BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PUGET SOUND ENERGY, INC. Respondent.	)	**Docket No. UE-060266** **Docket No. UG-060267** *(consolidated)*

INITIAL BRIEF OF

THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES

REDACTED VERSION

(Confidential Information Removed and Spaces Blacked Out)

October 31, 2006

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I. INTRODUCTION

1 The Industrial Customers of Northwest Utilities ("ICNU") submits this Initial Brief in Washington Utilities and Transportation Commission ("WUTC" or the "Commission") Docket Nos. UE-060266 and UG-060267, requesting that the Commission reject Puget Sound Energy's ("PSE" or the "Company") proposed rate increase and order a rate reduction for PSE. In order to set rates for the 2007 rate period, the Commission should require PSE to perform a new AURORA run that incorporates updated forward gas prices and the power cost adjustments jointly recommended by ICNU, Staff, and Public Counsel (the "Joint Parties"). Based on current gas prices and ICNU's cost of capital recommendations, this would result in a rate decrease of at least $20 million. ICNU further recommends that the Commission reject PSE's proposed revisions to its Power Cost Adjustment mechanism ("PCA").

2 The rate increase that PSE requests in this proceeding follows a series of six rate increases that the Company has implemented over the last four years.[1/] Most recently, in July 2006, the Company's rates increased by $96 million as a result of implementing a new power cost baseline rate.[2/] In this case, the Company's rebuttal filing contains a power cost projection of $965.2 million for the 2007 test period, which represents a power cost increase of $90.2 million as compared to the Company's 2005

[1/] Exh. No. 174.

[2/] Id.; WUTC v. PSE, WUTC Docket Nos. UE-050870 and UE-060783, Order No. 01 (June 29, 2006).

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power cost only rate case ("PCORC") application.[3/] Thus, PSE's July 2006 increase in the power cost baseline exceeds PSE's current power cost projections.

3 The Company's rebuttal filing reduced its requested increase in electric revenues to approximately $33.8 million.[4/] However, considering the $96 million rate increase approved in July, and based on the evidence presented in this proceeding, a rate decrease would be the fair, just, and reasonable result in this proceeding. The Joint Parties have proposed adjustments to power costs of $19.2 million, and ICNU has proposed adjustments to cost of capital equal to $34.6 million. Together, these adjustments result in a rate decrease of $20 million.

II. SUMMARY OF ARGUMENT

4 ICNU recommends that the Commission require an update to PSE's natural gas prices for this case to reflect the prices that PSE is likely to actually pay for gas during the rate year. Natural gas prices have fallen precipitously since PSE made its supplemental filing, and the Company should therefore file a gas price update before the rates in this proceeding take effect.

5 The Joint Parties have filed joint testimony on power costs in this proceeding with recommendations that would reduce PSE's power costs by approximately $19 million.[5/] The evidence provided by the Joint Parties establishes that:

- PSE has used incorrect minimum up and down times for non-PSE combined cycle combustion turbines ("CCCTs") and simple cycle combustion turbines ("CTs") in AURORA;

[3/] Exh. No. 269C at 37:18-20 (Mills); see Exh. No. 588C at 2:12-16 (Joint Power Costs).
[4/] Exh. No. 173 at 4:10-11 (Harris Rebuttal).
[5/] Exh. No. 588C at 16: 7-10, 21: 6-7, 40: 19-20 (Joint Power Costs).

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- PSE's AURORA hydro shaping produces inaccurate on-peak and off-peak generation amounts that do not fairly represent what is likely to occur during the rate year; and
- Replacing AURORA-derived hourly electric prices with forward market prices would provide a more accurate prediction of PSE's rate year power costs.

6 The table on the following page summarizes the approximate impacts of the Joint Parties' recommended adjustments to PSE's power costs. PSE's rebuttal filing updated the Company's power costs to incorporate the Joint Parties recommendation to include additional generating capacity in AURORA. As a result, the Joint Parties' overall recommended reduction to PSE's revenue requirement, as reflected in the table, is lower now than it was when the Joint Parties filed their testimony.

7 The Joint Parties' adjustments are based on running AURORA with a single "average" water year, rather than running all 50 water years. In addition, the Joint Parties have made a post-AURORA adjustment that re-prices forward contracts at the contractual commitment instead of the AURORA-produced market price (the "MTM" adjustment). Finally, the Joint Parties have converted the "cost" value to a "revenue requirement" value by taking into account the production factor and revenue-related taxes. In order to determine final rates, the Commission should require PSE to rerun AURORA with the Joint Parties' adjustments for all 50 water years.

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Joint Parties' Adjustments

	Single WY Separate Runs	50 WY Combined Result	Prorate Each Issue to combine Result	MTM Adjustment	Prorate MTM to Each Issue	Issue Value After MTM	Convert Cost to Rev Req 1.029
Additional Generating Capacity	$3.5[6/]		$3.4		-$0.5	$2.9	$3.0
Minimum Up & Down Times	$2.4		$2.4		-$0.4	$2.0	$2.1
Hydro Shaping Factors	$6.0		$5.9		-$0.9	$5.0	$5.2
Total AURORA Modeling Adj:	$11.9	$11.7	$11.7	-$1.8	-$1.8	$9.9	$10.2
Subtotal w/PSE Adoption of Add Cap:	$8.4		$8.3		-$1.3	$7.0	$7.2
Forward Market Adjustment						11.7	$12.0
Total Joint Parties Adjustments						$18.7	**$19.2**

NOTE: The Joint Parties' testimony had a total value of $22.3 million--versus the $19.2 million value shown here. The difference results from PSE's adoption of the generation capacity adjustment and the use of 50 water years rather than one average water year.

8 The Joint Parties also recommend that the Commission require PSE, in future filings, to calculate the peak temperature for extreme peak loads based on a historical record of at least 30 years. Finally, the Joint Parties recommend that the Commission reject PSE's proposed changes to the PCA and leave the current mechanism in place.

9 ICNU also recommends that the Commission approve a 9.9% return on equity ("ROE") and a capital structure with a common equity ratio of 44.1%. Adopting

6/ PSE determined that the additional capacity adjustment would reduce its AURORA-model variable power costs by approximately $4.0 million. With post-processing adjustments, PSE concludes that the total reduction to PSE's rate year power costs is $3.2 million. Exh. No. 269C at 16:6-9 (Mills Rebuttal). The figures in the table are based on the Joint Parties' independently derived values, which are very close to PSE's values.

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ICNU's recommendations would have the following impact on PSE's electric revenue requirement:

Reduce ROE to 9.9%	-$28,900,489
Capital Structure with 44.1% Equity Ratio	-$5,713,180
Total Adjustment	**-$34,613,669**

10 PSE has requested an 11.25% ROE and a 45% equity ratio, based on the premise that it needs a higher ROE and equity ratio so that it can fund future new investments. Yet, according to the Company's own calculations, it will have strong credit metrics even under the Staff case, which recommends a 9.375% ROE.[7/] The Company simply does not have a valid basis upon which to argue that it requires the cost of capital it is requesting in order to maintain its credit. Under ICNU's proposal, the Company will have every opportunity to retain its financial strength.

III. ARGUMENT

A. Rates Must Be Based on the Most Current Available Gas Prices

11 Forward gas prices are the most critical element in determining PSE's test year power costs. Gas prices are a major cost input to AURORA. Indeed, even a modest price change of only 10 cents/MMBTU can impact PSE's power costs by several million dollars. Given the substantial decline in forward gas prices for the 2007 rate year since PSE made its supplemental filing in July 2006, the Commission should require PSE to update gas prices for this case before the rates in this proceeding take effect. As the Commission explained in PSE's last general rate case, "power costs determined in

7/ Exh. No. 137C at 33-35 (Gaines Rebuttal).

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general rate proceedings and in PCORC proceedings should be set as closely as possible to costs that are reasonably expected to be actually incurred during short and intermediate periods following the conclusion of such proceedings."[8/]

12 To determine its gas costs for the rate period, in its initial filing, PSE used a three-month average of daily forward market prices for the rate year for the three-month period ending November 30, 2005.[9/] This information was incorporated into the AURORA model for each month of the rate year.[10/] When the Company filed its supplemental testimony on July 7, 2006, it re-ran AURORA using a three-month average of daily forward market prices for the rate year for the period ending May 23, 2006.[11/] The updated average price at Sumas for the rate year in PSE's supplemental filing was $8.57/MMBtu.[12/] In contrast, by the time of the hearing, the average Sumas gas price for the 2007 rate year (calculated as of September 20, 2006) was less than $[redacted]/MMBtu.[13/]

13 The Company acknowledges the recent decline in forward gas prices.[14/] Likewise, Mr. Mills, the Company's primary power cost witness, testified, "[b]ecause the factors that impact natural gas prices are constantly changing, forward market prices quickly become 'stale' and their predictive power with respect to actual future prices decreases."[15/] For greater accuracy, rate year gas prices should be "based on the average of the forward prices for the rate year for a three-month period of time closer to the

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[8/] WUTC v. PSE, WUTC Docket Nos. UE-040641 et al., Order No. 06 at ¶ 108 (Feb. 18, 2005).
[9/] Exh. No. 251C at 39:4-7 (Mills Direct).
[10/] Id. at 39:7-8.
[11/] Exh. No. 265 at 3:9-10 (Mills Suppl. Direct).
[12/] Id. at 3:14-15.
[13/] Exh. No. 289C.
[14/] TR 868:2-3 (Mills); Exh. No. 289C.
[15/] Exh. No. 251C at 42:7-9 (Mills Direct).

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beginning of the rate year."[16/] Recognizing the potential cost impact of the decline in gas prices, the Company has indicated that it is not opposed to updating gas prices before the rates from this proceeding take effect.[17/]

14 The rate year in this case does not start until January 1, 2007, hence, the Commission should require a gas price update in advance of that date. The Joint Parties recommend that the filing should be based on the average of the 2007 forward market prices from the three-month period September 1, 2006, through November 30, 2006.

B. PSE's AURORA Model Inputs Are Inaccurate and Unrealistic

15 PSE's power cost projections are based on the output of PSE's AURORA fundamentals model.[18/] AURORA produces hourly spot electricity prices at user-defined market hubs or areas, based on the loads, resources, transmission availability, and gas costs that PSE includes in its AURORA input data files.[19/] AURORA determines market prices by simulating the operation of all generating resources within the Western Electricity Coordinating Council ("WECC"), which includes the western United States and portions of Canada and Mexico.[20/] Because of the enormous size of the geographical area that AURORA covers and the many generating resources located within that area, each simulation requires thousands of lines of input data, each with numerous columns.[21/]

[16/] Id. at 42:9-11.
[17/] TR 868:4-5 (Mills).
[18/] Exh. No. 588C at 8:12-13 (Joint Power Costs).
[19/] Id. at 8:13-16.
[20/] Id. at 8:16-19.
[21/] Id. at 8:20-23.

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As a result, PSE's power cost projections are extremely sensitive to the specific data that is input into AURORA.[22/]

16 The Joint Parties have identified three categories of AURORA input data that PSE used, which were incorrect and unrealistic. These categories are:

- Excluding and/or underrating the output of major generation facilities;
- Misstating certain operating parameters for gas-fired combustion turbine generating units; and
- Using improper hydro shaping factors.

17 Because of the sheer amount of data, the Joint Parties did not undertake to review each and every resource line and column of PSE's AURORA data set.[23/] PSE states that it "would not expect the Joint Parties to review each and every resource line and column," yet the Company takes an all-or-nothing approach, suggesting that anything other than a complete review is unacceptable.[24/] This position is unreasonable because identifiable errors in PSE's AURORA data specifications should be corrected. PSE accepted the Joint Parties' generation capacity adjustment in its rebuttal filing.[25/] As a result, the Joint Parties now request an $8.3 million reduction in power costs, which translates into $7.2 million reduction in revenue requirement.[26/]

[22/] Id. at 16:10-11.
[23/] Id. at 9:17-18.
[24/] Exh. No. 269C at 13:16 – 14:5 (Mills Rebuttal).
[25/] Exh. No. 269C at 15:15 – 16:2 (Mills Rebuttal).
[26/] Joint Parties' Adjustments, supra, at 4.

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1. The AURORA Data Must Be Updated to Include All Available Generation Capacity in the WECC

18 PSE has accepted the Joint Parties' recommended corrections to PSE's AURORA data set for generating capacity that was omitted from the supplemental filing.[27/] The AURORA data set in PSE's initial filing substantially understated or omitted several large generating units in the western United States.[28/] In its supplemental filing, however, PSE included a large portion, but not all, of the missing capacity.[29/]

19 The Joint Parties explained in their responsive testimony that the data in PSE's supplemental filing was still significantly short, and they recommended additions to account for the Currant Creek steam generators, the Lakeside plant, and California and Nevada cogeneration facilities.[30/] The Joint Parties estimated that adding this capacity to the data set would reduce PSE's AURORA-produced power costs by $3.5 million for 2007.[31/] In its rebuttal filing, the Company accepted the Joint Parties' suggested changes and included most of the proposed changes in the AURORA database, which reduced PSE's rate year power costs by $3.2 million.[32/] PSE's proposed adjustment is acceptable to the Joint Parties.

2. PSE Uses Overly Restrictive Minimum Up and Down Times

20 As explained above, AURORA determines market prices by simulating the operation of all generating resources in the WECC. For AURORA to determine the

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[27/] Exh. No. 269C at 15:15 – 16:2 (Mills Rebuttal).
[28/] Exh. No. 588C at 10:1-4 (Joint Power Costs).
[29/] Id. at 10:4-5; Exh. No. 589C.
[30/] Exh. No. 588C at 10:11 – 11:5 (Joint Power Costs).
[31/] Id. at 11:9-11.
[32/] Exh. No. 269C at 15:15 – 16:9 (Mills Rebuttal).

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economic dispatch of a particular resource, numerous parameters must be specified, including location, heat rate, fuel cost, capacity, variable operation and maintenance expense, maintenance rate, whether it is a must-run or a cycling resource, minimum run capacity value, heat rate at the minimum level, a minimum up time, a minimum down time, start-up costs, and ramp rate.[33/] The Joint Parties reviewed PSE's specifications for most of the new large CCCTs that have been added within the WECC in recent years, and they found that PSE has not used reasonable values for the minimum up times and minimum down times for these types of facilities.[34/]

21 The minimum up time for a resource is the minimum number of hours that a resource must operate continuously, and the minimum down time is the minimum number of hours that a facility must be shut down before starting up again.[35/] When AURORA economically dispatches generation to determine power costs to meet a particular load, it will attempt to meet the load using the most economic resource available within the model.[36/] The dispatch of such resource by AURORA can be affected by the minimum up and down times specified for the particular resource.[37/]

22 The following example illustrates this point. Assume that a large and sharp peak load condition occurs for a period of six hours. For this scenario, AURORA will look for the most economic resource available, likely either a simple cycle combustion turbine ("CT") with an associated heat rate of 10,000 BTU/kWh, or a

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[33/] Exh. No. 588C at 12:5-11 (Joint Power Costs).
[34/] Id. at 12:13-22.
[35/] Id. at 12:22 – 13:1.
[36/] Id. at 13:7-11.
[37/] Id. at 13:21-23.

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combined-cycle combustion turbine ("CCCT") with a 7,000 BTU/kWh heat rate. Assuming similar start-up costs, the higher-efficiency CCCT would be the more economic resource to run in this circumstance, but AURORA could only select the CCCT if the minimum on time specified for the resource was six hours or less. Otherwise, AURORA would select the lower-efficiency CT resource, which would result in higher market prices being generated for this time period.[38/]

23 For all but its own resources, PSE relied on the data supplied by EPIS, Inc., the developer of the AURORA model, for the minimum up and down times of each of the CCCTs and CTs in the AURORA data set.[39/] For some CCCTs, PSE used a minimum up time of xx hours coupled with a minimum off time of [redacted] hours.[40/] For other, identical facilities, PSE used a minimum up time of [redacted] hours and a minimum down time of [redacted] hours.[41/] For all resources other than its own, PSE made no effort to verify the accuracy of the minimum up and down times for the resources in the EPIS database.[42/]

24 The minimum up and down time values used by PSE do not accurately reflect the actual operating characteristics of these facilities.[43/] In fact, for its own resources, PSE reduced the minimum up and down times, indicating that the operating parameters supplied by EPIS are not accurate.[44/] Based on their review of several contracts in the public domain that specify operating parameters for CCCTs, the Joint

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38/ Id. at 13:9-23.
39/ Exh. No. 276; TR 872:13-18 (Mills).
40/ Exh. No. 588C at 14:2-4 (Joint Power Costs); Exh. No. 590C.
41/ Exh. No. 588C at 14:4-5 (Joint Power Costs); Exh. No. 590C.
42/ TR 872:16-23 (Mills).
43/ Exh. No. 588C at 14:9-18 (Joint Power Costs).
44/ Exh. No. 290C; TR 875:4-6 (Mills).

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Parties recommend that the Commission require the use of more realistic values of a minimum up time of [redacted] hours and a minimum down time of [redacted] hours.[45/]

25 The minimum up and down times that PSE used for its own resources reflect how these resources can actually be operated.[46/] Similarly, the values for non-PSE resources should also reflect how the resources can be operated. The Company admits that it reviewed the minimum up and down times in a number of contracts for the AURORA resources and found that the EPIS numbers were incorrect, yet it maintains the untenable position that it should only change the up and down times for its own resources.[47/]

26 PSE has argued that adjusting the minimum up and down times as suggested by the Joint Parties would result in an increase in operation and maintenance expenses for these resources.[48/] PSE's argument is based on the assumption that changing the minimum up and down times would also change the number of starts and the number of hours of operation for the resources.[49/] PSE did not, however, attempt to determine the change in the number of starts and the number of hours of operation that would occur for the plants if the Joint Parties' recommendation was adopted,[50/] nor did the Company rerun AURORA with the Joint Parties' minimum up and down times.[51/] In

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45/ Exh. No. 588C at 15:19-20 (Joint Power Costs).
46/ TR 901:6-12 (Mills).
47/ TR 903:3-11 (Mills).
48/ Exh. No. 269C at 18:21-23 (Mills Rebuttal).
49/ Id. at 18:15-18.
50/ TR 911:5-13 (Mills).
51/ TR 912:18-20 (Mills).

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short, the Company's calculation of alleged increases in maintenance costs is mere speculation, which is not supported by evidence in the record.

27 The Commission should require PSE to alter the minimum up and down times for the CCCTs and CTs in the AURORA data set to [redacted] and [redacted] hours, respectively, as proposed in the Joint Parties' testimony. These values are within the mid-range of minimum up and down times specified in contractual agreements for combustion turbines, and they allow for adequate cycling of the facilities within a 24-hour period.[52/] Altering PSE's minimum values in this manner would lower PSE's projected power costs by $2.4 million.[53/]

3. PSE's Hydro Shaping Does Not Reflect the Expected Operation of the Northwest Hydro System

28 In addition to determining the dispatch of PSE's thermal resources, the AURORA model also forecasts the dispatch of PSE's hydro resources. The monthly shape of hydro generation between on-peak and off-peak periods is an input to AURORA.[54/] Hydro operators typically attempt to maximize the value of hydro energy by shaping hydro output into more valuable on-peak hours. The monthly shaping factors that PSE used for its AURORA modeling, however, do not produce reasonable on-peak and off-peak generation amounts.[55/] As a result, the hydro shaping in AURORA does not accurately reflect the actual expected operations of PSE's hydroelectric resources.[56/] The Commission should adopt an adjustment to power costs to reflect more realistic

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52/ Exh. No. 288C at 16:1-4 (Joint Power Costs).
53/ Id. at 16:7-10.
54/ Id. at 18:4-6.
55/ Id. at 16:19-20.
56/ Id. at 16:20-23.

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assumptions about the dispatch of PSE's hydro resources. Adopting the shaping factors recommended by the Joint Parties would reduce PSE's power costs by $6.0 million.[57/]

29 PSE's monthly shaping factors do not shape as much hydro generation into the more valuable on-peak period as PSE's own documents show PSE expects its hydro projects to actually achieve.[58/] A comparison of PSE's AURORA modeling and the data contained in PSE's April 14, 2006 position and exposure report ("Risk Report") demonstrates that PSE's shaping factors are flawed. PSE uses the Risk Report to determine its market purchases.[59/] For the months of January 2007, through December 2007, the Risk Report consistently shows significantly more on-peak hydro energy and less off-peak hydro energy than PSE's AURORA output does.[60/]

30 PSE's AURORA hydro shape also conflicts with the hydro shaping factors used in the Bonneville Power Administration's ("BPA") 2006 Risk Analysis Study Documentation ("BPA Study"). The BPA Study, which was included with BPA's 2007 Wholesale Power Rate Case Final Proposal, projects on-peak and off-peak 2007 hydro generation using monthly federal and Pacific Northwest hydro generation data for each of 50 water years (1929-1978).[61/]

31 PSE's Mid-Columbia ("Mid-C") contracts constitute a significant portion of PSE's power supply. For example, during 2005, PSE's Mid-C contracts provided

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[57/] Id. at 21:6-7; Exh. 592.
[58/] Exh. No. 588C at 16:20-23 (Joint Power Costs).
[59/] Exh. No. 591C; TR 882:6-9 (Mills).
[60/] Exh. No. 588C at 17:3-7 (Joint Power Costs).
[61/] Exh. No. 274 at 3-8; 13.

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about 23% of the Company's total energy generation.[62/] The dams that support PSE's Mid-C contracts are run of river, meaning that they do not have their own storage facilities.[63/] Because the Grand Coulee project, which is located upstream from the Mid-C dams, is the principal storage reservoir in the federal system, PSE is directly impacted by BPA's expected operation of the Grand Coulee project.[64/] In fact, BPA's operation of the Grand Coulee project determines in large part how much on-peak energy PSE receives from the Mid-C projects.[65/] As a result, the monthly hydro shaping factors in the BPA Study are particularly relevant to the amount of on-peak hydro generation that will be available to PSE. Using the BPA shaping factors for the entire Northwest hydro system to determine the shape of PSE's Mid-C hydro is conservative because it includes significant run of river generation from the Snake River, and also because it is based on meeting both the power and the non-power requirements of the system.[66/] Like the shaping factors in PSE's Risk Report, the shaping factors in the BPA Study consistently provide for more on-peak generation and less off-peak generation than the shaping factors used in PSE's AURORA model.[67/]

32 Through an iterative process of running a single average water year, the Joint Parties developed recommended shaping factors that more closely match the on-peak hydro generation projected by PSE's Risk Report, but for the same amount of hydro

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62/ TR 882:10-15 (Mills).
63/ Exh. No. 269C at 25:27-29 (Mills Rebuttal); TR 884:4-7 (Mills).
64/ Exh. No. 269C at 25:20-30 (Mills Rebuttal); TR 884:23-25 (Mills).
65/ TR 885:5 – 886:19 (Mills).
66/ Exh. No. 274 at 3:18-21.
67/ Id. at 15, 21.

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generation produced by the AURORA data set.[68/] A comparison of the on-peak and off-peak shaping factors projected by AURORA, the PSE Risk Report, the Joint Parties, and the BPA Study is provided in the table below.[69/]

Comparison of Hydro Shape Between On-Peak and Off-Peak Hours for 2007
(Hydro as Percent of Average Generation)

	PSE AURORA Shape		PSE Risk Report Shape		Joint Parties Shape		BPA Study Shape	
	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak
Jan-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	76%	119%
Feb-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	78%	116%
Mar-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	78%	116%
Apr-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	83%	114%
May-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	83%	113%
Jun-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	78%	116%
Jul-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	78%	119%
Aug-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	70%	121%
Sep-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	73%	124%
Oct-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	70%	122%
Nov-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	77%	118%
Dec-07	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	78%	119%
Average:	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	**77%**	**118%**

33 As the table demonstrates, the Joint Parties' proposed shaping factors fall between the PSE Risk Report shaping factors and the BPA Study shaping factors. Compared to the PSE AURORA result, the Joint Parties' shaping factors result in [redacted] AMW of additional generation during the on-peak period, with a corresponding reduction of [redacted] AMW during the off-peak period.[70/]

[68/] Exh. No. 588C at 19:3-7, 20 (Joint Power Costs).

[69/] The BPA on-peak and off-peak hydro shaping factors were calculated by applying the Heavy-Load-Hour hydro generation ratios for fiscal year 2007 (Table 7) to the average of the 50-water-year forecast for the fiscal year 2007 Pacific Northwest hydro projection (Table 1). Exh. No. 274 at 15, 21.

[70/] Exh. No. 588C at 19:10-12 (Joint Power Costs).

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34 PSE attempts to validate its AURORA shaping factors by pointing out that the AURORA result is higher than actual average historical on-peak operations for the time period July 2001 through June 2006.[71/] As PSE admits, however, three to four of the years during this period were considered poor water years.[72/] The Commission uses 50 water years because a shorter period of time simply does not capture the full extent of hydro variability.[73/] Thus, PSE's backcast does not come close to capturing the 50 water year variability. This backward-looking analysis does not provide a useful comparison to the forward-looking AURORA result.

35 The Commission should adopt the Joint Parties' shaping factors because they result in on- and off-peak hydro generation production levels that are closer to the levels projected by PSE in its Risk Report and the BPA Study, both of which should be benchmarks for the AURORA shaping factors. The Risk Report values determine PSE's short-term procurement needs and purchasing strategies, and the BPA Study reflects the amount of energy that PSE can expect to receive through its Mid-C contracts.[74/] The Joint Parties' hydro shaping factors reduce the AURORA power cost projection by $6.0 million, based upon a single average water run.[75/]

36 By correcting all of the AURORA data errors identified by the Joint Parties, PSE's rebuttal AURORA-related costs are decreased by $8.3 million as

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71/ Exh. No. 269C at 23:18 – 24:4 (Mills Rebuttal).
72/ TR 894:6-9 (Mills).
73/ See WUTC Docket Nos. UE-040641 et al, Order No. 06 at ¶ 128
74/ Exh. No. 588C at 20:4-6 (Joint Power Costs); TR 885:5 – 886:19 (Mills).
75/ Exh. No. 588C at 21:6-7 (Joint Power Costs).

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compared to PSE's rebuttal AURORA run.[76/] Adding an AURORA post-processing adjustment for fixed-price contracts that PSE has executed for the rate year, the Joint Parties' AURORA recommendations reduce PSE's power cost by a total of $7.0 million, for a $7.2 million adjustment on a revenue requirement basis.[77/]

C. PSE Should Use Forward Market Electric Prices to Determine Power Costs

37 PSE currently utilizes AURORA-derived hourly prices to measure the Company's power costs. The use of forward market prices, however, would be more reliable and would more accurately reflect PSE's strategy in procuring short-term energy needs.[78/] Further, gas prices are determined using forward prices, and using forward prices would eliminate the need to constantly update the AURORA specifications.[79/]

38 The Commission has recognized the importance of using forward prices in recent proceedings. For example, in PSE's last rate case, the Commission approved the use of a 3-month average of forward market gas prices for setting PSE's rate-year power costs.[80/] In that case, the Commission noted that using forward market prices is preferable to a fundamentals analysis in the ratemaking context, because forward market prices take near-term circumstances into account.[81/] Similarly, in the last Avista rate case, the Commission approved the use of 3-month averages of forward gas and electric prices to modify AURORA results, because doing so allowed for "accurate estimates of

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[76/] Id. at 21:11-17; Exh. No. 592; See Exh. No. 269C at 16:7-9 (Mills Rebuttal).
[77/] Exh. No. 588C at 21:21 – 22: 7 (Joint Power Costs); Exh. 592.
[78/] Exh. No. 588C at 25:13-16 (Joint Power Costs).
[79/] Id.
[80/] WUTC Docket Nos. UE-040641 et al, Order No. 06 at ¶¶ 112-26.
[81/] Id. at ¶¶ 103-04.

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actual costs that the Company will experience in the near and intermediate terms."[82/] The Joint Parties' proposal is consistent with these decisions.

39 The AURORA-derived prices are problematic because they assume hypothetical inputs for supply and demand that do not accurately reflect real-world conditions.[83/] Conversely, forward market prices reflect actual prices at which PSE is able to purchase energy and provide an unbiased estimate of future electricity prices.[84/] Due to the high volume of transactions that occur in the forward market, the use of forward market prices is extremely reliable, and information is currently available through the year 2010.[85/] More specifically, the Mid-C trading hub would provide the most reliable indicator of power costs that PSE is likely to incur.[86/] The reliability of the Mid-C forward market is illustrated by the fact that PSE has procured 267 of the Company's 283 short-term purchase transactions at the Mid-C market hub.[87/] It is not surprising, then, that the Mid-C forward prices will more accurately reflect PSE's actual power costs than the AURORA-derived prices.[88/]

40 Not only is the use of forward market prices reliable, but forward market prices more accurately reflect PSE's purchasing strategy.[89/] Out of the 282 transactions reported in a PSE data response to the Joint Parties, the average length of time from

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82/ WUTC v. Avista Corp., WUTC Docket Nos. UE-050482 and UG-050483, Order No. 05 at ¶¶ 105-07 (Dec. 21, 2005).
83/ Exh. No. 588C at 24:10 – 25:1 (Joint Power Costs).
84/ Id. at 25:1-3.
85/ Id. at 26:4 – 27:6.
86/ Id. at 27:7 – 28:4.
87/ Id. at 28:4.
88/ Id. at 29:1-8.
89/ Id. at 30:4 – 31:13.

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which a purchase of energy was made to when the energy was actually used was [redacted] days.[90/] The AURORA power cost model, however, assumes that 100% of the Company's hourly need is purchased in the spot market, and fails to account for PSE's limited need to actually do so.[91/] This results in a significant overstatement of the Company's power costs.

41 Further, PSE currently utilizes forward market prices supplied by Kiodex to determine the Company's gas costs.[92/] Kiodex also provides data for the Mid-C electricity forward market.[93/] PSE advocated for the use of forward market prices to calculate gas costs for many of the same reasons the Joint Parties advocate for their use in the electric context.[94/] Because many of the considerations involved in calculating both gas and electric power costs are similar, a uniform method would be appropriate.[95/] A uniform method would also be consistent with the Commission's recent decision in the Avista case that gas and electric price forecasts should not be mismatched.[96/]

42 Finally, the use of forward market prices would eliminate the inefficiency involved with constantly updating the AURORA data set.[97/] Parties would not need to scrutinize every line of the AURORA data set, and the impact of data set errors would be reduced.[98/]

90/ Id. at 30:21 – 31:1.
91/ Id. at 31:7-13.
92/ Id. at 37:11 -38:6.
93/ Id. at 38:8-10.
94/ Id. at 39:1-5.
95/ Id. at 39:5-12.
96/ WUTC Docket Nos. UE-050482 and UG-050483, Order No. 05 at ¶ 107.
97/ Exh. No. 588C at 39:17-20 (Joint Power Costs).
98/ Id. at 39:17 – 40:2.

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43 To implement the use of forward market prices, the Joint Parties recommend that a post-processing adjustment be made to the AURORA results.[99/] This method would replace necessary market purchases as determined by AURORA with forward market prices instead of AURORA prices, leaving the AURORA-produced system dispatch and opportunity sales amounts unchanged.[100/] Applying the Joint Parties' recommendation to PSE's supplemental filing would lower PSE's power costs by $17.4 million.[101/] If, however, the Commission accepted the Joint Parties' other data corrections, the impact of the market price adjustment would be only $11.7 million.[102/]

D. PSE's Methodology for Determining Extreme Peak Loads Is Inaccurate

44 In the Company's supplemental filing, PSE included $1.1 million in extreme peaking costs for December 2007.[103/] PSE calculated that figure utilizing the Company's 2005 least cost plan methodology and the assumption that temperatures will reach 12 degrees.[104/] It is unclear, however, why or how PSE assumed the likelihood that temperatures would reach that level.[105/] For that reason, the Joint Parties recommend that PSE modify its approach to determining extreme peak loads in future rate filings.[106/]

45 Instead of using a seemingly random temperature assumption, PSE should calculate the peak temperature based on a historical record of at least 30 years.[107/] Such a

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99/ Id. at 40:10-17.
100/ Id. at 40:11-15.
101/ Id. at 40:17-18; Exh. No. 596C.
102/ Exh. No. 588C at 40:19-23 (Joint Power Costs); Exh. No. 597C.
103/ Exh. No. 588C at 41:9-10 (Joint Power Costs).
104/ Id. at 41:9-15.
105/ Id. at 41:21-23.
106/ Id. at 41:15-17.
107/ Id. at 42:1-3.

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method would ensure selection of a more probable temperature on which to base peaking costs. The Company's current methodology results in a higher probability that unrealized peaking costs will be included in base rates.[108/] Because the Joint Parties' recommendation is to adopt this methodology in future rate filings, there is no resulting adjustment to PSE's revenue requirement.[109/]

E. The Commission Should Reject PSE's Request for a Depreciation Tracker or an "Alternative" Mechanism

46 ICNU opposes PSE's request for a depreciation tracker because a depreciation tracker would improperly place the risk of increasing depreciation expense between rate cases on customers, instead of the Company.[110/] In addition, ICNU opposes the Company's proposed "alternative" to the depreciation tracker, which would allow the Company to selectively update costs outside of the rate year test period.[111/] ICNU supports Staff's position that both of these proposals should be rejected.

47 As explained by Staff witness Mr. Russell, PSE's proposals would set bad precedent, would constitute unlawful single issue ratemaking, and are unnecessary given the Company's existing utility earnings position and rate case frequency.[112/] PSE's alternative proposal also would violate the test period matching principle because it would allow the Company to make additions to rate base outside of the test period for this case.[113/] The alternative proposal is also flawed because it proposes inclusion of certain

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[108/] Id. at 41:23 – 42:1.
[109/] Id. at 42:7-11.
[110/] TR 205:6-10 (McLain).
[111/] Exh. No. 439 at 30:9-17 (Story Rebuttal).
[112/] Exh. No. 521 at 25:5-8 (Russell Direct).
[113/] Exh. No. 527 at 2:13-14 (Russell Surrebuttal).

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projects in rate base, but the Commission cannot verify that the projects are, as PSE claims, non-revenue producing and non-expense reducing projects.[114/] The Commission should not approve either of the Company's proposed mechanisms, both of which would shift excessive amounts of risk to customers.

F. The Commission Should Reject PSE's Proposed Changes to the Power Cost Adjustment Mechanism

48 ICNU adopts the positions set forth regarding the PCA in the Initial Brief of Public Counsel.

G. The Commission Should Reject PSE's Requested Capital Structure and Cost of Capital

49 PSE has requested an overall rate of return of 8.76%, based on an 11.25% return on equity ("ROE") and a 45% common equity share. An 11.25% ROE is excessive in the current low-cost capital environment, and it exceeds PSE's currently authorized ROE of 10.30%. In addition, the Commission should not approve a common equity ratio of 45% because it is based on adjustments to test year amounts that are not known and measurable. Although PSE has argued that it needs the Commission's support in order to actually earn its authorized ROE, the fact is that poor performance by PSE's unregulated subsidiaries has been the major factor keeping the Company from earning its authorized ROE.[115/] Moreover, while the Company claims that PSE is a "risky" utility, it has maintained a strong credit rating and business risk score, and its equity share has increased dramatically. Adopting ICNU's proposed ROE and capital

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[114/] Id. at 3:14 – 4:2.
[115/] Exh. No. 5C (Staff Response to Bench Request No. 1).

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structure will allow the Company to continue building its financial strength, while protecting customers from unnecessary rate increases.

50 At the same time as PSE proposes increases to its ROE and common equity share, it is proposing changes to its PCA that would require customers to assume significantly more risk. ICNU's recommendations on cost of capital assume that the PCA will remain unchanged. If PSE's proposed changes were accepted, a reduction to ICNU's cost of capital recommendations would be warranted.[116/]

51 PSE's argument that keeping the PCA as is will hurt PSE's credit rating is not supported by the evidence. PSE currently carries a Standard & Poor's business risk profile score of 4,[117/] which is stronger than the average of the comparable proxy group used by ICNU's ROE witness. Michael Gorman.[118/] PSE's witness, Mr. Valdman testified that "[t]hese business ratings . . . are constantly reviewed based on new circumstances."[119/] Based on that reasoning, PSE's current business risk profile score should reflect the expiration of the PCA's$40 million cost cap on July 1, 2006. Mr. Valdman argued that PSE's business risk profile score will not be adjusted until this proceeding has concluded, but the fact is that the cost cap has expired irrespective of this proceeding.[120/] According to Mr. Valdman's own reasoning, if expiration of the cost cap truly exposed PSE to such extreme risk, Standard & Poor's would have already adjusted PSE's risk score accordingly. Simply put, PSE has provided no evidence that its credit

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[116/] See WUTC v. PacifiCorp, WUTC Docket Nos. UE-050684 and UE-050412, Order No. 04 at ¶ 91 (Apr. 17, 2006).
[117/] Exh. No. 131C at 12:1-2 (Gaines Direct); TR 418:5-13 (Gaines).
[118/] Exh. No. 471C at 9:18-21 (Gorman).
[119/] Transcript at 258:12-14 (Valdman).
[120/] Id. at 258:19 – 259:4.

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rating will be affected if the PCA continues without the cost cap. Therefore, ICNU's recommended cost of capital assumes no changes to the PCA.

1. The Commission Should Adopt ICNU's 9.9% ROE Recommendation

52 A utility's cost of common equity, or ROE, is the return that investors expect, or require, in order to make an investment in the utility.[121/] The general framework for determining a regulated utility's cost of common equity is contained in two U.S. Supreme Court decisions, Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n of W. Virginia, 262 U.S. 679 (1923), and Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). These decisions establish that a public utility's authorized return should: 1) be sufficient to maintain financial integrity; 2) attract capital under reasonable terms; and 3) be commensurate with returns investors could earn by investing in other enterprises of comparable risk.[122/]

53 Mr. Gorman combined three analytical methods to determine his recommended ROE for PSE: 1) the constant growth discounted cash flow ("DCF") model (9.6%); 2) the bond yield plus equity risk premium ("risk premium") model (10.3%); and 3) a capital asset pricing model ("CAPM") (10.4%).[123/] Mr. Gorman applied these models to a proxy group of publicly traded utilities that were reasonably comparable to PSE in terms of total risk.[124/]

121/ Exh. No. 471C at 8:3-4 (Gorman Direct).
122/ WUTC v. Avista Corp., WUTC Docket Nos. UE-991606 and UG-991607, Third Supp. Order at ¶ 324 (Sept. 29, 2000).
123/ Exh. No. 471C at 22, Table 3 (Gorman Direct).
124/ Id. at 8:16 – 9:23.

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54 Based on these results, Mr. Gorman recommended 9.9% as an appropriate ROE for PSE.[125/] A 9.9% ROE will fairly compensate for PSE's investment risk, and at the same time it will preserve PSE's financial integrity and credit standing.[126/]

a. The DCF Model Results Support ICNU's Recommended ROE

55 The DCF model "attempts to measure what level of equity return investors will demand in the market for a particular company, thus measuring that company's cost of money in the equity market."[127/] The model has three components: a current stock price, an expected dividend, and an expected growth rate in dividends.[128/] For current stock prices and expected dividends, Mr. Gorman used the average of the weekly high and low stock prices over a 13-week period ending July 7, 2006, and the most recently paid quarterly dividend, respectively.[129/]

56 The dividend growth rate is the most important aspect of the DCF analysis. It "must be set so as to reflect what investors actually, and reasonably, expect."[130/] When estimating dividend growth rates, "one must attempt to estimate what the consensus of investors is about the dividend or earnings growth rate, and not what an individual investor or analyst may use to form individual investment decisions."[131/]

57 To estimate the dividend growth rate, Mr. Gorman used security analysts' growth estimates, because they "have been shown to be more accurate predictors of

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[125/] Id. at 22:17.
[126/] Id. at 2:4-6.
[127/] WUTC Docket Nos. UE-040641 et al., Order No. 06 at ¶ 42.
[128/] Exh. No. 471C at 10:22-23 (Gorman Direct).
[129/] Id. at 10:24 – 11:11.
[130/] WUTC Docket Nos. UE-040641 et al., Order No. 06 at ¶ 44.
[131/] Exh. No. 471C at 11:16-18 (Gorman Direct).

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future returns than growth rates derived from historical data."[132/] Specifically, Mr. Gorman used the average of three professional security analysts' published customer growth rate estimates that were available on July 11, 2006.[133/] Because of the difficulty inherent in determining which particular analysts' forecast is most representative of general market expectations, Mr. Gorman used a simple average of the three growth forecasts as a good proxy for market consensus expectations.[134/]

58 Mr. Gorman's DCF analysis resulted in a cost of common equity estimate for the proxy utility group of 9.6%.[135/] This result is reasonable in today's low cost of equity marketplace because: 1) the consensus growth rates are consistent with the five-year projected Gross Domestic Product ("GDP") growth and are higher than the projected rate of inflation, indicating that the growth rate is not too low or too high; 2) the proxy group dividend yield reflects favorably both current and projected interest rates, which indicates that the yield is representative of current valuation and capital market costs; and 3) the dividend fundamentals of the proxy group show strong and consistent earnings strength in relation to dividends, thus supporting the DCF yield and growth rate inputs.[136/]

59 Mr. Gorman's DCF analysis reflects conservative growth projections. The consensus analysts' growth rate for the proxy utility group was 4.77%, which is "reasonably consistent with five-year projected GDP growth of 5.2%" and "considerably

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[132/] Id. at 11:19-20.
[133/] Id. at 12:3-8; Exh. No. 476.
[134/] Exh. No. 471C at 12:11-14 (Gorman Direct).
[135/] Id. at 12:18-19; Exh. No. 477.
[136/] Exh. No. 471C at 12:22 – 15:2 (Gorman Direct).

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higher than the five-year projected GDP inflation growth" of 2.4%.[137/] While utility dividends "cannot sustain a growth rate that exceeds the growth rate of the overall economy," it is also true that "growth of utility companies has historically been tied to the growth rate of inflation."[138/] As a result, Mr. Gorman concluded that the proxy rate used in his DCF analysis was "very strong and relatively high."[139/] Another indication that Mr. Gorman's growth rate is conservative is the fact that the historical dividend growth of the proxy group is substantially lower than the nominal GDP growth.[140/]

60 In addition, the DCF yield of 4.78% for Mr. Gorman's proxy group reflects the current low-cost capital markets.[141/] It is "comparable to the current five-year Treasury note yield of 4.96%, and slightly lower than the projected five-year Treasury note yield of 5.1%."[142/]

61 Finally, the results of Mr. Gorman's DCF analysis reflect rational investment financial metrics.[143/] The dividend fundamentals of companies in Mr. Gorman's comparable group show strong and consistent earnings strength in relation to dividends, indicating that current and projected earnings support dividends and continued predictable growth in dividends.[144/]

[137/] Id. at 13:3-5.
[138/] Id. at 13:6-7; 13:11-12.
[139/] Id. at 13:16.
[140/] Id. at 13:20-22; Exh. No. 478.
[141/] Exh. No. 471C at 14:1-6 (Gorman Direct).
[142/] Id. at 14:3-5.
[143/] Id. at 14:7 – 15:2.
[144/] Id. at 14:9-12.

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62 PSE witness Dr. Rodger Morin criticizes Mr. Gorman's DCF analysis because it does not include an allowance for flotation costs.[145/] According to Dr. Morin, including a flotation cost allowance would increase Mr. Gorman's recommended ROE by approximately 30 basis points.[146/] This criticism is unfounded because Dr. Morin's recommended flotation cost adjustment is not based on known and measurable common stock flotation expenses that are attributable to PSE.[147/] Although flotation costs are legitimate costs of issuing stock to the public, a flotation cost adjustment should not be made to PSE's ROE unless it is based on actual book costs, so that the Commission Staff and other interested intervenors can audit the Company's actual common stock flotation expenses.[148/] Dr. Morin's flotation cost adjustment should be rejected because it is not based on PSE's actual costs.

b. The Risk Premium Analyses Support ICNU's ROE Recommendation

63 The risk premium model is based on the principle that in order to assume higher risk, investors will require a higher rate of return.[149/] Common equity securities are considered riskier than bonds for two reasons: 1) in bankruptcy proceedings, bonds have more security of payment than common equity; and 2) the coupon payments on bonds represent contractual obligations.[150/] The model estimates this risk premium by estimating the difference between returns on common equity and bonds.

[145/] Exh. No. 315 at 70-71 (Morin Rebuttal).
[146/] Id.
[147/] Exh. No. 471C. at 48:12 – 49:2 (Gorman Direct).
[148/] Id. at 48:6-11.
[149/] Id. at 15:4-6.
[150/] Id. at 15:6-8.

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64 Mr. Gorman's risk premium model used two estimates of an equity risk premium. First, Mr. Gorman compared the difference between the required return on utility common equity and Treasury bonds.[151/] Second, Mr. Gorman compared the difference between regulatory commission authorized returns on common equity and contemporary "A" rated utility bond yields.[152/] Mr. Gorman's estimated risk premiums are based on the time period of 1986 through June 2005, because public utility equities consistently traded at a premium to book value during these years.[153/] Combining the two risk premium estimates with appropriate bond yields produces an average return estimate of 10.3%.[154/]

c. The Capital Asset Pricing Model Results Support the Overall Reasonableness of ICNU's Recommendation

65 Mr. Gorman also performed a CAPM analysis, which contains three elements: the company's beta, the risk-free rate, and the market risk premium.[155/] A company's beta represents the measure of risk in a single stock as compared to the risk in the broader market, or "nondiversifiable risk."[156/] In his analysis, Mr. Gorman used a beta estimate from his comparable group of 0.80.[157/] Mr. Gorman explained that although he usually relies on his proxy group's average beta, in this case he did not because his proxy group included companies with beta estimates that are greater than

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[151/] Id. at 15:13-19; Exh. No. 480.
[152/] Exh. No. 471C at 15:20 – 16:7 (Gorman Direct); Exh. No. 481.
[153/] Exh. No. 471C at 15:22 – 16:1 (Gorman Direct).
[154/] Id. at 17:16 – 18:4.
[155/] Id. at 19:6-7.
[156/] WUTC Docket Nos. UE-040641 et al., Order No. 06 at ¶ 52; Exh. No. 471C at 18:16 – 19:4 (Gorman Direct).
[157/] Exh. No. 471C at 20:6-7 (Gorman Direct); Exh. No. 484.

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one. A beta that is greater than one suggests the incorrect premise that the regulated operations of these companies have greater risks than that of the overall market. In fact, these companies "are experiencing financial distress largely due to issues outside of current regulated operations."[158/]

66 As a result, in this case Mr. Gorman relied primarily on the beta estimate for Puget Energy as a proxy for PSE's beta. Puget Energy's beta of 0.80 is "a very conservative or high beta estimate for the risk of a regulated utility."[159/] PSE witness Dr. Morin has criticized Mr. Gorman for declining to rely on his group's average beta, but Dr. Morin himself has declined to rely on a proxy group's average beta in the past. For example, in one case, instead of using a proxy group of companies with comparable risk, Dr. Morin used the average of the electric utility industry as a whole to derive his beta estimate.[160/] In this case, Mr. Gorman validly rejected his proxy group's average beta and used an estimate that "conservatively estimates the market's assessment of the risk of PSE."[161/]

67 To estimate the risk-free rate, Mr. Gorman used the Blue Chip Financial Forecast's projected 30-year Treasury bond yield of 5.3%.[162/] Mr. Gorman used long-term Treasury bonds because they are considered to have negligible credit risk, and they have an investment horizon similar to that of common stock.[163/] Because a Treasury bond yield is not a risk-free rate, however, Mr. Gorman noted that using a Treasury bond

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158/ Exh. No. 471C at 20:7-13 (Gorman Direct).
159/ Id. at 20:17-18 (Gorman Direct).
160/ Exh. No. 315 at 74:9-14 (Morin Rebuttal); TR 358: 1-6 (Mills).
161/ Exh. No. 471C at 20:15-16 (Gorman).
162/ Id. at 19:8-10.
163/ Id. at 19:14-17.

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yield as a proxy for the risk-free rate of return in the CAPM analysis for companies with betas less than one can produce an overstated estimate of the CAPM return.[164]

68 Mr. Gorman's CAPM analysis used two estimates of the market risk premium, one that was forward-looking and one based on a long-term historical average.[165] The forward-looking estimate was 6.3%, and the historical estimate was 6.5%.[166] Putting these elements together, Mr. Gorman's resulting CAPM estimate was 10.4%.[167]

69 Based on his DCF, Risk Premium, and CAPM analyses, Mr. Gorman recommended an ROE of 9.9% for PSE.[168]

2. PSE's Recommended ROE of 11.25% Is Inflated and Should Be Rejected

70 PSE is requesting an 11.25% ROE in this proceeding.[169] PSE's request is supported by PSE witness Dr. Morin, who bases his recommendation on an estimated 11.0% ROE plus a 0.25% add-on for PSE's alleged higher risk than the utilities in Dr. Morin's proxy groups.[170] Dr. Morin's recommendation is based on a combination of CAPM, empirical CAPM ("ECAPM"), risk premium, and DCF analyses.[171]

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[164] Id. at 19:22 – 20:4.
[165] Id. at 21:10 – 22:8.
[166] Id. at 21:12 – 22:8.
[167] Id. at 22:10-12; Exh. No.485.
[168] Exh. No. 471C at 22:17 (Gorman Direct).
[169] Exh. No. 301 at 80:14-15 (Morin Direct).
[170] Id. at 58:11-14.
[171] Id. at 57.

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71 As an initial matter, the 0.25% add-on should be rejected because Dr. Morin has not shown that PSE's risk is greater than that of his proxy groups.[172/] First, Dr. Morin has not shown that PSE's large construction program is unusual given that "the utility industry in general has greater construction risk today."[173/] Second, while PSE does have off-balance sheet debt risk, PSE has not demonstrated that its risk in this area is greater than the utilities in Dr. Morin's proxy group.[174/] Third, Dr. Morin's assertion of regulatory uncertainty for PSE is unsubstantiated and without merit.[175/] Finally, risk associated with PSE's below-industry-average bond rating is already reflected through the selection of an appropriate proxy group.[176/] In sum, Dr. Morin's proposed ROE add-on is unsupported and unreasonable, and it should be rejected.

72 Another problem with Dr. Morin's analyses is that his proxy utility groups include companies with significantly more nonregulated business risk than PSE.[177/] For example, it includes three companies with S&P business profile scores of 7, which reflect these companies' significant nonregulated risk.[178/] Moreover, the group also includes companies with below-investment-grade ratings.[179/] Inclusion of these high-risk companies in Dr. Morin's proxy groups biases his analyses and increases his ROE estimates.[180/]

[172/] Exh. No. 471C at 28:3 – 29:14 (Gorman Direct).
[173/] Id. at 28:11-18.
[174/] Id. at 28:19 – 29:2.
[175/] Id. at 29:3-7.
[176/] Id. at 29:8-14.
[177/] Id. at 29:22 – 30:15.
[178/] Id. at 30:3-7.
[179/] Id. at 30:7-8.
[180/] Id. at 29:23-24.

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a. Dr. Morin's CAPM Analysis Is Flawed

73 Dr. Morin's CAPM analysis, which produces a return estimate of 11.2% to 11.8%, is overstated because it employs an unreasonably high market risk premium of 7.5% and a beta of 0.83.[181/] More reasonable estimates of the market risk premium and utility beta would reduce Dr. Morin's CAPM return estimate to 10.0% to 10.6%, excluding flotation costs.[182/]

74 Dr. Morin's market risk premium of 7.5% is derived from two market risk premium estimates of 7.2% and 7.7%.[183/] The 7.2% estimate is unreasonably high because it is not based on actual total achieved returns on equity investments versus Treasury bond income returns over the historical period.[184/] Instead of using the total Treasury bond return, Dr. Morin uses the income Treasury bond return, which results in a market risk premium that is based on inconsistent time periods for the equity market index and Treasury bonds.[185/] This biases the analysis and results in an overstated market risk premium.[186/] Using true historical Treasury bond returns properly considers total returns of both equity investors and bond investors and results in an estimated market risk premium of 6.6%.[187/]

[181/] Id. at 31:2-4.
[182/] Id. at 31:4-6.
[183/] Id. at 31:13-16.
[184/] Id. at 31:17-21.
[185/] Id. at 32:1 – 33:4.
[186/] Id. at 33:4-6.
[187/] Id. at 33:7-9.

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75 Dr. Morin's forward-looking risk premium of 7.7% is also flawed, because it is based on a flawed 13% projected return on the S&P 500.[188/] Dr. Morin's yield component is based only on the dividend-paying stocks in the S&P 500, but his dividend in earnings growth considers over 5,000 companies that are followed by the Value Line Investment Survey.[189/] His growth rate is therefore not compatible with his dividend yield estimate, resulting in a flawed market return estimate that should be rejected.[190/]

76 Dr. Morin's beta estimate of 0.83 also should be rejected, because it is based on the average of a group of companies that includes companies with betas of 0.90 or higher.[191/] These companies have significantly higher business risk than PSE, so a simple average of a group including these utilities does not provide a reasonable beta estimate for a CAPM analysis.[192/] In fact, Mr. Gorman has demonstrated that beta estimates of utility companies today do not reasonably reflect electric company industry investment risk.[193/] A beta of 0.80 reflects the beta of PSE's parent company, Puget Energy, and is a more reasonable beta for a CAPM analysis in this case.[194/]

188/ Id. at 33:11-14.
189/ Id. at 33:14-17.
190/ Id. at 33:17-22.
191/ Id. at 34:1-5.
192/ Id. at 34:5-16.
193/ Id. at 35:9 – 36:10; Exh. No. 487.
194/ Exh. No. 471C at 34:17 – 35:8 (Gorman Direct).

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77 With a market risk premium of 6.6%, a beta estimate of 0.80, and a risk-free rate in the range of 4.7% to 5.3%, Dr. Morin's CAPM return would be 9.98% to 10.58%, with a midpoint of 10.3%, excluding flotation costs.[195/]

b. Dr. Morin's ECAPM Is Based on an Unreasonable Beta Estimate

78 The Commission should reject Dr. Morin's ECAPM analysis because it relies on a beta estimate that is unreasonably inflated.[196/] The Value Line beta that Dr. Morin relied on is already adjusted to reflect the market tendency to converge on the market mean over time.[197/] The ECAPM accomplishes the same CAPM return adjustment as does Value Line's beta adjustment.[198/] Both adjustments increase the CAPM return for companies with betas less than one and decrease the CAPM return estimate for companies with betas greater than one.[199/] It is not appropriate to use, and academic studies do not support using, Value Line Adjusted betas in an ECAPM study as Dr. Morin proposes here. The combination of adjusted Value Line betas in an ECAPM inflates the CAPM return estimate for PSE, a company with a beta of less than one.[200/] Removing the inappropriate return adjustment from Dr. Morin's ECAPM analysis would support a 10.3% ROE.[201/]

[195/] Id. at 36:11-16.
[196/] Id. at 37:1-17.
[197/] Id. at 37:7-9.
[198/] Id. at 37:9-11.
[199/] Id. at 36:18-22; 37:11-12.
[200/] Id. at 39:7-14.
[201/] Id. at 39:15-20.

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c. Dr. Morin's Historical Risk Premium Analysis Is Erroneous

79 Dr. Morin's analysis of historical risk premium on electric and natural gas companies produces an estimated ROE of 10.7% to 11.3%.[202/] His analysis is flawed because it compares the actual achieved return on utility stocks to Treasury securities, but it has not been updated for the last five years of data.[203/] This likely had a significant impact on the results of the study.[204/] In addition, because of the dramatic decrease in interest rates over the last 20 years, Dr. Morin's study is truly little more than an assessment of the impact that declining interest rates and reduced inflation expectations have on stock versus bond investments.[205/] Moreover, Dr. Morin's historical risk premium analysis is biased upward, because over the last several years, achieved returns on electric utility stocks and utility bond yields have been driven by high expectations of large profits from high-risk nonregulated business activities.[206/]

80 It would be appropriate to exclude calendar years 2000 and 2001 from Dr. Morin's analysis, because these two years were largely driven by overstated expectations of wholesale market profits and the beginning of a liquidity crisis and loss of investor confidence.[207/] Excluding these years would result in a market risk premium of 5.0%, which would in turn produce an ROE estimate of 9.7% to 10.3%, with a midpoint of 10.0%.[208/]

[202/] Id. at 40:1-18.
[203/] Id. at 40:22 – 41:2.
[204/] Id. at 41:4-10.
[205/] Id. at 41:11-16.
[206/] Id. at 41:17 – 42:2.
[207/] Id. at 42:15-19.
[208/] Id. at 42:19 – 43:2.

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d. Dr. Morin's Allowed Risk Premium Analysis Uses an Improper Regression Analysis

81 Dr. Morin's allowed risk premium analysis employs a regression analysis for changes to current and projected interest rates.[209/] The regression analysis is based on the premise that as nominal interest rates decrease, equity risk premiums increase.[210/] This premise is flawed, and as a result, Dr. Morin's allowed risk premium analysis should be rejected.[211/]

e. Dr. Morin's DCF Analyses Do Not Support His Recommended ROE

82 The Commission should give greater weight to Dr. Morin's DCF analyses that are based on Zack's growth rate models, rather than those that are produced from his Value Line Growth Projections.[212/] Zack's growth rates better reflect the market's growth expectations of the underlying stock, because they contain many analysts', as opposed to a single analyst's, growth rate projections.[213/] In addition, the DCF returns for Dr. Morin's gas and electric utility comparable group should be given more weight than the single estimate for Puget Energy, because the comparable group represents a greater cross section of the market valuations for energy companies.[214/] This results in a DCF return in the range of 9.4% to 9.9%, indicating that Dr. Morin's 11.25% recommended ROE is significantly overstated.[215/]

[209/] Id. at 43:6-24.
[210/] Id. at 44:3-4.
[211/] Id. at 44:5 – 45:16.
[212/] Id. at 46:19 – 47:4.
[213/] Id. at 46:20-22.
[214/] Id. at 47:7-10.
[215/] Id. at 47:10 – 48:2.

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3. PSE's Proposed Equity Ratio Should Be Rejected

83 PSE's proposed capital structure contains a common equity ratio of 45%.[216/] PSE asserts that such a ratio is necessary to achieve the Company's desired credit rating of "BBB+."[217/] PSE's proposal, however, is based on pro forma adjustments that are not known and measurable. PSE's proposal therefore should be rejected, and the Company's actual test year common equity ratio of 44.1% should be adopted.

84 "Establishing a capital structure for ratemaking purposes requires the Commission to strike an appropriate balance between debt and equity on the bases of economy and safety."[218/] In making such a determination, the Commission has utilized "actual, pro forma, or imputed capital structures to strike the right balance and determine overall rate of return on a case-by-case basis."[219/] In specifically setting the appropriate equity ratio, the Commission should rely on evidence that shows what average equity ratio is more likely to occur over the rate year.[220/]

85 In this case, PSE requests that the Commission set the Company's equity ratio based on a plan to increase equity [redacted] [221/] PSE has not satisfied its burden, however, of showing that these pro forma adjustments to the Company's capital structure

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216/ Id. at 4, Table 1.
217/ Exh. No. 131C at 2:13-18 (Gaines Direct).
218/ WUTC Docket Nos. UE-040641 et al., Order No. 06 at ¶ 27.
219/ Id.
220/ Id. at ¶ 40.
221/ Exh. No. 131C at 10 (Gaines Direct).

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are "known and measurable changes that are not offset by other factors."[222] [redacted]

[redacted][223] Therefore, PSE has not shown that it is more likely than not that the Company will continue to increase its common equity ratio.[224]

86 PSE's current test-year capital structure represents a reasonable balance of debt and equity and affords the Company a reasonable rate of return.[225] Moreover, in previously rejecting PSE's request for a 45% equity ratio, the Commission stated:

> "Turning to PSE's goal of advancing its corporate credit rating by two steps, from BBB- to BBB+, we observe that ratings agencies consider a host of factors in deciding whether to upgrade a company, as Staff and others argue. We have no reason to believe that allowing a 45% equity ratio in rates will be determinative as PSE works towards an improved corporate credit rating, particularly when the Company has not actually achieved that level."[226]

87 Consistent with that reasoning, PSE should evaluate all options available to improve the Company's credit rating. It is possible for PSE to achieve its desired goals by issuing permanent preferred equity, rather than simply relying on increasing the Company's common equity capital.[227] Since preferred equity securities are lower cost,

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222 WAC § 480-07-510(3)(b)(ii).
223 Exh. No. 136C at 2; Exh. No. 471C at 5:10 – 6:3 (Gorman Direct).
224 See WUTC Docket Nos. UE-040641 et al., Order No. 06 at ¶ 136 (defining "known and measurable changes" as changes that are more likely than not to occur).
225 Exh. No. 471C at 5:8-9 (Gorman Direct).
226 WUTC Docket Nos. UE-040641 et al., Order No. 06 at ¶ 35.
227 Exh. No. 471C at 6:14-22 (Gorman Direct).

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PSE would be able to minimize the Company's debt leverage risk at a lower cost, resulting in a stronger credit rating.[228]/

4. ICNU's Recommended Overall Rate of Return Will Maintain PSE's Financial Integrity

88 ICNU's recommendations on cost of capital and capital structure will maintain PSE's financial integrity because they will support PSE's current bond rating from S&P.[229] This is demonstrated by Mr. Gorman's review of PSE's key credit rating financial ratios at ICNU's proposed capital structure and ROE, compared to S&P's benchmark financial ratios for an "A" rated utility and "BBB" rated utility with a business profile score of 4.[230]/

89 In its credit rating review, S&P assesses a utility's financial and business risks in order to asses the company's total credit risk exposure.[231]/ S&P assigns business profile scores to utilities on which a score of 1 indicates the lowest risk and a score of 10 indicates the highest risk.[232]/ In addition, S&P relies on three primary financial ratio benchmarks as guidance in its credit review for utility companies: 1) funds from operations ("FFO") to debt interest expense; 2) FFO to total debt; and 3) total debt to total capital.[233]/

90 Mr. Gorman tested the reasonableness of his rate of return recommendations by calculating each of S&P's financial ratios based on PSE's cost of

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[228]/ Id. at 7:1-8.
[229]/ Id. at 23:6-8.
[230]/ Id. at 23:8-11.
[231]/ Id. at 23:14-18.
[232]/ Id. at 23:19-20.
[233]/ Id. at 24:1-4.

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service for retail operations and PSE's off-balance sheet debt for the 2007 rate year.[234/] From this analysis, Mr. Gorman determined that with a 9.9% ROE, PSE will have the opportunity to produce a FFO to debt interest expense of 3.6x, which is within S&P's benchmark ratio guideline for an "A" rated utility company with a business profile score of 4.[235/] PSE's adjusted total debt ratio to total capital at ICNU's proposed capital structure is 58%, which is within S&P's "BBB" rated utility range.[236/] Finally, at a 9.9% ROE, PSE's retail operations FFO to total debt coverage would be 18%, which is within S&P's range for a "BBB" rated utility with a business profile score of 4.[237/] As a result, ICNU's proposed capital structure and ROE support a strong "BBB" utility bond rating with a business profile score of 4.[238/]

91 Even the Company's own testimony shows that under Staff's recommended capital structure and ROE, which are lower than ICNU's proposal, the Company's S&P credit metrics remain strong.[239/] The Company's testimony confirms Mr. Gorman's conclusion that ICNU's proposal will allow PSE to maintain its financial integrity.

IV. CONCLUSION

92 ICNU urges the Commission to adopt the following adjustments to PSE's proposed revenue requirement increase that would result in an approximately $20 million rate reduction:

234/ Id. at 24:5 – 25:11.
235/ Id. at 25:16-19; Exh. No. 486.
236/ Exh. No. 471C at 25:20-21 (Gorman Direct); Exh. No. 486.
237/ Exh. No. 471C at 26:1-3 (Gorman Direct); Exh. No. 486.
238/ Exh. No. 471C at 26:4-5 (Gorman Direct).
239/ Exh. No. 137C at 34-35 (Gaines Rebuttal).

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- Require the minimum up and down times for CCCTs and CTs in the AURORA data set to reflect the actual operating characteristics of these facilities;

- Apply the Joint Parties' hydro shaping factors in AURORA to match the expected operation of the Pacific Northwest hydro system;

- Replace AURORA-derived hourly prices with forward market prices to more accurately predict the Company's rate-year power costs; and

- Adopt an ROE of 9.9% and a common equity ratio of 44.1% to fairly compensate PSE for investment risk and preserve the Company's financial integrity.

93 ICNU also urges the Commission to reject the Company's proposal to revise its current PCA. PSE has not demonstrated that its proposal to shift a huge amount of risk to customers is justified. In fact, the evidence in the record shows that the opposite is true. The PCA was designed as a long-term mechanism with a temporary four-year cap that allowed the Company to improve its financial standing. Now that the four-year cap has expired, the existing long-term mechanism is the most appropriate way to balance risks between PSE and its customers.

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94 WHEREFORE, ICNU respectfully petitions the Commission for leave to intervene in this proceeding.

Dated in Portland, Oregon, this 31st day of October, 2006.

Respectfully submitted,

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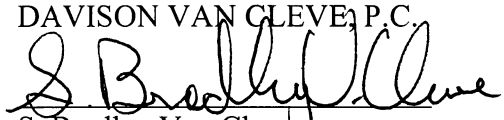

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