Office of the Secretary
Service Date
September 21, 2018

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

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. 34147**

On May 9, 2018, this Commission issued a Final Order in Idaho Power Company's ("Company") request for authority to establish new schedules for residential and small general service ("R&SGS") customers with on-site generation. Order No. 34046. On May 29, 2018, Vote Solar filed a Petition for Reconsideration of Order No. 34046, in which the Commission approved new Company Schedules 6 and 8 for R&SGS customers who on-site generate. Vote Solar asked the Commission to "require the Company to revise the new Schedules 6 and 8 to apply only to customers who export electricity." Vote Solar Petition for Reconsideration ("Petition") at 1. Vote Solar believed no new evidence was necessary for the Commission to make this finding. *Id.* No other petitions for reconsideration were received.

In response to the Petition, Staff's response thereto and the Company's Answer, the Commission issued Order No. 34098. That Order granted reconsideration and asked Vote Solar, the Company, Staff, and any other party with the desire to do so, to file briefing related to "whether a customer's ability to export energy should determine if the customer should be included in new Schedules 6 and 8." Order No. 34098 at 3. The Commission further stated that it was interested in obtaining "information about export limiting devices, effects of battery storage, additional information on the meaning and repercussions of 'in parallel' connection, and the masking of usage created by hourly analysis of customer and Company energy exchanges." *Id.* Order No. 34098 also set a briefing schedule, with a deadline of August 10, 2018, for opening briefs and August 24, 2018, for responsive briefs. *Id.* at 3.

Having reviewed the record on reconsideration, including the additional briefing, which is summarized below, we now modify the directives outlined in our Order No. 34046. For now, all on-site generators should remain in the Company's Schedules 6 and 8 because there is insufficient evidence in the record for the Commission to make a well-informed determination as to on-site generating customers who may choose to eliminate energy export and the implications

of such a choice. Further, no harm is caused by, at least temporarily, leaving potential non-exporters in Schedules 6 and 8 because no changes have yet been implemented to the underlying rate and compensation structure. We also reiterate that bi-directionality is an important and defining characteristic of customers now taking service under the Company's Schedules 6 and 8 and, therefore, order that the forthcoming docket be used to further analyze on-site generators desiring to prevent export to the Company's system.

SUMMARY OF BRIEFING

1. Load Service and Pattern of Use.

Vote Solar

Vote Solar argued that the Company did not sufficiently show that self-generators who do not export energy have different costs of service, quantities of electricity used, conditions of service, or time, nature and pattern of use in order to justify including them in Schedules 6 and 8. Vote Solar's Brief on Reconsideration at 2. For example, the Company lacked sufficient evidence that net metering customers who export are subsidizing self-generators who do not export. The Company also lacked evidence about the non-exporters' loads, usage and impact on the grid. *Id.* at 3. Further, the Company admitted it has only hypothetical data on non-exporters because all of its self-generating customers export; therefore, the Company could not accurately analyze, or justify its claims about non-exporters' load and usage. *Id.* at 4.

Vote Solar further argued the Company actually highlighted similarities between non-exporting self-generating customers and standard service customers. The Company included hypothetical non-exporters in Schedules 6 and 8 because they still require services from the Company; however, the Company also noted that non-generating customers have identical loads and uses. *Id.*

Vote Solar also argued that the Commission's Order Granting Reconsideration did not ask the Company for additional analysis, and that the Company did not make its additional analysis available to the parties or the public at hearing or earlier. Vote Solar's Response Brief on Reconsideration at 3. "Notwithstanding the limited scope of the request for reconsideration and the Commission's request for briefs, rather than evidence, the Company's August 10, 2018 submission goes well beyond a 'brief' and contains load data and analysis not previously provided in this case." *Id.* at 3. The Company thus precluded the other parties from conducting discovery into this new evidence and from testing it at hearing. Vote Solar argued the Commission should

not let the Company "backfill" the record with evidence it could have filed, but did not file, in this matter before reconsideration. *Id.* at 3.

Even if the Commission considers the Company's additional evidence and analysis, Vote Solar believes Order No. 34046 is clear: bi-directionality was the Commission's primary reason for creating Schedules 6 and 8. *Id.* at 4. Vote Solar also stated the Company disingenuously continued to argue about cost shifting when the Commission has deferred its conclusions on costs until after a "thorough, data-driven evaluation" of costs and benefits in a separate docket. *Id.* at 4 quoting Order No. 34046 at 22-23. Vote Solar further argued the Commission ordered a fixed-cost analysis "to determine the proper methodology and 'spread' of fixed costs as they relate to the Company's customers." *Id.* at 3-4 quoting Order No. 34046 at 23. The Company's repetitive arguments about cost shifting are thus misplaced.

Finally, Vote Solar argued the Company's August 10, 2018, submission uses the wrong metric to allegedly distinguish non-exporting customer-generators from the wide range of loads within the diverse R&SGS classes. *Id.* at 5. Vote Solar argued customer-generators differ before and after they install generation, just as their loads differ after many types of customer changes—such as adding air conditioning, electric vehicle charging, or gas water heating. *Id.* 5-6. Therefore, bi-directionality, not load service and pattern of use, should define Schedule 6 and 8 customers, because customer-generators' loads are within the range of standard service customer loads. *Id.* at 6.

The Company

In its Opening Brief, the Company argued that "[t]he ability to export has significant flaws as a criterion for exclusion from Schedules 6 and 8." Idaho Power Company's Opening Brief on Reconsideration at 1. Instead, a different load service and pattern of use should determine whether customers are included in Schedules 6 and 8. *Id.* The Company stated it undertook three additional analyses on the effects of preventing export on excess energy onto its grid, and "that the results . . . demonstrate that the load service requirements and the usage characteristics of R&SGS customers who install on-site generation are distinctly different for a residential customer before and after the installation of on-site generation—even without the capability to export excess energy." Idaho Power Company's Closing Brief on Reconsideration at 11-13.

The Company reiterated that self-generators are partial requirements customers, regardless of what technology they may couple with generation. Idaho Power Company's Opening

Brief on Reconsideration at 16. As a result, load service and pattern of use differs greatly from that of standard service customers, even where export might be limited or prevented. *Id.* at 1-2. The Company supported its claim with a Limited Export Simulation to study the effects of preventing the export of excess energy. *Id.* at 4 and Attachment 1. Based on its Simulation, the Company found that even without "energy exports, the customer with on-site generation still has the ability to offset their usage on an hourly basis; this reduction in energy consumption, coupled with a rate design that collects fixed costs through a volumetric rate, creates the opportunity for shifting costs from customers with on-site generation to standard service customers." *Id.*

The Company further assumed that: (a) a customer's load factor is lower in all 12 months after the customer installs on-site generation, even without the capability to export excess energy; (b) the self-generating customer's load profile significantly changes regardless of any export limits—on-site generation decreases load after the sun rises and increases it as the sun sets; (c) while self-generating customers who limit export consume less energy from the grid, maximum demand over a day is not necessarily reduced; and (d) cost shifting would continue to occur between on-site generation customers if non-exporting customers were allowed a carve-out. *Id.*

The Simulation further led the Company to conclude that the "installation of on-site generation without the capability to export excess energy demonstrates that the [system coincident peak] is lower in nine out of 12 months after the installation of on-site generation – even without the capability to export excess energy." *Id.* at 10. The Company argued this results in a different cost allocation and, therefore, all self-generators should be included in Schedules 6 and 8 regardless of whether they can export. *Id.*

Similarly, the Company's non-coincident peak ("NCP") demonstrated that installing on-site generation, regardless of export capability, does not necessarily decrease a customer's monthly peak—the customer's load over a month will continue to place the same level of peak demand on the system and, therefore, carving out on-site generating non-export customers may shift costs due to volumetric-based rates. *Id.* at 11.[1]

[1] The Company also provided additional analysis "[t]o verify and validate the results of the Company's Limited Export Simulation" by using actual data from 18 residential solar customers in its Oregon service area Solar Photovoltaic Pilot Program. *Id.* at 12; and Attachment 2 to the Company's Opening Brief. The Company claimed its supplementary analysis validates the results of its Limited Export Simulation. *See id.* and Attachment 2, "Pilot Customer Load Shapes With No Energy Exports."

The Company next reiterated that standard service R&SGS customers have a two-part rate design that collects generation, transmission, distribution and customer-related costs primarily through volumetric rates. Thus, on-site generators who decrease volume create the potential for cost shifting and under collection of fixed costs. *Id.* at 12-13. The Company also argued that battery storage, under its current rate design, would only further exacerbate cost shifting due to decreased energy volumes. *Id.* at 14.[2]

Similarly, if a customer installs an export-limiting device, that customer would still be a partial requirements customer who offsets their energy use with self-generation. Therefore, Schedules 6 and 8 should include all customers with parallel-connected on-site generation so the rate structure reasonably allows the Company to collect costs without cost shifting. *Id.* at 17.

The Company responded to Vote Solar's claim that the Company excluded evidence of self-generating customers who export no electricity, countering that its evidence included customers with significant non-exporting periods because the Company analyzed all Idaho residential customers with on-site generation. *Id.*

The Company also objected to Vote Solar's claim that Company witness Faruqui merely provided a "theoretical proxy" for evidence comparing the loads of bi-directional self-generators when export is removed from their load shapes. *Id.* at 10. The Company maintained that no evidence or data would allow Vote Solar to properly visualize the removal of energy exports as a proxy for evidence related to the load and usage of non-export customers. *Id.*

Staff

Staff objected to factors in the Company's Limited Export Simulation because the Company used traditional customers in its analysis. Staff's analysis showed, contrary to the Company's claim, that self-generators consume more Company-supplied energy per year than do traditional customers. Staff's Responsive Brief at 2. Further, the Company inappropriately excluded customers outside the Boise area from its Simulation, and then tried to validate the Simulation with actual data from 18 Oregon customers. *Id.* Staff stated no validation would be necessary had the Company used actual, rather than simulated, data. Further, Staff maintained that

[2] The Company again hired the Brattle Group to perform a simulation of the net load shapes of hypothetical battery storage customers. *Id.* at 15; and Attachment 3, "The Effect of Storage on Customer Load Shapes when Coupled with Distributed Generation." The study concluded that "coupling battery storage with on-site generation to eliminate the export of excess energy results in similar reliance on the utility infrastructure to that of a customer with on-site generation that does export excess energy to the grid." *Id.*

a sample size of 18 is too small to be meaningful, and that the Company's validation of its Simulation lacks any data related to the important cost driver of total consumption. *Id.* at 3.

Staff also objected to the Company's continued use of the term "partial requirements," since Staff frames the issue as "whether and how a customer exports energy to the Company's grid, not how [a customer] might offset usage behind the meter." Staff's Responsive Brief to Commission Order No. 34098 at 3. Staff continues to maintain on-site generators who would prevent export are sufficiently similar to standard service customers who would use energy efficiency or alternative energy sources. Therefore, customers who are incapable of exporting should be eligible for Company standard service Schedules 1 and 7. *Id.*

City of Boise

The City of Boise agreed with Vote Solar's contentions, and argued the Company did not establish that non-exporting customers with on-site generation should be placed on new Schedules 6 and 8 because they differ from other customers. The City noted that the Company's case-in-chief focused on self-generators who both import and export energy to the Company's system. The City opined that Order No. 34046 does not address or find that customers who are not bi-directional, and who merely import energy from the Company's system, differ enough to warrant being placed on Schedules 6 and 8. City of Boise's Brief in Response to Order Granting Reconsideration at 2.

Idaho Irrigation Pumpers Association

The Idaho Irrigation Pumpers Association ("IIPA") disagreed with Vote Solar's characterization of non-bidirectional self-generating customers. IIPA Brief in Opposition at 2. IIPA maintains that no load or usage data or other evidence relates to such a hypothetical class. *Id.* This speculation, IIPA argued, "twists the legal standard for customer classification and argues there is no evidence to support including this hypothetical class of customer in Schedules 6 and 8 and claims they should be exempt." *Id.*

IIPA argued that Vote Solar's Petition should be rejected because Vote Solar provided no evidence in its case-in-chief or at the technical hearing. *Id.* at 2. Secondarily, IIPA aligns with the Company, arguing that due to parallel connection "[n]on-exporting self-generating customers rely on the [Company's] system just the same to balance and stabilize their self-generation and are part of the self-generator class which has an indistinguishable set of material characteristics as demonstrated by [the Company] in this case." *Id.* at 3.

2. Bi-Directionality.

Vote Solar

Vote Solar maintained that parallel connection to the Company's system is unrelated to the Commission's finding that bi-directional flow is the meaningful distinction in Order No. 34046. Vote Solar also argued the Commission's findings do not support placing non-export customers on Schedules 6 and 8. Vote Solar's Brief on Reconsideration at 5. The Commission's findings about whether to place an on-site generating customer on Schedules 6 and 8 depended on the customer's ability to both import and export. *Id.* Vote Solar stated non-export self-generating customers are part of those larger classes who use the grid for standard energy imports because their generation—like conservation and efficiency measures—purely offset their own energy usage outside of the grid. *Id.* at 6 *citing* Order No. 34046 at 16-18.

Vote Solar, agreeing with Staff, argued that limiting Schedules 6 and 8 to customers who export energy would also focus the forthcoming docket when determining the unique costs and benefits of on-site generators who export. *Id.* at 6.

The Company

The Company maintained that Vote Solar and Staff's claim that Order No. 34046 hinges on bi-directional energy flow "is an overly selective view of Idaho Power's case." Idaho Power's Closing Brief on Reconsideration at 6. The Company objected to Staff's statement that Schedules 6 and 8 rates would be predicated on a bi-directional relationship with the grid. *Id.* The Company considered bi-directionality as one of many factors when implementing the proper rate structure for on-site generators. *Id.* at 8. The Company reiterated that "[t]he evidence of reduced load factor and different load service requirements for . . . partial requirements customers remains unchanged—regardless if the customer prevents the export of excess energy." *Id.*

Staff

With Vote Solar, Staff maintained the Commission found bi-directionality justifies placing on-site generators into Schedules 6 and 8, because the Commission found it was time to distinguish a customer class that uses the grid for standard energy import and use from a customer class that uses the grid to both import and export energy. Staff's Response Brief at 2; Order No. 34046 at 16. Staff noted that a customer could not bi-directionally interact with the Company if the customer is incapable of export. Staff Technical Brief at 2-3. Neither can the customer "net" its consumption without export. *Id.* at 2-3. Staff recommended, "one outcome of the

[forthcoming] generic docket [would] be to incorporate a definition of parallel which recognizes a non-export customer option." *Id.* at 3.

3. PARALLEL CONNECTION.

Vote Solar

Vote Solar argued that a parallel connection to the Company's system is unrelated to the Commission's finding that bi-directional flow is the meaningful distinction. Vote Solar's Brief on Reconsideration at 7.

The Company

The Company maintained that a parallel connection, not bi-directionality, should define customers on Schedules 6 and 8. *Id.* It argued that parallel-connected on-site generation systems have always had to take service under a different tariff in addition to the standard service tariff. *Id.*; and *see* Schedule 84, "Customer Energy Production Net Metering Service." The Company stated that "parallel connection" means the customer's on-site generation system is "connected to, and operating in conjunction with, the utility's electric grid" using a grid-tie inverter.[3] *Id.* at 18. The Company further argued that a synchronized parallel connection should define on-site generating customers because these customers enjoy the essential services offered by the grid, including: (a) consumption of energy from the customer's own system and consumption from the Company's grid; and (b) use of the Company's grid as a backup generation system. *Id.*

The Company argued a generation system is independent if it does not connect in parallel to the Company's grid—it is an "off-grid," or a "standalone" system. An independent system is incapable of exporting excess energy to, or importing energy from, the grid, and a customer with an independent system should not be eligible for Schedules 6 and 8. *Id.* at 23. The Company stated that the "only way to ensure that no electricity is exported back to the utility and no other services are provided to [R&SGS] generators is if the customer's generation system is not connected in parallel to the utility." *Id.* at 3.

In its closing brief, the Company repeated the above arguments, urging the Commission to "deny requests by Vote Solar and others to carve out non-exporting self-generators from Schedules 6 and 8 for continued preferential treatment . . . ." Idaho Power Company's Closing Brief on Reconsideration at 1. The Company argued that the current rate design from 1983 does

[3] The Company explains grid-tie inverters, parallel connection, and grid-forming inverters, and notes, at base, that "configuring and managing a system to operate in the off-grid mode can be difficult and costly." *See id.* at 18-22.

not allow the Company to properly recover its costs to serve customers with on-site generation. *Id.* at 1. To do so, "in parallel connection" should define whether a customer with on-site generation is placed on Schedules 6 and 8. The Company stated that "this criterion recognizes the mechanical coupling of devices to the electrical grid that enable all self-generators to take energy and grid services—and allows the Commission to determine a non-preferential rate design for them." *Id.* at 2.

4. THE NON-EXPORT OPTION.

Staff

Staff reiterated that Schedules 6 and 8 should exclude customers who cannot export energy to the grid. Staff's Technical Brief in Response to Commission Order No. 34098 at 1-2. Staff recommended that a non-export category be carved out of Schedules 1 and 7 to "allow a customer with on-site generation to properly apply for and certify a non-exporting on-site generation system, sized and designed such that the generator's output is used for the generator's own load, and designed to prevent the transfer of electrical energy without compensation." *Id.* at 2. For the time being, Staff's recommendation would leave an on-site generators on Schedules 6 and 8 until the customer could show the customer no longer belongs on those schedules because the customer has removed its ability to export. Staff's Responsive Brief to Commission Order No. 34098 at 4.

An export-limiting device would be the key system component and would prevent the customer from exporting energy to the Company's grid. *Id.* at 1. Staff recommended the parties study the non-export option, which exists in some form in Hawaii and California, in the new docket required by Order No. 34046. *Id.* at 2. Staff further recommended that if inadvertent export occurs, no compensation or credit structure would exist, which would dissuade customers from trying to bypass their export-limiting device for financial benefit. *Id.* at 4. Staff believes the opportunity to study a non-export option should not be foreclosed as a result of this docket. *Id.* at 1.

Vote Solar

Vote Solar generally agreed with Staff's recommendation. Vote Solar reiterated that, because no export credit or compensation will exist for customer-generators who prevent export, any actual exports would be de minimis and would actually benefit the Company. Vote Solar's Brief on Reconsideration at 7. Further, the Company would not necessarily have to serve every interconnected parallel generator under the same tariff because customers who opt out of

Schedules 6 and 8 would not be compensated for export, and safety concerns could be handled through interconnection standards. *Id.* at 8.

Idaho Conservation League

Because the Commission found bi-directionality distinguishes on-site generators from standard service customers, the Idaho Conservation League ("ICL"), and associated parties,[4] made two recommendations: (1) Set the period for measuring exports as the smallest time interval over which a customer is billed, since the Company controls the meter and should continually improve metering ability; and (2) Use Hawaii Electric Company Rule 22 Appendix II to define non-exporting customers and then exclude non-exporting customers from Schedules 6 and 8. ICL Reconsideration Brief at 3-4.

The Company

The Company argued the Commission should not analyze a non-export classification in the forthcoming generic docket, because doing so would fail "to recognize that the definition of a parallel connection is based on the physical electrical configuration of the customer generation," and excluding non-export parallel configurations "does not change the physical configuration." Idaho Power Company's Closing Brief on Reconsideration at 4. Rather, it would only confuse the industry, and Company, and the standard meaning of "parallel connection." *Id.* at 4. Further, changing the definition of "parallel" would not consider that self-generating non-export customers who operate in parallel take the same grid services as other self-generating customers who export in Schedules 6 and 8. *Id.* at 6.

The Company again argued that Staff's recommendation would perpetuate cost shifting because an export-limiting device cannot limit the customer's ability to receive energy or other grid services and will not fix the underlying rate design issues. *Id.* at 13.

Where Staff and ICL saw the Hawaiian model as a potential reference point in the forthcoming docket, the Company disagreed and argued that while "Hawaiian Electric has adopted a net metering policy that allows customers to elect a non-export option, the non-export option was in response to a reliability issue (maximum penetration of distributed generation based on distribution circuit voltage deviation) and not a rate design issue." *Id.* at 20-21. The Company

[4] Sierra Club, the Idaho Clean Energy Association, and the Northwest Energy Coalition all joined with the Idaho Conservation League in filing its Reconsideration Brief. For purposes of simplicity, this Order collectively refers to these parties as ICL.

further asserted that even though a non-export option exists for Hawaii's program, that option includes a minimum billing requirement that solves the rate design issue. *Id.* at 21.

The Company next objected to ICL's metering recommendation because Commission precedent, the history of net metering in Idaho, and Rule D, require the Company to install metering infrastructure (single meters) that bill rate schedules in the most economical manner for customers. *Id.* at 23.

Further, while the Company acknowledged ICL's criticism that "measuring consumption in smaller increments is a better measurement of consumption," the Company states it cannot shorten the consumption interval because it measures net consumption and "does not capture energy exports separate from energy consumption." *Id.* at 24. Further, it argued, measurement increment does not address the potential inherent cost shifting and rate design issues. *Id.*

5. Export-Limiting Devices.

Staff

Staff argued that devices such as grid-tie limiters or grid inverters with export control—generally referred to by Staff as "export-limiting devices"—are a relatively affordable and simple way to offset customer consumption without exporting energy to the grid. Staff's Technical Brief in Response to Commission Order No. 34098 at 4. While the Company argued these devices would be difficult to monitor or verify, Staff maintained that with the Company's advanced metering infrastructure ("AMI"), and a process to certify the device (and without compensation for inadvertent export), export limiting devices may be beneficial to customers who want to generate on-site but not export. Nevertheless, Staff maintained that the pending reconsideration process should not foreclose additional analysis in the forthcoming generic docket. *Id.* at 4-5.

The Company

The Company argued that Vote Solar and Staff ignored the administrative challenges of allowing a select non-exporting group of self-generators to remain in Schedules 1 and 7. Idaho Power's Closing Brief on Reconsideration at 15. The Company specifically argued that Staff's recommendation to certify export-limiting devices could not prevent a customer from changing the settings at will. *Id.* at 16. Nor does the Company see Vote Solar's (and Staff's) recommendation not to compensate those who opt not to export as a viable solution, because these

customers could benefit from the "continued access to the cross-subsidy that exists in volumetric standard service rates." *Id.* at 16.

6. MASKING

The Company

The Company maintained that, because intra-hour usage is undetectable "there is no way to know if any energy has been exported to the grid within the hour if the customer always consumes more energy from the utility on an hourly basis." *Id.* at 25. To illustrate, the Company studied one customer with a power quality meter temporarily installed to record data every 30 seconds. *Id.* at 26. The Company concluded, "Vote Solar's request to use energy exports as the criteria for inclusion in new Schedules 6 and 8 is not enforceable." *Id.* at 27.

The Company disagreed with ICL's claim that the Company is instantly notified when a customer evades export limits. *Id.* at 25. The Company countered that when the customer consumes more energy from the utility than the excess energy the customer exports to the grid, the power flow in the opposite direction would be undetectable. *Id.*

Staff

Staff characterized the Company's description of intra-hour masking as "the problem of exported energy being hidden by consumption." Staff's Technical Brief in Response to Commission Order No. 34098 at 5. Staff claimed the Company gives too great weight to this problem, since a customer would have to carefully configure the on-site generation system to consume more energy than it produced every hour in every day, which would be very difficult for customers to do. *Id.* at 5-6. Further, Staff reiterated that no masking would occur with an export-limiting device in place. *Id.* at 6. Staff further maintained that the "Company's arguments related to masking are an issue of rate design and meter programming" which, again, Staff believes should be analyzed and reformed in the forthcoming docket. Staff's Responsive Brief at 3.

Vote Solar

Finally, along with Staff, Vote Solar noted an export-limiting device would assuage any Company concerns about intra-hour masking of import energy flow. Vote Solar's Brief on Reconsideration at 7. Vote Solar argued it is almost impossible for customers to size their generation and manage their loads to have undetectable exports that would mask consumption. *Id.* Further, there are ways to make exports mechanically impossible, which would make a Company prohibition on exports enforceable. *Id.* at 7.

7. Battery Storage

Staff

Staff believes customers who generate and store energy on-site are less likely to use the Company's grid as a battery, which likely would limit export. Staff's Technical Brief in Response to Commission Order No. 34098 at 5. But currently battery systems are very expensive, and wait times to buy and install them are "more than a year"; therefore, no Company-specific data exists for analysis. *Id.*

The Company

The Company objected to Staff's conclusion that on-site generators who store energy on-site are less likely to use the Company's grid as a battery, meaning they would likely attempt to limit export. Idaho Power Company's Closing Brief on Reconsideration at 16-17. To the contrary, the Company believes customers would "use the Company's grid as a virtual battery unless physically or legally prohibited from doing so." *Id.* at 17.[5]

8. Operational and Safety Concerns

Staff

Staff also recommended that the generic docket explore the clandestine installation of solar panels as costs decrease to understand and avoid safety problems related to, among other things, de-energizing the Company's power lines. Staff's Responsive Brief to Commission Order No. 34098.

The Company

The Company argued that safety is a concern because "[t]he utility must be aware of any system connected in parallel to its electric grid to ensure that all systems have passed the proper electrical inspections and include the proper safety equipment to disconnect the system from the grid." Idaho Power's Opening Brief on Reconsideration at 28. The Company maintained that allowing non-exporting on-site generators to take standard service would preclude the Company from verifying those systems are safely interconnected. *Id.* at 29.

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[5] Idaho Power hired the Brattle Group to analyze if or when a self-generator with a battery would use the grid as a battery. *Id.*; *and see* Attachment 1 to the Company's Closing Brief, "The Effect of Storage on Customer Load Shapes when Coupled with Distributed Generation SUPPLEMENTAL ANALYSIS." According to the Company, the analysis concluded, "savvy customers will continue to depend on the utility for energy when their systems are not generating or when their batteries are depleted and they will export excess energy to the grid in exchange for credits against future consumption when their batteries are fully charged." *Id.* at 19.

The Company also agreed with Staff related to the problem of clandestine installations but is concerned that a subcategory of non-exporting self-generators on Schedules 1 and 7 would impair interconnection because the Company may not know where interconnection is occurring or be able to approve it. *Id.* at 29.

STANDARD OF REVIEW

A person may petition the Commission to reconsider its orders. *See Idaho Code* § 61-626; Rules 331-333 (IDAPA 31.01.01.331-.333). Reconsideration allows the petitioner to bring to the Commission's attention any question previously determined and thereby affords the Commission an opportunity to rectify any mistake or omission. *Washington Water Power Co. v. Kootenai Environmental Alliance*, 99 Idaho 875, 879, 591 P.2d 122, 126 (1979); Rule 325. The petitioner has 21 days from the date of the final Order in which to ask for reconsideration. *Idaho Code* § 61-626(1). The petition must specify why it "contends that the order or any issue decided in the Order is unreasonable, unlawful, erroneous or not in conformity with the law." Rule 331.01. Further, the petition "must state whether the petitioner . . . requests reconsideration by evidentiary hearing, written briefs, comments, or interrogatories." Rule 331.03. Any answers or cross-petitions must be filed within seven days after the petition was filed. Rule 331.02 and .05.

Once a petition is filed, the Commission must issue an Order saying whether it will reconsider the parts of the Order at issue and, if reconsideration is granted, how the matter will be reconsidered. *Idaho Code* § 61-626(2). If reconsideration is granted, the Commission must complete its reconsideration within 13 weeks after the date for filing petitions for reconsideration. *Idaho Code* § 61-626(2). The Commission must issue its final Order on reconsideration within 28 days after the matter is finally submitted for reconsideration. *Id.*

DISCUSSION AND FINDINGS

The Commission issued Final Order No. 34046 on May 9, 2018. Vote Solar timely petitioned the Commission to reconsider parts of that Order. The Company and Staff then filed a timely answer and response. No other petitions or cross-petitions were received. Thus, the Commission has only been asked to reconsider the matter raised in Vote Solar's Petition, namely whether the Commission should require the Company to revise new Schedules 6 and 8 to apply only to customers who export electricity.

To do so, we ordered limited additional briefing. *See* Order No. 34098. Specifically, we asked for briefs on whether a customer's ability to export should determine whether the

Company places the customer on new Schedules 6 and 8. We also asked the parties to discuss export limiting devices, effects of battery storage, the meaning and repercussions of "in parallel" connection, and the masking of usage created by hourly analysis of customer and Company energy exchanges.

We appreciate the parties' thorough and thoughtful filings and briefing. As we stated in Order No. 34046, bi-directionality is an important and defining characteristic of our decision on whether a customer should be included in Schedules 6 and 8. The Company's evidence on load and usage characteristics does not persuade us otherwise, because there is a large range of load and service characteristics for both on-site generation customers and customers on the existing standard service schedules. The Company's cost-shifting arguments also are unpersuasive. Instead, we reiterate:

> [W]e need not quantify a cost shift in either direction to make our decision. The underlying on-site generation rate design should take into account that customers with on-site generation are differentiating themselves by exporting energy to the Company's grid. The present netting of energy not only allows these customers to avoid paying their fair share of fixed costs, but also prevents them from realizing presently unquantified benefits to the grid. Separating these on-site generation customers from standard customers will help the Commission and stakeholders analyze subsidization, fixed costs, cost to serve, rates, rate design, and benefits and compensation for exports.

Order No. 34046 at 17. Despite the Company's claims about cost shifting and subsidization, we cannot make specific findings about cost shifting absent evidence and analysis of cost of service, fixed costs, and other rate design elements. Indeed, this Commission recognized that "it is time for the Company to address fixed-cost apportionment across its system." Order No. 34046 at 17 (emphasis added).

We also reiterate our clear finding that bi-directionality is an important and defining characteristic of a customer's placement in Schedules 6 and 8:

> [W]e recognize the fundamental difference between, as an example, a residential customer with no on-site generation and one that can both import energy from, and export it to, the Company's grid using the same infrastructure. This bi-directionality is distinct from a customer purely offsetting its own energy usage outside of the grid. The bi-directional customer can push energy back to the grid whenever its generation source and timing allows it to, with the Company having limited control over the use and distribution of this somewhat unpredictable resource. Because of this bi-directionality, we conclude that net-metering customers with on-site

> generation present unique load and usage characteristics that lend toward class distinction.

Order No. 34046 at 17-18. Therefore, if a customer can reasonably and safely eliminate the export of energy to the Company's grid, we are open to the possibility of allowing the customer opportunity to remove himself from the Company's net metering schedules.

One who does not export to the Company's grid cannot net meter, cannot mask consumption, and, if inadvertent export is uncompensated for, cannot game the Company's current net metering compensation scheme. While the load service and patterns of use may differ for on-site generators, including those who do not export, we again acknowledge the breadth of diversity of load service and patterns of use within utility customer scheduling generally. This is an inherent outcome of imperfect utility classification methodologies. Customers are different and use various means to change how they take service from the Company. This trend will only increase. It is reasonable and fair to distinguish a customer's freedom to offset usage behind the meter from a customer's choice to export energy to the grid.

In terms of the decision before us, we maintain our findings and order that all on-site generation customers classified in Schedules 6 and 8 remain there for now. However, we also find it is reasonable to provide an opportunity for a customer to be an on-site generator and not export its energy, thereby distinguishing himself from a customer who imports and exports energy.

Consequently, alongside the parameters set forth in Order No. 34046, a non-export option should be studied for feasibility and vetted for safety and operational concerns by the Company and interested stakeholders in the forthcoming docket. The Company's concerns about safety and customer tampering with export limiting devices are operational concerns that relate to all aspects of providing electricity to the public. We foresee that they can be reasonably addressed by the Company, Staff, and interested stakeholders.

ORDER

IT IS HEREBY ORDERED that the Commission's Final Order No. 34046 be modified, as described herein.

THIS IS A FINAL ORDER ON RECONSIDERATION. Any party aggrieved by this Order or other final or interlocutory Orders previously issued in this case may appeal to the Supreme Court of Idaho pursuant to the Public Utilities Law and the Idaho Appellate Rules of Procedure. *See Idaho Code* § 61-627.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 21st day of September 2018.

PAUL KJELLANDER, PRESIDENT

KRISTINE RAPER, COMMISSIONER

ERIC ANDERSON, COMMISSIONER

ATTEST:

Diane M. Hanian
Commission Secretary

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