Office of the Secretary
Service Date
December 30, 2021

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** **ORDER NO. 35284**

On June 28, 2021, Idaho Power Company ("Company" or "Idaho Power") applied to the Idaho Public Utilities Commission ("Commission") to initiate the multi-phase process for a comprehensive study of the costs and benefits of on-site generation as directed in Order No. 34046. *See 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). Application at 1. Idaho Power represented that if a final order is issued by the end of 2021, the Company will use 2021 data to complete the "study design" phase in the first half of 2022 and the "study review" phase can be initiated in June 2022. *Id*. at 10. The Company requested that its Application be processed by Modified Procedure under the Commission's Rules of Procedure.

On July 27, 2021, the Commission issued a Notice of Application and set a deadline for intervention and required the Company, Commission Staff ("Staff"), and any intervening parties to confer about a proposed schedule for this case before September 1, 2021. *See* Order No. 35121. The Commission granted intervention to the Industrial Customers of Idaho Power ("ICIP"), Idaho Hydroelectric Power Producers Trust, an Idaho Trust d/b/a IdaHydro ("IdaHydro"), the Idaho Conservation League ("ICL"), the Idaho Clean Energy Association ("ICEA"), Clean Energy Opportunities for Idaho ("CEO"), Idaho Solar Owners Network ("ISON"), Micron Technology, Inc. ("Micron"), the city of Boise City ("Boise City"), Kiki Leslie A. Tidwell, *pro se* ("Tidwell"), the Idaho Irrigation Pumpers Association, Inc. ("IIPA"), ABC Power Company LLC, Comet Energy LLC, Richard E. Kluckhohn, *pro se*, and Wesley A. Kluckhohn, *pro se* ("Kluckhohn"), and Idahome Solar LLC (collectively the "Intervenors"). *See* Order Nos. 35105, 35115, 35132, 35152, and 35155.

On August 30, 2021, the Company, Staff, and Intervenors (collectively the "Parties") met and conferred about a proposed schedule. The Parties also began to discuss a framework to study the costs, benefits, and compensation of net excess energy associated with customer on-site generation ("Study Framework")[1]. On September 8, 2021, the Commission issued a Notice of Parties.

On September 22, 2021, the Commission issued Order No. 35176 requiring all Parties and the public to file initial comments about the appropriate scope of the Study Framework by October 13, 2021. *See* Order No. 35176 at 2. Also on September 22, 2021, the Parties met and continued the work started on August 30, 2021, to develop the Study Framework and discuss a schedule for this case.

On October 7, 2021, the Commission issued a Notice of Scheduling, Notice of Modified Procedure, Notice of Virtual Public Workshops, and Notice of Telephonic Public Hearing that approved the Parties' proposed schedule. *See* Order No. 35193. On October 20, 2021, the Company conducted Virtual Public Workshop #1. On October 26, 2021, Staff conducted Virtual Public Workshop #2. On October 28, 2021, the Commission held a Telephonic Public Hearing. Six individuals from the public provided testimony at the Commission's Telephonic Public Hearing.

Staff, the Company, ICIP, ICL, ICEA, CEO, ISON, Micron, Boise City, Tidwell, and Kluckhohn filed comments. The Commission also received over 250 public comments before the case was fully submitted and the record closed.

Having reviewed the record, including comments by the Parties and the public, the Commission issues this final order regarding the Study Framework.

BACKGROUND

Case No. IPC-E-18-15

In Order No. 34509 in Case No. IPC-E-18-15 the Commission directed the Company to prepare and file a credible and fair study of the costs and benefits of distributed on-site generation to Idaho Power's system. *See In the Matter of the Application 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 (December 20, 2019).

[1] The Commission will utilize the phrase "Study Framework" as interchangeable with the phrase "Framework to Study" used in the Notices issued in this case.

In Order No. 34509 the Commission outlined a "study design" phase and a "study review" phase. Order No. 34509 at 9. During the "study design" phase, Staff and the Company would both "host public workshops to share information and perspectives on net-metering program design with the public and to listen to customer concerns and input" *Id*. During the "study review" phase, the public would have the opportunity to comment on whether the study sufficiently addressed their concerns and their opinions on what the study shows. *Id*.

Order No. 34509 also established criteria to define legacy treatment for systems under the Company's Residential Service Onsite Generation Schedule 6 ("Schedule 6") and Small General Service On-Site Generation Schedule 8 ("Schedule 8"). A legacy system is defined as either an on-site generation system interconnected with Idaho Power's system as of the service date of Order No. 34509, or a customer with a binding financial commitment to install an on-site generation system who proceeds to interconnect their system on or before December 20, 2020. Order No. 34509 at 14. While legacy systems operate under the terms of Schedule 6 or Schedule 8 as those Schedules existed on December 20, 2019, rates and rate structure are subject to change for legacy systems until and after legacy status terminates on December 20, 2045. *See Id*. at 9. As of May 31, 2021, 5,400 legacy residential and small general service customer systems are interconnected to Idaho Power's system. *Id*.

Case No. IPC-E-20-26

The Company initiated Case No. IPC-E-20-26 to determine legacy treatment for Idaho Power's large general service (commercial), industrial, and irrigation customer classes ("CI&I") and for authorization to change Schedule 84's two-meter requirement to a single-meter requirement for new customer-generators and to establish legacy treatment for existing customer-generators under the current rules as of December 1, 2020. *Id*. The Commission determined that legacy treatment for existing Schedule 84 customer-generators would be according to the same terms granted Schedule 6 and Schedule 8 customers in Case No. IPC-E-18-15. *See In the Matter of Idaho Power Company's Application to Modify Schedule 84's Metering Requirement and to Grandfather Existing Customers with Two Meters*, Case No. IPC-E-20-26, Order No. 34854 at 11; *see also* Case No. IPC-E-18-15, Order No. 34546 at 9. In Order No. 34854 the Commission also found the Company's proposal to switch to a single-meter requirement for all new customer-generators under Schedule 84 to be reasonable. Order No. 34854 at 12. The Commission reasoned

that a single-meter system reduces customer costs, streamlines administration, and can perform the requisite functions. *Id.*

Order Nos. 34854 and 34892 delineated between legacy systems and new systems subject to future changes informed by a comprehensive study. *Id*. A legacy system is defined as either an on-site generation system interconnected with Idaho Power's system as of the service date of Order No. 34854, or a customer with a binding financial commitment to install an on-site generation system that proceeds to interconnect the customer's system on or before December 1, 2021. *See, In the Matter of Idaho Power Company's Application to Modify Schedule 84's Metering Requirement and to Grandfather Existing Customers with Two Meters*, Case No. IPC-20-26, Order No. 34892 at 9 (January 14, 2021).

The Commission also determined, similar to Case No. IPC-E-18-15, that Schedule 84 systems that qualify for legacy treatment continue to be subject to changes in consumption rates but not to changes in the 1:1 monthly kilowatt-hour ("kWh") retail rate compensation structure until legacy status terminates on December 1, 2045. *See* Order No. 34854 at 11.

APPLICATION

On-Site Generation

The Company stated that some of its retail customers choose to install "on-site generation" equipment, "most commonly solar panels, to meet some or all of their electric needs." Application at 2. These customers generate electricity on-site while also being connected to Idaho Power's grid. *Id*. The vast majority of these retail customers also export energy to the grid. *Id*. Customers who install on-site generation can interconnect an Exporting System[2] under the terms of Schedule 6, Schedule 8, Schedule 68 (Interconnections to Customer Distributed Energy Resources), and Schedule 84. *Id*. Non-exporting customers take service under the retail rate schedule they qualify for based on the applicability of the Company's retail tariff schedules. *Id*. All on-site generation customers are subject to Schedule 68 governing interconnection. *Id*.

As of May 31, 2021, the Company asserted that 7,789 Exporting Systems are interconnected and taking service under Schedules 6, 8, and 84. *Id*. at 2. Non-exporting systems

[2] "Exporting System" is defined in the Company's Tariff as "a Customer-owned DER under the terms of Schedules 6, 8, or 84, which is designed to provide for the transfer of electric energy to the Company. An Exporting System is interconnected to the Company's system under the applicable terms of Schedule 68." *See* Schedule 6, First Revised Sheet No. 6-2, effective March 23, 2021, per Order No. 34955.

are interconnected and take service under Schedules 9 and 19. *Id*. Together, these customer systems represent approximately 70 megawatts of generation. *Id*.

Billing Structure

The Company stated that the billing structure it uses for these schedules is referred to as "net metering." *Id*. According to the net metering compensation structure, if electricity supplied by Idaho Power during a billing period exceeds the electricity generated by the customer and delivered to the Company during the billing period, the customer is billed for the net electricity supplied by Idaho Power at the rates contained within the applicable service schedule. *Id*. When the electricity generated by the customer and delivered to the Company during the billing period exceeds the electricity supplied by the Company during the billing period, the excess net energy is carried forward as a kWh credit to offset energy usage in a subsequent billing period. *Id*. at 2-3. The Company asserted these customers could be called "partial requirements" customers because they offset some or all their usage with their generation. *Id*. at 3.

The Company represented that its retail rates were designed for "full requirements customers" and that a large amount of its revenue requirement is collected through volumetric energy rates. *Id*. The Company asserted that the volumetric energy rates include variable and fixed cost components of the Company's revenue requirement. *Id*. The Company represented that fixed costs do not vary with changes in the amount of energy consumed from the Company. A volumetric rate does not fully recover fixed costs associated with customers who offset their consumption with on-site generation. *Id*. Idaho Power noted that to assign the appropriate share of fixed costs and unquantified benefits of on-site generation, the Commission directed the Company to more accurately: (1) "undertake a comprehensive study of fixed costs", and (2) "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." *Id*. at 3-4; *see also* Order No. 34046 at 31.

Study Design Phase and Scope of the Study

Idaho Power asserted that the primary objective of the study is to establish a sustainable on-site generation offering that limits subsidies by implementing a more equitable pricing and compensation structure. *Id*. at 6. The Company asserted that the multi-phase study process is to be accomplished transparently and collaboratively with stakeholders and the public. *Id*. Idaho Power anticipated proposals to implement changes to the on-site generation program would be informed

by the studies and should eliminate or minimize cross-subsidies that may exist between participants and non-participants of on-site generation. *Id*. The Company wanted to accomplish this through rate design and compensation structures for on-site generation customers. *Id*. Idaho Power believed recommendations to modify the existing offering should focus on cost-of-service principles and identify the appropriate value of excess net energy that will ensure equitable compensation for on-site generators. *Id*.

Idaho Power developed a draft scope of an on-site generation study for public review and input. *Id*. The draft scope was included as Attachment 1 to the Application. *Id*. The Company leveraged information developed in the studies performed in Case No. IPC-E-18-15; considered comments from intervenors in Case Nos. IPC-E-18-16, IPC-E-20-26, and IPC-E-20-30' and to the extent applicable, considered components of the Commission-approved scope in Order No. 34753 for Rocky Mountain Power to develop the draft scope of the study design. *See*, *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 (August 26, 2020); *Id*. at 6-7.

The Company proposed to evaluate the following measurement intervals regarding billing structure: (1) monthly, (2) hourly, and (3) separate channel, which is sometimes referred to as "instantaneous." *Id*. at 7. Under the three measurement intervals, the Company would evaluate the class revenue requirement and consider revenue collection for existing customer-generators under each proposed measurement interval. *Id*. The Company would also conduct a bill impact analysis to compare how each measurement interval may impact existing and future customers with on-site generation. *Id*.

The Company proposed to study several value components of the Export Credit Rate ("ECR") such as an avoided cost of energy and the firm versus non-firm nature of exported energy from customer-generators. *Id*. Idaho Power also proposed to evaluate avoided generation capacity, avoided transmission and distribution capacity, avoided line losses, and integration costs as part of the value components of the ECR study. *Id*. Also, the Company proposed to analyze how the expenditures associated with the ECR should be recovered. *Id*.

The Company proposed to include a review of the project eligibility cap in coordination with program fundamentals, including rate design and the pricing for exports. *Id*. The Company

also included various implementation issues such as credit expiration and the frequency of updating the ECR. *Id*.

The Company desired Staff, Intervenors, and the public to provide feedback to develop a record so the Commission can approve the completion of scope for the "study design" phase. *Id*. at 8.

Study Design Schedule

Based on the direct testimony of Company witness Connie Aschenbrenner, Idaho Power proposed a broad schedule to provide transparency to parties and the public as it relates to the "study design" and "study review" phases, and the eventual implementation as informed by a Commission-approved study. *Id*.

The Company proposed a schedule that would position the Commission to issue an order establishing the scope of the study before the end of 2021. *Id*. The Company plans to use the most recent data available to complete its study (and was directed to do so in Order No. 34046). Receiving an order establishing the scope by the end of 2021 will allow the Company to use 2021 data to complete the study in the first half of 2022. *Id*. The Company could then initiate the "study review" phase by June 2022. *Id*.

Unless the Commission establishes a different process, the Company anticipated requesting to implement any potential changes to the net metering rate design, compensation structure, or ECR after the Commission acknowledges a study. *Id*.

Notification

The Company notified its customers of the June 28, 2021, Application, with a bill insert sent to all customers in their next billing cycle. *Id*. at 9. The bill insert was sent to existing customer-generators, regardless of legacy treatment, and all other customers that might choose to pursue on-site generation in the future. *Id*. The Company included the insert as Attachment 2 to the Application. *Id*.

The bill insert provided notice to all customers of the Company's Application and addressed the following: (1) a brief summary of on-site generation, (2) why Idaho Power is making the filing to initiate the study, (3) the key tenants of the study as directed by the Commission, (4) an estimated timeline to complete both the study design and study review phases, and (5) how customers can participate and provide feedback in the study design and study review process. *Id*.

Idaho Power also notified the on-site generation system installer community through an email to the distribution list for its periodic publication—"the Customer Generation Newsletter"—and attached a copy of this notification to its Application. *Id.*

Concurrent with the filing of the Application, the Company updated its website to notify potential customers of the proposal and also maintains a list of Frequently Asked Questions accessible to customers and installers. *Id*. Idaho Power also served its Application and testimony on the parties of record in Case Nos. IPC-E-18-15 and IPC-E-20-26. *Id*.

PUBLIC COMMENTS

The public showed great interest in the on-site generation issues considered in this case. The Commission notes that included in the more than 250 public comments filed were comments submitted by the Sierra Club, and the Portneuf Resource Council. The public commented on a myriad of topics ranging from the need for affordability and accessibility of solar generation to environmental and societal benefits. Many commenters recommended comparing other models used in net metering studies and several advocated for a third party to perform the study. Commenters proposed the Company focus on how solar generation helps in times of disaster and the reduced impact on power lines. Many also suggested that integrating solar should be easier than integrating wind and that carbon credits and the effect of solar on peak loads should be considered. Some commenters urged the Company and Commission to contemplate how the uncertainty regarding the program is impacting investment in solar generation. Several asked the Company to study the impact of time of use rates, the value of battery storage, and whether sharing kWh credits is appropriate. Commenters expressed a desire for a fair study and an understandable report.

Many commenters revealed that they are, in fact, customer-generators. The customer-generators advocate to continue legacy treatment and support the addition of more solar-generated power. One commenter wanted the study to include the adverse infrastructure expense caused by customers that live in large and/or inefficient homes, participate in high—electricity consumption hobbies, and run air conditioning units during peak summer months.

Members of the Sierra Club recommended that the study quantify: (a) the potential value of grid stability, resiliency, and cybersecurity protection provided by on-site generators as a class at different penetration levels, (b) the value to local public health and safety from reduced local impacts of global warming such as reduced extreme temperatures, reduced snowpack

variation, reduced wildfire risk, and other impacts that can have direct impacts on customers, (c) local economic benefits, including local job creation and increased economic activity in the immediate service territory, (d) the possible net value of Renewable Energy Credit sales produced by net metering exported energy, and (e) the reduced risk from end-of-life disposal concerns for the Company compared to fossil-fueled resources.

The Portneuf Resource Council's ("Council") comments echoed the concerns of many of the public commenters. In addition, the Council suggested including the avoided costs of environmental compliance, pollution scrubbers, carbon tax, and carbon capture expenses. The Council also recommended that the Company evaluate grid reliability and include micro-grids and battery storage.

DISCUSSION AND FINDINGS

Idaho Power is an electric utility subject to the Commission's regulation under the Public Utilities Law. *Idaho Code* §§ 61-119 and 61-129. The Company's rates, charges, classifications, and contracts for electric service in the State of Idaho are subject to the Commission's jurisdiction. The Commission has jurisdiction over this matter under *Idaho Code* §§ 61-501, -502, and -503. The Commission is empowered to investigate rates, charges, rules, regulations, practices, and contracts of public utilities and to determine whether they are just, reasonable, preferential, discriminatory, or in violation of any provision of law, and to fix the same by order. *Idaho Code* §§ 61-502 and 61-503.

We have reviewed the record in this case, including the Company's Application, several iterations of the Parties' comments, and public comments. Based on that review, we find it fair and reasonable to direct the Company to establish the Study Framework for this study design phase as more specifically set out below. We expect the Company to complete the study in 2022 as soon as feasible.

The Commission finds that the Study Framework discussed herein meets our directive for a credible and fair study. *See* Case No. IPC-E-18-15; Order No. 34509 at 9-10. We remind the Company that the study must use the most current data possible, and the data must be readily available to the public and in the Commission's decision-making record. *Id*. This does not specifically dictate use of either the 2019 or the 2021 Integrated Resource Plan ("IRP") for the study. The 2019 IRP may not contain the most current data while the 2021 IRP is yet to be processed by the Commission.

The Commission has explicitly emphasized in prior orders, and reiterates here, that tariffs are not contracts and that prices and terms of service for the net metering program are subject to change. *E.g.*, Order No. 34509 at 12 quoting Order No. 30227 at 7 ("[W]e must note that the net metering program price is a tariff rate. It is not a contract rate. As a tariff rate, it is subject to change."); Order No. 32280 at 4 ("[T]he Commission reminds customers that net metering is a tariff rate. There is no contract associated with the service and rates are subject to change depending on future Commission decisions."); Order No. 34509 at 12 quoting Order No. 34046 at 19 ("Rates change, and rate design evolves, and no utility rate can be locked or considered to exist ad infinitum. As we have consistently held, tariff rates are not contracts."); 34509 at 12-13 quoting 34335 at 2, ("We reiterate: Rates and rate structures are always subject to change. Although this Commission must approve any rate changes as just, reasonable, and non-discriminatory before they take effect, there is no guarantee that rates will stay the same indefinitely[.]") We urge stakeholders in the on-site generation industry to be completely transparent with potential investors. A utility's rate schedules, including net-metering program fundamentals, are subject to change. As such, there is no guaranteed return on investment.

Some comments requested an additional comment period after the Commission decides on a Study Framework to use in the review stage. The Company opposed this request as superfluous and duplicative of the Commission's reconsideration process. We find that an additional comment period is not necessary. Ample opportunity was provided for comment during the underlying proceedings in this case. The record is more than sufficient for the Commission to make a well-informed decision on the Study Framework. Furthermore, persons and parties will have another opportunity to participate during the study review phase.

THIRD PARTY STUDY

Several of the Parties and many commenters argued that the study should be conducted by a third party. Staff did not believe it was practical to have a third party conduct the study given the extensive scope and data that will be necessary to produce the study. Staff 10/13/2021 Comments at 14-15. However, Staff did comment that the environmental and other benefits sections of this study are areas where a third-party consultant could be explored. *Id.*

Staff also expressed concern about who would pay for a study conducted by a third-party contractor. Staff 11/16/2021 Comments at 6. Staff noted that, in many areas of the proposed

Study Framework, the Company has access to the system specific data and the best overall understanding of that data for determining how exports from customer-generators will avoid the cost and provide benefits to its system. *Id.*

ICL asserted that a third-party study would give the study with more trust. ICL 10/13/2021 Comments at 1 and 4-6. ICL believed that the Company has inherent reasons to devalue customer-built systems and that other public utilities commissions have used third parties. *Id*.

ISON suggested that after completion of the study by Idaho Power, a technical advisory committee with experts designated by the Company, the Commission, and stakeholders be convened to select an independent, unbiased third-party to review the conclusions of the study. ISON 10/13/2021 Comments at 4.

Kluckhohn agreed with the arguments made for a study to be conducted by a third-party. ICEA also recommended that the study be done by a non-biased third party. ICEA 10/13/2021 Comments at 1.

The Company noted that the Commission ordered the Company to prepare and file the study and not a third party. Company 11/16/2021 Comments at 14-15. The Company also asserted that a third-party study would increase costs. The Company posited whether it would be reasonable to recover the costs of a third-party study from all customers or just the on-site generators. Company 11/30/2021 Comments at 9-10.

COMMISSION DECISION:

The Commission finds that the Company is best positioned to access and study the extensive data and issues specific to the Idaho Power system at a reasonable cost. We understand the argument that third-party evaluators have a different perspective and the results may be believed to be more credible by some customers. However, third-party studies may be more generic and not fully reflect the environmental requirements in Idaho or the peculiarities and/or particulars of the Company's system. Studies conducted in other states provide insight but are not determinative of what is most reasonable for Idaho Power's customers. The Company is directed to provide sufficient data along with the study conclusions so that others have insight as to how the results were derived.

Additionally, one of the reasons suggested for a third-party study is to quantify the societal costs and benefits of rooftop solar generation. This Commission was granted authority by the Idaho legislature to conduct economic analyses to determine rates that are fair, just and reasonable. We have not been granted the legislative or executive authority to monetize many of the environmental attributes addressed by Parties and customers. That said, there are environmental considerations that are quantifiable and will be included in an ultimate determination of fair, just and reasonable terms for the Company's on-site generation program. The intent of these studies is to value the export to the Company's system.

MEASUREMENT INTERVALS

A threshold issue raised with the study was how to measure the customer-generators' consumption versus what is exported to the system. The Parties considered whether these factors should be measured monthly, hourly, or by separate channels/instantaneously.[3] Instantaneous or real-time measurement intervals support the implementation of the range of crediting options.

ICL asserted that the measurement interval must show how each one matches the timing of exports with the value of the system and that this clarity would create more fairness. ICL 11/30/2021 Comments at 2-3.

The Company recommended that for a monthly measurement, only using net energy intervals should be used and not net dollars. Company 10/13/2021 Comments at 4. For the hourly and separate channel measurement, the Company recommended only using a dollar credit for the hourly and separate measurement interval, not net energy. *Id*. The Company also commented that for the three measurement intervals the study should: (1) calculate the quantity of kWh's consumed and billed for utility service, (2) calculate the quantity of kWh's exported and credited, and (3) analyze bill impacts to customer-generators. *Id.*

1. How to calculate the class revenue requirement if each of the existing customer-generators net their energy exports: (a) monthly, (b) hourly, or (c) instantaneous or real-time.

CEO recommended that the revenue requirement is not required to calculate a fair compensation for net excess energy. CEO 10/13/2021 Comments at 4. CEO also commented that

[3] Staff and other parties asserted that instantaneous or real-time should replace the term separate channel in the study. The Company agreed.

the Company has made no showing or problems related to inadequate revenue recovery and so this is outside the scope of this docket. CEO 11/16/2021 Comments at 3.

ICL said that the measurement interval may be the biggest impact. They also said the Revenue Requirement is not relevant until the ECR is determined. ICL 10/13/2021 Comments at 7. ICL recommended that the term instantaneous should be used instead of separate channel. Also, that there should be a sub-hourly measurement interval. ICL 10/13/2021 Comments at 9-10. ICL said that the measurement interval must show how each one matches the timing of exports with the value of the system. This clarity will help make this fair. ICL 11/30/2021 Comments at 2-3.

The Company proposed to change the revenue requirement to revenue collection to provide better clarity. Company 10/13/2021 Comments at 9.

2. Calculate the export credit payments if each of the existing customer-generators net their energy exports: (a) monthly; (b) hourly, and (c) separate channel.

ICL asserted that credit payments are confusing. ICL 10/13/2021 Comments at 8.

3. Analyze bill impacts to existing customer-generators, stratified by usage, if energy exports are netted: (a) monthly, (b) hourly, and (c) separate channel.

ICL suggested that many existing customers are protected from these changes. ICL 10/13/2021 Comments at 8.

COMMISSION DECISION:

The Commission finds it fair and reasonable for the study to analyze hourly and instantaneous or real-time measurement intervals. These two measurement intervals will present a fair picture for the parties and the public for evaluation. It is important to match the timing of the export with the value to the system at this time. We also believe the description and implementation of credit payments can be understood by customers.

As previously stated, the main purpose of the study is to value the customer-generators' exports to the system. A tangential benefit of this process is the exploration of associated fixed-cost recovery in basic charges and other rate design options (which will be considered directly in the Company's next general rate case). *See* Order No. 34608 at 6-7. It is also expected that these concepts will be further scrutinized when the Company proposes changes to its class cost of service and rate designs in its next general rate case. *Id*. We recognize, as should the Parties, that tweaks to the on-site generator program now will likely be further impacted when the Company files its

next general rate case, and the Commission can look at Idaho Power's system and customers as a whole.

For purposes of the narrower scope of this case, all costs associated with on-site generator exports will be reflected in the ECR. In time periods when a customer-generator fully reduces the cost of energy for their own service, excess generation is exported to Idaho Power's system. It is important that these exports are properly valued to reflect appropriate costs and benefits.

The Commission also finds it reasonable to change the term revenue requirement to revenue collection to provide better clarity. Export credit payments are costs to the system resulting from on-site generator exports and recovery of these payments is a relevant part of the study analysis. Other power costs are included in base rates with any differences reflected in future power cost adjustment cases. This is one option that should be considered in the study analysis. One question to study is whether all customers or just on-site generation export customers or another class of customers should bear the export credit costs. The Parties and the public will be able to evaluate the results of the study and return to this issue at that time.

EXPORT CREDIT RATE ("ECR")

Some Parties recommended that the study retain the 1:1 kWh ECR reflected in the Company's existing on-site generation program terms. The Company, Staff, and other Parties asserted that the ECR should not be a kWh credit but based on a dollar value per kWh. Staff 11/16/2021 Comments at 4.

Avoided Energy Value

4. Provide the calculations and documentation for the avoided cost of exported energy using: (a) energy price assumptions in the Company's most recently acknowledged IRP, and (b) market index price assumptions.

Staff proposed to include other methods, such as the use of a surrogate resource. Staff 10/13/2021 Comments at 5. Staff also recommended considering (1) the short-term variable value of energy depending on different times of the day, week, month, and year and (2) how energy values change over the long term as the fundamentals of the wholesale natural gas and electricity markets change and when the mix of the Company's generation resources change. *Id*.

CEO requested that the study use the Company's 2021 IRP as a data source because of the inadequacy of the capacity expansion. CEO 11/30/2021 Comments at 2. CEO argued that using outdated pricing would unfairly bias the value of avoided energy cost analyses against self-generators and produce unfair results in this study. *Id.* CEO asserted that the ECR will inherently vary depending on the time of the export. CEO 10/13/2021 Comments at 3. Thus, the study needs to consider various periods over which consumption and production are "netted" to identify the existence of an export event and quantify the amount of energy exported. *Id.*

ICL agreed with CEO that the study should use the most recent IRP for data sources. ICL 11/30/2021 Comments at 3. ICL recommended that the Commission direct Idaho Power to utilize established methodologies to assess the locational value of distributed energy and refrain from using a placeholder for any avoided costs. *Id*. at 5. In addition, ICL recommended that Idaho Power prepare an assessment of how the timing of exports relates to the utility's avoided costs at that same time. *Id.*

ISON recommended that the study include the effects of storage. ISON 10/13/2021 Comments at 2.

Boise City advocated for the Company's inclusion of the time and locational value of exported energy. Boise City 11/30/2021 Comments at 2.

The Company agreed with Staff's recommendation to explore other methods such as a surrogate resource. Company 11/16/2021 Comments, Attachment 1 at p. 1. The Company also includes evaluation of an avoided energy value that could vary with time and/or location of exported energy. *Id.* Contrary to ICL's argument, the Company suggested that if a method is not available for the location of exports, then evaluating a placeholder for calculating locational derived value could be considered. *Id.*

5. Provide the calculations and documentation showing if the avoided cost of exported energy produced by customer-generators should be discounted to reflect the non-firm nature of the exported energy.

ICL recommended that the study should assess whether distribution circuits with some meaningful amount of customer-generator exports show an overall variability that adds to or avoids costs for Idaho Power. ICL 10/13/2021 Comments at 11-12.

Boise City asserted that the evaluation and potential discounting of the value of net-exported energy based on the Company's stated "non-firm nature of the exported energy" should

be limited to the risk of net-excess energy production from customer-generators being removed from the grid as a resource in aggregate. Boise City 11/30/2021 Comments at 3.

The Company agrees with Staff to: (1) evaluate firmness of 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. Company 11/16/2021 Comments at 5-6.

COMMISSION DECISION:

The Commission finds that the ECR should be based on a dollar value per kWh and not a per kWh credit. The ECR must reflect that the energy received from on-site generator exports is currently non-firm and the value of the energy export to the system varies at different times of the day, week, month, and year. Accumulated energy exports are important to study based on the availability of energy at different locations on the system, but this does not equate to resource aggregation to determine firmness of energy exported.

The value of energy exports can be looked at by the locational value for each customer-generator and then combined. This is reasonable for some elements that can be measured but not for other elements. Although measurement at each location is not currently feasible, locational measurement may exist at some time in the future. For instance, looking at each individual line loss is not currently reasonable so averages must be used. The Commission declines to view all customer-generators in the aggregate because it presumes too many factors that are not yet known. We can reconsider aggregation when more data exists to determine whether it is fair and reasonable.

The Commission recognizes storage provides value and it is reasonable to study the value of storage. However, it would be inappropriate to include storage as a component of the ECR to be paid to every on-site generator in a single ECR rate. It would be more appropriate to evaluate peak-hour pricing or another variable pricing mechanism so on-site generators who invest in storage can realize the value of their investment when they export stored energy.

The Commission recognizes the calculations and documentation for the value of exported energy should use current energy price assumptions, consistent with IRP model inputs required for Public Utility Regulatory Policies Act ("PURPA") contracts, and market index price assumptions. We also recognize using surrogate resource energy prices as a comparison with the

above assumptions when valuing the ECR is reasonable. We do not, however, find it appropriate to utilize a surrogate resource as the sole calculation of energy prices in the ECR.

As discussed previously, the Company is directed to use the most current IRP data. Regular updates will allow new circumstances and changing requirements to be reflected in the ECR.

We find it reasonable and fair for the study to evaluate firmness of energy for individual customers compared to firmness as a combined class, and evaluate firmness of energy for customers with energy storage devices compared to those without energy storage devices. The Company agreed to this inclusion recommended by Staff.

We have already discussed that we do not find it reasonable to look at customer-generators in the aggregate. Based on the same reasoning, we find it unreasonable and decline Boise City's invitation to only evaluate the removal of net-excess energy production of customer-generators from the grid as a resource in aggregate.

Avoided Capacity Value

6. 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 peak.

Staff made recommendations about the use of the first deficit year, the identification and evaluation of methods for identifying system coincident peak, the exploration of different rate designs, and the evaluation of potential differences between customers with and without storage. Staff 10/13/2021 Comments at 7-9.

CEO proposed that several sections of the Company's Revised Study Framework be eliminated. CEO 11/30/2021 Comments at 3. CEO asserted that fair ECR rates mean those exports do not produce a subsidy. *Id.* CEO asserted that capacity should be valued by the total effect on Company load, not just based upon the subset of self-generation. *Id.*

ICL noted that current PURPA contracts get paid a capacity value for deferring capacity need, so customer-generators should also receive this treatment. ICL 11/30/2021 Comments at 5-6. Contrary to current Idaho PURPA parameters, ICL argued that existing customers should be paid for capacity regardless of the utility deficiency date. *Id.* Additionally, ICL recommended the Commission "[c]onsider valuation of avoided capacity based on the capacity costs Idaho Power incurs at the same time the export occurs." *Id.* at 6.

ISON asserted that, because they lower peak demand, distributed energy resources ("DER") should not be treated any differently than energy efficiency and demand response resources. ISON 10/13/2021 Comments at 2-3. ISON also argued that the value of providing electricity to the grid during peak load times for the residential class should be explored fully. *Id.*

Boise City supported the avoided capacity value of customer-generators with energy storage in the study design in the Revised Study Framework from the Company. Boise City 11/30/2021 Comments at 2.

The Company's Revised Study Framework considered the positions of the Parties and incorporated several modifications and clarifications. The Company further agreed to evaluate potential differences between customers with and without storage. Company 11/16/2021 Comments, Attachment 1 at p. 2. The Company also included the two specific rate designs for determining avoided capacity values. *Id.*

COMMISSION DECISION:

We find it reasonable for the study to include Avoided Capacity Value as discussed herein. We also find it reasonable and fair for the study to adopt the Company's offered improvements to wording and clarification of the use of net peak. We direct the Company to study the use of first deficit year, the identification and evaluation of methods for identifying system coincident peak, the exploration of different rate designs, and the evaluation of potential differences between customers with and without storage. We also find it reasonable to include the Company's two specific rate designs for determining avoided capacity values.

We find it fair and just to attribute a capacity value to on-site generators. ECR payments should reflect a capacity value for capacity deferred. Deferred capacity occurs when the Company's deficit year is impacted. We find it reasonable to base the capacity value on the energy exported rather than the total generator installed capacity. Capacity and energy offset by customer generation behind the meter is not measured. This does not mean that the value is not realized by the on-site generator. Net-metering customers get 1:1 kWh benefit for all energy produced and used behind the meter. Therefore, it would be double counting to base the capacity value on anything more than the energy that is exported.

Avoided Transmission and Distribution Costs

7. Quantify the value of transmission and distribution costs that could be avoided by energy exported to the grid by customer-generators.

Staff recommended separately studying avoided transmission costs and avoided distribution costs. Staff also suggested that the study should consider three factors: (1) whether exports avoid construction or delay construction, (2) individual customer-generators versus a class, and (3) configurations with and without storage. Staff 10/13/2021 Comments at 11.

ICL recommended the study focus on avoiding distribution level costs distinct from transmission costs with a focus on the specific locations. ICL 10/13/2021 Comments 12.

ICL also stated that the Company's suggestion to study the impact at the customer class level misses the mark. ICL 11/30/2021 Comments at 6. ICL recommended that the Company be directed to evaluate the range of avoided capacity between individual customer-generators and avoided capacity costs at the distribution circuit level. ICL suggested that the Company also be directed to evaluate the range of avoided capacity between individual customer-generators and all customer-owned generators at the transmission system level. *Id.*

ICL also believed that it is possible to quantify locational benefits. ICL stated the Lawrence Berkeley National Lab provides examples that should be used on how to value locational benefits and other benefits at https://emp.lbl.eov/projects/timevalue-efficiency. *Id*. at 4-5.

The Company recommended separating avoided distribution costs and avoided transmission costs and included Staff's recommendation about the evaluation of the range of avoided capacity between individual customer-generators and avoided capacity cost at a class level in its Revised Study Framework. Company 11/16/2021 Comments, Attachment 1 at p. 2.

COMMISSION DECISION:

The Commission finds it reasonable and fair to separately study avoided transmission costs and avoided distribution costs. In doing so, the study should consider: (a) whether exports avoid construction or delay construction, (b) individual customer-generators versus a class, and (c) configurations with and without storage.

Avoided distribution costs are locational benefits properly studied. It is reasonable to evaluate, for use, examples from the Lawrence Berkeley National Lab to better value this element of the ECR.

Avoided Line Losses

8. Quantify the avoided line loss associated with the avoided energy value and avoided capacity value.

Staff recommended that the Company evaluate line loss at the distribution level and transmission level in connection with this type of avoided cost.

ICL recommended that the study focus on avoiding distribution level line losses distinct from transmission line losses. ICL 10/13/2021 Comments at 12.

The Company recommended changing "avoided line loss" to "avoided marginal line loss" based on CEO's evaluation of static losses versus marginal losses. Company 11/16/2021 Comments Attachment 1 at p. 3. The Company also included Staff's recommendation to consider line loss at the distribution level and transmission level in connection with the type of avoided cost in its Revised Study Framework. *Id.*

COMMISSION DECISION:

The Commission finds that line losses are important issues to study and that it is reasonable and fair for the Study Framework to include these issues in its scope at both the distribution level and transmission level. It is also reasonable to study the difference between using static or marginal losses and the magnitude of each as part of the valuation to be included in the ECR. We also want to see the study results clearly identify and demonstrate that all costs being avoided are part of the ECR value. We expect this same demonstration to reflect that there is no double counting with other elements of the ECR such as the avoided energy value or avoided capacity value.

Integration Costs

9. 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.

Staff recommended that the study consider three factors for integration costs: (1) the applicability and need to apply integration costs for customer-generators with and without storage, (2) how penetration of customer-generator exports can affect the level of integration costs, and (3) how integration costs can change over time affecting the frequency of ECR updates. Staff 10/13/2021 Comments at 12.

ICL recommended that the study assess whether distribution circuits with some meaningful amount of customer-generator exports show an overall variability that adds to or avoids costs for Idaho Power. ICL 10/13/2021 Comments at 11.

The Company agreed with Staff's recommendations for the study of integration costs and to apply it to (a) customer-generators with and without storage, (b) its effects with changing penetration levels, and (c) how integration costs change over time. Company 11/16/2021 Comments at 8.

COMMISSION DECISION:

The Commission finds that Staff's and the Company's recommendations are fair and reasonable to include in the scope of the study. The Commission finds that changes in costs for distribution circuits are appropriate to study. It is important to design the ECR for various penetration levels so that the net exported energy can be accurately valued. This is especially important regarding adjustments for integration costs associated with the net exported energy, since increased penetration of variable resources in the system affects the cost of regulating reserves the Company needs to carry to balance the system. We find it reasonable to direct the Company to avoid reflecting increased penetration levels in the current ECR. We find that an evaluation of increased penetration levels is more appropriately included in future ECR adjustments when the situation occurs on the system and when facts are available to support the evaluation.

Avoided Risk

10. Boise City: **Quantify and analyze the fuel price guarantee value provided by customer-generators at each penetration level (current levels, 10x, and 25x).**

Staff recommended that the study identify risk variables associated with an inability to forecast or predict those variables accurately and quantify the impact to customers as a dependent variable. Staff 10/13/2021 Comments at 12. Additionally, to mitigate risks the ECR should be updated regularly. *Id.*

CEO recommended that a fuel price hedge value be included in the study. CEO 11/30/2021 Comments at 2-3. CEO explained that utilities have the ability to buy natural gas futures contracts or secure long-term contracts to avoid price volatility. *Id.* However, CEO argued

that this is rarely being done and customers are bearing the price volatility risk. *Id.* CEO asserted that solar generation reduces the reliance on fuels and hedging. *Id.*

In the Company's Revised Study Framework, it removed Boise City's recommendation to study at each penetration level, but the Company included Boise City's recommendation to quantify avoided uncertainty in fuel price fluctuations from the displaced marginal resource across the planning period. Company 11/16/2021 Comments, Attachment 1 at p. 3.

COMMISSION DECISION:

The Commission finds that these issues should be included in the scope of the study, but not at each penetration level. The Company reviews energy and capacity needs. The Company's regular risk management practices lock in fuel for energy production and dictate whether the Company enters into contracts to hedge prices with physical or financial contracts. This process is already in place and looks out 18 months in advance. It is reasonable to evaluate fuel price risks. It is the Commission's expectation that the ECR be updated regularly to mitigate risks. Therefore, it is unnecessary to evaluate fuel price risks at increasing penetration levels because this data will need to be updated in the future based on actual data as it becomes available and as the system develops to obtain accurate results.

RECOVERING EXPORT CREDIT RATE EXPENDITURES

11. Quantify the annual costs under varying assumed ECR values.

12. Analyze how these costs would be allocated and recovered by rate class.

CEO proposed to eliminate several portions of the Company's Revised Study Framework regarding the recovery of export credit rate expenditures. CEO 11/30/2021 Comments at 3.

The Company's Revised Study Framework suggested that the study attempt to "identify the customer classes responsible [for the expenditures] and the potential impact to other customer classes." Company 11/16/2021 Comments, Attachment 1 at p. 4.

COMMISSION DECISION:

The Commission finds it fair and reasonable that the study should look at the costs and benefits associated with the above issues. The study will also identify customer classes responsible and the potential impact to other customer classes.

The direct costs should be linked with the associated benefits. The Commission finds it reasonable to study how the costs and benefits of on-site generation are recovered in rates rather than focusing solely on eliminating a potential subsidy.

The Commission recognizes that it remains an open question whether these costs should be assigned to only customer-generators or all customers. The study should evaluate options to provide a full record upon which Parties and customers can comment and the Commission can make its final decision. These issues will also be evaluated in the Company's next general rate case as well as in the implementation phase of this net metering process.

COST-OF-SERVICE AND RATE DESIGN

13. Evaluate cost-of-service methodology and potential rate designs for customer-generators.

CEO recommended fixed cost recovery be studied in a separate docket and that cost-of-service issues be fully vetted only if and when changes to all customer rates are considered. CEO 10/13/2021 Comments at 3, 6. CEO also suggested that it is analytically inappropriate to include historical cost-based cost-of-service studies. CEO 11/16/2021 Comments at 3 and 7-8; CEO 11/30/2021 Comments at 4. This would add substantial complexity to any review and reduce the ability of the public to understand the study. *Id.* CEO argued that this is an unnecessary component. *Id.* CEO also opposed the consideration of any proposed rate designs for consumption. CEO 10/13/2021 Comments at 6. CEO argued that rate design is appropriately addressed in a general rate case. CEO 11/16/2021 Comments at 3 and 7-8.

ICL stated that self-consumption of a customer's generation is not public use and therefore is not in the Commission's jurisdiction. ICL 10/13/2021 Comments at 3. ICL conceded that self-consumption could be studied in this docket, but any results should not be implemented until the Company files a general rate case. ICL 11/30/2021 Comments at 1.

ISON stated that the cost to serve on-site generation customers due to the value of the kWh's they provide may be lower than the cost to serve all other customers. ISON 10/13/2021 Comments at 2, ¶5.

Boise City wanted to ensure that any cost-of-service or rate designs in the study are only evaluating the costs associated with net-excess energy produced by customer-generators. Boise City 11/16/2021 Comments at 8.

Kluckhohn suggested that the cost-based portion of the equation cannot be effectively evaluated without also considering the revenue side of the equation. Kluckhohn 9/7/2021 Comments at 7. Kluckhohn also stated that at a minimum, a general rate study should occur simultaneously with this study so the decision about assumptions within both studies is made from a systemic (both rate and cost) perspective. Kluckhohn 10/13/2021 Comments at 2. Kluckhohn recommended the study evaluate a revenue of service methodology and potential rate designs for customer-generators and non-generators.

ICEA stated that any costs and benefits associated with exports should be part of the value stack for exports. ICEA 10/13/2021 Comments at 2. ICEA argued that this study is not the place to estimate how fixed costs might or might not be allocated to customer-generators in a rate case. *Id.* ICEA reasoned that the opportunity to consider rate designs for consumption and fixed cost recovery was in IPC-E-18-16. *Id.* ICEA stated that IPC-E-18-16 showed most subsidies were between classes other than Schedule 6 & 8 and this study's focus should be on exports. ICEA 10/13/2021 Comments at 1-2.

Micron recommended that the study evaluate how various cost of service methodologies and potential rate designs impact non-generators in each rate class – including Special Contract customers. Micron Comments at 2. Micron believed the study should include an analysis of whether cross-subsidies exist between customer-generators and non-generators. *Id*.

In its Revised Study Framework, the Company expanded the consideration of cost of service and rate design to include the "impact to all customer classes, including customer generators." Company 11/16/2021 Comments, Attachment 1 at p. 4.

COMMISSION DECISION:

The Commission acknowledges a full cost-of-service analysis is due to be completed along with an in-depth study of rate design options, but we decline to order the full process to be completed as part of this Study. These concerns are not static, will affect many classes, and are part of a larger study. We find it fair and reasonable that these issues are part of a larger study that should be expanded to include the impact to all customer classes, including customer-generators.

The Commission also finds it fair and reasonable for updates to current cost of service, new rate designs, and transitional rates to be implemented in a general rate case. While these issues are studied within this process, we decline to order a full general cost of service study be conducted

in this case. Such a directive would exceed the scope of this docket. We also decline to require a general rate case to occur simultaneously with the implementation of issues in this case. However, we do anticipate that a general rate case filing will be forthcoming.

PROJECT ELIGIBILITY CAP

16. Analyze the pros and cons of setting a customer's project eligibility cap according to a customer's demand as opposed to predetermined caps of 25 kilowatt ("kW") and 100 kW.

Staff did not believe that a separate docket is necessary to study these items and believed the Company has the necessary data and expertise to provide a thorough evaluation of the 25 kW and 100 kW predetermined caps through this study. Staff 10/13/2021 Comments at 14.

CEO proposed that the Company file an application proposing changes to the CI&I cap, which should be no less than a customer's peak electric load, as soon as possible. CEO 11/30/2021 Comments at 5. CEO emphasized that this element of the evaluation should occur in a separate docket and that the Commission has broken out other eligibility issues in the past. CEO 10/13/2021 Comments at 2, 4, 6 and 7.

ISON said that on-site generation systems being capped, regardless of use, should be eliminated. ISON 10/13/2021 Comments at 3-4.

The Company updated this section in the Revised Study Framework to include: (a) analysis at 100% of customer's demand, and (b) analysis at 125% of customer's demand. The Company did not include CEO and ICL's recommendation to open a separate docket. Company 11/16/2021 Comments at 10.

COMMISSION DECISION:

We find that a separate docket is not necessary to study these items. The Company has the necessary data and expertise to provide a thorough evaluation of the 25 kW and 100 kW predetermined caps through this study. We also find it reasonable to expand the analysis at 125% of customers' demand. The analysis of the project eligibility cap should also include an evaluation of concerns previously echoed in Order No. 28951 and Order No. 29094, such as safety, service quality, and grid reliability.

ENVIRONMENTAL AND OTHER BENEFITS

17. Evaluation of the quantifiable environmental and other system benefits provided by customer-generators.

Staff recommended that avoided environmental costs should only be included in the study if they are quantifiable, measurable, and include avoided costs that affect rates. Staff 10/13/2021 Comments at 14.

Staff also recommended that any environmental benefits included as an avoided cost in the ECR should be valued based on the following criteria: (a) the benefits included should ultimately be realized by the Company's customers, (b) other customer classes should be held harmless, (c) environmental benefits included in the ECR should maintain accuracy over time, and (d) the environmental benefits included should only be those typically included in customer rates. *Id*. at 15.

CEO asserted that the Company's Revised Study Framework should be expanded to include a review of all possible ways to harvest the renewable energy value of self-generator exports, not just via renewable energy credit sales. CEO 11/30/2021 Comments at 4.

ICL recommended that values for resilience and reliability must be included. ICL 10/13/2021 Comments at 11. ICL also asserts that the environmental and other benefits included in the Revised Study Framework are all types of costs that are typically included in rates today and thus should be included in the ECR value. ICL 11/30/2021 Comments at 6-7. ICL believed that this should include pollution costs for the plants the Company operates. *Id.*

ISON recommended that the study include an evaluation of impacts on land use and specifically costs of large scale centralized renewable generation systems versus only rooftop surface area. ISON 10/13/2021 Comments at 3.

Boise City noted that the Idaho Power environmental benefits to be studied should include the same areas of study as approved in Case No. PAC-E-19-08. Boise City 11/16/2021 Comments at 3-4. Boise City also asserted that the Company should include a comprehensive climate risk scenario in the study. Boise City 11/30/2021 Comments at 2-3.

The Company in the Revised Study Framework expanded the environmental section 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. Company 11/16/2021 Comments at 8-9. Additionally, the Company agreed that

it was appropriate to evaluate environmental and other costs that are quantifiable, measurable, and only include avoided costs that affect rates. In response to Boise City's proposal to include a comprehensive climate risk scenario, the Company reasoned that these additional areas of study are already generally covered in the ECR section of the Revised Study Framework. Company 11/30/2021 Comments at 7.

COMMISSION DECISION:

The Commission finds it reasonable that the Study include an evaluation of all benefits and costs that are quantifiable, measurable, and avoided costs that affect rates.

IMPLEMENTATION ISSUES

Billing Structure

19. Explain how 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.

Boise City asserted that the Company should make publicly available, as an appendix or attachment to the study, all data, assumptions, and inputs utilized in the resulting analysis of the comprehensive benefits and costs of excess energy generation. Boise City 11/16/2021 Comments at 8. Boise City also wanted the study to explain how seasonal and time-of-delivery price differences will be used to help align customer-generated exported energy with the Company's system needs at each penetration level (current levels, 10x, and 25x).

ICL believed that no vague terms should be used in the study. ICL 11/30/2021 Comments at 5.

The Company expanded the Revised Study Framework to include this within the scope of the study: "[e]xamine the options for providing credits for exports to customers." Company 11/16/2021 Comments, Attachment 1 at p. 4.

COMMISSION DECISION:

The Commission notes that the study will review the options for providing credits for exports to customers just the same as seasonal or time-of-delivery differences. The Company is also directed to be transparent with its data and analysis. However, the Commission declines to direct the Company to provide the analysis at each penetration level as requested by Boise City.

Instead, and consistent with our prior findings and conclusions in this order, we instruct the Company to expand the study elements for penetration levels as it provides additional information for implementation and future ECR updates.

Export Credit Expiration

21. Quantify the magnitude, duration, and value of accumulated export credits.

22. Explain the need for the credits to expire: (a) Show how the Company does or does not benefit from the expiration of customer export credits, and (b) Show how non-customer-generators are harmed or benefited from the expiration of customer export credits.

ICL argued that export credits are the property of the customer and not the Company. ICL also recommended that the study define what bill components the credit can offset. ICL 10/13/2021 Comments at 12-13. ICL noted that the study should evaluate program transition options so there are three steps to the complete the program changes: the legacy treatment, a transition period to gradually move to the new program, and finally full implementation of the new program design and rates. Lastly, ICL noted that the Company needed to show the impact to the customer-generators of expiring credits. ICL 11/30/2021 Comments at 7.

ISON noted that credits should not expire because the Company's capital investments never expire; therefore, customers should be given the same consideration. ISON 10/13/2021 Comments at 3-4. If they do expire, they should have a yearly value assigned so that customers accumulating them can redeem them rather than having these credits roll forward. *Id.*

The Company did not take a position on credits expiring but commented that it should be included in the study. Company 11/16/2021 Comments at 12.

COMMISSION DECISION:

We find it fair and reasonable to include an evaluation of expiring credits in the Study Framework. The study of these issues will help with how to address the value and expiration of credits in the implementation phase of this case.

We expect the Company to propose how a transition to the new program can most effectively and efficiently occur. We decline to direct the Company to follow ICL's proposed transition.

Frequency of Export Credit Rate Updates

23. Quantify the impact of biennial updates as compared to annual updates of the ECR.

Staff stated that participating customers' need for stability should be balanced with the need for regular updates to accurately track avoided costs. Staff 10/13/2021 Comments at 16.

ICL stated that the study should investigate the impacts on installers in providing accurate information with more updates. ICL 10/13/2021 Comments at 13-14. ICL also recommended that the study include the types of impacts and who is impacted (Company, Customer-generators, other customers). ICL 11/30/2021 Comments at 7-8.

The Company agreed that the Revised Study Framework should consider the impact of timing of updates and should also evaluate objective criteria such as changes to the costs Idaho Power avoids by receiving exports from customer-generators.

COMMISSION DECISION:

We find it reasonable and fair to include these issues in the Study Framework. We also find it reasonable for the study to consider the impact of timing of updates, and to evaluate objective criteria such as changes to the costs Idaho Power avoids by receiving exports from customer-generators. Also, it is reasonable and appropriate for the study to identify potential processes, cases, or mechanisms for identifying updates to the export credit rate. The study of these issues will be important for the implementation phase of this case.

However, we do not find it reasonable for the study to investigate the impacts to installers in providing accurate information with more updates. We find this recommendation to be outside the scope of the study.

ICIP: OFF-SITE NON-EXPORTING FACILITIES

24. ICIP: Analyze the feasibility of off-site non-exporting net metering facilities (Please see Comments from ICIP for additional comments on the case).

Staff stated that this recommendation is outside the scope of this case and that the Company can accurately study the costs and benefits of on-site generation without the ICIP proposal. Staff 10/13/2021 Comments at 16.

ICIP stated that its proposal to further examine off-site generation issues as part of this net-metering docket is, by definition, already an essential ingredient or component to the topic at

hand. ICIP 11/30/2021 Comments at 3. Off-site generation (offsite net-metering) is thus well within the Commission's scope of net-metering and is an appropriate topic for discussion in this docket. *Id.* ICIP also asserted that the Commission uses the two phrases interchangeably ("on-site generation" and "net metering") and without any further distinction, the only logical inference is that it intended this "comprehensive study" to include all net-metering (a.k.a. on-site generation and off-site generation) that is currently being offered by Idaho Power in Commission approved tariffs. *Id*. at 5.

The Company agrees with Staff that this is outside the scope of studying on-site generation. Company 11/16/2021 Comments at 13-14. The Company also does not offer off-site or virtual net metering and the criteria for transferring net energy credits is not restricted and this issue is mischaracterized by ICIP in its Final Comments. *Id.* The Company also stated that the net metering customer should not receive benefits for oversizing their system and aggregating meters would allow net metering customers to be power sellers and that this is also outside the scope of this study. Company 11/30/2021 Comments at 7-8.

COMMISSION DECISION:

The Commission finds ICIP's proposal to include off-site generation outside the scope of this study. Net metering has not historically been intended to encourage off-site generation. Any off-site generation to be sold to the Company can be negotiated with a PURPA or other power purchase contract.

ADDITIONAL AREAS TO STUDY

25. Boise City: Penetration levels and evaluating customer-generator capacity for storage and at each penetration level using the ELCC calculation.

Staff believed these areas will be included in the ECR section of this study. Staff 10/13/2021 Comments at 16.

ICL stated that similar to penetration levels, each category and each time interval should be studied. ICL argued that the study should assess the value at various levels of growth in the customer-generation program ranging from current levels to l0 times current and 25 times current. ICL 10/13/2021 Comments at 10.

COMMISSION DECISION:

The Commission declines to direct the study to include multiple penetration levels. We find it reasonable and adequate that the study assess the value levels of growth. We expect that this issue will also be addressed as more updates to net metering are developed going forward.

26. Tidwell: **(a) benefits to the grid of on-site generation and microgrids for reducing peak load, (b) study should be designed to focus on how to encourage more distributed generation, more sharing of electrons and credits with workforce or low-income customers, and more benefit to all Idaho ratepayers through microgrids, (c) study the physical constraints of existing rules for on-site generators in multifamily buildings, and (d) provide updated facts and data about total on-site generation information.**

Staff believed that microgrids are out of the scope of this study. Staff 10/13/2021 Comments at 17. Updated facts and data about on-site generation will be provided with the results of the study. *Id.*

ISON recommended that the study should include the benefits where power outages could be avoided, like a microgrid. ISON 10/13/2021 Comments at 2.

ICL noted that studying the physical constraints of existing rules for on-site generation in multifamily buildings should be included in this study. ICL 10/13/2021 Comments at 15–16. ICL believes renters have no control over solar generation at their building and would not get the benefits from it. *Id.*

The Company asserted that studying the benefits of microgrids and sharing of electrons is outside the scope of this study. Company 11/16/202 Comments at 13-14.

COMMISSION DECISION:

The Commission declines to study microgrids as part of this study. As stated previously in this order, it is reasonable to keep the scope of this study focused on net metering and on-site generation. The consideration and evaluation of the costs and benefits of microgrids would substantially broaden the issues and elements of this study. The Commission realizes that existing rules of on-site generators may or may not create restraints in owner/tenant situations. However, the terms of contracts between owners and tenants is outside our authority and beyond the scope of this docket.

ADDITIONAL TOPICS NOT DISCUSSED ABOVE

20-year outlook.

Boise City believes the study should look at a 20-year planning horizon, which is consistent with the Company's IRP and the lifespan of a distributed energy resource. Boise City 11/16/2021 Comments at 2.

COMMISSION DECISION:

The Commission finds it unreasonable to ask that this study consider a 20-year outlook. Changes in the electric industry are more dynamic now than in the past. In 20 years, the system and program will likely change substantially making this long-term outlook of little value if studied now. Moreover, the Company's IRP could include many of the same considerations in a better context.

Align study with federal, state, municipality, and individual goals:

ICEA stated that the study should be aligned to federal, state, municipality, and individual goals for developing alternative energy resources. ICEA 10/13/2021 Comments at 2. ICEA argues that it is the policy of the State of Idaho to promote the development of the state's energy resources to increase energy supply in an economically efficient manner. *Id.*

COMMISSION DECISION:

The Commission finds it unreasonable to specifically include these elements in this study. Idaho Power's investments, proposals, positions, and business decisions generally include these considerations because its ability to recover its costs depends on it.

ORDER

IT IS HEREBY ORDERED that the Application is approved as provided above.

IT IS FURTHER ORDERED that Idaho Power complete the study design for its Comprehensive study on the costs and benefits of on-site generation based on the Commission's Study Framework findings and conclusions as more specifically defined and explained herein.

IT IS FURTHER ORDERED that the Company complete the Study in 2022 as soon as feasible.

THIS IS A FINAL ORDER. Any person interested in this Order may petition for reconsideration within twenty-one (21) days of the service date of this Order with regard to any

matter decided in this Order. Within seven (7) days after any person has petitioned for reconsideration, any other person may cross-petition for reconsideration. *See Idaho Code* § 61-626.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this day of December 2021.

ERIC ANDERSON, PRESIDENT

KRISTINE RAPER, COMMISSIONER

PAUL KJELLANDER, COMMISSIONER

ATTEST:

Jan Noriyuki
Commission Secretary

I:\Legal\ELECTRIC\IPC-E-21-21 On-Site Generation\orders\IPCE2121_final.docx