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IDAHO PUBLIC
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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR AUTHORITY TO IMPLMENT CHANGES TO THE COMPENSATION STRUCTURE APPLICABLE TO CUSTOMER ON-SITE GENERATION UNDER SCHEDULE 6, 8, AND 84 AND TO ESTABLISH AN EXPORT CREDIT RATE METHODOLOGY	**CASE NO. IPC-E-23-14** **IDAHO IRRIGATION PUMPERS ASSOCIATION, INC.'S COMMENTS**

COMES NOW Idaho Irrigation Pumpers, Inc. ("IIPA") and pursuant to Order No. 35881, herein provide its comments with respect to Idaho Power Company's ("IPC") Application, as follows:

Background

The IIPA represents approximately 12 percent of IPC's load and 32 percent of energy subject to IPC's net export credit. IIPA members include both participants and non-participants in solar net metering. Thus, IIPA has an interest in ensuring that participants are fairly compensated, but not over-compensated, for export energy. We find that IPC's application fairly reflects IIPA's input on the VODAR study in Case. However, this filing provides additional detail and calculations which bring to light new issues that were not evident in that case. These comments address the following issues:

1. Irrigation and non-irrigation net export energy have substantially different annual shapes and warrant separately calculated export credits.
2. The EIM prices used to calculate on-peak energy value are, on average, hours where scarcity pricing results in market prices compensating for capacity as well as energy. As a result, IPC's filed rate double compensates net metering participants for the capacity value of exports, once directly through the capacity component and again indirectly through the on-peak energy component. The off-peak energy value should be credited in both on- and off-peak periods to avoid double counting capacity.
3. The EIM prices used to calculate energy value include the value of greenhouse gas credits. However, net metering participants retain RECs and all renewable attributes of their net production, thus these customers should not be compensated as if these attributes are being provided to IPC. The energy credit should be recalculated with GHG values removed from the EIM prices.
4. IPC expects market prices to decline over time during solar production hours. This means that the export credit will also decline over time. IPC should provide notice of this by including tariff language that informs customers of the expected decreases in the net export credit over time.
5. The proposed methodology values energy using historical rather than forecasted costs. In an environment of declining market prices during solar production hours, this will systematically bias the export credit and cause IPC to overpay for net energy. IPC should develop a balancing account to track the difference between the energy value paid to customers and the value received from customers and amortize the balance in each export credit rate update.

6. The distribution component of the capacity credit assumes that 100 percent of solar generation is exported. However, not all energy produced is exported, and much of the energy produced reduces the customer's energy bill. If the energy component of the customer's bill includes distribution costs, the customer will receive double compensation for reduced distribution costs, once directly through the capacity component of the export credit, and again by avoiding these costs through avoiding energy charges with self-consumed energy. Rate schedules that recover some portion of distribution demand costs through the energy charge should be excluded from receiving the distribution component of the capacity credit.

Issue 1: Separate Irrigation Energy Credit

IPC proposes a single export credit for all classes of exporting customers. However, most irrigation customers have little to no off-season load, while residential and commercial customers have material load in every month of the year. This means that a disproportionately large share of irrigation net energy export occurs in winter and shoulder months. Table 1 below reproduces IPC's calculation of the energy value of exports across all classes (Ellsworth Exh 1 page 2).

(Table 1 on following page)

Table 1

Monthly Seasonal Energy Calculation				
On/Off-Peak	**Month**	**Value**	**Energy**	**$/MWh**
Off-Peak	1	$ 102,879	3,144	$ 32.72
Off-Peak	2	$ 167,545	6,362	$ 26.33
Off-Peak	3	$ 233,461	8,973	$ 26.02
Off-Peak	4	$ 436,204	9,977	$ 43.72
Off-Peak	5	$ 445,602	11,077	$ 40.23
Off-Peak	6	$ 263,414	9,105	$ 28.93
On-Peak	6	$ 57,053	1,624	$ 35.14
Off-Peak	7	$ 385,929	6,750	$ 57.17
On-Peak	7	$ 188,394	2,100	$ 89.72
Off-Peak	8	$ 402,482	6,195	$ 64.97
On-Peak	8	$ 165,264	1,767	$ 93.52
Off-Peak	9	$ 474,169	7,779	$ 60.96
On-Peak	9	$ 118,488	764	$ 155.00
Off-Peak	10	$ 516,061	9,157	$ 56.36
Off-Peak	11	$ 332,075	4,809	$ 69.06
Off-Peak	12	$ 517,249	2,494	$ 207.40
Annual		$ 4,806,268	92,076	$ 52.20
On-Peak		$ 529,199	6,255	$ 84.60
Off-Peak		$ 4,277,069	85,821	$ 49.84

Table 2 below reproduces these calculations for the irrigation class. The Annual, On-Peak, and Off-Peak $/MWh for the irrigation class exceed IPC's filed amounts because the irrigation energy is exported during higher priced hours.

(Table 2 on following page)

Table 2

Monthly Seasonal Energy Calculation Irrigation

On/Off-Peak	Month	Value	Energy	$/MWh
Off-Peak	1	$ 54,296	1,592	$ 34.10
Off-Peak	2	$ 72,932	2,596	$ 28.09
Off-Peak	3	$ 83,781	3,081	$ 27.20
Off-Peak	4	$ 143,109	3,172	$ 45.11
Off-Peak	5	$ 124,454	3,021	$ 41.20
Off-Peak	6	$ 63,232	2,185	$ 28.94
On-Peak	6	$ 13,633	382	$ 35.66
Off-Peak	7	$ 82,620	1,443	$ 57.25
On-Peak	7	$ 61,056	647	$ 94.32
Off-Peak	8	$ 101,330	1,576	$ 64.30
On-Peak	8	$ 64,255	630	$ 102.02
Off-Peak	9	$ 130,046	2,109	$ 61.66
On-Peak	9	$ 42,378	218	$ 194.22
Off-Peak	10	$ 184,211	3,230	$ 57.03
Off-Peak	11	$ 149,508	2,103	$ 71.08
Off-Peak	12	$ 332,217	1,561	$ 212.83
Annual		$ 1,703,057	29,547	$ 57.64
On-Peak		$ 181,321	1,878	$ 96.57
Off-Peak		$ 1,521,736	27,670	$ 55.00

Table 3 below reproduces these calculations for the non-irrigation classes. The Annual, On-Peak, and Off-Peak $/MWh for the non-irrigation classes are lower than IPC's filed amounts because the energy is exported during lower priced hours.

(Table 3 on following page)

Table 3

Monthly Seasonal Energy Calculation Non-Irrigation

On/Off-Peak	Month	Value	Energy	$/MWh
Off-Peak	1	$ 48,583	1,552	$ 31.30
Off-Peak	2	$ 94,613	3,766	$ 25.12
Off-Peak	3	$ 149,680	5,892	$ 25.40
Off-Peak	4	$ 293,095	6,804	$ 43.07
Off-Peak	5	$ 321,149	8,056	$ 39.86
Off-Peak	6	$ 200,182	6,920	$ 28.93
On-Peak	6	$ 43,420	1,241	$ 34.98
Off-Peak	7	$ 303,309	5,307	$ 57.15
On-Peak	7	$ 127,339	1,452	$ 87.67
Off-Peak	8	$ 301,151	4,619	$ 65.19
On-Peak	8	$ 101,009	1,137	$ 88.81
Off-Peak	9	$ 344,123	5,669	$ 60.70
On-Peak	9	$ 76,110	546	$ 139.33
Off-Peak	10	$ 331,849	5,927	$ 55.99
Off-Peak	11	$ 182,567	2,705	$ 67.48
Off-Peak	12	$ 185,032	933	$ 198.32
Annual		$ 3,103,211	62,529	$ 49.63
On-Peak		$ 347,878	4,377	$ 79.47
Off-Peak		$ 2,755,333	58,152	$ 47.38

This recommendation will not impact the total amount paid for exported energy, but it will better align the value of exports with the rate classes producing the exports. Under current market prices this change will benefit the irrigation class. However, IPC expects shoulder month energy prices to decline more rapidly than summer month energy prices. This means that, in the future, this recommendation may result in lower payments to the irrigation class. IPC's recommendation can be implemented by replacing the energy credit component of the export

credit rate in Ellsworth Direct Figure 1 of 8.59 ¢ and 4.91 ¢ with a distinct credit for irrigation (9.847 ¢ and 5.449 ¢) and non-irrigation (8.051 ¢ and 4.654 ¢) exporters.[1]

Issue 2: Remove capacity value from energy credit.

The EIM prices used to calculate on-peak energy value are, on average, hours where scarcity pricing results in market prices compensating for capacity as well as energy. For example, Table 2 shows that the average on-peak export value in August is $194 per MWh. This level of pricing indicates that the market is constrained during export hours, and as a result market prices reflect the cost of this scarcity.

Market prices during hours where the market is not capacity constrained can reasonably be asserted to reflect energy value. However, market prices during hours where the market is capacity constrained have both a capacity and energy component.

Resources produce as long as marginal revenue, or market price, is greater than marginal production costs such as fuel. This means that the producers do not recover fixed costs during periods where market prices are low. These costs are instead recovered during periods where market prices are high, or in on-peak hours. IPC treats fixed costs as demand costs. Thus, on-peak hour market prices represent a payment to producers for both energy (variable costs) and capacity (fixed costs).

IPC proposes to pay customers for the capacity value directly through a capacity payment in on-peak export hours.[2] However, IPC also proposes to pay customers for the premium value of on-peak exports.[3] The premium that IPC offers during these hours duplicates a capacity

1 Calculated using tables 2 and 3 above and the methodology in Ellsworth Exh 1 page 2.

2 Ellsworth Direct Figure 1 shows 11.59 ¢ per kWh for generation capacity.

3 Ellsworth Direct Figure 1 shows on and off-peak energy credit as 8.59 ¢ and 4.91 ¢, an on-peak premium of 3.68 ¢.

payment for on peak energy. If all exported energy were sold in the EIM, there would be no capacity value remaining for IPC.

To avoid double counting capacity value, we recommend re-pricing the on-peak energy credit to equal the off-peak energy credit. Using the values in Ellsworth Direct Figure 1, this would reduce the on-peak credit from 20.42 ¢ to 16.74 ¢.

Issue 3: Exclude Greenhouse Gas component of energy payment.

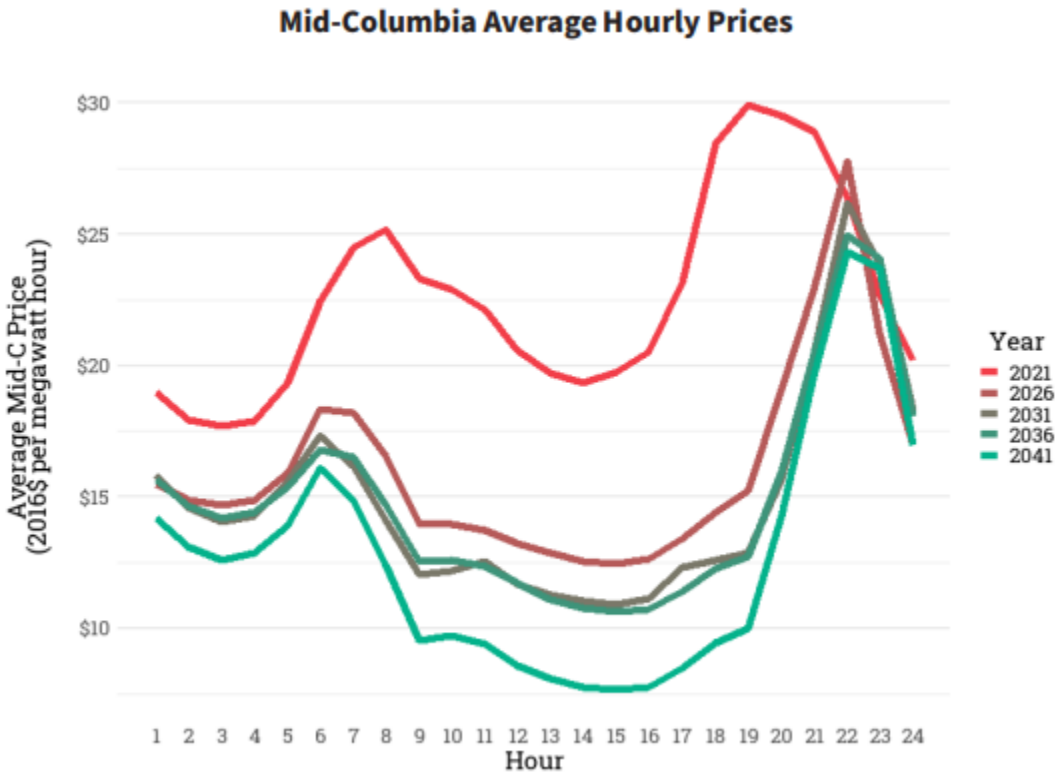
The EIM prices used to calculate energy value include the value of greenhouse gas credits.[4] According to IPC, "The GHG component is the marginal cost of providing the next megawatt ("MW") of energy to serve load in the California Independent System Operator ("CAISO") load from an Energy Imbalance Market ("EIM") Balancing Authority Area outside of California. EIM participating resources submit energy bids into the EIM market and can choose to offer a bid with a flat GHG price adder to allow that energy to be sent to serve load in California."[5] However, net metering participants retain RECs and all renewable attributes of their net production. If IPC were to directly export this energy on the EIM (which isn't technically feasible), the energy would not receive a GHG price adder. It is not appropriate to pay net export customers for a renewable attribute when the customer does not provide this attribute to IPC.

Thus, net export customers should not be compensated as if these attributes are being provided to IPC. The energy credit should be recalculated with GHG values removed from the EIM prices.

4 IPC's response to IIPA's DR 1-2c.
5 IPC's response to IIPA's DR 1-2c.

Issue 4: Include a notice in tariff language of potential changes to export credit and on-peak hours

IPC expects solar energy to decline in value over time. The figure below illustrates IPC's expected evolution in hourly pricing from 2021 to 2041.



Note that prices decline rapidly from 2021 to 2041. This decline in solar value is directly related to expected increases in solar generation. For example, Jackpot Solar came on-line at the end of 2022, and there has been a substantial decrease in solar export value from 2022 to 2023, as shown in the figure below.

		Export Value $/MWh	
On/Off-Peak	**Month**	**2022**	**2023**
Off-Peak	4	43.72	32.18
Off-Peak	5	40.23	3.68
Off-Peak	6	28.93	20.02
On-Peak	6	35.14	25.90
Off-Peak	7	57.17	46.98
On-Peak	7	89.72	65.88

Given the expected trend in solar production and market prices, it is reasonable to expect that the net export credit will decline over time. However, some net metering customers may not have sufficient energy market background to be aware of this expected decrease in value. IPC should include language in its tariff that identifies the potential for the export credit to decrease substantially over time.

Issue 5: Track deviations from energy payments and energy value

The prior section demonstrates that export energy values are expected to fall continuously over the next 20 years. However, the proposed credit methodology values energy using historical rather than forecasted costs. In an environment of declining market prices during solar production hours, this will systematically bias the export credit and cause IPC to overpay for net energy. IPC should develop a balancing account to track the difference between the energy value paid to customers and the value received from customers and amortize the balance in each export credit rate update.

IPC can track energy payments by multiplying the energy component of the export credit rate by the total volume of export energy in each hour. IPC can track the actual value of energy by multiplying the LAP price, adjusted for line losses and integration costs, by total export volume. The difference in these values should be credited to a balancing account and incorporated into the export credit rate in annual or quarterly updates.

If the methodology is modified as recommended in issue 1, 2, or 3, such changes should be incorporated into calculating balancing account changes. For example, if the on-off peak differential is removed from the export credit rate, the actual on-peak EIM prices would be replaced by weighted average off-peak prices, using actual export volumes to weight prices.

Issue 6: Transmission and Distribution credit should only apply to schedules with no transmission or distribution revenue requirement included in the energy charge.

The proposed export credit includes 0.25 ¢ per on-peak kWh for avoided transmission and distribution capacity costs. The calculation of this credit assumes that 100 percent of solar generation is exported, which is not the case. Furthermore, net exporters already avoid distribution costs to the extent that these costs are included in the energy rate of their respective base schedules.

If the energy component of the customer's bill includes distribution costs, the customer will receive double compensation for reduced distribution costs, once directly through the capacity component of the export credit, and again by avoiding these costs through avoiding energy charges with self-consumed energy.

For example, the current Schedule 1 rate has a $5 fixed charge and all other revenue is recovered through the energy charge. If a customer on Schedule 1 is also a net metering customer, and 50 percent of the customer's load is self-generated, the customer avoids approximately 50 percent of the cost of providing distribution and transmission service. The export credit rate includes 100 percent of the benefit of the customer's solar generation. This includes distribution benefit of both self-consumed generation and export generation, because the model used to calculate distribution and transmission benefit assumes 100 percent of production

is available to defer distribution investments. This customer should not receive the distribution and transmission capacity credit because it would double count these benefits.

Irrigation customers pay a substantial demand charge. This demand charge recovers both generation demand and distribution demand. Thus, irrigation net metering customers do not avoid distribution costs in the same manner as residential net metering customers. There is no double counting of distribution discounts for these customers, and it is therefore appropriate for irrigation customers to receive the transmission and distribution credit.

Rate schedules that recover some portion of distribution demand costs through the energy charge should be excluded from receiving the distribution component of the capacity credit. IPC may change rate design in the future, and it would be appropriate to realign the distribution and transmission component of the export credit in the future to reflect such changes.

DATED this 12th day of October, 2023.

ECHO HAWK & OLSEN

ERIC L. OLSEN

CERTIFICATE OF SERVICE

I HEREBY CERTIFIY that on this 12th day of October, 2023, I served a true, correct and complete copy of the Petition of Idaho Irrigation Pumpers Association, Inc.'s First Set of Data Requests to each of the following, via the method indicated below:

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