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IDAHO PUBLIC UTILITIES COMMISSION

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November 16, 2021

VIA ELECTRONIC FILING

Jan Noriyuki, Secretary Idaho Public Utilities Commission 11331 West Chinden Blvd., Building 8 Suite 201-A Boise, Idaho 83714

> Re: Case No. IPC-E-21-21 In the Matter of the Application of Idaho Power Company's Application to Initiate a Multi-Phase Collaborative Process for the Study of Costs, Benefits, and Compensation of Net Excess Energy Associated with Customer On-Site Generation

Dear Ms. Noriyuki:

Attached for electronic filing, pursuant to Order No. 35058, is Idaho Power Company's Final Comments in the above-entitled matter.

If you have any questions about the attached documents, please do not hesitate to contact me.

Very truly yours,

Lin D. Madotrom

Lisa D. Nordstrom

LDN:sg Attachments LISA D. NORDSTROM (ISB No. 5733) Idaho Power Company 1221 West Idaho Street (83702) P.O. Box 70 Boise, Idaho 83707 Telephone: (208) 388-5825 Facsimile: (208) 388-6936 Inordstrom@idahopower.com

Attorney for Idaho Power Company

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION TO INITIATE A MULTI-PHASE COLLABORATIVE PROCESS FOR THE STUDY OF COSTS, BENEFITS, AND COMPENSATION OF NET EXCESS ENERGY ASSOCIATED WITH CUSTOMER ON-SITE GENERATION

CASE NO. IPC-E-21-21

IDAHO POWER COMPANY'S FINAL COMMENTS

After considering the feedback received thus far from the Idaho Public Utilities Commission ("Commission") Staff, intervenors, and the public, Idaho Power Company ("Idaho Power" or "Company") submits its Final Comments pursuant to the Commission's Notice of Scheduling in Order No. 35193. Idaho Power has included Attachment 1, Idaho Power's Revised Study Framework ("Revised Study Framework"), reflecting changes to Attachment 1 of the Company's Application ("Initial Study Framework"), to add or revise areas of study in response to comments and feedback received from the public and intervenors. Idaho Power believes its Revised Study Framework, which incorporates feedback provided by the public and intervening parties, provides a reasonable basis for the Company to complete a comprehensive study, as ordered by the Commission.^{1,2}

Idaho Power's Final Comments summarize Idaho Power's revisions in its Revised Study Framework, recommendations from the public and intervenors that the Company contends are out-of-scope, and procedural considerations. Attachment 2 provides tracked changes in legislative format, comparing Idaho Power's Initial Study Framework and the Revised Study Framework to highlight feedback the Company has incorporated during the study design phase.

The Revised Study Framework will provide for a <u>comprehensive</u> study of the costs and benefits of on-site generation, as directed by the Commission in Order Nos. 34046 and 34509. In their Initial Comments, several intervenors have recommended the Commission limit the scope of the study by suggesting to narrowly focus on evaluating only an export credit rate.³ While a change to the export credit methodology and valuation is a key element of the comprehensive study, the Company does not believe it was the Commission's intent – nor is it necessary – to limit areas of study to only this one element.

¹ In the Matter of the Application of Idaho Power Company for Authority to Establish New Schedules for Residential and Small General Service Customers with On-Site Generation, Case No. IPC-E-17-13, Order No. 34046 at 31 (May 9, 2018) (the Commission ordered Idaho Power to "initiate a docket to comprehensively study the costs and benefits of on-site generation on Idaho Power's system, as well as proper rates and rate design, transitional rates, and related issues of compensation for net excess energy provided as a resource to the Company.")

² In the Matter of the Petition of Idaho Power Company to Study the Costs, Benefits, and Compensation of Net Excess Energy Supplied by Customer On-Site Generation, Case No. IPC-E-18-15, Order No. 34509 at 9 (Dec 20, 2019) ("The Company must prepare and file a credible and fair study on the costs and benefits of distributed on-site generation to the Company's system." ("...Commission Staff and the Company will both host public workshops to share information and perspectives on net-metering program design with the public and listen to customer concerns and input.")

³ CEO Initial Comments at 1-6, ICEA Initial Comments at 2, ICL Initial Comments at 1 (Oct 13, 2021).

Idaho Power recommends that the Commission approve the Revised Study Framework as the final scope to conclude the study design phase so the Company can begin its comprehensive study of the costs and benefits of on-site generation.

I. PROCEDURAL BACKGROUND

On September 8, 2021, Notice of Parties included the Company, Commission Staff ("Staff"), Industrial Customers of Idaho Power ("ICIP"), IdaHydro, Idaho Conservation League ("ICL"), Idaho Clean Energy Association ("ICEA"), Clean Energy Opportunities for Idaho ("CEO"), Idaho Solar Owners Network ("ISON"), Micron Technology, Inc. ("Micron"), City of Boise, Kiki Leslie A. Tidwell ("Tidwell"), Richard E. Kluckhohn and Wesley A. Kluckhohn ("Kluckhohn"), ABC Power Company, LLC ("ABC Power"), and Idahome Solar, LLC ("Idahome Solar") ("Intervenors" and collectively, the "Parties").

On September 22, 2021, the Commission issued Order No. 35176 inviting Parties and any persons desiring to state a position to file initial comments about the appropriate scope of the Study by October 13, 2021. Initial comments were filed by the Company,⁴ Staff, ICIP, ICL, ICEA, CEO, ISON, City of Boise, Tidwell, and Kluckhohn.

On October 20, 2021, Idaho Power held a public workshop to provide the public with an overview of its Application. On October 26, 2021, Staff held a public workshop to provide the public with an overview of the Company's Application and Staff's analysis regarding its Study Framework ("Staff Study Framework"). At each workshop, the public had the opportunity to ask questions about the Company's Application and how customers may further participate in the proceeding.

⁴ The Company's Initial Comments (Oct 13, 2021) contain a more detailed procedural background prior to the issuance of Order No. 35176.

At the Commission Public Hearing on October 28, 2021, six (6) individuals from the public provided verbal testimony. As of November 15, 2021, 130 written comments were submitted in this docket. The majority of the written comments received express support for completion of a study that will result in a fair valuation for on-site generation.

II. IDAHO POWER'S REVISED STUDY FRAMEWORK

After considering the questions and comments from Parties and the public on the Initial Study Framework, Idaho Power makes the following revisions and clarifications incorporated in the Revised Study Framework:

A. Measurement Interval (#1-3)

The Company has proposed to evaluate the length of time between meter reads (measurement intervals) to measure the energy delivered and the energy received by the following: (1) monthly, (2) hourly, and (3) instantaneous/real-time. Under each of the proposed measurement intervals, the Company modified its Initial Study Framework⁵ to suggest studying the following:

- (1) Calculate the quantity of kWh consumed and billed for utility service
- (2) Calculate the quantity of kWh exported and credited
- (3) Analyze bill impacts to customer-generators

The Company's proposed measurement intervals are similar to the Netting Periods in the Scope of Rocky Mountain Power's On-Site Generation Study set forth in Attachment A in Final Order No. 34753.⁶

⁵ Revised Study Framework (Attachment 1) at 1.

⁶ In the Matter of the Application of Rocky Mountain Power to Close the Net Metering Program to New Service & Implement a Net Billing Program to Compensate Customer-Generators for Exported Generation, Case No. PAC-E-19-08, Order No. 34753, Attachment A at 1 (Aug 26, 2020).

B. Export Credit Rate (#4-16)

Avoided Energy (#4-7)

The Company proposed the following areas of study for an avoided energy value in its Application: (1) methods for calculating the avoided energy value of exported energy; and (2) whether exported energy should be discounted to reflect its non-firm nature. The Company's proposed areas of study are similar to the Avoided Energy Value of the Export Credit Rate in the Scope of Rocky Mountain Power's On-Site Generation Study.⁷

The Company's Revised Study Framework includes additional detail and areas of study related to the avoided energy value of exported energy to incorporate feedback received.⁸ First, in response to feedback from the public, CEO,⁹ and Staff,¹⁰ the Company has included an evaluation of exported energy that could vary with time and/or location of exported energy. The Company acknowledges that an export credit rate that accounts for the time and/or location of exported energy may result in a credit value that reflects a more accurate avoided cost.

The Company agrees with Staff that it is essential to consider the firmness of energy exported from customer-generators to ensure that the export credit rate reflects the cost of energy avoided.¹¹ In response to Staff's comments, the Company has included two (2) additional aspects in the Revised Study Framework: (1) evaluate firmness of

⁷ *Id.* at 1-2.

⁸ Revised Study Framework (Attachment 1) at 1-2.

⁹ CEO Initial Comments at 3.

¹⁰ Staff Comments at 4-5 (Oct 13, 2021).

¹¹ *Id*. at 6.

energy for individual customers compared to as a combined class; and (2) evaluate firmness of energy for customers with energy storage devices compared to those without energy storage devices.¹²

Avoided Capacity Value (#8-9)

Staff recommends that the Company include methods that consider the valuation of avoided capacity cost based on the timing of the Company's first capacity deficiency and how it can be incorporated into the development of the export credit rate.¹³ Idaho Power has added this consideration to its Revised Study Framework.¹⁴

Staff also suggests the time periods when avoided costs are realized be studied. The three issues that Staff recommends be addressed in the study include (1) identification and evaluation of methods for identifying system coincident peak hours (i.e., the Company's net peak hours – the hours that drive the need for capacity resource or capacity-equivalent resource additions); (2) an identification and an evaluation of different export credit rate designs to ensure customer-generators are correctly compensated for the amount of capacity they contribute during system peak and for the amount of capacity they contribute during system peak and for the amount of capacity they avoid; (3) an evaluation of differences between customer-generators who have energy storage versus those that do not.¹⁵ Idaho Power has reflected these recommendations in its Revised Study Framework.¹⁶

¹² Revised Study Framework (Attachment 1) at 1-2.

¹³ Staff Comments at 8.

¹⁴ Revised Study Framework (Attachment 1) at 2.

¹⁵ Staff Comments at 9.

¹⁶ Revised Study Framework (Attachment 1) at 2.

Staff also recommends the Company evaluate two different rate designs for avoided capacity values. The first method would credit the avoided cost of capacity for every kilowatt-hour ("kWh") of energy exported to the Company's system, irrespective of the time.¹⁷ The second would credit an avoided capacity cost only for exports that occur during system coincident peak hours.¹⁸ These recommendations have been incorporated into the Revised Study Framework.¹⁹

Avoided Distribution and Transmission Costs (#10-11)

Staff and ICL suggest to "separately" study avoided distribution and avoided transmission costs.²⁰ Idaho Power has incorporated this recommendation into the Revised Study Framework.²¹

Avoided Line Losses (#12)

The Company has proposed to quantify the avoided line losses associated with avoided energy and avoided capacity. CEO suggests the study should address the avoided *marginal* line losses.²² Staff recommends that the Company consider line loss at distribution-level voltages versus at transmission-level voltages in connection with the

²² Staff Study Framework at 11 (Sept 20, 2021).

¹⁷ Staff Comments at 9-10.

¹⁸ *Id.* at 10.

¹⁹ Revised Study Framework (Attachment 1) at 2.

²⁰ Staff Comments at 11-12 and ICL Initial Comments at 12.

²¹ Revised Study Framework (Attachment 1) at 2.

type of avoided cost being avoided.²³ The Revised Study Framework reflects these additions to the avoided line losses section.²⁴

Integration Costs (#13)

The Company proposes to study whether the export credit rate should be reduced to account for integrations costs. The Revised Study Framework reflects the following proposed additions as recommended by Staff:²⁵ (1) evaluate if integration costs apply differently for customers with and without energy storage devices; (2) explore methods for evaluating how different penetration levels impact the level of integration cost by customer; and (3) explore methods for evaluating how integration costs can change over time to suggest how frequently the ECR should be updated.²⁶

Avoided Risk (#14-15)

City of Boise proposed to include an "avoided risks" section in the Study Framework filed by Staff on September 30. The Company included both components of this section in its Revised Study Framework.²⁷

Avoided Environmental Costs and Other Benefits (#16)

Staff states that "avoided environmental costs should be quantifiable, measurable, and only include avoided costs that affect rates."²⁸ The Revised Study Framework reflects

²⁷ *Id*.

²³ Staff Comments at 12.

²⁴ Revised Study Framework (Attachment 1) at 3.

²⁵ Staff Comments at 12.

²⁶ Revised Study Framework (Attachment 1) at 3.

²⁸ Staff Comments at 14.

this scope of avoidable environmental and other benefits. The Company also heard from public comments and several Intervenors a desire to see more detail in this section. The Company appreciates the feedback and has proposed to include the same areas of study as the Avoided Environmental Costs and Other Benefits in the Scope of Rocky Mountain Power's On-Site Generation Study set forth in Attachment A in Final Order No. 34753.²⁹

ICL and other stakeholders also suggested that this section be included as a subsection of the Export Credit Rate section rather than a stand-alone section.³⁰ The Company has reflected this modification in its Revised Study Framework.³¹

C. Recovering Export Credit Rate Expenditures (#17-18)

The Company proposes to study methods to recover export credit rate expenditures and quantify the annual costs under varying export credit rate values. Additionally, the Company intends to analyze how these costs would be allocated and recovered by rate class. Staff recommends that the Company provide methods to record bill credit costs, the amount of these costs, and how these costs would change depending on a range of possible export credit rate values.³² Staff also suggests that the Company should then analyze how these costs have been allocated and recovered between rate classes historically and how they would be allocated and recovered in the future. The Company has reflected the suggested additions in the Revised Study Framework.³³

²⁹ Order No. 34753, Attachment A at 3.

³⁰ ICL Initial Comments at 12.

³¹ Revised Study Framework (Attachment 1) at 3.

³² Staff Comments at 13.

³³ Revised Study Framework (Attachment 1) at 4.

D. Cost-of-Service & Rate Design (#19)

Staff supports the Company's position that cost-of-service and rate design is within the scope of a study, pursuant to the Commission's Final Order No. 34046 in Case No. IPC-E-17-13. Staff agrees that the Company should show the impact to customergenerators using the currently approved cost-of-service methodology.³⁴ However, Staff also recommends that the Company include an analysis of both potential cost-of-service methodologies and/or rate designs that Idaho Power *could* implement in the Company's next general rate case by providing the impact to all customer classes, including customer-generators.³⁵ The Company has added the suggested modifications to the Revised Scope Framework to reflect Staff's recommendation.³⁶

E. Project Eligibility Cap (#20)

The Company has proposed evaluating the pros and cons of setting a customer's project eligibility cap according to a customer's demand instead of the predetermined cap of 25 and 100 kilowatts ("kW"). Staff proposed that the Company's analysis should evaluate previous concerns from when these caps were initially established by the Commission, such as "safety, service quality, and grid reliability concerns."³⁷ Staff also recommends that during the review of the project eligibility cap, Idaho Power should

³⁴ Staff Comments at 13.

³⁵ Id.

³⁶ Revised Study Framework (Attachment 1) at 4.

³⁷ Staff Comments at 14, citing Case No. IPC-E-01-39, Order No. 28951 at 11 (Feb 13, 2002).

provide an analysis for 100% and 125% of customers' demand.³⁸ Idaho Power has included these specific analyses recommendations in the Revised Study Framework.³⁹

CEO and ICL suggest in their Initial Comments that this issue should be addressed in a separate docket *before* a comprehensive study.⁴⁰ Staff stated in its comments that it "does not believe that a separate docket is necessary to study these items and believes the Company has the necessary data and expertise to provide a thorough and fair evaluation of the 100 kW predetermined cap through this study."⁴¹ In Order No. 34854, the Commission stated there would be opportunities to address issues related to the project eligibility cap <u>during or after the forthcoming comprehensive study</u>.⁴² Pursuant to the Commission's Order, Idaho Power has retained this section in the Revised Study Framework.⁴³

F. Implementation Issues (#21-25)

Billing Structure (#21-22)

The Company proposes to evaluate and explain how potential customergenerators will access accurate and adequate data and information to make informed choices about the economics of on-site generation systems. Staff recommends that the

³⁸ Id.

³⁹ Revised Study Framework (Attachment 1) at 4.

⁴⁰ CEO Initial Comments at 6 and ICL Initial Comments at 15.

⁴¹ Staff Comments at 14.

⁴² In the Matter of Idaho Power Company's Application for Authority to Modify Schedule 84's Metering Requirement and to Grandfather Existing Customers with Two Meters, Case No. IPC-E-20-26 at 12 (Dec 1, 2020)(emphasis added).

⁴³ Revised Study Framework (Attachment 1) at 4.

study also identify when, how, and where customers will be able to access this information.⁴⁴ Idaho Power has reflected this in the Revised Scope Framework.⁴⁵

ICL also suggests that the Billing Structure section of the study should evaluate options for providing export credits to customers. Options suggested include which bill components the credits can offset, whether customer-generators can use credits to offset other accounts held by the same customer, and the ability of customers to donate credits to other customers.⁴⁶ Idaho Power has included these recommended areas of study in the Revised Study Framework.⁴⁷

Export Credit Expiration (#23-24)

The Company recommends evaluating if unused credits should expire or remain available indefinitely. Parties' comments address concerns with credits expiring, the mechanics necessary to do so, and ensuring proper recovery. The Company emphasizes that it has <u>not taken a position</u> on any particular matter with this topic and all areas of the proposed scope. Instead, it has made recommendations of what should be included in the scope of a study. Export Credit Expiration was included in the Scope of Rocky Mountain Power's On-Site Generation Study set forth in Attachment A in Final Order No. 34743 in Case No. PAC-E-19-08 and Idaho Power has proposed its study include a similar evaluation.⁴⁸

⁴⁴ Staff Comments at 15.

⁴⁵ Revised Study Framework (Attachment 1) at 4.

⁴⁶ ICL Initial Comments at 13.

⁴⁷ Revised Study Framework (Attachment 1) at 4.

⁴⁸ Id.

Frequency of Export Credit Rate Updates (#25)

The Company has proposed to quantify the impact of annual and biennial updates to the export credit rate; however, ICL incorrectly suggests that the Company presupposes the frequency of an update.⁴⁹ The Company offered examples that it could study based on what was approved in in the Scope of Rocky Mountain Power's On-Site Generation Study set forth in Attachment A of Order No. 34753. The Company has modified this section to study the impacts of different update frequencies more broadly in the Revised Study Framework to alleviate concerns of limited scope.⁵⁰ The Company again emphasizes that nothing in the Revised Study Framework is in any way intended to be limiting.

Staff believes the Company should also identify the processes, cases, or mechanisms for identifying updates.⁵¹ Idaho Power has added this recommendation to the Revised Study Framework.⁵²

III. ITEMS OUT-OF-SCOPE TO STUDY

A. Off-Site Generation

ICIP suggests that the scope of a study should include "Off-Site Non-Exporting DER."⁵³ Staff states its belief that this is outside the scope of this case.⁵⁴ The Company

- ⁵³ ICIP Comments at 1-4 (Sep 15, 2021).
- ⁵⁴ Staff Comments at 16.

⁴⁹ ICL Initial Comments at 14.

⁵⁰ Revised Study Framework (Attachment 1) at 5.

⁵¹ Staff Comments at 16.

⁵² Revised Study Framework (Attachment 1) at 5.

agrees with Staff that ICIP's proposal is outside the scope of "studying the costs and benefits <u>of on-site generation</u>."⁵⁵

B. Tidwell Proposal

Ms. Tidwell has recommended the Company include the benefits of microgrids and their potential impact on low-income housing in the study.⁵⁶ While the Company is not opposed to further exploring the benefits of microgrids, it believes that this evaluation is outside of the scope of the study ordered by the Commission.

IV. PROCEDURAL CONSIDERATIONS

A. Idaho Power to Conduct the Study

ICL proposed to have a neutral third-party conduct the study in Staff's Study Framework and its initial comments filed on October 13, 2021.⁵⁷ Subsequently ISON,⁵⁸ ICEA,⁵⁹ and some members of the public have echoed this recommendation. The Company believes that the Commission was clear in its directive for preparing a study: "the <u>Company must prepare and file</u> a credible and fair study on the costs and benefits of distributed on-site generation to the Company's system."⁶⁰ The Company has prepared and filed general rate cases to evaluate the total system revenue requirement and

60 Order No. 34509 at 9.

⁵⁵ Order No. 34046 at 31 (emphasis added)(directing the Company to "initiate a docket to comprehensively study the costs and benefits of on-site generation on Idaho Power's system, as well as proper rates and rate design, transitional rates, and related issues of compensation for net excess energy provided as a resource to the Company.")

⁵⁶ Tidwell Comments at 9 (Sep 7, 2021).

⁵⁷ ICL Initial Comments at 4-6.

⁵⁸ ISON Initial Comments at 4 (Oct 13, 2021).

⁵⁹ ICEA Initial Comments at 1.

recommend base rates for all customers. It can assuredly conduct a credible and fair study on the costs and benefits of distributed on-site generation. As the Commission stated, "the study will be one critical component of Commission review but will not preclude Parties from introducing and the Commission considering other relevant pieces of information when it's time to address proposals for new program implementation."⁶¹

B. An Additional Round of Comments on a Commission-Issued Scope is Unnecessary

The Commission has provided Parties and public stakeholders the opportunity to comment during the study design phase and has stated⁶² its intent to do the same in the study review phase. During the Commission Public Hearing on October 28, 2021, four (4) members of the public provided verbal testimony requesting the Commission issue a draft scope for stakeholders to comment on before issuing a final ordered scope.

Although it is for the Commission to determine if this additional round of comments on a Commission-issued scope would assist in developing the evidentiary record in a way that the three (3) rounds of comments scheduled in Order Nos. 35176 and 35193 will not, the Company believes it would create a superfluous step in the study design process and functionally duplicate Commission's reconsideration process.⁶³

V. CONCLUSION

The Company provides these Final Comments to describe what changes have been made to the Company's Initial Study Framework based on feedback received in this docket and provide support for suggestions that the Company believes the Commission

⁶¹ Order No. 34753 at 9.

⁶² Order No. 34509 at 9-10.

⁶³ IDAPA 31.01.01.331 et seq.

should not include in the scope of a study. Idaho Power appreciates the input received in the study design phase during the public workshops, the Commission's public hearing, and written comments. The Company provides the Revised Study Framework (Attachment 1) for the Commission's consideration and respectfully requests that the Commission issue an order with a final approved scope and direct the Company to begin the comprehensive study of the costs and benefits of on-site generation.

DATED at Boise, Idaho, this 16th day of November 2021.

Lin D. Madstrom

LISA D. NORDSTROM Attorney for Idaho Power Company

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 16th day of November 2021, I served a true and correct copy of IDAHO POWER COMPANY'S FINAL COMMENTS upon the following named parties by the method indicated below, and addressed to the following:

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Stacy Gust, Regulatory Administrative Assistant

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-21-21

IDAHO POWER COMPANY

ATTACHMENT 1

REVISED STUDY FRAMEWORK (CLEAN)

Measurement Interval

- 1. Calculate the quantity of kWh consumed and amount billed for utility service if each of the existing customer-generators net their energy exports:
 - a. Monthly
 - b. Hourly
 - c. Instantaneous/Real-Time
- 2. Calculate the quantity of kWh exported and amount credited if each of the existing customergenerators net their energy exports:
 - a. Monthly
 - b. Hourly
 - c. Instantaneous/Real-Time
- 3. Analyze bill impacts to existing customer-generators, stratified by usage, if energy exports are netted:
 - a. Monthly
 - b. Hourly
 - c. Instantaneous/Real-Time

Export Credit Rate ("ECR")

Avoided Energy Value

- 4. Provide the calculations and documentation for the avoided cost of exported energy using:
 - a. Energy price calculations from the Company's most recently acknowledged Integrated Resource Plan ("IRP")
 - b. Market index price assumptions
 - c. Other methods to determine an avoided energy value (e.g., surrogate resource)
- 5. Evaluate an avoided energy value that could vary with time and/or location of exported energy. If a method is not available for location of exports, evaluate a placeholder for calculating locational derived value.
- 6. Provide calculations and documentation evaluating if the avoided cost of exported energy produced by customer-generators should be discounted to reflect the non-firm nature of the exported energy.
 - a. Evaluate firmness of energy for individual customers compared to as a combined class.
 - b. Evaluate firmness of energy for customers with energy storage devices compared to those without energy storage devices.

7. Consider any impact of the ECR on non-generating customers to ensure other customer classes are held neutral to avoid inter-class subsidies.

Avoided Capacity Value

- 8. Analyze the capacity value of exported energy provided by customer-generators. Provide the calculations and documentation for evaluating the capacity resource value and the contribution to reducing the Company's system coincident peak (i.e., the Company's net peak the hour(s) that drive the need for capacity or capacity-equivalent resource additions) as a component of the Company's broad resource portfolio.
 - a. Consider valuation of avoided capacity based on the timing of the Company's first capacity deficiency and how it can be incorporated into the development of the ECR.
 - b. Identify and evaluate methods for identifying system coincident peak hours.
 - c. Identify and evaluate different ECR rate designs to ensure customer generators are correctly compensated for the amount of capacity they contribute during system coincident peak hours and for the amount of capacity avoided.
 - d. Evaluate potential differences between customer generators who have energy storage devices and those that do not have energy storage devices.
- 9. Evaluate rate designs for avoided capacity values:
 - a. Credit the avoided cost of capacity for every kilowatt-hour of energy exported to the Company's system regardless of the time period.
 - b. Credit an avoided cost of capacity only for exports that occur during system coincident peak hours.

Avoided Distribution Costs

- 10. Quantify the value of distribution costs that could be avoided by energy exported to the grid by customer-generators.
 - a. Evaluate the range of avoided capacity between individual customer generators and avoided capacity cost at a class level.

Avoided Transmission Costs

- 11. Quantify the value of transmission costs that could be avoided by energy exported to the grid by customer-generators.
 - a. Evaluate the range of avoided capacity between individual customer generators and avoided capacity cost at a class level.

Avoided Line Losses

- 12. Quantify the avoided marginal line loss associated with the avoided energy value and avoided capacity value.
 - a. Consider line loss at distribution-level voltages and transmission-level voltages in connection with the type of avoided cost.

Integration Costs

- 13. Study methods for determining the integration costs of customer-generators. Provide the calculations and assumptions showing if the ECR should be reduced to account for integrating the customer-generator resource.
 - a. Evaluate if integration costs apply differently for customers with and without energy storage devices.
 - b. Explore methods for evaluating how different penetration levels impact the level of integration costs by customer.
 - c. Explore methods for evaluating how integration costs can change over time to suggest how frequently ECR should be updated.

Avoided Risk

- 14. Quantify and analyze the fuel price guarantee value provided by customer generators.
- 15. Quantify the avoided uncertainty in fuel price fluctuations from the displaced marginal resource across the planning period.

Avoided Environmental Costs and Other Benefits

- 16. Evaluate environmental and other costs that are quantifiable, measurable, and only include avoided costs that affect rates.
 - a. Quantify the potential value of grid stability, resiliency, and cybersecurity protection provided by on-site generators as a class and different penetration levels.
 - b. Quantify the value to local public health and safety from reduced local impacts of climate change such as reduced extreme temperatures, reduced snowpack variation, reduced wildfire risk, and other impacts that can have direct impacts on Idaho Power customers.
 - c. Quantify local economic benefits, including local job creation and increased economic activity in the immediate service territory.
 - d. Quantify the possible net value of Renewable Energy Credit sales produced by net metering exported energy.
 - e. Quantify the reduced risk from end-of-life disposal concerns for the Company compared to fossil fuel resources.

Recovering Export Credit Rate Expenditures

- 17. Quantify the annual costs of export credits under varying assumed ECR values.
- 18. Analyze methods for how these costs would be allocated and recovered by rate class.
 - a. Identify the customer classes responsible and the potential impact to other customer classes.

Cost-of-Service & Rate Design

- 19. Evaluate cost-of-service methodologies and potential rate designs for customer-generators that could be implemented in the Company's next general rate case.
 - a. Provide the impact to all customer classes, including customer generators.

Project Eligibility Cap

- 20. Analyze pros and cons of setting a customer's project eligibility cap according to a customer's demand (peak electric load) as opposed to predetermined caps of 25 kW and 100 kW.
 - a. Analyze at 100% of customer's demand.
 - b. Analyze at 125% of customer's demand.

Implementation Issues

Billing Structure

- 21. Explain when, how, and where potential customer-generators and on-site generation system installers will have accurate and adequate data and information to make informed choices about the economics of on-site generation systems over the expected life of the system.
- 22. Examine the options for providing credits for exports to customers.
 - a. Evaluate which bill components the credits can offset.
 - b. Assess whether credits can be used to offset other accounts held by the same customer, and the ability of customers to donate credits to other customers.

Export Credit Expiration

- 23. Quantify the magnitude, duration, and value of accumulated export credits.
- 24. Evaluate if there is a need for credits to expire.
 - c. Show how the Company does or does not benefit from the expiration of customer export credits.
 - d. Show how non-customer-generators are harmed or benefited from the expiration of customer export credits.
 - i. Quantify the impact to non-customer-generators of a 2-year, 5-year, and 10-year expiration period.

Frequency of Export Credit Rate Updates

ATTACHMENT 1

- 25. Quantify the impact of biennial, annual, or other frequency of updates of the ECR by evaluating how each component can change over time.
 - a. Consider impact of timing of updates.
 - b. Evaluate objective criteria such as changes to the costs Idaho Power avoids by receiving exports from customer-generators.
- 26. Identify potential process, case, or mechanism for identifying updates to the export credit rate.

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-21-21

IDAHO POWER COMPANY

ATTACHMENT 2

REVISED STUDY FRAMEWORK (LEGISLATIVE)

Attachment 1: Idaho Power-Proposed Scope of On-Site Generation <u>Company</u> <u>Revised</u> Study <u>Framework</u>

Measurement Interval

- 1. Calculate the class revenue requirementquantity of kWh consumed and amount billed for utility service if each of the existing customer-generators net their energy exports:
 - a. Monthly
 - b. Hourly
 - c. Separate channel
 - c. Instantaneous/Real-Time
- 2. Calculate the export credit paymentsquantity of kWh exported and amount credited if each of the existing customer-generators net their energy exports:
 - a. Monthly
 - b. Hourly
 - c. Separate channel
 - c. Instantaneous/Real-Time
- 3. Analyze bill impacts to existing customer-generators, stratified by usage, if energy exports are netted:
 - a. Monthly
 - b. Hourly
 - c. Separate channel
 - c. Instantaneous/Real-Time

Export Credit Rate ("ECR")

Avoided Energy Value

- 4. Provide the calculations and documentation for the avoided cost of exported energy using:
 - a. Energy price assumptions incalculations from the Company's most recently acknowledged Integrated Resource Plan ("IRP")
 - b. Market index price assumptions
 - c. Other methods to determine an avoided energy value (e.g., surrogate resource)
- Evaluate an avoided energy value that could vary with time and/or location of exported energy. If a method is not available for location of exports, evaluate a placeholder for calculating locational derived value.
- 5.6. Provide the calculations and documentation showingevaluating if the avoided cost of exported energy produced by customer-generators should be discounted to reflect the non-firm nature of the exported energy.

Attachment 1: Idaho Power-Proposed Scope of On-Site Generation <u>Company</u> <u>Revised Study Framework</u>

- a. Evaluate firmness of energy for individual customers compared to as a combined class.
- b. Evaluate firmness of energy for customers with energy storage devices compared to those without energy storage devices.
- 7. Consider any impact of the ECR on non-generating customers to ensure other customer classes are held neutral to avoid inter-class subsidies.

Avoided Capacity Value

- 6.8. Analyze the capacity value of exported energy provided by customer-generators. Provide the calculations and documentation for evaluating the capacity resource value and the contribution to peakreducing the Company's system coincident peak (i.e., the Company's net peak the hour(s) that drive the need for capacity or capacity-equivalent resource additions) as a component of the Company's broad resource portfolio.
 - a. Consider valuation of avoided capacity based on the timing of the Company's first capacity deficiency and how it can be incorporated into the development of the ECR.
 - b. Identify and evaluate methods for identifying system coincident peak hours.
 - c. Identify and evaluate different ECR rate designs to ensure customer generators are correctly compensated for the amount of capacity they contribute during system coincident peak hours and for the amount of capacity avoided.
 - d. Evaluate potential differences between customer generators who have energy storage devices and those that do not have energy storage devices.
- 9. Evaluate rate designs for avoided capacity values:
 - a. Credit the avoided cost of capacity for every kilowatt-hour of energy exported to the Company's system regardless of the time period.
 - b. Credit an avoided cost of capacity only for exports that occur during system coincident peak hours.

Avoided Transmission and Distribution Costs

- 7.10. Quantify the value of transmission and distribution costs that could be avoided by energy exported to the grid by customer-generators.
 - a. Evaluate the range of avoided capacity between individual customer generators and avoided capacity cost at a class level.

Avoided Transmission Costs

- <u>11. Quantify the value of transmission costs that could be avoided by energy exported to the grid by customer-generators.</u>
 - a. Evaluate the range of avoided capacity between individual customer generators and avoided capacity cost at a class level.

Attachment 1: Idaho Power-Proposed Scope of On-Site Generation <u>Company</u> <u>Revised Study Framework</u>

Avoided Line Losses

- 8.12. Quantify the avoided <u>marginal</u> line loss associated with the avoided energy value and avoided capacity value.
 - a. Consider line loss at distribution-level voltages and transmission-level voltages in connection with the type of avoided cost.

Integration Costs

- 9.13. Study methods for determining the integration costs of customer-generators. Provide the calculations and assumptions showing if the ECR should be reduced to account for integrating the customer-generator resource.
 - a. Evaluate if integration costs apply differently for customers with and without energy storage devices.
 - b. Explore methods for evaluating how different penetration levels impact the level of integration costs by customer.
 - c. Explore methods for evaluating how integration costs can change over time to suggest how frequently ECR should be updated.

<u>Avoided Risk</u>

- 14. Quantify and analyze the fuel price guarantee value provided by customer generators.
- 15. Quantify the avoided uncertainty in fuel price fluctuations from the displaced marginal resource across the planning period.

Avoided Environmental Costs and Other Benefits

- 16. Evaluate environmental and other costs that are quantifiable, measurable, and only include avoided costs that affect rates.
 - a. Quantify the potential value of grid stability, resiliency, and cybersecurity protection provided by on-site generators as a class and different penetration levels.
 - b. Quantify the value to local public health and safety from reduced local impacts of climate change such as reduced extreme temperatures, reduced snowpack variation, reduced wildfire risk, and other impacts that can have direct impacts on Idaho Power customers.
 - c. Quantify local economic benefits, including local job creation and increased economic activity in the immediate service territory.
 - d. Quantify the possible net value of Renewable Energy Credit sales produced by net metering exported energy.
 - e. Quantify the reduced risk from end-of-life disposal concerns for the Company compared to fossil fuel resources.

Attachment 1: Idaho Power-Proposed Scope of On-Site Generation <u>Company</u> <u>Revised Study Framework</u>

Recovering Export Credit Rate Expenditures

- <u>10.17.</u> Quantify the annual costs <u>of export credits</u> under varying assumed ECR values.
- 11.18. Analyze <u>methods for how these costs would be allocated and recovered by rate class</u>.
 - a. Identify the customer classes responsible and the potential impact to other customer classes.

Cost-of-Service & Rate Design

- <u>19.</u> Evaluate cost-of-service <u>methodologymethodologies</u> and potential rate designs for customergenerators that could be implemented in the Company's next general rate case.
 - a. <u>Provide the impact to all customer classes, including customer generators</u>.

Project Eligibility Cap

12.20. Analyze pros and cons of setting a customer's project eligibility cap according to a customer's demand (peak electric load) as opposed to predetermined caps of 25 kW and 100 kW.

a. Analyze at 100% of customer's demand.

a.b. Analyze at 125% of customer's demand.

Environmental and Other Benefits

13. Evaluation of the quantifiable environmental and other system benefits provided by customergenerators.

Implementation Issues

Billing Structure

- 14.21. Explain when, how, and where potential customer-generators and on-site generation system installers will have accurate and adequate data and information to make informed choices about the economics of on-site generation systems over the expected life of the system.
- 22. Examine the options for providing credits for exports to customers.
 - a. Evaluate which bill components the credits can offset.
 - b. Assess whether credits can be used to offset other accounts held by the same customer, and the ability of customers to donate credits to other customers.

Export Credit Expiration

- <u>15.23.</u> Quantify the magnitude, duration, and value of accumulated export credits.
- 16.24. <u>Explain the Evaluate if there is a need for the credits to expire.</u>
 - a. Show how the Company does or does not benefit from the expiration of customer export credits.
 - b. Show how non-customer-generators are harmed or benefited from the expiration of customer export credits.

Attachment 1: Idaho Power-Proposed Scope of On-Site Generation <u>Company</u> <u>Revised</u> Study <u>Framework</u>

i. Quantify the impact to non-_customer-generators of a 2-year, 5-year, and 10-year expiration period.

Frequency of Export Credit Rate Updates

- <u>25.</u> Quantify the impact of biennial updates as compared to, annual, or other frequency of updates of the ECR by evaluating how each component can change over time.
 - a. Consider impact of timing of updates.
 - b. Evaluate objective criteria such as changes to the costs Idaho Power avoids by receiving exports from customer-generators.
- 17.26. Identify potential process, case, or mechanism for identifying updates to the export credit rate.