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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE PETITION OF)	
IDAHYDRO, SHOROCK HYDRO, INC.,)	CASE NO. IPC-E-18-07
J.R. SIMPLOT COMPANY, AND)	
RENEWABLE ENERGY COALITION FOR)	IDAHO POWER COMPANY'S
MODIFICATION OF THE 90/110)	RESPONSE TO THE SECOND
PERFORMANCE BAND AND)	PRODUCTION REQUEST OF THE
CALCULATION OF OPERATION AND)	COMMISSION STAFF TO IDAHO
MAINTENANCE CHARGES FOR PURPA)	POWER COMPANY
QUALIFYING FACILITIES)	
)	

COMES NOW, Idaho Power Company ("Idaho Power" or "Company"), and in response to the Second Production Request of the Commission Staff to Idaho Power Company dated July 11, 2018, herewith submits the following information:

REQUEST NO. 7: If Idaho Power purchases power from a Qualified Facility (QF) on a month-ahead basis and the amount of power actually delivered over the course of that month does not match the monthly estimates, please list and describe the sources of incremental costs incurred by Idaho Power to cope with the differential. In addition, with regard to these incremental costs, please provide answers to the following questions:

a. For each of these sources of incremental cost, please describe how these incremental costs increase as the size of the differential between the specified amount of generation and the actual amount of generation changes.

b. Please describe how these incremental costs to the Company can be estimated? Please provide actual historical data to quantify each of these sources of incremental cost; and if the amount of incremental cost is dependent on the size of the differential between the contracted amount of generation and the actual amount of generation (or other factors), please reflect this in your data.

c. Does Idaho Power believe that the 90/110 requirement is intended to recover these incremental costs? Please explain.

d. Please compare this to market purchases or other power purchases.

RESPONSE TO REQUEST NO. 7: Idaho Power does not purchase power from QFs on a month-ahead basis. QFs that have Energy Sales Agreements (“ESA”) with Idaho Power are paid the avoided cost prices specified in the QF’s ESA for Net Energy that is delivered on an actual basis. However, in order to maintain a balanced and reliable electrical system, Idaho Power must successfully integrate generation from variable and intermittent generation resources that deliver to the Company. Idaho

Power has conducted multiple wind and solar integration studies that attempt to quantify the cost of modifying the Company's operations to hold additional up and down regulation reserves to manage intermittent resources.

If Idaho Power is required to replace QF generation with generation from other resources, all those other resources are currently lower cost than the QF's contract rate. Nearly all of Idaho Power's ESAs with QFs contain firm generation pricing even though what most QFs deliver is not firm generation. If the majority of non-firm QF generators were appropriately priced with the non-firm avoided cost rate, that cost would be closer to a market price, and less harmful to customers.

a. The determination of any type of integration costs that are needed to carry reserves to account for the intermittency of QF generation, is made in integration cost studies. Idaho Power's most recent Wind Integration Study ("WIS") was recently completed in response to Order No. 17-075, Case No. UM 1793, issued by the Public Utility Commission of Oregon ("OPUC"). This study will be filed with the OPUC by July 31, 2018, and an informational copy will be provided to the Idaho Public Utilities Commission ("IPUC" or "Commission") at the same time. The WIS suggests that the Idaho Power system may be nearing a point that it is no longer capable of integrating additional intermittent generation resources.

It follows logically that as the differential between incremental costs increase with additional generation on the system, that as the amount of actual generation increases the overall cost increases.

b. To estimate the costs of integrating wind in the WIS, the Company used a comparison of annual production costs between two scenarios having different

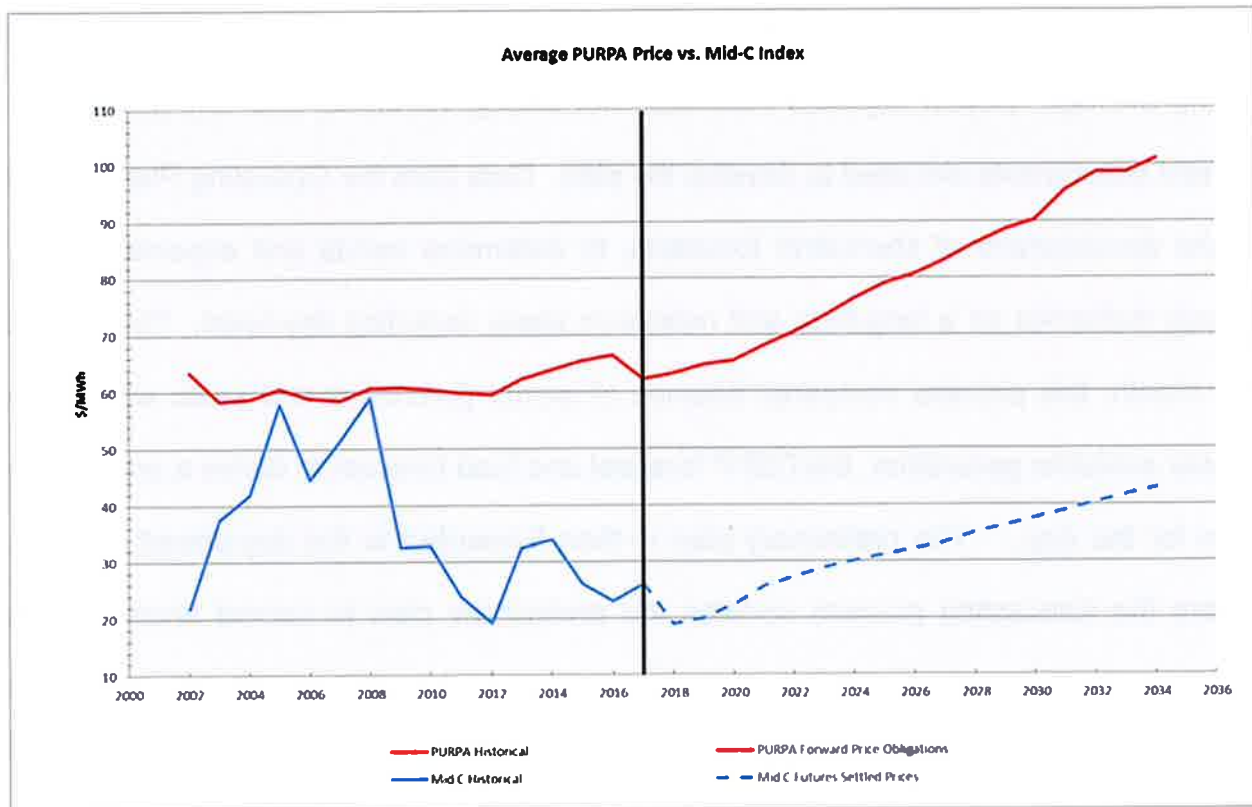
regulating reserves requirements, where the difference in regulating reserves is related to wind's variability and uncertainty. The production cost difference between scenarios was divided by the annual megawatt-hours ("MWh") of wind generation to yield an estimated integration cost expressed per MWh of wind generation. These data are included in the WIS. A similar type of analysis could quantify costs for any other Variable Energy Resource ("VER").

c. No. The cost of integrating VERs identifies the cost of carrying adequate reserves to operate a balanced electrical system, whereas, as described in Idaho Power's response to Staff's Request No. 1, the primary function of the 90/110 provisions in the state of Idaho's implementation of the Public Utility Regulatory Policies Act of 1978 ("PURPA") is to serve as a measure of firmness that establishes a QF's eligibility for firm avoided cost rates determined at the time of contracting as opposed to non-firm avoided cost rates established at the time of generation delivery.

All QF purchases are non-firm in that delivery of their generation occurs as, when, and in whatever amounts the QF determines it will deliver. The IPUC's implementation of PURPA's mandatory purchase has identified its own unique definition of firm and non-firm pricing. For non-firm purchases, "as available" pricing is applied and is determined at the time of delivery. For firm pricing, avoided cost values are used for the duration of the term at the time of contracting.

d. Idaho Power is not sure what is meant in the question by "compare this." The 90/110 provisions are applied in ESAs with QFs so that if a QF is unable to deliver energy on a monthly basis that meets the requirements of the 90/110 provisions, the non-firm, Surplus Energy is paid the Schedule 86 market-based, non-firm price that has

some correlation with actual market value of energy. Idaho Power has demonstrated in the past that historical average costs of generation provided by PURPA QFs has exceeded average Mid-C market prices, and the disparity between future average cost obligations of QFs under contract with Idaho Power and Mid-C market prices is anticipated to continue to grow. Please see the chart below.



The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 8: In the “Answer to Interrogatory No. 2” of “Idaho Power Company’s Answers and Responses to J.R. Simplot’s First Interrogatories, Requests for Admission, and Requests for Production to Idaho Power Company”, the Company described the process for developing the Operating Plan, which reflects the economic dispatch of the Company’s resources on a monthly basis. According to Idaho Power, QF contract estimated generation amounts, most recent 12-month history, five-year rolling average, project adjusted estimated net energy amounts, and any previous or current adjustments are used to develop the plan. Data from the Operating Plan is used in the development of short-term forecasts, to determine trends and expectations for energy deliveries on a long-term and near-term basis, including day-head. Throughout the month, this process compares balance of month purchases and sales with Idaho Power available generation, the CSPP forecast and load forecast to derive a preliminary plan for the day... The preliminary plan is then forwarded to the day-ahead process, where the forecasting process updates the preliminary plan to correct short or long positions, based on three-day trending of average output from generation resources, to estimate expected deliveries for the upcoming day.

a. Does Idaho Power use the QF energy estimation amounts for purposes other than the development of the Operating Plan, the Preliminary Plan for the Day, and the Day-ahead Process? If so, please describe them in detail.

b. Please describe in details how an inaccurate estimate can affect the Operating Plan, the Preliminary Plan for the Day, and the Day-ahead Process. Please support your answers with examples.

c. Is developing improved forecasting capabilities an appropriate replacement for 90/110?

RESPONSE TO REQUEST NO. 8:

a. Yes. As described in Idaho Power's response to Staff's Request No. 1, the primary function of the 90/110 provisions in the state of Idaho's implementation of PURPA is to serve as a measure of firmness that establishes a QF's eligibility for "firm" avoided cost rates determined at the time of contracting or legally enforceable obligation ("LEO") as opposed to "non-firm" avoided cost rates established at the time of generation delivery.

All QF purchases are "non-firm" in that delivery of their generation occurs as, when, and in whatever amounts the QF determines it will deliver. The purchasing utility has no dispatchable control over the QF's generation deliveries. The Commission's current implementation of PURPA's mandatory purchase requires its own unique definition of "firm" and "non-firm" pricing. For "non-firm" purchases, "as available" pricing is applied and is determined at the time of delivery. For "firm" pricing, avoided cost values are used for the duration of the term at the time of contracting or LEO.

The Commission has determined that a LEO for the purchase of QF generation translates into contractual obligations for both the utility and the QF. In order to receive the "firm" pricing avoided cost rates, the QF is obligated to deliver its generation within the 90 percent–110 percent band of its own monthly generation estimates, which the QF sets itself and is free to modify. Compliance with the 90/110 provisions is how a QF establishes its eligibility for pricing determined at the time of contracting or LEO that is set for the term of the contract or LEO. If the QF is not in compliance with the 90/110 provisions required of "firm" pricing, then it receives the other approved avoided cost price for "non-firm" or "as available" pricing determined at the time of delivery.

In addition to determining a QF's eligibility for proper pricing, initial or seller adjustments to monthly estimated net energy amounts are used in several other provisions of ESAs with QFs.

For example, ESAs that contain avoided cost prices based on the incremental cost integrated resource plan (ICIRP) methodology monthly generation estimates serve as an input to the Pricing Adjustment mechanism to ensure the generation profile submitted by the project that is used to establish contract prices is a realistic expectation of monthly energy production based on the characteristics of the generation equipment being installed at the project. If a seller submits adjusted monthly net energy amounts that differ from those that were used for initial pricing, then contract prices may be subject to a pricing adjustment.

For hydro projects that are eligible for published avoided cost rate ESAs, monthly generation estimates provided by the QF are used to determine the hydro project's eligibility for seasonal or non-seasonal avoided cost prices.

If a QF submits to Idaho Power a Seller Declared Suspension of Energy Deliveries or notice of a Force Majeure event that is accepted by Idaho Power, the monthly generation estimate is used as an input in the calculation of an adjusted monthly net energy amount, which may provide the QF with relief from the 90/110 provision.

Monthly estimated net energy amounts provided by projects are used in an annual determination of a project's ability to deliver a minimum of 10 percent of the annual estimated Net Energy, otherwise the QF may be in default of the ESA.

In ESAs that contain levelized avoided cost pricing, monthly estimated net energy amounts are utilized to calculate the amount required in a debt service reserve account and the accumulated overpayment amount required by the ESA.

b. The overall forecasting process that utilizes monthly generation estimates provided by QFs is described in Idaho Power's answer to J.R. Simplot Company's Interrogatory No. 2, which explains the process of utilizing various sources of information to create the forecasts the Company's utilizes in its Operating Plan. As described in that answer, data from the Operating Plan is used to determine trends, balance of month positions, and day-ahead forecasts in order to operate the system within balancing limits, which includes information from the cogeneration and small power production ("CSPP") forecast. When a new QF project is entered into the CSPP forecasting process, the only source of generation information specific to the project is the monthly generation estimates provided by the QF, while many QFs under historical ESAs with Idaho Power do not provide monthly generation estimates. That is why Idaho Power utilizes all sources of information it has access to from QFs to develop its CSPP forecast to mitigate the impacts of an inaccurate estimate of generation provided by QFs.

As further described in Idaho Power's answer to J.R. Simplot Company's Interrogatory No. 2, actual deliveries from Idaho Power available generation resources, CSPP projects, the latest load forecast, and the latest wind and solar forecasts are all used to determine if the Company is within balancing limits or if additional mitigating actions must be taken, such as placing orders to balance the system.

c. No. The determination of a QF's compliance with 90/110 provisions is separate and independent of Idaho Power's ability to forecast generation from a QF, although the two separate processes may utilize some of the same inputs; i.e., the monthly generation estimates provided by QFs. As previously stated in subpart a above, the primary function of the 90/110 provisions in the state of Idaho's implementation of PURPA is to serve as a measure of firmness that establishes a QF's eligibility for "firm" avoided cost rates determined at the time of contracting or LEO as opposed to "non-firm" avoided cost rates established at the time of generation delivery. Compliance with the 90/110 provisions is how a QF establishes its eligibility for pricing determined at the time of contracting or LEO that is set for the term of the contract or LEO. If the QF is not in compliance with the 90/110 provisions required of "firm" pricing, then it receives the other approved avoided cost price for "non-firm" or "as available" pricing determined at the time of delivery.

As described in subpart a above, monthly generation estimates provided by QFs are used in several provisions in ESAs and in the CSPP forecasting process. However, several historical QFs that are under contract with Idaho Power currently do not have a requirement to provide monthly estimated generation amounts. With regard to forecasting, as described in Idaho Power's answer to J.R. Simplot Company's Interrogatory No. 2, Idaho Power takes necessary steps, including using its own tools and processes to mitigate the intermittency of QF energy deliveries and makes decisions in order to operate a reliable and balanced electrical system.

The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 9: Does Idaho Power estimate generation amounts of its own hydro and other variable resources? If so, please answer and provide the following:

- a. Describe the estimation process.
- b. Quantify the accuracy of Idaho Power's estimates compared to QFs' estimates.
- c. If Idaho Power believes its estimates are more accurate than QFs' estimates, please discuss whether it is possible to allow QFs affected by this case to use the same estimate service and share the cost of the service.

RESPONSE TO REQUEST NO. 9:

a. Idaho Power uses a version of the National Weather Service's River Forecast System for forecasting streamflow at each of Idaho Power's hydrogeneration facilities. The version of the River Forecast System used by Idaho Power has been calibrated specifically for the Snake River basin, for Idaho Power's operational planning purposes. The system is comprised of physically based, lumped hydrologic models that are calibrated to represent the average value over each elevation band within the forecast system. The lumped models used within Idaho Power's hydro forecast system include a snow accumulation and ablation model, soil moisture accounting procedure, channel routing, and a consumptive use model. These hydrologic models combined with RiverWare rule-based simulation reservoir models provide Idaho Power with a streamflow forecast at each of Idaho Power's hydrogeneration facilities. The streamflow forecast is then input into the hydro model. The hydro model optimizes the use of water during individual months of the water year. The model uses updated inflows, market prices, and an updated position for all components. The model includes any unit constraints, reservoir levels, flood requirements and minimum flow requirements, maintenance schedules, and unit generation capacities.

b. There is no comparison. As described in subpart a above, and in Idaho Power's answer to J.R. Simplot Company's Interrogatory No. 2, Idaho Power performs many steps and utilizes multiple sources of information to estimate generation from all of its available resources to move from monthly, long-term forecasts to day-ahead and real-time operations to balance the electrical system. Generation from QFs is not dispatchable and Idaho Power has no control over when or how much is delivered at any point in time. The Company must operate a balanced and reliable system, while integrating intermittent and variable generation from QFs.

c. It is not possible for Idaho Power to determine if its estimates are more accurate than a QF's because QF generation is delivered to Idaho Power on an as, when, and in whatever amount basis determined by the QF. Idaho Power cannot dispatch QF generation in order to meet load, whereas, Idaho Power must move its month-ahead and balance-of-month forecasts to day-ahead and real-time operations to balance generation and load. In addition, QFs' generation is contingent on the location and the source of motive force that is used to produce power, and Idaho Power's forecasting processes are designed specifically for the Company's resources and system. Therefore, it is not possible to allow QFs to use the same tools that Idaho Power utilizes in developing its forecasts as described in subpart a above and in Idaho Power's answer to J.R. Simplot Company's Interrogatory No. 2. However, like it has done for wind and solar QFs for purposes of integrating variable and intermittent generation, it is possible for Idaho Power to investigate purchasing or developing its own tools and processes for forecasting generation from the QFs affected by this case at the cost of the QFs.

The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 10: Please provide a schematic of the typical installation of a QF transmission level interconnection (138kV to 161kV). Show components and equipment items from the existing system tie-in through to the QF generator. Please identify each item, the point of delivery, and the limits of the Company's O&M responsibility.

RESPONSE TO REQUEST NO. 10: Please see the single line of an actual 138 kilovolt ("kV") interconnection provided on the enclosed CD. The Company's operation and maintenance ("O&M") responsibility includes the interconnection station and begins at the point of delivery indicated on the drawing. Because transmission level interconnections vary on the size of project and specific location of the station, an actual drawing from a Facility Study was provided in lieu of a standard interconnection schematic. However, the ownership and O&M responsibilities would be similar with other projects.

The response to this Request is sponsored by Jeremiah Creason, Operations Analyst II, Idaho Power Company.

REQUEST NO. 11: Please provide a schematic of the typical installation of a QF distribution level interconnection (below 138kV). Show components and equipment items from the existing system tie-in through to the QF generator. Please identify each item, system tie-in point, the point of delivery, and the limits of the Company's O&M responsibility.

RESPONSE TO REQUEST NO. 11: Please see the line drawing provided on the enclosed CD for a standard distribution level interconnection. The Company's O&M responsibility begins at the point of delivery indicated.

The response to this Request is sponsored by Jeremiah Creason, Operations Analyst II, Idaho Power Company.

REQUEST NO. 12: In the “Response to Request for Production No. 1.2” of “Idaho Power Company’s Response to Renewable Energy Coalition’s First Request for Production”, Idaho Power stated that the workpapers supporting the calculation of the 0.4 percent rate for 138 kV interconnections and above were not available.

a. Please confirm that Attachment A to this request is the workpaper used to calculate the 0.4 percent rate.

b. Please update the 0.4 percent rate by using the most recent input data (i.e. 12 months ending December 31, 2017), and provide worksheets (with formula intact) to show the calculation steps.

RESPONSE TO REQUEST NO. 12:

a. Yes, Attachment A to this Request is the workpaper used to calculate the 0.4 percent rate.

b. Please see the Excel file provided on the enclosed CD.

The response to this Request is sponsored by Mark Annis, Senior Regulatory Analyst, Idaho Power Company.

REQUEST NO. 13: The Company's response to Renewable Energy Coalition's first production request No. 1.3 provides the data for calculating a current version of the 35-year levelized Distribution Operation and Maintenance rate of 0.70%. Please explain how this rate, when applied to the initial construction cost of a QF interconnection, provides an accurate levelized monthly estimate of O&M expense. In addition, please provide the following:

a. Please provide a detailed description for each item in Line Nos. 1-47 and explain why each of the items are included in the calculation of the O&M rate.

b. Are there any other components beyond those listed on lines 1 and 2 (poles and conductors) necessary for distribution level QF interconnections? If so, what are they? If they are not included, why not?

RESPONSE TO REQUEST NO. 13: The monthly O&M charges under Schedule 72 are a cost ratio based upon the actual O&M expenses incurred on similar facilities on Idaho Power's system. The monthly cost ratio is the amount the Company spends on a total system basis to operate and maintain its investment in Federal Energy Regulatory Commission ("FERC") Account 364--Poles, Towers & Fixtures, and Account 365--Overhead Conductors and Devices, to its total investment in these accounts. The monthly O&M charge provides a reasonable proxy for what the Company may expect to spend over the life of interconnection facilities similar to the ones installed at a typical CSPP. The project pays its *pro rata* share of O&M costs, based on the original costs of its interconnection facilities.

a. Please see the spreadsheet provided on the enclosed CD for a description of Line Nos. 1-47. The purpose of the O&M charge under Schedule 72 is to hold retail

customers of Idaho Power harmless by charging PURPA projects a reasonable rate for what the Company may expect to spend on O&M over the life of the interconnection facilities required by the QF projects. The costs used to calculate the rate are derived from actual Company costs incurred for operating and maintaining distribution assets. These costs represent reasonable expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing interconnection facilities.

b. The interconnection consists primarily of items such as poles, conductor, and related fixtures and devices accounted for in FERC Plant Accounts 364 and 365. The methodology developed in the past only focused on the poles and conductor; however, other equipment and investments may be required on any particular interconnection.

Also, in order to integrate the generation into the Idaho Power system the distribution and transmission systems are necessary to move the generation to load.

The response to this Request is sponsored by Mark Annis, Senior Regulatory Analyst, Idaho Power Company.

REQUEST NO. 14: Please provide the same information for the calculation of the 35-year levelized Transmission Operation and Maintenance rate of 0.40% as requested in the previous question. Please include subparts a and b in your response.

RESPONSE TO REQUEST NO. 14: O&M charges under Schedule 72 are based on system average costs of Idaho Power's transmission facilities, using the methodology provided in the Company's response to Staff's Request No. 12. The project pays its *pro rata* share of O&M costs, based on the original costs of its interconnection facilities.

a. Please see the spreadsheet provided with the Company's response to Staff's Request No. 12 for a description of Line Nos. 1-46. The purpose of the O&M charge under Schedule 72 is to hold retail customers of Idaho Power harmless by charging PURPA projects a reasonable rate for what the Company may expect to spend on O&M over the life of the interconnection facilities required by the QF projects. The costs used to calculate the rate are derived from actual Company costs incurred for operating and maintaining Transmission Assets. These costs represent reasonable expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing interconnection facilities.

b. The interconnection consists of items such as towers, poles, conductor, and related fixtures and devices accounted for in FERC Accounts 354, 355, and 356. The methodology developed in the past only focused on the assets specific to the 138 kV and 161 kV lines; however, other equipment and investments may be required on any particular interconnection.

Also, in order to integrate the generation into the Idaho Power system the distribution and transmission systems are necessary to move the generation to load.

The response to this Request is sponsored by Mark Annis, Senior Regulatory Analyst, Idaho Power Company.

REQUEST NO. 15: Please explain why the 35-year levelized Distribution Operation and Maintenance rate is different than the 35-year levelized Transmission Operation and Maintenance rate.

RESPONSE TO REQUEST NO. 15: The methods used to calculate the distribution O&M rate and the transmission O&M rate are shown in the Company's responses to Renewable Energy Coalition's Request for Production Nos. 1.10 and 2.2. The methods use Idaho Power financial information specific to distribution plant and transmission plant, respectively. The different results of the calculations are the result of the different inputs used, and indicate that, for the plant balances included in the calculation, O&M as a percentage of total plant balances is higher for distribution plant than for transmission plant.

The response to this Request is sponsored by Mark Annis, Senior Regulatory Analyst, Idaho Power Company.

REQUEST NO. 16: What sort of expenditure in time and resources does it take to integrate the monthly output estimates into your resource stack?

RESPONSE TO REQUEST NO. 16: Idaho Power does not directly integrate the monthly generation estimates from QFs into its resource stack. As explained in Idaho Power's answer to J.R. Simplot Company's Interrogatory No. 2, monthly generation estimates are one of several inputs that are evaluated and considered in the overall CSPP forecasting process. However, there are several historical ESAs between QFs and Idaho Power that do not contain monthly generation estimates, so they cannot be used to determine the estimated amount of total generation from QFs on the Idaho Power system. The CSPP forecast, which takes several days to prepare, is one of many inputs to Idaho Power's Operating Plan, which is refined through multiple processes to derive short-term and day-ahead plans to ensure the electrical system is operated reliably and balanced.

The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 17: At the time the legally enforceable obligation is incurred, do you know whether you will pay the QF published avoided costs or Surplus Energy Price for the electricity you purchase from the QF?

RESPONSE TO REQUEST NO. 17: In order to obtain a QF ESA with Idaho Power, under the state of Idaho's implementation of PURPA, QFs must submit a Schedule 73 Qualifying Facility Energy Sales Agreement Application ("Application") to Idaho Power. As part of an Application, the QF selects the avoided cost rate option it is requesting, such as published avoided cost rates, rates determined at the time of delivery, or Integrated Resource Plan ("IRP")-based rate. The QF, at its sole discretion, is free to choose which rate it desires, subject to eligibility thresholds.

The prices paid to a QF that has an executed ESA that has been approved by the Commission are determined in accordance with the ESA that is in place with a QF. For example, in current published avoided cost and IRP-based rate ESAs, the Net Energy delivered by a QF that has achieved a First Energy Date but has not yet been granted an Operation Date is defined as Surplus Energy in the applicable ESA and the QF is paid the Surplus Energy Price for the amount delivered. For QFs with ESAs that contain the 90/110 provisions that have achieved an Operation Date, the Net Energy delivered to Idaho Power from a QF that is between 90 percent and 110 percent of the QF's estimated monthly net energy amount is paid the contractual Purchase Price according to the ESA, while Net Energy delivered that is less than 90 percent or over 110 percent is defined as Surplus Energy and paid the Surplus Energy Price. At no point are QFs "penalized" or not paid a proper price for the amount of Net Energy

delivered. They are paid the applicable and appropriate price for the type (firm or non-firm) and amount of Net Energy they deliver in accordance with the QFs' ESAs.

If a QF requests an ESA that contains fixed contract rates for the term of the ESA, then it is expected to accept the provisions and conditions of the agreement and will be paid in accordance with the ESA. QFs that are unable to or do not desire to conform to the 90/110 provisions are free to select the "rates determined at the time of delivery" rate option in their Application and enter into a Schedule 86 ESA.

The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 18: According to Idaho Power's response to Interrogatory number 2 from the J.R. Simplot Co., a forecast for each QF is developed based on; "a number of factors including contract estimated generation amounts, most recent 12-month history, five-year rolling average, project-adjusted estimated net energy amounts, and any previous or current adjustments. Generally, the starting point is the rolling five-year historical average of monthly generation . . ." Given the numerous factors considered, and that the starting point is the five-year plan, admit or deny that an accurate estimate is feasible without the 90/110 performance band.

RESPONSE TO REQUEST NO. 18: As described in Idaho Power's answer to J.R. Simplot Company's Interrogatory No. 2, Idaho Power uses several inputs to develop its CSPP forecast. One of the inputs taken into consideration is the monthly generation estimates provided by QFs. For QFs that are under contract but have not made any energy deliveries to Idaho Power, the only source of generation data available to the Company are the initial monthly net energy amounts provided by the QF in its ESA. However, aside from the beneficial use that ongoing seller adjusted monthly generation estimates provide in Idaho Power's forecasting processes, the 90/110 provision has no relevance to Idaho Power's ability to forecast generation from the QF on an ongoing basis. QFs are free to update their monthly generation estimates on a regular basis as described in the QFs' ESAs, to achieve energy deliveries that are within the 90/110 percent band. The determination of a QF's ability to receive the Purchase Price specified in its ESA as it relates to the 90/110 provision is independent of Idaho Power's ability to forecast generation from a QF. The 90/110 provision in ESAs require the use of monthly energy estimates in the determination of prices paid to

the QFs, while Idaho Power's CSPP forecasting process may use the same monthly energy estimates as an input source in the development of its forecast.

The primary purpose of the 90/110 provisions in an ESA is to serve as a measure of firmness that establishes a QF's eligibility for "firm" avoided cost rates determined at the time of contracting as opposed to "non-firm" avoided cost rates established at the time of generation delivery. Compliance with the 90/110 provisions is how a QF establishes its eligibility for pricing determined at the time of contracting that is set for the term of the contract. If the QF is not in compliance with the 90/110 provisions required of "firm" pricing, then it receives the other approved avoided cost price for "non-firm" or "as available" pricing determined at the time of delivery.

For QFs that have ESAs with Idaho Power containing the 90/110 provisions, Idaho Power determines the price to be paid to the QF on a monthly basis by comparing the monthly generation estimates provided by the QF to the actual deliveries of Net Energy from the QF. Based on this comparison of energy delivered by a QF on a monthly basis, Idaho Power pays the project the Purchase Price specified by the ESA or, if some amount of the energy delivered is Surplus Energy, then the Surplus Energy Price is paid for the applicable energy.

The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 19: How many times have small hydro QFs fallen outside the 90/110 performance band? By how much as a percentage?

RESPONSE TO REQUEST NO. 19: Through March 2018, out of 697 months that hydro QFs that have ESAs with Idaho Power containing the 90/110 provisions have delivered Net Energy to Idaho Power, there were 163 months that hydro QFs delivered Net Energy that was less than 90 percent of the QFs' estimated monthly Net Energy Amounts, which equates to 23 percent of months. Out the same 697 months, there were 221 months when hydro QFs provided Net Energy that was greater than 110 percent of the QFs' estimated monthly Net Energy Amounts, or 32 percent.

The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 20: Have there been any increased operation difficulties integrating electricity from wind QFs with the replacements to the 90/110 requirement in Order No. 30488?

RESPONSE TO REQUEST NO. 20: Yes. The 90/110 requirement does not directly impact operations; however, the continued expansion of intermittent generation resources interconnected and delivering energy to the Idaho Power system have increased operational difficulties for Idaho Power. In 2017 curtailments of VER exceeded all previous years' curtailments combined. Multiple factors, including the addition of non-dispatchable, must-take generation resources, relatively flat load growth, high spring hydro conditions, and a low-priced energy market in the West, contributed to the increased number of curtailment events in Idaho Power's balancing area.

VER projects are curtailed when Idaho Power is unable to maintain sufficient dispatchable generation resources to respond to contingencies and provide regulating reserves to respond to changes in load and non-dispatchable generation. High river conditions with dam operating restrictions and flood-control target levels will not allow Idaho Power's dispatchable resources, such as hydro units, to reduce generation when VERs generate above forecast levels. Low market prices make keeping thermal resources on-line and spinning to respond when VERs under-generate their forecast or down ramp unexpectedly very expensive. Additionally, other possible reliability events, such as a line outage, requires some dispatchable unit generation be maintained in reserve to respond for reliability, public safety, or the protection of Idaho Power or public equipment.

Idaho Power has recently completed its third WIS, which will be filed with the OPUC by the end of July 2018, and will be provided to the IPUC. The WIS report concludes that varied analyses of wind, solar, load, Energy Imbalance Market, and reserves indicates that a unified VER integration analysis approach may be the best way to assess costs for additional increments of variable and intermittent generation resources.

It is for these reasons, among others, that Idaho Power believes that due to the variable and intermittent nature of PURPA QFs that the appropriate and fair avoided cost price paid to these generation resources, that cannot provide “firm” scheduled deliveries, is an “as delivered” market-based price similar to the Public Utility Commission of Texas’s ruling that defines “firm power” as “power or power-producing capacity that is available pursuant to a legally enforceable obligation for scheduled availability over a specified term” and “non-firm power” as “power provided under an arrangement that does not guarantee scheduled availability, but instead provides for delivery as available.” Arguably, electricity from variable and intermittent PURPA QFs should not be eligible for a “firm,” long-term fixed rate at all, but should instead be paid on an “as delivered, as available” basis, unless firm, scheduled deliveries of energy are provided by the QF.

The response to this Request is sponsored by Michael Darrington, Energy Contracts Leader, Idaho Power Company.

REQUEST NO. 21: How do you define “firm energy” in regards to QF energy sales in Idaho? How does this definition differ from what you consider the industry definition standard of “firm energy?”

RESPONSE TO REQUEST NO. 21: “Firm energy,” with regard to QF sales in Idaho, is defined by the Commission as QF generation deliveries to the utility falling within 90 percent to 110 percent of the QF’s own monthly generation estimates from the power sales agreement.

For non-QF purchases of generation, the seller must preschedule the generation delivery as firm power. “Firm energy” in this context means that the utility will purchase and the seller will guarantee delivery of a specified amount of generation (kilowatt or megawatt) that is scheduled and delivered for a particular time (hour) at a specified point of delivery. Firm capacity is the amount of energy available for production or transmission which can be, and in many cases must be, guaranteed to be available at a given time. Firm energy refers to the actual energy guaranteed to be available. Non-firm energy refers to all available energy that is beyond firm energy.

The response to this Request is sponsored by Tessia Park, Vice President of Power Supply, Idaho Power Company.

DATED at Boise, Idaho, this 31st day of July 2018.



DONOVAN E. WALKER
Attorney for Idaho Power Company

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 31st day of July 2018 I served a true and correct copy of IDAHO POWER COMPANY'S RESPONSE TO THE SECOND PRODUCTION REQUEST OF THE COMMISSION STAFF TO IDAHO POWER COMPANY upon the following named parties by the method indicated below, and addressed to the following:

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