CERTIFICATE OF SERVICE

UE 358

I certify that I have, this day, served the foregoing document upon all parties of record in this proceeding by delivering a copy in person or by mailing a copy properly addressed with first class postage prepaid, or by electronic mail pursuant to OAR 860-001-0180, to the following parties or attorneys of parties.

Dated this 18th day of July, 2019 at Salem, Oregon

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UE 358
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CASE: UE 358
WITNESS: SCOTT GIBBENS

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 100

Opening Testimony

July 18, 2019

Q. Please state your name, occupation, and business address.

A. My name is Scott Gibbens. I am a Senior Economist employed in the Energy Finance and Audit Division of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE., Suite 100, Salem, Oregon 97301.

Q. Please describe your educational background and work experience.

A. My witness qualification statement is found in exhibit Staff/101.

Q. What is the purpose of your testimony?

A. I discuss Staff's response to PGE's positions in its opening testimony in UE 358. Specifically, I address Staff's analysis and review of PGE's proposed Resource Adequacy Capacity Charge (RAD), as well as certain procedural requirements related to the program, including PGE's proposed implementation of the "soft cap."

Q. Did you prepare an exhibit for this docket?

A. Yes. I prepared exhibit Staff/102, which includes the Company's responses to Staff DRs No. 10 and 13, as well as AWEC DRs No. 18 and 19.

Q. How is your testimony organized?

A. My testimony is organized as follows:

BACKGROUND

Q. Please provide a background on PGE's NLDA program.

A. On October 9, 2018, the Commission issued Order No. 18 341, adopting rules governing a New Large Load Direct Access (NLDA) program. As a result of Order No. 18-341, and the AR 614 rulemaking process, OAR 860-038-0700 through OAR 860 038 0760 were adopted, outlining the rules for NLDA programs. Additionally, the Order required each electric company to make six percent of its 2017 weather normalized annual load available to the NLDA programs. On December 14, 2018, PacifiCorp filed its NLDA program which was subsequently approved by the Commission at the February 26, 2019 public meeting. On February 5, 2019, PGE filed its NLDA program tariff sheets with the Commission, requesting implementation of a NLDA program. At the March 21, 2019 public meeting, the Commission decided to suspend the tariff and open an investigation which was ultimately docketed as UE 358.

Q. How does a NLDA program work?

A. In an effort to make electricity generation and service more competitive, the Oregon legislature passed SB 1149 which resulted in the creation of Direct Access (DA) in the Oregon. The general idea was that large customers were sophisticated enough to identify sources of electricity (both energy and capacity) outside of the incumbent utility. Giving these customers access to the wholesale electricity markets through third-party Electricity Service Suppliers (ESSs) would provide greater consumer choice and result in increased competition in the industry. In order to address stranded investments from the incumbent utility, the legislature gave the Commission authority to approve transition charges and credits. Transition charges and credits also seek to eliminate potential unwarranted cost shifts between DA and Cost of Service (COS) customers.

In NLDA, the potential for stranded investment costs is eliminated if the utility had not previously planned to serve the load. The Commission adopted the applicable 10 MWa threshold for NLDA customers because at this size, the utility is not planning for this load in its normal business operations. As such, there are no stranded costs that require recovery in order to avoid unwarranted cost-shifts.

IMPLICATIONS OF PGE'S PROPOSED NEW LOAD DIRECT ACCESS PROGRAM ON EXISTING DIRECT ACCESS PROGRAMS

Q. Please briefly describe the two capacity charges PGE is proposing in this docket.

A. The first charge is the Resource Intermittency Charge (RIC), which PGE states, "is a fee for additional capacity necessary due to energy supplier's practices of scheduling energy."[1] Briefly, this charge is the result of the PGE's current practice of using COS capacity to serve Direct Access customers when an ESS under schedule's load. The second charge is called the Resource Adequacy Charge (RAD). PGE states the RAD "charges for the costs associated with planning for and securing the necessary capacity to support resource adequacy and effectuate PGE's reliability provider responsibility."[2] This charge ensures PGE has sufficient capacity to serve all loads in the event Direct Access load returns to PGE before the standard notice requirements. Both of these charges would apply to all customers enrolled in the NLDA program, and as Staff will describe, likely to all five-year LTDA customers. Staff discusses both charges more in depth later in testimony.

[1] PGE/100, Sims-Tinker/10-11.
[2] PGE/100, Sims-Tinker/11.

Q. Does Staff find PGE's capacity concerns related to departed or new load to be reasonable in light of anticipated capacity constraints in the Northwest?

A. Yes. PGE asserts that times have changed since the passage of SB 1149 and the Commission's adoption of the policy that utilities should not plan for long-term direct access loads.[3] The passage of time, coupled with resource adequacy concerns in the Pacific Northwest,[4] also raises the question for Staff about whether the Commission's current policies are adequate to address these concerns. However, Staff nevertheless has both procedural and substantive concerns with PGE's proposals for the RIC and the RAD in this proceeding.

Q. Please summarize Staff's concerns with the Commission's determination on certain NLDA program aspects that likely also have implications for PGE's existing direct access programs.

A. Staff is concerned about the consideration of a change in Commission policy (i.e. the introduction of capacity charges for direct access customers) in a docket specific to PGE's NLDA program. Such a change, as PGE concedes, would have implications for its long-term direct access customers, and perhaps for PacifiCorp's direct access customers as well. This docket did not provide notice to those parties, such that meaningful participation could take place in this proceeding, and even so, consideration of those issues in this case may broaden the record and delay the proceeding and implementation of a NLDA

[3] PGE/100, Sims-Tinker/3.
[4] PGE/100, Sims-Tinker/4-5.

program. PGE seems to attempt to address this issue by arguing that its proposals for capacity charges in this case are limited to NLDA customers, but this only raises further concerns for Staff. As PGE's introductory remarks explicitly indicate, there would be implications for long-term direct access customers as well. PGE, however, has not substantively addressed the application to these customers, and further in testimony, even stops short of asserting these charges would be applicable. This, coupled with the fact that PGE has not provided any substantive testimony or evidence regarding why such disparate treatment would not constitute unjust discrimination, is further concerning to Staff. Staff will further expand upon any legal concerns in briefing, as appropriate.

Although not related to capacity charges, Staff is also concerned that customers will not have notice to substantively engage on PGE's newly proposed Long-Term Energy Offer, which is an expansion of its standard offerings and assumed to be available to direct access customers once changes to its LTDA program are permissible. Procedurally, Staff finds that a proposal for a new "standard offer" under OAR 860-038-0250 should be undertaken in a general rate case proceeding, and not in a NLDA program implementation proceeding.

Staff begins with a discussion of the differences and similarities between NLDA and LTDA and how they relate to these charges and offerings, because Staff finds that both the RIC and the RAD, as well as the Long-Term Energy Offer, would apply to LTDA customers. PGE has not provided any evidence or substantive testimony on the record in this proceeding that would allow the Commission to make a determination that disparate treatment would not result in unjust or undue discrimination. Staff will reserve all legal arguments related to this issue for briefing.

Q. How do capacity charges relate to load that is not being served by the utility (i.e. through existing direct access programs or PGE's proposed NLDA program)?

A. Generally speaking, direct access customers must have the option to obtain electricity and ancillary services from an entity other than the incumbent utility. The Commission also has the authority to determine and impose Provider of Last Resort (POLR) responsibilities for incumbent utilities.

In this case, PGE argues that existing direct access rules and regulations, in combination with its FERC-approved charges, do not compensate the utility for the capacity that it must have on hand in order to meet resource-adequacy, reliability, and POLR obligations. The RIC and the RAD are intended to address these concerns, at least as they relate to NLDA customers.

Q. Are existing direct access customers, through transition charges, effectively paying for the capacity necessary to address PGE's concerns?

A. Yes and No. Short-term DA customers (One or Three Years) continue to pay transition charges indefinitely, and represent loads that are planned for which necessitates the procurement of energy and capacity on their behalf. Long-Term Direct Access (LTDA) customers (Five Year) only pay transition charges for a fixed amount of time, after which point the utility is no longer required to plan to serve the load. Stranded investment costs are assumed to be recovered through the combination of the utility no longer planning for the load and the need to continually invest to serve COS customers. The investment originally made on behalf of the LTDA customer is borne by COS customers who in turn do not have to have a similar investment made to serve them making it a wash for COS customers.

For short-term DA customers, the utility will continue to maintain the ability to serve the load and thus possess the capacity to serve the load. However, for NLDA and any LTDA customer who has completed all the required transition charges, the capacity would not be maintained by the utility. In addition to PGE's general comments about capacity and departed load, this is the primary reason why Staff believes that the RIC and the RAD as proposed by PGE would apply both to NLDA and LTDA customers.

Q. Does PGE agree with Staff's position that these charges would apply equally to LTDA and NLDA?

A. PGE has not explicitly taken a substantive position on this issue, as it merely refers back to the settlement in its most recent general rate case. However, Staff believes that the Company's request in it's opening testimony to have the Commission further clarify IRP Guideline #9, which relates to the utilities planning of load, points to the fact that the Company believes *all* DA customers present a risk yet to be addressed. The IRP guideline was ultimately approved in 2007, long before this proposed NLDA program. Order No. 07-002 states:

> We believe that customers in PGE's five-year opt-out, however, are "effectively committed to service" under direct access and should be excluded from the IRP load-resource balance over the planning horizon, until they provide notice of their return to cost-of-service status.[5]

Staff understands PGE to be asking the Commission to alter a guideline that applies both to LTDA and NLDA programs. In response to Staff DR No. 10, the Company responded that:

> PGE believes that through customer participation in LTDA, ESSs shift resource adequacy costs and risks to COS customers. In the 2019 draft IRP, PGE identifies a capacity resource need in order to maintain reliability at the current planning standards. Given the capacity shortfall, both LTDA and NLDA customer loads impose cost and risk shifts to COS customers related to reliability and resource adequacy.[6]

Q. Why has PGE declined to include LTDA in the discussion of potentially affected programs?

A. PGE states in PGE/100 Sims-Tinker/8-9, that is has signed a stipulation in UE 335, approved in Commission Order 19-129, and agreed not to propose changes to the LTDA program through service year 2021. Staff notes that although the stipulation precludes the Company from proposing changes that

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[5] *In re Public Utility Commission of Oregon*, OPUC Docket No. UM 1056, Order No. 07-002 at 19 (Jan. 8, 2007).
[6] Staff/102 – PGE's Response to Staff DR 10.

take effect before 2022, it does not preclude the Company from discussing potential changes to the program.[7]

Q. Does Staff have concerns with the approach of handling the RIC and RAD separately in a NLDA specific docket and LTDA specific docket?

A. Yes. As summarized above, Staff finds that if the charges are prudent, then they are likely to be applicable to both programs. If the Commission makes a determination in this docket, there are implications for LTDA as well, but without the proper notification to those potentially affected and thus without providing those affected an option to voice their opinion. Staff is concerned that the application of the RIC and RAD to NLDA customers and not LTDA customers may be discriminatory. Staff prefers to have the Commission make a determination on the necessity and application of these charges based on input from all potentially affected parties.

Q. What is Staff's primary recommendation concerning the RIC and the RAD in UE 358?

A. Staff believes that the Commission's best course of action is to delay making a final determination concerning the RIC and the RAD in the context of a NLDA program implementation. Rather, UE 358 should be utilized to decide other issues regarding PGE's NLDA, but not the RIC and the RAD. Staff clearly recognizes the legitimacy of the capacity resource implications raised by PGE in the context of the Direct Access program. Therefore, the Staff believes that

[7] The stipulation states: "The Stipulating Parties agree to refrain from making new proposals to the Commission for any changes that would become effective for the existing Direct Access programs for service years 2020 or 2021." Order No. 19-129.

these and other issues are more appropriately explored in a new investigation or in the recently docketed investigation on certain Direct Access issues. Further, consideration for PGE's Long-Term Energy Offer should similarly be reserved for discussion in a more generic proceeding, such as a general investigation or general rate case proceeding for the same reasons. Should the Commission decline to adopt Staff's recommendation above, Staff's testimony in this proceeding provides the Commission with a substantive discussion of its questions, concerns and alternative recommendations for the RIC and the RAD.

Q. Is Staff concerned about further delays in the implementation of PGE's NLDA program?

A. Yes, however Staff believes it is better to give all affected parties proper notice and the chance to weigh in on the issue than to avoid a delay in the implementation of the program if necessary.

RESOURCE ADEQUACY CAPACITY CHARGE

Q. What is the Resource Adequacy Capacity Charge?

A. The Resource Adequacy Capacity Charge (RAD) is described by PGE as, "a capacity charge that recovers the costs associated with the procurement of capacity resources necessary to ensure resource adequacy and provide generation reliability services for NLDA customers."[8] In other words, it is a charge to ensure that PGE has sufficient capacity available to serve a returning customer during extreme conditions. PGE explains that it builds for, and COS pay for, a system which should provide reliable power every single day except one in a ten year timeframe. However, because that planning does not include NLDA or LTDA, the reliability that COS customers paid for is in effect lowered, which results in an unwarranted cost shift.

Staff notes that in the Company's response to AWEC DR No. 18 summarily states that the RAD is not only meant to address circumstances where an NLDA customer returns to PGE on an emergency basis, but instead ensure the Company can perform its reliability provider obligations.[9] However, Staff is unable to envision a scenario in which the capacity secured via the RAD would be necessary outside of a NLDA customer returning to PGE prior to the standard three-year waiting period. The capacity is meant to be available to serve the NLDA load. PGE would only need to serve this load in this manner if the NLDA customer came back to PGE prior to notice requirements. As such, there is no justification for the charge outside of emergency service.

[8] PGE/100, Sims-Tinker/15: 13-15.
[9] Staff/102 – PGE's Response to AWEC DR No. 18.

Q. How does PGE recover energy related costs if a DA customer were to return to PGE service in an emergency?

A. Schedule 81: Nonresidential Emergency Default Service defines the charges by which the Company recovers the cost of energy when a customer returns to PGE service in an expedited manner. It fulfils the Company's Provider of Last Resort obligations while also protecting COS customers from cost-shifts related to the cost of energy. Returning customers are charged 125% of the ICE Firm Mid-C index plus adjustments for wheeling and losses. Should the capacity be available at all times, this process would ensure reliable power with no cost shifting for all customers.

Q. Does Staff believe that a capacity constrained system could result in potential cost-shifting between NLDA and COS customers?

A. Yes. Staff currently believes that the concern raised by the Company is legitimate. It is Staff's understanding that ESSs are not required to plan for resource adequacy and as the provider of last resort, PGE and its customers would currently be responsible to cover these costs pursuant to current Commission policy.

Q. Even though Staff understands concerns regarding a capacity-constrained market, does Staff have any issues with the RAD as proposed?

A. Yes. Staff has several concerns with the Company's proposal:

1. The current estimate of the charge likely makes it less economic than other potential solutions, without a corresponding justification for why

NLDA customers should be responsible for an on-going reservation-type charge.

2. The Company is requiring customers who have opted out of PGE's COS rates to purchase capacity from PGE.
3. The Company is yet to provide sufficient detail as to how it would mitigate the reliability risk.

Staff notes that all legal concerns will be addressed in briefing, as appropriate.

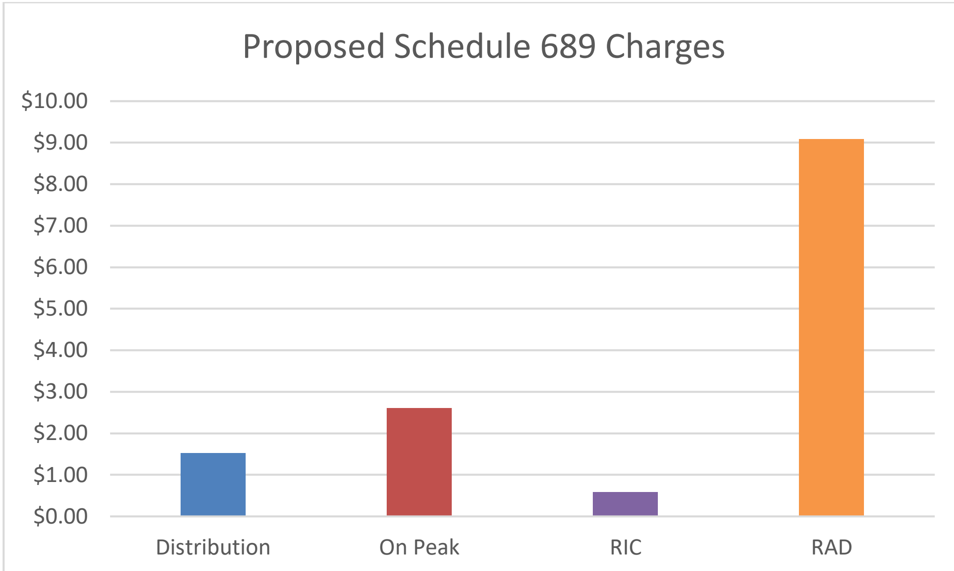
Q. Please explain Staff's first concern regarding economics.

A. The Company has provided parties with an initial estimate of the RAD charge of $9.083/kW of monthly on-peak demand. The magnitude leads Staff to have concerns over the impact it would have on direct access rates, including NLDA rates.

Q. Why does Staff believe the magnitude of the estimate is of concern.

A. Assuming the estimate is accurate, this charge poses several concerns. The first is that it would increase NLDA (and likely LTDA) customer rates for on-peak usage by over three-fold. Figure 1 below shows the proposed and estimated on-peak rates for NLDA Schedule 689.

Figure 1



The first two charges mirror Schedule 489 LTDA. The third, the RIC, is proposed and will be discussed by Staff witness Sabrinna Soldavini. The RAD is greater than twice as much as the other three combined. The RAD is not recovering a cost for service the customer will use on a daily basis (or perhaps ever), but rather, for service *only* in the event that there is a severe capacity limitation in the region and the ESS is not able to serve the customer (i.e. emergency service). As PGE notes in its response to AWEC DR No. 19, the Company has never had to enact a long-term or short term curtailment event, which is the type of event the RAD would mitigate against.[10] While Staff understands the current capacity issues the region is facing, the cost impact to customers to alleviate the concern is extreme.

To illustrate Staff's concern over the magnitude of the RAD, Staff used current LTDA customers as a proxy. If this charge were implemented for all

[10] Staff/102– PGE's response to AWEC DR 19.

schedule 489 customers, this would equate to over $13 million a year, or roughly $900,000 per customer based on the usage filed in PGE's last rate case. This means that each customer would pay roughly $1.8 million per day of added reliable power under this charge. This is an amount where the economics of the business might favor shutting down for the day or even to invest in on-site generation to handle this risk.

Q. Please explain Staff's second concern regarding choice.

A. The second concern follows from the first. One of the main value propositions for Direct Access is customer choice. PGE's proposal removes the customer's ability to choose where it gets its resource adequacy from, the desired level of resource adequacy, and how it gets it resource adequacy.

By choosing direct access, customers are effectively choosing a power supply other than the utility's least cost/least risk planning. Customers instead have the option to procure power from any number of providers. PGE's proposed RAD changes that dynamic so that direct access customers are required to purchase capacity from PGE, and do not get a choice as to who ensures there is a sufficient amount of power to meet their energy needs.

Direct Access customers may also not want the same level of reliable power as the utility deems necessary. If these customers are sophisticated and large enough to identify costs and risks for themselves regarding where to procure power, it can be assumed they are also sophisticated enough to optimize the level of reliability that fits their needs as well. Certain customers may require reliability at the level PGE is ensuring, but some may not require that. The cost savings from curtailed five times in 10 years may be the best solution for customers.

Finally, as Staff previously mentioned, the economics would most likely be optimized by having the customer invest in its own capacity. Some customers, like hospitals, may already have back up generation installed. If that were the case, the RAD would be physically and economically redundant.

Staff believes that the optimal solution would provide these customers with some aspect of choice. As Staff mentioned in its previous issue, the economics of the estimated charge must be taken into account and Staff believes these customers are sophisticated enough to optimize for themselves.

Q. Please explain Staff's third concern regarding the information provided by the Company.

A. To this point, PGE has been unable to provide complete information on the type, duration, and operation of the RAD related capacity. This makes the analysis of PGE's proposal difficult. Without knowing the type, Staff is unable to identify what factors could be of concern. If PGE were to elect to build generation, Staff has questions about how the generation would be used the 99 percent of the time it is not being used for curtailment avoidance. If PGE were to select a BPA based capacity product, Staff has questions regarding the duration of the capacity secured. With lingering questions, Staff is hesitant to recommend a new charge. PGE did provide additional information in response to Staff DR No. 13. In its response, the Company notes:

> If directed to plan and procure, PGE would seek to acquire long-term products with a term that's consistent with PGE's long-term planning horizon (e.g. no less than five years). These products would need to be backed by a physical resource, resources, or a system of resources. PGE would be seeking peaking capacity capable of being called on to serve NLDA load as needed. This would likely be targeted toward the day-ahead time frame. Ultimately, the characteristics as well as terms and conditions of the product would be subject to the design criteria of a Request for Proposals (RFP) and the offers received in such RFP.[11]

This does provide additional clarification regarding the type of product; however, it does not allow Staff or parties to clearly envision all potential concerns and considerations with the selected product.

Q. What does Staff see as potential alternative solutions?

A. Staff currently can see three main alternative solutions to the problem, although some solutions are not within Commission authority. Staff's recommended approach will be discussed later.

1. Require ESSs to plan for resource adequacy in the same manner as the customer's incumbent utility.
2. Allow customers to elect to be curtailed.
3. Require customers to build their own generation.

[11] Staff/102 – PGE's response to Staff DR 13.

Q. What other circumstances should the Commission consider?

A. If the Commission believes there is a potential cost shift, one option would be to reconsider its adopted POLR requirements for electric utilities offering direct access programs. Another option would be to allow PGE to discriminate on which customers are curtailed in periods of energy shortage, such that NLDA and LTDA customers would be curtailed first in the event of an energy shortage. It may be possible to combine either of these options with a further option, which would be to allow customers to procure their own capacity related resource adequacy needs. Finally, although perhaps not an option at this point, it is also possible that ESSs could be required to do resource adequacy planning in the future.

Q. What is Staff's recommended approach?

A. Staff believes that the simplest approach is to give the customer the choice between being charged the RAD, or electing to be curtailed during an emergency event. PGE notes that this would require some capital investment depending on multiple different factors. However, the Company considers it feasible operationally.[12]

[12] Staff/102 – PGE's response to AWEC DR 18.

NLDA ELIGIBITLITY AND PARTICIPATION CAPS

Q. Please summarize PGE's proposed implementation of participation cap requirements.

A. PGE proposes to utilize a 119 MWa cap for NLDA customers, which it argues is consistent with the Commission's directives in calculating the cap. PGE further proposes that a customer cannot be enrolled in the NLDA program if its expected load exceeds the amount remaining under the participation cap.

In calculating a customer's expected load, PGE proposes to consider and include, for purposes of determining the participation cap, the inclusion of planned subsequent build-outs "to the extent [it is] planning for and designing [its] system around the projected load at full build out."[13]

PGE also proposes that the NLDA customer's expected load, during the first 60 months of service, will be utilized in calculating the remaining room under the cap as determined by the contract between the customer and the facility design characteristics. After 60 months of service, PGE proposes that the customer's actual load be utilized in calculating amounts of load remaining under the participation cap.

Finally, PGE proposes to maintain a participation queue for load that becomes available under its participation cap.

[13] PGE/100, Sims – Tinker/22.

Q. Please summarize Staff's understanding of the Commission's policy regarding participation caps.

A. The Commission's policy on participation caps is set forth in its order adopted its New Load Direct Access rules, Order 18-341 in docket AR 614. Page 7 of the Commission's Order states that "we will consider requests from customers to exceed the cap, upon application and a finding of good cause." The Commission's order goes on to describe its potential considerations, generally, on whether such a request would be considered to meet its good cause standard.

Q. Is PGE's proposal regarding participation caps consistent with the Commission's policy?

A. PGE's testimony is unclear, as it does not discuss or acknowledge the Commission's decision to consider waivers for the participation cap and how that would implicate the design of its NLDA program. Rather, PGE summarily states that a customer cannot be enrolled in the NLDA program if its expected load exceeds the amount remaining under the cap, and that it will maintain a participation queue as room becomes available under its calculated participation cap.

Given PGE's lack of discussion or acknowledgement of the "soft cap," it is unclear to Staff whether PGE is requesting an exception to the Commission's soft cap for purposes of its NLDA program. It is also unclear how the soft cap requirement implicates PGE's proposed NLDA program design. PGE should clarify these issues in its Rebuttal Testimony.

Q. Does Staff have any other issues or concerns with PGE's proposed implementation of the participation cap?

A. Yes. Staff finds that PGE's calculation of the participation cap may serve to unnecessarily curtail participation in the NLDA program, as PGE proposes to include all future anticipated expansions from a customer in the calculation of the remaining room under the cap. This raises several questions for Staff. What if the planned expansion is five years away? What if the plans for expansion are only tentative, or do not come to fruition? What is the process/requirement, if any, for a customer "updating" its future plans with PGE for purposes of calculating the participation cap? Staff understands PGE's concern in managing customer expectations and participation caps; however, Staff is also concerned that a large customer with tentative plans to expand its operations over a long, undetermined amount of time may unnecessarily take up room under the cap if those plans do not come to fruition. This is complicated by the fact that PGE may not be privy to this information in a timely manner, or ever.

Q. What is Staff's proposal regarding participation caps and load that may be expanded in the future?

A. Staff recommends that all load that can qualify as new and is sufficiently separated via a meter or equivalent means be considered on an individual basis, at the time that the load is anticipated to come on-line and would be otherwise subject to all NLDA applicable rules and timing requirements. If the new load is planned to come online in phases, the customer can enroll in the program any phase which falls under the cap that can be measured in an accurate manner. If the customer enrolls in the program and then expands so that the total usage at a single meter is above the cap, then it must apply for a waiver for the entire load. Future expansions are only considered by the customer in so far as they need to be cognizant of the cap and eventual demand, but PGE would not consider future expansions in determining the available room under a participation cap.

QUEUE IMPLEMENTATION

Q. Please explain PGE's participation queue for its pending NLDA program.

A. In accordance with the Commission's decision in Order 19-103, PGE currently maintains a queue for customer participation in the NLDA program, which allows for customers to meet the notice requirements of the NLDA rules during the pendency of this proceeding. Specifically, the Commission directed PGE to "develop a nonbinding queue for customers interested in the New Load Direct Access process during the pendency of the investigation," as well as directed PGE to "file in this docket no later than April 4, 2019, information describing the process for customer nonbinding queue participation.

Q. How has PGE implemented the Commission's decision in Order 19-103 related to the non-binding queue?

A. In accordance with the Commission's Order 19-103, PGE filed a letter on April 4, 2019 setting forth its queue process. On April 9, 2019, PGE provided a supplemental update that included additional information regarding Company contact information and specific timing provisions of the queue. Substantively, PGE stated that the queue opens on April 15, 2019, and customers are able to reserve their spot by sending an e-mail to the Company with certain required information. PGE stated that it will track the e-mails with a time stamp to determine each customer's place in the queue. PGE committed to send an automatic e-mail confirming receipt of the customer e-mail, and to follow-up regarding incomplete information which requires the customer to re-file. Refiling customers would have a place in the queue as of the time that the re-filed information is received.

Q. Does Staff have any questions or concerns with PGE's proposed implementation of the non-binding queue?

A. Staff is generally comfortable with PGE's proposed implementation and management of the non-binding queue. Staff notes that it is interested in reviewing testimony from intervenors, as those parties representing customers may have a unique perspective into issues related to queue management that may inform Staff's final recommendation to the Commission. There are a few areas that Staff finds warrant additional clarification. First, clarification is necessary on whether PGE is including proposed expansions (i.e. potential future phases) of a customer's site in its determination of whether the customers is initially eligible to take a place in the queue. Second, Staff would like confirmation on the applicable process if the customer leaves the non-binding queue, but wishes to pursue some other type of service with PGE.

Q. What is PGE's proposal regarding a future planned expansion and whether the customer is eligible to maintain a spot on the queue?

A. Staff is not clear on whether PGE is including future planned expansions in its determination of whether the customer would exceed the participation cap, thereby making the customer ineligible for NLDA service under Schedule 689 and ineligible for the queue. PGE's testimony clarifies that a customer can hold a place in the non-binding queue for some future expansion, but also states that load in excess of the cap would not be eligible for service under NLDA. PGE does not explicitly state how it is treating potential future expansions that would require a waiver of the participation cap, for purposes of the non-binding queue.

Q. What is Staff's understanding regarding the process for obtaining service from PGE for customers that leave the queue, while still non-binding, but nevertheless wish to continue with service from PGE?

A. Staff's understanding is that PGE's currently approved tariff provisions would continue to govern the timing and rate requirements for such a customer. PGE's testimony does not explicitly address this issue.

Q. What is Staff's proposal on whether a customer requiring a waiver maintains its spot in the queue as the Commission decides the merits of the waiver?

A. Staff proposes that if a customer enrolls in the queue but requires a waiver of the soft cap, then it maintains its spot in the queue as the waiver is decided. All customer loads measured at a single meter or equivalent means are considered as part of the cap.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 358
WITNESS: SCOTT GIBBENS

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 101

Witness Qualifications Statement

July 18, 2019

WITNESS QUALIFICATION STATEMENT

NAME:	Scott Gibbens
EMPLOYER:	Public Utility Commission of Oregon
TITLE:	Senior Economist Energy Rates, Finance and Audit
ADDRESS:	201 High St. SE Ste. 100 Salem, OR 97301-3612
EDUCATION:	Bachelor of Science, Economics, University of Oregon Masters of Science, Economics, University of Oregon
EXPERIENCE:	I have been employed at the Oregon Public Utility Commission (Commission) since August of 2015. My current responsibilities include analysis and technical support for electric power cost recovery proceedings with a focus in model evaluation. I also handle analysis and decision making of affiliated interest and property sale filings, rate spread and rate design, as well as operational auditing and evaluation. Prior to working for the OPUC I was the operations director at Bracket LLC. My responsibilities at Bracket included quarterly financial analysis, product pricing, cost study analysis, and production streamlining. Previous to working for Bracket, I was a manager for US Bank in San Francisco where my responsibilities included coaching and team leadership, branch sales and campaign oversight, and customer experience management.

CASE: UE 358
WITNESS: SCOTT GIBBENS

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 102

Exhibits in Support
Of Opening Testimony

July 18, 2019

July 12, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 010
Dated June 28, 2019

<u>Request:</u>

Does PGE believe that COS customers are currently at risk of reduced reliability or subsidization due to the lack of a resource adequacy based charge for Long-Term Direct Access (TLDA) or opt-out customers? If so, please explain when the Company realized the risk to COS customers. If not, explain the difference in circumstance or program logistics which results in the presence of the risk from NLDA but not LTDA customers?

<u>Response:</u>

Yes. PGE believes that through customer participation in LTDA, ESSs shift resource adequacy costs and risks to COS customers. In the 2019 draft IRP, PGE identifies a capacity resource need in order to maintain reliability at the current planning standards. Given the capacity shortfall, both LTDA and NLDA customer loads impose cost and risk shifts to COS customers related to reliability and resource adequacy.

PGE has expressed concerns on the cost and risk shifts associated with direct access programs from the beginning of the programs. More recently, PGE concerns specifically regarding reliability risks shifts have elevated. In supporting the original 300 MWa cap for LTDA, PGE was concerned about a cost shift to nonparticipating customers. In direct access dockets, PGE has consistently asserted concerns about cost shifting. With regard to articulating the more specific reliability risk, PGE began to raise concerns three years ago that direct access customers shifted reliability risk to COS customers. In PGE's 2016 IRP, PGE recognized that:

> "While Guideline 9 does not allow long-term opt-out load in IRP planning, according to Oregon law and related OPUC rules, PGE remains responsible for providing default emergency service (i.e., serving as provider of last resort) for all jurisdictional customers, including long-term direct access customers in its system.

> Currently, PGE would address this risk by attempting to procure the emergency capacity needs through the short-term market. Should these direct access customers return to PGE with little notice, and PGE not be able to procure emergency capacity, curtailment could ensue, and PGE would be required to curtail cost of service customers on the same basis as five-year opt-out customers. This issue, and whether PGE should plan for that emergency capacity obligation, requires study. PGE intends to engage in further discussions with Commission Staff and stakeholders on these issues."[1]

Since the 2016 IRP concern directed to emergency default service, PGE has called out the reliability risk beyond emergency default, and PGE's provider of last resort responsibilities in new load direct access dockets and our most recent draft IRP. As articulated in PGE's opening testimony, reliance on short-term market to procure emergency capacity compromises the reliability of PGE's system and places the integrity of the electricity system at risk. To avoid reliance on emergency capacity purchases, PGE must explicitly plan for and acquire the resources to adequately meet the needs of all customers in its service area.

[1] 2016 IRP page 108

July 12, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 013
Dated June 28, 2019

Request:

In light of the analysis or lack of analysis performed as described in Staff DR 12, has PGE defined the duration of delivery and type of capacity product which would sufficiently mitigate the risk to COS customers? Please provide the type and duration of capacity product PGE will seek via the RAD.

Response:

If directed to plan and procure, PGE would seek to acquire long-term products with a term that's consistent with PGE's long-term planning horizon (e.g. no less than five years). These products would need to be backed by a physical resource, resources, or a system of resources. PGE would be seeking peaking capacity capable of being called on to serve NLDA load as needed. This would likely be targeted toward the day-ahead time frame. Ultimately, the characteristics as well as terms and conditions of the product would be subject to the design criteria of a Request for Proposals (RFP) and the offers received in such RFP.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 018
Dated June 17, 2019

Request:

If the Commission authorized it, would PGE have the operational capability to curtail a direct access customer that returns to PGE on an emergency basis without curtailing any cost-of-service customers?

a. **If PGE's answer to the above question is "no," please explain with specificity what PGE would need to do, and/or what investments it would need to make, to obtain this operational capability.**
b. **To the extent PGE's answer to subpart a. differs depending on the customer, please identify the actions that would need to be taken for a: (1) Schedule 485 secondary customer; (2) Schedule 485 primary customer; (3) Schedule 489 secondary customer; (4) Schedule 489 primary customer; (5) Schedule 489 subtransmission customer; and (6) Schedule 689 NLDA customer.**
c. **Please provide an estimate of all costs identified in your answers to subparts a. and b.**

Response:

PGE objects to this request on the basis that it is overly broad and unduly burdensome and requests a detailed technical analysis that PGE has not performed at this time. Without waiving these objections, PGE responds as follows:

The operational ability to disconnect a customer is dependent multiple factors, including, but not limited to the customer's equipment and its configuration, the interconnection into PGE's distribution system and associated equipment, the service voltage level, etc.

PGE's ability to curtail service for specific customers can consistently be operationalized through a customer's participation in a direct load control demand response program.

PGE notes that the RIC and the RAD are not designed to address only the situation where the potential New Load Direct Access (NLDA) customer returns to PGE on an "emergency basis", but instead designed to enable PGE to perform its reliability provider obligation by ensuring resource adequacy and generation reliability without unnecessarily shifting risk and costs to cost-of-service customers.

July 3, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 019
Dated June 21, 2019

Request:

Has PGE ever had to implement its Curtailment Plan under Rule N? If so, please identify: (1) the date or dates; (2) the stage or stages of curtailment reached; and (3) the circumstances that required implementation.

Response:

No. PGE has not had any long-term energy shortage plan (Rule N) or emergency, short term (Rule C) curtailment events. PGE acknowledges that both planned or unplanned emergency events are likely to reflect regional conditions and potentially impact some or all regional IOUs. The Rule N is the state initiated regional curtailment plan. Curtailments may happen in a planned (given known factors) or unplanned (unexpected transmission and/or generation failures, etc.) manner. In either case, PGE through the IRP evaluates its own balancing authority and regional capacity to identify resource acquisitions that will help to decrease customer impact from a regional (planned or unplanned) capacity shortfall.

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 200

Opening Testimony

July 18, 2019

Q. Please state your name, occupation, and business address.

A. My name is a Sabrinna Soldavini. I am a Senior Regulatory Analyst employed in the Energy Finance and Audit Division of the Public Utility Commission of Oregon (OPUC). My business address is 201 High Street SE., Suite 100, Salem, Oregon 97301.

Q. Please describe your educational background and work experience.

A. My witness qualification statement is found in Exhibit Staff/201.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe Staff's analysis and position on the issues of the Resource Intermittency Charge (RIC), the new NLDA Standard Offer (Long-Term Market Energy), and miscellaneous issues needing clarification in PGE's proposed Schedule 689.

Q. Did you prepare an exhibit for this docket?

A. Yes. I prepared the following Exhibits:

Exhibit Staff/202, PGE's Response to Staff Data Requests
Exhibit Staff/203, PGE's Response to Other Parties' Data Requests

Q. How is your testimony organized?

A. My testimony is organized as follows:

ISSUE 1, RESOURCE INTERMITTENCY CHARGE

Q. Please frame the issue of the Resource Intermittency Charge in the context of this docket.

A. When a customer elects service from an ESS, the ESS is required to inform PGE of the customer's scheduled load. As it is difficult (if not impossible) to exactly forecast load, the customer's actual load often does not exactly match what the ESS has scheduled with the PGE. When an ESS has under scheduled load, PGE maintains balance within its balancing authority area (BAA) by providing energy and capacity that has been paid for by cost-of-service customers.

Q. What is the Resource Intermittency Charge?

A. PGE is proposing to include a Resource Intermittency Charge (RIC) for all customers on Schedule 689. The RIC is intended to recover the costs of reserving the intra-hour capacity, generated on PGE's system (or through contracts) and thus paid for by cost of service customers, necessary to maintain system balance when an ESS under schedules load, i.e. when ESS customers' actual load exceeds what the load the ESS scheduled with PGE. PGE is proposing that the RIC be applicable to all energy supply options under Schedule 689, and that the charge be applicable for all billing periods in which ESSs scheduled load is less than actual load.

Q. How does PGE propose to calculate the RIC?

A. In PGE's Opening Testimony, the RIC is set to $0.58 per kW of monthly on-peak demand. PGE has calculated the initial level for the RIC using a

2012-2018 subset of Direct Access data – specifically historic electricity schedules and actual loads from 2012-2018.[1] For the hours where ESS scheduled supply was less than actual load, “those hours were input into the RECAP model as incremental load needed to determine the amount of capacity needed to maintain LOLE standard of 2.4 hours per year.”[2,3] To arrive at the $0.58 per kW charge, the additional capacity was then multiplied by the net cost of incremental capacity from PGE’s 2016 IRP.[4]

Q. How often do ESSs actually under schedule load with PGE?

A. PGE attests that ESSs under schedule frequently, and in its Opening Testimony, states that ESS’s had under scheduled approximately 40 percent of the hours in 2018.[5] Staff notes that in a data response, PGE updated its answer, stating that ESSs had actually under scheduled in 52% of the hours in 2018.[6] Staff has reviewed the calculation, and agrees that 52% of hours were under scheduled in 2018. Staff also reviewed and agrees with the assessment that the hours most likely to be under scheduled by ESSs are those that correspond with the Company’s highest levels of usage on its system.[7]

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[1] Staff/202, Soldavini/10, PGE’s Response to Staff Data Request No. 7a.
[2] LOLE stands for Loss of Load Expectation.
[3] PGE/100, Sims – Tinker/14, lines 1-3.
[4] *Ibid.*
[5] PGE/100, Sims – Tinker/12, lines 15-16.
[6] Staff/203, Soldavini/5 PGE’s Response to Calpine Data Request No. 15.
[7] Staff/202, Soldavini/1, PGE’s Response to Staff Data Request No. 1.

Q. Why is PGE proposing to recover only the cost of capacity through the RIC rather than capacity and energy, if it must supply both when an ESS under schedules load?

A. PGE is only seeking to charge for the intra-hour capacity it is required to supply to balance load through the RIC because PGE already recovers the cost of energy used to balance load through PGE's Open Access Transmission Tariff (OATT) Schedule 4R, Energy Imbalance Service. Through this Schedule an ESS pays PGE for any energy it supplies when the ESS has under scheduled load in PGE's BAA.

Q. Does the amount recovered through PGE's OATT, Schedule 4R, not include the cost of capacity?

A. In the long run, the retail price of a good should encompass all production costs, and in the case of electricity, would encompass both energy and capacity costs. However, as PGE notes in its testimony, the amount recovered through the OATT is based on a "market index not necessarily the cost of providing the energy." Staff agrees with Company's assertion that short term day ahead markets may not include the costs of associated with making adequate volumes of capacity available. Therefore the RIC is meant to collect any costs associated with the capacity that PGE must have available to serve Direct Access customers in the hours in which an ESS has under scheduled aggregate load.

Q. Does Staff agree with PGE that there are costs associated with needing available capacity to balance load in its BAA?

A. Yes. Staff agrees that there are real costs associated with reserving capacity to serve the load of Direct Access customers when an ESS has under scheduled load, and also agrees that capacity paid for by cost-of-service customers should not be used to subsidize those customers who have chosen to leave PGE's system. That being said, Staff is concerned about the way in which PGE has proposed to recover these costs, via a charge to the NLDA customer, rather than the ESS who has made the scheduling error and questions whether this RIC is the proper mechanism to recover said costs, and if this is the appropriate docket to address ESS scheduling concerns.

Q. What are Staff's concerns regarding the RIC?

A. Staff has several concerns related to the proposed RIC which will be addressed below. Among these are Staff's concern that a problem with Direct Access scheduling is applicable to all Direct Access customers, and imposing a RIC on only NLDA customers may create discriminatory rates, concerns that the charge is duplicative in nature, is not within the customers' control, and that implementing this type of charge to ESS customers may fall outside the Commission's jurisdiction.

Q. Will the RIC apply to all Direct Access customers?

A. No, through this filing, PGE has only proposed to implement the RIC for customers on Schedule 689; customers on all other Direct Access schedules will not be charged a RIC at this time. PGE notes that in a stipulation for

Docket No. UE 335, approved in Commission Order No. 19-129, PGE agreed to not propose changes to existing Direct Access programs, if those changes would become effective before service year 2022. While acknowledging the stipulation approved in Order No. 19-129, Staff disagrees that the stipulation limits PGE’s ability to substantively discuss potential changes to its other Direct Access programs, even if not implemented at this time. As discussed in Staff witness Scott Gibbens’ testimony, Staff remains generally concerned that implementing new charges to NLDA customers, which would otherwise be applicable to both NLDA and any other customers electing service through an ESS could be considered discriminatory ratemaking. Staff also has concerns that the approval of NLDA capacity charges, which would also be applicable to other Direct Access programs, may result in due process issues.

Q. Why is Staff concerned the RIC may result in discriminatory rates?

A. Just as future NLDA customer might rely on an ESS for energy supply, current Direct Access customers already rely on ESSs, and thus if Schedule 689 were to go into effect, ESS scheduling would not occur solely for NLDA customers. While NLDA customers would be responsible for paying fees related to ESS scheduling errors, other customers being served by an ESS would not. As ESS scheduling is an issue for all Direct Access customers, as seemingly acknowledged by PGE through its decision to initially calculate the RIC using a subset of historic ESS scheduling data,[8] if the RIC is to be implemented it should be applied to all Direct Access customers, not just NLDA customers.

[8] PGE/100, Sims – Tinker/13.

PGE indicated in a response to an AWEC data request that NLDA and LTDA are different in nature in part because LTDA customers have demonstrated loads while NLDA customers' load is unknown and must rely on forecasting; however, even if Staff agrees with PGE's assessment of differences between the two groups, Staff finds these differences would be immaterial in the context of the RIC. The ability for PGE to estimate a LTDA customer's load based on past usage has no bearing on the intra-hour variability between the aggregate load that the ESS has scheduled with PGE and the individual customer's actual usage. The RIC is a charge designed to recover costs for ESS under scheduling, which occurs for all customers receiving energy from an ESS, and thus, in Staff's opinion, cannot justly be applied only to a subset of the customers who receive ESS supplied power.

Q. If the Commission found that the RIC was not discriminatory in nature, would Staff otherwise support the RIC?

A. No. As mentioned above, Staff has additional concerns with the potential duplicative nature of the charge, and concerns that the charge is related to actions outside of the customer's control, and thus may not result in rates that are just and reasonable, as well as questions regarding the applicability of the RIC to all energy supply options on Schedule 689.

Q. Why does Staff believe the RIC may be duplicative in nature?

A. Staff is concerned that having two distinct capacity charges could charge the customer twice for capacity. For instance, the proposed RAD is estimated to be approximately $9.00 per kW of on-peak demand.[9] The stated purpose of the RAD is to charge “for the costs associated with planning for and securing the necessary capacity to support resource adequacy and effectuate PGE’s reliability provider responsibility.”[10] It is Staff’s position that if the RAD is accepted by the Commission, customers will then have paid for PGE to acquire the necessary capacity to serve that customer in the instance their ESS no longer can, and that the incremental capacity needed to serve the intra-hour variability in the customer’s actual versus scheduled load (likely much smaller than the customers peak monthly load that the RAD acquires the capacity to serve) should already exist. If the capacity has already been paid for through the RAD, Staff believes that at least a portion of capacity charge through the RIC would be duplicative.

Q. Does PGE agree with Staff’s assertion that the RIC double counts the cost of capacity?

A. No. PGE argues that implementing the RIC after a customer has been charged the RAD is not duplicative for two main reasons: that the type of capacity required by the RAD may not be available to serve loads immediately, and because the RIC is “avoidable.”[11]

Q. How does Staff respond to PGE’s assertions?

A. While Staff agrees with PGE that some of the capacity acquired through the RAD may not be available to serve loads to balance the system, Staff finds that

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[9] PGE Advice No. 19-02, Page 7.
[10] PGE/100, Sims – Tinker/11, Lines 1-3.
[11] Exhibit Staff/202, Soldavini/6, PGE’s Response to Staff Data Request No. 3.

at least some portion of the capacity that was acquired through assessment of the RAD should be flexible enough to serve the load the RIC charges for. Staff understands that some capacity may be acquired through day-ahead markets, and may not be available, but finds it unlikely that none of the resources acquired through the RAD would be available to serve the purpose of balancing system load. In Staff's opinion, this underscores the importance of making available the capacity resources acquired with both the RIC and the RAD to properly evaluate whether or not the charges are at least partially duplicative. Staff notes that in response to a data request from AWEC, PGE has currently taken the position that it does not intend to make such information available, at least for the resources acquired by the RIC.[12]

In response to PGE's second contention, that the ability to avoid the RIC implies that it is not duplicative, Staff disagrees for two reasons:

1. The ability to avoid a charge is not an indication that the charge is not duplicative. If a customer is charged each billing period for the cost of acquiring the capacity needed to serve them, and then charged again, in that same billing period, when any ESS (not even necessarily their own ESS) under schedules even one hour, for the incremental capacity needed to meet their entire monthly on-peak demand, they have still been double charged for capacity. The fact that the charge is theoretically avoidable has no bearing on whether or not the customer is actually charged twice.

[12] Exhibit Staff/203, Soldavini/3, PGE's Response to Calpine Data Request No. 8

2. In this instance, the customer does not actually have the ability to avoid the cost through any action of its own. If it is the ESS who provides the scheduling, the customer's behavior has no effect on whether or not the RIC is charged, and thus is not truly avoidable unless the customer has access to the moment by moment variances in scheduled versus actual usage, as well as the capability to rapidly decrease load so as to avoid the charge. Further, because the ESS schedules not by customer, but in aggregate, it is unclear how an individual customer could avoid the RIC even if the ESS correctly scheduled that customer's load, but under forecast a second customer's load.

Q. Does Staff support the method by which PGE has proposed to assess the RIC?

A. After further review of the RIC, Staff has concerns with the way in which the RIC will be assessed to customers. It is Staff's understanding that the Company has proposed to assess the RIC to all NLDA customers should any ESS under schedule within a billing period. Meaning, if any ESS under schedules its aggregate load for just one hour within a billing period, all NLDA customers (including those taking service through PGE's Company Supplied Energy option) will then be assessed the RIC, $0.58 per kW of monthly on-peak demand.[13] Staff interprets this to mean that if there are two ESSs scheduling load with PGE, a customer will be assessed the RIC for their

[13] Exhibit Staff/203, Soldavini/7, PGE's Response to Calpine Data Request No. 16c.

monthly on-peak demand even if its own ESS has no under scheduling event in the billing period, but the second ESS under-schedules its aggregate load for just one hour within the billing period. This results in the customer paying for capacity that the customer did not in fact ever need or otherwise benefit from.

Q. Why does assessing the RIC to all NLDA customers concern Staff?

A. As PGE has itself attested, the RIC serves as a price signal to incent ESSs to correctly schedule aggregate load.[14] Staff does not believe that charging the customer directly for ESSs scheduling behavior sends the price signal to the right entity. If the RIC is designed to incent the ESS to change its scheduling behaviors, the charge should be assessed to the ESS itself.

Q. Could the charge to an ESS's customers incent the ESS to improve its scheduling to increase customer satisfaction?

A. It could. The ESS may decide that it would like to help its customers avoid the charge by scheduling more accurately, reducing costs to its customers over time. However, as PGE itself knows, exactly predicting load is an arduous task. And in this case, by sending the price signal to the customer rather than the ESS, and the trigger for the RIC being based on ESS scheduling in aggregate rather than an individual ESS's scheduling, the signal may instead serve as a disincentive to choosing NLDA service which may be seen as anti-competitive. Staff is also concerned about a proposal that seeks to impose or otherwise attempt to regulate ESS behavior without explicit Commission authority. Staff will expand upon this concern, as appropriate, in briefing.

[14] Exhibit Staff/203, Soldavini/12, PGE's Response to Calpine Data Request No. 18.

Q. How is the implementation of the RIC a disincentive to electing service through Schedule 689?

A. Because the price signal has been imposed on the customer rather than the ESS, the signal could be interpreted by an NLDA customer as a punishment for electing Direct Access service, and make them less inclined to choose service through another supplier. This is particularly the case because an individual ESS in this case will have less incentive to improve its scheduling practices as the RIC is triggered not just by how well the individual ESS schedules, but by how well ESSs schedule in aggregate. What incentive would an individual ESS have to allocate time and resources to improving its scheduling accuracy when it knows that even if it has no under scheduling events, but another ESS under schedules just once, its customers would all be assessed the RIC?

Staff worries that because the RIC is not dependent on the magnitude of under scheduling (the charge is either all or nothing), an ESS may in fact be less likely to try to improve scheduling practices. If the ESS knows that when they improve scheduling accuracy but have even one under scheduling event its customers will be subject to the RIC, there is no reason to automatically assume that ESS practices will improve over time. Therefore, Staff finds the price signal is unlikely to be enough to incent ESS behavior, and may instead serve as a deterrent to customers electing service through Direct Access.

Q. Does Staff have any final concerns regarding the RIC?

A. Yes. Staff has two additional concerns. The first is that it is unclear from PGE's tariff and subsequent responses to data requests in this docket how and why the RIC will apply to all customers on Schedule 689. PGE has indicated that all customers on Schedule 689, including those who have chosen to purchase energy from PGE through the proposed Company Supplied Energy and Long-Term Market Energy options would be subject to the RIC.[15] Staff asks for clarification on this point. Staff does not believe PGE has provided sufficient evidence as to why NLDA customers who do not purchase energy from an ESS should be subject to a charge based on ESS behavior. Additionally, Staff is not certain whether PGE intends for there to be no possibility of the RIC being triggered if all Schedule 689 customers were to elect one of the two Company Supplied energy options, or if the RIC would still be triggered in the event that PGE itself under schedules load within the billing period.

Staff's final concern, alluded to in our introduction, is that allowing PGE to impose a charge on Direct Access customers for ESS practices may be outside of the Commission's jurisdiction. Staff will address the potential legal issues with the RIC in briefs.

Q. What is Staff's recommendation regarding the RIC?

A. Staff's primary recommendation for this docket is that the Commission not approve the RIC in this proceeding, but instead make the decision in the context of a larger investigation that involves all utilities and customers that would be implicated by the RIC. This approach would address Staff's concerns over due process notice issues and unjust discrimination.

[15] PGE/100, Sims – Tinker/14, Lines 13 through16.

However, if the Commission does wish to rule on the RIC in this docket, Staff would recommend that RIC be denied on the condition that the charge does not result in rates that are fair, just and reasonable, and that the Commission may not have the authority to approve. Staff does not agree that a charge to a customer based on a schedule that it does not provide to PGE, and one in which it does not have the ability to avoid unless all ESSs in PGE's BAA change their behavior can be seen as just and reasonable.

Staff again notes that it does believe that there are costs associated with reserving capacity to meet BAA system requirements, but does not believe that this charge should be assessed to the Direct Access customer, and should instead be assessed to the ESS itself. While it may seem pedantic, as an ESS is likely to then pass that cost through to the Direct Access customer, PGE's assessment of the charge directly to the customer rather than the ESS does not adhere to the principle of cost causation and therefore does not send the correct price signal to either the ESS or the customer. In this instance, the costs to PGE of reserving the intra-hour capacity have been caused by ESS scheduling practices, not the customer's behavior, and thus it is neither just nor reasonable to assess the charge to the NLDA customer.

It is Staff's position that this matter would be better addressed by FERC, through modifications to the Company's OATT that would allow PGE to recover these costs directly from the ESS.

ISSUE 2, STANDARD OFFER, LONG-TERM MARKET ENERGY OPTION

Q. What is the Long Term Market Energy Option?

A. As part of PGE's NLDA program, it has proposed a new standard offer for Direct Access customers, entitled the Long-Term Market Energy Option. The Long-Term Market Energy Option will be PGE's standard offer for Schedule 689 customers. This is a new energy supply option that is currently not offered to the Company's existing direct access customers.

Q. Please elaborate.

A. Currently, LTDA and fixed-three year Direct Access customers have two energy supply options they can choose from. This first option is to purchase energy from an ESS, and the second is to choose the Company's existing LTDA standard offer, "Company Supplied Energy." The current Company Supplied Energy option allows a Direct Access customer to purchase energy from PGE through its Company Daily Market Energy Option, which is the Intercontinental Exchange Mid-Columbia Daily on- and off-peak Electricity Firm Price Index (ICE-Mid-C Index) plus 2 mills per kWh plus losses.[16]

The new Long-Term Market Energy Option allows only NLDA customers a third energy supply option. Though the Long-Term Market Energy would still allow the customer to purchase energy from the Company rather than an ESS, this option affords the customer the option to enter into a long

[16] Staff notes that the current Direct Access standard offer is still available under Schedule 689, but with proposed modifications to the Company Supplied Energy option, to include costs for RPS compliance once a customer has finished its five year opt-out transition charges.

term contract with the Company, rather than being subject to daily market rates.

Q. Why has PGE included a new standard offer for customer on Schedule 689?

A. PGE states that its new standard offer was included to capture the costs associated with complying with Oregon's Renewable Portfolio Standard (RPS). As the daily market option is based on the ICE-Mid-C Index and there are no indices for RPS products, and RPS products are therefore acquired on a long term basis, the Company has proposed to include the Long-Term Market Energy Option as a "means of meeting state policy requirements and customer needs to comply with legislative requirements."[17]

Q. Is Staff concerned by the introduction of a standard offer that is unavailable to the Company's LTDA customers?

A. Yes. In response to a Staff Data Request PGE stated that it does believe that it is appropriate for both LTDA and NLDA to have the same standard offer, but that it has agreed not to modify existing Direct Access programs until 2022. Staff agrees that it would be most appropriate for all Direct Access customers to have the same standard offer, which should be analyzed and addressed with notice to all Direct Access customers in a general rate case proceeding.[18]

Staff is concerned that the introduction of a new Standard offer product may also be discriminatory, as otherwise similar customers (such as those on

[17] PGE/100, Sims – Tinker/20.
[18] Exhibit Staff/202, Soldavini/17, PGE's Response to Staff Data Request No. 9.

PGE’s Schedule 489, Large Nonresidential Cost-of-Service Opt-Out) would not be afforded the same choice, at least in the interim period between Schedule 689 going in to effect and service year 2022.

Q. What is Staff’s recommendation regarding the Long-Term Market Energy Option?

A. Staff recommends the Commission reject PGE’s proposal to add the Long-Term Energy Offer as an option for NLDA customers until PGE’s next general rate case, when PGE can make a proposal that would appropriately apply to all Direct Access customers. Staff is generally supportive of introducing more options for customers to choose from, and is of the belief that large, sophisticated customers such as those who will elect service under the NLDA program are able to weigh their energy supply options and make the best decision for their individual needs. However, such changes to Direct Access programs are appropriately considered in a general rate case proceeding.

ISSUE 3, MISCELLANEOUS SCHEDULE 689 ISSUES

Q. Please outline this section of your testimony.

A. This section of my testimony discusses three topics related to PGE's proposed Schedule 689, New Large Load Cost-of-Service Opt-Out:

1. Clarifying language on "long-term planning constraints";
2. PGE's proposed forward looking rate adder, "Energy Supply Return Charge"; and
3. Additional charges for RPS compliance charges under the Company Supplied Energy supply option.

Clarifying Language on Tariff Sheet 689-1

Q. Please describe the Company's proposed clarifying language on Tariff Sheet 689-1.

A. In its initial filing, PGE has included language on tariff Sheet No. 689-1 that as read could be interpreted to suggest that PGE may not make the full NLDA load of 119 MWa (six percent of 2017 weather normalized annual load) available for the program, as required by the Commission in Order No. 18-341. Staff is requesting that the Company clarify this language.

Q. What specific language in the Tariff does Staff feel needs clarification?

A. Specifically, in the fifth paragraph of the "Applicable" section of proposed Sheet No. 689-1, the language reads, "Service under this schedule is limited to the first 119 MWa that applies to Schedule 689, or at an amount subject to the long-term transmission planning constraints of the Company." It is the back half of that sentence, "or at an amount subject to the long-term transmission planning constraints of the Company" that Staff is concerned may lead to confusion.

Q. Why does this language concern Staff?

A. Staff is concerned that including the caveat that 119 MWa will be available for NLDA load subject to long term planning constraints is a potentially misleading and confusing statement. It is Staff's understanding that PGE is to provide service to the first 119 MWa that applies and is eligible for NLDA service, and the addition of the "or long term planning constraints" is either unnecessary, or needs further clarification as to what this statement means.

Q. Why has PGE included this qualifying language?

A. In response to a Staff data request, PGE has clarified that the qualifying language was added to represent planning requirements "related to transmission expansions that may be necessary to address transmission related constraints on PGE's system."[19] PGE notes that there could be a situation in which the current transmission capacity is not enough to service an otherwise eligible NLDA customer. In such a case, it a transmission expansion project and/or study may be required, which would be handled via PGE's OATT, and "may take in excess of one or two years" to complete.[20]

Q. What is Staff's recommendation on this issue?

A. Staff recommends the Commission direct PGE to either remove this language from the Tariff, as it likely goes unsaid that a customer cannot receive service

[19] Exhibit Staff/202, Soldavini/16, PGE's response to Staff Data Request No. 8d.
[20] *Ibid.*

in excess of transmission constraints, or provide more context, as it has in its data request response, as to not mislead customers into believing that PGE may not make the full 119 MWa available under the NLDA program cap. Staff also requests clarification regarding the potential one to two year delay, should a transmission project/study be needed, and how load would still qualify as "new load" if the customer must give one year's notice, and then wait an additional year for a transmission project/study to be conducted prior to energization.

Energy Supply Return Charge

Q. What is the Energy Supply Return Charge?

A. As outlined in Order No. 18-341, an electric utility's NLDA program must include a forward-looking rate adder, to be charged to a customer in the instance that it decides to return to cost of service based rates from an NLDA program, if its return to cost-of-service increases rates for existing cost-of-service customers by a significant amount. "Energy Supply Return Charge" is the name that PGE has chosen for its forward-looking rate adder in its proposed Schedule 689.

Q. What is the threshold for triggering the Energy Supply Return Charge?

A. PGE has used its discretion to determine that a 0.5 percent increase is the appropriate level to trigger the Energy Supply Return Charge. Meaning that if a customer elects to return to cost-of-service from PGE's NLDA program, and that customer's return to cost-of-service increases existing cost-of-service rates by more than 0.5 percent, the returning customer would be charged the Energy

Supply Return Charge for three years, upon the date of notice to PGE of their intent to return.

Q. Does Staff support PGE's proposed 0.5 percent threshold for triggering the Energy Supply Return Charge?

A. Yes. Staff notes that PGE's proposed 0.5 percent threshold is the same level of protection approved by the Commission for PacifiCorp's NLDA program.[21] Staff finds this to be a reasonable, material threshold for triggering the forward-looking rate adder. The 0.5 percent threshold is high enough to warrant protection to cost-of-service customers while ensuring the charge is only triggered when a customer's move out of the NLDA program to cost-of-service represents a material rate increase to existing ratepayers.

Q. How is PGE proposing to calculate the Energy Supply Return Charge?

A. PGE has proposed an initial Energy Supply Return Charge of 0.000 cents per kWh.[22] PGE is proposing to evaluate whether the 0.5 percent impact to cost-of-service customers has been met in its annual automatic adjustment tariff (AUT) and in a General Rate Case (GRC). PGE notes that in an AUT they would test the 0.5 percent threshold, and in a GRC they would include the former NLDA load into the COS load requirements.[23] The charge would be calculated for each individual customer, and be updated annually through the AUT.[24] Each

[21] Staff Report for PacifiCorp ADV.900/Advice No.18-010, presented at February 26, 2018 Public Meeting.
[22] PGE Proposed Sheet No. 689-5.
[23] Staff/202, Soldavini/15, PGE's Response to Staff Data Request No. 8a.
[24] Staff/202, Soldavini/16, PGE's Response to Staff Data Request No. 8b & 8c.

customer who decides to return to cost-of-service from NLDA be subject to the forward-looking rate adder for a period of three years (equivalent to the amount of notice that must be given before returning to cost-of-service rates or Daily Market Rates).

Q. Is Staff supportive of PGE's proposed Energy Supply Return Charge?

A. Though PGE has not proposed a specific, detailed methodology here, Staff is supportive of PGE's proposed Energy Supply Return Charge of 0.000 cents per kWh charge at this time, as any change to the rate will be subject to review in PGE's annual AUT filing as well as in a GRC. Staff also notes that because a customer must give three years' notice before returning to cost-of-service rates, there is sufficient time to evaluate any proposed changes to the Energy Supply Return Charge.

Q. Would the Energy Supply Return Charge be necessary in the event that the RAD was approved?

A. It is unclear to Staff why, if the Commission approved the RAD charge, which recovers the capacity necessary to serve NLDA customers should they return to cost-of-service rates, the Energy Supply Return Charge would still be necessary. It is not obvious what condition may arise that could possibly trigger the forward-looking rate adder if the capacity to serve these customers has already been acquired and paid for by those customers.

When an NLDA customer returns to cost-of-service, if the RAD is already in place, the addition of an NLDA customer's large load should spread costs over a larger total load and their return should in theory lower cost-of-service rates rather than increase them, making the possibility of triggering a forward-looking rate adder low. Staff notes that PGE acknowledges that themselves in response to a Staff data request.[25]

As such, PGE may wish to consider requesting a waiver of a forward-looking rate adder for PGE's NLDA program in the occasion the RAD is approved to avoid potential double recovery. At the least, Staff believes special attention must be paid to the specific methodology chosen to measure if the 0.5 percent threshold is met, to ensure that this factor is properly considered.

Q. Does Staff have a recommendation regarding the Energy Supply Return Charge?

A. Yes, Staff is supportive of the charge itself, but recommends that the Company add clarifying language to the Schedule 689 stating that the charge will be calculated for each individual customer, and that once calculated for an individual customer, the Energy Supply Return Charge will be fixed for the three years that customer is subject to the charge.

RPS Compliance Charges

Q. Please outline this issue.

A. On Sheet No. 689-4, under the Company Supplied Energy Option, the Tariff reads:

> *"If a Customer taking service under this option has completed 60 months of payment for cost-of-service opt-out transition adjustments, additional charges to meet the state of Oregon's*

[25] Staff/202, Soldavini/16, PGE's Response to Staff Data Request No. 8a.

Renewable Portfolio Standard may apply. If additional charges are required, the Customer and the Company will agree to a minimum term of service for this option in a separate service agreement between the Customer and the Company"

Essentially, PGE states that there may be additional charges above the Daily Market Energy option, associated with procuring Renewable Energy Credits (RECs) to comply with Oregon's Renewable Portfolio Standard (RPS) once a customer is no longer paying the five year transition charge.[26] Accordingly, PGE is proposing to pass these costs along to customers on the Company Supplied Energy option of Schedule 689 who are no longer paying opt-out charges.

Q. How does PGE propose to charge NLDA customers for RPS Compliance through Schedule 689?

A. PGE notes in response to a Staff data request that it plans to directly allocate the costs of procuring the required RECs to customers who choose the Company Supplied Energy Option, but has not determined the mechanism or methodology at this time.[27]

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[26] Staff/202, Soldavini/16, PGE's Response to Staff Data Request No. 8e.
[27] *Ibid.*

Q. Does Staff have concerns with the inclusion of RPS compliance costs to customers who elect service through the Company Supplied Energy Option?

A. No, generally. Staff does agree with PGE that if it must procure RECs for a customer to comply with Oregon's RPS, that customer should be allocated those costs, and that the inclusion of such charges appears reasonable. However, Staff again notes its concerns with allocating these costs to NLDA customers only. If there is not currently a liquid market for RECs, and they are procured via long-term contracts, then these additional RPS compliance charges should also apply to all customers who have chosen the Company Supplied Energy option. Notice has not been provided to Direct Access customers regarding potential charges that may impact future rates in this proceeding, nor has PGE provided a basis for the Commission to adopt RPS compliance charges for only a subset of Direct Access customers.

For example, as seen in Figure 1 below, the Company Supplied Energy option on PGE's Schedule 489, Large Nonresidential Cost-of-Service Opt-Out (>4,000 kW) makes no mention of additional charges for RPS compliance after transition charges are finished.[28] For comparison, the Company Supplied Energy Option for proposed Schedule 689, with the additional paragraph describing the RPS compliance charges is shown in Figure 2.[29] It is unclear to Staff that there is enough difference between the type of customer who elects

[28] PGE Tariff Sheet No. 489-2.
[29] PGE Proposed Original Sheet No. 689-4.

service through Schedule 489, and the customer who elects service through Schedule 689 to warrant the additional charges under the otherwise identical Company Supplied Energy option.

Figure 1 - Schedule 489's Company Supplied Energy

Company Supplied Energy

Upon not less than five business days notice, the Customer may choose the Company Supplied Energy Charge option. The election of this option will be effective on the next regularly scheduled meter reading date, but with not less than a five business day notice to the Company prior to the scheduled meter read date.

The Company Supplied Energy Option is the Intercontinental Exchange Mid-Columbia Daily on- and off-peak Electricity Firm Price Index (ICE-Mid-C Index) plus 2 mills per kWh plus losses. If prices are not reported for a particular day or days, the average of the immediately preceding and following reported days' on- and off-peak prices will be used to determine the price for the non-reported period. Prices reported with no transaction volume or as "survey-based" will be considered reported.

Figure 2 - Proposed Schedule 689's Company Supplied Energy

Company Supplied Energy

The Company Daily Market Energy Option is the Intercontinental Exchange Mid-Columbia Daily on- and off-peak Electricity Firm Price Index (ICE-Mid-C Index) plus 2 mills per kWh plus losses. If prices are not reported for a particular day or days, the average of the immediately preceding and following reported days' on- and off-peak prices will be used to determine the price for the non-reported period. Prices reported with no transaction volume or as "survey-based" will be considered reported.
Upon not less than five business days' notice, the Customer may choose the Company Supplied Energy Charge option. The election of this option will be effective on the next regularly scheduled meter reading date, but with not less than a five business day notice to the Company prior to the scheduled meter read date.

If a Customer taking service under this option has completed 60 months of payment for cost-of-service opt out transition adjustments, additional charges to meet the state of Oregon's Renewable Portfolio Standard may apply. If additional charges are required, the Customer and the Company will agree to a minimum term of service for this option in a separate service agreement between the Customer and the Company. The RIC and the RAD apply during all months of service on this supply option.

Q. What is Staff's recommendation for this issue?

A. Staff recommends the Commission reject PGE's proposal to include RPS compliance charges to the Company Supplied Service option for NLDA customers until PGE's next general rate case, when PGE can make a proposal that would appropriately apply to all Direct Access customers. Though Staff is generally supportive of incorporating RPS compliance charges to appropriately allocate the costs associated with procuring RECs, Staff believes such changes to Direct Access programs are appropriately considered in a general rate case proceeding.

Q. Does this conclude your testimony?

A. Yes.

CASE: UE 358
WITNESS: SABRINNA SOLDAVINI

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 201

Witness Qualifications Statement

July 18, 2019

WITNESS QUALIFICATION STATEMENT

NAME:	Sabrinna Soldavini
EMPLOYER:	Public Utility Commission of Oregon
TITLE:	Senior Regulatory Analyst Energy Rates, Finance and Audit Division
ADDRESS:	201 High St. SE Ste. 100 Salem, OR 97301-3612
EDUCATION:	Masters of Science, Agricultural Economics Purdue University, West Lafayette, Indiana Bachelor of Science, Economics University of Oregon, Eugene, Oregon
EXPERIENCE:	I have been employed by the Oregon Public Utility Commission (Commission) since August 2018 in the Energy, Rates and Finance Division. My responsibilities include providing research, analysis, and recommendations on a range of regulatory issues for filings made by utilities. Prior to working for the Commission I was a consulting analyst for MGT Consulting, primarily to help large public school districts prepare for bond proposals through budget analysis and statistical modelling/projections of student and demographic data. Prior to this work, I was a Research Assistant at Purdue University where I conducted research on the economic feasibility of biofuel feedstocks. Additionally, I have experience working in Data Analysis, and Program Coordination within the technology sector.

CASE: UE 358
WITNESS: SABRINNA SOLDAVINI

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 202

Exhibits in Support
Of Opening Testimony

July 18, 2019

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 001
Dated June 26, 2019

Request:

Please detail how the Company currently handles the issue of an ESS that has under scheduled its load for the hour. Please provide any evidence, and quantify any associated costs when/if applicable.

Response:

As the balancing authority and reliability provider within its service territory, PGE is charged with maintaining system balance and ensuring safe, reliable operation for all customers, regardless of supplier. PGE's operations personnel are responsible for planning generation over various timeframes and rely on a balancing authority area (BAA) level load forecast, inclusive of direct access loads, when planning the system. PGE must make sure it has sufficient capacity available if an ESS under-schedules its load in order to fulfill its reliability obligations. When an under-scheduling event occurs, PGE uses its resources (e.g. physical plants and contracts) to ensure the system is in load-resource balance and reliability is maintained while complying with all BAA responsibilities and requirements. Due to the nature of the interconnected grid, system supply and demand must always be matched in order to maintain frequency. This occurs every hour, regardless of ESS schedules, and PGE is the sole entity responsible for this balance within its BAA.

As evidenced in the below table, ESS under-scheduling for 2018 is positively correlated with PGE's highest hours of load, when the system is likely already constrained. PGE has not analyzed every under-scheduling event, nor has it attempted to quantify the costs of each event. However, during these events, PGE maintains system balance by having cost-of-service supply resources available and using them accordingly for the benefit of direct access loads.

Highest Load Hours	Percentage Under-scheduled
200	100.0%
400	95.0%
600	90.7%
800	87.5%
1000	85.2%
2000	75.7%
4000	65.5%
8000	55.3%
8760	52.4%

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 002
Dated June 26, 2019

Request:

Does PGE experience any benefits when an ESS overschedules its load currently? If so, please explain, and quantify any benefits received. If no, please explain why there is no benefit.

Response:

No. As shown in the table below, ESS over-scheduling predominates during the hours when PGE is surplus energy (lowest load hours). This trend is also somewhat seasonal, with the top six months of over-scheduling occurring in November, June, December, May, September, and April, which are typically the shoulder months or spring runoff months.

As there are currently no requirements, regulatory framework, or enforcement mechanisms that require ESSs to plan and demonstrate resource adequacy through physical capacity; ESS transactions largely follow the Day-Ahead energy market. PGE considers Day-Ahead market transactions as energy only, which do not provide resource adequacy or dependable capacity.

Under PGE's Open Access Transmission Tariff (OATT) Schedule 4R, if an ESS does over-schedule its load, it is compensated for the energy at the market index identified in Schedule 4R.

Lowest Load Hours	Percentage Over-scheduled
200	90.5%
400	86.3%
600	79.8%
800	77.3%
1000	75.6%
2000	65.2%
4000	61.3%

From the resource planning perspective, PGE does not plan for ESS over- or under-scheduling as PGE does not currently plan for ESS served load. Please refer to PGE's Response to Calpine Request No. 019 for further details.

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 003
Dated June 26, 2019

<u>Request:</u>

Does PGE agree with the following statement? Once PGE has assessed a RAD charge to an NLDA customer, the necessary capacity to serve that customer exists, including in the event that the ESS has under scheduled its load? If yes, why would an additional charge, the RIC, be necessary and not duplicative? If the Company does not agree with the above statement, why? What is the nature of the capacity acquired by the RIC that makes both charges necessary?

<u>Response:</u>

PGE does not agree with the statement "Once PGE has assessed a RAD charge to an NLDA customer, the necessary capacity to serve that customers exists, including in the event that the ESS has under scheduled its load."

Following the approval of PGE's proposed RIC charge and NLDA tariff, PGE will recover from NLDA customers the costs of providing capacity to balance under-scheduling practices that result in PGE provision of capacity that is not being paid for by the benefitting NLDA customer. Providing the RIC service to NLDA customers is not expected to create a need for additional peaking capacity beyond what is required to provide resource adequacy related RAD service for the same customer. However, providing RIC service will require that PGE make sufficient flexible capacity available in the operational timeframe to balance ESS under-scheduling practices. Importantly, capacity procured for meeting peaking resource adequacy needs (e.g. day-ahead capacity product) may or may not be capable of supporting RIC related service.

The RAD is an unavoidable charge related to the procurement of capacity resources to ensure resource adequacy and meet PGE's peak resource need conditions. The capacity resources procured for RAD service may or may not be capable of balancing ESSs' under-scheduling and providing RIC service. As revenues from the RIC are credited toward all customers through the crediting of PGE's production revenue requirement the RIC charge does not double recover, but instead compensates all customers for the use of capable capacity to meet ESSs balancing needs. Furthermore, the RIC charge is avoidable. If an ESS does not under-schedule within a month, no RIC service will be assessed, and as scheduling practices improve PGE will require less capacity be available in the operational time frame resulting in decreased RIC related costs.

Both the RIC and RAD follow general rate making principles in assigning the costs to the customers which impose those costs onto PGE's system (i.e. cost causation). In order to fully recover the costs imposed by NLDA, both the RIC and RAD charges are necessary and serve to prevent cost shifting to COS customers.

Please refer to PGE's Response to Calpine Request No. 018 for additional details.

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 004
Dated June 26, 2019

Request:

Please refer to PGE/100, Sims – Tinker/8, lines 3 through 8.

a. **In reference to the statement, "the upcoming coal plant retirements at Boardman, Centralia, and Colstrip will remove substantial amounts of firm capacity," please quantify exactly how much capacity will be removed.**

b. **Has PGE performed any independent analysis or study of the risks of resource adequacy specific to its own system? If yes, please provide all evidence, results, and key findings.**

Response:

A. Boardman has an operating capacity of approximately 585 MW. The Centralia units have a combined operating capacity of approximately 1340 MW. Colstrip units 1 & 2 have a combined operating capacity of approximately 614 MW. PGE notes that the above listed plants do not represent an all-inclusive list of retiring units within the WECC.

B. Please refer Chapter 4, specifically Section 4.7, of PGE's 2019 IRP draft available on PGE's website at https://www.portlandgeneral.com/our-company/energy-strategy/resource-planning/integrated-resource-planning

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 005
Dated June 26, 2019

Request:

Is PGE able to quantify the level of risk and/or costs associated with not being able to meet its current Provider of Last Resort obligations for NLDA customers? Please support your response with quantitative and qualitative evidence if available.

Response:

PGE has not quantified the costs associated with not being able to meet its reliability provider obligations for direct access customers. PGE has analyzed the reliability risk associated with not meeting its current POLR responsibility within the draft 2019 IRP. However, given the challenges associated with forecasting new loads eligible for the NLDA program, PGE has not included NLDA loads into its assessment of impacts to system reliability.

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 006
Dated June 26, 2019

Request:

Please refer to PGE/100, Sims – Tinker/13. Please explain what the Company means in the following statement, "the two services are distinct, and even if an ESS had scheduled exactly to the actual load of the customer, Schedule 3 is still necessary to address moment-by-moment variations in load."

Response:

Regulation and Frequency Response Service, provided under OATT Schedule 3, consists of a specific type of capacity that is used to maintain instantaneous system balance and frequency at 60Hz. This is accomplished by resources with certain equipment which allows them to increase or decrease their output on a moment-to-moment basis. The RIC is not designed to provide Regulation and Frequency Response Service. Instead, the RIC is designed to address the circumstances where PGE makes sufficient flexible capacity available in the operational timeframe (e.g. hour-ahead or EIM scheduling) to balance ESS under-scheduling practices.

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 007
Dated June 26, 2019

Request:

Please refer to PGE/100, Sims – Tinker/14-15.

a. What was the "subset of historic Direct Access schedules and actual loads" the Company used in calculating the RIC?

b. Is it PGE's intent to calculate the RIC based on all ESS's scheduling behavior, rather than just those ESS's whose customers participate in the NLDA program?

Response:

a. Confidential Attachment 001-A_CONF contains the following information that is confidential and subject to Protective Order No. 19-175:

- Hourly ESS scheduled and metered data between 2012 and 2018
- Derivation of the net cost of new capacity from 2016 IRP data
- Derivation of RID and RAC charges based on incremental capacity needs identified by the RECAP model and the net cost of new capacity.

PGE notes if load or schedule data was unavailable for certain hours, PGE assumed 0 scheduling error during such periods.

Confidential Attachment 001-B_CONF contains the following information that is confidential and subject to Protective Order No. 19-175:

- The version of RECAP used to determine the capacity need under each scenario investigated
- The RECAP input and output files associated with each scenario investigated

Attachment 001-C includes the workpaper for the calculation of the NLDA Schedule 689 transition adjustment and the estimated pricing results for the RIC and RAD.

Please note that this response is the same response PGE provided to AWEC DR 001.

b. No. Initially, PGE proposes basing RIC costs on LTDA scheduling practices as ESS NLDA scheduling data does not yet exist. However long-term, it is PGE’s intent to calculate the RIC based on the schedules associated with ESS service of NLDA customers.

UE 358

Attachment 007-A CONF

Provided in Electronic Format Only

Protected Information Subject to Protective Order 19-175

Direct Access Schedules and Loads

UE 358

Attachment 007-B CONF

Provided in Electronic Format Only

Protected Information Subject to Protective Order 19-175

RECAP Files

UE 358

Attachment 007-C

Provided in Electronic Format Only

NLDA Work Papers

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 008
Dated June 26, 2019

Request:

Please refer to the Company's proposed Schedule 689.

a. **What methodology does PGE propose to calculate its forward looking rate adder, the "Energy Supply Return Charge"?**

b. **Will the Energy Supply Return Charge be fixed, or calculated for each individual customer?**

c. **If calculated for each customer, will the Energy Supply Return Charge remain constant, for each customer, once it is calculated? Or will the Energy Supply Return Charge be updated annually for each of the three years the customer is subject to the charge?**

d. **Please refer to the following statement on Sheet No. 689-1, "Service under this Schedule is limited to the first 119 MWa that applies to Schedule 689, or at an amount subject to the long-term planning constraints of the Company." Please clarify what the Company means by "an amount subject to the long-term planning constraints of the Company?"**

e. **Please refer to Sheet No. 689-4. What additional charges might be required of customers to meet Oregon's Renewable Portfolio Standard? How does the Company propose to calculate and collect these charges?**

Response:

a. If PGE's current proposal of allowing PGE to plan for NLDA loads is approved in this docket, then calculating the energy supply return charge would require just an economic evaluation for the impacts to cost of service (COS) customers. At this time, PGE proposes that the COS evaluation to test the "more than 0.5%" impact to COS customers be conducted via PGE's automatic adjustment tariff (AUT)/annual power cost update and in a general rate case (GRC). The transfer of the NLDA load would be updated via PGE's annual load forecast of COS loads, which would be included into the AUT as an input to calculate PGE's total annual energy costs and provide the metrics to test the marginal costs to COS's of the direct access load returning to COS. The AUT would facilitate the testing and of the 0.5% threshold testing for purposes of a "forward looking rate adder" calculation. PGE notes that if the RAD is approved, that the incremental cost associated and evaluated in the AUT would be related only to energy and therefore the likelihood of triggering the incremental costs greater than 0.5% would be unlikely. In a GRC, PGE include the former NLDA load into the COS load requirement, the inclusion of that load would serve to benefit existing COS customers by increasing the number of total number of kilowatt hours in which to spread costs too. For example, direct access customers are paying their share of distribution and transmission costs via tariff prices in Schedule 689 and via the OATT, and the remaining incremental costs will be related to energy and generation costs. All else being equal, the addition of the NLDA loads to COS will decrease energy (and total) prices for all customers.

b. The energy supply return charge will be calculated for each individual Schedule 689 customer.

c. Charge will be updated annually to coincide with the updates for PGE's Schedule 129 filings. *See* Advice No. 19-02 at page 8.

d. PGE notes that Staff's citation of Sheet No. 689-1 omits the word "transmission". The citation reference is cited as, "Service under this Schedule is limited to the first 119 MWa that applies to Schedule 689, or at an amount subject to the long-term transmission planning constraints of the Company."

   Given that correction, the intent of the statement, "…an amount subject to the long-term transmission planning constraints of the Company." represents the planning requirements related to transmission expansions that may be necessary to address transmission related constraints on PGE's system. It is possible that a situation could arise where transmission capacity is insufficient to effectuate delivery to an eligible NLDA customer and a transmission expansion project may be required. These studies and projects are handled via PGE's Open Access Transmission Tariff (OATT) and may take in excess of one to two years.

e. The additional charges referenced are the costs above the Daily Market Energy Option associated with procuring bundled and unbundled RECs to comply with the Oregon RPS requirements. There is not currently a liquid market or index for bundled or unbundled RECs and often these products are procured via long-term contracts for specific resources, hence the inclusion of PGE's Long Term Market Energy Option in this proceeding. The company is proposing to directly allocate the costs of procuring the required RECs to customers subscribing to the Daily Market Energy Option, but has not yet identified the appropriate mechanism(s) or methodologies for doing so.

July 10, 2019

TO: John Crider
Public Utility Commission of Oregon

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to OPUC Data Request No. 009
Dated June 26, 2019

Request:

In reference to PGE's Long-Term Energy Option, why does PGE believe that it is appropriate to have a different standard offer for its NLDA and LTDA programs?

Response:

PGE believes it is appropriate to have the same standard offering options in both the NLDA and LTDA programs. As detailed in PGE/100, Sims-Tinker 20, PGE "developed the long-term energy option as a mean of meeting state policy requirements and customer needs to comply with legislative requirements…" However, as part of Order No. 18-646 in PGE's UE 335 general rate case, the company and parties agreed to no LTDA tariff changes until 2022.

CASE: UE 358
WITNESS: SABRINNA SOLDAVINI

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 203

Exhibits in Support
Of Opening Testimony

July 18, 2019

June 18, 2019

TO: Greg Bass
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 006
Dated May 29, 2019

Request:

Does PGE agree that the RIC charge is intended to compensate PGE for providing intra-hour capacity to meet the mismatch between ESS scheduled energy deliveries and actual direct access customer demand?

Response:

The RIC is designed to address events where an ESS under-schedules (e.g. load exceeds scheduled energy) because we must ensure adequate capacity is available. Please refer to PGE's opening testimony filed in this docket on June 14, 2019 for further details.

June 18, 2019

TO: Greg Bass
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 007
Dated May 29, 2019

Request:

If the RIC charge is approved, is PGE committing to reserve the capacity associated with the RIC charge to be deliverable and available over all hours exclusively for the PGE balancing authority in service to Schedule 689 customers?

Response:

Yes. Consistent with PGE's current practices and responsibilities as reliability provider, PGE will ensure sufficient capacity is available to meet BA requirements within the operations horizon (e.g. day-ahead, real-time, etc.). The amount of future capacity acquired to meet the associated RIC need will be made available over all hours to support BA operations.

June 18, 2019

TO: Greg Bass
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 008
Dated May 29, 2019

Request:

If the RIC charge is approved, is PGE willing to identify, on a periodic basis, the facilities and associated capacity reserved for RIC service?

Response:

No. As PGE detailed in its opening testimony filed on June 14, 2019, providing RIC service increases PGE's capacity needs. It is important for PGE to secure capacity to meet this need. The capacity resources and units deployed will vary over time depending on multiple circumstances (e.g. market conditions, available unit(s), forecast horizon, etc.) and will not necessarily correspond to the incremental capacity resource provisioned following the approval of the RIC charge. For this reason,it will not be meaningful to identify the specific unit(s) providing capacity for RIC service on a periodic basis.

June 18, 2019

TO: Greg Bass
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 009
Dated May 29, 2019

Request:

If PGE is not proposing to reserve and identify the capacity it associated with the RIC charge, please explain why customers on Schedule 689 should compensate PGE for reserving capacity on their behalf yet not have that capacity available and deliverable all hours exclusively for the PGE balancing authority.

Response:

Please refer to PGE's response to Calpine Data Request No. 008. Please see PGE's filed UE 358 testimony on June 14, 2019 for the recommendations proposed by the Company for the RIC charge.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 015
Dated June 19, 2019

Request:

Reference PGE/100 Sims-Tinker/ 12: 14-16.

a. **Please provide the supporting workpapers for the statement: "Based on 2018 historical data, approximately 40% of the hours during calendar year 2018 were under-scheduled."**
b. **For each hour in 2018, please provide in Excel format, the ESS scheduled MW and the ESS actual load MW for each ESS, masking the identity of each ESS as appropriate.**

Response:

a. Please see Attachment A. Attachment A contains protected information and is confidential and subject to Protective Order No. 19-175. Also, upon further review, PGE identified a data inconssisency which updates the underscheduling percentage from 40% to 52% and Attachement A includes the updated percentage.

b. Please see Attachment B. Attachment B contains protected information and is confidential and subject to Protective Order No. 19-175.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 016
Dated June 19, 2019

Request:

Reference PGE 100/ Sims-Tinker, 14: 4-19. Please explain exactly how the RIC would be assessed. Specifically:

a. **Would the charge of $0.58/kW shown on Sheet 689-3 of PGE's Advice Filing be assessed for *each on-peak hour* that the ESS's aggregate load exceeds the aggregate ESS schedules? If yes, how is the quantity of kW measured for the purpose of applying this charge to the individual Customer? If not, please state exactly what Customer billing determinant the $0.58/kW RIC charge would be applied to each month and explain the nexus between the amount of the billing determinant and the amount of aggregate ESS "under-scheduling."**
b. **Alternatively, is the $0.58/kW RIC charge applied to the Customer's entire on-peak monthly demand? If yes, what is the nexus between this amount of billing demand and the degree of ESS "under-scheduling"?**
c. **In stating that "PGE is proposing that for billing periods where there are no under-scheduling events (e.g. the scheduled load matched the actual load), the RIC will not be assessed," is PGE proposing that a single "under-scheduled" hour in a month would trigger the RIC charge for the entire month and be applied to the Customer's entire on-peak demand? If not, please clarify.**

Response:

a. No. An ESS would not be assessed the RIC charge each on-peak hour that the aggregate load exceeds the schedules. The billing determinant for the the RIC charge is the peak monthly on-peak demand, expressed in kW, similar to the existing Demand Charge and Facility Capacity Charge. As detailed in PGE's Response to Calpine DR 006 and PGE/100, the RECAP model was used to determine a capacity need resulting from ESS under-scheduling practices. This resulting capacity need is expressed in kW and then converted into a $/kW-month equivalent based on the net cost of capacity. As explained in part (c) of this response, the charge does not apply during months where there are no under-scheduling events.

b. Please refer to PGE's response to part (a) above.

c. Yes. PGE is proposing that if there are no under-scheduling events during the month, the RIC would not apply for that month. In a month where under-scheduling occurs, the RIC would be applied consistent with PGE's response to part (a) above. Please also refer to PGE/100 Sims-Tinker, 14-15 where PGE proposes that the RIC will decrease as under-scheduling decreases over time and the RIC should be updated annually for the first three years of the NLDA program to account for any changes in the scheduling practices of ESSs.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 017
Dated June 19, 2019

Request:

Please provide the workpaper showing the derivation of the $0.58/kW RIC charge in native format with all formulas intact.

Response:

Confidential Attachment 001-A_CONF contains the following information contains protected information that is confidential and subject to Protective Order No. 19-175:

- Hourly ESS scheduled and metered data between 2012 and 2018
- Derivation of the net cost of new capacity from 2016 IRP data
- Derivation of RID and RAC charges based on incremental capacity needs identified by the RECAP model and the net cost of new capacity.

PGE notes if load or schedule data was unavailable for certain hours, PGE assumed 0 scheduling error during such periods.

Confidential Attachment 001-B_CONF contains protected information that is confidential and subject to Protective Order No. 19-175:

- The version of RECAP used to determine the capacity need under each scenario investigated
- The RECAP input and output files associated with each scenario investigated

Attachment 001-C includes the workpaper for the calculation of the NLDA Schedule 689 transition adjustment and the estimated pricing results for the RIC and RAD.

Please note that this same attachment was included in PGE's response to AWEC in Data Request No. 001 for the related RECAP workpapers.

2019 Vintage Schedule 129 Fixed Generation Only

Schedule	Effective GRC mills/kWh	$/kWh	20% of Fixed Gen $/kWh 20%
Schedule 89-S Fixed Generation	33.97	3.397	0.679
Schedule 89-P Fixed Generation	33.34	3.334	0.667
Schedule 89-T Fixed Generation	32.89	3.289	0.658

Schedule	**Vintage Year 2019**
689-S	0.667
689-P	0.679
689-T	0.658

					12	
Load Intermittency	$	7	$/kW-yr	$	0.583	applied via Sch 689
Default Service	$	109	$/kW-yr	$	9.083	applied via Sch 81

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 018
Dated June 19, 2019

Request:

Reference PGE 100/ Sims-Tinker, 14:4 - 17:4. If the Commission were to approve PGE's RAD charge, what incremental cost would be recovered by the RIC charge? Admit that if the Customer is already paying PGE for capacity through the RAD charge, then the RIC charge is duplicative. If PGE denies, explain how the RIC charge would not constitute a form of double recovery if the proposed RAD charge is adopted.

Response:

Following the approval of PGE's proposed RIC charge and NLDA tariff, PGE will recover from NLDA customers the costs of providing capacity to balance under-scheduling practices, that result in PGE provision of capacity that is not being paid by the benefitting NLDA customer. Providing the RIC service to NLDA customers is not expected to create a need for additional peaking capacity beyond what is required to provide resource adequacy related RAD service for the same customer. However, providing RIC service will require that PGE make sufficient flexible capacity available in the operational timeframe to balance ESS under scheduling practices. Importantly, capacity procured for meeting peaking resource adequacy needs (e.g. day-ahead capacity product) may or may not be capable of supporting RIC related service.

The RIC related revenues collected from NLDA customers will be credited to PGE's production related revenue requirement. Should ESS under-scheduling practices improve, PGE will require less capacity be available for under-scheduling in the operational time frame and RIC related charges will decrease.

The RIC charge does not constitue a form of double recovery as it is an avoidable charge that relates to the operational consumption of sufficiently flexible capacity. The RAD is an unavoidable charge related to the procurement of capacity resources to ensure resource adequacy and meet PGE’s peak resource need conditions. The capacity resources procured for RAD service may or may not be capable of balancing ESSs’ under-scheduling and providing RIC service. As revenues from the RIC are credited toward all customers through the crediting of PGE’s production revenue requirement the RIC charge does not double recover, but instead compensates all customers for the use of capable capacity to meet ESSs balancing needs. Furthermore the RIC charge is avoidable. If an ESS does not underschedule within a month, no RIC service will be assessed, and as scheduling practices improve costs related to RIC service will decrease. As such the RIC charge does not double recover, but serves as a price signal to promote accurate scheduling, and compensates all customers for the operational consumption of capacity.

July 3, 2019

TO: Greg Adams
Calpine Energy Solutions, LLC

FROM: Karla Wenzel
Manager, Pricing & Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to Calpine Energy Solutions, LLC's Data Request No. 019
Dated June 19, 2019

Request:

Does PGE agree that if the Commission were to adopt a resource adequacy requirement for Direct Access service that this product could be provided by the ESSs rather than through PGE's proposed RAD charge? If PGE disagrees, please explain.

Response:

If the Commission were to adopt and enforce robust planning, procurement, and compliance requirements for ESSs, it may be possible for an ESS to support resource adequacy for direct access customers. Dividing resource adequacy and reliability responsibilities between PGE and ESS would require major revisions to ESSs' regulatory requirements to ensure accountability. Without such revisions, the incentive to lower costs while not remaining responsible to ensure reliable service, creates an unfortunate policy outcome that may lead to unintentional and unpredictable outcomes. Furthermore, requiring ESSs to independently manage resource adequacy would risk increasing system costs and potentially serve as a barrier to key initiatives or policy objectives that are more efficiently and effectively achieved through a centralized provider. Such subjects are complex and would require detailed exploration through a comprehensive policy docket.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 002
Dated June 17, 2019

Request:

If the RIC is approved, please explain with specificity what PGE will do with the money collected from this charge. For instance, will PGE acquire incremental capacity and, if so, in what potential form or forms?

Response:

Following the approval of PGE's proposed RIC charge and NLDA tariff, PGE will recover from NLDA customers the costs of providing capacity to balance customer under-scheduling practices. Providing the RIC service to future NLDA customers is not expected to create a need for additional peaking capacity beyond what is required to provide resource adequacy related RAD service for the same customer. However, providing RIC service will require that PGE make sufficient flexible capacity available in the operational timeframe to balance ESS under scheduling practices. Importantly, capacity procured for meeting peaking resource adequacy needs (e.g. day-ahead capacity product) may or may not be capable to support RIC related service.

The RIC related revenues collected from future NLDA customers will be credited to PGE's production related revenue requirement. Should ESS under-scheduling practices improve, PGE will reserve less capacity in the operational time frame and RIC related charges will decrease.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 003
Dated June 17, 2019

<u>Request:</u>

If PGE procures additional capacity with the money collected from either the RIC or the RAD, would PGE use that capacity for the benefit of cost-of-service customers? If not, please explain why not. Please also explain how it would segregate this capacity to prevent its use for cost-of-service customers.

<u>Response:</u>

Please see PGE's response to AWEC data request 002.

Providing RIC service will require that PGE make sufficient flexible capacity available in the operational timeframe to balance ESS under scheduling practices. The RIC related revenues collected from future NLDA customers will be credited to PGE's production related revenue requirement. Should ESS under-scheduling practices improve, PGE will reserve less capacity in the operational time frame and RIC related charges will decrease.

The incremental peaking capacity resources for the RAD would be added to PGE's resource portfolio to support reliability of all customers and the associated cost of the incremental peaking capacity resources acquired for NLDA customers would be included in PGE's production revenue requirement.

To ensure that costs are not shifted between NLDA and cost-of-service customers, PGE will functionalize resource adequacy and reliability costs within PGE's revenue requirement and will rely on a cost of service (COS) study to fairly allocate the costs of reliability to all rate schedules. This result in customers in each rate schedule paying only their share of the system costs related to RA as assigned by the COS study.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 005
Dated June 17, 2019

Request:

If an ESS over-schedules, will PGE pay the ESS an amount equivalent to the RIC to compensate it for additional capacity the ESS provided? If not, please explain why not.

Response:

No. The RIC charge is needed to compensate PGE cost of service customers for the consumption of capacity necessary to balance ESS under-scheduling practices. As ESSs regularly under-schedule, particularly during times of peak demand, PGE must reserve capacity necessary to cover this expected under-schedule. ESS over-scheduling events cannot be forecasted with certainty and do not meaningfully diminish PGE's need to carry balancing capacity to cover the probability of under-scheduling. For this reason, it would be inappropriate to credit ESS customers for over-scheduling. If ESSs improve scheduling accuracy over time, then the amount of capacity held by PGE to balance ESS under scheduling will reduce and will be reflected in RIC rates following future tariff updates as described in PGE/100 at 14 & 15.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 006
Dated June 17, 2019

Request:

Does PGE agree that the imposition, and determination of the amount, of a RIC is based on the transmission schedule an ESS submits to PGE pursuant to PGE's OATT? If not, please explain why PGE disagrees.

Response:

Yes. For estimation of the operational capacity consumption associated with the RIC, PGE used aggregated ESS NERC electronic tags (e-tags), which contain both energy and transmission allocations. However, for the imposition of the RIC, PGE uses these e-tags which serve as the ESS customers' load forecast in addition to serving as the transmission schedule.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 007
Dated June 17, 2019

Request:

Please respond to the following hypothetical with regard to the RIC: Assume Customer A uses an amount of electricity that either exactly equals or is less than the forecast it submits to its ESS, but the ESS under-schedules with PGE in aggregate for all of the ESS's customers.

a. **Will PGE assess the RIC to Customer A?**
b. **If so, please explain how PGE will allocate the RIC to Customer A.**

Response:

PGE cannot speculate on the requirements, terms and conditions associated with forecasting and scheduling contained in the agreement between the ESS and the Customer nor can it speculate on what forecasts the customer provides to the ESS and how the ESS does or does not use them.

Under the scenario where an ESS under-schedules, regardless of the interaction between the customer and its ESS, the RIC will be charged to all customers served by ESS's as described in PGE/100 at 14.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 008
Dated June 17, 2019

Request:

Refer to PGE/100 at 12:15-16. Based on this sentence, is it correct that ESSs over-scheduled or scheduled to exactly match load in 60% of the hours in 2018? If not, please provide the percentage of hours in which ESSs did over-schedule or scheduled to exactly match load in 2018.

Response:

During calendar year 2018, ESSs under-scheduled 43% of the time, over-scheduled 54% of the time, and scheduled exactly to load 3% of the time. These figures represent overall performance during 2018. PGE cannot rely on ESS over-scheduling, in particular because of ESSs practices of under-scheduling during times of system peak. The table below describes ESS scheduling practices presents under highest load hours:

Highest Load Hours in 2018	Percentage Under-scheduled	Percentage Over-scheduled	Percentage Scheduled Exact
200	93.5%	4.5%	2.0%
400	84.8%	13.5%	1.8%
600	80.3%	17.5%	2.2%
800	77.5%	20.6%	1.9%
1000	76.2%	21.6%	2.2%
2000	68.9%	28.7%	2.5%

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 009
Dated June 17, 2019

Request:

Please provide the aggregate monthly over- and under-scheduling in MWh for each ESS for each of the past five years.

Response:

Attachment A to this response provides the requested data and included information is confidential and subject to Protective Order No. 19-175. PGE also notes that the data is a simple aggregation at a monthly level only and is not adjusted for other factors such as heavy-load vs. light-load hours, etc.

June 28, 2019

TO: Jesse O. Gorsuch
Alliance of Western Energy Consumers'

FROM: Karla Wenzel
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UE 358
PGE Response to AWEC Data Request No. 010
Dated June 17, 2019

Request:

Does PGE agree that the RIC would incentivize ESSs to over-schedule since the RIC is only assessed if an ESS under-schedules? If not, please explain why not.

Response:

No. The proposed RIC does not compensate ESSs for over-scheduling. Additionally, an ESS would not be incentivized to intentionally over-schedule for several reasons. Over-scheduling will require the ESS to procure excess energy at an additional cost. Over-scheduling will also expose an ESS to the price difference between the energy index specified under OATT Schedule 4R (e.g. locational marginal price) and the price at which the ESS procured the energy (e.g. day-ahead block energy purchase price).