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September 13, 2022

VIA ELECTRONIC FILING

Jan Noriyuki, Secretary
Idaho Public Utilities Commission
11331 W. Chinden Blvd., Bldg 8,
Suite 201-A (83714)
PO Box 83720
Boise, Idaho 83720-0074

Re: Case No. IPC-E-22-13
In the Matter of Idaho Power Company's Application for a Certificate of Public Convenience and Necessity to Acquire Resources to be Online by 2023 to Secure Adequate and Reliable Service to its Customers

Dear Ms. Noriyuki:

Attached for electronic filing please find Idaho Power Company's Reply Comments in the above matter.

The confidential version will be provided to those parties who have executed the Protective Agreement in this matter.

Please feel free to contact me directly with any questions you might have about this filing.

Very truly yours,

Donovan E. Walker

DEW:sg
Enclosures

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO ACQUIRE RESOURCES TO BE ONLINE BY 2023 TO SECURE ADEQUATE AND RELIABLE SERVICE TO ITS CUSTOMERS.	CASE NO. IPC-E-22-13 IDAHO POWER COMPANY'S REPLY COMMENTS

Idaho Power Company ("Idaho Power" or "Company") respectfully submits these Reply Comments in response to Reply Comments filed by the Idaho Conservation League ("ICL") on August 18, 2022, and the Idaho Public Utilities Commission ("Commission") Staff ("Staff"), on August 30, 2022. In the paragraphs that follow, Idaho Power will respond to concerns raised by these parties in their Comments, including the competitive resource procurement process undertaken for identifying the 2023 resource acquisition, imputed debt costs associated with third-party ownership of resources, and

the appropriate benchmark analysis to compare costs associated with the acquisition of battery storage.

I. BACKGROUND

1. Idaho Power has not added a supply-side, dispatchable resource since 2012, with the construction of the Langley Gulch combined-cycle, natural gas combustion turbine, for which the Commission granted a certificate of public convenience and necessity ("CPCN") with Order No. 30892 in Case No. IPC-E-09-03. Idaho Power's most recently acknowledged[1] Integrated Resource Plan ("IRP"), the Second Amended 2019 IRP, did not show a first capacity deficit until the summer of 2028. However, during the preparation of the 2021 IRP, an updated load and resource balance analysis in May 2021 identified a first capacity deficit of 78 megawatts ("MW") in July of 2023, growing each year through 2026, when the Boardman to Hemingway 500-kilovolt transmission line is expected to be operational. Resource needs subsequently increased to 101 MW during development of the 2021 IRP. As discussed in more detail below, the load and resource balance changes stemmed, in large part, from accelerated growth and changing import conditions related to market transmission constraints. These changes were not known in 2019.

2. Under Idaho law, the Company has an obligation to provide adequate, efficient, just, and reasonable service on a nondiscriminatory basis to all those that request it within its service area. Idaho Power has experienced and expects sustained load growth, thereby requiring the addition of new dispatchable resources to meet peak summer demand. To meet its obligation to reliably serve customer load and fill the 2023

[1] Case No. IPC-E-19-19, Order No. 34959.

capacity deficiency, the Company conducted a competitive solicitation through a request for proposals ("RFP") seeking to acquire up to 80 MW of Idaho Power-owned resources, to be online by June of 2023.

3. The successful bidder of the 80 MW resource RFP was Black Mesa Energy, LLC ("Black Mesa"). Black Mesa proposed a 20-year power purchase agreement ("PPA") for the output of 40 MW from a solar photovoltaic ("PV") generation facility that will supply energy to the Company's system and is envisioned to be combined with an Idaho Power-owned 40 MW battery storage facility. Because the standalone 40 MW solar PV plus 40 MW energy storage project will not be sufficient to fully meet the 2023 capacity need identified during the 2021 IRP process, Idaho Power identified an additional 80 MW energy storage resource through an investigation into different configurations of Company-owned and constructed battery energy storage systems performed in parallel to the RFP process. Importantly, this was the only economic combination of projects that could meet the 2023 summer in-service date. The combined two projects, the 40 MW solar PV plus 40 MW energy storage and the 80 MW battery storage facility, will provide the resources necessary to fill the 2023 capacity deficiency.

II. IDAHO POWER'S REPLY

A. The Commission Should Adopt Staff's Recommendation to Grant the Company a CPCN.

4. In order to comply with its continuing obligations to serve customers, the Company must at times acquire additional resources to meet the identified capacity deficits on its system when the need arises, and potentially outside of the formalized IRP process. Given the short turn-around to construct a resource to meet deficits identified in 2023, coupled with global supply-chain disruptions stemming from the COVID-19 health

crisis and other events, it was imperative that the Company move forward quickly on the resource procurement process. The Company performed a qualitative and quantitative evaluation of project proposals submitted through the RFP process as well as a parallel investigation into different configurations of Company-owned and constructed battery storage systems. The request for a CPCN to acquire 120 MW of dispatchable energy storage is the result of those efforts.

5. Idaho Power appreciates Staff's extensive review of the capacity deficiency and their recommendation that the Commission "grant the request for a CPCN specific to the Company's decision to acquire 120 MW of dispatchable capacity to be operational by July 1, 2023, based on the immediate need for capacity resources and to ensure system reliability."[2] Although critical of the process for which Idaho Power selected the resource, ICL did not disagree that a 2023 capacity deficit exists, and in fact applauded the Company for "invest[ing] more in renewables and storage" to provide the needed capacity.[3] Staff performed an extensive review of capacity deficiencies identified in this proceeding as well as in Case No. IPC-E-21-09, Idaho Power's Application for Capacity Deficiency for Avoided Cost Calculations, and Case No. IPC-E-21-43, Idaho Power Company's 2021 IRP, concluding that the "Company has and will be operating with reserves insufficient to meet reliability requirements until the 120 MW BESS resources become operational."[4] Further, Staff agrees that Idaho Power's acquisition of the 120 MW dispatchable energy storage will deliver the energy necessary to satisfy the Company's 2023 capacity needs, supporting Idaho Power's request for a CPCN.

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[2] Staff Comments, pg. 2.
[3] ICL Comments, pg. 1.
[4] Staff Comments, pg. 3.

B. Idaho Power Completed a Robust Competitive Resource Procurement Process for Identifying the 2023 Resource Acquisitions

6. The Company's rapid change in the 2023 capacity deficiency was the result of several dynamic and evolving factors, including transmission availability, customer focused reliability-based planning margin adjustments, an increasing population, new large customers in the service area and associated emergent load demands on the Company's system, diminishing demand response resource effectiveness, and lower generation effectiveness of variable resources during critical demand hours. While Idaho Power acknowledges review of the 2019 IRP modeling required changes and ultimately filing of the Second Amended 2019 IRP, the delayed results were not the driver of the identification of the 2023 capacity deficiency and subsequent issuance of the RFP as Staff suggests.[5] The load and resource balance from the Second Amended 2019 IRP did not show a capacity deficiency occurring until the summer of 2028. Rather, it was not until the spring of 2021, through preparation of the North Valmy Power Plant Unit 2 exit analysis, that the load and resource balance was refined to incorporate recent developments impacting market purchase assumptions and reliability evaluations.

7. In the 2019 IRP, the Company believed it was able to access power in the southern energy markets via the line connecting Idaho Power's system and Nevada. The emergency energy event in California in August 2020 flooded Idaho Power's transmission service queue, as well as the transmission service queue of others, with multi-year requests, indicative of transmission reservation activity in the West. In preparation of the North Valmy Power Plant Unit 2 exit analysis, the Company ultimately determined that transmission between the southern energy markets and Idaho Power was unavailable,

[5] Staff Comments, pg. 4.

changing a key assumption in the 2019 IRP load and resource balance. It is important to note that the change in this key assumption was due to events completely outside of Idaho Power's control that could not have been reasonably predicted prior to their occurrence. That, coupled with the refinement of the Company's planning margin to be based on the Loss of Load Expectation methodology and the updated Effective Load Carrying Capability of Idaho Power's demand response programs, reduced the available capacity each July during the 2022 through 2025 time period by approximately 500 MW. It was the resulting updated load and resource balance analysis, prepared in May 2021, that first identified a 2023 capacity deficit of 78 MW, below the 80 MW level for which the Oregon RFP guidelines are imposed. To meet its obligation to reliably serve customer load and fill the 2023 capacity deficiency, the Company immediately began to prepare an RFP, which was issued on June 30, 2021, roughly one month after the load and resource balance was updated.

8. Due to the urgency, the RFP solicitation focused on the importance of having a project in-service by June 2023, and, understanding permitting and construction timelines, solicited energy storage projects, solar PV projects, solar PV plus storage projects, wind projects, and wind plus storage projects. Although both ICL and Staff acknowledge the limited time for Idaho Power to procure a resource to be on-line by June 2023,[6] they were critical of the Company's requirement that projects that included a PPA for wind and solar must also include a transfer of ownership for the storage resource, or a Build-Transfer Agreement ("BTA"),[7] indicating that this requirement could have unduly

[6] ICL Comments, pg. 3 (acknowledging the "exigency created by the capacity deficit.") and Staff Comments, pg. 4. (acknowledging "insufficient lead time").
[7] Staff Comments, pg. 5 and ICL Comments, pg. 2.

limited the ability for a PPA to be selected through the RFP process. Yet both parties fail to acknowledge that the only economic project that was able to meet the required commercial operation date of June 2023, and selected through the RFP process, was in fact a 20-year PPA associated with a 40 MW solar PV facility. While the initial proposal also envisioned a BTA associated with a 40 MW battery storage, during negotiations the developer indicated that they were no longer interested in pursuing the BTA and instead negotiated an agreement to coordinate with the Company on a battery storage facility that Idaho Power would procure on its own and locate adjacent to the developer's solar PV site. Indicative pricing received through Idaho Power's parallel investigation into different configurations of Company-owned and constructed Battery Energy Storage Systems ("BESS") was comparative to the lowest-cost proposals for similar battery storage projects submitted through the RFP process. In fact, pricing on the proposed 40 MW battery storage BTA was based on a BESS from Powin Energy Corporation ("Powin"), one of the suppliers for which the indicative pricing was based. Procuring the BESS from Powin directly results in lower BESS costs, further supporting the acquisition of the least-cost, least-risk resource necessary to fill the 2023 capacity deficiency.

9. Staff also suggests that the proposed 120 MW of Company-owned battery storage are an indication that the RFP process was inadequate in certain areas, as the RFP did not result in sufficient viable projects to meet the expected capacity deficit. However, as discussed above, the 40 MW solar facility plus 40 MW of battery storage was identified through the RFP, resulting in a PPA for the solar facility. The decision for Idaho Power to procure the 40 MW battery storage facility directly from Powin was the result of conversations with the solar developer and Powin, ultimately resulting in a self-

build option that was lower cost for customers. The remaining 80 MW project was identified through the Company's extensive analysis of other configurations to complement the RFP process, ensuring the resulting projects were least cost, least risk. The lack of sufficient viable projects resulting from the RFP was not an indication that the RFP was inadequate, but rather the result of the requirement for a commercial operation date of July 1, 2023, which other bidding entities would not commit to achieving. As previously stated, the load and resource balance changed significantly due to factors outside the Company's control, and as soon as these changes were known, Idaho Power took immediate action to prepare and issue an RFP for 2023 resources. For all these reasons, the RFP was robust and sufficient, indicating prudent action based on information known at the time.

10. In addition to having concerns about the resources solicited through the RFP, both ICL and Staff expressed apprehension with the competitiveness of Idaho Power's procurement process, even suggesting the Company did not comply with Commission Order No. 32745, which requires Idaho Power to comply with Oregon's RFP guidelines.[8] Yet, the direct testimony of Company witness Mr. Tatum details the Oregon RFP guidelines and the process by which Idaho Power followed the competitive bidding guidelines, as required with Order No. 32745, that led to the exception request filing with the Oregon Public Utility Commission ("OPUC") on March 18, 2022.[9] Despite the concern, Staff acknowledged that "following all requirements within the guidelines would not have been prudent given the compressed timeline for this resource need."[10] Given the

[8] Staff Comments, pg. 8.
[9] Direct Testimony of Mr. Tatum, pgs. 10-13.
[10] Staff Comments, pg. 8.

limited time available to procure resources and the Company's obligation to provide adequate, efficient, just, and reasonable service, Idaho Power executed a competitive procurement process that was fair and competitive and resulted in the acquisition of least-cost, least-risk resources. Importantly, the Company's actions were consistent with the requirements set forth in Order No. 32745.

11. The Company recognizes that a competitive procurement process akin to that detailed in the Oregon RFP guidelines may ultimately be aligned with the public interest under circumstances that allow Idaho Power the needed time required in order to follow the guidelines. When more time exists between identification of a capacity deficiency and a necessary commercial operation date, Idaho Power's potential resource procurement options may broaden. The results of the Company's 2022 All Source RFP issued on December 30, 2021, for peak capacity and energy resources in 2024 and 2025, will provide an indication of resources that have the ability to be in-service within a less compressed timeline, as recommended by Staff. Further, as presented to both ICL and Staff in Idaho Power's July 20, 2022, resource procurement update, the Company has begun the competitive bidding process for the issuance of an RFP for 2026 resources and anticipates filing an application with the OPUC to initiate the process in September 2022. The RFP for 2026 resources will span approximately two years and will likely not require an exception notice filing with the OPUC.

C. Third Party-Owned Assets Have an Imputed Debt Cost to Idaho Power and Ultimately to Customers.

12. Staff agrees with Idaho Power that third-party owned assets such as PPAs bring added costs beyond the direct contract costs for the purchased energy in the form of imputed debt adjustments made by credit rating agencies, stating that "[r]ating

agencies do consider PPAs as commitments of future revenues and therefore can act as long-term debt."[11] However, Staff does not correctly consider the impact imputed debt can have on the Company's cost of capital for both debt and equity.

13. Idaho Power competes with other companies in the capital markets, to obtain debt and equity financing necessary to operate its business and fund capital projects. In seeking to access capital, one of the major factors banks, investors, investment analysts, and lenders consider is the Company's overall financial profile, including the strength of its balance sheet. The credit rating agencies, such as Moody's and Standard & Poor's ("S&P"), assess the financial strength of companies like Idaho Power and provide ratings that act as a barometer to balance sheet strength, among other things. While Moody's and S&P look at imputed debt differently, both agencies evaluate future contractual obligations related to long-term PPAs as they consider future debt obligations of issuers during their ongoing monitoring of credit quality. That imputation is understandable as the third-party supplier is ultimately leveraging Idaho Power's balance sheet to develop its project, by using the PPA and underlying long-term debt-like obligation and payment stream from Idaho Power as collateral, while at the same time diminishing Idaho Power's credit profile and financial strength. Imputing debt is a credit rating agency's way of transferring the project risk from the developer to the utility because the contractual obligation of the utility is essentially providing cash flow and credit support to the developer. Credit rating agencies account for this transferred risk as a fixed debt obligation of the utility and impute this risk to the utility's balance sheet. While

[11] Staff Comments, pg. 6.

such costs are generally not visible when PPA contracts are entered into, customers will eventually bear the higher costs of capital.

14. During their most recent evaluations, both Moody's and S&P discussed with the Company the pressure on Idaho Power's financial risk profile related to the significant level of contractual obligations and highlighted the rising levels of these obligations in recent years. They also expressed their ongoing concerns related to the need for future projected resources to serve customers, and the potential of additional PPAs versus higher capital spending related to the need for these resources, as a result of customer growth and other drivers. In fact, the risk analysis associated with Idaho Power's large long-term contractual obligations was a key discussion point with Moody's and S&P in April of this year, given the Company's significant long-term Public Utilities Regulatory Policies Act of 1978 ("PURPA") and non-PURPA power purchase obligations. As of December 31, 2021, Idaho Power had contractual obligations related to cogeneration and power production contracts of nearly $4 billion. This compares with long-term debt obligations of approximately $2 billion at that same date. Over the past decade, the Company has been resource sufficient as PURPA PPAs came online, compelling Idaho Power to urge rating agencies to consider that those circumstances warrant a lower level of imputed debt. Because the Company has been resource sufficient and the addition of these projects was not based on a resource need, the Company argued that the level of imputed debt, or risk, associated with these projects was relatively low, because if these PURPA projects failed to materialize, no action would be required to procure replacement energy. Presently, however, the Company is in a near-term resource deficient position, and the Company would be required to take additional action if these needed projects

failed to materialize. Consequently, the Company believes this resource replacement risk will result in a greater impact of imputed debt with regard to how it is applied by ratings agencies going forward.

15. The imputed debt relating to contractual obligations contributed to the financial risk score of 'Significant' at Idaho Power in S&P's most recent credit report and contributed to the factors considered by Moody's during its most recent downgrade of the Company's credit. Idaho Power believes that further increases in its contractual obligations related to PPAs will put additional pressure on its credit metrics that could lead to further downgrades in its credit ratings. As seen on the table below, following the recent Moody's downgrade, both rating agencies are now showing credit rating levels that are considered 'Lower medium grade' by the markets. Further material downgrades could drop the Company to 'Non-investment grade speculative' status, which would further increase the cost of borrowing for Idaho Power, likely significantly, ultimately impacting customer rates.

Table 1. Credit Rating Levels.

Moody's		S&P		Fitch		Rating description	
Long-term	Short-term	Long-term	Short-term	Long-term	Short-term		
Aaa	P-1	AAA	A-1+	AAA	F1+	Prime	Investment-grade
Aa1		AA+		AA+		High grade	
Aa2		AA		AA			
Aa3		AA-		AA-			
A1		A+	A-1	A+	F1	Upper medium grade	
A2		A		A			
A3	P-2	A-	A-2	A-	F2		
Baa1		BBB+		BBB+		Lower medium grade	
Baa2	P-3	BBB	A-3	BBB	F3		
Baa3		BBB-		BBB-			
Ba1	Not prime	BB+	B	BB+	B	Non-investment grade speculative	Non-investment grade aka high-yield bonds aka junk bonds
Ba2		BB		BB			
Ba3		BB-		BB-			
B1		B+		B+		Highly speculative	
B2		B		B			
B3		B-		B-			
Caa1		CCC+	C	CCC	C	Substantial risks	
Caa2		CCC				Extremely speculative	
Caa3		CCC-				Default imminent with little prospect for recovery	
Ca		CC					
		C					
C		D	/	DDD	/	In default	
/				DD			
				D			

16. As Staff noted in their comments, while the additional interest rate spread expected from a Moody's rating of Baa1 to Baa2 is not particularly significant for any one given bond issuance,[12] it is important to consider that S&P's current credit rating for the Company, a BBB, is the equivalent of a Moody's rating of Baa2, and a further deterioration to Baa3 and/or BBB- could result in a 40 basis point increase or more for any one given bond issuance. Credit spreads fluctuate widely depending on market conditions, with the spread for lower rated companies widening much more than higher rated companies during times of market stress, as experienced during the great recession and the early

[12] Staff Comments, pg. 7.

days of the COVID-19 pandemic, and even more recently given geopolitical unrest, inflation, and economic uncertainty.

17. In addition, deteriorating credit ratings not only impact long-term debt costs, they also impact short-term credit markets, including existing and future credit facilities and the ability of Idaho Power to access the commercial paper market. If Idaho Power's current commercial paper rating of A-2/P-2 were to deteriorate, it would be more costly to the Company and to customers to access short-term borrowings, as the markets for A-3/P-3 and below are more expensive and significantly less liquid, resulting in times when the commercial paper market cannot be accessed reliably, and must be replaced by more costly short-term borrowings from credit facilities. Higher short-term debt costs could negatively impact customers in the form of higher Allowance for Funds Used During Construction ("AFUDC") rates. Access to commercial paper markets is particularly important in times of economic uncertainty, such as we are experiencing currently.

18. Further, the calculation performed by Staff in their comments only addresses the debt financing for the project at hand. A similar pattern of PPAs could lead to a greater impact on debt and equity costs for customers going forward. In short, while the impact from any one given project may not seem significant, when compounded with $4 billion of existing contractual obligations, the impact to the overall cost of capital and customer rates can be significant. Ignoring imputed debt obligations and the impact they can have on Idaho Power's cost of capital would be imprudent.

19. In their PPA analysis, Staff focused on the costs of debt element of imputed debt, bud did not address the cost of equity impacts associated with imputed debt obligations. As seen historically in the capital markets, as the actual or perceived credit

quality of a company deteriorates, the corresponding cost of equity increases due to that perception, impacting the Company's weighted average cost of capital. While customers pay the cost of prudently incurred interest expenses, the cost of equity also increases as the perceived market risk of the investment increases, unless offset by a larger equity ratio to debt. The debt-like obligation of a PPA could cause Idaho Power to fall outside of a desirable range of debt-to-equity, and the Company (through its public parent) may need to issue equity (stock) to rebalance the ratio at an additional cost to customers. The Company believes maintaining investment-grade credit ratings at historical rating levels contributes to lower overall cost of capital for Idaho Power, and thus leads to lower customer rates. Thus, the Company makes significant efforts to keep the debt component of the cost of capital lower, as it understands the ultimate impact of these capital costs on customers.

20. Staff cited the ability of peer utilities to successfully manage certain PPA facilities as 'dispatchable' resources.[13] However, Staff failed to note that these potential dispatch rights can ultimately adversely impact credit ratings, and thus the cost of debt and equity. While the existing contractual obligations are generally imputed as debt to the utility, a PPA containing dispatch rights would likely result in recording a liability on the Company's balance sheet under applicable accounting rules. Accounting Standards Codification ("ASC") 842-20-25-1 requires a company to record a lease liability if an arrangement provides the company "the right to control the use of the underlying property, plant, and equipment for a period of time in exchange for consideration." [ASC 842-10-15-3]. For the Company, dispatch rights would likely create contractual control by the

[13] Staff Comments, pg. 5-6.

utility, and result in a lease liability on its balance sheet, as opposed to imputed debt, which is often adjusted for the level of perceived risk by the credit rating agency. The lease liability would be treated as the equivalent of long-term debt in credit quality metrics, while not bringing the adjoining benefits of collateral assets that can be securitized by the utility.

21. The Company takes proactive steps to manage and mitigate financial risk. It is in the interest of customers to preserve Idaho Power's credit profile and maintain a solid balance sheet to support existing and planned infrastructure. Idaho Power assesses numerous factors in its review of RFP responses, both operational and financial. In the financial analysis, Idaho Power assesses and includes its own debt and equity costs in any self-build option in a competitive bidding process. Were Idaho Power to ignore the effect of imputed debt from long-term contractual obligations in its analysis of RFP responses from third parties, it would not be evaluating the projects on a financially comparable basis, nor would it be correctly assessing the net financial impact of the project on the Company and its customers.

D. Staff's Analysis Supporting its Recommendation for a Soft Cap is Flawed.

22. Staff asserts the acquisition of the 120 MW battery storage is not least-cost and recommends the Commission set "soft" caps on the battery storage costs when Idaho Power seeks cost recovery.[14] Absent the Company receiving multiple bids through the RFP process, Staff performed a benchmark analysis for which the "soft" cap was based. The analysis, however, is based on a National Renewable Energy Laboratory ("NREL") study that is intended for long-term planning purposes and ignores current market realities

[14] Staff Comments, pg. 8.

which impact the costs of lithium-ion battery systems, resulting in a flawed analysis. In fact, the NREL study states in their disclaimer: It is noted that the NREL data is "prepared for reference purposes only," "based upon expectations of current and future conditions," and "subject to change without notice."[15] While NREL data may be valuable in developing long-term IRP forecast cost assumptions over a 20-year time horizon, market realities can vary significantly when contracting near-term resources. As evidenced by lithium-ion battery system costs, the downward pricing trend anticipated by NREL reversed into an upward trend starting in late-2021 and continued into 2022. This increasing price trend is well documented by industry reporting firms as further discussed below and will likely be incorporated into upcoming NREL forecasts.

23. In addition to not factoring in current market realities, which include current real-world supply chain constraints and pricing, the NREL study uses 2020 as its base year or last historic year, which at the time anticipated a decline of 27 percent in costs from 2020 to 2023, as can be seen in the table below. Staff used this stale NREL data that has not considered recent market realities as the basis for their soft cap recommendation, suggesting Idaho Power's acquisition of 120 MW of battery storage from Powin was not least cost. Yet, in their Annual Technology Baseline: The 2022 Electricity Update,[16] NREL notes that it does not track near term cost variability and further that the baseline is to help in conducting scenario analysis for five to 30-year futures.

[15] https://atb.nrel.gov/electricity/2022/disclaimer
[16] https://www.nrel.gov/docs/fy22osti/83064.pdf, slide 54.

Table 2. NREL Forecasted Utility-Scale Battery Storage – 4Hr – Moderate.

	2020	2021	2022	2023	2024	2025
$/kW	$1,727	$1,475	$1,371	$1,256	$1,167	$1,104
Annual Change		($252)	($104)	($115)	($89)	($63)
Annual Percent Change		-15%	-7%	-8%	-7%	-5%
Change from 2020		($252)	($356)	($471)	($560)	($623)
Percent Ch. From 2020		-15%	-21%	-27%	-32%	-36%

24. In reality, the opposite has occurred. Demand for utility-scale BESS projects in the second half of 2021 and first half of 2022, coupled with supply chain constraints, has resulted in a significant *increase* in pricing of battery storage. Industry information suggests a 10 to 20 percent increase or more from 2020 levels driven by this high demand, input prices for lithium carbonate, and inflationary pressures on other materials and labor.[17] Utility Dive noted in April 2022 that battery storage costs rose more than 20 percent as compared to 2020 to 2021 installs, citing "crimped supply chains, rising demand for batteries and higher costs of lithium used in ubiquitous lithium-ion batteries make for a steep climb ahead . . ."[18] Nearly all battery material costs have increased over the past 12 months and some major battery module inputs have increased significantly. "The index for nearly every commodity that is required to manufacture lithium-ion batteries, including aluminum, copper, and nickel, has risen across the board. The price of lithium-carbonate has increased 500 percent in the last 12 months. Bloomberg New

[17] *IHS Markit*: "Multiple factors halt downward trajectory of Li-ion battery costs, with higher prices for energy storage systems set to continue throughout 2022 and 2023" January 6th, 2022.
[18] *Utility Dive*: "Battery storage costs rise more than 20% in New York as state forges ahead with 6 GW goal", April 12th, 2022.

Energy Finance calculates that each 20 percent increase in the price of lithium-carbonate results in a three percent increase in the total cost of battery modules."[19]

25. As part of the IRP process, Idaho Power utilizes Wood Mackenzie, a global research and consultancy business that provides quality data, analytics, and insights for energy, chemicals, metals, mining and the power and renewables industries, as a data source for battery storage prices. In their *U.S. Energy Storage Monitor – 2021 Year in Review Full Report*, dated March 2022, average utility-scale four-hour battery prices were nearly flat during the October 2020 through December 2021 time period, averaging $[redacted] per kW as compared to the NREL data that suggests battery storage costs in 2021 would be $1,475 per kW. Idaho Power's total cost of the 120 MW battery storage projects, excluding interconnection and transmission upgrade costs analogous to the NREL and Wood Mackenzie cost estimates, is approximately $[redacted] per kW.

26. Staff used the outdated NREL data to benchmark Idaho Power's battery storage costs, suggesting that, based on the forecasted 2023 NREL battery storage costs, the Company could have procured the BESS for as little as $1,256 per kW, and therefore Idaho Power's selection of the Powin products was not least cost. Yet, when current market conditions and industry trends are factored into battery storage costs, average costs for procurement in 2022 would range from $[redacted] per kW to as high as $[redacted] per kW, and likely to increase further in 2023, evidence that Staff's recommended "soft" cap is inherently flawed and punitive and should not be imposed on Idaho Power. The fact that the other economic projects could not reasonably commit to meeting the June 2023 in-service date further supports Idaho Power's selection. As substantiated by

[19] *Utility Dive*: "Navigating the evolving state of the storage industry", April 4th, 2022.

industry data, the Company's robust procurement process resulted in the acquisition of least-cost, least-risk resources necessary to fill the 2023 capacity deficiency.

E. The Commission Should Issue an Accounting Order Accepting Staff's Recommendation to Update the Depreciation Rates for Battery Storage.

27. While the Company did not request as part of this proceeding an accounting order to update the depreciation rates for Account 363 – Battery Storage Equipment, Idaho Power agrees with Staff's proposal to change the depreciation rate to reflect a 20-year life as opposed to the existing 15-year life. The existing rate was established as part of the Company's last depreciation study, prior to any investments recorded in the account and was based on smaller-scale battery storage facilities. However, all battery storage systems analyzed as part of the 2023 resource procurement process were large-scale and, based on discussions with vendors and current industry standards, a 20-year life span was assumed. Idaho Power agrees with Staff's recommendation to update the depreciation rate for Account 363 – Battery Storage Equipment from 6.67 percent to 5.00 percent when the battery storage is placed in service.

F. Tax Benefits Associated with Battery Storage Systems Will Be Reflected in Revenue Requirement Determinations.

28. The RFP resulted in one project that could meet a commercial operation date of July 1, 2023 consisting of a 20-year PPA associated with a 40 MW solar PV facility combined with an Idaho Power-owned energy storage facility, a 40 MW of battery storage. Based on the Company's current understanding of the income tax provisions of the recently enacted federal Inflation Reduction Act of 2022, the Idaho Power-owned 40 MW energy storage facility should be eligible for investment tax credits. In addition, the Company currently believes that the second project, the Idaho Power-owned 80 MW

battery storage to be located at the Hemingway substation, should also be eligible for investment tax credits. As evidenced historically, and as recommended by Staff,[20] any tax benefits obtained by the Company for investments paid for by customers, including investment tax credits, will be reflected in revenue requirement determinations in a future ratemaking proceeding.

III. CONCLUSION

29. Idaho Power appreciates the opportunity to respond to comments filed in this case and for the parties' review of the history of the identification of a 2023 capacity deficiency and understanding of the urgency for acquisition of the summer 2023 resource. The Company respectfully requests the Commission (1) accept Staff's recommendation to grant a CPCN to acquire 120 MW of dispatchable energy storage necessary to meet the identified capacity deficiency in 2023, (2) issue an accounting order updating the depreciation rate for Account 363 – Battery Storage Equipment to 5.00 percent, and (3) reject Staff's proposed establishment of a "soft" cap to be applied to project costs.

DATED at Boise, Idaho, this 13th day of September, 2022.

Donovan E. Walker

DONOVAN E. WALKER
Attorney for Idaho Power Company

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 13th day of September 2022 I served a true and correct copy of IDAHO POWER COMPANY'S REPLY COMMENTS upon the following named parties by the method indicated below, and addressed to the following:

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Stacy Gust

Stacy Gust, Regulatory Administrative Assistant