CASE: UM 1725
WITNESS: BRITTANY ANDRUS

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 100

Opening Testimony

July 31, 2015

Q. Please state your name, occupation, and business address.

A. My name is Brittany Andrus. I am employed by the Public Utility Commission of Oregon (OPUC) as a Senior Utility Analyst in the Energy Resources and Planning. My business address is 201 High St. SE Suite 100 Salem, Oregon 97301.

Q. Please describe your educational background and work experience.

A. My Witness Qualification Statement is found in Exhibit Staff/101.

Q. What is the purpose of your testimony?

A. I address the merits of four applications filed by Idaho Power Company (Idaho Power or Company) to change some of the Commission's policies implementing the Public Utility Regulatory Policy Act (PURPA) as they apply to the Company. Idaho Power asks the Commission to (1) lower the eligibility cap for standard contracts for solar and wind qualifying facilities (QFs) from 10 MW to 100 kW, (2) shorten the contract term for all QF contracts to 2 years, (3) allow Idaho Power to include a solar integration charge in the calculation of avoided cost prices, and (4) allow Idaho Power to update avoided cost prices using a resource deficiency period start date of 2021 as opposed to the 2016 start date used to calculate avoided cost prices.

Q. What is Staff's position on these requests?

A. Staff recommends that the Commission allow Idaho Power to update its avoided cost rates with a deficiency period start date of 2021, lower the eligibility cap for standard contracts for solar and wind QFs to 100 kW, maintain the current maximum 20-year contract term (15-year fixed price with five additional years at market-based rates), and deny Idaho Power's request to incorporate the solar integration change as proposed into avoided cost prices.

Resource Sufficiency/Deficiency Demarcation

Q. Please describe Idaho Power's request to update its avoided cost prices to include a resource deficiency period start date

A. In Idaho Power's application, the Company asserts that while its most recently acknowledged Integrated Resource Plan (IRP) shows that its next resource deficiency period start date is 2016, resource actions Idaho Power has taken since the Commission acknowledged its 2013 IRP postpone its need for a new resource from 2016 to 2021.[1]

Idaho Power made a different argument in Docket UM 1730 in connection with its request to reconsider the Commission's decision approving its May 1 update to avoided cost prices. In Docket UM 1730, Idaho Power asserts that the 2021 date is the correct resource deficiency date under its 2013 IRP as acknowledged by the Commission.[2]

Q. Did Staff agree with Idaho Power's argument in Docket UM 1730?

A. No. The question of what resource deficiency period start date is indicated by the utility's IRP is a question that should be resolved in the process that follows a utility's avoided cost filing within 30 days of IRP acknowledgment. The avoided cost prices Idaho Power filed following acknowledgment of its 2013 IRP were based on a resource deficiency start date of 2016. Staff did not think it is appropriate to reinterpret the acknowledged IRP in the May update to

[1] Idaho Power Company Application to Change Resource Sufficiency/Deficiency Demarcation 4-5.
[2] Docket UM 1730 Idaho Power Company's Application for Reconsideration 4.

avoided cost prices, as changes to the sufficiency period are not included in the four factors to be addressed in the May 1 updates.[3]

Q. What is Staff's position on Idaho Power's application to change the resource sufficiency/deficiency demarcation in this docket?

A. Staff agrees it is appropriate to change the start date of the next resource deficiency period to 2021 because Idaho Power acquired 400 MW of capacity in 2014. As Idaho Power notes, it received permission from the Commission in 2013 to temporarily suspend two of its demand response (DR) programs and modify a third program because it did not have a need for capacity until 2016. Idaho Power subsequently entered into a stipulation with Staff and stakeholders to maintain its DR programs even in years when the Company does not anticipate peak-hour deficits so that the program infrastructure is ready when capacity deficits return.[4]

Idaho Power explains that under the DR stipulation the Company is obligated to accept DR participation up to 440 MW, and that it saw actual participation in 2014 that exceeded 400 MW.[5] When this additional capacity is included in the load and resource balance reflected in the 2013 IRP, the first capacity deficit occurs in July 2021, not July 2016.

Q. Does Staff agree that the addition of 400 MW of capacity in 2014 postpones the start date of Idaho Power's next resource deficiency period to 2021?

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[3] Order No. 14-058, 25-26.
[4] Order No. 13-482 , 2-3; see also Appendix A, Demand Response Programs Settlement Agreement.
[5] Idaho Power Company Application to Change Resource Sufficiency/Deficiency Demarcation 3-5.

A. Yes, Staff agrees with Idaho Power's analysis of its updated loads and resources, and the date of the first peak deficiency.

Q. Should Idaho Power wait to update its avoided cost prices until after its next IRP?

A. Staff does not think so. The Commission allows requests for mid-cycle updates to avoided cost prices "to reflect significant changes in circumstances.[6] Although the Commission has stated that the bar to show a "significant change" is "very high,"[7] Staff believes the acquisition of 400 MW of capacity is sufficient to merit an update to the resource sufficiency/deficiency demarcation. Further, Staff believes that since this additional capacity addition is the result of a Commission-approved stipulation, it is appropriate to reflect it in the Company's load and resource balance.

<u>Eligibility Cap for Standard Contracts and Contract Length</u>

Q. What did the Commission decide regarding the eligibility cap in Phase I of this docket?

A. The Commission concluded that the 10 MW cap is still appropriate to eliminate transaction costs for smaller QFs because standard contracts have pre-established rates, terms, and conditions that an eligible QF can elect without

[6] OAR 860-029-0080(7): "A public utility may propose or the Commission may require a public utility to file the data described in OAR 860-029-0080(3) during the two-year period between filing least-cost plans pursuant to Order No. 89-507 to reflect significant changes in circumstances, such as the acquisition of a major block of resources or the completion of a competitive bid. Such a revision will become effective 90 days after filing."

[7] Order No. 14-058 at 26 ("Finally, in light of our adoption of a yearly update, we will continue to allow requests for mid-cycle updates for significant changes to avoided cost prices. However, in light of our decision here to require annual updates in addition to updates following IRP acknowledgement, we caution stakeholders that the "significant change" required to warrant an out-of-cycle update will be very high. We expect the parties to use this option infrequently.")

any negotiation with the purchasing utility. The Commission stated in Order No. 14-058

> Standard contract rates, terms and conditions are intended to be used as a means to remove transaction costs associated with QF contract negotiation, when such costs act as a market barrier to QF development. If a QF is not eligible for a standard contract, a utility is still obligated to purchase a QF's net output at the utility's avoided cost, but the QF must negotiate the rates, terms and conditions of a power purchase contract with the purchasing utility. The eligibility cap of 10 MW is intended to address the challenges smaller QFs face in entering our market, including the transaction costs incurred in negotiating an agreement, and other market barriers such as asymmetric information and an unlevel playing field, all of which complicate the negotiation of non-standard QF contracts. These kinds of market barriers can render certain QF projects uneconomic to get off the ground if an individual contract must be negotiated.[8]

Q. Why should the Commission reach a different conclusion less than 18 months after that decision?

A. First, Staff notes that its analysis of this question is specific to solar and wind QF activity in Idaho Power's service territory. Staff's analysis and findings are specific to Idaho Power and do not necessarily apply to QFs other than solar and wind QFs or to QFs in service territory of PacifiCorp and PGE.

Staff finds three reasons to support lowering the eligibility cap for standard contracts for Idaho Power. First, the pattern of standard contracts shows a small number of developers contracting for multiple projects at the maximum allowable capacity, indicating that they are not facing the same barriers to entry as those anticipated when the Commission set the eligibility cap at 10 MW.… Second, the number of operating and contracted QFs in Idaho Power's Oregon

[8] Order No. 14-058 at 7, *quoting* Order No. 05-584 at 16.

jurisdiction constitute a significant portion of the Oregon load. Third, the Commission has allowed Idaho Power to implement PURPA policies in Oregon that are aligned with its policies in Idaho, for operational efficiencies and jurisdictional consistency within the service area.[9]

Q. Please explain Staff's first reason, the pattern of standard contracting.

A. The particular circumstances of requests for standard contracts in Idaho Power's territory show that transaction costs associated with negotiating a QF contract with Idaho Power are not a barrier for the QFs seeking QF contracts in Idaho Power territory.

A notable example of this is seen in the multiple applications of Gardner Capital Solar Development, Inc., (Gardner Solar). On April 7, 2015, Gardner Solar submitted five different requests for QF contracts for five different solar projects, three of which are sized at 10 MW and the other two at 5 MW.[10] The same developer that made the April 7 requests (Gardner Solar) also made a request for a five MW project on May 6, 2015.[11] In testimony submitted in Docket UM 1610 in May 2015, a Gardner Solar witness describes Gardner Solar as "a leading developer of utility-scale solar projects that is currently developing six qualifying facility ("QF") projects in the state of Oregon."[12] The

[9] E.g., Order 05-584, 26: "We find that administrative efficiency interests do, however, justify authorizing Idaho Power to continue using the SAR methodology to calculate avoided costs regardless of its resource position. In recognition of the fact that Idaho Power exclusively uses the SAR methodology in its Idaho service territory, where it serves far more customers than its Oregon service territory, we find that the administrative burdens to Idaho Power of developing and applying new avoided cost methodologies in Oregon outweigh the potential benefits and justify allowing Idaho Power to continue to use the SAR methodology."
[10] UM 1725, Protest and Opposition of Gardner Capital Solar Development, LLC 2.
[11] UM 1725, Idaho Power Company response to Staff data request No. 5.

witness explains that he is responsible for all national solar development for Gardner Solar and that he has directed the installation of over 250 MW of solar installations and has worked on projects for Chevron, Google, Disney Studios, California Institute of Technology, the North Face and Sony Studios.[13]

The testimony of the Gardner Solar witness in Docket UM 1610 contravenes the suggestion that standard contracts with standard contract rates are necessary to this developer to remove a barrier to entry. Contrarily, the developer is sophisticated and has sufficient resources to have a national program of solar development.

Up until now, the Commission has relied on the elimination of barriers to entry as the reason for the 10 MW standard contract eligibility cap. The circumstances of requests for standard contracts to Idaho Power support the conclusion a 10 MW cap is not necessary to serve this purpose for solar QFs in Idaho Power's service territory. It is also not necessary for wind QFs for a somewhat different reason. Most wind QFs are larger than 10 MW. Because there are essentially no wind QFs 10 MW and smaller seeking standard contracts, it is not necessary to put protections in place for such QFs.

Q. Please explain Staff's concerns about the ratio of QFs to Idaho Power's Oregon load.

A. The second reason that Staff supports the 100 kW eligibility cap for Idaho Power is the proportion of operating and contracted QF resource to the Company's load in Oregon. Idaho Power has 21 MW of QF capacity operating

[13] UM 1610 Gardner Solar/100, Benga/1.

in Oregon, consisting of 15 MW in hydro and biomass projects, and a 3 MW wind project. The Company has another 110 MW under contract for 11 wind and solar projects, all with scheduled operation dates of December 2016. Additionally, as of the date of Idaho Power's application in late April 2015, another developer (Gardner Solar) had requested energy sales agreements (ESA) for three solar projects at 10 MW of capacity apiece and two more at five MW each, and a second developer requested an ESA for a five MW solar project, for a total of 45 MW of QF solar capacity requesting ESAs.

The following table contains a summary Idaho Power operating and contracted Oregon QFs (section I), the Company's estimated Oregon peak load (section II),[14] and calculations of the percentage of peak load that those QFs represent (Section III).[15] These numbers exclude the recent QF requests to Idaho Power for ESAs.

[14] UM 1725, Idaho Power Company response to Staff data request No. 10.
[15] The percentage calculations do not imply that each QF will be operating at maximum capacity at the time of the peak load; it is shown as a measure of the relative magnitudes.

I.

	Operating QF Capacity MW	Contracted QF Capacity MW
Wind	**3**	**50**
Solar	**-**	**60**
Hydro	15	0
Biomass	3	0
Total	21	110

II. Estimated Oregon Peak MW (2012-14) 122

III.

		% of Peak Load
(a)	All operating	17%
(b)	Solar and wind operating	2%
(c)	All operating and contracted	108%
(d)	Solar and wind operating, plus all contracted	93%
(e)	Solar and wind operating, plus 1 contracted	25%

The capacity of the QFs currently operating in Oregon compare to 17 percent of Oregon's estimated peak load (III.(a)). While it is far from certain that the entire 110 MW of QF wind and solar capacity will become operational, even if only one does, the share of all QFs to peak would exceed 25 percent (III(e)). Staff believes that the contracted quantities for wind and solar QFs above indicate that this is an appropriate time to shift those projects to negotiated contracts and prices.

Q. If the eligibility cap for standard contracts is not necessary to eliminate barriers for 10 MW solar facilities, where should the Commission place the eligibility cap?

A. Staff recommends that the Commission reduce the eligibility cap to 100 kW for Idaho Power. Less than five percent of Idaho Power's load is in Oregon.[16] Because at least 95 percent of its load is in Idaho the Commission has frequently matched its PURPA policies for Idaho Power to those in Idaho for administrative efficiency. The Idaho Public Utilities Commission reduced the standard contract eligibility cap for wind and solar QFs for Idaho Power to 100 kW in Idaho in December 2012.[17] Reducing the cap to 100 kW in Oregon would promote administrative efficiency and help to create an equal playing field in Idaho Power's Oregon and Idaho service territories.

Q. Will reducing the eligibility cap to 100 kW contravene QF contracting?

A. Idaho Power's experience in Idaho shows that reducing the standard eligibility cap to 100 kW has not prohibited QF contracting in Idaho. Idaho Power has contracted for nine solar QF projects totaling 260 MW, or an average of 29 MW each, since May 2014.[18] Staff knows of no reason that the same will not be true in Oregon.

Q. Should the Commission take a different approach and maintain the eligibility cap for Idaho Power at three MW?

A. Staff does not find a compelling reason to take this approach for QFs in Idaho Power's Oregon territory. It is possible that a cap at three or four MWs would simply induce QFs to disaggregate their projects into multiple three or four MW projects. Notably, Gardner Solar has proposed six solar projects at or close to

[16] Idaho Power Company 2014 Results of Operations, RE 48, Oregon Allocation, 4.4 percent.
[17] Idaho Public Utility Commission Order No. 32697, 52.
[18] UM 1725, Idaho Power Company response to Staff data request No. 4.

the 10 MW cap rather than requesting a QF contract for one single project at 50 MW.[19],[20] Of the 16 QF projects actively seeking contracts in Idaho Power territory, only one is smaller than five MW.[21] If a 10 MW cap did little more than eliminate barriers to entry, Staff would expect to see QFs in a range of sizes seeking contracts. Instead, the projects seeking contracts are all at or close to the eligibility cap for standard contracts. Staff thinks it is possible that this would remain true if the cap is lowered to three or four MW.

Furthermore, as noted above, Idaho Power has received requests for non-standard QF contracts in Idaho since the IPUC lowered the eligibility cap for solar and wind QFs. Staff knows of no reason the same will not be true in Oregon

Q. What is Staff's position on Idaho Power's request to shorten the contract term to two years?

A. Staff does not support this request. In Order No. 05-584, the Commission concluded that a 20-year contract with fixed costs for the first 15 years balanced the interests of QFs in obtaining adequate financing and the risk to ratepayers associated with actual avoided costs diverging from forecasted over time.[22] Staff has not seen persuasive evidence to show a QF's interest

[19] UM 1610 Phase II Gardner Solar/100, Benga/5-6.
[20] UM 1725, Idaho Power Company response to Staff data request No. 5.
[21] Id..
[22] Order No. 05-584 at 17: "A primary goal in this proceeding is to accurately price QF power. We also seek, however, to ensure that QF projects that are deemed eligible to receive standard contracts have viable opportunities to enter into a standard contract. To achieve this latter goal, it is necessary to ensure that the terms of the standard contract facilitate appropriate financing for a QF project. Consequently, we agree with Staff and other parties that our fundamental objective is to establish a maximum standard contract term that

in obtaining adequate financing will not be harmed by a shortened contract period. And, Staff has recommended that the Commission take different steps to limit the potential harm to ratepayers from actual costs diverging from actual cost prices over time. Accordingly, Staff does not think Idaho Power has shown it is appropriate to disrupt the balance between QFs and ratepayers established by the Commission in 2015.

Furthermore, in Phase I of UM 1610, a witness from Oregon Department Of Energy (ODOE) testified that ODOE's Small Scale Energy Loan Program requires that the loan repayment period be no longer than the term of the borrower's power purchase agreement.[23] The witness asserted that a shorter pay-back period may make loan costs prohibitive for some potential developers.[24]

Q. Is there a relationship between the cap for standard contract eligibility and the contract term?

A. Yes. The proxy method used to develop standard contract avoided cost prices is intentionally transparent and less specific to an individual QF's actual generation pattern. As the eligibility cap is lowered, the risk of applying the proxy method prices to a QF resource that may have a different impact on the system is reduced. With a lower cap, QFs will have the option of negotiated contracts and prices, which are based on the specific characteristics of that QF, and priced using an hourly economic dispatch model.

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enables eligible QFs to obtain adequate financing, but limits the possible divergence of standard contract rates from actual avoided costs."

[23] UM 1610 ODOE/200, Elliot/11.

[24] UM 1610 ODOE/200, Elliot/11.

Solar Integration Charges

Q. Please summarize Idaho Power's request.

A. In its application, Idaho Power requests to implement solar integration rates based on the cost results contained in the Company's June 2014 solar integration study (2014 Study) through the approval of the proposed Schedule 86. Idaho Power is currently implementing Schedule 87 in Idaho, based on the same 2014 Study.

Q. What has the Commission directed with respect to solar integration charges?

A. The Commission order in Phase I of Docket UM 1610 stated, "…we will require no adjustment for integration costs associated with solar QFs, but we will revisit this issue in the future after more solar development occurs." Staff believes that there is sufficient solar development to warrant imposition of solar integration charges. And, it appears the Commission agrees. In Order No. 15-199, the Commission directed parties to "address in docket UM 1610 the level of solar integration charges to incorporated into avoided cost rates."[25]

Q. Does Staff support the implementation of the Schedule 86 solar integration charge?

A. Staff believes that there are likely costs associated with solar generation, as it is intermittent. However, Staff does not support the charges as currently proposed, because as an observer during the 2014 Study process, Staff noted and agreed with several of the concerns of other members of the Technical

[25] Docket UM 1725, Order No. 15-199, 7.

Review Committee (TRC), such as the lack of netting the balancing reserves required for load, wind, and solar, and the assumed lead time for scheduling the solar generation.

Q. If Staff does not support the solar integration charge based on the 2014 Study, what does it propose?

A. As noted in Idaho Power's application, a 2015 Study process has been initiated as a result of a settlement stipulation approved by the Idaho Public Utilities Commission in February 2015.[26] Staff, as a participant in the 2015 Study TRC, intends to evaluate the methodology and the results as the study proceeds. The current schedule indicates that the study will conclude prior to the end of 2015. At the conclusion of the study, Idaho Power can then file it for consideration of the resulting solar integration charges by this Commission.

Q. Does this conclude your testimony?

A. Yes.

[26] Idaho Power Company's Application for Approval of Solar Integration Charge,8.

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STAFF EXHIBIT 101

WITNESS QUALIFICATION STATEMENTS

July 31, 2015

WITNESS QUALIFICATION STATEMENT

NAME:	Brittany Andrus
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ADDRESS:	201 High Street, SE. Suite 100 Salem, Oregon, 97301
EDUCATION:	M.B.A. Portland State University, Portland, Oregon B.A. English Michigan State University, East Lansing, Michigan
EXPERIENCE:	I have been employed at the Oregon Public Utility Commission since 2011. My current responsibilities include research, analysis and technical support for electric company proceedings, with an emphasis on resource planning, power costs, and qualifying facilities under PURPA. I was previously employed for 17 years by the Bonneville Power Administration, a wholesale power marketing agency within the federal Department of Energy. My duties included energy efficiency planning and program management, long term load and revenue forecasting, long term power sales contracts, rate impact analysis, short term load forecasting, power and transmission scheduling, and management of load forecasting data and processes.