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Attorney for the Commission Staff

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IDAHO POWER COMPANY’S ANNUAL)
COMPLIANCE FILING TO UPDATE THE) **CASE NO. IPC-E-22-26**
LOAD AND GAS FORECASTS IN THE)
INCREMENTAL COST INTEGRATED)
RESOURCE PLAN AVOIDED COST MODEL) **REDACTED COMMENTS OF**
) **THE COMMISSION STAFF**
)

STAFF OF the Idaho Public Utilities Commission, by and through its Attorney of record, Michael Duval, Deputy Attorney General, submits the following comments.

BACKGROUND

On October 14, 2022, Idaho Power Company (“Company”) made a compliance filing (“Filing”) requesting the Commission issue an order accepting its updated “load forecast, natural gas price forecast, and contracts used as inputs to calculate its Incremental Cost Integrated Resource Plan (“IRP”) avoided cost methodology.” Filing at 1. The Company must update these inputs by October 15 of each year. *See* Order Nos. 32697 and 32802. The Filing also updates the peak and premium peak hours used by the Company for the avoided capacity cost calculations available to energy storage qualifying facilities (“QF”). IRP avoided cost rates are available to QFs that are above the resource-specific project eligibility cap for published avoided

cost rates under Idaho’s implementation of the Public Utility Regulatory Policies Act of 1978 (“PURPA”).

STAFF ANALYSIS

Staff has reviewed the Filing and recommends approval of following, with an effective date of January 1, 2023, as required by Order No. 35294:

1. The proposed load forecast;
2. The proposed natural gas forecast;
3. The proposed Peak Hours and Premium Peak Hours to be used to calculate and pay capacity payments for energy storage QFs using IRP-based avoided cost rates;
4. The Peak Hours to be used to calculate and pay capacity payments for energy storage QFs using Surrogate Avoided Resource (“SAR”)-based rates;
5. Staff’s proposed modifications to the current methodology used to determine Non-Premium Peak Hour and Premium Peak Hour rates, which will allow the Premium Peak Hour rates to be consistently 20% above the Non-Premium Peak Hour rates;¹ and
6. Staff’s recommendation that the Company continue to include contract updates in future annual filings, even though contract updates are incorporated in the IRP model on a continuous basis.

The Company states that Peak Hours and Premium Peak Hours are subject to change annually and when a new IRP is acknowledged. Filing at 9-10. The Company requested that the Commission waive the requirement to file an update to the hours upon acknowledgement of the IRP. Staff believes that the Company should only update Peak Hours and Premium Peak Hours annually and does not need to update them upon acknowledgement of the IRP in accordance with Order No. 34913.

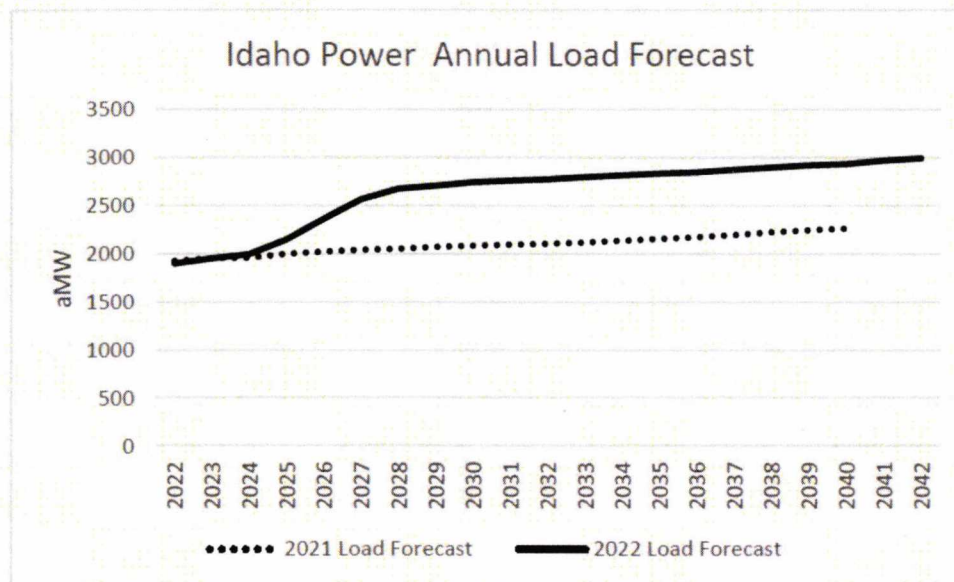
¹ Because Peak Hours include Premium Peak Hours, Staff uses Non-Premium Peak Hours to refer to the remaining Peak Hours that are outside the Premium Peak Hours.

Load Forecast

Staff believes that the proposed load forecast is reasonable and reflects load trends within the Company's service territory. Staff justifies its conclusion based on the small amount of change from the previous year's forecast over the next few years of the forecast time horizon, a period critical to IRP-based PURPA contracts.

Staff compared the proposed load forecast to last year's load forecast as illustrated in Figure No. 1 below. The proposed load forecast is higher than last year's forecast over the long term mainly because of new large industrial customers being added to the system starting in year 2025. See Response to Staff's Production Request No. 3 (c). However, the most important period of the forecast relevant to this filing is during the next few years. This is because only the first few years of the forecast will be used to develop avoided cost rates for IRP-based PURPA contracts until the next annual update, since IRP-based PURPA contracts are limited to 2-year contract terms.

Figure No. 1: Load Forecast Comparison



Natural Gas Forecast

Staff verified that the Company has re-evaluated its natural gas price forecast methodology required by Order No. 35294. Staff also believes that the proposed Platts forecast is reasonable for determining IRP-based avoided cost rates.

In the last annual compliance filing (Case No. IPC-E-21-35), the Company's proposed Platts forecast did not accurately reflect natural gas prices that had shifted due to changes in market fundamentals, especially in the near term. Staff's Comments in Case No. IPC-E-21-35. Although the issue was mainly due to the age² of Platt's forecast included in its initial filing, the Commission required the Company to blend New York Mercantile Exchange ("NYMEX") futures prices with its Platt's forecast³ in a compliance filing and for the Company to re-evaluate its natural gas price forecast methodology prior to the next annual update. *See* Order No. 35294.

The Company re-evaluated its natural gas price forecast methodology for this case and believes that the Platts long-term forecast is still an accurate forecast to be used for determining IRP-based avoided cost rates. The Company states:

the inputs/techniques used to develop the Platts long-term forecast help ensure reliability including the fact that it is based on fundamental market drivers rooted in supply and demand. Additionally, the forecast model inputs include production, storage, transmission, and pipeline dynamics, among other factors, which work to solve for a competitive equilibrium.[] Moreover, the Platts long-term forecast is updated quarterly versus other forecasts that are updated annually, and further, Platts forecasts price curves for individual proxy basis hubs, which is not only consistent with what is used in the IRP but aligns with IPC's trading operations.

Idaho Power understands that other utilities may use other natural gas price forecast method, including some that may use NYMEX futures prices exclusively over the first few years of their forecasts. However, Idaho Power disfavor this source since the NYMEX markets also trade on technical drivers, which in part has led to unprecedented daily volatility over the last year; NYMEX has the ability to swing +/-10 percent on any given day. In contrast, the Platts long-term forecast inherently smooths out short-term volatility as it is not subjected to the irrational behavior of the daily markets. Moreover, given that this annual compliance filing is intended to maintain the most accurate and up-to-date reflection of a utility's true avoided cost between IRP filings, the Company believes it is appropriate to align the update with the inputs techniques used in the IRP as opposed to those of other utilities.

See the Filing at 5-6.

² The proposed Platts forecast in the last annual compliance filing was generated in July of 2021 and did not capture price increases due to changes in the natural gas market that occurred starting the end of July. *See* the Company's Reply Comments in Case No. IPC-E-21-35.

³ The forecast for years 2022-2024 used the NYMEX forwards prices. The forecast for 2025 used an average of the NYMEX prices and the Platts long-term forecast prices published on July 21, 2021. The forecast for years 2026-2040 used the Platts long-term forecast prices published on July 21, 2021. The forecast for 2041 used a calculated value from the linear regression of the last five years of the Platts long-term forecast prices.

Staff believes that as long as the Company uses the most recent quarterly Platt's forecast in its annual update, it should reflect the most recent market fundamentals driving market prices over the next few years. However, Staff believes it is still possible to use NYMEX prices in its near-term forecast similar to other Idaho utilities using NYMEX prices and 3rd party forecasts. For example, Avista smooths out the NYMEX forecasts by developing monthly projections using daily forward prices on different settlement dates for a specific contract month in the future to arrive at a monthly value for each month⁴.

Regardless, Staff believes the proposed Platt's natural gas forecast is reasonable based on two separate analyses. First, Staff compared the proposed Platts Henry Hub forecast published September 9, 2022, the approved Henry Hub forecast under the blended method in Case No. IPC-E-21-35, and the Platts Henry Hub forecast published December 14, 2021⁵. Second, Staff compared the Company's proposed Henry Hub forecast to the Henry Hub forecasts of Avista and Rocky Mountain Power.

The comparison of the proposed Platts forecast published September 9, 2022, the approved forecast under the blended method in Case No. IPC-E-21-35, and the Platts forecast published December 14, 2021, is reflected in Figure No. 2 below. The proposed Henry Hub forecast for this year is significantly higher than the other two forecasts from last year. Staff believes the difference is primarily driven by market fundamentals that have increased the price of natural gas over the past one and a half years.⁶

⁴ This information was confirmed by Avista through email on December 2, 2022.

⁵ This information was provided in the Company's Reply Comments in Case No. IPC-E-21-35.

⁶ See natural gas market trends on Stats Tab at <https://tradingeconomics.com/commodity/natural-gas>

Figure No. 2: Comparison of Idaho Power’s Henry Hub Forecasts

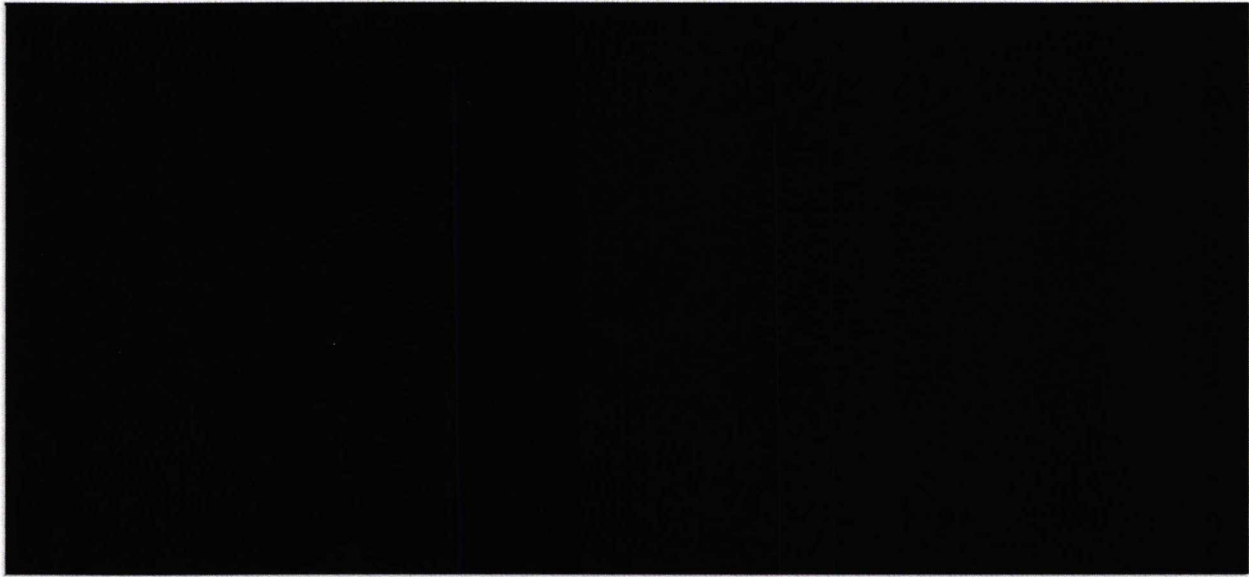
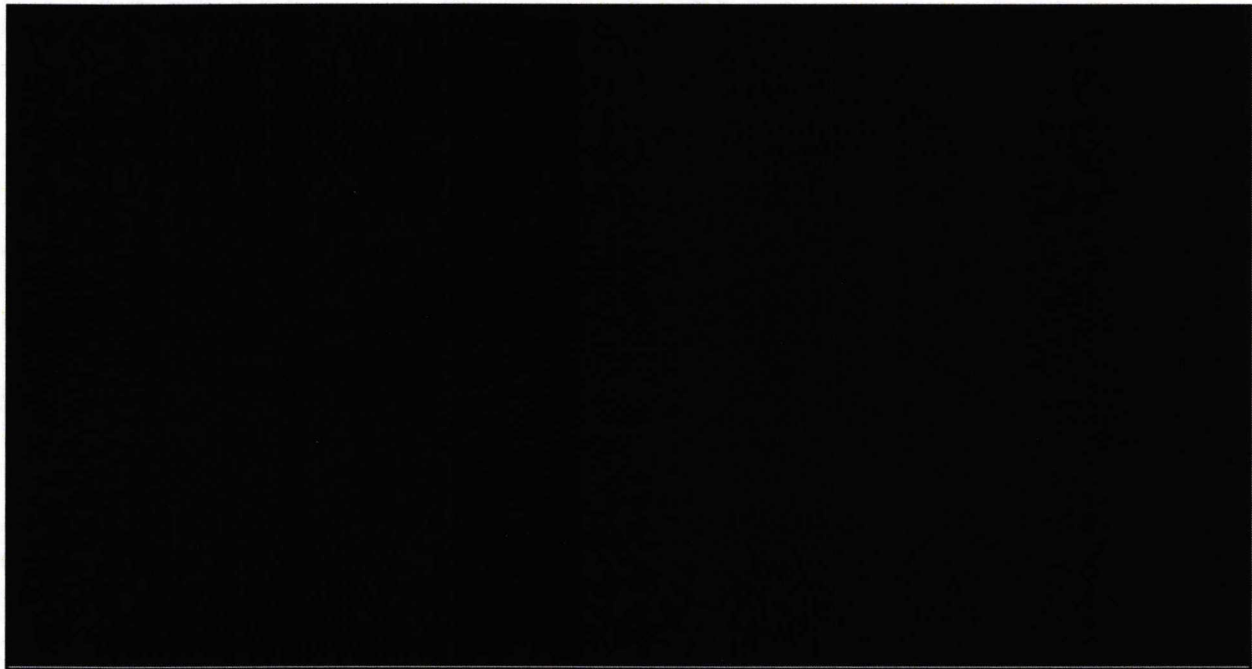


Figure No. 3 shows the comparison between the Company, Avista (Case No. AVU-E-22-15), and Rocky Mountain Power’s (Case No. PAC-E-22-16) Henry Hub forecasts. The results show similar trends between the three utilities. Although these utilities use different methodologies to determine Henry Hub forecasts, all three forecasts reflect a high level of similarity over the next few years, which as discussed above, is the time frame relevant to new contracts that would receive pricing for two-year IRP-based contracts.

Figure No. 3: Comparison of Henry Hub Gas Forecasts Used by Three Utilities



Contract Updates

Contract updates are incorporated into the IRP model on a continuous basis. Order No. 32697 required that long-term contracts be considered in the IRP methodology at such time as contracts were signed and when they had terminated or expired. Later, Order No. 33357 found the “signed contract” language in Order No. 32697 did not achieve its intended result and required utilities to create a queue to track the order in which QF projects have entered negotiations with a utility.

Although contract updates are incorporated in the IRP model on a continuous basis, Staff believes the annual filing is a good opportunity for the Commission to review and monitor these updates. Therefore, Staff recommends that the Company continue to include contract updates in the future annual filings. For this case, Staff believes the contract updates included in the Filing are reasonable.

Peak and Premium Peak Hours used for Output Based Capacity Payments

The Company is required to update its Peak and Premium Peak Hours used to determine output-based capacity payments for energy storage projects in its annual load and natural gas forecast update. Order No. 34913. In addition to reviewing updates to Peak and Premium Peak

hours, Staff reviewed the current method used to determine Premium Peak Hour and Non-Premium Peak Hour rates to ensure that the premium is 20% above the Non-Premium Peak Hour rates.

Updates to Peak and Premium Peak Hours

Staff reviewed the method the Company used to update the Peak and Premium Peak Hours for 2023 and determined that the Company used the same method used in last year's annual filing. Therefore, Staff recommends approval of the proposed Peak Hours and Premium Peak Hours to be used to calculate and pay capacity payments for energy storage QFs using IRP-based avoided cost rates. Staff also recommends approval of the Peak Hours to be used to calculate and pay capacity payments for energy storage QFs with SAR-based rates.

The proposed Peak Hours for July in 2023 are 2:00 pm to midnight, which has one additional Peak Hour in July compared to the currently authorized Peak Hours. However, the proposed Peak Hours for August in 2023 are 5:00 pm to 9:00 pm, which has one fewer Peak Hour, resulting in the same number of total Peak Hours (434 hours) overall for a year. The proposed Premium Peak Hours for July are 6:00 pm through 10:00 pm, which start one hour later and end one hour later compared to the currently authorized Premium Peak Hours. The proposed Premium Peak Hours for August are 5:00 pm through 9:00 pm, which are the same as the currently authorized Premium Peak Hours.

Unlike IRP-based energy storage avoided cost rates where the Premium Peak Hour rates are higher than the Peak Hour rates, the SAR energy storage capacity payments are only paid for generation during Peak Hours without any premium. Although the Peak Hours have changed in this Filing compared to the currently authorized ones, the total number of Peak Hours remains 434 hours in a year. Avoided cost of capacity in the SAR Model is calculated by dividing the annual capacity value of a Combined Cycle Combustion Turbine plant by the total number of Peak Hours in a year. Therefore, the SAR-based avoided cost rates for energy storage will not be affected. However, QFs will receive capacity payments for generation output during different hours if the proposed hours are approved by the Commission.

Modification to Calculations of Non-Premium Peak Hour and Premium Peak Hour Rates

Staff proposes to modify the current methodology used to calculate the Non-Premium Peak and Premium Peak Hour rates so that the Premium Peak Hour rates are consistently 20% above Non-Premium Peak Hour rates without changing the total amount of Annual Capacity Payments that a QF can receive.⁷ Staff believes it is an ideal time to modify the method since there are no current or proposed energy storage PURPA projects using the current rate design.

In Case No. IPC-E-20-02, the Commission approved the current method and sets the Premium Peak Hour rates at 120% of the Base Capacity Price, which is calculated by spreading the Annual Capacity Payment over the total generation amounts within the Peak Hours. Under this methodology, there is no direct, fixed relationship between the Premium Peak Hour rates and the Non-Premium Peak Hour rates resulting in a premium that can vary depending on the project. Staff's proposal establishes a direct, fixed relationship between the two rates maintaining a consistent amount of premium of 20% by using the following formula:

$$\text{Non-Premium Peak Hour rates} = \text{Annual Capacity Payment} / (\text{Generation during Non-Premium Peak Hours} + \text{Generation during Premium Peak Hours} * 1.2)$$

Staff believes this modification will result in better transparency of the rate structure for negotiating parties.

Staff used data from Response to Staff's Production Request No. 39 in Case No. IPC-E-20-02 to develop the rate proof below, which compares the two methods. *See* Table No. 1.

⁷ Annual Capacity Payment is the product of Annual Value of the Surrogate Plant multiplying Peak Hour Capacity Factor (90th percentile). *See* the Company's Compliance Filing in Case No. IPC-E-20-02.

Table No. 1: Comparison of Current Method and Proposed Method

	Currently Approved Method	Proposed Method
Ratio Between Premium Peak Hour Rate and Base Capacity Price	1.2	Not Used
Ratio Between Premium Peak Hour Rate and Non-Premium Peak Hour Rate	Not Used	1.2
QF Generation Delivered during All Peak Hours (kWh)	8339000	8339000
Base Capacity Price (\$/kWh)	0.2626	Not Used
Premium Peak Hour Rate (\$/kWh)	0.3151	0.2816
QF Generation Delivered during Premium Peak Hours (kWh)	4960000	4960000
Premium Peak Hour Payment (\$)	1562936	1396776
Non-Premium Peak Hours Payment (\$)	626802	792962
QF Generation Delivered during Non-Premium Peak Hour (kWh)	3379000	3379000
Non-Premium Peak Hour Rate (\$/kWh)	0.1855	0.2347
SCCT Annual Total (\$)	2606831	2606831
Peak Hour Capacity Factor (90th percentile)	0.84	0.84
Annual Capacity Payment (\$)	2189738	2189738
Ratio Between Premium Peak Hour Rate and Non-Premium Peak Hour Rate	1.7	1.2

As can be seen in the table, the amount of the total Annual Capacity Payment remains the same, but the proposed method ensures that the Premium Peak Hour rate will always be 20% above the Non-Premium Peak Hour rate. Under the current method, the amount of premium can vary, which in this example is 170% of the Non-Premium Peak Hour rate.

STAFF RECOMMENDATION

Staff recommends that the Commission approve the following updates to determine the Company’s IRP-based PURPA avoided cost rates with an effective date of January 1, 2023, as required by Order No. 35294:

1. The proposed load forecast, as filed;
2. The proposed natural gas forecast, as filed;
3. The proposed Peak and Premium Peak Hours used to calculate and pay capacity payments for energy storage QFs using IRP-based avoided cost rates, as filed;

4. The Peak Hours used to calculate and pay capacity payments for energy storage QFs using SAR-based avoided cost rates, as filed;
5. Staff's recommendation that the method used to determine Non-Premium Peak Hour and Premium Peak Hour rates be modified based on Staff's proposal; and
6. Staff's recommendation that the Company continue to include contract updates in future annual filings, even though contract updates are incorporated in the IRP model on a continuous basis.

Respectfully submitted this 6th day of December 2022.



Michael Duval
Deputy Attorney General


Technical Staff: Yao Yin
Kevin Keyt

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 6th DAY OF DECEMBER 2022, SERVED THE FOREGOING **REDACTED COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. IPC-E-22-26, BY E-MAILING A COPY THEREOF, TO THE FOLLOWING:

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