BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

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| IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO ACQUIRE RESOURCES TO BE ONLINE IN BOTH 2024 AND 2025 AND FOR APPROVAL OF AN ENERGY STORAGE AGREEMENT WITH KUNA BESS LLC. | ) | CASE NO. IPC-E-23-20 |

IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

JARED L. ELLSWORTH

Q. Please state your name, business address, and present position with Idaho Power Company ("Idaho Power" or "Company").

A. My name is Jared L. Ellsworth and my business address is 1221 West Idaho Street, Boise, Idaho 83702. I am employed by Idaho Power as the Transmission, Distribution & Resource Planning Director for the Planning, Engineering & Construction Department.

Q. Please describe your educational background.

A. I graduated in 2004 and 2010 from the University of Idaho in Moscow, Idaho, receiving a Bachelor of Science Degree and Master of Engineering Degree in Electrical Engineering, respectively. I am a licensed professional engineer in the State of Idaho.

Q. Please describe your work experience with Idaho Power.

A. In 2004, I was hired as a Distribution Planning engineer in the Company's Delivery Planning department. In 2007, I moved into the System Planning department, where my principal responsibilities included planning for bulk high-voltage transmission and substation projects, generation interconnection projects, and North American Electric Reliability Corporation's ("NERC") reliability compliance standards. I transitioned into the Transmission Policy & Development group with a similar

role, and in 2013, I spent a year cross-training with the Company's Load Serving Operations group. In 2014, I was promoted to Engineering Leader of the Transmission Policy & Development department and assumed leadership of the System Planning group in 2018. In early 2020, I was promoted into my current role as the Transmission, Distribution and Resource Planning Director. I am currently responsible for the planning of the Company's wires and resources to continue to provide customers with cost-effective and reliable electrical service.

Q. What is the purpose of your testimony in this case?

A. The purpose of my testimony is to inform the Idaho Public Utilities Commission ("Commission") of the Company's need for new generation capacity based upon the load and resource balance utilized in the 2021 Integrated Resource Plan ("IRP") and subsequently further enhanced through a system resource adequacy reliability evaluation. I will describe the most recent assessment of system reliability and its impact to the capacity deficit identified in the load and resource balance. Finally, I will provide support for the acquisition of new resources to address the identified near-term peak capacity needs.

## I. BACKGROUND

Q. What is the goal of the IRP?

A. The goal of the IRP is to ensure: (1) Idaho Power's system has sufficient resources to reliably serve customer demand and flexible capacity needs over a 20-year planning period, (2) the selected resource portfolio balances cost, risk, and environmental concerns, (3) balanced treatment is given to both supply-side resources and demand-side measures, and (4) the public is involved in the planning process in a meaningful way. To verify the portfolios produced through the planning process meet the Company's reliability requirements, Idaho Power utilizes a Loss of Load Expectation ("LOLE") methodology.

Q. Please explain the Loss of Load Expectation.

A. The LOLE is a statistical measure of a system's resource adequacy, describing the expected number of event-days per year that a system would be unable to meet demand. As utilities continue to add more renewable energy to the electric grid, analyzing the effect variable energy resources have on system reliability has become more critical. To assess system reliability, the Company uses an internally developed reliability and capacity assessment tool, which ensures that portfolios include a recognition that the output of variable energy resources, such as wind and solar, change with time (with their hourly output being dependent on a multitude of factors like weather and environmental conditions); it is essential to capture and

value that variability. The results of the LOLE analysis are used to determine various modeling outputs, such as the Company's capacity position in a given year, the capacity contribution of variable and energy limited resources and an overall quantification of Idaho Power's system reliability.

Q. Please explain the "load and resource balance."

A. The load and resource balance is the Company's tabulated plan that identifies resource deficiencies during the 20-year IRP planning horizon. It helps visually ensure Idaho Power has sufficient resources to meet projected customer demand including a margin to account for extreme conditions, reserves, and resource outages. It is critical when comparing future resource portfolios that each plan achieves at least a base reliability threshold, which is why Idaho Power considers the LOLE methodology when creating a load and resource balance.

Q. How is the resulting resource sufficiency or deficiency determined through the load and resource balance?

A. At a high level, the load and resource balance incorporates the expected availability of Idaho Power's existing resources, comparing the total output to the Company's forecasted load, and illustrates the resulting

capacity length or deficit. This will identify the timing of the Company's first resource need, or the point at which Idaho Power's reliability requirements may not be met.

Q. How is the expected availability of the Company's existing resources determined?

A. The availability of existing resources, including Public Utility Regulatory Policies Act ("PURPA") projects, Power Purchase Agreements ("PPA"), hydro, coal, gas, demand response, and market purchases, is determined using a number of factors such as expected stream flows, plant run times, forced outages, historical performance, and transmission import capability, among other considerations.

Q. How is the load forecast determined?

A. Throughout the year, the Company prepares a forecast of sales and demand of electricity based on a combination of historical system data and trends in electricity usage along with numerous external economic and demographic factors. The anticipated load and anticipated peak-hour demand forecast represent Idaho Power's most probable outcome for load requirements during the planning period.

Q. What have previous load and resource balance results indicated with respect to Idaho Power's resource sufficiency?

A. The Company has been generally resource-sufficient since the addition of the Langley Gulch natural-gas fired power plant almost a decade ago until recently. The load and resource balance from the Second Amended 2019 IRP did not show a capacity deficiency occurring until the summer of 2028. However, several converging factors, including limited third-party transmission capacity, load growth, and a decline in the peak serving effectiveness of certain supply-side and demand-side resources caused Idaho Power to rapidly move to a near-term capacity deficiency starting in 2023. These dynamic circumstances led the Company to immediately file a request for a Certificate of Public Convenience and Necessity ("CPCN") to acquire resources to be online in 2023[1] as well as a CPCN to acquire resources to be online in 2024[2], and Idaho Power expects to acquire additional resources each year thereafter through (at least) through 2027, as discussed in the Company's request in this case.

## II. 2021 IRP LOAD AND RESOURCE BALANCE

Q. When did Idaho Power identify that there was a resource deficiency starting in 2023?

A. The Company first identified a resource deficiency beginning in 2023 in the spring of 2021 while

[1] Case No. IPC-E-22-13
[2] Case No. IPC-E-23-05

refreshing the load and resource balance during the development of a Valmy Unit 2 exit analysis, as directed by the Commission in Order No. 34349, Idaho Power's request to update rates to reflect the accelerated depreciation associated with an early exit from coal-fired operations at Valmy, Case No. IPC-E-19-08. Following the filing of the Second Amended 2019 IRP, in the first quarter of 2021, Idaho Power began preparing the required Valmy Unit 2 exit analysis, which included an evaluation of system reliability. This analysis was performed simultaneously with preparation of the 2021 IRP, and the refreshed load and resource balance was further refined through the remainder of the development of the 2021 IRP.

Q. What drove the rapid shift from resource sufficiency to a resource deficiency at this time?

A. Several factors contributed to the change in the load and resource balance at this time, including significant third-party transmission constraints limiting wholesale market import purchases at peak, the ability of demand response programs to meet load during the highest risk hours, planning reserve margin determinations and methodology modernization, and load growth exceeding previously forecasted expectations. The net change between the Second Amended 2019 IRP and the updated load and resource balance utilized for the Valmy Unit 2 exit

analysis was a reduction in over 500 megawatts (“MW”) in available capacity each July during the 2022 through 2025 period.

Q. What enhancements were made to the capacity contribution of variable energy resources utilized to meet reliability requirements for the 2021 IRP?

A. For reliability purposes, in the 2021 IRP the Company planned its resource portfolio to have a LOLE of 0.05 event-days per year or better (i.e. less than one resource adequacy related outage event-day in 20 years). Aside from taking a more granular hourly approach, the LOLE methodology can also be used to evaluate the capability of existing resources to meet capacity need through the determination of Effective Load Carrying Capability (“ELCC”).

Q. Did the application of ELCC values result in any significant changes to the contributing capacity of Idaho Power’s existing resources?

A. Yes. When analyzing Idaho Power’s system on a probabilistic hour-by-hour basis, existing variable resource capacity contributions fluctuated. As an example, the results showed that the ELCC of the demand response programs under the changing dynamics of Idaho Power’s system was significantly lower than previously assumed. This is primarily the result of increased solar resources

on the Company's system pushing high-risk (i.e. net peak load) hours outside the longstanding demand response program dispatch window of 1 PM to 9 PM. As a result, Idaho Power filed a request for modifications to its demand response programs that are designed to make the programs more effective at meeting system needs. On March 4, 2022, the Commission issued Order No. 35336, approving Idaho Power's proposed modifications to the demand response programs, effective for the 2022 demand response season.

Q. What was the resulting capacity deficiency identified in the load and resource balance prepared for the 2021 IRP?

A. The resulting capacity deficiency was approximately 101 MW in 2023, 186 MW in 2024, and 311 MW in 2025, which led to Idaho Power's request for a CPCN in Case No. IPC-E-22-13 for the 2023 resource procurement.

## III. LOAD AND RESOURCE UPDATE

Q. Since the completion of the 2021 IRP, has the Company continued to monitor other factors that could influence the load and resource balance, and by extension, Idaho Power's resource need?

A. Yes. While the load and resource balance prepared for an IRP is the primary source of information used to inform resource procurement decisions, the Company also recognizes that during the near-term resource

decision-making phase, the capacity deficit period can be very fluid. As a result, Idaho Power continually assesses system reliability, monitoring near-term known changes, operational enhancements, limitations, or constraints on the existing system, if any, that would impact the resource needs. In the face of growing loads, Idaho Power is also keenly focused on current supply chain challenges, which requires the Company to constantly monitor resource needs and respond with added urgency. This is evidenced by Idaho Power's consecutive requests for CPCNs to acquire resources to be online in both 2023 and 2024.[3]

Q. Has the capacity deficiency changed since Idaho Power's request in Case No. IPC-E-23-05 was filed?

A. Yes. As preparation of the 2023 IRP began, Idaho Power incorporated modeling input updates and made additional enhancements to the Company's reliability evaluation which impact the need for new resources.

Q. What input updates and enhancements have been made to the Company's reliability evaluation?

A. First, in Case No. IPC-E-21-43, Commission Staff requested that Idaho Power address the appropriateness of the LOLE threshold utilized in the 2021 IRP; the Company has since changed the reliability target from 0.05 event-days per year to 0.1 event-days per year as

[3] Case Nos. IPC-E-22-13 and IPC-E-23-05.

well as utilizing a 70th percentile peak load forecast as opposed to the 50th percentile peak load forecast utilized in the 2021 IRP. In addition, the Company adjusted Idaho Power's resource capacities to account for Equivalent Forced Outage Rates during Demand ("EFORd") using a 5-year rolling average from the North American Electric Reliability Corporation ("NERC") Generation Availability Data System ("GADS"). The updated 5-year rolling average EFORd values will better reflect industry average generation resource performance data and resulting outage rates. Finally, the Company reduced the resource availability associated with the capacity benefit margin ("CBM") from 330 MW to 200 MW from March through October and to 0 MW from November to February for resource adequacy purposes.

Q. What is CBM?

A. The NERC defines CBM as:

> "The amount of firm transmission transfer capability preserved by the transmission provider for Load-Serving Entities ("LSEs"), whose loads are located on that Transmission Service Provider's system, to enable access by the LSEs to generation from interconnected systems to meet generation reliability requirements. Preservation of CBM for an LSE allows that entity to reduce its installed generating capacity below that which may otherwise have been necessary without interconnections to meet its generation reliability requirements."

Including CBM within the load and resource balance recognizes this held transmission capacity allows Idaho Power to reduce its installed generation capacity to meet reliability requirements under emergency conditions. As an example, if an energy emergency is declared following the loss of multiple Idaho Power network resources, CBM transmission capacity could be utilized to fill the resource capacity need via market purchases. Effectively, Idaho Power considers CBM a reserve resource and applies credit in the load and resource balance.

Q. When applying input updates and enhancements to the Company's reliability evaluation, what changes were made to the CBM modeling assumptions?

A. As explained in Idaho Power's request in Case No. IPC-E-22-05, following an evaluation of the ability to acquire transmission to the market during emergency conditions, the Company determined that it may not be possible with current transmission constraints, especially during regional extreme weather events, which was evidenced during recent energy emergency events due to extreme weather in the region. Increased demand could not be met with local generation, resulting in strain on the interconnected transmission system. Last minute transmission acquisition under these emergency conditions

between the market and Idaho Power's border have not been consistently available.

Put another way, in the event of an energy emergency, the Company will be able to utilize available transmission within its borders; however, there may not be available transmission between Idaho Power's border and the Mid-C market given the new transmission constraints. The transmission constraints, however, may be short term because the Boardman to Hemingway project will create incremental transmission capacity between Idaho Power and the Mid-C market. The results of the evaluation of the ability to acquire transmission to the market during emergency conditions indicate that an adjustment to CBM is appropriate.

Q. Were there any other factors that impacted the Company decision to reduce the capacity availability of CBM as part of the enhancements to Idaho Power's reliability evaluation?

A. Yes. In addition to the evaluation of the acquisition of transmission during emergency conditions, as the Company began preparing for its future non-binding participation in the Western Resource Adequacy Program ("WRAP"), it was determined that CBM will not have similar value in that program.

Q. What is the WRAP?

A. The WRAP will deliver a region-wide approach for assessing and addressing resource adequacy and is an important step forward for reliability in the region. It started at the request of many in the industry who were concerned about the issue of resource adequacy in the west.

Q. How does the WRAP affect the Company's transmission assumption associated with CBM?

A. When evaluating resource adequacy planning requirements under the WRAP, quantification of firm resources will not allow for the inclusion of CBM to demonstrate adequacy. For Idaho Power to meet the WRAP forward showing requirements, have access to the program, and avoid penalties, the Company must acquire firm resources on firm transmission well in advance of each season. CBM, by definition, is only available as firm transmission when the Company is in an energy emergency, and therefore cannot be utilized for WRAP forward showing purposes. However, the Company believes participation in the WRAP will benefit Idaho Power and its customers, as outlined in the Company's request for Commission acknowledgement of participation in WRAP in Case No. IPC-E-23-08.

Q. If CBM cannot be used in the WRAP, why is Idaho Power reducing CBM from 330 MW to 200 MW for a

portion of the year instead of reducing CBM from 330 MW to 0 MW for the entire year?

A. The Company is taking an incremental approach to changing assumptions associated with the reliability benefits provided by CBM. As discussed earlier, the WRAP is only one of two major considerations. The WRAP program will not be binding until approximately the summer of 2027, and there remains uncertainty related to the load obligations Idaho Power will be required to meet in the WRAP, and the credit the Company will receive for its resources in the WRAP program. Idaho Power will continue to consider the transmission assumptions associated with CBM in the assessment of system reliability as the WRAP matures.

The second major consideration to CBM is whether it enhances the Company's ability to recover from a major unplanned disturbance. Following such a disturbance, the Company can utilize its CBM capacity to bring in reserves for one hour, and in that hour, Idaho Power must acquire capacity from the market, and the transmission between the capacity resource or market hub and the Company's transmission system, to continue to utilize CBM.

Given Idaho Power's movement towards WRAP, the certainty that the WRAP program will assign no resource adequacy value to CBM, and the uncertainty of being able to access emergency capacity resources when the Company is in

an energy emergency (the purpose of CBM), especially at times when other utilities in the Pacific Northwest region experience peak loads, Idaho Power has decided to reduce the inclusion of CBM from 330 MW to 200 MW during the March through October time frame for resource adequacy planning purposes. The Company will continue to evaluate CBM's reliability benefits and effectiveness in future system reliability evaluations and IRPs.

Q. Were there any other updates made to the system reliability evaluation that impacted the capacity deficiency and Idaho Power's need for new resources?

A. Yes. Any time the system reliability evaluation is performed, Idaho Power includes the most up-to-date load and resource inputs. The Company's service area continues to experience very high load growth; in response, the load forecast was updated and implemented as soon as it became readily available. Current transmission reservations were included. Resource inputs were updated to include new resource additions anticipated since development of the 2021 IRP, including: (1) the Black Mesa project, a 40 MW solar photovoltaic ("PV") PPA in combination with a 40 MW four-hour duration battery storage facility, (2) the Hemingway 80 MW four-hour duration battery storage facility project in 2023 and an additional 12 MW of four-hour duration battery storage in 2024, (3)

the 11 MW four-hour duration battery storage at various distribution substations, (4) the Franklin project, a 100 MW solar PV PPA in combination with a 60 MW four-hour duration battery storage facility, and the (5) 200 MW Pleasant Valley solar project in 2025.

Q. Are there any changes to the resource inputs, aside from the cycle-to-cycle data updates, that have increased the capacity deficiency since preparation of the load and resource balance for the 2021 IRP?

A. Yes. There are two adjustments to the resource inputs that increased the capacity deficiency beginning in 2023: (1) a planned refurbishment of one hydro unit per year, for three years, at the American Falls facility will reduce the overall resource availability by approximately 30 MW through 2025, and (2) the Langley Gulch facility has recently been derated by 20 MW through the fall of 2025 due to parts failure and supply chain issues of those higher capacity parts. In addition, due to uncertainty associated with the two solar PURPA projects located in eastern Oregon, totaling 72 MW of nameplate capacity, that were expected to be online by the summer of 2025, the Company has removed these projects from the system reliability analysis, resulting in an increase to the capacity deficiency beginning in 2025.

Q. Based on your most recent evaluation of system reliability, how has the capacity deficiency changed since Idaho Power's request in Case No. IPC-E-23-05 was filed?

A. While continued procurement of additional resources have contributed to a reduction in the capacity deficiencies, following enhancements to the system reliability calculations and continued load growth since completion of the load and resource balance used for the 2021 IRP, Idaho Power estimates a capacity deficiency of 8 MW still exists in 2024 while the capacity deficiency in 2025 is 178 MW, with both of these deficiencies assuming the Company can compress the American Falls outages into nine-months, and maintain full American Falls capacity through the summer-months.

Q. Are you indicating the resource procurements identified in Case No. IPC-E-23-05 will not be sufficient to satisfy the 2024 resource needs?

A. Yes. Following updates to the system reliability evaluation, including (1) the reduced winter resource availability associated with CBM, (2) identification of an over-allocation of capacity of a resource in the LOLE calculation, and (3) the unexpected 20 MW derate at Langley Gulch, the Company has determined that the combined 100 MW solar PV PPA and 72 MW of four-hour battery storage resources for which Idaho Power is

requesting approval and a CPCN in Case No. IPC-E-23-05, will not be sufficient to meet the identified 2024 resource needs. As I discussed previously, during the near-term resource decision-making phase, Idaho Power continually assesses system reliability. However, when the Company is repeatedly matching near-term resource procurements with the capacity need identified at a point in time, it is not possible to specifically align procurement of resources with the fluctuating need. The newly identified additional capacity need in 2024 is the result of trying to target a near-term resource need during a very fluid capacity deficit period.

## IV. MEETING THE CAPACITY DEFICIENCY

Q. Did Idaho Power evaluate any alternative solutions for meeting the capacity deficiencies to avoid building a new resource?

A. Yes. Prior to filing the request for a CPCN in Case No. IPC-E-22-13, Idaho Power evaluated alternative solutions for meeting the 2023 capacity deficiency to avoid building a new resource, including modifications to existing demand response programs, expansion of the existing pricing programs, and the potential for other short-term market solutions.

***Modifications to Existing Demand Response Programs***

As mentioned earlier, Idaho Power modified its demand response programs, which were approved with Commission Order No. 35336, effective for the 2022 demand response season. Although the demand response program modifications resulted in a higher ELCC than previous programs, it alone did not prove to be viable for meeting the 2023 resource deficiency nor have any circumstances changed within the past 12 months that would have indicated demand response could provide a solution for meeting the 2024 and 2025 resource needs.

***Evaluation of Existing and Potential Pricing Programs***

Idaho Power evaluated the Company's current Time-of-Use ("TOU") offering and the potential for other pricing programs as possible options for meeting the capacity deficiency. The Company has existing TOU offerings in both its Idaho and Oregon jurisdictions, with 1,000 customers enrolled in the Idaho offering and five customers enrolled in the Oregon pilot program. With the level of customer participation data, the sample used to develop a comprehensive and reliable assessment of residential peak shifting would be outside an acceptable margin of error tolerance limit at approximately +/- 60 percent. As such, circumstantial behavioral changes could misrepresent peak shifting impacts when expanded to the full residential

customer class. Idaho Power continues to assess the programs and how to encourage customer participation.

***Short-Term Market Solutions***

To test the transmission deliverability and resource market availability of a replacement resource for Valmy Unit 2, the Company issued a request for proposals ("RFP") on April 26, 2021, for the delivery of firm capacity and energy during the summer months beginning 2023. Idaho Power received no bids, indicative of the evolving market conditions leading to revised transmission import assumptions in the system reliability evaluation. Idaho Power continually monitors the availability of energy/capacity deliveries to the Company's border as well as transmission availability that would allow for the delivery of energy from a market hub to Idaho Power's system.

Q. Has Idaho Power taken any actions to acquire resources to meet the capacity deficits?

A. Yes. Under Idaho law, Idaho Power has an obligation to provide adequate, efficient, just, and reasonable service on a nondiscriminatory basis to all those that request it within its certificated service area.[4] In order to meet its obligations to reliably serve customer load, and given the extremely short turn-around to

[4] Idaho Code §§ 61-302, 61-315, 61-507.

construct a resource to meet the first deficit in the summer of 2023, particularly in the midst of supply chain disruption, ongoing COVID-19 impacts, and constraints in the industry and in ancillary industries, on June 30, 2021 the Company conducted a competitive solicitation through an RFP seeking to acquire up to 80 MW of peak capacity resources to meet the 2023 capacity deficit - seeking projects to be online by June of 2023 (“2021 RFP”). As presented in Case No. IPC-E-22-13 for which the Commission granted a CPCN with Order No. 35643, the RFP process resulted in the procurement of 120 MW of dispatchable four-hour duration energy storage as well as execution of a 20-year PPA for 40 MW of solar, all of which were necessary to adequately address 2023 capacity deficits.

As indicated by Order No. 35643, Idaho Power is responsible for planning and managing its load and resource portfolio and the Commission expects “the Company to closely monitor its projected capacity needs going forward and to act proactively to ensure a robust RFP process can be completed.”[5] Therefore, similar to the RFP issued to address the 2023 deficiency, given the short turn-around to construct a resource to meet the deficit in the summer of 2024, on December 30, 2021, the Company conducted a competitive solicitation through an RFP seeking to acquire

[5] Page 13.

energy and capacity to help meet Idaho Power's previously identified capacity needs of 85 MW in 2024 and an incremental 115 MW in 2025 ("2022 RFP").

Q. What actions has Idaho Power taken to satisfy the capacity deficiencies?

A. As detailed in Company witness Mr. Hackett's testimony, through the Company's robust competitive bidding process, the RFP resulted in the selection of a 150 MW energy storage project, consisting of a 20-year Energy Storage Agreement ("ESA") for a 150 MW battery storage facility and 77 MW of Idaho Power-owned battery storage at Happy Valley station to meet the 2025 capacity deficiency. In addition, for the newly identified capacity need in 2024, an additional 24 MW of Idaho Power-owned battery storage at Hemingway was procured to ensure the Company is able to continue to provide safe, reliable service to its customers in 2024 and beyond.

Q. You mentioned previously in your testimony that Idaho Power estimates a capacity deficiency of 8 MW in 2024 and 178 MW in 2025. Why is the Company requesting a CPCN for a cumulative 251 MW of battery storage additions in 2024 and 2025?

A. The 186 MW represents the estimated capacity deficiency, while the 251 MW represents the nameplate capacity of the resource additions. The nameplate capacity

must be adjusted to reflect the ELCC of these resource additions.

Q. What is the Company's resulting capacity balance position for 2024 and 2025 following the procurement of the ESA and the combined 101 MW of four-hour duration battery storage?

A. Assuming the Company and its contractors are successful restoring the American Falls power plant to full capacity prior to the summer of each year, the Company anticipates a 13 MW capacity length in 2024, and a 6 MW capacity length in 2025. If Idaho Power is unable to restore American Falls to full capacity for the summer, the Company estimates 0 MW of capacity length in 2024 and an 8 MW capacity deficit in 2025.

Q. Do you believe there is sufficient support for the procurement of the ESA and the combined 101 MW of four-hour duration battery storage resources to be online in 2024 and 2025?

A. Yes, I do. The acquisitions were pursued and procured as a least cost/least risk method of meeting the capacity deficits first identified in the Company's 2021 IRP and subsequently with the results of system reliability evaluation. The fluidity of the capacity deficit period and continued high load growth further supports these resource procurements.

## V. CONCLUSION

Q. Please summarize your testimony.

A. Idaho Power's most recent system reliability evaluation has identified a capacity deficiency of 8 MW still exists in 2024 and the capacity deficiency in 2025 is 178 MW. In response to this resource need, the Company has executed an ESA for a 150 MW battery storage facility and procured a combined 101 MW of four-hour duration battery storage resources to satisfy the identified capacity needs in 2024 and 2025.

Q. Does this complete your testimony?

A. Yes, it does.

**DECLARATION OF JARED L. ELLSWORTH**

I, Jared L. Ellsworth, declare under penalty of perjury under the laws of the state of Idaho:

1. My name is Jared L. Ellsworth. I am employed by Idaho Power Company as the Transmission, Distribution & Resource Planning Director for the Planning, Engineering & Construction Department.

2. On behalf of Idaho Power, I present this pre-filed direct testimony in this matter.

3. To the best of my knowledge, my pre-filed direct testimony is true and accurate.

I hereby declare that the above statement is true to the best of my knowledge and belief, and that I understand it is made for use as evidence before the Idaho Public Utilities Commission and is subject to penalty for perjury.

SIGNED this 26th day of May 2023, at Boise, Idaho.

Signed: _____

Jared L. Ellsworth