

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER)	
COMPANY'S APPLICATION FOR)	CASE NO. IPC-E-24-12
APPROVAL OF A MARKET PURCHASE)	
AGREEMENT.)	
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IDAHO POWER COMPANY

DIRECT TESTIMONY

OF

JARED L. ELLSWORTH

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

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

9 Q. Please describe your educational background.

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

15 Q. Please describe your work experience with
16 Idaho Power.

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

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

11 Q. What is the Company's request in this case?

12 A. Idaho Power is requesting the Idaho Public
13 Utilities Commission ("Commission") approve the market
14 purchase agreement with Powerex Corp. ("Powerex") necessary
15 to meet the identified capacity deficiency in 2026 and
16 declaration that all payments the Company makes to Powerex
17 pursuant to such agreement will be allowed as prudently
18 incurred expenses for ratemaking purposes.

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

21 A. The purpose of my testimony is to inform the
22 Commission of the Company's need for new resources to meet
23 an identified capacity deficit in 2026 as informed by a
24 Loss of Load Expectation ("LOLE") methodology utilized in
25 the 2021 Integrated Resource Plan ("IRP"), again in the

1 2023 IRP, and subsequently further enhanced through system
2 reliability evaluations. I will describe the most recent
3 assessment of system reliability and its impact to the
4 capacity deficit identified in the annual capacity position
5 utilized in the 2023 IRP. Finally, I will provide support
6 for the acquisition of resources to address the identified
7 near-term capacity needs.

8 **I. BACKGROUND**

9 Q. What is the goal of the IRP?

10 A. The goal of the IRP is to ensure: (1) Idaho
11 Power's system has sufficient resources to reliably serve
12 customer demand and flexible capacity needs over a 20-year
13 planning period, (2) the selected resource portfolio
14 balances cost, risk, and environmental concerns, (3)
15 balanced treatment is given to both supply-side resources
16 and demand-side measures, and (4) the public is involved in
17 the planning process in a meaningful way. Idaho Power uses
18 Energy Exemplar's AURORA's Long-Term Capacity Expansion
19 ("LTCE") modeling platform to develop portfolios, through
20 the selection of a variety of supply- and demand-side
21 resource options, that are least-cost for a variety of
22 alternative future scenarios while meeting reliability
23 criteria. To verify the top performing portfolios meet the
24 Company's reliability requirements, Idaho Power utilizes a
25 LOLE methodology.

1 Q. Please explain the Loss of Load Expectation.

2 A. The LOLE is a statistical measure of a
3 system's resource adequacy, describing the expected number
4 of event-days per year that a system would be unable to
5 meet demand. As utilities continue to add more renewable
6 energy to the electric grid, analyzing the effect variable
7 energy resources have on system reliability has become more
8 critical. The LOLE methodology recognizes that the output
9 of variable energy resources, such as wind and solar,
10 change with time (with their hourly output being dependent
11 on a multitude of factors like weather and environmental
12 conditions); it is essential to capture and value that
13 variability.

14 Q. What inputs are derived from the LOLE
15 methodology that are utilized in the AURORA LTCE model?

16 A. Idaho Power implements the LOLE methodology
17 through an internally developed Reliability and Capacity
18 Assessment Tool ("RCAT") which is capable of producing
19 inputs such as a Planning Reserve Margin ("PRM") and
20 resource Effective Load Carrying Capability ("ELCC")
21 values. The PRM metric can be defined as the percentage of
22 expected capacity resources above forecasted peak demand.
23 The ELCC calculation is a reliability-based metric used to
24 assess the capacity contribution of variable and energy-
25 limited resources. The PRM and ELCC values that are

1 calculated using the LOLE methodology are a direct input to
2 the AURORA LTCE model.

3 Q. How are the PRM and ELCC values utilized?

4 A. Because the AURORA LTCE model and the RCAT are
5 two separate tools, a translation is required between the
6 probabilistic LOLE analysis performed in RCAT and the
7 portfolios produced by the AURORA LTCE model. First, PRM
8 and ELCC values are calculated using the LOLE methodology
9 and directly inputted to the AURORA LTCE model. After
10 AURORA solves for and produces portfolios, select resource
11 buildouts and their corresponding data are analyzed with
12 the LOLE methodology and tested to ensure they meet the
13 pre-designated reliability hurdle through the calculation
14 of annual capacity positions. It is critical when comparing
15 future resource portfolios that each plan achieves at least
16 a base reliability threshold. Figure 1 below illustrates
17 the model consolidation process.

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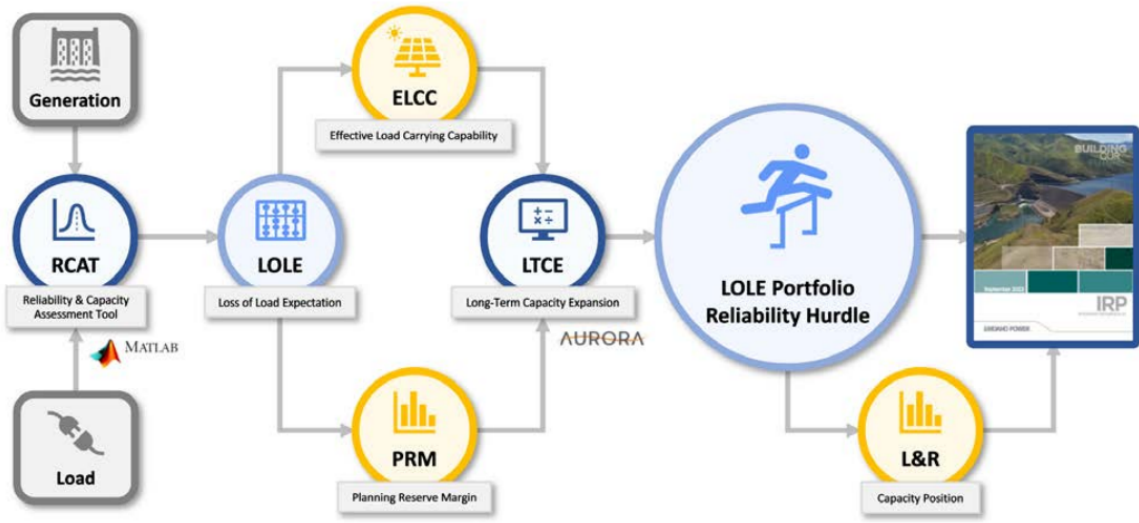
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1 **Figure 1. Idaho Power's Reliability Flowchart**



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3 Q. Have the LOLE-derived annual capacity
4 positions replaced the previously utilized load and
5 resource balance?

6 A. Yes. While they serve the same purpose, to
7 determine capacity deficiencies, the annual capacity
8 position calculation is a 2023 IRP methodology improvement
9 that replaced the load and resource balance process
10 performed in prior IRP filings. The load and resource
11 balance was a tabulated plan that helped visually ensure
12 Idaho Power had sufficient resources to meet projected
13 customer demand including a margin to account for extreme
14 conditions, reserves, and resource outages, identifying
15 resource deficiencies during the 20-year IRP planning
16 horizon. Beginning with the 2023 IRP, to better align with
17 and represent the probabilistic reliability analyses
18 utilized and to be consistent with best practices in the

1 industry, the RCAT was utilized to calculate annual
2 capacity positions in place of the deterministic load and
3 resource balance. The LOLE-derived annual capacity position
4 calculation is a better indication of resource reliability
5 as compared the previously utilized load and resource
6 balance. The goal is the same under both processes:
7 identification of the timing of the Company's first
8 resource need, or the point at which Idaho Power's
9 reliability requirements may not be met.

10 Q. If the goal of both processes is the same, how
11 is the LOLE-derived annual capacity position calculation an
12 IRP methodology improvement?

13 A. In the 2021 IRP, the Company derived static
14 PRM and resource ELCC values that were held constant
15 throughout the 20-year planning horizon. As the RCAT and
16 AURORA serve different purposes in Idaho Power's planning
17 process, the Company recognized that further efforts were
18 needed to translate and align the data exchanged between
19 the two models. Historically, the PRM was based on the peak
20 load of a given year plus some additional amount to account
21 for abnormal weather events or equipment outages. This
22 method worked well to ensure reliability for Idaho Power as
23 a summer peaking utility with mostly flexible generation
24 resources. However, as the wider industry, and the Company,
25 experience increased reliance on variable energy resources,

1 whose hour-to-hour and season-to-season generation changes,
2 it is no longer viable to only contemplate peak hour
3 requirements.

4 To ensure that AURORA would recognize similar
5 capacity needs as identified by the RCAT, the Company
6 developed seasonal PRM values for years in the planning
7 horizon that experience significant changes in the resource
8 buildout, better representing the seasonal resource needs.
9 Historically, when a portfolio added predominantly flexible
10 generation resources it was also sufficient to give these
11 resources a static peak capacity contribution as it was
12 harmonious with a static PRM. As variable energy resource
13 and energy limited resource additions increase, static
14 values no longer account for the reduced peak capacity
15 contribution due to saturation nor do they capture the
16 diversity benefit (positive or negative) of a mix of
17 different types of variable energy resources and energy
18 limited resources.

19 Q. Were any changes made to the use of resource
20 ELCC values as well?

21 A. Yes. The ELCC of future variable energy
22 resources and energy limited resources are dependent upon
23 the resources built before them, making the ELCC
24 calculation of future resources challenging. Idaho Power
25 implemented seasonal resource specific ELCC saturation

1 curves for variable energy resources and energy limited
2 resources in the AURORA LTCE model for the 2023 IRP.

3 Q. Please explain the synchronization of the RCAT
4 and the AURORA LTCE model.

5 A. To better assess the dynamic diversity benefit
6 caused by a changing resource mix, a feedback process was
7 implemented between the AURORA LTCE model and the RCAT for
8 the 2023 IRP. Under the feedback process, the annual
9 capacity positions for an AURORA LTCE main case portfolio
10 buildout were calculated using the RCAT. Once the annual
11 capacity positions were known, the PRM in the AURORA LTCE
12 model was modified in years that had significant resource
13 changes so that both models identified a similar annual
14 capacity position. The feedback loop continued until the
15 main case portfolio was reliable under the LOLE threshold.
16 The resulting AURORA-produced optimized main case
17 portfolios provide the least-cost, least-risk future
18 resource buildouts.

19 **II. ANNUAL CAPACITY POSITION**

20 Q. What have the previous capacity position
21 results indicated with respect to Idaho Power's resource
22 sufficiency?

23 A. The Company has been generally resource-
24 sufficient since the addition of the Langley Gulch natural-
25 gas fired power plant almost a decade ago until the filing

1 of the 2021 IRP. That is, Idaho Power's owned generation
2 and transmission resources, along with negotiated purchases
3 under Power Purchase Agreements ("PPA") and mandatory
4 purchases under the Public Utility Regulatory Policies Act
5 of 1978 ("PURPA"), were sufficient to meet the Company's
6 load growth over that time. With the resource and load
7 inputs from the 2021 IRP, Idaho Power rapidly moved from an
8 expected resource-sufficient position through 2028,¹ to a
9 near-term capacity deficiency starting in 2023. The rapid
10 change in the resource position, identified during
11 preparation of the 2021 IRP, was caused by several dynamic
12 and converging factors, including third-party transmission
13 capacity constraints, load growth, and a decline in the
14 peak-serving effectiveness of certain supply-side and
15 demand-side resources. These dynamic circumstances led the
16 Company to immediately file a request for a CPCN to acquire
17 resources to be online in 2023.²

18 Q. What were the capacity positions ultimately
19 identified in the 2021 IRP?

20 A. The capacity positions identified in Idaho
21 Power's 2021 IRP, acknowledged with Order No. 35603,³ were
22 deficits of approximately 101 MW in 2023, 186 MW in 2024,

¹ Idaho Power's Second Amended 2019 Integrated Resource Plan, Case No. IPC-E-19-19.

² Case No. IPC-E-22-13.

³ Case No. IPC-E-21-43.

1 311 MW in 2025, 560 MW in 2026, and 665 MW in 2027. As a
2 result, in addition to the Company's request for a CPCN for
3 the 2023 resource procurement, Idaho Power filed a CPCN and
4 approval of a PPA to acquire resources to be online in 2024⁴
5 and a CPCN and approval of an Energy Storage Agreement to
6 acquire resources to be online in 2025.⁵

7 Q. Since the completion of the 2021 IRP, has the
8 Company refreshed its capacity positions, potentially
9 influencing Idaho Power's resource need?

10 A. Yes. The Company continually assesses system
11 reliability, monitoring near-term known changes,
12 operational enhancements, limitations, or constraints on
13 the existing system, if any, that would impact the resource
14 needs. Furthermore, on September 29, 2023, the Company
15 filed its 2023 IRP, which included current information on
16 the expected timing of major new loads, the resource
17 procurements the Company had made to date, annual capacity
18 positions and other updates.

19 Q. What were the annual capacity positions
20 identified in the 2023 IRP?

21 A. Incorporating modeling input updates and the
22 additional enhancements to the Company's reliability
23 evaluation discussed earlier in my testimony, the

⁴ Case No. IPC-E-23-05 and IPC-E-23-20.

⁵ Case No. IPC-E-23-20.

1 incremental capacity needs identified in the 2023 IRP were
2 22 MW in 2026 and 44 MW in 2027, with the need continuing
3 to grow through the remainder of the planning horizon.

4 Q. Did Idaho Power's modeling updates include the
5 Boardman to Hemingway transmission line ("B2H") as a new
6 resource?

7 A. Yes. B2H was identified and acknowledged as a
8 cost-effective resource in the Company's 2021 IRP preferred
9 resource portfolio with a current planned in-service date
10 of summer of 2026. B2H will provide Idaho Power with 750 MW
11 of capacity in the west-to-east direction for market
12 purchases for load service and transmission service to
13 third-party transmission customers under the Company's Open
14 Access Transmission Tariff. Further, an asset exchange
15 between PacifiCorp and Idaho Power, in complement with B2H,
16 will provide the Company with 200 MW of bidirectional
17 transmission capacity between southern power markets (Mona
18 and Four Corners) and the Idaho Power system. The full B2H
19 capacity is modeled in the transmission portion of AURORA,
20 with separate transmission links modeled for each owner,
21 one with Idaho Power's share and one with PacifiCorp's
22 share. The Company treats approximately 500 MW of B2H's
23 summer capacity as equivalent to a summer resource and the
24 200 MW of transmission capacity to southern power markets
25 as equivalent to a winter resource. All transmission

1 capacity has the potential to be leveraged for market
2 purchases. The 2023 IRP continued to confirm the cost-
3 effectiveness of B2H and the associated asset exchange and
4 its inclusion in the IRP's Preferred Portfolio.

5 Q. Did Idaho Power evaluate how the annual
6 capacity position would change should the online date of
7 B2H be delayed?

8 A. Yes. The 2023 IRP considered an alternative
9 B2H online date beyond July 2026 should there be a delay in
10 receiving permits, supply chain constraints, or other
11 unforeseen events. The alternative scenario assumed a
12 November 2026 online date for B2H, which changes the
13 Company's capacity needs from 22 MW under a July 2026 B2H
14 online date to 356 MW under a November 2026 B2H online
15 date.

16 Q. You indicated Idaho Power continually assesses
17 system reliability. Has the Company updated the system
18 reliability assessment since the 2023 IRP was filed in
19 September 2023?

20 A. Yes. The Company recognizes that during the
21 near-term resource decision-making phase, the annual
22 capacity positions can be very fluid. In addition, in the
23 face of growing loads, Idaho Power constantly monitors
24 resource needs and responds with added urgency, as
25 evidenced by Idaho Power's consecutive requests for CPCNs

1 to acquire resources to be online in 2023, 2024 and 2025.⁶
2 The most recent system reliability assessment, which
3 assumes the online date for B2H is beyond summer of 2026,
4 has identified a capacity deficit of 236 MW in 2026.

5 Q. What drove the changes to the annual capacity
6 positions for 2026 in the most recent system reliability
7 assessment?

8 A. Aside from modeling input updates associated
9 with the latest load forecast, expected existing resource
10 availability and the most recent 5-year rolling average
11 Equivalent Forced Outage Rates during Demand ("EFORd"), the
12 biggest drivers of the change in the annual capacity
13 position in 2026 are associated with (1) B2H, (2) the
14 Capacity Benefit Margin ("CBM"), and (3) the North Valmy
15 Generating Station ("Valmy"). Due to delays in obtaining
16 some necessary permits, the anticipated in-service date of
17 B2H is beyond the summer of 2026. Absent the available
18 transfer capacity of B2H in July 2026, and further the 200
19 MW of bidirectional transmission capacity from the southern
20 power markets, the capacity deficit increases.

21 Q. What changes were made to the CBM modeling
22 assumptions since the annual capacity position identified
23 in the development of the 2023 IRP?

24 A. CBM is transmission capacity Idaho Power sets

⁶ Case Nos. IPC-E-22-13, IPC-E-23-05, and IPC-E-23-20.

1 aside on the Company's transmission system, as unavailable
2 for firm use, for the purposes of accessing reserve energy
3 to recover from severe conditions such as unplanned
4 transmission and generation outages or energy emergencies.
5 An energy emergency must be declared by Idaho Power before
6 the CBM transmission capacity becomes firm. The Company
7 holds 330 MW of import transmission capacity aside on the
8 Idaho to Northwest path for CBM. CBM does not, however,
9 have corresponding third-party transmission reservations to
10 the Mid-C market.

11 Because of continued transmission market
12 limitations beyond the Idaho Power border, in the 2023 IRP
13 the Company reduced the contribution of CBM toward the
14 annual capacity position, from 330 MW for all seasons to
15 200 MW for March through October and 0 MW in the winter for
16 planning purposes. Idaho Power's continued evaluation of
17 CBM has indicated that, similar to the winter months, last
18 minute transmission acquisition between the market and
19 Idaho Power's border under emergency conditions in the
20 summer months has not been consistently available. The
21 Company still believes CBM is valuable for customers from a
22 reliability perspective and believes that transmission
23 availability may change in the future. However, for the
24 time-being, for resource planning purposes, the Company
25 believes it is appropriate to adjust CBM to 0 MW year-round

1 given the recent challenges ensuring a connection to the
2 Mid-C market in emergency conditions.

3 Q. What changes were made to Valmy's availability
4 that have impacted the annual capacity position?

5 A. Since identification of the conversion of
6 Valmy Units 1 and 2 to natural gas operations by 2026 as an
7 economic resource alternative in the 2023 IRP, Idaho Power
8 and NV Energy, the Valmy co-owners, have aligned on a
9 decision to convert the units and have finalized a
10 conversion agreement that will amend the pertinent sections
11 of the existing ownership and operations agreements to
12 reflect gas-fired operations of both units. With definitive
13 agreements in place that detail the Company's increased
14 Valmy capacity beginning in 2026, Idaho Power included the
15 additional 261 MW of available capacity in the latest
16 system reliability assessment.

17 Q. You indicated modeling input changes consisted
18 of updates made to the latest load forecast, resource
19 availability and EFORD. What has changed since development
20 of the 2023 IRP?

21 A. Any time the system reliability evaluation is
22 performed, Idaho Power includes the most up-to-date load
23 and resource inputs. With the continued high load growth in
24 the Company's service area, the load forecast is
25 consistently monitored and updated as new information

1 becomes available. In addition, planned maintenance of one
2 of the Oxbow hydro units will reduce the overall resource
3 availability in 2026. The 5-year rolling average EFORD was
4 updated with the latest published data from the NERC
5 Generation Availability Data System, reflecting the
6 industry average generation resource performance data and
7 outage rates using the most recent data. Finally, two PURPA
8 contracts with solar projects proposed to be located in
9 eastern Oregon were terminated due to the developers'
10 failure to perform, resulting in the removal of 72 MW of
11 available solar nameplate capacity.

12 Q. Based on your most recent evaluation of system
13 reliability, how has the annual capacity position for 2026
14 changed since Idaho Power's 2023 IRP was filed?

15 A. The Company's most recent system reliability
16 assessment to determine the annual capacity positions has
17 identified an increase in the previously identified
18 capacity deficit to 236 MW in 2026. As I discussed
19 previously, due to the fluidity of the annual capacity
20 positions during the near-term resource decision-making
21 phase, Idaho Power continually assesses system reliability.
22 But because the Company has been repeatedly matching near-
23 term resource procurements with the capacity need
24 identified at a point in time, the fluctuating need is
25 requiring continued procurement of resources.

1 Q. Does the load forecast used to identify the
2 236 MW deficit in 2026 include large load inquiries that
3 Idaho Power continues to experience in its service
4 territory?

5 A. No. In the 2023 IRP, the Company provided a
6 large load planning scenario that added 200 MW to Idaho
7 Power's load forecast to account for potential additional
8 large loads. Although the Company continues to receive
9 inquiries for large loads that are considering siting in
10 Idaho Power's service territory, the Company has not yet
11 utilized this large load scenario to determine its future
12 resource procurement needs. Idaho Power will continue to
13 evaluate whether a transition to the large load scenario is
14 necessary. Such a transition would increase resource
15 deficits in future years.

16 **III. MEETING THE CAPACITY DEFICIENCY**

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

20 A. Yes. As I discussed earlier in my testimony,
21 as part of the IRP process, the Company uses AURORA's LTCE
22 modeling platform to develop portfolios, through the
23 selection of a variety of supply- and demand-side resource
24 options, that are least-cost for a variety of alternative
25 future scenarios while meeting reliability criteria. The

1 future supply- and demand-side resources available to meet
2 identified capacity deficiencies, whose costs are generally
3 based on the 2022 Annual Technology Baseline report
4 released by the National Renewable Energy Laboratory,⁷
5 include new gas-fired resources, hydrogen, wind, solar,
6 battery storage, market purchases via available
7 transmission capacity, demand response and energy
8 efficiency. The Preferred Portfolio from the 2023 IRP,
9 which included a July 2026 online date for B2H, identified
10 the conversion of Valmy Units 1 and 2 to natural gas, the
11 procurement of 100 MW of solar as the most cost-effective
12 resources for meeting the identified capacity deficits in
13 2026 along with 19 MW of energy efficiency potential
14 (identified in the energy efficiency potential study). In
15 addition, as part of the 2023 IRP modeling, the Company
16 evaluated an alternative B2H online date beyond July 2026
17 should there be a delay in receiving permits, supply chain
18 constraints, or other unforeseen events, assuming an online
19 date for B2H of November 2026. This evaluation is, in
20 essence, identifying the most cost-effective alternative
21 for meeting the identified capacity deficit should the B2H
22 online date be delayed to November 2026.

23 Q. How was the evaluation of the November 2026
24 B2H on-line date performed?

⁷ atb.nrel.gov/.

1 A. Three different November 2026 B2H simulations
 2 were analyzed with AURORA’s LTCE modeling: (1) a November
 3 2026 B2H on-line date with a conversion of both Valmy Units
 4 1 and 2 to natural gas, (2) a November 2026 B2H on-line
 5 date with the conversion of only Valmy Unit 2 to natural
 6 gas, and (3) a November B2H on-line date without the
 7 availability of either Valmy unit. These simulations
 8 include the costs associated with adding generation
 9 resources (both supply-side and demand-side) and optimally
 10 dispatching the resources to meet the constraints within
 11 the model. The three different simulations and their
 12 associated costs, presented below in Table 1, can be
 13 compared to identify the most cost-effective alternative to
 14 meeting the 2026 capacity deficit should B2H be delayed to
 15 November 2026.

16 **Table 1. 2023 IRP Portfolio Costs**

Portfolio	Net Present Value Years 2024-2043 (\$ x 1,000,000)
(1) Nov2026 B2H Valmy 1&2	\$9,767
(2) Nov2026 B2H Valmy 2	\$9,880
(3) Nov2026 B2H Without Valmy	\$10,192

17
 18 With a portfolio cost of \$9.767 billion, the conversion of
 19 Valmy Units 1 and 2 to natural gas in 2026 is \$113 million
 20 less than the conversion of only Valmy Unit 2, and \$425

1 million less than a portfolio that does not include the
2 conversion to natural gas of either Valmy unit, indicating
3 that the conversions of Valmy Units 1 and 2 to natural gas
4 continues to be a cost-effective resource alternative,
5 particularly with a November 2026 B2H online date.

6 Q. What additional resources were selected as
7 cost-effective alternatives for meeting the capacity
8 deficiency under a scenario with a November 2026 B2H online
9 date and the conversion of both Valmy units to natural gas?

10 A. When compared to the 2023 IRP Preferred
11 Portfolio, in 2026 an additional 300 MW of solar was
12 selected, 400 MW in total, as well as 155 MW of battery
13 storage and 40 MW of demand response, indicative of the
14 Company's need to procure resources to continue to provide
15 safe, reliable electric service to its customers in 2026
16 and beyond.

17 Q. Has Idaho Power taken any actions to acquire
18 resources to meet the 236 MW capacity deficit in 2026?

19 A. Yes. Under Idaho law, Idaho Power has an
20 obligation to provide adequate, efficient, just, and
21 reasonable service on a nondiscriminatory basis to all
22 those that request it within its certificated service area.⁸
23 Further, as indicated by Order No. 35643, Idaho Power is
24 responsible for planning and managing its load and resource

⁸ Idaho Code §§ 61-302, 61-315, 61-507.

1 portfolio and the Commission expects "the Company to
2 closely monitor its projected capacity needs going forward
3 and to act proactively to ensure a robust RFP process can
4 be completed."⁹ Therefore, in order to meet its obligations
5 to reliably serve customers, on September 15, 2022, Idaho
6 Power filed an application with the Public Utility
7 Commission of Oregon ("OPUC") to open an independent
8 evaluator selection docket to oversee the Request for
9 Proposals ("RFP") process.¹⁰ This also ensured a fair and
10 transparent procurement process that was compliant with the
11 OPUC's competitive bidding rules, which the Commission
12 directed Idaho Power to follow as well.¹¹ The Company's
13 compliance with the OPUC competitive bidding guidelines,
14 which will be discussed in greater detail in the direct
15 testimony of Mr. Hackett, ultimately led to a competitive
16 solicitation through the issuance of the 2026 All-Source
17 RFP, seeking a combination of energy and capacity resources
18 that provide a minimum of approximately 350 MW of peak
19 capacity and up to 1,100 MW of variable energy resources
20 for 2026 and 2027 ("2026 RFP").

21 Q. Why did the 2026 RFP request a minimum of
22 approximately 350 MW of peak capacity and up to 1,100 MW of

⁹ Page 13.

¹⁰ Docket UM 2255.

¹¹ Order No. 32745. Case No. IPC-E-10-03.

1 variable energy resources for 2026 and 2027 if the
2 identified capacity deficit was 236 MW in 2026?

3 A. Following the 2021 IRP, the Company had
4 identified a 311 MW deficiency in 2025 and a 665 MW
5 deficiency in 2027. Assuming the 311 MW deficiency would be
6 addressed through the 2024 and 2025 resource procurements
7 for which Idaho Power received CPCNs, the incremental need
8 was 354 MW (665 MW - 311 MW = 354 MW), or approximately a
9 350 MW peak capacity need.

10 Given the significant timeframe related to the RFP
11 process under the OPUC competitive bidding guidelines, the
12 2026 RFP was responsive to the resource needs identified in
13 the Company's 2021 IRP filing, which included near-term
14 preferred portfolio additions of wind, solar, storage,
15 cost-effective energy efficiency measures, the conversion
16 of coal units to natural gas, incremental demand response,
17 and B2H coming online in 2026. The transmission included in
18 the 2021 IRP preferred portfolio, including B2H, provides
19 valuable capacity that ultimately must be paired with
20 energy to serve load. In addition to soliciting resources
21 that provide capacity and energy aligned with the resource
22 needs, the 2026 RFP solicited a portion of the energy
23 market purchases that will be necessary to serve load for
24 2026 and beyond. This market purchase approach is intended
25 to allow the Company to begin acquiring a portion of the

1 energy that will be needed to serve load using pre-existing
2 firm transmission rights, without acquiring more than what
3 will be needed in a majority of hours, while also allowing
4 Idaho Power to make additional procurement decisions and
5 solicitations over time, considering updated information
6 and the most recent IRP available at that time.

7 Additionally, the RFP needed to remain flexible to
8 account for the fluidity of the Company's annual capacity
9 positions as well as any potential delays in the B2H online
10 date. Ultimately, the 2026 resources selected through the
11 RFP process were based on the most recent capacity
12 deficiency of 236 MW in 2026. As detailed in Company
13 witness Mr. Hackett's testimony, through the Company's
14 robust competitive bidding process, Idaho Power has
15 identified the three most cost-effective bids from the 2026
16 RFP evaluation as necessary to fill the 2026 capacity
17 deficit. The first bid resulted in the execution of a 200
18 MW contract with Powerex for a capacity-based product and
19 firm energy contract effective June 2026. The second bid
20 selected was a benchmark resource, the Idaho Power-owned
21 battery storage facility providing up to 150 MW of
22 operating capacity. Idaho Power is currently negotiating
23 agreements for the third project submittal resulting from
24 the 2026 RFP, a 200 MW solar photovoltaic ("PV") plus 100
25 MW battery storage project. However, because there are time

1 constraints associated with the market purchase agreement
2 that led the Company to submit it to the Commission
3 expeditiously, Idaho Power is only filing a request for
4 approval of the market purchase agreement at this time.

5 Q. How does the 200 MW Powerex market purchase
6 impact the 236 MW capacity deficiency?

7 A. In 2026, the Powerex market purchase reduces
8 the capacity deficiency from 236 MW to approximately 186 MW
9 - a 50 MW reduction. In the 2021 and 2023 IRPs, the Company
10 had already assumed that transmission capacity between the
11 Pacific Northwest and Idaho was resource equivalent
12 capacity. Therefore, utilizing that same transmission
13 capacity to import the Powerex 200 MW market purchase
14 results in no incremental resource capacity gain, although
15 it does begin to fulfill the Company's energy import needs
16 as described in the 2026 RFP and earlier in my testimony.
17 The Company was able to acquire 50 MW of incremental
18 transmission, for one year through Montana, in 2026 and
19 therefore the Powerex market purchase provides for 50 MW of
20 capacity in 2026. Once B2H is completed, the Powerex
21 contract will be treated as 200 MW of fully incremental
22 capacity.

23 Q. How do the 200 MW solar PV plus 100 MW battery
24 storage project and the Idaho Power-owned battery storage
25 facility providing up to 150 MW of operating capacity

1 impact the 2026 capacity deficit?

2 A. The combined projects are estimated to reduce
3 the 2026 deficit an additional 176 MW. The 200 MW solar PV
4 plus 100 MW battery storage project will reduce the 2026
5 capacity deficit approximately 110 MW while the Company-
6 owned battery storage facility will reduce the 2026
7 capacity deficit approximately 66 MW.

8 Q. Why does a battery storage facility that
9 provides 150 MW of operating capacity only reduce the
10 deficit 66 MW?

11 A. When solar photovoltaic ("PV") and energy
12 storage are added together, the ELCC of the combined
13 resource is high - a 100 MW solar PV plus 100 MW storage
14 facility can have an 80 MW or higher ELCC. When solar PV
15 and battery storage additions become unbalanced via large
16 additions of one and not the other, the result is a lower
17 ELCC for the resource that was added, and a higher ELCC for
18 the resource that was not added. This is occurring in 2026
19 given the large quantity of battery storage the Company is
20 adding in 2025, and now further adding to this storage in
21 2026, resulting in a lower ELCC for energy storage
22 facilities.

23 However, this lower ELCC is just a year-2026,
24 snapshot in time issue. In addition to the 200 MW solar PV
25 plus 100 MW energy storage project as a cost-effective

1 resource addition in 2026, Idaho Power is forecasting the
2 addition of approximately 525 MW of solar PV, spread
3 through late-2026 and 2028, associated with a large load
4 customer. The addition of this stand-alone solar will
5 increase the capacity contribution of the energy storage to
6 the portfolio in those years. Thus, while the procurement
7 of a higher amount of storage to meet 2026 needs may reduce
8 its ELCC (all the procurement is necessary for reliability
9 purposes), it sets the Company up well to accept planned
10 stand-alone solar additions to the system in the future.

11 Q. Do you believe there is sufficient support for
12 the procurement of the market purchase with Powerex
13 effective June 2026?

14 A. Yes, I do. The resource acquisitions were
15 pursued and procured as a least cost/least risk method of
16 meeting the capacity deficits first identified in the
17 Company's 2021 IRP, again in the 2023 IRP, and subsequently
18 with the results of system reliability evaluation. Further,
19 the acquisition is a critical incremental step in
20 fulfilling the Company's long-term import needs - that is,
21 the energy the Company will need to import on available
22 firm transmission to serve load. The fluidity of the
23 capacity deficit period and continued high load growth
24 further supports these resource procurements.

25 //

1 **IV. CONCLUSION**

2 Q. Please summarize your testimony.

3 A. Idaho Power's most recent system reliability
4 evaluation has identified a capacity deficiency of 236 MW
5 in 2026. In response to this resource need, the Company has
6 executed a 200 MW capacity-based product and firm energy
7 contract, for which Idaho Power is requesting approval of
8 at this time, and identified an Idaho Power-owned battery
9 storage providing 150 MW of operating capacity and a 200 MW
10 solar PV plus 100 MW battery storage project to help
11 satisfy the identified capacity need in 2026.

12 Q. Does this complete your testimony?

13 A. Yes, it does.

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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 18th day of March 2024, at Boise, Idaho.

Signed:  _____