

DECISION MEMORANDUM

TO: COMMISSIONER ANDERSON
COMMISSIONER HAMMOND
COMMISSIONER LODGE
COMMISSION SECRETARY
LEGAL
WORKING FILE

FROM: MICHAEL LOUIS
RILEY NEWTON

DATE: APRIL 10, 2023

RE: IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION
FOR APPROVAL OF A REPLACEMENT SPECIAL CONTRACT WITH
MICRON TECHNOLOGY, INC. AND A POWER PURCHASE
AGREEMENT WITH BLACK MESA ENERGY, LLC;
CASE NO. IPC-E- 22-06

BACKGROUND

On March 10, 2022, Idaho Power Company ("Company") applied to the Commission for an order: 1) approving a revised Special Contract for electric service between the Company and Micron Technology, Inc. ("Micron"), and 2) approving the 20-year Power Purchase Agreement ("PPA") between the Company and Black Mesa Energy, LLC that was entered with the expectation of assigning the associated energy to Micron under the revised Special Contract.

On August 1, 2022, the Commission issued Order 35482 approving the Black Mesa PPA as filed but directing the Company to file an updated ESA, consistent with the Commission's modifications, within 90 days from August 1, 2022. Order No. 35482 at 18.

On August 22, 2022, the Company filed a Petition for Clarification and Reconsideration ("Petition"). The Company requested Clarification pertaining to the Renewable Capacity Credit ("RCC") method in Order No. 35482.

On September 19, 2022, the Commission granted the Company's Petition, and stayed the directive in Order No. 35482 requiring the Company to file an updated Micron ESA by October 30, 2022, and ordered the Company and Staff to "work together to develop a rate structure for calculating Micron's [RCC] under the ESA which the Company shall file as a compliance filing

in this case by December 13, 2022, or by another date set by Commission order.” Order No. 35532 at 10.

On December 9, 2022, the Company filed a Motion for Extension of Time to Make Compliance Filing (“Motion”) requesting the deadline to make its compliance filing be extended to December 23, 2022.

On December 23, 2022, the Company submitted a Compliance Filing proposing its Proposed Renewable Capacity Credit Payment Performance Mechanism (“Proposed Method”) and in the alternative, the IRP-based Energy Storage Project Renewable Capacity Credit Payment Performance Mechanism (“Alternative Method”), to calculate RCC payments based on collaboration between the Company and Staff.

STAFF ANALYSIS

Staff recommends that the Micron ESA be updated using the Company’s Proposed Method for calculating performance-based RCC payments as reflected in the Company’s Compliance Filing as a result of Order No. 35532. Following the Commission’s directive, the Company and Staff met on six separate occasions between November 2, 2022, and December 14, 2022, to develop a performance-based compensation method for Micron RCC payments. One of the Company’s goals was to develop a mechanism that could be leveraged for other Clean Energy Your Way – Construction (“CEYW-CO”) projects, which Staff believed was an important goal. However, Staff’s primary criteria was to first ensure that Micron only receive compensation for capacity that is actually delivered to the system during periods of system need. Through discussions with the Company, Staff also realized the importance that whatever resource is selected by Micron, it must consistently perform as expected over the life of the resource as additional criteria. Staff evaluated three alternative mechanisms using these two criteria prior to finalizing the Proposed Method as a recommendation. The recommended method meets both criteria while also providing the following additional benefits:

1. Limits over-compensation of capacity value by capping annual capacity payments by the annual avoided capacity cost derived from the fixed cost of an appropriate proxy resource, the nameplate capacity of the solar resource, and the annual expected capacity contribution from the most recent acknowledged Integrated Resource Plan (“IRP”);

2. Method can be leveraged for other large, renewable, non-dispatchable resources, such as wind, which may be selected by other CEYW-CO customers; and
3. Provides incentive for delivery performance that will meet capacity needs likely to occur in the future.

Criteria Used to Evaluate Alternatives

To guide the discussions with the Company and evaluate the different alternatives, Staff adopted two criteria.

Criterion 1

Staff's first criterion is that compensation should only be provided to Micron for Black Mesa's ability to actually deliver contribution of capacity during time periods of system capacity need. This criterion was derived from what Staff believed was the Commission's intent in Order No. 35482 that occurred prior to the Company's Petition for Clarification precipitating the collaboration that resulted in the recommendations made here. It states:

We find it fair, just, and reasonable that the RCC utilize the rate and payment structure for IRP-based energy storage projects. Under this structure, avoided cost payments are based on actual energy delivered to the system during system peak and premium peak hours, regardless of the source of energy. This method aligns with established principles and ensures accountability in compensating resources for the capacity avoidance they deliver. In addition, applying this structure provides a consistent methodology for future, anticipated resource combinations (wind plus battery and/or solar plus battery) under the Black Mesa PPA and additional CEYW – CO projects.

Order No. 35482 at 17.

Although the specific language in the form of criteria was absent in the Order, Staff believes the Commission's impetus for a performance-based mechanism was captured by the criterion while allowing flexibility to explore other alternatives.

As a result of discussions between Staff and the Company, there was a realization that "consistency and stability of output over the life of the PPA or resource" is additional criterion critical for determining the RCC payment method given the set of circumstances surrounding Micron's Black Mesa solar resource. The resource is a relatively large, non-dispatchable generation resource selected primarily to offset a customer's electricity use with renewable

energy, which requires a long-term Company commitment. Because of these circumstances, this criterion is important for two reasons.

First, in the case of a dispatchable resource, such as a battery or a fueled resource, a performance-based RCC needs to provide an incentive for the resource to produce during hours that maximizes the delivery of capacity during hours when the Company's system is capacity-deficient. Because of the flexibility that a dispatchable resource provides, as the need for capacity changes in the Company's system, the period that incentives are based upon can and should change. This was the intent for adjusting the Peak and Premium Peak Hours every year for Public Utility Regulatory Policies Act of 1978 ("PURPA") energy storage projects dictating the hours that energy needs to be delivered to qualify for capacity payments.

However, Black Mesa is a non-dispatchable renewable resource. As is the case with wind and solar, the delivery of energy is dependent on an intermittent source. Because of the lack of dispatchability, the amount of RCCs a customer can receive is dependent on the intersection of two factors: the generation profile of the renewable resource chosen¹ and the time periods annually when the Company needs incremental capacity.² Because the selection of a resource is primarily chosen based on Micron's renewable energy goals and not the least-cost least-risk resource through the Company's normal resource acquisition process,³ a primary purpose of the RCC is to provide an incentive for customers like Micron to also choose a project that both maximizes the amount of RCCs they can receive while providing increased capacity benefits to the system.

Criterion 2

Second, because of the relatively large size of the resource, it will occupy a large position in the Company's resource stack. Once it occupies a capacity position in the Company's Load and Resource Balance, the Company needs it to consistently deliver energy based on this position over the term of the PPA. This will allow the Company to plan additional resources in future IRP cycles to fill holes of additional needed capacity outside of the capacity position already occupied by the resource. Without stability and consistency being locked in for the term

¹ A generation profile is the expected output of a generation resource for each hour in every month.

² The time period throughout the year when the Company most needs incremental capacity is determined by the loss of load probability for each hour across the year.

³ It is generally accepted that the Company's acquisition of a least cost, least risk resource has to be identified through the Company's IRP and finally selected through a rigorous competitive bidding process.

of the PPA, there is a higher chance the Company may need to re-address the amount and timing of capacity the resource was intended to fulfill due to a lack of or change in its performance.

RCC Payment Alternatives

The Company and Staff considered three different capacity payment methods:

1. The Proposed Method which is more fully described in the Company's Compliance Filing;
2. The Alternative Method based on the Company's capacity payment method used for IRP-based energy storage PURPA projects; and
3. The capacity payment method currently used for PURPA Surrogate Avoided Resource ("SAR") energy storage projects.

With respect to the three alternatives considered, Staff believes the Company's Proposed Method does a better job overall meeting Staff's two criteria described above.

Proposed Method

Staff believes the Proposed Method as designed will ensure Staff's two criteria are met. Staff also believes the Proposed Method provides additional benefits not found in the Alternative Method (listed below).

1. The amount of annual capacity payments is capped based on the annual capacity contribution of the solar resource and on the most appropriate proxy resource in the IRP for determining avoided capacity cost;
2. Compensation for future capacity needs during non-summer months are incorporated into the method; and
3. The method can be leveraged for similar CEYW-CO projects including wind.

Staff believes the framework of the Proposed Method provides compensation for capacity commensurate with the value of capacity actually delivered to the system by identifying capacity needs in a more rigorous manner across the entire year. The time periods for payments of capacity are determined by identifying the loss of load probabilities ("LOLP") of the Company's system in every hour throughout the year. Instead of limited resolution using peak and premium peak hours to determine when payments are made, as is done in the Alternative Method, the time periods of eligible payments is expanded to an increased number of months based on actual loss

of load data. The amount of payment in each month is then weighted by determining the loss of load expectation (“LOLE”) for each month giving credit for capacity contribution based on need across a wider time frame. This includes eligibility for capacity payments during some fall and winter months that are expected to become more critical in the Company’s system.

Regarding the stability of output criterion, the Proposed Method requires the rate and payment structure be locked in over the term of the PPA. This is important because once the resource is selected, Micron is only compensated for the Company’s need for capacity determined at the time of contracting, incentivizing stable performance expected of the resource over the term of the PPA.

In addition, Staff believes the Company has proposed a rigorous method for measuring if the facility performs as expected. The method requires measuring the amount of sunlight at the facility compared to the power output of the facility each month. If the project performs as expected, Micron could receive all eligible payment amounts for that month. If it does not perform as expected, Micron’s eligible payment will be reduced. The total payment Micron receives is capped based on the capacity contribution to the system of a solar resource as measured through the Company’s most recently acknowledged IRP, the nameplate capacity of the resource, and the capacity value of the least-cost selectable capacity resource also from the most recently acknowledged IRP.

Throughout the meetings between the Company and Staff, it was clear the Company wanted a mechanism that could be applied to other CEYW-CO projects. Although this was not Staff’s top priority, the Proposed Method can be leveraged for similar projects under the same circumstances. However, Staff believes the Proposed Method may be overly complicated for less sophisticated customers.

Alternative Method

Staff agrees with the Company that if the Commission believes the Proposed Method does not meet the Commission’s requirements then the Alternative Method is viable, but should be modified in two ways.

First, to ensure the stability of output criterion is met, Staff agrees with the Company that Peak and Premium Peak Hours be locked in for the duration of the 20-year term of the PPA and should be based on the currently-approved Peak and Premium Peak hours.

Second, modifications to the calculation of the Non-Premium Peak and Premium Peak Hour rates as approved in Commission Order No. 35644 should be incorporated into the Alternative Method.

SAR-Based Alternative

Capacity payments through the SAR-based energy storage method is well-suited for smaller capacity projects that individually do not occupy large capacity positions; however, as an aggregated whole, they can be characterized to occupy a relatively large capacity position. The strength of this method is its simplicity. The rate structure is independent of the type of resource and can be applied generically across all resource types—both dispatchable and non-dispatchable. Staff believes this method is better suited for programmatic resources where there is a need to establish a single generic class-based rate structure as participating resources move into and out of a program (e.g. Distributed Energy Resources, Demand-side Management, etc.).

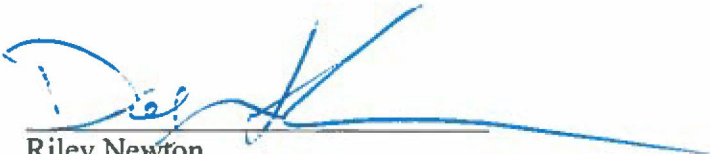
However, the ability to apply this rate and payment structure generically for all types of resources is specifically why it is not a good fit for the Micron ESA. As described earlier, the Company needs the Black Mesa solar resource to perform as the solar resource was specified to perform at the time of contracting and to maintain its performance over the entire 20-year term.

STAFF RECOMMENDATION

Staff recommends that the Micron ESA be updated using the Company’s Proposed Method for calculating performance-based RCC payments as reflected in the Company’s Compliance Filing.

COMMISSION DECISION

Does the Commission wish to approve the Company’s Proposed Method to calculate RCC payments for the Micron ESA?

For: 
Riley Newton