENEWABLE ENERGY COALITION COMMENTS

I. INTRODUCTION

The Northwest & Intermountain Power Producers Coalition ("NIPPC") and the Renewable Energy Coalition ("REC") (jointly "NIPPC/REC") respectfully submit these comments on Avista Corporation, d/b/a Avista Utilities' ("Avista's") Schedule 62 Tariff Revisions. Schedule 62 sets out the avoided costs paid to qualifying facilities. NIPPC/REC support Avista's waiver request to use its 2021 Integrated Resource Plan even though it was not acknowledged to calculate its avoided costs. However, NIPPC/REC have several concerns with the proposed avoided costs.

First, the Commission should require Avista to base its avoided costs off a renewable resource starting in 2025. This is because Avista's Integrated Resource Plan ("IRP"), Clean Energy Implementation Plan ("CEIP"), and its 2022 All-Source Request for Proposals ("RFP") indicate Avista plans to acquire renewable resources as early as 2023 and no later than 2025. Avista's proposed avoided costs are inaccurate because they are not reflective of the costs Avista would incur if it chose to generate the electricity itself or purchase it from another source. Avista is planning on acquiring and is in the process of acquiring renewable resources. This means that, under the Public Utility Regulatory Policies Act ("PURPA"), and the Washington Utilities and

Transportation Commission's (the "Commission" or "WUTC") rules and policies, Avista's avoided costs paid to qualifying facilities ("QF") must reflect the fact that QFs will help avoid and displace Avista's renewable energy acquisitions.

Second, the Commission should require Avista to calculate its avoided capacity costs based on average summer and winter peak contribution instead of winter contribution as that better represents Avista's projected trends. Avista provides a minimal capacity payment to solar qualifying facilities using the Effective Load Carrying Capability ("ELCC") methodology to calculate a capacity credit of only 2% of the capacity value. Avista's approach is flawed, among other reasons, because the utility assumes that solar generation capacity is unnecessary for a winter peaking utility. However, Avista is currently a dual peaking utility, and solar QFs that enter into contacts today with Avista will provide much greater capacity value over the length of their fifteen year contracts. The Commission should set avoided costs based on Avista being a dual summer and winter peaking utility which results in a capacity credit of 41 percent for solar resources. The Commission could also adopt Energy and Environmental Economics, Inc. ("E3")'s more recent ELCC estimates for solar and wind resources generated, which are that the solar resource ELCC is 26 percent at current levels of solar penetration, and the Washington wind resource ELCC is approximately 25 percent at current levels of wind penetration.

Third, NIPPC/REC has identified three major methodological flaws in the calculation of avoided capacity costs. First, Avista begins avoided capacity credit too late. Second, Avista uses an incorrect capital cost for the avoided resource. Third, Avista provides incorrect capacity contributions for certain QF resources.

Finally, Avista's calculations of avoided energy costs are unreliable. NIPPC/REC have two main concerns with Avista's calculation of the avoided energy costs. First, the forecast

appears to be identical to the 2021 IRP Update price curve and does not account for current gas market trends. Second, it includes unrealistic projections of negative pricing during high load hours.

Thus, NIPPC/REC recommend the Commission grant Avista's waiver request to use its 2021 IRP, but the Commission should require Avista update its avoided prices in its Schedule 62 to account for the recommendations included in these comments. The average impact of NIPPC/REC's recommendations is provided in the tables below. The first column identifies the incremental NIPPC/REC recommendation implemented to the previous row. Thus, the last row of the table identifies the cumulative impact of all NIPPC/REC recommended changes. The second column of Table 1 presents the average energy payment from January 2022 to December 2036. The remaining columns identify the capacity payment under each model for resources with deliveries starting in 2022. Table 2 provides the incremental impact of each NIPPC/REC recommendation. Each row of Table 2 provides the impact relative to the model in the previous row.

Table 1: NIPPC/REC Pricing Summary

	2022 to 2036	Capacity Payment $/MWh For Resources Starting Delivery in 2022							
	Average $/MWh	On-System Wind	Montana Wind	Solar	Solar + 4Hr Batt	Hydro	Wood Biomass	Geothermal (off sys)	Other
As Avista Filed	24.95	1.47	5.67	0.77	6.03	15.05	11.87	9.97	9.17
Renewable Pricing	40.98	1.47	5.67	0.77	6.03	15.05	11.87	9.97	9.17
Kettle Falls Avoided Capacity Capital Cost	40.98	2.12	8.22	1.11	8.74	21.81	17.20	14.45	13.30
Capacity Credit in 2026	40.98	2.35	9.09	1.23	9.67	24.11	19.02	15.98	14.70
Use Dual Peak ELCC	40.98	2.35	9.09	25.22	30.61	24.11	19.02	15.98	14.70
Correct Montana Wind ELCC	40.98	2.35	10.61	25.22	30.61	24.11	19.02	15.98	14.70
Update Mid-C for Gas Prices	43.05	2.35	10.61	25.22	30.61	24.11	19.02	15.98	14.70
No HLH Negative Mid-C Prices	44.86	2.35	10.61	25.22	30.61	24.11	19.02	15.98	14.70

Table 2: Incremental Impact of Model Changes to Prices

	2022 to 2036	Capacity Payment $/MWh For Resources Starting Delivery in 2022							
	Average $/MWh	On-System Wind	Montana Wind	Solar	Solar + 4Hr Batt	Hydro	Wood Biomass	Geothermal (off sys)	Other
Renewable Pricing	16.03	-	-	-	-	-	-	-	-
Kettle Falls Avoided Capacity Capital Cost	-	0.66	2.55	0.34	2.71	6.76	5.33	4.48	4.12
Capacity Credit in 2026	-	0.22	0.87	0.12	0.92	2.30	1.82	1.53	1.40
Use Dual Peak ELCC	-	-	-	23.99	20.94	-	-	-	-
Correct Montana Wind ELCC	-	-	1.52	-	-	-	-	-	-
Update Mid-C for Gas Prices	2.07	-	-	-	-	-	-	-	-
No HLH Negative Mid-C Prices	1.82	-	-	-	-	-	-	-	-

II. COMMENTS

A. Avista Must Offer a Renewable Avoided Cost Rate

1. Washington Requires Each Utility Offer a "Renewable Rate" Based on a Deferred Renewable Resource When the Utility Is Planning or Actually Acquiring Renewable Resources

Under PURPA, each electric utility is obligated to purchase any energy and capacity made available from a qualifying facility, whether that energy and capacity is provided directly or indirectly to the utility.[1] The Commission requires the Washington utilities to file a tariff for purchases from QFs including a schedule of avoided costs that a QF with a design capacity of five megawatts ("MW") or less may choose to receive.[2] The schedule of avoided costs must include an estimated avoided cost of energy, and an estimated avoided cost of capacity, including levelized avoided cost pricing.[3]

The avoided cost of **energy** must be based on the utility's "current forecast of market prices" for the current calendar year and next twenty years.[4] The avoided cost of energy may incorporate "the daily and seasonal peak and off-peak period prices, by year."[5]

1 18 CFR 292.303(a).
2 WAC 480-106-030.
3 WAC 480-106-040.
4 WAC 480-106-040(1)(a).
5 WAC 480-106-040(1)(a).

The avoided cost of **capacity** must be based on the "projected fixed cost of the next planned capacity addition identified in the succeeding twenty years in the utility's most recently acknowledged integrated resource plan."[6] The cost for that planned capacity addition must be based on either the estimate included in the most recently acknowledged IRP or the most recent project proposals received pursuant to a RFP.[7] However, if the most recently acknowledged IRP identifies the need for capacity in the form of market purchases, then the capacity cost must be based on the projected fixed cost for a Simple-Cycle Combustion Turbine ("SCCT") identified in the most recently acknowledged IRP.[8] The Commission can grant waivers from the requirement to base avoided capacity costs on the utility's most recent acknowledged IRP.[9]

The Commission has stated if "[t]he utility's avoided cost is based on the avoided capacity costs of an eligible renewable resource as defined in RCW 19.285.030, the utility's total avoided cost should include the cost of compliance with the Energy Independence Act, RCW 19.285."[10] The Commission reasoned that "QFs should have the option to choose between a renewable rate and a non-renewable rate."[11] Thus, if the QF receives a rate based on the avoided capacity costs of an eligible renewable resource, then the qualifying facility must convey the renewable energy certificate and environmental attributes to the utility.[12] However, if the qualifying facility is paid the non-renewable rate, then the qualifying facility gets to retain the

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6 WAC 480-106-040(1)(b).
7 WAC 480-106-040(1)(b)(i).
8 WAC 480-106-040(1)(b)(ii).
9 WAC 480-07-110; *See, e.g.*, *in re Avista Schedule 62 Tariff Revision*, Docket No. UE-190663, Order No. 01 at 7 (Mar. 12, 2020) (The Commission, on its own motion, granting a waiver to the acknowledged IRP requirement for Avista).
10 *In re Amending, Adopting, and Repealing Sections of WAC 480-106 and 480-107*, Docket No. U-161024, Order No. R-597, Appendix A at 19 (June 12, 2019).
11 Docket No. U-161024, Order No. R-597, Appendix A at 19.
12 WAC 480-106-050(4)(c).

renewable energy certificates and environmental attributes.[13] PacifiCorp and Puget Sound Energy have renewable rates.[14] Therefore, if a utility is planning to acquire renewables in the future, the qualifying facility should be offered a renewable standard avoided cost rate

2. Washington Rules Require Utilities to Model Cost of Service Using Renewable Resources

Commission rules require cost of service studies model the cost of generation using the renewable future peak credit methodology.[15] This methodology relies on renewable generation resources instead of thermal resources.[16] Avista's most recently filed rate case presents a cost of service study that models the cost of generation using battery storage and wind generation.[17]

3. Avista Is Planning to Acquire Renewable Resources

The Commission should require Avista to base its avoided cost rates off a renewable resource because Avista's next planned resource is likely a renewable resource. Here, it is clear Avista is planning to acquire renewable resources. Therefore, the avoided costs should include the renewable standard rates as required by WAC 480-106-050(4)(c). Avista's most recent Integrated Resource Plan ("IRP"), Clean Energy Implementation Plan ("CEIP"), and Request for Proposals ("RFP") all demonstrate Avista plans to acquire renewable resources in the near

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13 WAC 480-106-050(4)(c).

14 *See generally*, *Schedule QF Avoided Cost Purchases and Procedures for Qualifying Facilities*, Pacific Power (Dec 7, 2021), https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/washington/rates/QF_Avoided_Cost_Purchases_and_Procedures_for_Qualifying_Facilities.pdf; *Electric Schedule 091 – Purchases from Qualifying Facilities of Five Megawatts or Less*, Puget Sound Energy (Dec. 7, 2021), https://www.pse.com/pages/rates/electric-tariffs-and-rules#sort=%40documentdate%20descending&f:DocumentType=[A%20Other%20Schedules.

15 WAC 480-85-060(3).

16 WSR 20-15-024(43).

17 *In re Avista General Rate Case for Electric Operations*, Docket No. UE-200900, Exh. TLK-1T, at 16:18-19 (Oct. 30. 2020).

future. Thus, Avista should be required to add standard renewable avoided cost rates to its Schedule 62 Tariff and pay a renewable qualifying facility a rate based on the costs of avoided renewable resources starting in 2023 or at least no later than 2025.

Avista's 2021 IRP demonstrates a future need to acquire renewable resources. For example, Avista states it will need to acquire "an additional 375 MW (by 2031) of new clean energy resources along with upgrades to its hydroelectric and biomass facilities[.]"[18] Figure 1.6 shows Avista will need new clean resources as early as 2023, and the need will continue to grow into 2045.[19] For Washington specifically, Avista states it "will need to acquire up to 51 aMW by 2024 and up to 132 aMW of clean energy by 2029. The 2045 goal will require 325 aMW of additional clean energy" to comply with the Clean Energy Transformation Act ("CETA").[20] This demonstrates Avista will need to acquire renewable resources in the future, and it would be reasonable to set its avoided cost rates, including a standard renewable rate, as early as 2023.

Avista requests a waiver of WAC 480-106-040(1)(b) that requires the use of the avoided capacity identified in a utility's most recent acknowledged IRP because its 2021 IRP has not been acknowledged yet.[21] NIPPC/REC support using Avista's 2021 IRP even though it has not been acknowledged because it contains the most recent and updated information. There has been a multi-year delay in all Washington utility IRPs due to incorporating CETA compliance in the IRPs. For example, in UE-190663 the Commission agreed with Staff's recommendation to grant a waiver and use Avista's 2019 IRP even though it had not been acknowledged yet.[22] The Commission reasoned it was "in the public interest to use the capacity contribution values as

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18 *In re Avista IRP*, Docket No. UE-200301, Avista 2021 IRP at 1-6 (Apr. 1, 2021).
19 Docket No. UE-200301, Avista 2021 IRP, Figure 1.6 at 1-7.
20 Docket No. UE-200301, Avista 2021 IRP at 7-12.
21 Avista Cover Letter for Schedule 62 Tariff Filing at 2 (Oct. 29, 2021).
22 Docket No. UE-190663, Order No. 01 at 7, 9.

presented in [Avista's] recently-filed IRP" and "under normal circumstances IRPs are regularly filed and expediently acknowledged. This does not apply for the current cycle."[23] The same reasoning applies here because Avista's 2021 IRP best represents its future needs even if it has yet to be acknowledged. Thus, the Commission should grant the waiver and use Avista's 2021 IRP, which demonstrates a near-term need for renewable resources.

Avista's 2021 CEIP also demonstrates a need for renewable resources. In its CEIP, Avista is planning to acquire a renewable resource with capacity attributes similar to a 100 MW Montana wind project or approximately 420,480 MWh before January 1, 2026.[24] Avista even states the "[a]cquisition could be from Avista's 2020 Renewable Acquisition Process or the upcoming 2022 All-Source RFP."[25] This demonstrates Avista has an upcoming need for renewable resources.

Avista's 2022 RFP also demonstrates an upcoming renewable resource need. Avista's 2022 All-Source RFP seeks 50 aMW of clean energy in 2025, which increases to 100 aMW by 2028.[26] Further, Avista also seeks 275 MW of winter capacity and 160 MW of summer capacity by 2030.[27] Further, Avista's RFP states it "will not accept Proposals for Renewable Energy Certificates (REC) only."[28] This demonstrates Avista will need to acquire renewable resources.

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23 Docket No. UE-190663, Order No. 01 at 8.

24 Avista CEIP at 1-5 (available at: https://www.myavista.com/about-us/washingtons-clean-energy-future).

25 Avista CEIP at 1-5.

26 *In re Avista 2022 All-Source RFP*, Docket No. UE-210832, Draft 2022 All-Source RFP at 2 (Nov. 1, 2021).

27 Docket No. UE-210832, Draft 2022 All-Source RFP at 2.

28 Docket No. UE-210832, Draft 2022 All-Source RFP at 4.

Finally, Avista is in the process of acquiring renewable resources now.[29] Avista recently entered into a new power purchase agreement with Chelan Public Utility District ("PUD") for 5% of the output from the PUD's Rock Island and Rocky Reach hydropower projects from 2024 through 2033. The contract is important for Avista to achieve its clean electricity and CETA goals.

4. Avista's Avoided Costs Should Include a Renewable Rate Because Avista Is Planning to Acquire Renewable Resources

As the IRP, CEIP, and RFP indicate, Avista's likely next planned capacity addition will be a renewable resource. Thus, a renewable QF could displace Avista's planned renewable resources in 2023, and Avista should be required to use a renewable resource to calculate avoided capacity as required by WAC 480-106-040(1)(b). There are several options for pricing avoided renewable resources, including using Avista's own clean premium calculations or Avista's avoided renewable resource capacity costs.

First, the Commission could require Avista use its renewable, clean premium as its renewable avoided cost rate.[30] The clean premium estimates the costs to comply with CETA, and Avista has explained that its clean premium "shows the amount of extra costs per MWh needed to meet clean energy requirements."[31] Avista even stated these avoided costs "are a best-available estimate[.]"[32] The clean premium starts at $16.90/MWh in 2025 and increases steadily

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29 Neil Neroutsos, *Chelan PUD and Avista Partner on Clean, Hydropower Energy Contract*, Chelan County PUD (Apr. 15, 2021), https://www.chelanpud.org/about-us/newsroom/news/2021/04/15/chelan-pud-and-avista-partner-on-clean-hydropower-energy-contract.

30 Docket No. UE-200301, Avista 2021 IRP Preferred Resource Strategy Update, Table 8 at 14 (Apr. 29, 2021).

31 Docket No. UE-200301, Avista 2021 IRP at 11-20.

32 Docket No. UE-200301, Avista 2021 IRP at 11-19.

to $25.11/MWh in 2045.[33] This option would take advantage of Avista's own calculations and its estimation of the value of clean energy to comply with CETA.

B. Avista Does Not Account for All Avoided Capacity Costs

Avista's workpapers reveal three significant flaws in the calculation of avoided capacity costs. First, Avista begins avoided capacity credit too late. Second, Avista uses an incorrect capital cost for the avoided resource. Third, Avista provides incorrect capacity contributions for certain QF resources.

1. Avoided Capacity Cost Should be Based on the Fixed Costs of the Kettle Falls Upgrade

The Schedule 62 capacity payments are based on the capacity cost schedule in the 2021 IRP Update Table 8. Avista uses an avoided capacity cost of $118.2 per kW-year (in 2027). This value is not based on the cost of an avoided resource. Instead, it is derived by comparing system costs for a "Baseline" portfolio against a portfolio with no new resources.[34] The method used by Avista to generate Table 8 is not consistent with WAC 480-106-040(1)(b) which states that the avoided cost of capacity must be based on the "projected fixed cost of the **next planned capacity addition** identified in the succeeding twenty years in the utility's most recently acknowledged integrated resource plan."[35] The 2021 IRP identifies the Kettle Falls Upgrade in 2026 as the first capacity addition in the Preferred Portfolio.[36] The projected fixed cost of Kettle Falls in 2026 is $172.7 per kW-year.[37] A later resource capacity addition is selected for 2027, an

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33 Docket No. UE-200301, Avista 2021 IRP Preferred Resource Strategy Update, Table 8 at 14.

34 Docket No. UE-200301, Avista 2021 IRP at 11-19.

35 WAC 480-106-040(1)(b) (emphasis added).

36 Docket No. UE-200301, Avista 2021 IRP at 12-2.

37 *2021 IRP New Resource Options*, Avista (Dec. 7, 2021), https://www.myavista.com/about-us/integrated-resource-planning (*see* "2021 IRP New Resource Options," sheet "Levelized Cost Summary," cell AG51).

Idaho GE- 7E.03 SCCT with fixed costs of $144.6 per kW-year.[38] Both of these resources have an avoided capital cost that exceeds the amount used by Avista in the Schedule 62 rates.

NIPPC/REC recommend that the cost of the Kettle Falls be used to represent avoided capacity costs. This recommendation is reasonable because the Kettle Falls turbine is added before the SCCT. As an alternative, the commission could consider using the cost of a GE-7E.03 SCCT. However, Avista's SCCT fixed costs do not include the cost of firm gas transportation.[39] If the SCCT is used as the basis for avoided capacity costs, the cost should be grossed up to reflect firm gas transportation costs.

2. Avoided Capacity Credit Should Begin in 2026

Avista does not begin including avoided capacity credits in QF rates until 2027, which aligns with the planned addition of a SCCT in the 2021 IRP. However, the first capacity addition in the IRP occurs in 2026 with the addition of the Kettle Falls Upgrade. NIPPC/REC recommend that avoided capacity cost credit begins in 2026.

3. Avista's Effective Load Carrying Capability Estimates Undervalue Capacity Contribution of Solar Resources

Avista's avoided capacity cost credit in a year with a capacity need is based on the cost of the avoided resource times the QF resource's ELCC. The ELCC assumed for solar resources is 2 percent. Without commenting on whether ELCC, in light of recent policy changes, is still the best method for calculating a resource's ability to contribute capacity to a utility, NIPPC/REC disagree with Avista's proposed 2 percent ELCC for solar resources. This estimate disagrees with independent estimates of solar ELCC for the Pacific Northwest. E3 estimates that solar

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38 *2021 IRP New Resource Options*, Avista (Dec. 7, 2021), https://www.myavista.com/about-us/integrated-resource-planning (*see* "2021 IRP New Resource Options," sheet "Levelized Cost Summary," cell AH5).

39 Docket No. UE-200301, Avista 2021 IRP at 9-5.

resource ELCC is 26 percent at current levels of solar penetration.[40] This inconsistency indicates that Avista's ELCC models are flawed.

Avista's Schedule 62 workpapers show that avoided capacity credit is calculated based on the cost of the avoided resource times during the winter peak credit. Avista should consider both winter and summer capacity contributions when calculating avoided capacity costs. In the past Avista's avoided costs have been based on a winter peak, but that is not a realistic estimate for the next 15 years, or the contract term of a QF. Avista's system is evolving to become a summer peaking utility due to deeper air conditioning penetration, increased gas heating penetration, and climate change. Thus, it is more appropriate to base avoided capacity cost prices for the next 15 years on an ELCC calculation that considers both summer and winter peak contributions.

Avista is currently a dual summer and winter peaking utility and expects to become a summer peaking utility. Avista's highest recorded loads occurred in summer months. In June 2021 Avista experienced a record load of about 2,300 MW.[41] Avista's second highest load of 2,241 MW occurred in August 2018.[42] Avista's 2021 IRP shows that Avista currently plans

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40 *Resource Adequacy in the Pacific Northwest: March 2019*, Energy and Environmental Economics, Inc. Figure 24 at 57 (2019), https://www.ethree.com/wp-content/uploads/2019/03/E3_Resource_Adequacy_in_the_Pacific-Northwest_March_2019.pdf.

41 Rick Adair, *Northwest Grid Rides Out Historic Heat Wave*, CLEARING UP (July 2, 2021), https://www.newsdata.com/clearing_up/supply_and_demand/northwest-grid-rides-out-historic-heat-wave/article_ddd0d8ce-db7c-11eb-82b3-6f460c581bb1.html.

42 Rick Adair, *Northwest Grid Rides Out Historic Heat Wave*, CLEARING UP (July 2, 2021), https://www.newsdata.com/clearing_up/supply_and_demand/northwest-grid-rides-out-historic-heat-wave/article_ddd0d8ce-db7c-11eb-82b3-6f460c581bb1.html.

resource acquisitions based on both summer and winter peak contributions,[43] and that Avista expects the summer peak to grow faster than the winter peak.[44]

Avista's 2021 IRP resource selection model considers both the winter and summer contribution.[45] Avista's 2021 IRP included a study to determine the effects of climate change on its load profiles, which showed "a shift from a winter peaking to a summer peaking by the early 2030s."[46] Avista states "warmer temperatures on a net basis decrease the need for more winter resources but increase the need for summer resources."[47] The study also demonstrated that winter peak growth decreased while summer peak growth increased.[48]

Other entities are also predicting a switch to summer peaking. For example, the Seventh Northwest Conservation and Electric Power Plan finds that summer and winter peaks converge at a much faster rate and predicted that summer-peak demand may equal winter-peak demand near the end of the 20-year plan if climate change is taken into consideration.[49] Avista's own IRP, the Northwest Conservation and Electric Power Plan, and Avista's record breaking peaks in 2018 and 2021 demonstrate Avista is currently a dual peaking utility and is switching to a summer peaking utility.

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43 Docket No. UE-200301, Avista 2021 IRP at 3-22 ("Avista must build generation capacity to meet winter and summer peak periods").

44 Docket No. UE-200301, Avista 2021 IRP, Figure 3.22 at 3-28.

45 *2021 IRP New Resource Options*, Avista (Dec. 7, 2021), https://www.myavista.com/about-us/integrated-resource-planning (*see* "Preferred Resource Strategy," sheet "LR").

46 Docket No. UE-200301, Avista 2021 IRP at 3-26.

47 Docket No. UE-200301, Avista 2021 IRP at 12-46.

48 Docket No. UE-200301, Avista 2021 IRP, Table 3.7 at 3-26.

49 *Seventh Northwest Conservation and Electric Power Plan*, Northwest Power and Conservation Council at 7-3, 7-12 (Feb. 10, 2016), https://www.nwcouncil.org/sites/default/files/7thplanfinal_chap07_demandforecast_1.pdf.

The Commission should require Avista to calculate its avoided costs reflecting that Avista is currently a dual winter and summer peaking utility by using the average of each resources summer and winter peak contributions as recognized in the 2021 IRP. This recommendation only affects solar resources because all other Schedule 62 resources are modeled to have identical summer and winter capacity contributions.

Avista estimates winter and summer peak contributions for solar to be 2 percent and 80 percent respectively. Avista estimates winter and summer peak contributions for solar with 4-hour storage to be 15 percent and 80 percent respectively. NIPPC/REC recommend that, as an interim solution, the capacity contribution be based on the average of the winter and summer peak contribution for all resource types. This results in a capacity contribution of 41 percent for solar and 47.5 percent for solar plus 4-hour storage.

As an alternative to averaging summer and winter peak contributions, the Commission could consider using the independent estimate of Pacific Northwest ELCC for solar and wind resources generated by E3. E3 estimates that solar resource ELCC is 26 percent at current levels of solar penetration.[50] E3 estimates that Washington and Montana wind resource ELCC is approximately 25 and 55 percent respectively at current levels of wind penetration.[51]

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50 *Resource Adequacy in the Pacific Northwest: March 2019*, Energy and Environmental Economics, Inc. Figure 24 at 57 (2019), https://www.ethree.com/wp-content/uploads/2019/03/E3_Resource_Adequacy_in_the_Pacific-Northwest_March_2019.pdf.

51 *Resource Adequacy in the Pacific Northwest: March 2019*, Energy and Environmental Economics, Inc. Figure 22 at 55 (2019), https://www.ethree.com/wp-content/uploads/2019/03/E3_Resource_Adequacy_in_the_Pacific-Northwest_March_2019.pdf.

4. Avista's Effective Load Carrying Capacity Estimates Undervalue Capacity Contribution of Montana Wind Resources

Avista's Schedule 62 Montana Wind capacity contributions are assumed to be 30 percent. However, Avista's 2021 IRP shows that the capacity contribution for Montana Wind is 35 percent for the first 200 MW of new wind.[52] Avista's IRP only acquires 100 MW of wind during the relevant planning period.[53] Avista's IRP does show an additional 100 MW of wind in 2028[54], but these additions occur after the first year of delivery for all QF prices offered in this filing and would be displaced by any wind QFs receiving these prices. Therefore, the 35 percent ELCC value should be used when calculating avoided capacity cost credit.

C. Avista's Market Price Forecasts Are Stale and Inaccurately Low, and Avista's Negative Prices in Certain Hours Should Be Eliminated

Avista relies on a Mid-Columbia market price forecast to value avoided energy costs. However, Avista's price forecast is unreliable. NIPPC/REC have two primary concerns with Avista's forecast. First, the forecast appears to be identical to the 2021 IRP Update price curve and does not account for current gas market trends. Second, it includes unrealistic projections of negative pricing during high load hours.

1. Avista's Market Price Forecasts Should Be Update to Reflect that Natural Gas Prices Have Increased

Avista's Schedule 62 energy rates are calculated based on the 2021 IRP Update Mid-C energy price forecast. This is an Aurora price forecast and takes gas market prices as an input. Electric prices are positively correlated with gas prices, with higher gas prices leading to higher energy prices. Natural gas futures prices have increased 15 to 45 percent since the 2021 IRP

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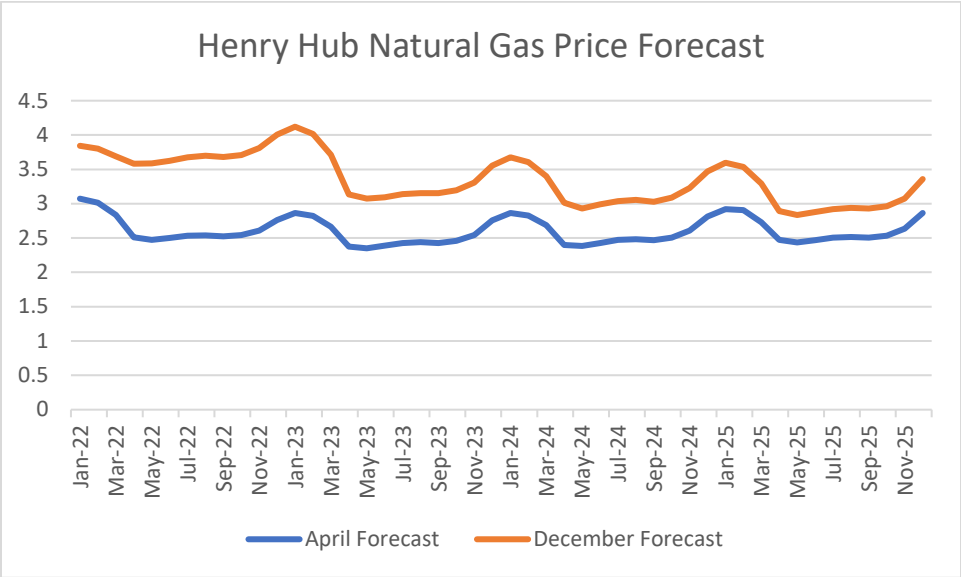
52 Docket No. UE-200301, Avista 2021 IRP at 9-28 footnote 11.
53 Docket No. UE-200301, Avista 2021 IRP at 1-5.
54 Docket No. UE-200301, Avista 2021 IRP at 1-5.

Update was released in April 2021. The figure below compares the average closing price for Henry Hub natural gas futures traded on the New York Mercantile Exchange.[55] This increase should be reflected in the energy prices for Schedule 62.



NIPPC/REC recommends that Avista updates it's Aurora forecast using 2021 IRP assumptions with gas prices replaced by current forward gas price curves. As an alternative, NIPPC/REC has prepared an adjusted Mid-C price forecast based on the difference between gas futures in April 2021 and December 2021 as of the date of drafting these comments.

2. Months with Negative Pricing Should Be Eliminated with at least a Zero Per Megawatt Hour Price

Avista's projections of negative prices are not realistic and inconsistent with industry expectations. Avista forecasts the *average* high load hour Mid-C price to be negative in May beginning in 2027 and negative in June beginning in 2030. These negative prices lead to negative QF energy rates. No other Washington utility proposes negative energy prices for standard QF rates. The economics of negative pricing and the evolution of Pacific Northwest

55 *Natural Gas Jan 22 (NGF22.NYM) Futures Chain*, Yahoo Finance (Dec. 8, 2021), https://finance.yahoo.com/quote/NGF22.NYM/futures?p=NGF22.NYM.

energy markets suggest that negative pricing during high load hours may become less common over time, not more common. The Energy Information Administration provides the following factors leading to negative pricing:

1. There are maintenance and fuel-cost penalties when operators shut down and start up large steam turbine (usually fossil-fueled) plants as demand varies over a day or a week. These costs may be avoided if the generator sells at a loss when demand is low.
2. For technical and cost recovery reasons, nuclear plant operators try to continuously operate at full power.
3. The operation of hydroelectric units reflects factors outside of power demand, for example, compliance with environmental regulations such as controlling water flow to maintain fish populations.
4. Eligible renewable generators can take a cents/kWh production tax credit ("PTC") on electricity sold. This means that some generators, primarily those operating wind turbines, may be willing to sell their output at negative prices to continue producing power.[56]

The Pacific Northwest energy market is evolving in a manner that may make these factors less dominant over time:

1. Oregon and Washington have enacted laws that will lead to closure of many fossil fuel powered steam turbines.

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56 *Negative Wholesale Electricity Prices Occur in RTOs*, U.S. Energy Information Administration (June 18, 2012), https://www.eia.gov/todayinenergy/detail.php?id=6730.

2. As Pacific Northwest load grows the relative share of generation from the existing nuclear facility will decline, reducing the impact on market prices. New nuclear facilities that may be built in the region using new designs are unlikely to operate in the same baseload mode as the nation's existing nuclear fleet.[57]
3. Development of new hydroelectric generation facilities is limed by geography. It is unlikely that any new large hydroelectric facilities will be developed in the region. Therefore, as Pacific Northwest load grows the relative share of hydroelectric generation will decline, reducing the impact on market prices.
4. Production tax credits are only available for the first 10 years of operations. As more Pacific NW wind facilities age out of PTC a greater percentage of wind facilities may be curtailed during negative pricing periods. If Congress does extend or expand eligibility for production tax credits for renewable facilities, new wind facilities will not have an incentive to generate during negative prices. In addition, a higher percentage of these facilities may be located outside of the Columbia River Gorge that has been the center of wind development to date in the region. This change will likely occur because, even with the PTC, the economics of wind the Columbia River Gorge is declining due to the limited availability of new sites. The resulting geographic diversity of renewable facilities is likely to reduce the concurrent generation profile of the Gorge wind fleet that exacerbates negative pricing.

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57 Aleshia Duncan, *New Report Highlights Nuclear Flexibility in Clean Energy Systems*, Office of Nuclear Energy (Sep. 15, 2020), https://www.energy.gov/ne/articles/new-report-highlights-nuclear-flexibility-clean-energy-systems.

5. Further, as a practical matter, CETA and Oregon's newly passed House Bill 2021 indicate significant demands for clean energy attributes going forward. It will be a steep lift for northwest utilities to acquire the significant new clean energy facilities or attributes to comply with these laws. Therefore, new projects must be built even if there may also be shifts in how projects generate or how they integrate with storage. It is simply impractical to assume that negative pricing will result. Including negative pricing here in Avista's avoided costs therefore inappropriately discourages QFs as compared to other facilities that may be utility owned.

Avista's Aurora modeling makes a number of assumptions that artificially inflate the occurrence of negative prices during high load hours.[58] First, Avista makes all hydro resources "Must Run" resources despite the fact that many hydro resources can store or spill water.[59] Second, Avista assigns an $8 per megawatt hour opportunity cost for curtailing renewable resources, [60] which is higher than forecasted renewable energy certificate prices. Avista's CEIP proposes to sell renewable energy certificates at the market price, indicating the opportunity cost of renewable generation is the renewable energy certificate price, not a hypothetical "renewable energy certificate" compliance cost. Finally, Avista includes opportunity costs for PTCs[61] even though many wind facilities may lose PTC eligibility over the next few years, and any extension of the PTC by Congress may lead to use of the credits by facilities with more diverse generation

58 Docket No. UE-200301, Avista 2021 IRP at 10-14.
59 Docket No. UE-200301, Avista 2021 IRP at 10-14.
60 Docket No. UE-200301, Avista 2021 IRP at 10-14.
61 Docket No. UE-200301, Avista 2021 IRP at 10-15.

profiles. All three of the modifications cause Avista to forecast excessive negative prices during high load hours.

NIPPC/REC recommend revising Avista's high load hour Mid-Columbia price forecast to reflect a floor of zero dollars per MWh. As an alternative, NIPPC/REC recommend revising prices to prevent the *monthly average* high load hour price from being negative.

III. CONCLUSION

For the reasons stated above, the Commission should require Avista to update its avoided cost rates in its Schedule 62 Tariff to account for NIPPC/REC's recommendations.

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Respectfully submitted,

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