BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1728

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, Application to Update Schedule 201 Qualifying Facility Information	THE RENEWABLE ENERGY COALITION AND NORTHWEST & INTERMOUNTAIN POWER PRODUCERS COALITION'S COMMENTS ON THE 2021 ANNUAL UPDATE

I. INTRODUCTION

The Renewable Energy Coalition and Northwest & Intermountain Power Producers Coalition (together the "QF Trade Associations") provide these comments on Portland General Electric Company's ("PGE's") 2021 annual update to avoided cost prices. PGE has not supported its proposed pricing with reasonable data or assumptions regarding contracts with qualifying facilities ("QFs") under the Public Utility Regulatory Policy Act ("PURPA"), thus the proposed pricing is unreasonable and unjust. The QF Trade Associations respectfully requests that the Oregon Public Utility Commission (the "Commission") reject PGE's proposed pricing and order PGE to: 1) adopt reasonable data and assumptions regarding QF contracts; and 2) revise its avoided cost pricing accordingly.

PURPA requires that the Commission review and approve avoided cost rates that are just and reasonable, meaning that the rates are equal to incremental cost that the utility would incur but for the purchases from the QF. The Commission has recognized that avoided cost proceedings are intended to allow for review, verification, and, if need be, challenge of utility data. This proceeding is the most appropriate place for the Commission to resolve the QF Trade

Associations' and other stakeholders' concerns, because the Commission cannot approve just and reasonable avoided cost rates without verifying the accuracy and reasonableness of PGE's data; and no other proceeding will fix the error if the Commission approves avoided cost rates that are not just and reasonable.

The QF Trade Associations are not addressing all of PGE's data but focus on PGE's assumptions that 100% of new (read: unbuilt) QFs will successfully build their facilities and 0% of existing (read: operating) QFs will renew their contracts. These assumptions impact the amount of capacity PGE assumes will exist on its system, which has significant impacts to various metrics, including the Effective Load Carrying Capability ("ELCC"). Here, PGE proposes a low ELCC for solar QFs because of its misassumptions regarding its system and the QFs that will or will not exist on it. But for the inaccuracy, PGE's proposed rates would be higher.

In these comments, the QF Trade Associations: 1) review the importance of accurate and reasonable forecasts in avoided cost proceedings just as in any planning or ratemaking proceeding; 2) explain the evidence demonstrating that PGE's assumptions are inaccurate; 3) ask the Commission to order PGE to determine reasonable forecasts and correct its inaccurate proposed rates; and 4) recommend that the adopted forecasts assume 50% of new QFs will be constructed and 75% of existing QFs will renew their contracts.[1]

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[1] The number of existing QFs that will renew their contracts is likely greater than 75%, but the QF Trade Associations propose this number as a compromise for the purposes of this case only.

II. COMMENTS

A. The Commission Should Act Now to Resolve Concerns with PGE's Proposed Rates

As an initial matter, the QF Trade Associations highlight that this docket is the most appropriate place to the Commission to address the QF Trade Associations and others' concerns with PGE's proposed rates. First, PGE's new avoided cost rates will take effect within the near future, possibly on June 30, 2021 as PGE has requested.[2] The Commission has an obligation to ensure these rates are just and reasonable and in the public interest before they take effect.[3] Therefore, the Commission must either address stakeholders' concerns now, suspend PGE's filing for further review, or decline to approve new avoided cost rates for PGE. The QF Trade Associations would prefer that the Commission address stakeholders' concerns and approve accurate avoided cost rates.

Second, other proceedings will not address the specific question of whether PGE's avoided cost rates are just and reasonable. The QF Trade Associations appreciate that the Commission has opened a docket to address the appropriate treatment of QF resources for IRP planning purposes, Docket No. UM 2038.[4] However, IRP planning is not the end-all, be-all of setting avoided cost rates. In fact, in its order acknowledging PGE's IRP Update, the Commission stated that "PGE may file the avoided cost update with the IRP Update inputs, but

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2 PGE's Request to Move Effective Date of May 3, 2021 Application to June 30, 2021 at 1.

3 OAR 860-029-0040(1). The QF Trade Associations discuss this standard further in the following section.

4 *In Re Commission Request to Adopt a Scope and Process for the Investigation into PURPA Implementation*, Docket No. UM 2000, Order No. 19-254 at 1, App. A at 1, 3 (July 31, 2019) (opening multiple dockets, including Docket No. UM 2038). As of this filing, little has occurred in Docket No. UM 2038 beyond petitions to intervene and appearances of counsel. *E.g., In Re Commission Investigation into the Treatment of QFs in the IRP Process*, Docket No. UM 2038, Ruling at 1 (June 3, 2021).

its initial filing does not necessary determine the outcome of the avoided cost proceeding."[5] Also, on the specific issue of PGE's QF contract assumptions, the Commission stated that it "recognize[s] uncertainty with the different inputs and found the assumptions were balanced enough for IRP planning purposes."[6] The Commission did not decide that the assumptions were "balanced enough" for other purposes, such as setting avoided cost rates.

Setting avoided cost rates is materially different from IRP planning, similar to how utility planning is materially different from ratemaking. When the Commission first adopted least-cost planning principles in 1989, it stated that "[t]he goal of utility planning is to assure an adequate and reliable supply of energy at the least cost to the utility and its customers consistent with the long-run public interest."[7] The Commission also stated that:

> Rate-making decisions will not be made in the Least-Cost Planning process. Decisions on whether to include in rates the costs associated with new resources can only be made in a rate filing under ORS 757.205, et seq. When a utility requests approval of expenditures or inclusion of a plant in rate base, the utility must demonstrate the justness and reasonableness of its rates at the time the resource comes on line. Under ORS 757.355, the cost of a resource may be included in rates only if the resource is "used and useful."[8]

For this docket, the Commission should consider PGE's IRP Update as only "a working document for use by the utility, the Commission, and any other interested parry in a rate case or other proceeding before the Commission, such as the review of avoided costs."[9]

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5 *In Re PGE 2019 Integrated Resource Plan*, Docket No. LC 73, Order No. 21-129 at 2-3 (May 3, 2021).
6 Docket No. LC 73, Order No. 21-129 at 5.
7 *In Re Least-Cost Planning for Resource Acquisitions*, Docket No. UM 180, Order No. 89-507 at 2 (Apr. 20, 1989).
8 Docket No. UM 180, Order No. 89-507 at 6.
9 Docket No. UM 180, Order No. 89-507 at 7.

The QF Trade Associations note that the Commission recently addressed whether Idaho Power's assumption of no wind QFs' renewing was reasonable based on the utility's claims that it "has no experience with wind QF renewables from which to draw upon."[10] Despite Idaho Power's claims, the Commission stated:

> Wind renewals are still several years away, but we agree with Staff that modeling should include some percentage, rather than taking an "all or nothing" approach. Idaho Power's assumption of zero renewals of wind QFs is unrealistic, but assuming that all resources will renew may also not be realistic. Some reasonable assumption must be made. Without any actual experience, developing such an estimate may seem arbitrary, but IRPs are, in part, based on such uncertainties and reasonable estimates and forecasts. In addition to adopting Staff's recommendation to come up with reasonable assumptions through a sensitivity analysis, we direct that, in the next IRP, Idaho Power explain how the sensitivities resulting from the study would affect the IRP's preferred portfolio and action plan if incorporated. Although we prefer that this issue be addressed generically, through UM 2038, we recognize that this docket has been delayed and conclude that such delay should not preclude directing utilities to advance toward more reasonable renewal assumptions in individual IRPs.[11]

As described in these Comments, PGE has experience with both new and renewing QFs, making its "all or nothing" assumptions even more unrealistic than Idaho Power's.

In summary, the Commission should resolve whether PGE's proposed rates are just and reasonable and in the public interest before new avoided cost rates take effect. The Commission has not made this determination already, and PGE's acknowledged IRP Update is only a working document that informs this proceeding without being dispositive as to the outcome.

B. Legal Framework for Review of Avoided Cost Updates

The Oregon State Legislature has declared that "[i]t is the goal of Oregon to … [i]nsure that rates for purchases by an electric utility from, and rates for sales to, a qualifying facility shall

[10] *In Re Idaho Power Company Integrated Resource Plan*, Docket No. LC 74, Order No. 21-184 at 19-20 (June 4, 2021).

[11] Docket No. LC 74, Order No. 21-184 at 19-20.

over the term of a contract be just and reasonable to the electric consumers of the electric utility, the qualifying facility and in the public interest."[12] The Commission has codified this goal in its regulations, which state that "[r]ates for purchases [from QFs] must [b]e just and reasonable to the public utility's customers and in the public interest."[13] These statements mirror language in the federal PURPA and in the Federal Energy Regulatory Commission's ("FERC's") regulations implementing PURPA.[14] Not only that, but under PURPA, rates for purchase by electric utilities from QFs "shall not discriminate against [QFs]."[15]

The terms "just and reasonable" and "in the public interest" are similar, but not exactly the same as those terms are used in the retail ratemaking context. Both PURPA's unique statutory framework and traditional retail ratemaking principles are relevant when the Commission evaluates whether PGE has met its burden of proof to demonstrate that its proposed avoided cost rates are consistent with these legal standards.

First, the core legal analysis that is unique to PURPA is reviewing whether PGE's proposed rates are equal to (full) avoided cost rates, considering PGE's system and available data. The Commission has previously recognized the U.S. Supreme Court's findings that:

> [t]he statements in PURPA that rates for qualifying facilities must be "just and reasonable" and "in the public interest" have very definite meanings. "Just and reasonable" requires "consideration of potential rate savings for electric utility consumers." "In the public interest" must be interpreted in a manner which increases "the utilization of cogeneration and small power production facilities and to reduce reliance on fossil fuels." With this policy directive, the [U.S. Supreme

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12 ORS 758.515(2).

13 OAR 860-029-0040(1).

14 16 USC 824a-3(b) ("[I]n requiring any electric utility to offer to purchase electric energy from any [QF], the rates for such purchase shall be just and reasonable to the electric consumers of the electric utility and in the public interest"); 18 CFR 292.304(a)(1) ("Rates for purchases shall [b]e just and reasonable to the electric consumer of the electric utility and in the public interest").

15 16 USC 824a-3(b)(2).

> Court] found reasonable FERC's rules which provide "the maximum incentive for the development of cogeneration and small power production."[16]

Both FERC and this Commission have recognized that rates for purchases from QFs satisfy "just and reasonable" and "in the public interest" standard when the rates "equal[] the [utility's] avoided costs determined after consideration of [certain] factors."[17] Those factors include utility system data and the state regulator's review of that data.[18] This is true even though paying avoided cost rates equal to a utility's avoided cost rates may "not directly provide any rate savings to electric utility consumers."[19] Thus, the question for the Commission to resolve in this proceeding is whether PGE's proposed rates are equal to (full) avoided cost rates, considering PGE's system and available data. In other words, the Commission must determine whether PGE's proposed rates are equal to PGE's avoided costs—that is, the "incremental costs of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, the electric utility would generate itself or purchase from another source, including any costs of interconnection of such resource to the system."[20] If PGE's proposed rates are not equal to PGE's avoided costs, then the proposed rates are not just and reasonable, and the Commission should not allow them to go into effect.

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16 *In Re Investigation of Avoided Costs and of Cost-effective Fuel Use and Resource Development*, Docket No. UM 21, Order No. 84-720 at 3-4 (Sept. 12, 1984) (internal citations omitted) (discussing a U.S. Supreme Court case involving PURPA, *American Paper Institute v. American Electric Power Service Corp*, 461 U.S. 402(1983).

17 18 CFR 292.304(b)(2); *see also* OAR 860-029-0040(2)(a) (using almost identical language).

18 18 CFR 292.304(e)(2); OAR 860-029-0040(5)(a).

19 *Am. Paper Inst.*, 461 U.S. at 403 (upholding FERC's decision to require what it called "full" avoided cost rates rather than some lesser amount, despite the potential lack of savings for customers).

20 OAR 860-029-0010(1).

For this proceeding, PGE bears "the burden of supporting and justifying" its rates.[21] The QF Trade Associations interpret this requirement as being synonymous with the phrase "burden of proof." Burden of proof has two meanings: "one to refer to a party's burden of producing evidence; the other to a party's obligation to establish a given proposition in order to succeed. To distinguish these two meanings, we refer to the burden of production and the burden of persuasion."[22] As described herein, PGE failed to meet either its burden of production or of persuasion.

The Commission does not appear to have adopted a specific standard for reviewing a utility's proposed avoided cost rates. In first promulgating its avoided cost rate rules, the Commission stated that the rules do not determine the sufficiency of the avoided cost data but "[r]ather, the Commissioner contemplates that when the utilities file data in response to the requirements of these rules, the data will be subject to verification and may be challenged by those who believe it inaccurate."[23] The Commission has also recognized that "[e]stimates of avoided costs are not precise numbers . . . . They are estimates."[24] Nonetheless, the Commission stated that these estimates must be based on the "best evidence available."[25] Most recently, the Commission has determined that the scope of an avoided cost rate filing is not to revisit the

21 OAR 860-029-0085(4); *see also* OAR 860-029-0080(6), -0085(3).

22 *In Re PacifiCorp Request for a General Rate Revision*, Docket No. UE 374, Order No. 20-473 at 5 (Dec. 18, 2020) (citations omitted).

23 *In Re Investigation into Electric Utility Tariffs for Cogeneration and Small Power Production Facilities,* Docket No. R-58, Order No. 81-755 at 2 (Oct. 29, 1981).

24 *In Re Investigation into Competitive Bidding by Investor-Owned Electric Utility Companies*, Docket No. UM 316, Order No. 91-1383 at 15 (Oct. 18, 1991).

25 Docket No. UM 316, Order No. 91-1383 at 15.

underlying methodologies, but to instead determine whether the rates have been accurately calculated.[26]

The Commission has ample experience assessing the reasonableness of utility estimates. Similar questions arise in every ratemaking and prudence case the Commission hears. The Commission should rely upon its traditional retail ratemaking standards for ascertaining whether similar power costs charged to ratepayers are just and reasonable. This includes whether the rates are based on justifiable assumptions and accurate estimates similar to other cost forecasts, including power costs, pensions, benefits, etc. There is no legal basis to allow inaccurate, unreasonable, or outcome determinative cost forecasts simply because the actual rates that are set will be paid to non-utility generators rather than paid by retail ratepayers. Indeed, such an approach would not make sense since retail ratepayers will ultimately pay whatever avoided cost rates the Commission approves for future QFs.

In those cases, the Commission has established a clear expectation that utilities base their decision-making upon justifiable assumptions and accurate estimates.[27] The Commission does not decide the cases based on whether the forecast will increase or decrease rates or any outcome determinative factors, but what is the most correct result based on the information available to it at that time.

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26 *In Re Public Utility Commission Investigation to Determine if Pacific Power's Rate Revision Is Consistent With the Methodologies and Calculations Required by Order No. 05-584*, Docket No. UM 1442, Order No. 09-506 at 5 (Dec. 28, 2009).

27 *E.g.*, Docket No. UE 374, Order No. 20-473 at 74 (Dec. 18, 2020) (discussing an earlier decision to disallow costs where the utility had "unjustified assumptions, lack of meaningful sensitivity and scenario analyses, failure to incorporate potential costs of known, emerging regulations, failure to appropriately update analyses, and other issues with … modeling").

For example, the Commission's prudence standard allows utilities to recover costs from ratepayers only if the utility demonstrates (by a preponderance of the evidence) that its decisions to incur costs were reasonable.[28] In the prudence context, the Commission has adopted an "objective standard of reasonableness" that asks "whether the utility exercised the standard of care which a reasonable person would be expected to exercise under the same circumstances encountered by utility management at the time the decision had to be made."[29]

The Commission should apply a similar standard here: in carrying the burden to demonstrate that proposed cost estimates are equal to avoided costs, utilities should demonstrate that their assumptions are justified and their estimates accurate, considering what a reasonable person would do. The Commission is charged with ensuring that utility rates to customers are "fair and reasonable,"[30] and Oregon courts will not disturb a Commission ratemaking decision so long as it is supported by "substantial evidence."[31] Ratemaking generally begins by determining "how much revenue [a] utility is entitled to receive," which occurs as follows:

> To determine authorized revenues, the Commissioner projects what a utility's actual costs will be for the next year. The utility is entitled to have rates set to recover those costs: actual costs equal authorized revenues. The Commissioner performs this task by comparing actual costs derived from the expenses, capital costs and fair return on equity of a selected "test year" with actual test-year revenues. All test-year amounts are "normalized" for non-recurring items and for anticipated changes; costs that stockholders alone should bear are disallowed. If, after all adjustments, actual costs will exceed actual revenues under the existing rate structure, the utility is entitled to increase its revenues, by increasing rates, to recover that excess.[32]

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28 *E.g.*, Docket No. UE 374, Order No. 20-473 at 5.

29 *E.g.*, Docket No. UE 374, Order No. 20-473 at 74 (citations omitted).

30 ORS 756.040(1); *see also* ORS 757.210 (prohibiting the Commission from approving rates that are "not fair, just and reasonable").

31 *See generally Am. Can Co. v. Lobdell*, 55 Or App 451, 463 (1982).

32 *Am. Can*, 55 Or App at 454-455.

The Commission has previously explained in the context of estimating utility costs (here wages) that:

> It is well established that rates should be on the basis of actual operating experience during a representative period of time, adjusted for known changes. This period of time should be the latest for which complete information is available. The adjustments are made to normalize for a typical relationship between investment, revenues, and expenses. It is to bring about this typical relationship that sound rate-making practice requires appropriate adjustments to actual operations for wage increases occurring during the test period used.[33]

Because future costs are unknown and rate cases do not occur every year, the Commission has over time found it appropriate to allow mini-rate case proceedings for a subset of costs. For example, in 2007, the Commission approved an annual power cost adjustment mechanism for PGE, such that the rates to customers may be updated annually to reflect the difference between forecasted power costs and actual power costs.[34] In adopting this mechanism, the Commission stated that "it is important to update the forecast of power costs included in rates to account for new information."[35]

One item updated in this process is power costs associated with QF contracts. The standard in these proceedings is to obtain an accurate forecast of those QFs that will come on line, and the Commission cannot permit PGE to simply assume 100% of its QFs will timely meet their commercial operation date ("COD") without demonstrating that assumption is reasonable. Until 2018, PGE would seek to recover from ratepayers the costs expected to occur from any contracted QF whose scheduled COD occurred within the next calendar year (i.e., the time

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33 *Re the California Oregon Power Company,* U-F-2245, Order No. 37396, 1960 ORE. PUC LEXIS 2, at *16-18 (Sept. 20, 1960).

34 *E.g.*, *In Re PGE Application for a General Rate Revision,* Docket No. UE 180, Order No. 07-015 at 18-19 (approving PGE's request for an Annual Update Tariff to address differences between forecasted and actual power costs).

35 Docket No. UE 180, Order No. 07-715 at 18-19.

period for the adjustment), unless PGE had information supporting a different date.[36] Pre-2018, PGE has explained that it would update its filing to reflect "any known changes" based on new information either from a QF developer or from PGE's "internal assessment to determine the likelihood that a proposed project will achieve their stated COD."[37] PGE has testified that "[d]elays may be a result of interconnection related construction, permitting, or obtaining firm long-term transmission" and "new QFs can encounter any number of constraints that might prevent them from achieving their scheduled COD." For example, QFs that are on-system (i.e., in PGE's service territory) might face constraints related to permitting, while QFs that are located off-system (i.e., outside of PGE's service territory) might face constraints due to transmission."[38] The obvious conclusion is that such project delays (which can be fatal and cause contract terminations) are an important piece of "new information" relevant to setting rates.[39]

The Commission has not directly considered a specific approach for PGE to account for QF contracts in its annual update since 2018, as the issue has been resolved by stipulations the Commission found to be just and reasonable. The 2019 stipulation requires PGE to apply its true-mechanism but to "derate the expected generation of new QFs that have not achieved commercial operation by November 1st of each year" and to set the derate "based on the most recent four-year historical annual average of actual versus projected QF costs."[40] PacifiCorp and

36 *See, e.g., In Re PGE Application for a General Rate Revision,* Docket No. UE 335, PGE/300, Nima-Kim-Batzler/31, 33.

37 Docket No. UE 335, PGE/300, Nima-Kim-Batzler/33:6-12.

38 Docket No. UE 335, PGE/300, Nima-Kim-Batzler/31, 33.

39 *In Re PGE 2020 Annual Power Cost Update Tariff (Schedule 125)*, Docket No. UE 359, Order No. 19-329 at 2, App. A at 3-4 (Oct. 3, 2019).

40 *In Re PGE 2020 Annual Power Cost Update Tariff (Schedule 125)*, Docket No. UE 359, Order No. 19-329 at 2, App. A at 3-4 (Oct. 3, 2019).

Idaho Power have also agreed that power costs should not include all QFs, but instead include a reasonable forecast.[41]

C. PGE Has Not Met Its Burden of Proof to Demonstrate that the Proposed Avoided Cost Rates Are Reasonable Estimates of PGE's Actual Avoided Cost Rates

The QF Trade Associations are challenging PGE's proposed rates because they are not reasonable estimates of PGE's actual avoided cost rates. PGE has based its proposed rates upon data and underlying assumptions that are inaccurate and not reflective of the best evidence available. PGE's actions would be considered imprudent and not in accordance with the standard of care a reasonable person would exercise in estimating avoided costs. No reasonable person would make business decisions based on such unreasonable forecasts. The QF Trade Associations assert that PGE has selectively chosen data designed to result in proposed rates that are lower than its actual avoided costs. The QF Trade Associations do not have the resources to review, and are not challenging, all of PGE's data and assumptions, but focuses here on what it understands to be the most significant and glaring inaccuracies based on the limited data available. The QF Trade Associations will review the comments of other parties and may recommend further adjustments.

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41 *In Re Idaho Power Company 2020 Annual Power Cost Update*, Docket No. UE 366, Order No. 20-164 at 5-6 (May 21, 2020) (adopting another stipulation modifying the Contract Delay Rate ("CDR") approach); *In Re PacifiCorp dba Pacific Power 2018 Transition Adjustment Mechanism*, Docket No. UE 323, Order No. 17-444 at 17 (Nov. 1, 2017) (ordering PacifiCorp to "use a three year rolling average of delays to produce a CDR, apply this CDR to the CODs reported in the indicative update, and adjust the TAM year forecast based on the delay days").

PGE proposes to reduce the current Commission-approved avoided cost rates for solar QFs by approximately 10-20%.[42] The primary factor for the reductions is PGE's estimate of the ELCC for solar QFs, which PGE asserts is only 5.5%, relative to an ELCC in PGE's current Commission-approved avoided costs of 15.8%.[43] PGE has stated that the main driver for the reduction is PGE's assessment that approximately 200 MW of new solar resources are already expected to serve PGE's load within the near future.[44] This 200 MW includes the addition of 80.35 MW of new contracts that PGE executed with solar QFs[45] as well as the removal of almost 100 MW of contracts with QFs that were terminated before the resources came online.[46] PGE does not know how many contracted QFs will actually come online, thus these numbers are only estimates. In determining how many new QFs with executed contracts are likely to come online, PGE has made no attempt to develop an accurate forecast and instead adopted a simplifying assumption of 100%.[47] PGE also does not know how many QFs will execute new contracts or

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42 Attachment A at 2 (PGE Responses to REC Data Requests 2, 3, 4, 5, 6, 8). The QF Trade Associations are not agreeing that the current rates are accurate but limits their comments to PGE's proposed changes.

43 PGE's Application to Update Schedule 201 Qualifying Facility Information at 2 (May 3, 2021) [hereinafter PGE's 2021 Application]; Docket No. LC 73, Order No. 21-129 at 3.

44 PGE's 2021 Application at 2 ("[t]he solar ELCC value … declined primarily due to the increase in solar resource in PGE's Baseline Portfolio"); Docket No. LC 73, Order No. 21-129 at 5 (acknowledging the addition of 200 MW of solar to PGE's Baseline Portfolio).

45 *See* Attachment A at 3-4.

46 The QF Trade Associations are not certain of the exact number of terminations, and determined this number based on PGE's data which may be inaccurate. PGE says the approximately 200 MW reflects the net addition to PGE's baseline of adding 162 MW of GEAR resource, 93 MW of Community Solar resources, and 80 MW of new QFs, which all total approximately 335 MW. To reach 200, the removed QFs must equal roughly 130 MW. However not all of these removed QFs were necessarily terminated. Of the removed amount, approximately 35.1 MW reflects capacity now in the Community Solar program but previously in the baseline as QF resources. Attachment A at 5. That leaves approximately 95 MW of terminated QF resources removed from PGE's baseline.

47 PGE's 2021 Application at 4.

renew existing contracts. So, PGE has again refused to attempt to develop an accurate forecast and has adopted a simplifying assumption of 0%, even for existing QFs that are operational.[48] PGE could have just as easily assumed the exact opposite simplifying assumptions, and, for example, assumed that 100% of existing projects would renew their contracts.

PGE's simplifying assumptions are inaccurate, unjustified, and do not demonstrate the standard of care a reasonable person would exercise. The evidence is clear that not every new resource will be built, and potentially all existing resources are likely to renew their contracts. The QF Trade Associations do not know what the best forecast of these assumptions might be; however, it is certain that PGE's forecasts are the most *in*accurate possible. In other words, PGE could have picked any other number between 1% and 99%, and it would be a more reasonable forecast.

A reasonable forecast is likely somewhere between 30% and 60% for new QFs to come on line (rather than 100%) and likely as high as 100% for existing QFs to renew their contracts (rather than 0%). The QF Trade Associations recommend that the Commission order PGE to determine reasonable forecasts and recalculate the proposed rates using the reasonable forecasts. Adopting reasonable forecasts should result in higher avoided cost rates for solar QFs. Specifically, the QF Trade Associations recommend that the PGE's avoided cost be set based on an assumption that 50% of QFs that are not yet operational will be constructed, and that 100% of existing QFs will renew their contracts.

48 *See* PGE's 2021 Application at 4. Including only executed contracts ignores contracts, like renewal contracts, that are likely to be executed in the future.

1. PGE's Assumption that 100% of New QFs will Achieve Commercial Operations is Inaccurate, Not Reflective of the Best Evidence Available, and Unreasonable

PGE's forecast of 100% success is not reasonable, as it is not supported by PGE's own system data nor by PGE's experience with QF development. PGE admits that historically, only about half of contracted QFs have ultimately come online.[49] In other words, PGE is assuming the success rate for QFs will immediately *double*. In reality, since PGE's selected snapshot date, PGE has terminated 19 contracts totaling 88 MW that it had included in its IRP Update baseline, or approximately 28.8% of the resources (and 27.6% of the MW) that were not yet online.[50] Already, that produces a potential success rate, at best, of only about 71%, a significant difference from PGE's proposed 100% assumption.

This low success rate is understandable, considering the difficulty of constructing and financing new QFs in PGE's service territory. As a general matter, many QFs are developed by smaller developers like irrigation and water districts, cities, counties, farmers, and universities with only single projects or small development portfolios that supplement their normal non-energy business operations in a given locality. Unlike utility resources which may complete construction if they are overbudget or poorly perform because ratepayers can absorb the cost increases, QFs are financed by private or public capital with less willingness to absorb cost increases.

However, the circumstances of QF development generally do not explain the unique difficulty of developing QFs in PGE's service territory. QF success rates for projects entering

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49 Attachment A at 11, 12 (PGE's response to the request for a "current historical success rate of QFs coming online" of "~51%).

50 *See* Attachment A at 7-8 (summing the now-terminated PPAs that were included in PGE's IRP Update Baseline).

into contracts with other utilities are higher. The biggest problem in PGE's service territory is that PGE does not want to purchase the power, and PGE has taken aggressive actions to reduce the changes for QFs to operate.[51] On top of these contracting challenges are the unprecedented difficulties associated with PGE's interconnection process, including delays, wildly inaccurate cost estimates, expensive and unnecessary equipment, the inability to understand the basis for PGE's interconnection upgrades, no ability to control or hire third parties to perform interconnection work, and the lack of meaningful ability to obtain relief from the Commission on interconnection disputes. Given these factors, it is perhaps surprising that as many QFs have in fact become operational in PGE's service territory.

PGE claims that its simplifying assumption of 100% is justified despite the low historic success rate, but none of PGE's justifications are supported. First, PGE claims that "past terminations may not provide a reasonable forecast of future terminations."[52] PGE suggests that its concern is due to limited information, but that does not justify ignoring what data exists. PGE states that "[a]pproximately 55% of PGE's QF contracts were executed from 2017 to 2021."[53] In discovery, PGE clarified that this refers specifically to *solar* QFs, as the percentage for all QF

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[51] This is illustrated from PGE having an unprecedented amount of PURPA litigation since April 2017. *See PGE's Request to Update Schedule 201 and Standard Power Purchase Agreements*, Docket No. UM 1987, PGE Filing Letter at 3 (Dec. 7, 2018) ("Since April 28, 2017, PGE has received more than 50 Commission complaints, one Federal Energy Regulatory Commission (FERC) complaint, one FERC request for declaratory ruling, and two state and federal district court complaints regarding QF contracting, many of which have stemmed from confusion or disagreement regarding PGE's contracting process or the meaning of terms in the PPAs. In addition, PGE has filed three complaints to obtain clarity regarding QF eligibility or disputed terms and to protect PGE's customers from harm.").

[52] PGE's 2021 Application at 4.

[53] PGE's 2021 Application at 4.

types is 51%.[54] While PGE has not provided a reasoned explanation, PGE appears to be saying is that the 77 contracts it executed from 2010 to 2016 might not be representative of the 83 contracts it executed after 2017.

The QF Trade Associations disagree with PGE's decision to completely ignore historic success rates. PGE continues to take aggressive actions against QFs in the contracting process. For example, PGE is currently in litigation to terminate a number of projects over a Force Majeure dispute,[55] and PGE recently won a case allowing it to terminate another QF project.[56] Similarly, QFs continue to experience an unprecedented level of interconnection related difficulties with PGE. The Commission has not yet taken any systematic actions to improve the interconnection process, and the QF success rate will likely remain low until the Commission adopts new rules or otherwise provides direction to PGE to change its practices.[57] The QF Trade Associations agree that the historic success rate of 51% may not be an exact predictor of future success, but disagree with PGE's view that the past should be ignored, and disagree that information about half of PGE's dataset is irrelevant to setting a reasonable forecast. It is likely the best information that is available.

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54 *See* Attachment A at 9-10.

55 *See PGE v. Dayton Solar et al.*, Docket No. UM 2151, Complaint at 10-11.

56 *See Fossil Lakes Solar v. PGE*, Docket No. UM 2051, Order No. No. 20-340 at 1 (Oct. 12, 2020).

57 The QF Trade Associations recognize that the Commission has made interconnection improvements for community solar QFs, required the utilities provide limited additional information, and opened two interconnection investigations. However, the only substantive decision that the Commission has issued on non-CSP interconnections has exacerbated interconnection problems by concluding that Oregon QFs, unlike FERC jurisdictional QFs, do not have the right to construct their own interconnection facilities. *Sandy River Solar v. PGE*, Docket No. UM 1967, Order No. 19-218 at 1 (June 24, 2019).

Second, PGE claims that adopting a forecast for future terminations would also require adopting a forecast for future contract executions, renewals, and other programs. As an initial matter, this ignores that PGE *already* has adopted forecasts of 100% and 0%, respectively. PGE asserts that adopting (presumably more nuanced) forecasts would be "highly speculative" and, because the forecasts are "opposing," would be based on "unsupported assumptions which would likely conflict."[58] Instead, PGE decided to use forecasts that are simply wrong.

Finally, PGE asserts that it would be inappropriate to adopt a (different) forecast for future terminations without making corresponding changes to QF contract and pricing terms.[59] If PGE believes that the default and damages provisions of its contracts are inaccurate, it is free to raise concerns with the Commission. However, those sorts of concerns are irrelevant to setting avoided cost pricing. Setting inaccurately low avoided cost prices will not discourage QFs from encountering project delays and hurdles. If anything, it would only make it less likely for any QF to attract financing and overcome those hurdles.

While it may be impossible to say whether any individual QF resource will or will not be built, the QF Trade Associations support developing reasonable forecasts about what is expected to happen in the aggregate. Such an approach would mirror PGE's planning assumptions for the Oregon Community Solar Program, where there is not certainty whether any of the as-yet-unbuilt community solar resources will be built, but there is a reasonable likelihood that the program as a whole will succeed and result in additional solar capacity. PGE should not lose the forest for the trees by focusing too narrowly on the specific QF resources rather than the overall QF resource trends.

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[58] PGE's 2021 Application at 4.
[59] PGE's 2021 Application at 4.

2. PGE's Assumption that 0% of Existing QFs Will Renew Their Contracts Is Inaccurate, Not Reflective of the Best Evidence Available, and Unreasonable

PGE's forecast that 0% of existing QFs will renew their contracts is similarly inaccurate, not reflective of the best evidence available, and unreasonable, and the Joint QF Trade Associations recommend that for the purposes of this proceeding, a renewal assumption of 75% be used. The evidence is overwhelming that the vast majority of operating QFs renew their contracts with their interconnected utility.[60] PURPA requires that PGE purchase from QFs, and it is likely that QFs will renew or seek to enter new contracts at the conclusion of their current contracts. This is especially true for QFs that are already operating. Small existing facilities rarely have the option of selling their power to other entities, and typically only have the choice of continuing to sell their power to their interconnected utility or shutting down. Once operational, the QF has few options to sell their electricity, and therefore even more likely that it will renew or enter a new contract with PGE.

In the face of this evidence, PGE provides no real justification for its planning assumption of 0%. The only explanation the QF Trade Associations are aware of is that PGE has decided to make an unreasonable forecast because of an accurate estimate would increase prices.

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60 Idaho Power, with far more experience than PGE, assumes that 100% of its existing non-wind QFs will renew their contracts. Docket No. LC 74, Idaho Power Final Comments at 66 (Feb. 5, 2021). The Commission has recognized that "non-renewal may not be the best planning assumption when many (or most) QFs do, in fact, renew." *In Re PacifiCorp 2017 Integrated Resource Plan*, Docket No. LC 67, Order No. 18-138 at 12 (Apr. 27, 2018). All of PGE's existing QFs have renewed their contracts. For PacifiCorp, the vast majority of existing QFs have renewed their contracts with PacifiCorp. *See In Re PacifiCorp 2019 Integrated Resource Plan,* Docket No. LC 70, Renewable Energy Coalition's Comments at 6 (Jan. 10, 2020). The Commission has also stated that "[s]ome reasonable assumption must be made." Docket No. LC 74, Order No. 21-184 at 19. The QF Trade Associations assert that assuming all of PGE's existing QFs will renew their contracts is consistent with the available data and is therefore a "reasonable assumption."

In the 2019 IRP, PGE provided a candid response to a similar recommendation by the Renewable Energy Coalition, stating that: "REC's recommendation to assume a lower quantity of QFs than executed obligations would serve to raise future prices that customers would be required to pay to QF developers, risking overpayments from customers with no recourse."[61] The Commission would never permit a utility to base an inaccurate forecast upon a utility's goal to charge ratepayers a higher price. Similarly, the Commission should reject PGE's proposal to use an inaccurate forecast for the sole purpose of setting lower (and inaccurate) avoided cost prices.

III. CONCLUSION

For the foregoing reasons, the Commission should reject PGE's proposed rates as inaccurate and unsupported and instead order PGE to determine an accurate ELCC value based on forecasts for QF resources that are reasonable.

Dated this 8th day of June 2021.

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61 *In Re PGE 2019 Integrated Resource Plan*, Docket No. LC 73, PGE Comments at 62 (Nov. 5, 2019).

Respectfully submitted,

Sanger Law, PC

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Of Attorneys for the Renewable Energy Coalition and Northwest & Intermountain Power Producers Coalition

Attachment A

PGE Responses to REC Data Requests 2, 3, 4, 5, 6, 8

May 21, 2021

TO: Irion Sanger
Renewable Energy Coalition

FROM: Robert Macfarlane
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UM 1728
PGE Response to REC Data Request No. 002
Dated May 7, 2021

Request:

Please reference PGE's Supplemental Filing in Docket No. LC 73 at page 7, Table 4. Please provide the percentage changes to current avoided cost pricing from PGE's proposed update. Please provide the information in Excel format with working files.

Response:

See Attachment 002-A containing the percent changes to current avoided cost pricing.

2024 COD, 15-year term levelized

Non-Renewable Base Load		
Current Avoided Cost - 2021 $	May 3, 2021 Proposed Pricing (May 3, 2021) - 2021 $	% change
$32.85	$32.69	-0.5%

Non-Renewable Wind		
Current Avoided Cost - 2021 $	May 3, 2021 Proposed Pricing (May 3, 2021) - 2021 $	% change
$28.56	$27.15	-4.9%

Non-Renewable Solar		
Current Avoided Cost - 2021 $	May 3, 2021 Proposed Pricing (May 3, 2021) - 2021 $	% change
$26.68	$21.23	-20.4%

Renewable Base Load		
Current Avoided Cost - 2021 $	May 3, 2021 Proposed Pricing (May 3, 2021) - 2021 $	% change
$49.14	$50.13	2.0%

Renewable Wind		
Current Avoided Cost - 2021 $	May 3, 2021 Proposed Pricing (May 3, 2021) - 2021 $	% change
$44.85	$44.59	-0.6%

Renewable Solar		
Current Avoided Cost - 2021 $	May 3, 2021 Proposed Pricing (May 3, 2021) - 2021 $	% change
$45.87	$41.23	-10.1%

May 21, 2021

TO: Irion Sanger
Renewable Energy Coalition

FROM: Robert Macfarlane
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UM 1728
PGE Response to REC Data Request No. 003
Dated May 7, 2021

Request:

Please reference PGE's Supplemental Filing in Docket No. LC 73 at page 3, which states "the decline in the marginal ELCC value for solar is primarily due to approximately 200 MW of additional solar resource in the Baseline Portfolio since the analysis for the 2019 IRP." Please provide the MW of additional resource rounded to at least two decimal points and a tabular breakdown of origin and size of the solar resources added to the baseline portfolio. Please provide the information in Excel format with working files.

Response:

PGE objects to this request to the extent that it requires new analysis and seeks information outside the scope of this proceeding. Subject to and without waiving these objections, PGE responds as follows:

For the purpose of responding to this request, PGE assumes that "origin" refers to the project location.

Attachment 003 -A provides a table of the solar resources included in the 2019 IRP Update Baseline Portfolio that were not included in the Baseline Portfolio for the filed 2019 IRP.[1]

The "approximately 200 MW of additional solar resources" is the net change to the portfolio due to both additions and subtraction, including anticipated terminations associated with the Community Solar Settlement Agreement.

[1] PGE notes that in preparing this response, we found an inadvertent data copy error in the response to LC 73 OPUC Data Request No. 235. We will be filing a supplemental response with corrected information as soon as possible.

UM 1728_REC DR 003_Attach-A

Additional solar resource in the 2019 IRP Update Baseline Portfolio that were not in the filed 2019 IRP Baseline Portfolio

Project Name	Project Size MW	Location
GEAR Initial Offering	162.00	Gilliam County, OR
Community Solar Program	93.15	PGE System
Big Horn	2.20	Marion County, OR
Blue Marmot IX	10.00	Lake County, OR
Blue Marmot V	10.00	Lake County, OR
Blue Marmot VI	10.00	Lake County, OR
Blue Marmot VII	10.00	Lake County, OR
Blue Marmot VIII	10.00	Lake County, OR
Connley Solar	10.00	Lake County, OR
Coolmine Solar	1.98	Clackamas County, OR
Dublin Solar	2.97	Clackamas County, OR
Hogan Solar	2.57	Polk County, OR
Minke Solar	2.20	Clackamas County, OR
Pika Solar	2.20	Marion County, OR
Reed Solar	2.20	Polk County, OR
Stilorgan Solar	1.53	Polk County, OR
Walker Creek Solar	2.50	Polk County, OR

May 21, 2021

TO: Irion Sanger
Renewable Energy Coalition

FROM: Robert Macfarlane
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UM 1728
PGE Response to REC Data Request No. 004
Dated May 7, 2021

Request:

Please reference PGE's Application at 3, which states that "the 2019 IRP Update included the approximately 93 MW from the CSP in the Baseline Portfolio, which is now incorporated into this avoided cost update. This "snapshot" also incorporated the anticipated QF contract terminations related to the Community Solar Settlement Agreement." For the solar resources in the Community Solar Settlement Agreement, please state: 1) the total capacity in MW; and 2) the total capacity in MW that was in the 2019 IRP baseline portfolio as an executed QF contract and was removed in this avoided cost update.

Response:

1) PGE's understanding of the total capacity of the solar QF projects associated with the companies listed in Attachment A, page 1 of the Community Solar Settlement Agreement is approximately 50.4 MW.[1]

2) Of the 50.4 MW referenced in the response to part 1), 35.1 MW were included in the Baseline Portfolio for the filed 2019 IRP. None of these resources were included in the 2019 IRP Update Baseline Portfolio, including those with contracts executed after the filed 2019 IRP QF snapshot.

   PGE notes that the IRP Update inputs to the pricing workbook in the May 3, 2021 annual avoided cost pricing update are from the acknowledged 2019 IRP Update. (The avoided cost update and the 2019 IRP Update have the same Baseline Portfolio.)

[1] The settlement agreement was filed by PGE in Docket No. ADV 1112 on May 15, 2020.

May 21, 2021

TO: Irion Sanger
Renewable Energy Coalition

FROM: Robert Macfarlane
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UM 1728
PGE Response to REC Data Request No. 005
Dated May 7, 2021

Request:

Please reference PGE's Application at 4, which states that "PGE includes all executed PURPA QF contracts in the Baseline Portfolio." Please identify all PURPA QF contracts that PGE has executed from January 1, 2015 to the present date. For each executed PURPA QF contract, please state: 1) the date of execution; 2) the QF size in MW; 3) the type of resource; 4) whether the contract was for a new resource or an existing resource; 5) the scheduled commercial operation date ("COD") in the unamended contract; 6) whether the scheduled COD was amended and, if so, the scheduled COD as amended; 7) whether the QF has achieved commercial operations and, if so, the date; 8) whether the contract was terminated and, if so, the date, 9) whether the QF contract in currently in PGE's Baseline Portfolio; 10) when PGE assumes the QF will achieve commercial operations, if applicable; and 11) whether the contract has been terminated by PGE or the QF. Please provide the information in Excel format with working files.

Response:

PGE objects to this request to the extent that it is overly broad, unduly burdensome, and requests information not relevant to this proceeding. Subject to and without waiving these objections, PGE responds as follows:

Please see Attachments 005-A and 005-B. Attachment 005-B is protected information subject to Order No. 17-321.

Regarding parts 9 and 10 of this request: Column K identifies whether or not a QF contract was included in the 2019 IRP Update Baseline Portfolio (part 9). For part 10, column L provides the assumed start date for the 2019 IRP Update. PGE assumes the QF will achieve COD on the date that the QF selects. For the 2019 IRP Update, if the QF had missed its COD by the snapshot date, PGE made a simplifying assumption that the QF would achieve commercial operations by July 1, 2020. As discussed in PGE's Reply Comments, this was a reasonable modeling simplification as any assumption of a date prior to 2025 would not impact ELCC calculations. See also PGE's response to UM 1728 REC Data Request No. 10, part c.

Existing and Proposed PURPA Qualified Facilities (QFs)
by Shawn Davis / Bruce True
03/22/2016

Project Name	Status	PPA Execution Date	Resource Type	Nameplate Capacity	Actual COD	Contracted COD	Type of PPA	PPA Expiration Date	Renewal	In IRP Update Baseline	IRP Update Estimated Start Date
Alfalfa Solar	Terminated	6/26/2016	Solar	10		6/26/2019	Standard	Terminated		Yes	7/1/2020
Alkali	Active	8/26/2016	Solar	10	6/16/2020	7/31/2019	Standard	7/31/2032		Yes	7/1/2020
AM - West Silverton	Active	4/19/2018	Solar	2.97	2/18/2021	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Amity Solar	Terminated	5/20/2016	Solar	4		12/31/2019	Standard	Terminated		Yes	7/1/2020
Ashcroft Solar	Terminated	6/4/2018	Solar	2.25		9/30/2019	Standard	Terminated		Yes	7/1/2020
Ashfield Solar	Community Solar Settl	4/19/2018	Solar	3		12/2/2019	Standard	Terminated (CSSA)		No	
Auburn Solar	Community Solar Settl	8/31/2018	Solar	1.26		7/2/2021	Standard	Terminated (CSSA)		No	
Auburn Solar	Community Solar Settl	1/17/2020	Solar	1.26		11/2/2022	Standard	Terminated (CSSA)		No	
Ballston Solar	Active	5/2/2016	Solar	2.2	12/18/2018	8/31/2018	Standard	5/2/2036		Yes	12/18/2018
Belvedere Solar	Community Solar Settl	9/9/2019	Solar	2.97		5/2/2022	Standard	Assumed Terminated (CSSA)		No	
Big Horn	Active	9/17/2019	Solar	2.2	12/28/2020	5/1/2020	Standard	8/13/2037		Yes	7/1/2020
Black Forest Solar	Terminated	4/19/2018	Solar	1.26		12/2/2019	Standard	Terminated		No	
Blue Marmot IX	Active	6/23/2020	Solar	10		12/7/2022	Standard	6/22/2038		Yes	12/7/2022
Blue Marmot V	Active	6/23/2020	Solar	10		9/27/2022	Standard	6/22/2038		Yes	9/27/2022
Blue Marmot VI	Active	6/23/2020	Solar	10		10/13/2022	Standard	6/22/2038		Yes	10/13/2022
Blue Marmot VII	Active	6/23/2020	Solar	10		11/2/2022	Standard	6/22/2038		Yes	11/2/2022
Blue Marmot VIII	Active	6/23/2020	Solar	10		11/23/2022	Standard	6/22/2038		Yes	11/23/2022
Boring Solar	Active	1/25/2016	Solar	2.2	4/3/2019	1/31/2019	Standard	1/25/2036		Yes	4/3/2019
Bridgeport Solar	Terminated	5/20/2016	Solar	7		12/31/2019	Standard	Terminated		No	
Brightwood Solar	Active	3/1/2017	Solar	10		11/30/2021	Standard	2/1/2037		Yes	11/30/2021
Bristol Solar	Active	4/19/2018	Solar	3	1/6/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Brush College Solar	Terminated	5/25/2018	Solar	2		12/1/2019	Standard	Terminated		Yes	7/1/2020
Brush Creek Solar	Active	6/23/2017	Solar	2.2	5/15/2020	4/5/2019	Standard	6/23/2037		Yes	5/15/2020
Buckner Creek Solar	Community Solar Settl	11/29/2018	Solar	2.5		12/1/2020	Standard	Assumed Terminated (CSSA)		No	
Butler Solar	Active	1/25/2016	Solar	4.0	3/19/2021	5/29/2020	Standard	1/25/2036		Yes	7/1/2020
Carlow Solar	Terminated	11/29/2018	Solar	2.565		7/2/2021	Standard	Terminated		No	
Carnes Creek Solar	Community Solar Settl	8/31/2018	Solar	2.5		11/1/2020	Standard	Terminated (CSSA)		No	
Case Creek Solar	Active	6/22/2016	Solar	2.2	10/29/2019	5/5/2019	Standard	6/20/2036		Yes	10/29/2019
Clayfield Solar	Community Solar Settl	11/7/2018	Solar	2.565		7/2/2021	Standard	Assumed Terminated (CSSA)		No	
Connley Solar	Active	5/21/2019	Solar	10		12/1/2021	Standard	12/1/2041		Yes	12/1/2021
Coolmine Solar	Active	4/15/2020	Solar	1.98		2/2/2023	Standard	2/1/2043		Yes	2/2/2023
Cork Solar	Community Solar Settl	1/17/2020	Solar	1.26		11/2/2021	Standard	Assumed Terminated (CSSA)		No	
Cork Solar (2)	Active	1/17/2020	Solar	1.26		5/2/2022	Standard	5/1/2042		No	
Cosper Creek Solar	Community Solar Settl	4/19/2018	Solar	2.5		12/1/2019	Standard	Terminated (CSSA)		No	
Cow Creek Solar	Active	6/4/2018	Solar	1.75		2/1/2020	Standard	2/1/2040		Yes	7/1/2020
Cusack Solar	Community Solar Settl	1/17/2020	Solar	2.565		11/2/2022	Standard	Assumed Terminated (CSSA)		No	
Daisy Solar 1	Terminated	8/22/2017	Solar	10		4/6/2020	Standard	Terminated		No	
Day Hill Solar	Active	11/10/2016	Solar	2.2	10/26/2020	7/14/2019	Standard	9/7/2036		Yes	9/15/2020
Dayton Solar I	Terminated	1/25/2016	Solar	10		1/25/2019	Standard	Terminated		No	
DB - Bull Run	Active	4/19/2018	Solar	2.565	12/15/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
DC - Donald	Active	4/19/2018	Solar	2.16	10/28/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
DD - Molalla	Terminated	4/19/2018	Solar	3		12/2/2019	Standard	Terminated		No	
Delaney Solar	Active	12/27/2017	Solar	2.5		10/31/2020	Standard	12/26/2032		Yes	10/31/2020
DF - West Eagle Creek	Active	4/19/2018	Solar	2.79	6/26/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Dover Solar	Community Solar Settl	10/2/2019	Solar	1.98		5/2/2022	Standard	Assumed Terminated (CSSA)		No	
Drift Creek	Active	1/25/2016	Solar	2.2	5/15/2020	4/1/2019	Standard	1/25/2036		Yes	5/15/2020
Dryland Solar	Terminated	4/19/2018	Solar	2.5		12/1/2019	Standard	Terminated		Yes	7/1/2020
Dublin Solar	Active	4/15/2020	Solar	2.97		2/2/2023	Standard	2/1/2043		Yes	2/2/2023
Dunn Rd Solar	Community Solar Settl	4/19/2018	Solar	1.85		10/31/2019	Standard	Assumed Terminated (CSSA)		No	
Duus Solar	Active	5/20/2016	Solar	10	2/6/2020	12/31/2019	Standard	5/20/2036		Yes	2/6/2020
Eagle Creek Solar	Active	12/27/2017	Solar	5		10/31/2020	Standard	12/26/2032		Yes	10/31/2020
Energy Partners II	Terminated	6/21/2016	Biomass	10		6/1/2019	Standard	Terminated		No	
Energy Partners I	Terminated	6/21/2016	Biomass	10		6/1/2019	Standard	Terminated		No	
Eola Solar	Active	1/29/2018	Solar	2.2		1/31/2020	Standard	11/30/2038		Yes	7/1/2020
Evergreen BioPower	Active	5/31/2017	Biomass	10	2/1/2018	1/1/2018	Standard	5/31/2032		Yes	2/1/2018
Fairview Solar	Terminated	4/19/2018	Solar	3		12/2/2019	Standard	Terminated		Yes	7/1/2020
Falls Creek Hydro	Active	2/19/2019	Hydro	4.1	1/1/2020	1/1/2020	Standard	2/1/2034		Yes	7/1/2020
Finley BioEnergy	Active	12/16/2020	Biogas	4.8		11/16/2022	Standard	11/15/2037		No	
Firwood Solar	Active	5/20/2016	Solar	10	1/27/2020	12/31/2019	Standard	5/20/2036		Yes	1/27/2020
Fishback Solar	Terminated	5/20/2016	Solar	3		12/31/2017	Standard	Terminated		No	
Fort Rock Solar I	Active	4/27/2016	Solar	10	3/11/2020	4/27/2019	Standard	4/27/2035		Yes	3/11/2020
Fort Rock Solar II	Terminated	4/27/2016	Solar	10		4/27/2019	Standard	Terminated		Yes	7/1/2020
Fort Rock Solar IV	Active	6/26/2016	Solar	10	6/29/2020	6/26/2019	Standard	6/26/2035		Yes	7/1/2020
Fossil Lake	Terminated	4/29/2015	Solar	10		11/30/2017	Standard	Terminated		No	
Fruitland Creek	Community Solar Settl	5/25/2018	Solar	1.75		12/1/2019	Standard	Terminated (CSSA)		No	
Gatwick Solar	Terminated	8/31/2018	Solar	2.97		7/2/2021	Standard	Terminated		No	
Glenn Creek	Terminated	1/25/2016	Solar	2.2		10/31/2017	Standard	Terminated		No	
Gonzaga Solar	Terminated	11/29/2018	Solar	2.16		7/2/2021	Standard	Terminated		No	
Greenpark Solar	Active	5/8/2018	Solar	1.26	11/18/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Gun Club Solar	Community Solar Settl	5/8/2018	Solar	2.5		12/1/2019	Standard	Assumed Terminated (CSSA)		No	
Harney Solar I	Terminated	6/27/2016	Solar	10		6/27/2019	Standard	Terminated		Yes	7/1/2020
Hogan Solar	Terminated	4/27/2020	Solar	2.565		2/2/2023	Standard	Terminated		Yes	2/2/2023
Kaiser Creek Solar	Community Solar Settl	6/4/2018	Solar	2		12/1/2019	Standard	Assumed Terminated (CSSA)		No	
Kale Patch Solar	Active	5/10/2017	Solar	2.2	10/31/2019	7/31/2019	Standard	5/10/2037		Yes	10/31/2019
Kensington Solar	Terminated	5/8/2018	Solar	0.99		12/2/2019	Standard	Terminated		No	
Kerry Solar	Terminated	5/8/2018	Solar	2.97		12/2/2019	Standard	Terminated		No	
KT - Molalla	Active	4/19/2018	Solar	2.97	7/7/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Labish Solar	Active	12/1/2016	Solar	2.2	12/18/2018	8/31/2018	Standard	11/10/2036		Yes	12/18/2018
Lakeview	Active	7/15/2015	Solar	10	1/6/2020	5/1/2018	Standard	7/15/2035		Yes	1/6/2020
Liberal Solar	Active	12/27/2017	Solar	10		10/31/2020	Standard	12/26/2032		Yes	10/31/2020
Manchester Solar	Community Solar Settl	9/26/2018	Solar	1.8		7/2/2021	Standard	Assumed Terminated (CSSA)		No	
Marquam Creek Solar	Terminated	6/4/2018	Solar	2		12/1/2019	Standard	Terminated		No	
Marquam Creek Solar	Community Solar Settl	2/9/2019	Solar	2		12/1/2020	Standard	Assumed Terminated (CSSA)		No	
Middle Fork Irrigation District Unit 1 and Unit 2	Active	4/2/2020	Hydro	3	COD prior to PGE contract	1/1/2022	Standard	12/31/2036	Operated prior to PGE	Yes	1/1/2022
Milford Solar	Active	4/19/2018	Solar	2.97	1/6/2021	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Minke Solar	Active	9/17/2019	Solar	2.2	12/14/2020	5/1/2020	Standard	8/13/2037		Yes	7/1/2020
Morrow Solar	Terminated	1/25/2016	Solar	10		9/30/2018	Standard	Terminated		No	
Mountain Meadow Solar	Terminated	5/25/2018	Solar	2.5		12/1/2019	Standard	Terminated		Yes	7/1/2020
Mt Hope Solar	Community Solar Settl	5/25/2018	Solar	2.5		12/1/2019	Standard	Assumed Terminated (CSSA)		No	
NorWest Energy 14	Active	7/28/2015	Solar	2.2	2/8/2018	12/31/2017	Standard	12/31/2031		Yes	2/8/2018
NorWest Energy 16	Terminated	7/28/2015	Solar	2.2		12/31/2016	Standard	Terminated		No	
OE Solar 1	Terminated	1/25/2016	Solar	10		10/5/2018	Standard	Terminated		No	
OE Solar 2	Terminated	1/25/2016	Solar	5.0		12/31/2017	Standard	Terminated		No	

Existing and Proposed PURPA Qualified Facilities (QFs)
by Shawn Davis / Bruce True
03/22/2016

Project Name	Status	PPA Execution Date	Resource Type	Nameplate Capacity	Actual COD	Contracted COD	Type of PPA	PPA Expiration Date	Renewal	In IRP Update Baseline	IRP Update Estimated Start Date
OE Solar 3	Active	1/25/2016	Solar	10	9/7/2018	12/30/2018	Standard	12/30/2033		Yes	9/7/2018
OE Solar 4	Terminated	3/7/2016	Solar	10		6/30/2018	Standard	Terminated		No	
OE Solar 5	Terminated	11/4/2016	Solar	10		6/30/2019	Standard	Terminated		No	
OE Solar 6	Terminated	6/15/2017	Solar	10		6/30/2019	Standard	Terminated		No	
OM Power 1	Active	6/21/2016	Geothermal	10		6/1/2020	Standard	6/21/2036		Yes	7/1/2020
O'neil Creek Solar	Active	6/10/2016	Solar	2.2	12/9/2019	3/24/2019	Standard	6/10/2036		Yes	12/9/2019
Palmer Solar	Active	6/21/2016	Solar	2.2	11/4/2020	7/1/2019	Standard	6/21/2036		Yes	7/1/2020
Parrott Creek Solar	Terminated	6/28/2018	Solar	2		12/1/2019	Standard	Terminated		Yes	7/1/2020
PG - West Sheridan	Active	4/18/2018	Solar	3	12/31/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Pika Solar	Active	9/17/2019	Solar	2.2	11/20/2020	5/1/2020	Standard	8/6/2037		Yes	7/1/2020
Radio Solar	Active	11/29/2018	Solar	2.5		12/31/2020	Standard	12/31/2040		Yes	12/31/2020
Rafael Solar	Active	6/21/2016	Solar	2.2	10/29/2019	6/30/2019	Standard	6/21/2036		Yes	10/29/2019
Raven Loop	Terminated	5/25/2018	Solar	2		12/1/2019	Standard	Terminated		Yes	7/1/2020
Reed Solar	Active	5/21/2019	Solar	2.2		12/1/2020	Standard	11/30/2040		Yes	12/1/2020
Ridgeway Solar	Terminated	6/4/2018	Solar	2.5		12/1/2019	Standard	Terminated		Yes	7/1/2020
Riley Solar	Active	6/27/2016	Solar	10	7/20/2020	6/27/2019	Standard	6/27/2035		Yes	7/1/2020
River Valley Solar	Community Solar Settl	5/25/2018	Solar	2		12/1/2019	Standard	Assumed Terminated (CSSA)		No	
Rock Creek Solar	Active	2/7/2018	Solar	2.2		12/31/2020	Standard	2/6/2033		Yes	12/31/2020
Rock Garden	Active	8/26/2016	Solar	10	6/24/2020	7/31/2019	Standard	7/31/2032		Yes	7/1/2020
Sandy River Solar	Community Solar Settl	5/25/2018	Solar	1.85		12/1/2019	Standard	Terminated (CSSA)		No	
SB - South Wilamina	Active	4/19/2018	Solar	2.97	11/22/2020	12/2/2019	Standard	12/1/2034		Yes	7/1/2020
Sesqui-C Solar	Community Solar Settl	11/29/2018	Solar	2.5		12/31/2020	Standard	Terminated (CSSA)		No	
Sheep Solar	Active	1/25/2016	Solar	2.2	2/8/2018	12/31/2017	Standard	1/25/2036		Yes	2/8/2018
Silverton Solar	Active	1/25/2016	Solar	2.2	2/8/2018	12/31/2017	Standard	1/26/2036		Yes	2/8/2018
South Burns Solar I	Terminated	7/20/2016	Solar	10		7/20/2019	Standard	Terminated		Yes	7/1/2020
SP Solar 1	Active	7/28/2015	Solar	2.2	2/8/2018	12/31/2017	Standard	7/28/2035		Yes	2/8/2018
SP Solar 2	Terminated	7/28/2015	Solar	2.2		12/31/2017	Standard	Terminated		No	
SP Solar 4	Terminated	7/28/2015	Solar	2.2		12/31/2016	Standard	Terminated		No	
SP Solar 5	Active	7/28/2015	Solar	2.2	2/8/2018	12/31/2017	Standard	7/28/2035		Yes	2/8/2018
SP Solar 6	Active	7/28/2015	Solar	2.2	8/21/2018	12/31/2017	Standard	7/28/2035		Yes	8/21/2018
SP Solar 7	Active	7/28/2015	Solar	2.2	6/30/2018	12/31/2017	Standard	7/28/2035		Yes	6/30/2018
SP Solar 8	Active	7/28/2015	Solar	2.2	2/8/2018	12/31/2017	Standard	7/28/2035		Yes	2/8/2018
SSD Clackamas 1	Active	5/8/2018	Solar	4	12/21/2020	10/5/2021	Standard	10/4/2036		Yes	10/5/2021
SSD Clackamas 2	Terminated	10/20/2017	Solar	2		4/1/2020	Standard	Terminated		No	
SSD Clackamas 4	Active	10/20/2017	Solar	2	12/28/2020	4/1/2020	Standard	3/31/2035		Yes	7/1/2020
SSD Clackamas 7	Active	5/8/2018	Solar	2	12/28/2020	4/1/2020	Standard	3/31/2035		Yes	7/1/2020
SSD Marion 1	Active	5/25/2018	Solar	2	12/8/2020	4/1/2020	Standard	3/31/2035		Yes	7/1/2020
SSD Marion 3	Active	10/20/2017	Solar	2	2/17/2020	4/1/2020	Standard	3/31/2035		Yes	7/1/2020
SSD Marion 5	Active	5/8/2018	Solar	2	4/1/2020	4/1/2020	Standard	3/31/2035		Yes	7/1/2020
SSD Marion 6	Active	5/8/2018	Solar	2	12/21/2020	4/1/2020	Standard	3/31/2035		Yes	7/1/2020
St Louis Solar	Active	6/10/2016	Solar	2.2	4/6/2020	2/10/2019	Standard	6/9/2036		Yes	4/6/2020
St. Helen's Organic Recyling	Terminated	11/10/2015	Biogas	2.4		10/1/2018	Standard	Terminated		No	
Stark Solar (Solar Star Oregon)	Terminated	6/2/2017	Solar	10		12/31/2019	Standard	Terminated		Yes	7/1/2020
Starlight Solar	Terminated	5/20/2016	Solar	4		12/31/2019	Standard	Terminated		Yes	7/1/2020
Starvation Solar	Active	1/25/2016	Solar	10	12/27/2019	1/25/2019	Standard	1/25/2035		Yes	12/27/2019
Stilorgan Solar	Active	1/17/2020	Solar	1.53		11/2/2022	Standard	11/1/2042		Yes	11/2/2022
Stringtown Solar	Terminated	5/20/2016	Solar	4		12/31/2019	Standard	Terminated		Yes	7/1/2020
SulusSolar6	Terminated	4/19/2018	Solar	3		12/2/2019	Standard	Terminated		No	
SulusSolar9	Terminated	8/31/2018	Solar	2.97		7/2/2021	Standard	Terminated		No	
Suntex Solar	Active	5/16/2016	Solar	10	7/8/2020	7/20/2019	Standard	6/1/2035		Yes	7/1/2020
Thomas Creek Solar	Active	5/31/2017	Solar	2.2	11/8/2019	2/1/2019	Standard	5/31/2037		Yes	11/8/2019
Tickle Creek Solar	Active	8/23/2017	Solar	1.85	12/27/2019	1/31/2019	Standard	8/22/2037		Yes	12/27/2019
Townsend Solar	Terminated	6/4/2018	Solar	2.25		9/30/2019	Standard	Terminated		Yes	7/1/2020
Tygh Valley Solar	Terminated	1/25/2016	Solar	10		1/25/2019	Standard	Terminated		No	
Volcano Solar	Active	10/18/2017	Solar	0.75	7/17/2019	3/1/2018	Standard	10/18/2037		Yes	7/17/2019
Waconda Solar	Active	6/4/2018	Solar	2.25		2/1/2020	Standard	4/1/2038		Yes	7/1/2020
Walker Creek Solar	Terminated	6/4/2018	Solar	2.5		12/1/2019	Standard	Terminated		No	
Walker Creek Solar (2)	Active	2/9/2019	Solar	2.5		12/1/2020	Standard	11/1/2040		Yes	12/1/2020
Wasco Solar 1	Terminated	1/25/2016	Solar	10		1/25/2019	Standard	Terminated		No	
Waterford Solar	Community Solar Settl	8/27/2019	Solar	2.565		5/2/2022	Standard	Assumed Terminated (CSSA)		No	
Waterford Solar (2)	Active	8/27/2019	Solar	2.565		5/2/2022	Standard	5/1/2042		No	
West Hines Solar I	Active	7/20/2016	Solar	10	6/16/2020	7/20/2019	Standard	7/20/2035		Yes	7/1/2020
Willamina Mill Solar	Terminated	6/21/2016	Solar	2.2		8/14/2019	Standard	Terminated		Yes	7/1/2020
Willamina Solar	Terminated	11/13/2015	Solar	0.5		12/31/2016	Standard	Terminated		No	
Williams Acres Solar	Community Solar Settl	6/4/2018	Solar	3		12/1/2019	Standard	Assumed Terminated (CSSA)		No	
Yamhill Creek Solar	Terminated	5/31/2017	Solar	2.2		4/30/2018	Standard	Terminated		No	
Zena Solar	Community Solar Settl	6/4/2018	Solar	2.5		12/1/2019	Standard	Assumed Terminated (CSSA)		No	

May 21, 2021

TO: Irion Sanger
Renewable Energy Coalition

FROM: Robert Macfarlane
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UM 1728
PGE Response to REC Data Request No. 006
Dated May 7, 2021

Request:

Please reference PGE's Application at 4, which states that "Approximately 55% of PGE's QF contracts were executed from 2017 to 2021." Please provide support for this statement. Please identify the percentage of PGE's QF contracts that PGE executed in each year from 2010 to 2021. Please provide the information in Excel format with working files.

Response:

Please see UM 1728_REC DR 006_AttachA.

Please note that PGE's statement regarding 55% of QF contracts executed was specific to solar QF contracts, not all QF contract in that time period.

Solar-only

Year Executed	Total	% of Total
2010	1	1%
2011	1	1%
2013	2	1%
2014	1	1%
2015	12	9%
2016	43	31%
2017	17	12%
2018	41	30%
2019	7	5%
2020	11	8%
2021	1	1%
Total	137	

56% Total Executed 2017-2021

** Slight difference in value from PGE application due to updated information to date*

All resources

Year Executed	Total	% of Total
2010	2	1%
2011	2	1%
2012	4	2%
2013	7	4%
2014	3	2%
2015	13	8%
2016	46	28%
2017	19	12%
2018	42	26%
2019	8	5%
2020	13	8%
2021	1	1%
Total	162	

Both tables:

*Does not include Community Solar related contracts

May 21, 2021

TO: Irion Sanger
Renewable Energy Coalition

FROM: Robert Macfarlane
Manager, Pricing and Tariffs

PORTLAND GENERAL ELECTRIC
UM 1728
PGE Response to REC Data Request No. 008
Dated May 7, 2021

Request:

Please reference PGE's Application at 4, which states that "As most QF contracts allow for four years to achieve Commercial Operation Date (COD), we anticipate most of these projects will come online this year, which will impact the current historical success rate of QFs coming online."

a. Please state as a percentage: 1) the "current historical success rate of QFs coming online"; 2) the number of QFs who came online on or before their scheduled COD in their unamended contract; and 3) the number of QFs who came online after the scheduled COD in their unamended contract.

b. Please provide a narrative summary of the impact to the current historical success rate that PGE anticipates from additional QFs coming online in 2021.

c. Please explain the use of the word "most" in this statement.

d. How many of these projects did PGE forecast to come online in 2020 or earlier in an Annual Power Cost Update Tariff proceeding?

e. How many of these projects is PGE forecasting to come online in 2021 in in PGE's 2020 Annual Power Cost Update Tariff proceeding, Docket No. UE 391?

f. How many of these projects does PGE expect to not come online in: 1) 2021 or 2) a later year?

g. How many of these projects does PGE expect to come online in: 1) 2021, 2) 2022, 3) 2023, 4) 2024, 5) 2025, and 6) 2026 or later?

h. Please identify the total size in MW of QF contracts in PGE's 2019 baseline portfolio and in PGE's current baseline portfolio where the QF has: 1) notified PGE that it does not expect to achieve commercial operations by the scheduled COD in its unamended contract; 2) notified PGE that it does not expect to achieve commercial operations by the scheduled COD in any amended contract; 3) notified PGE that it does not expect to achieve commercial operations within any applicable cure period; 4) notified PGE that it does not expect to achieve commercial operations on schedule due to the QF's assertion of force majeure; or 4) notified PGE that the project seeks to terminate the contract. Please provide all relevant communications.

i. Please identify the total size in MW of QF contracts in PGE's 2019 baseline portfolio and in PGE's current baseline portfolio where PGE has provided the QF a notice of default. For each notice, please identify: 1) the size of QF; 2) the type of QF; 3) the reason for the notice; 4) whether the default has been cured; 5) whether the time to cure has not yet passed, and 6) whether PGE intends to terminate the contract if the default is not cured.

<u>Response:</u>

a. Response
   (1) ~51% of QF's contracted have come online
   (2) 13 (19%) QF's online achieved COD before their schedule COD
   (3) 56 (81%) QF's online achieved COD after their scheduled COD

b. PGE has had 162 PURPA contract executions (excluding anything Community Solar related) - of those, 79 were executed up to 2016 (or 49%) and 83 were executed in 2017-2021 (or 51%). Of the contracts executed pre-2017, only 40 are still active (~51%) and of the contracts executed post 2017, 55 are still active (~66%). Please refer to PGE's Attachment 006 A for PGE's historical executions since 2010, the volume of QFs executed has changed dramatically after 2015 and after 2018. As the QF execution history shows, in the last 6 years PGE has experienced wildly different volumes of executions. Relying on a metric of historical success rates is similar to looking at executions resulting in an unreliable metric. Given that over half of PGE's contracts were executed in 2017 or later, many are still within the 4-year window to achieve COD. Estimating future success when the underlying volume of executions has fluctuated significantly would likely mischaracterize the actual success rate PGE will experience in the coming years. Therefore, PGE does not believe the historical success rate is an indication of the future.

c. During the contracting process QF's are able to select a COD up to three years out from contract execution, the current Schedule 201 PPA also allows an additional one-year cure period if the QF misses its scheduled COD. Many developers select a COD three years after execution. With the one-year cure period in the Schedule 201 PPA, this gives the project four years to reach commercial operation. We used the term "most" because some developers will select a COD less than three years from execution in which case the project will be contractually required to reach commercial operation sooner than four years from execution. PGE has no say in setting the COD date as long as it is within the guidelines set by the Commission. For long-term planning purposes, PGE expects the QF to have done due diligence to get the QF project online by the COD date selected by the QF given that this is a contractual obligation. In the short-term PGE observes that there are a number of QFs that fail to meet the COD date they selected, but that may still come online by the end of the cure period.

d. PGE objects to this request to the extent that it seeks information outside the scope of this proceeding. Without waiving this objection, PGE provides the following response:

   PGE had 94 QF's included in its 2021 AUT filing.

e. PGE objects to this request to the extent that it seeks information outside the scope of this proceeding. Without waiving this objection, PGE provides the following response:

   PGE had 85 QF's included in its 2022 AUT initial filing (UE 391).

f. PGE objects to this request to the extent that it seeks information outside the scope of this proceeding. Without waiving this objection, PGE provides the following response:

   See information provided in PGE's response to UM 1729 REC Data Request No. 005.

g. PGE objects to this request to the extent that it seeks information outside the scope of this proceeding. Without waiving this objection, PGE provides the following response:

   See information provided in PGE's response to UM 1728 REC Data Request No. 005.

h. PGE objects to this request to the extent that it is overly broad, unduly burdensome, and requests information not relevant to this proceeding. Without waiving this objection, PGE provides the following response:

   PGE uses the best available information at the time of the snapshot to determine which projects are appropriately included. Subsequent notices provided are not an indication of expected failure at the time the analysis is performed.

i. PGE objects to this request to the extent that it is overly broad, unduly burdensome, and requests information not relevant to this proceeding. Without waiving this objection, PGE provides the following response:

   Notices of default are not relevant to whether a project will be terminated as the project has a right to cure the default. This does not indicate how the project should be treated for long term planning until termination notice has been provided.