BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

LC 80

In the Matter of

PORTLAND GENERAL ELECTRIC COMPANY,

RENEWABLE ENERGY COALITION'S ROUND 1 COMMENTS

2023 Clean Energy Plan and Integrated Resource Plan

I. INTRODUCTION

The Renewable Energy Coalition (the "Coalition") respectfully submits these Round 1 Comments for consideration by the Oregon Public Utility Commission (the "Commission") in the matter of Portland General Electric Company's ("PGE's") 2023 Clean Energy Plan and Integrated Resource Plan (generally the "2023 IRP"). PGE assumes zero existing qualifying facilities ("QFs") will renew their contracts and 100% of Schedule 202 QFs¹ will achieve commercial operations. Neither assumption is remotely reasonable. The available data demonstrate 100%, or close to 100%, of existing QFs will renew (not 0%), and approximately 50% of Schedule 202 QFs will achieve commercial operations (not 100%). These issues are longstanding, and PGE's actions are contrary to the available Commission guidance. The Coalition is disappointed by PGE's continued obstinance and respectfully requests that the Commission take immediate and forceful action and decline to acknowledge PGE's 2023 IRP until and unless these planning assumptions are corrected immediately.

Schedule 202 is PGE's avoided cost power purchase information tariff for QFs larger than 10 megawatts, and the Coalition uses it for shorthand for all QFs above 10 MWs. However, PGE can negotiate and purchase power from QFs outside of its rate schedules.

II. COMMENTS ON PGE'S IRP

A. PGE Unreasonably Assumes Zero Existing QFs Will Renew, Even Though the Available Data Demonstrate 100%, or Close to 100% of PGE's Existing QFs Renew

PGE should correct its flawed 2023 IRP and future IRPs to assume a reasonable number of existing QFs will renew their contracts. In the 2023 IRP, PGE "assumes that QF contracts do not renew after they end." In practical terms, PGE is assuming that 300+ MW of renewable resources will become unavailable when the current contracts expire and that not a single kilowatt of these existing facilities will continue to sell power to PGE after their current contracts end, even though many QFs have an economic useful life longer than the contract terms and QFs on PGE's system may have no other viable off-taker for their power. PGE claims it lacks adequate data to forecast QF renewal rates, even though PGE's 0% assumption is itself a forecast. Besides, PGE excludes relevant data from its own operations as well as from PacifiCorp and Idaho Power Company ("Idaho Power"). The available data from all utilities clearly demonstrate that the majority of existing QFs will renew their contracts, which means PGE's 0% assumption is not even remotely reasonable. The Commission should act without delay to correct this flawed assumption.

1. What PGE Claims About QF Renewals

In prior comments, multiple stakeholders asked PGE why it assumes no QF will renew a contract. PGE responded as follows:

PGE presented and discussed historical QF renewal rates in the March 2023 CEP/IRP Roundtable meeting. There have been three qualifying facility projects that have renewed. However, all three

² 2023 IRP at 133.

The exact number of QF capacity can be found in PGE's Response to AWEC Data Request 39, Attachment B, June 2023 QF snapshot (July 13, 2023) (listing QFs including approximately 318.6 MW of currently operational projects) (appended hereto as Attachment A).

projects are small (totaling 0.49 MW) and originally signed to 2-year contracts. As a result, these data are not useful in estimating future QF project renewable rates and PGE does not have sufficient data to forecast QF renewal rates.

The CEP/IRP does not assume contract renewals of any kind in the Reference Case. This is largely due to uncertainty about contract renewal terms in comparison to what other options may be available at the time of renewal. If QF contracts are renewed in the future, PGE will adjust forecast of incremental resource needs accordingly.⁴

In short, PGE's historic experience of QF renewals is 100%, but PGE is assuming 0%. Again, this is leading to a flawed assumption in PGE's IRP regarding over 300 MW of clean, renewable power. Further, as explained below, this summary overlooks relevant data from PGE's own system as well as relevant data from other utilities' systems.

2. PGE Unreasonably Ignores Relevant Data from Its System

Regarding PGE's own system data, PGE says it has only three data points, but it has at least four. A closer look demonstrates the extent of PGE's unreasonableness on this issue. The Coalition is aware of one relevant example of a QF renewal excluded from PGE's analysis, and there may be others: Covanta Marion is a QF that has entered more than one agreement to sell power to PGE,⁵ yet PGE excludes Covanta Marion from its 2023 IRP analysis of QF renewals.⁶ When the Coalition asked why PGE excluded Covanta Marion from its review of QF renewals, PGE conceded that Covanta Marion is a QF but stated that "Covanta Marion is not delivering to

⁴ PGE Response Comments at 15 (May 31, 2023) (internal citations omitted).

In re PGE Update to Standard Avoided Cost Schedule for QFs, Docket No. UM 1728, PGE Response to REC Data Request 014 (June 3, 2022) (appended hereto as Attachment C); see also PGE Response to REC Data Request 006 (June 27, 2023) (appended hereto as Attachment B at 8). As a general matter, PGE affirmed its prior data responses to the Coalition were largely unchanged by the IRP Addendum. PGE Response to REC Data Request 012 (July 24, 2023) (appended hereto as Attachment B at 14-15). Unless otherwise noted, the Coalition is not citing this confirmation in every instance.

^{6 2023} IRP at 133.

PGE under a QF contract (Schedule 201 or Schedule 202)."⁷ In summary, a QF with multiple prior contracts with PGE is continuing to deliver power to PGE, yet PGE has decided to ignore this QF's existence when analyzing existing QF renewals.

The Coalition is not clear under what basis PGE claims that Covanta Marion is not selling under a "QF contract." PGE is drawing arbitrary lines in the sand regarding the *form* of contract a QF signs. As a result, PGE unreasonably ignores data from existing QFs who continue to sell to PGE after their contract expires but do so under a different contractual arrangement. That is, PGE does not ask whether a given facility will still be operating after its contract expires but whether it will execute the same sort of agreement. This is unreasonably limiting. QFs like Covanta Marion, which is located in Salem, Oregon, often have few options to sell their net output beyond their statutory right to sell power to PGE, and it would be unreasonable to assume that they (or a reasonable percentage of such QFs) will not continue to sell power to PGE. In addition, in considering whether a built facility will continue operating or shut down, the form of contract is an arbitrary distinction. PGE should not limit its QF analyses to focus on whether a legal contract takes one form or another, but rather focus on the foundational point that the renewed contract exists in the first place. That is, the very simple point that the QF previously contracted with PGE and is likely to *continue* delivering power.

PGE Response to REC Data Request 006 (appended hereto as Attachment B at 8).

See PGE Response to REC Data Request 000 (appended hereto as Attachment B at 8).

See PGE Response to REC Data Request 003 (June 27, 2023) (appended hereto as Attachment B at 6) ("QFs for the purpose of the analysis referenced include only Schedule 201 and Schedule 202 contracts"); PGE Response to REC Data Request 007 (June 27, 2023) (appended hereto as Attachment B at 9) (explaining PGE considers a contract renewal to depend on whether a Schedule 201 QF executes another Schedule 201 contract and whether a Schedule 202 QF executes another Schedule 202 contract).

3. PGE Unreasonably Ignores Relevant Data from Other Oregon Utilities

PGE also unreasonably excludes relevant data from other Oregon utilities. As summarized in PGE's March 2023 IRP Roundtable, Idaho Power has had 40 of 44 (91%) QFs renew their contracts, and PacifiCorp has had 32 of 57 QFs (56%) renew (or 79% renew, on a per-MW basis). 9 Considering this data, it is clear that PGE's 0% assumption is unreasonable, yet PGE has not attempted to develop a reasonable non-zero forecast.

4. Now is an Appropriate Time for the Commission to Order Changes

The Coalition notes that a directive for PGE to correct its flawed planning assumptions would simply echo the guidance that the Commission has already given Idaho Power and PacifiCorp. In 2021, the Commission told Idaho Power that its "assumption of zero renewals of wind QFs is unrealistic" and "modeling should include some percentage." In 2022, the Commission directed PacifiCorp to "forecast a likely QF contract renewal rate" and "use historical renewable [sic] rates as well as other relevant information in its possession and attempt to make its forecast as accurate as possible." ¹¹ The Coalition is frustrated that PGE has chosen to disregard this guidance and to maintain its own "unrealistic" QF assumptions.

The Coalition recognizes that the Commission originally intended to provide guidance to correct QF assumptions in IRPs in a generic proceeding for that purpose, Docket No. UM 2038. However, in the Commission's own words, while UM 2038 "has been delayed ... such delay

PGE IRP Roundtable 23-3 at slide 58 (Mar. 30, 2023), available at https://assets.ctfassets.net/416ywc1laqmd/74fBbECgfODO17GkgffI3z/9a726ecb1032d9d 5b6310588f35379b4/IRP Roundtable March 30 23-3.pdf.

¹⁰ In re Idaho Power 2019 IRP, Docket No. LC 74, Order No. 21-184 at 19 (June 4, 2021). This issue was raised again in Idaho Power's 2023 IRP. In re Idaho Power 2021 IRP, Docket No. LC 78, Order No. 23-004 at 5-6, Appendix A at 36 (Jan. 13, 2023).

¹¹ In re PacifiCorp 2021 IRP, Docket No. LC 77, Order No. 22-178 at 14 (May 23, 2022).

should not preclude directing utilities to advance toward more reasonable renewal assumptions in individual IRPs."¹² The Coalition repeats here its prior recommendation that "even if that docket has not concluded by the time PGE files its next IRP update or future IRP, the Commission should direct PGE to include an appropriate forecast now and in all future IRPs,"¹³ which is what the Commission has done for PacifiCorp and Idaho Power. There is no reason to delay correcting a flawed IRP assumption.

B. PGE Unreasonably Assumes 100% of New Schedule 202 QFs Will Succeed, When the Available Data Suggest 50% Is More Realistic

PGE should correct its 2023 IRP and future IRPs to assume a reasonable number of Schedule 202 QFs will not successfully develop. In the 2023 IRP, PGE assumes that 100% of QFs with Schedule 202 contracts will successfully achieve commercial operations. ¹⁴ The Coalition recommends a success rate of 50% for Schedule 202 QFs for the purposes of integrated resource planning. The Coalition notes that the projected success rate is not specific to the Schedule 202 QFs currently contracted with PGE, and the Coalition is not commenting on any specific project's likelihood of success. Instead, PGE's planning should use a less than 100% success rate for Schedule 202 QFs in general, especially, as the rate will be the base number that will be incorporated into PGE's avoided cost updates, which may include pricing for additional Schedule 202 QFs. Therefore, regardless of the specific QFs here, a less than 100% success rate should be adopted for the purposes of integrated resource planning.

The Coalition encourages PGE to proactively work with, and flexibly implement contract terms for all QFs, including its Schedule 202 QFs, to increase the chances and support their

Docket No. LC 74, Order No. 21-184 at 20.

In re PGE 2019 IRP, Docket No. LC 73, Coalition Comments on the Staff Memorandum at 2 (Mar. 6, 2020).

¹⁴ 2023 IRP at 134.

efforts to become commercially operational. By assuming all Schedule 202 QFs will succeed, PGE is assuming a lower future capacity need, which signals a lower demand for other QFs to enter the market. In short, PGE's assumption here can lower avoided cost prices for both new and existing QFs that enter into contracts in the future.

Recent events demonstrate the unreasonableness of PGE's position. When PGE initially filed its 2023 IRP, it assumed four out of four (100%) Schedule 202 contracts representing 276 MW would come online. PGE's assumptions were wrong, and PGE has since filed an IRP addendum reflecting that two Schedule 202 contracts representing 160 MW were terminated earlier this year. Thus, PGE's original filed IRP assumptions were incorrect, and they should have included a lower number for the purposes of integrated resource planning. The Coalition hopes that both of the two remaining Schedule 202 projects will become commercially operational, but it remains to be seen whether the other 116 MW will come online.

In assessing the likelihood that new Schedule 202 QFs will come online, PGE's own experience should be considered. It is not clear that PGE has seriously considered the empirical evidence on this issue, which is contrary to their adopted policy position. The Coalition notes that PGE has only *one* Schedule 202 QF currently operational in PGE's portfolio.¹⁷ In 2022, PGE told the Coalition that:

PGE has executed a total of eight (8) Schedule 202 contracts since the start of its QF program, four (4) of which have not passed their scheduled commercial operation date, and therefore are not relevant to any analysis of Schedule 202 QF success rate. Of the remaining

PGE Response to REC Data Request 001, Attachment A (appended hereto as Attachment B at 3).

PGE Response to AWEC Data Request 39, Attachment B, June 2023 QF snapshot (appended hereto as Attachment A at 3-4).

PGE Response to AWEC Data Request 39, Attachment B, June 2023 QF snapshot (appended hereto as Attachment A at 3-4).

four (4) Schedule 202 contracts, two (2) converted to bilateral under negotiation, one (1) was terminated by Seller, and (1) is online. ¹⁸

Under PGE's unreasonable methodology of ignoring facilities that convert to other contract arrangements, ¹⁹ PGE's actual success rate for Schedule 202 QFs to date would only be 25% (1 came online and 3 did not). The Coalition disagrees with this unreasonable methodology and therefore does not recommend assuming a success rate of only 25%. Still, this underscores how PGE's 100% success rate is far from reasonable when taking a closer look at the data.

The Coalition recommends a 50% success rate for Schedule 202 QFs. This is supported by the available data. That is, assuming that both Schedule 202 contracts that "converted to bilateral" achieved commercial operations, PGE has a sample size of six large facilities, exactly half of which (3) have achieved commercial operations and half of which (3) have not. A 50% success assumption for planning purposes is reasonable given this data, but PGE's 100% assumption is not.²⁰ Additionally, 50% is consistent with the data and assumptions for PGE's Schedule 201 QFs,²¹ though the Coalition is not opposed to different assumptions for the two groups when those assumptions are based on actual empirical evidence.

The Coalition notes that it does not oppose different planning assumptions when the utility has facility-specific data. It is possible that PGE has data for the two remaining unbuilt Schedule 202 QFs in PGE's portfolio. However, absent facility-specific data, PGE should not assume 100% of all Schedule 202 QFs will achieve commercial operations.

Docket No. UM 1728, PGE Response to REC Data Request 014 (appended hereto as Attachment C at 3). The Coalition understands PGE has not executed any more Schedule 202 contracts since then.

See supra Section II.A.2.

See also PGE IRP Roundtable 23-3 at slide 53 (reporting higher success rates for all QF types for Idaho Power and PacifiCorp).

See infra Section II.C.

C. The Coalition Supports PGE's Use of a 50% Success Rate for Schedule 201 QFs

The Coalition supports PGE's new assumption that 50% of new Schedule 201 QFs will achieve commercial operations.²² In the 2019 IRP Update, PGE assumed that 100% of Schedule 201 QFs would achieve commercial operations, which the Coalition opposed.²³ The Coalition appreciates the change to 50%, which appears to be generally consistent with PGE's historic data.²⁴ The Coalition notes that further experience and historic data may justify changes in the future,²⁵ but the Coalition supports the use of a 50% success assumption at this time.

D. The Coalition Recognizes PGE's Forecasting for Community Solar Has Improved, But Believes the Commission's Prior Guidance Retains Value and Should Be Followed

The Coalition recognizes PGE's forecasting for community solar has improved, but there are further opportunities for improvement. This was another issue that the Coalition contested in the 2019 IRP Update, where PGE assumed 93 MW of community solar would come online, half

²² 2023 IRP at 134.

E.g., Docket No. LC 73, The Coalition's Comments on the IRP Update (Mar. 10, 2021); see also Docket No. UM 1728, The Coalition and Northwest & Intermountain Power Producers Coalition's Comments on the 2021 Annual Update at 15-19 (June 8, 2021) (explaining why a 30-60% success rate would be reasonable and 100% success rate is not reasonable).

See PGE IRP Roundtable 22-3 at slide 16 (Mar. 2022), available at https://assets.ctfassets.net/416ywc1laqmd/6hRQPptYmblk9Uvup4JDJU/f747f759ce667a80efcd041a12526c12/IRP Roundtable March 22-3.pdf (reporting the exact same number of Schedule 201 QFs had come online as had failed); PGE Response to REC Data Request 002 (June 27, 2023) (appended hereto as Attachment B at 4) (indicating that, since the March 2022 IRP roundtable, 5 Schedule 201 contracts were terminated while 2 Schedule 201 QFs achieved commercial operations">https://assets.ctfassets.net/416ywc1laqmd/6hRQPptYmblk9Uvup4JDJU/f747f759ce667a80efcd041a12526c12/IRP Roundtable 201 QFs had come online as had failed); PGE Response to REC Data Request 002 (June 27, 2023) (appended hereto as Attachment B at 4) (indicating that, since the March 2022 IRP roundtable, 5 Schedule 201 contracts were terminated while 2 Schedule 201 QFs achieved commercial operations); see also PGE IRP Roundtable 23-3 at slide 53 (reporting an overall QF success rate of 50%).

For example, between the new June 2023 snapshot date and a July 2023 data response, PGE apparently terminated all four of its pending Schedule 201 contracts. *Compare* PGE Response to AWEC Data Request 39, Attachment B, June 2023 QF snapshot (appended hereto as Attachment A at 3-4), *with* PGE Response to REC Data Request 12, Attachment A (appended hereto as Attachment B at 16) (reporting four of four pending Schedule 201 contracts were terminated). This 100% failure rate for the pending Schedule 201 QFs suggests that PGE's 50% assumption may be too high.

by January 2022 and half by January 2023.²⁶ Those assumptions were deeply flawed. Consider that, as of June 2023, PGE had approximately 26.7 MW of community solar online, less than a third of what its prior IRP assumed would be online before now.²⁷ However PGE has changed its assumptions. Now, the 2023 IRP assumes community solar grows from approximately 31 MW in 2023 to approximately 93 MW by 2030.²⁸ This multi-year trajectory is a significant improvement over the flawed 2019 IRP Update.

That said, the Coalition still believes that the Commission's initial guidance in the community solar rulemaking retains value.²⁹ As noted in the Coalition's 2019 IRP Update comments, the Coalition understands the Commission's initial guidance to be that utilities should include only *energized* community solar projects in their IRP baseline and forecast future community solar development, likely as an IRP sensitivity.³⁰ Although the Commission declined to order PGE to comply with this prior guidance in the 2019 IRP Update, this guidance still provides value and is something that all utilities and this Commission should consider. If applied, the Coalition's understanding is that PGE would include only the approximately 26.7 MW of energized community solar projects in its portfolio, and PGE would forecast, likely as an IRP sensitivity, the expected growth in future operating community solar projects.

Docket No. LC 73, The Coalition's Comments on the IRP Update at 2, 4-8.

PGE Response to REC Data Request 010 (June 27, 2023) (appended hereto as Attachment B at 11).

PGE Response to REC Data Request 010 Attachment A (spreadsheet labeled Nameplate (adequacy model)) (appended hereto as Attachment B at 13); PGE Response to REC Data Request 12 at 2 (appended hereto as Attachment B at 15) (affirming this information is correct).

In re Rules Regarding Community Solar Projects, Docket No. AR 603, Order No. 17-232 at 13 (June 29, 2017). The Commission declined to require PGE to adhere to this guidance in the 2019 IRP Update.

Docket No. LC 73, The Coalition's Comments on the IRP Update at 5.

The Coalition wants to be clear that it appreciates PGE's support for community solar and its optimism for the future of the program, and the Coalition's concerns regarding community solar in the context of the IRP are tied solely to ensuring that there is an accurate forecast for how many and when community solar projects will come online. PGE is and continues to be a valuable partner in assisting the development of a functioning and equitable community solar program in Oregon. The Coalition believes that the community solar program furthers decarbonization of energy supply in Oregon and provides a public benefit and a public good that benefits all customers.

III. CONCLUSION

For the reasons articulated herein, the Commission should: (1) not acknowledge PGE's 2023 IRP assumptions regarding existing QFs and Schedule 202 QFs and (2) direct PGE to assume that a reasonable number of QFs will renew or otherwise enter new contracts with PGE at the end of their current contracts (such as 100%), and that fewer than all Schedule 202 QFs will develop (such as 50%).

Dated this 27th day of July 2023.

Respectfully submitted,

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Of Attorneys for the Renewable Energy Coalition

Attachment A

PGE Responses to AWEC Data Requests in Docket No. LC 80

July 13, 2023

To: Jesse Gorsuch

Alliance of Western Energy Consumers

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to AWEC Data Request 039 Dated July 11, 2023

Request:

Please provide all workpapers supporting PGE's Addendum Filing filed on July 7, 2023.

Response:

All tables and figures (containing quantitative information) from the July 7^{th} Addendum are included in LC 80 AWEC DR 039 Attachment A.

Additionally listed in the table below are the different models and their confidentiality designation and description of component that changed in the July 7th Addendum. There are two attachments (LC 80_AWEC DR 039_Attachment_B, LC 80_AWEC DR 039_Attachment_C) that corresponded to non- confidential and highly confidential, respectively, with all applicable work files contained in a zip file for each model. Highly Confidential Attachment 039-C contains highly protected information and is subject to Modified Protective Order No. 23-193. The models, their level of confidentiality, and component(s) changed in the Addendum are listed below. Models that are not listed below (e.g., LUCAS) are not included in this DR as they have not been changed from the filed 2023 CEP/IRP.

| Model | Confidentiality | Addendum Change |
|---------------|------------------|--|
| DER forecast | Not confidential | June 2023 updated DER forecast. Reflects updated Transportation Electrification, Solar PV, and Building Electrification market forecasts. No changes to Demand Response forecast, including distributed storage. |
| Load forecast | Not confidential | June 2023 corporate load forecast |

| Model | Confidentiality | Addendum Change |
|------------------|------------------------|--|
| QFs | Not confidential | New snapshot date of June 2023. |
| Sequoia | Highly Confidential | Light load hour correction, new load forecast, update to 2021 RFP resources, update to QF resources, update to DER forecast, changes to resulting outputs. |
| Aurora | Highly confidential | Corrected thermal characteristics for select PGE plants which led to different thermal outputs for those plants. |
| Intermediary GHG | Not confidential | New Aurora inputs, minor adjustment to non-PGE resource balancing, all resulting outputs are changed. |
| ROSE-E | Not confidential | Updated system need inputs, hybrid and pumped storage settings, Aurora thermal dispatch costs and revenues, RPS obligation (from change in load forecast), REC generation (from changes in portfolio of existing resources), and existing system costs (from changes in portfolio of existing resources). Updated portfolio analysis for all portfolios. |
| ART | Not confidential | Updated portfolio analysis inputs, iGHG inputs, 2021 RFP inputs, price impact projections |

| QF Name | Contract type | Online status | Technology | | | COD (actual) |
|---------------------------------|--------------------|--------------------------|----------------|------------|-------------------------|--------------------------|
| Airport Solar | SCH 202 | Online | Solar | 47.3 | 4/3/2017 | 12/31/2019 |
| Alkali | SCH 201 | Online | Solar | 10.0 | 8/26/2016 | 6/16/2020 |
| AM - West Silverton | SCH 201 | Online | Solar | 3.0 | 4/19/2018 | 2/18/2021 |
| Ballston Solar | SCH 201 | Online | Solar | 2.2 | 5/2/2016 | 12/18/2018 |
| Big Horn | SCH 201 | Online | Solar | 2.2 | 9/17/2019 | 12/28/2020 |
| Boring Solar | SCH 201 | Online | Solar | 2.2 | 1/25/2016 | 4/3/2019 |
| Brightwood Solar | SCH 201 | Online | Solar | 10.0 | 3/1/2017 | 4/22/2022 |
| Bristol Solar | SCH 201 | Online | Solar | 3.0 | 4/19/2018 | 1/6/2021 |
| Brush Creek Solar | SCH 201 | Online | Solar | 2.2 | 6/23/2017 | 5/15/2020 |
| Butler Solar | SCH 201 | Online | Solar | 4.0 | 1/25/2016 | 3/18/2021 |
| Case Creek Solar | SCH 201 | Online | Solar | 2.2 | 6/22/2016 | 10/29/2019 |
| Coffin Butte | SCH 201 | Online | Biogas | 5.7 | 7/2/2012 | 10/1/2012 |
| Coolmine Solar Cusack Solar | SCH 201 SCH 201 | Contracted Contracted | Solar Solar | 2.0 2.6 | 4/15/2020 1/17/2020 | |
| | SCH 201 | Online | Solar | 2.0 | | 10/20/2020 |
| Day Hill Solar DB - Bull Run | SCH 201 | Online | Solar | 2.6 | 11/10/2016 4/19/2018 | 10/26/2020 12/15/2020 |
| DC - Donald (Sulus25) | SCH 201 | Online | Solar | 2.0 | 4/19/2018 | 10/28/2020 |
| DF - West Eagle Creek | SCH 201 | Online | Solar | 2.8 | 4/19/2018 | 6/26/2020 |
| Domaine Drouhin | SCH 201 | Online | Solar | 0.1 | 4/5/2013 | 4/5/2013 |
| Drift Creek | SCH 201 | Online | Solar | 2.2 | 1/25/2016 | 5/15/2020 |
| Dublin Solar | SCH 201 | Contracted | Solar | 3.0 | 4/15/2020 | 3/13/2020 |
| Duus Solar | SCH 201 | Online | Solar | 10.0 | 5/20/2016 | 2/6/2020 |
| Evergreen BioPower | SCH 201 | Online | Biomass | 10.0 | 5/31/2017 | 2/1/2018 |
| Falls Creek Hydro | SCH 201 | Online | Hydro | 4.1 | 2/19/2019 | 4/1/2020 |
| Finley BioEnergy | SCH 201 | Online | Biogas | 4.8 | 12/16/2020 | 11/16/2022 |
| Firwood Solar | SCH 201 | Online | Solar | 10.0 | 5/20/2016 | 1/27/2020 |
| Fort Rock Solar I | SCH 201 | Online | Solar | 10.0 | 4/27/2016 | 3/11/2020 |
| Fort Rock Solar IV | SCH 201 | Online | Solar | 10.0 | 6/26/2016 | 6/29/2020 |
| Greenpark Solar | SCH 201 | Online | Solar | 1.3 | 5/8/2018 | 11/18/2020 |
| Hogan Solar (2) | SCH 201 | Contracted | Solar | 2.6 | 4/27/2020 | , -, - |
| Jefferson Solar LLC | SCH 202 | Contracted | Solar | 53.0 | 8/20/2020 | |
| Kale Patch Solar | SCH 201 | Online | Solar | 2.2 | 5/10/2017 | 10/31/2019 |
| KT - Molalla | SCH 201 | Online | Solar | 3.0 | 4/19/2018 | 7/7/2020 |
| Labish Solar | SCH 201 | Online | Solar | 2.2 | 12/1/2016 | 12/18/2018 |
| Lakeview | SCH 201 | Online | Solar | 10.0 | 7/15/2015 | 1/6/2020 |
| Madras Solar | SCH 202 | Contracted | Solar | 63.0 | 4/10/2021 | |
| MFID | SCH 201 | Online | Hydro | 2.8 | 4/2/2020 | 1/1/2022 |
| Milford Solar | SCH 201 | Online | Solar | 3.0 | 4/19/2018 | 1/6/2021 |
| Minke Solar | SCH 201 | Online | Solar | 2.2 | 9/17/2019 | 12/14/2020 |
| NorWest Energy 14 (Grande R | SCH 201 | Online | Solar | 2.2 | 7/28/2015 | 2/8/2018 |
| OE Solar 3 (Wy'East) | SCH 201 | Online | Solar | 10.0 | 1/25/2016 | 9/7/2018 |
| O'neil Creek Solar | SCH 201 | Online | Solar | 2.2 | 6/10/2016 | 12/9/2019 |
| Palmer Solar | SCH 201 | Online | Solar | 2.2 | 6/21/2016 | 11/4/2020 |
| PaTu Wind | SCH 201 | Online | Wind | 9.0 | 4/29/2010 | 12/1/2010 |
| PG - West Sheridan | SCH 201 | Online | Solar | 3.0 | 4/18/2018 | 12/31/2020 |
| Pika Solar | SCH 201 | Online | Solar | 2.2 | 9/17/2019 | 11/20/2020 |
| Rafael Solar | SCH 201 | Online | Solar | 2.2 | 6/21/2016 | 10/29/2019 |
| Riley Solar | SCH 201 | Online | Solar | 10.0 | 6/27/2016 | 7/20/2020 |
| Rock Garden | SCH 201 | Online | Solar | 10.0 | 8/26/2016 | 6/24/2020 |
| SB - South Wilamina (Sulus28) | | Online | Solar | 3.0 | 4/19/2018 | 10/22/2020 |
| Sheep Solar | SCH 201 | Online | Solar | 2.2 | 1/25/2016 | 2/8/2018 |
| Silverton Solar | SCH 201 | Online | Solar | 2.2 | 1/25/2016 | 2/8/2018 |
| SP Solar 1 (Interstate) | SCH 201 | Online | Solar | 2.2 | 7/28/2015 | 2/8/2018 |
| SP Solar 5 (Mill Creek) | SCH 201 | Online | Solar | 2.2 | 7/28/2015 | 2/8/2018 |
| SP Solar 6 (Colton) | SCH 201 | Online | Solar | 2.2 | 7/28/2015 | 8/21/2018 |
| SP Solar 7 (Dayton Cutoff) | SCH 201 | Online | Solar | 2.2 | 7/28/2015 | 6/30/2018 |
| SP Solar 8 (Valley Creek) | SCH 201 | Online | Solar | 2.2 | 7/28/2015 | 2/8/2018 |
| SSD Clackamas 1 | SCH 201 | Online | Solar | 4.0 | 5/8/2018 | 12/30/2020 |
| SSD Clackamas 4 | SCH 201 | Online | Solar | 2.0 | 10/20/2017 | 12/28/2020 |
| SSD Clackamas 7 | SCH 201 | Online | Solar | 2.0 | 5/8/2018 5/25/2018 | 12/28/2020 |
| SSD Marion 1 | SCH 201 | Online | Solar | 2.0 | 5/25/2018 | 12/8/2020 |

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| SSD Marion 3 | SCH 201 | Online | Solar | 2.0 | 10/20/2017 | 12/31/2020 |
|--------------------------------|-----------|--------|-------|------|------------|------------|
| SSD Marion 5 | SCH 201 | Online | Solar | 2.0 | 5/8/2018 | 12/30/2020 |
| SSD Marion 6 | SCH 201 | Online | Solar | 2.0 | 5/8/2018 | 12/30/2020 |
| St Louis Solar | SCH 201 | Online | Solar | 2.2 | 6/10/2016 | 4/6/2020 |
| Starbuck Properties | SCH 201 | Online | Solar | 0.0 | 11/2/2010 | 1/1/2011 |
| Starvation Solar | SCH 201 | Online | Solar | 10.0 | 1/25/2016 | 12/27/2019 |
| Steel Bridge Solar | SCH 201 | Online | Solar | 2.5 | 2/19/2014 | 2/18/2016 |
| Suntex Solar | SCH 201 | Online | Solar | 10.0 | 5/16/2016 | 7/8/2020 |
| Thomas Creek Solar | SCH 201 | Online | Solar | 2.2 | 5/31/2017 | 11/8/2019 |
| Tickle Creek Solar | SCH 201 | Online | Solar | 1.9 | 8/23/2017 | 12/27/2019 |
| Tualatin Valley Water District | SCH 201 | Online | Hydro | 0.1 | 4/1/2013 | 4/1/2013 |
| Volcano Solar | SCH 201 | Online | Solar | 0.8 | 10/16/2017 | 7/17/2019 |
| Von Family Limited Partnersh | i SCH 201 | Online | Hydro | 0.2 | 6/5/2014 | 2/14/2014 |
| West Hines Solar I | SCH 201 | Online | Solar | 10.0 | 7/20/2016 | 6/16/2020 |

Attachment B

PGE Responses to Coalition Data Requests in Docket No. LC 80

To: Joni Sliger

Renewable Energy Coalition

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to REC Data Request 001 Dated June 13, 2023

Request:

Please reference PGE's 2023 Clean Energy Plan and Integrated Resource Plan ("2023 IRP") at page 496, which states that "[t]he 2023 IRP includes QF contracts executed as of June 02, 2022, up to 601MW during 2023 to 2043."

- a. Does PGE use the term "QF contracts" to mean Schedule 201 contracts and Schedule 202 contracts and not Community Solar Program contracts? If the answer is not an unequivocal yes, please define the term "QF contracts" and characterize the type of each contract in the responses to sub-parts (b) and (c) below.
- b. Please identify all "QF contracts executed as of June 02, 2022." For each executed QF contract, please state:
 - 1) the QF name;
 - 2) the date the QF first contracted to sell power to PGE;
 - 3) the date of execution;
 - 4) the size in MW;
 - 5) the resource type;
 - 6) whether the contract was included in the 2019 IRP;
 - 7) whether the contract was included in the 2019 IRP Update;
 - 8) the scheduled commercial operation date ("COD") in the unamended contract;
 - 9) whether the scheduled COD was amended and, if so, the scheduled COD as amended;
 - 10) whether the QF has achieved commercial operations and, if so, the date;
 - 11) if the QF was not operational as of June 02, 2022, the date on which PGE assumed the QF would be operational;
 - 12) whether the QF is still selling power to PGE under a QF contract or otherwise;
 - 13) whether the referenced OF contract has been terminated; and
 - 14) the date of termination, if applicable.
- c. Please identify all QF contracts previously included in the 2019 IRP Update portfolio that were not included in the 2023 IRP portfolio. For each QF contract, please state:
 - 1) the OF name;
 - 2) the date the QF first contracted to sell power to PGE;

- 3) the date of execution;
- 4) the size in MW;
- 5) the resource type;
- 6) whether the contract was included in the 2019 IRP;
- 7) whether the contract was included in the 2019 IRP Update;
- 8) the scheduled commercial operation date ("COD") in the unamended contract;
- 9) whether the scheduled COD was amended and, if so, the scheduled COD as amended;
- 10) whether the QF achieved commercial operations and, if so, the date;
- 11) if the QF was not operational as of the baseline date for the 2019 IRP Update, the date on which PGE assumed the QF would be operational;
- 12) whether the referenced QF contract has been terminated;
- 13) the date of termination, if applicable, and
- 14) whether the QF is again selling power to PGE under a QF contract or otherwise.

Response:

In the 2023 CEP/IRP the QF update date of June 2, 2022 is incorrect. The final QF update date should read December 2022. PGE interprets this DR as specific to the last CEP/IRP update and is using the December 2022 date to inform its responses. PGE will correct this error in a future errata filing.

- a) Yes, QF contracts mean Schedule 201 contracts and Schedule 202 contracts and not Community Solar Program contracts.
- b) PGE objects to parts 2), 6), 7), 8), and 9) of this request on the basis that it seeks information that is not relevant to the decisions to be made in this proceeding.

Subject to and without waiving its objection, see Attachment 001-A for remaining parts of this request. Regarding the four projects in the QF list that have terminated, PGE is not buying power from them at this time. PGE is still buying power from, or under contract to buy power from, the remaining QF projects in Attachment 001-A.

Please note that two projects, Minikahda Hydropower Co. (0.2 MW nameplate) and Stilorgan Solar (1.53 MW nameplate, 0.765 MW nameplate in the reference case after the 50% adjustment) were erroneously included in the 2023 CEP/IRP (both projects terminated before the December 2022 date). The combined annual energy estimate for both projects is under 0.2 MWa in the CEP/IRP reference case. They will be removed from PGE's CEP/IRP QF list during the next QF update.

c) PGE objects to this request on the basis that it seeks information that is not relevant to the decisions to be made in this proceeding and requires significant new work.

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To: Joni Sliger

Renewable Energy Coalition

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to REC Data Request 002 Dated June 13, 2023

Request:

Please reference PGE's 2023 Clean Energy Plan and Integrated Resource Plan ("2023 IRP") at page 134, which describes PGE's "Reference Case" as "[a]ll QFs that are currently online plus 50 percent of executed Schedule 201 projects and 100 percent of executed Schedule 202 projects are included."

- a. Please provide the aggregate capacity in MW of: (1) Schedule 201 projects in PGE's 2023 IRP; and (2) Schedule 202 projects in PGE's 2023 IRP.
- b. Please provide PGE's historic success rate of QFs with Schedule 201 contracts as of: (1) June 2, 2022 and (2) June 2, 2023 (or a more recent date if that is less burdensome to produce).
- c. Please provide PGE's historic success rate of QFs with Schedule 202 contracts as of: (1) June 2, 2022 and (2) June 2, 2023 (or a more recent date if that is less burdensome to produce). Please identify all QFs with Schedule 202 contracts which have had their contracts renegotiated to be non-QF contracts or terminated.

Response:

In the 2023 CEP/IRP the QF update date of June 2, 2022 is incorrect. The final QF update date should read December 2022. PGE interprets this DR as specific to the last CEP/IRP update and is using the December 2022 date to inform its responses. PGE will correct this error in a future errata filing.

- a. See PGE's response to LC 80 REC DR 003 parts b) through d).
- b. Refer to the March 2022 IRP Roundtable (22-3) for PGE's presentation regarding historical success rates for Schedule 201 QFs. There were no new Schedule 201 contracts, five (5) terminations of Schedule 201 contracts, and two (2) Schedule 201 projects that successfully achieved commercial operation from the time period between the IRP Roundtable 22-3

¹https://assets.ctfassets.net/416ywc1laqmd/6hRQPptYmblk9Uvup4JDJU/f747f759ce667a80efcd041a12526c12/IRP Roundtable March 22-3.pdf#page=10

through December 2022. Changes to existing QF contracts from December 2022 through June 3, 2023 are included in PGE's response to LC 80 REC DR 001-Attachment A.

c. Refer to IRP Roundtable 22-3 for PGE's presentation regarding historical success rates for Schedule 202 QFs. There were no changes to Schedule 202 contracts from the time period between the IRP Roundtable 22-3 through December 2022. Changes to existing QF contracts from December 2022 through June 3, 2023 are included in PGE's response to LC 80 REC DR 001-Attachment A.

To: Joni Sliger

Renewable Energy Coalition

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to REC Data Request 003 Dated June 13, 2023

Request:

Please reference PGE's 2023 Clean Energy Plan and Integrated Resource Plan ("2023 IRP") at page 134, which describes PGE's "Reference Case" to include "[a]ll QFs that are currently online plus 50 percent of executed Schedule 201 projects and 100 percent of executed Schedule 202 projects are included."

- a. Please identify "all QFs" by project name and indicate if they are selling power to PGE under Schedule 201, Schedule 202, the Community Solar Program, or another approach. If another approach is used, please explain.
- b. Please identify the aggregate MW of executed Schedule 201 projects included in the 2023 IRP (both the raw aggregate and the "50 percent" included in the IRP portfolio).
- c. Please identify the aggregate MW of executed Schedule 201 projects that have come online since June 2, 2022.
- d. Please identify the aggregate MW of executed Schedule 202 projects included in the 2023 IRP.
- e. Please identify the aggregate MW of executed Schedule 202 projects that have come online since June 2, 2022.

Response:

In the 2023 CEP/IRP the QF update date of June 2, 2022 is incorrect. The final QF update date should state December 2022. PGE interprets this DR as specific to the last CEP/IRP update and is using the December 2022 date to inform its responses. PGE will correct this error in a future errata filing.

a. As noted in PGE's response to LC 80 REC DR 001, QFs for the purpose of the analysis referenced include only Schedule 201 and Schedule 202 contracts. Please see PGE's response to LC 80 REC DR 001-Attachment A for the list of all QFs that are included in the analysis referenced.

- b. The raw aggregate MW of Schedule 201 projects is 283 MW; and the "50%" aggregate MW of Schedule 201 projects is 277 MW.
- c. No Schedule 201 projects have come online since June 2, 2022 (or the CEP/IRP final QF update date of December 2022).
- d. 323 MW of Schedule 202 projects are included in the 2023 IRP.
- e. No Schedule 202 projects have come online since June 2, 2022 (or the CEP/IRP final QF update date of December 2022).

To: Joni Sliger

Renewable Energy Coalition

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to REC Data Request 006 Dated June 13, 2023

Request:

Please reference PGE's 2023 Clean Energy Plan and Integrated Resource Plan ("2023 IRP") at page 133, which states that "In all cases, the IRP assumes that QF contracts do not renew after they end," and PGE's Round 0 Response Comments at page 15, which state that "There have been three qualifying facility projects that have renewed. However, all three projects are small (totaling 0.49 MW) and originally signed to 2-year contracts."

- a. Does PGE dispute that Covanta Marion is a qualifying facility?
- b. If no, please explain why Covanta Marion is excluded from the above discussion.
- c. If yes, please explain.
- d. If yes, please identify whether Covanta Marion is selling its net output under the Federal Power Act or the Public Utility Regulatory Policies Act?
- e. If yes, please review Covanta Marion's FERC Form 556 in Docket No. RE 26, and explain why Covanta Marion is not selling its net output as a qualifying facility.

Response:

PGE objects to this request on the basis that it seeks information that is not relevant to the decisions to be made in this proceeding. Subject to and without waiving its objection, PGE responds as follows:

- a. No.
- b. Covanta Marion is not delivering to PGE under a QF contract (Schedule 201 or Schedule 202).
- c. See response to subpart a.
- d. See response to subpart a.
- e. See response to subpart a.

To: Joni Sliger

Renewable Energy Coalition

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to REC Data Request 007 Dated June 13, 2023

Request:

Please reference PGE's 2023 Clean Energy Plan and Integrated Resource Plan ("2023 IRP") at page 133, which states that "In all cases, the IRP assumes that QF contracts do not renew after they end," and PGE's Round 0 Response Comments at page 15, which state that "There have been three qualifying facility projects that have renewed. However, all three projects are small (totaling 0.49 MW) and originally signed to 2-year contracts."

- a. In considering whether qualifying facilities ("QFs") might renew their contracts, did PGE review whether QFs currently selling power to PGE under Schedule 201 or Schedule 202 contracts had previously held Schedule 201 or Schedule 202 contracts with PGE?
- b. In considering whether QFs might renew their contracts, did PGE review whether QFs currently selling power to PGE under any contract term had previously held Schedule 201 or Schedule 202 contracts with PGE?
- c. Does PGE agree that a QF that continues to sell power after its contract term has expired under a new contract has renewed its contract? If no, please explain.
- d. Does PGE agree that a QF selling power to PGE under an arrangement other than a Schedule 201 or Schedule 202 contract is still a QF?

Response:

- a. The reference provided at page 133 is considering this fact, which Schedule 201 or Schedule 202 contracts were held with PGE and renewed.
- b. See response to a. above.
- c. If a current Schedule 201 or Schedule 202 contract went through its existing term in its PPA, and entered into a new Schedule 201 or Schedule 202 contract (with the then-current terms and prices), PGE would consider this a 'renewed' contact, even though the contract itself is technically new.

d. PGE objects to this request on the basis that the question calls for speculation. Without waiving this objection, PGE responds as follows: A facility that meets the definition of a QF under FERC, can seek to complete a FERC Form 556, which provides the facility to receive QF *status*. It is this status that allows them to *seek* a contract under PURPA with a receiving utility, but does not obligate them to do so. PGE does not treat or consider every facility less than 80 MW selling to PGE to be a "QF".

To: Joni Sliger

Renewable Energy Coalition

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to REC Data Request 010 Dated June 13, 2023

Request:

Please describe PGE's assumptions in the 2023 Clean Energy Plan and Integrated Resource Plan ("2023 IRP") regarding the Community Solar Program ("CSP") and the basis for those assumptions. Please also provide:

- 1) the total MW of CSP capacity included in the 2023 IRP portfolio;
- 2) the total MW of CSP capacity included in the 2019 IRP Update;
- 3) the aggregate MW of CSP capacity operational as of June 2, 2022;
- 4) the date upon which PGE assumed any non-operational CSP capacity would achieve commercial operations; and
- 5) the aggregate MW of CSP capacity operational as of June 2, 2023 (or a more recent date if that is less burdensome to produce).

Response:

Community solar is capped at roughly 93 MW in the 2023 CEP/IRP. This value was chosen as it approximates 2.5% of the 2016 system peak, per OPUC Order 17-232. Please see Attachment 010-A for annual energy community solar values out of the energy load-resource-balance workbook and nameplate community solar values from the resource adequacy model.

PGE notes that when preparing this response the Company noticed that the pace of resource acquisition differs between the two forecasts: both forecasts reached the cap by 2030, though they differed in the pace of program increases. PGE will correct this discrepancy in an upcoming portfolio analysis refresh.

- 1. Please see Attachment 010-A for these data.
- 2. In the 2019 IRP Update the maximum amount of community solar is 93 MW nameplate.
- 3. On June 2, 2022, there was approximately 11.1 MW of community solar online.
- 4. Please see Attachment 010-A for these data.
- 5. In June 2, 2023, there was approximately 26.7 MW of community solar online.

Load resource balance workbook community solar assumptions - all values in annual energy (MWa)

| Year | MWa |
|------|----------|
| 2023 | 7.025426 |
| 2024 | 7.01747 |
| 2025 | 9.314985 |
| 2026 | 9.314985 |
| 2027 | 9.314985 |
| 2028 | 9.304436 |
| 2029 | 9.314985 |
| 2030 | 18.62998 |
| 2031 | 18.62998 |
| 2032 | 18.60888 |
| 2033 | 18.62998 |
| 2034 | 18.62998 |
| 2035 | 18.62998 |
| 2036 | 18.60888 |
| 2037 | 18.62998 |
| 2038 | 18.62998 |
| 2039 | 18.62998 |
| 2040 | 18.60888 |
| 2041 | 18.62998 |
| 2042 | 14.19519 |
| 2043 | 11.60455 |

LC 80 REC DR 010 Attachment A

Sequoia model community solar assumptions - all values nameplate $\ensuremath{\mathsf{MW}}$

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|---------|
| Community_Solar | 2023 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 MW |
| Community_Solar | 2024 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 MW |
| Community_Solar | 2025 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 | 43.7 MW |
| Community_Solar | 2026 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 | 53.5 MW |
| Community_Solar | 2027 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 | 63.3 MW |
| Community_Solar | 2028 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 | 73.1 MW |
| Community_Solar | 2029 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 MW |
| Community_Solar | 2030 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2031 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2032 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2033 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2034 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2035 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2036 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2037 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2038 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2039 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2040 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2041 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2042 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |
| Community_Solar | 2043 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 | 92.7 MW |

July 24, 2023

To: Joni Sliger

Renewable Energy Coalition

From: Erin Apperson

Assistant General Counsel III

Portland General Electric Company LC 80 PGE Response to REC Data Request 012 Dated July 19, 2023

Request:

Please reference PGE's Responses to REC Data Requests 001 to 011. Please provide a supplemental answer to each prior Data Request that either (1) reflects changes from the Addendum or (2) indicates that there is no change resulting from the Addendum.

Response:

PGE responds as follows:

001:

- a. No change resulting from the Addendum.
- b. No change to previous objections. Please see Attachment 012-A for the July 2023 Addendum QF snapshot, dated June 2023 (updates subparts 1, 3, 4, 5, 10, 11, 12, 13). PGE is still buying power from, or under contract to buy power from, the remaining QF Projects in Attachment 012-A. PGE is not currently purchasing power from the terminated QFs (subpart 14).
- c. No change resulting from the Addendum.

002:

- a. No change resulting from the Addendum.
- b. No change resulting from the Addendum.
- c. No change resulting from the Addendum.

003:

- a. No change resulting from the Addendum. Please see Attachment 012-A.
- b. Please see Attachment 012-A.
- c. No change resulting from the Addendum.
- d. Please see Attachment 012-A.
- e. No change resulting from the Addendum.

004:

No change resulting from the Addendum.

005:

- a. No change resulting from the Addendum.
- b. No change resulting from the Addendum.
- c. No change resulting from the Addendum.

006:

- a. No change resulting from the Addendum.
- b. No change resulting from the Addendum.
- c. No change resulting from the Addendum.
- d. No change resulting from the Addendum.

007:

- a. No change resulting from the Addendum.
- b. No change resulting from the Addendum.
- c. No change resulting from the Addendum.
- d. No change resulting from the Addendum.

008:

No change resulting from the Addendum.

009:

- a. No change resulting from the Addendum.
- b. No change resulting from the Addendum.
- c. No change resulting from the Addendum.
- d. No change resulting from the Addendum.

010:

- 1. As discussed in LC80 REC DR-010, PGE noticed a difference in acquisition pace of Community Solar between the forecasts in the resource adequacy model and the energy load-resource-balance workbook, and that this discrepancy would be corrected in an upcoming portfolio analysis refresh. For the Addendum, to correct this discrepancy, both models use the inputs previously used by the resource adequacy model. These values are available in LC80, REC DR 010 Attachment-A in the "Nameplate (adequacy model)" tab.
- 2. No change resulting from the Addendum.
- 3. No change resulting from the Addendum.
- 4. Please see the changes described in section 1 above and the "Nameplate (adequacy model)" tab from REC DR 010 Attachment-A.
- 5. No change resulting from the Addendum.

011:

No change resulting from the Addendum.

Total aggregate Schedule 202 163 DR 003 d)

online resources removed) 276 DR 003 b)

440 nameplate MW

Total aggregate Schedule 201 281 DR 003 b)
Schedule 201 adjusted (50% of contracted but not

LC 80 AWEC DR 039 June 19, 2023 QF snaphot

| DR 001 (1) QF Name | Contract type | Online status | DR 001 (5) Technology | DR 001 (4) Project MW | DR 001 (3) Execute date | DR 001 (10) (11) COD (actual) | DR 001 (13), DR 002 (b) (c) Status as of July 19, 2023 | DR 001 (14) <u>Date of Termination</u> |
|--|--------------------|------------------|--------------------------|-----------------------|---------------------------------------|--------------------------------------|---|--|
| Airport Solar | SCH 202 | Online | Solar | 47.3 | | | | |
| Ikali | SCH 201 | Online | Solar | 10.0 | | | No change | |
| M - West Silverton | SCH 201 | Online | Solar | 3.0 | 4/19/2018 | 2/18/2021 | No change | |
| Ballston Solar | SCH 201 | Online | Solar | 2.2 | 5/2/2016 | 12/18/2018 | No change | |
| Big Horn | SCH 201 | Online | Solar | 2.2 | 9/17/2019 | 12/28/2020 | No change | |
| Boring Solar | SCH 201 | Online | Solar | 2.2 | 1/25/2016 | 4/3/2019 | No change | |
| Brightwood Solar | SCH 201 | Online | Solar | 10.0 | 3/1/2017 | 4/22/2022 | No change | |
| Bristol Solar | SCH 201 | Online | Solar | 3.0 | 4/19/2018 | 1/6/2021 | No change | |
| Brush Creek Solar | SCH 201 | Online | Solar | 2.2 | 6/23/2017 | 5/15/2020 | No change | |
| Butler Solar | SCH 201 | Online | Solar | 4.0 | 1/25/2016 | 3/18/2021 | No change | |
| Case Creek Solar | SCH 201 | Online | Solar | 2.2 | 6/22/2016 | 10/29/2019 | No change | |
| Coffin Butte | SCH 201 | Online | Biogas | 5.7 | 7/2/2012 | 10/1/2012 | No change | |
| Coolmine Solar | SCH 201 | Contracted | Solar | 1.98 | · · · · · · · · · · · · · · · · · · · | | Terminated | 6/28/202 |
| Cusack Solar | SCH 201 | Contracted | Solar | 2.565 | 1/17/2020 | | Terminated | 6/28/202 |
| Day Hill Solar | SCH 201 | Online | Solar | 2.2 | | | | |
| DB - Bull Run | SCH 201 | Online | Solar | 2.6 | | | _ | |
| DC - Donald (Sulus25) | SCH 201 | Online | Solar | 2.2 | | | | |
| DF - West Eagle Creek | SCH 201 | Online | Solar | 2.8 | • • | | No change | |
| Domaine Drouhin | SCH 201 | Online | Solar | 0.1 | | | No change | |
| Drift Creek | SCH 201 | Online | Solar | 2.2 | | | No change | - 1 1 |
| Dublin Solar | SCH 201 | Contracted | Solar | 2.97 | • • | | Terminated | 6/28/202 |
| Duus Solar | SCH 201 | Online | Solar | 10.0 | • • | | No change | |
| Evergreen BioPower | SCH 201 | Online | Biomass | 10.0 | • • | | No change | |
| Falls Creek Hydro | SCH 201 | Online | Hydro | 4.1 | • • | | No change | |
| Finley BioEnergy | SCH 201 | Online | Biogas | 4.8 | • • | | | |
| Firwood Solar | SCH 201 | Online | Solar | 10.0 | | | No change | |
| Fort Rock Solar I | SCH 201 | Online | Solar | 10.0 | | | No change | |
| Fort Rock Solar IV | SCH 201 | Online | Solar | 10.0 | | | No change | |
| Greenpark Solar | SCH 201 | Online | Solar | 1.3 | | | _ | s /a a /a a |
| Hogan Solar (2) | SCH 201 | Contracted | Solar | 2.565 | | | Terminated | 6/28/202 |
| lefferson Solar LLC | SCH 202 | Contracted | Solar | 53.0 | • • | | No change | |
| Kale Patch Solar | SCH 201 | Online | Solar | 2.2 | • • | | _ | |
| KT - Molalla | SCH 201 | Online | Solar | 3.0 | • • | | No change | |
| Labish Solar | SCH 201 | Online | Solar | 2.2 | | | | |
| Lakeview | SCH 201 | Online | Solar | 10.0 | | | No change | |
| Madras Solar | SCH 202 | Contracted | Solar | 63.0 | • • | | No change | |
| MFID | SCH 201 | Online | Hydro | 2.8 | | | No change | |
| Milford Solar | SCH 201 | Online | Solar | 3.0 | • • | | No change | |
| Minke Solar | SCH 201 | Online | Solar | 2.2 2.2 | | | | |
| NorWest Energy 14 (Grande R | | Online Online | Solar | | | | No change | |
| OE Solar 3 (Wy'East) O'neil Creek Solar | SCH 201 SCH 201 | Online | Solar Solar | 10.0 2.2 | • • | | No change No change | |
| Palmer Solar | SCH 201 | Online | Solar | 2.2 | • • | | | |
| Palmer Solar PaTu Wind | SCH 201 | Online | Wind | 9.0 | | | | |
| PG - West Sheridan | SCH 201 | Online | Solar | 3.0 | | | No change | |
| Pika Solar | SCH 201 | Online | Solar | 2.2 | • • | | | |
| Rafael Solar | SCH 201 | Online | Solar | 2.2 | • • | | | |
| Riley Solar | SCH 201 | Online | Solar | 10.0 | | | No change | |
| Rock Garden | SCH 201 | Online | Solar | 10.0 | | | No change | |
| SB - South Wilamina (Sulus28) | | Online | Solar | 3.0 | • • | | _ | |
| Sheep Solar | SCH 201 | Online | Solar | 2.2 | | | No change | |
| Silverton Solar | SCH 201 | Online | Solar | 2.2 | | | No change | |
| SP Solar 1 (Interstate) | SCH 201 | Online | Solar | 2.2 | • • | | No change | |
| SP Solar 5 (Mill Creek) | SCH 201 | Online | Solar | 2.2 | • • | | No change | |
| SP Solar 6 (Colton) | SCH 201 | Online | Solar | 2.2 | | | _ | |
| | SCH 201 | Online | Solar | 2.2 | • • | | No change | |
| SP Solar 8 (Valley Creek) | SCH 201 | Online | Solar | 2.2 | | | No change | |
| SSD Clackamas 1 | SCH 201 | Online | Solar | 4.0 | • • | | | |
| SSD Clackamas 4 | SCH 201 | Online | Solar | 2.0 | | | | |
| SSD Clackamas 7 | SCH 201 | Online | Solar | 2.0 | | | _ | |
| SSD Marion 1 | SCH 201 | Online | Solar | 2.0 | | • • | • | |
| SSD Marion 3 | SCH 201 | Online | Solar | 2.0 | | | | |
| SSD Marion 5 | SCH 201 | Online | Solar | 2.0 | | | | |
| SSD Marion 6 | SCH 201 | Online | Solar | 2.0 | • • | | • | |
| St Louis Solar | SCH 201 | Online | Solar | 2.2 | • • | | No change | |
| Starbuck Properties | SCH 201 | Online | Solar | 0.0 | | | No change | |
| Starvation Solar | SCH 201 | Online | Solar | 10.0 | | | _ | |
| Steel Bridge Solar | SCH 201 | Online | Solar | 2.5 | | | No change | |
| Suntex Solar | SCH 201 | Online | Solar | 10.0 | • • | | No change | |
| Thomas Creek Solar | SCH 201 | Online | Solar | 2.2 | | | • | |
| Fickle Creek Solar | SCH 201 | Online | Solar | 1.9 | | | • | |
| Tualatin Valley Water District | | Online | Hydro | 0.1 | • • | | No change | |
| Volcano Solar | SCH 201 | Online | Solar | 0.8 | | | | |
| Von Family Limited Partnershi | | Online | Hydro | 0.8 | | | No change | |
| VOD FAMILIO LIMITAN DEN NEW W. | | | | | | | | |

Attachment C

PGE Responses to Coalition Data Requests in Docket No. UM 1728

June 3, 2022

To: Joni Sliger

Renewable Energy Coalition

From: Robert Macfarlane

Manager, Pricing and Tariffs

Request:

Please reference PGE's 2022 application at page 3, which states that "PGE updated its portfolio based on the assumption that 100% of the QFs under Schedule 202 that have executed contracts but have not yet achieved commercial operation will come online" and that "PGE has executed just eight (8) Schedule 202 contracts, of which one is operational, four are currently under contract but have not yet achieved commercial operation, two were converted to a bilateral contract, and one was terminated by the Seller. Given the limited history for QFs of this size, the sophistication of the developers of these projects, and the significant size of these projects (in aggregate all eight projects are 419MWs), it is reasonable for PGE to assume that the four Schedule 202 QFs currently under contract will achieve commercial operation."

- a. Please identify all of PGE's executed Schedule 202 contracts.
- b. Please identify whether the 8 contracts include Covanta Marion, Inc. ("Covanta Marion").
 - i. If not, please explain whether Covanta Marion has entered into any Power Purchase Agreements ("PPA") to sell its net output under the Public Utility Regulatory Policies Act ("PURPA").
 - ii. Please confirm that PGE entered into a PPA with Covanta Marion on March 31, 2014. 1. Please confirm that PGE filed this PPA with the Oregon Public Utility Commission as a PURPA PPA.
 - iii. Please confirm that PGE entered into a Power Purchase and Sale Agreement (PPA) with Covanta Marion for Qualifying Facility (QF) Greater than 10MW on June 19, 2018.
 - 1. Please confirm that PGE filed this PPA with the OPUC as a PURPA PPA.
 - 2. Please confirm that PGE filled this PPA as a "PGE Tariff Schedule 202 for Qualifying Facilities Greater than 10 MW."
 - 3. Please confirm that the contract expiration date is September 30, 2034.
 - iv. Please confirm that Covanta Marion is selling power to PGE. If not, please explain why.
- c. Did PGE consider any other utilities' experience with QFs of this size?

- i. If so, please identify the utility(ies) and describe each other utility's experience.
- ii. If not, explain why not.
- d. For each of PGE's executed Schedule 202 contracts (including the Covanta Marion PPA), please identify:
 - i. The date of contract execution;
 - ii. The type of contract (on-system, renewable, firm, etc.)
 - iii. The capacity in megawatts ("MWs");
 - iv. The resource type (wind, solar, baseload, etc.);
 - v. The original scheduled commercial operation date;
 - vi. The current scheduled commercial operation date;
 - vii. The date on which commercial operations was achieved, if applicable;
 - viii. The date of contract termination, if applicable;
 - ix Whether the project converted to a bilateral contract;
 - x. The current status of the project; and
 - xi. The most recent date prior to PGE's 2022 application on which PGE received information about the project status.
- e. Please explain the circumstances of the termination for the one contract, to the extent known.
- f. Are the two facilities that contracted and later converted to bilateral contracts operational?
- g. Please explain why PGE believes a 100% assumption is appropriate when its experience indicates a success rate of 75% or less.
- h. Please reference PGE's March 2022 IRP Roundtable presentation at slide 15, which identifies 2 terminated negotiated QF contracts. Are the two terminated QF contracts referenced in the presentation Schedule 202 QFs? Please explain.

Response:

- a. Please refer to response provided in subpart (d).
- b. Yes, Covanta Marion is included in the eight (8) referenced agreements.
 - i. N/A
 - ii. PGE objects that this request seeks information that is not relevant, as the referenced PPA has expired. Notwithstanding and without waiving this objection: PGE confirms that from 2014 through 2017, Covanta Marion sold to PGE pursuant to a merchant contract based on the Edison Electric Institute Master Power Purchase and Sale Agreement. This contract was not a PURPA PPA, and it was erroneously filed in Docket RE 143.
 - iii. Confirmed.
 - 1. Confirmed

- 2. Confirmed
- 3. PGE confirms that the expiration date of the referenced contract was September 30, 2034. However, that PPA has since been terminated.
- iv. PGE confirms that Covanta Marion is currently selling power to PGE pursuant to a bilateral PPA.
- c. No. PGE reached out to PacifiCorp and Idaho Power to inquire whether information regarding their historic QF success and renewal rates are publicly available. PGE has not identified a publicly available source of this information.
- d. Please see attachment UM 1728_REC DR 014_Attach A_CONF. PGE does not track the dates on which it receives information about QF status, but the information reflected in the attachment is the most recent information PGE has available.
- e. Please refer to response provided in (d).
- f. Please refer to response provided in (d).
- g. PGE has executed a total of eight (8) Schedule 202 contracts since the start of its QF program, four (4) of which have not passed their scheduled commercial operation date, and therefore are not relevant to any analysis of Schedule 202 QF success rate. Of the remaining four (4) Schedule 202 contracts, two (2) converted to bilateral under negotiation, one (1) was terminated by Seller, and (1) is online. Given the very limited experience in these size projects under a Schedule 202 contract, PGE does not believe that it has enough historical experience to base a forecast on anything less than 100%. Also, given the size of the QFs, it is reasonable to assume that the developer has a construction plan to achieve commercial operation.
- h. Yes, the two "Terminated" "Negotiated" QFs referenced in the table on slide 15 are Schedule 202 QFs whose status at the time of termination was 'Contracted'. Refer to the response provided in (d). The Schedule 202 contract that is terminated, and whose status at the time of termination was 'Online', is not represented in this slide, which addresses "QF Contracts Executed, Not Online."

Attachment 014 A contains protected information and is subject to General Protective Order 17-321