



ALISHA TILL
Main (503) 595-3922
alisha@mrg-law.com

March 7, 2023

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
Filing Center
P.O. Box 1088
201 High Street S.E., Suite 100
Salem, OR 97308-1088

**Re: Docket UM 2000 - In the Matter of Public Utility Commission of Oregon,
Investigation into PURPA Implementation.**

Attention Filing Center:

Attached for filing in the above-captioned docket are Portland General Electric Company's Comments on Staff's Process Proposal and Scoping Update.

Please contact this office with any questions.

Sincerely,

A handwritten signature in black ink that reads "Alisha Till". The signature is written in a cursive, flowing style.

Alisha Till
Paralegal

Attachment

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 2000

In the Matter of

PUBLIC UTILITY COMMISSION OF
OREGON,

Investigation into PURPA Implementation.

**PORTLAND GENERAL ELECTRIC
COMPANY’S COMMENTS ON STAFF’S
PROCESS PROPOSAL AND SCOPING
UPDATE**

1 These comments of Portland General Electric Company (PGE) respond to Staff’s Process
2 Proposal and Scoping Update issued on February 24, 2023 (Scoping Update), in which it requested
3 comments regarding assumptions and methodological changes required to rapidly implement an
4 interim solar-plus-storage avoided cost rate.¹ Given the very short timeline allowed for these
5 comments, PGE reserves the right to revise or refine its proposals.

I. INTRODUCTION

6 The development of solar-plus-storage avoided cost pricing involves several unique
7 considerations, and implementing an avoided cost price that fairly compensates the QF while
8 maintaining customer indifference will require more than simply incorporating the capacity value
9 from an Integrated Resource Plan (IRP) proxy resource into a new price stream. To adopt an
10 accurate solar-plus-storage avoided cost rate, the Public Utility Commission of Oregon
11 (Commission) must determine novel resource valuation, compensation, and operational issues, and
12 these complex and fundamental issues cannot be accurately resolved on an expedited basis and
13 should be considered in conjunction with the broader avoided cost investigation. Moreover, it will
14

¹ Docket UM 2000, Staff’s Process Proposal and Scope Update at 4 (Feb. 24, 2023).

1 be inefficient to devote resources and time to incorporating solar-plus-storage into the existing
2 methodology on an interim basis in Phase 0 only to immediately begin reconsidering the broader
3 avoided cost methodologies in Phase 1.

4 For these reasons, PGE continues to support the Joint Utilities’ recommendation that the
5 Commission develop a solar-plus-storage rate along with its broader investigation into avoided
6 cost methodologies in Phases 1 and 2.² That said, in the event that Staff and the Commission
7 believe that it is imperative to adopt pricing for solar-plus-storage resources by May 1, 2023, as
8 contemplated by Staff’s Scoping Update, PGE proposes that the Commission adopt an interim
9 approach that hews as closely as possible to current methodologies for avoided cost pricing, to
10 minimize the risk of unintended and unforeseen consequences.

11 In these initial comments, PGE first proposes an interim approach for solar-plus-storage
12 pricing that may be adopted with PGE’s upcoming May 1 Update. That methodology is based on
13 the current avoided cost methodology, with adjustments that recognize the increased capacity
14 contribution of solar-plus-storage resources. Second, as an introduction to full consideration of
15 solar-plus storage pricing that will take place in Phases 1 and 2, PGE describes high-level
16 principles that should guide that consideration, and then provides a conceptual proposal that
17 incorporates those principles.

18 **II. PGE’S INTERIM PROPOSAL FOR MAY 1, 2023**

19 As noted above, PGE urges the Commission to delay adoption of solar-plus-storage pricing
20 until the later phases of this docket, to allow the parties to fully vet the numerous complex
21 considerations necessitated by such an endeavor. While parties may agree upon higher level

² Docket UM 2000, Joint Utilities’ Scoping and Process Comments at 6-7 (Dec. 22, 2022).

1 approaches for developing solar-plus-storage avoided cost pricing, the devil is always in the
2 details, and without full consideration, a methodology that seems to satisfy general principles could
3 in fact yield significantly flawed results. It is important for the Commission to consider that
4 regardless of the fact that such pricing is interim, once adopted this pricing will be incorporated
5 into long-term contracts with notional values into the tens of millions of dollars. Accordingly,
6 PGE proposes that, if Staff and the Commission believe it is necessary to adopt interim pricing
7 pending the resolution of Phases 1 and 2, the Commission should make as few changes to the
8 existing methodology as possible in order to avoid unintended and unforeseen consequences.

9 PGE proposes to calculate interim standard solar-plus-storage avoided cost pricing using
10 the ELCC from the solar-plus-storage proxy resource modeled in its 2019 IRP. That resource was
11 comprised of a 100-megawatt (MW) solar facility and a 25-MW, 4-hour, co-located battery.³ The
12 solar storage resource in the 2019 IRP was charged exclusively by available solar energy, and its
13 simulated dispatch was controlled by the utility. The capacity contribution of solar and storage in
14 the 2019 IRP Update is 21%.⁴

15 The interim avoided cost rate would be available only to resources that consist of solar with
16 paired storage and have a storage capacity no less than 25% and no more than 100% of the
17 alternating current (AC) capacity of the solar and no fewer than four hours of storage duration.
18 Solar and storage resources subscribing to this rate may not engage in grid charging.

³ *In re Portland General Elec. Co., 2019 Integrated Resource Plan*, Docket LC 73, PGE’s 2019 IRP at 137 (July 19, 2019).

⁴ Docket LC 73, PGE’s 2019 IRP Update at 63 (Jan. 29, 2021).

1 Targeted changes to Schedule 201 will be necessary to reflect the new price stream and
2 associated eligibility requirements. PGE is still evaluating whether any changes to the standard
3 PPA will be necessary.

4 In the interim, PGE proposes to develop negotiated pricing in the same way it does now—
5 by starting with the new Schedule 201 prices for solar-plus-storage as described above, and then
6 making appropriate adjustments based on the specific characteristics and dispatch pattern of the
7 facility.

8 **III. PRINCIPLES TO GUIDE LONGER-TERM ADOPTION OF SOLAR-PLUS-**
9 **STORAGE AVOIDED COST RATES**

10 While PGE is proposing relatively modest changes to the existing methodology on an
11 interim basis, the Company does look forward to proposing a longer-term approach to solar-plus-
12 storage avoided cost pricing that is thoughtfully developed to address the complex considerations
13 relevant to such resources. The following principles should guide the parties' efforts:

14 *First*, the capacity value of a solar-plus-storage facility derives, in part, from the utility's
15 ability to control dispatch and charging of the battery. The capacity contribution of solar-plus-
16 storage in PGE's IRP assumes that the utility operates the battery in a way that maximizes the
17 capacity contribution and overall value of the storage resource. However, it is not clear that
18 utilities legally may control QF dispatch, and in any event, PGE does not have the technical
19 capability to do so. Therefore, the IRP's assumptions cannot be directly translated into an avoided
20 cost price that is offered to a QF that may deliver at the time of its choosing, because the QF does
21 not provide the same capacity value as the utility-controlled resource.

22 *Second*, in addition to controlled operations, the capacity value of a solar-plus-storage
23 facility depends upon the charging source for the battery. A resource that charges from the grid

1 has greater fuel availability, and therefore a higher capacity value than a resource that charges only
2 from the associated solar facility. This fact can be illustrated by a comparison of the 21% solar-
3 plus-storage ELCC result in PGE’s 2019 IRP—in which the storage could only be charged by
4 paired on-site solar—with the 75% ELCC result in PGE’s 2023 Draft IRP—in which storage may
5 be charged by grid energy.⁵ While the difference results from many factors, grid charging is one
6 contributing factor. Given the significant difference in resource valuation associated with this
7 limitation, it is important that the limitations associated with PURPA contracting be accounted for
8 when specifying solar and storage resource value.

9 However, a battery charged from the grid is not PURPA-eligible, and the Commission will
10 need to adopt appropriate requirements to ensure that QF storage is charged exclusively by the
11 associated solar facility, not the grid. Therefore, by definition, QF solar-plus-storage will have a
12 lower ELCC than would be associated with a project in which the battery may be charged by the
13 grid.

14 ***Third***, the increased capacity value of a solar-plus-storage facility results from the battery’s
15 ability to shift generation in time, and a solar-plus-storage QF should receive a higher capacity
16 payment only if it actually delivers energy in the hour(s) of highest need, which are likely to change
17 over the life of the contract. A solar-plus-storage avoided cost price will therefore need to be more
18 granular to reflect the estimated cost that will be avoided at the specific time that the QF chooses
19 to deliver. For example, if the utility’s hour of highest need is 8:00 p.m. on August 1, the QF

⁵ See August 22, 2022 PGE Roundtable Slides available at:
https://assets.ctfassets.net/416ywc1laqmd/1ltEzsTwlgoFoOfVxtuGob/4bff485e57a30ad1549d061094a44347/IRP_Roundtable_August_22-7.pdf#page=14

The August 22, 2022 estimate is a draft finding that is expected to change upon filing of the 2023 IRP.

1 should receive the highest capacity payment for delivering at that time and should not receive the
2 same capacity payment for delivering at 8:00 a.m.

3 **Fourth**, the capacity value of a solar-plus-storage resource depends upon the battery’s
4 storage duration and the storage-to-generation ratio. For example, a facility with 10 MW of solar
5 generation and a 1-MW battery will have a different capacity value than a facility with 10 MW of
6 solar and a 5-MW battery, or 10 MW of solar and a 10-MW battery. Similarly, a 1-hour battery
7 does not provide the same capacity value as a 4-hour battery. Other considerations include the
8 project’s AC/DC ratio, any relevant project-level interconnection limits, battery augmentation
9 obligations and battery degradation. To account for differences between the design of the QF and
10 the proxy resource, a solar-plus-storage avoided cost stream may need to have eligibility
11 limitations and requisite resource value adjustments.

12 **Fifth**, because the value of storage depends upon how the specific resource is configured
13 and dispatched, it is particularly important to model and accurately price larger solar-plus-storage
14 QFs. FERC has determined that a facility with 80 MW of solar panels and 80 MW of battery
15 storage is eligible as a QF under PURPA,⁶ and such a large QF would materially impact the
16 utility’s resource portfolio. Simply adjusting the standard avoided cost prices would not accurately
17 reflect this facility’s value—which may be higher or lower than the standard avoided cost prices,
18 depending on the facility’s characteristics. Therefore, utilities should be permitted to model the
19 specific facility configuration and dispatch profile to determine appropriate pricing.

20 **Finally**, targeted updates to PGE’s Schedule 201, Schedule 202, and likely PGE’s standard
21 PPAs, will be required to implement a solar-plus-storage avoided cost rate; depending on the

⁶ *Broadview Solar, LLC*, 174 FERC P 61,199 (2021).

1 methodology and assumptions ultimately adopted, it is possible that more significant updates will
2 be necessary.

3 **IV. PGE’S CONCEPTUAL PROPOSAL FOR MAY 1, 2024 – FOLLOWING THE**
4 **CONCLUSION OF PHASE I & II**

5 Based on the principles laid out above, PGE has developed a very high-level conceptual
6 proposal, which it plans to further refine and propose during Phases I and II. Although PGE does
7 not believe that the details of this proposal can be properly developed and vetted on the timeline
8 allowed for the interim proposal, it may be helpful for the parties to consider its outline as they
9 discuss the interim solution.

10 On an ongoing basis, PGE will need to estimate the capacity contribution of solar and
11 storage resources that do not engage in grid charging and are not subject to utility control. To
12 accomplish this, PGE will produce a simple desktop model that simulates the storage and discharge
13 of available solar energy from a paired generic solar resource. PGE will separately estimate the
14 capacity contribution of this solar-plus-storage resource on an ongoing basis.

15 However, rather than spreading the total capacity payment over all on-peak hours as is
16 PGE’s current practice for other resource types, PGE proposes to pay for capacity only in four
17 specific hours per day when PGE has the highest need. The capacity price will be the same in all
18 four specified hours of a given month. The four hours applicable for each month will be reflected
19 in a 12x24 grid provided in PGE’s Schedule 201.

20 Because PGE’s hours of highest need have changed and will continue to change as PGE
21 adds significant new resources to its system and experiences load growth, PGE proposes to update
22 the 12x24 grid in PGE’s avoided cost updates following acknowledgment of an IRP or IRP update
23 to ensure that the solar-plus-storage QF continues to provide the contracted-for value as PGE’s

1 need changes. Under this conceptual proposal, the total value of the capacity payments will not
2 change over the course of the contract term. Rather, the specified hours in which capacity
3 payments are available would be subject to change, and solar and storage QFs would change the
4 operation of their resource to capture available payments.

DATED: March 7, 2023

McDOWELL RACKNER GIBSON PC



Lisa Rackner
Jordan Schoonover
McDowell Rackner Gibson PC
419 SW 11th Avenue, Suite 400
Portland, OR 97205
dockets@mrg-law.com

Donald Light
Portland General Electric Company

*Attorneys for Portland General Electric
Company*