ORDER NO. 21-129

ENTERED May 03 2021

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

LC 73

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, 2019 Integrated Resource Plan.	ORDER

DISPOSITION: STAFF'S RECOMMENDATION ADOPTED WITH GUIDANCE

This order memorializes our decision, made and effective at our April 20, 2021 Special Public Meeting, to adopt Staff's recommendation in this matter to acknowledge Portland General Electric Company's 2019 Integrated Resource Plan (IRP) Update. Staff and PGE largely agreed to additional analysis and a workshop, and those actions are described in the Staff Report attached as Appendix A. Staff's Report also describes stakeholders' comments and areas of agreement.

In response to stakeholders' concerns, we made additional decisions that are memorialized in this order and will apply to two of PGE's upcoming proceedings.[1] Below we describe how our acknowledgement of PGE's IRP Update is not determinative of the outcome of PGE's annual avoided cost update proceeding. We also address PGE's Request for Proposal (RFP) proceeding, recently initiated in docket UM 2166.

A. Acknowledgement of an IRP Update

1. Applicable Standards

As described in the Staff Report, our rules state that each energy utility must submit an annual update on its most recently acknowledged IRP.[2] The rules describe an IRP Update as an informational filing with a focus on the action plan, with descriptions of actions taken to implement the action plan, changes in load or resources that affect the action plan, and a justification of deviations from the action plan. The energy utility

[1] This order does not address issues that were agreed to by PGE and comments from the Oregon Citizens' Utility Board and Renewable Northwest that are summarized in Staff's memo.
[2] OAR 860-027-0400(8).

"may request acknowledgement of changes, identified in its update, to the IRP action plan."[3]

2. Parties' Positions

PGE requested that the Commission acknowledge the 2019 IRP Update so that updated inputs may be incorporated into its May 1 avoided cost update filing, consistent with OAR 860-029-0085(4)(D), our avoided cost rates rules. PGE stated that incorporating updated information from its IRP Update in its avoided cost calculation will result in more accurate avoided cost prices, consistent with the customer-indifference standard. PGE maintains that it has appropriately updated available inputs with known and measurable changes.[4]

Staff recommended acknowledging the IRP Update to signal compliance with OAR 860-027-0400(8), our IRP Update rules. Renewable Energy Coalition (REC) and NewSun Energy recommended that we not acknowledge the IRP Update. REC stated that PGE's IRP Update contained planning errors that could not be fixed in a subsequent avoided cost docket, and should not be acknowledged here.[5] NewSun asserted that acknowledgement is unnecessary and potentially improper when there are no changes to the action plan, citing our IRP guidelines and annual avoided cost update rules.[6] NewSun further argued that PGE's process to selectively update the inputs to its avoided costs creates discriminatory rates in violation of the Public Utility Regulatory Policies Act (PURPA).[7] Staff recommended that concerns related to PGE's avoided cost filing be evaluated in the avoided cost proceeding.

3. Discussion

Because it is discretionary whether a utility seeks acknowledgement of an IRP Update, we consider the potential impact of non-acknowledgement versus acknowledgement and how our acknowledgement of PGE's IRP Update might impact PGE's annual avoided cost update in docket UM 1728 under OAR 860-029-0085. Administrative efficiency supports our acknowledgment of the IRP Update because discussion of specific issues among parties in an IRP or IRP Update may be informative or persuasive, but not

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[3] *Id.*
[4] PGE Supplemental Filing at 2, 6 (Feb 5, 2021).
[5] Renewable Energy Coalition Comments on Staff Report at 1 (Apr 12, 2021).
[6] NewSun Energy Comments on Staff Report at 1-2 (Apr 12, 2021) (citing *In the Matter of Public Utility Commission of Oregon, Investigation into Integrated Resource Planning*, Docket No. UM 1056, Order No. 07-002 at Appendix A at 4 (Feb 9, 2007) and *In the Matter of Public Utility Commission of Oregon Rulemaking Regarding Power Purchases by Public Utilities from Small Qualifying Facilities*, Docket No. AR 593, Order No. 18-422 (Oct 29, 2018)).
[7] 16 USC § 824a-3(b)(2).

conclusive, in the avoided cost proceeding. With our acknowledgement of PGE's IRP Update, PGE may file the avoided cost update with the IRP Update inputs, but its initial filing does not necessarily determine the outcome of the avoided cost proceeding. We decline to find error or bias in the scope of the inputs that PGE refreshed in this IRP Update.

B. Capacity Contribution

1. Background

PGE's IRP Update contains an updated capacity contribution analysis, or effective load carrying capability (ELCC), for candidate resources based "on the same snapshot of loads and resources as used for the updated capacity need assessment."[8] PGE's IRP Update states that the ELCC value for the first increment of solar decreased relative to the 2019 IRP value primarily due to approximately 200 MW of additional solar resources assumed in PGE's baseline portfolio (also referred to as base resource stack).[9] PGE's IRP Update states this change parallels the ELCC analysis from the 2019 IRP that showed a steep decline across the first 200 MW of solar additions.

PGE's supplemental filing shows the solar ELCC value in the current avoided cost workbook is 15.8 percent, while the IRP Update value is 5.5 percent.[10] PGE clarified that the 200 MW of net additional baseline solar is due to PGE's green energy affinity rider (GEAR) initial offering, executed qualifying facility (QF) contracts, and the Community Solar program, all included as resource updates in the IRP Update. For GEAR resources, the IRP Update states that the first 162 MW tranche of GEAR is fully subscribed and in PGE's baseline.[11] The remaining 138 MW of GEAR resources is examined through a sensitivity. For Community Solar resources, the IRP Update base resource stack adds the 93 MW of the Community Solar program, with half beginning in January 2022 and the second half beginning in January 2023. For QF updates, PGE used a June 15, 2020 snapshot of contract executions and terminations. PGE states there are uncertainties with the date and amount of QFs that will come online. PGE also incorporated anticipated terminations related to the Community Solar Settlement Agreement.[12]

[8] PGE IRP Update at 47 (Jan 29, 2021).
[9] *Id.* at 48.
[10] PGE Supplemental Filing at 3.
[11] PGE IRP Update at 22.
[12] PGE IRP Update at 30.

2. Parties' Positions

REC and NewSun opposed PGE's ELCC value for solar. REC and NewSun asserted that PGE overestimates the level of QFs by using a 100 percent success rate that assumes all QFs with executed contracts achieve operations when there is a history of delays. NewSun stated that PGE's snapshot date of June 15, 2020 was just before numerous QF contracts "timed out" and drastically overstates the amount of solar in PGE's baseline portfolio, which is a critical input driving the ELCC value for solar down.[13] REC recognized that the Commission intends to address the assumptions around QFs in IRP modeling in docket UM 2038, but recommended that in the meantime, PGE develop an appropriate QF forecast.

For Community Solar, NewSun stated the 93 MW of resources included were not finalized at the time of the snapshot.[14] Removing these resources or moving the online date beyond 2025 would increase the value for the first increment of solar resources.

NewSun also raised concerns with PGE's proxy solar capacity factor and DC/AC ratio. NewSun stated that PGE's solar production forecast is 11 percent lower relative to expected generation from a comparable system at the same location.[15]

3. Discussion

Our deliberations involved two categories of interrelated issues, ELCC methodology and PGE's assumptions for new baseline solar resources. For methodology, PGE uses a single year of 2025 and we adopt Staff's recommendation for PGE to compute ELCC values by year and present the findings with its next IRP. In the interim, we expect parties to consider and discuss how ELCC values may vary in different years.

A second methodology concern was whether PGE's solar proxy generation forecast is incorrectly low, and we agree with Staff and PGE to maintain the 2019 IRP proxy resource characteristics for this filing. PGE explained that all candidate resources' costs and characteristics are being reviewed for the 2021 IRP and draft information indicates a decline in costs for wind and solar resources compared to the 2019 IRP.[16] We find it is reasonable for PGE to complete its supply side resource study that is currently underway and update costs and operating characteristics of generation resources in the next IRP.

The second category of ELCC issues involved PGE's assumptions for new baseline solar resources. Stakeholders suggested reducing the quantity of solar resources in the baseline

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[13] NewSun Supplemental Comments on Staff Report at 3 (Apr 20, 2021).
[14] NewSun Comments at 5, Attachment A at 1 (Mar 10, 2021).
[15] NewSun Supplemental Comments on Staff Report at 4.
[16] PGE Reply Comments at 16, 31 (Mar 24, 2021).

portfolio to lead to a higher value on PGE's ELCC curve for the first increment of additional solar resources. We acknowledge PGE's addition of 200 MW of solar resources to its baseline. We recognize uncertainty with the different inputs and found the assumptions were balanced enough for IRP planning purposes, noting the offsetting impacts from QF success rate assumptions, the Community Solar Settlement Agreement, and the level of GEAR (also referred to as Voluntary Renewable Energy Tariff or VRET).

C. RFP Issues

1. Independent Evaluator Criteria

Northwest & Intermountain Power Producers Coalition (NIPPC) raised a concern about having the opportunity to engage in PGE's selection of an Independent Evaluator (IE). PGE responded that it will solicit input for an IE. We agree with PGE that the competitive bidding rules[17] require PGE to work with parties and stakeholders regarding IE candidates, and Staff should ensure the RFP for an IE includes stakeholders' desired IE criteria.

2. RFP Design

We had questions about how resources with less common development and business structures (i.e., long lead-time resources) will be fairly evaluated for inclusion in the portfolio. We recognize the concerns raised by Swan Lake/Goldendale and NIPPC that long-lead time resour ces may have commercial operation dates just beyond the IRP action plan window and beyond the RFP target for resources to be online. We expect a thorough discussion in RFP design on how different types of resources may participate in the RFP.

3. Sensitivities

Staff raised questions about how PGE's portfolio analysis could change under low market price futures and additional PTC extensions. PGE agreed with the request in Staff's motion to collaboratively develop sensitivities in a RFP proceeding and to report those sensitivities with the final shortlist.

[17] OAR 860-089-0200(1).

ORDER

IT IS ORDERED that the 2019 Integrated Resource Plan Update filed by Portland General Electric Company is acknowledged with guidance as described within this order.

Made, entered, and effective May 03 2021.

Megan W. Decker
Chair

Letha Tawney
Commissioner

Mark R. Thompson
Commissioner

ITEM NO. 1

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
SPECIAL PUBLIC MEETING DATE: April 20, 2021

REGULAR __X__ **CONSENT** ____ **EFFECTIVE DATE** ______N/A______

DATE: April 6, 2021

TO: Public Utility Commission

FROM: Max St. Brown

THROUGH: Bryan Conway, JP Batmale, and Kim Herb **SIGNED**

SUBJECT: PORTLAND GENERAL ELECTRIC:
(Docket No. LC 73)
Acknowledgement of the 2019 Integrated Resource Plan Update.

STAFF RECOMMENDATION:

Acknowledge Portland General Electric Company's (Company or PGE) update to the 2019 Integrated Resource Plan (IRP). Direct PGE to undertake the three actions recommended by Staff prior to its next IRP and in the upcoming request for proposals (RFP).

SUMMARY OF STAFF RECOMMENDED ACTIONS:

Related to avoided cost inputs, Staff recommends that PGE's IRP Update be acknowledged as a starting point for the May 1 avoided cost update. Below Staff presents a summary of recommendations for action by PGE in either the next IRP or the upcoming RFP.

Wholesale market electricity prices:

1. Staff requests a workshop with PGE for the purpose of working with PGE before the 2021 IRP is filed to look at natural gas generation in the "high renewables buildout" price forecast, and discuss whether gas resources would be likely to generate significantly less in that future, thus reducing market prices.

Resource Economics:

2. Staff requests that PGE compute effective load carrying capability (ELCC) values by year and present the findings with its next IRP. Staff and stakeholders can use the findings to determine whether the impact of resource retirements and

additions, and other changes in the load and resource balance, significantly change the ELCC values.

Portfolio Analysis:

3. Staff requests that PGE collaborate with Staff in developing and reporting low market price and Production Tax Credit (PTC) extension sensitivities for inclusion with the Final Shortlist in the upcoming RFP.

DISCUSSION:

Issue

Whether the Commission should acknowledge PGE's 2019 IRP Update.

Applicable Law or Rule

In executing its general powers under ORS 756.040, the Commission "is vested with power and jurisdiction to supervise and regulate every public utility and telecommunications utility in this state, and to do all things necessary and convenient in the exercise of such power and jurisdiction."

Per OAR 860-027-0400(8) each energy utility must submit an annual update on its most recently acknowledged IRP.[1] The update is due on or before the acknowledgment order anniversary date. The energy utility must summarize the annual update at a Commission public meeting. The energy utility may request acknowledgment of changes, identified in its update, to the IRP action plan.

The annual update is an informational filing that:

A. Describes what actions the energy utility has taken to implement the action plan to select the best portfolio of resources contained in its acknowledged IRP;
B. Provides an assessment of what has changed since the acknowledgment order that affects the action plan to select the best portfolio of resources, including changes in such factors as load, expiration of resource contracts, supply-side and demand-side resource acquisitions, resource costs, and transmission availability; and
C. Justifies any deviations from the action plan contained in its acknowledged IRP.

[1] See UM 1056, Order No. 07-002, Januarys, 2007, Guideline 3.f& 3.g, pg. 9 and 10.

The Commission may provide direction to a utility regarding any additional actions or analysis that the utility should undertake prior to its next IRP. OAR 860-027-0400(7) and (10)(c).

Analysis

PGE's IRP Update:

Staff finds that PGE's IRP Update contains two categories of interrelated information. The first category is the basic information required by rule, discussed in the Applicable Law section above, to be included in an IRP update. The second category of information relates to the inputs associated with QF avoided costs. Staff's recommendation is to acknowledge the IRP Update to signal compliance with OAR 860-027-0400(8). As described above, Staff recommends acknowledging the avoided cost inputs as a starting point, and Staff and stakeholders can continue to evaluate the avoided cost updates as part of the Company's May 1, 2021 annual avoided cost update. The avoided cost updates are discussed in the final section below.

Staff issued 54 requests for information and met with subject matter experts from the Company on February 23, 2021 and March 11, 2021. Staff has been in direct communication with PGE Staff for follow-up questions and looks forward to a robust 2022 IRP.

Eight stakeholders provided Comments on PGE's IRP Update: Swan Lake and Goldendale Energy Storage, Oregon Citizen's Utility Board (CUB), Northwest & Intermountain Power Producers Coalition (NIPPC), Renewable Energy Coalition (REC), NW Energy Coalition (NWEC), NewSun Energy, and Renewable Northwest. Staff appreciates the robust input from these stakeholders.

Two parties, REC and NewSun Energy, recommend that the Commission not acknowledge PGE's IRP Update. Staff recommends that these two stakeholders' substantive comments on the IRP Update as it relates to avoided costs continue to be evaluated in PGE's avoided cost filing, expected May 1, but that these inputs be acknowledged here.

Status report on acknowledged actions and order requirements:

PGE's Reply Comments address the IE docket and RFP process and the Colstrip Enabling Study.

Stakeholder Positions:

NIPPC

NIPPC comments that “utilities should solicit input before issuing the RFP to hire an [independent evaluator] IE.”[2] NIPPC notes that the RFP should include an opportunity for long-lead time resources like pumped hydro storage to participate, and requests that the Commission allow resources with later CODs can be included in the RFP.

Swan Lake and Goldendale

Swan Lake and Goldendale Energy Storage state that “the current planning paradigm adopted by the Commission is too short for pumped storage to be fairly considered in the traditional IRP process.”[3]

NWEC

NWEC expressed concern about the potential for an uncontrolled closure of Colstrip.[4] This capacity shock would necessitate changes to the resource acquisitions in the preferred portfolio.

Staff’s analysis

In Opening Comments, Staff requested an update on when PGE would begin its RFP process. Staff appreciates PGE’s reply on page 26 of PGE’s Reply Comments indicating that its RFP process would begin in April 2021 starting with the IE selection. On page 28 of its Reply Comments PGE describes that long lead-time resources will be discussed further in the RFP docket. Staff encourages PGE to fully allow and consider all non-emitting capacity types in its upcoming RFP, including long lead-time resources like pumped hydro storage.

In Opening Comments, Staff described that the planned 2027 exit date from Colstrip will be further evaluated in PGE’s next IRP. In response to Staff IR 208, the Company indicated that its exit from Colstrip will create the need for 281 MW of additional capacity. Staff supports PGE’s plan on page 14 of its Reply Comments, that “PGE may approach the Commission with alternative regulatory policy and rate-making constructs to reduce our customers’ Colstrip-related risks and costs.”

In Opening Comments, Staff described the placeholder resource used by the Company for the decreased capacity need of 12 MW due to Green Energy Affinity Rider (GEAR) additions. PGE should update its GEAR resources to include the recently approved customer-supplied option in Commission Order No. 21-053 in the base portfolio. The Company’s estimated project closely resembles the actual project contract entered into

[2] NIPCC Opening Comments at 6.
[3] Swan Lake and Goldendale Opening Comments at 6.
[4] NWEC Opening Comments at 4.

by the Company, however the executed contract should not be treated as a sensitivity, because it is now a reality.

<u>Need and position assessments:</u>

PGE's Reply Comments address load forecasts. PGE describes the steps it will take in its next IRP to respond to CUB's and Staff's Comments.

<u>Stakeholder Positions:</u>
CUB
CUB expressed concern with PGE's load forecasting. CUB argues that PGE's commercial forecast growth rate is too high, the Industrial forecast is reliant on a single customer, and new load direct access (NLDA) is under-forecasted.

Staff's analysis
PGE's commercial load forecast growth rate is adjusted outside of the econometric model in order to reflect the impacts of COVID-19. Staff recommends the Company not use out-of-model adjustments in the next IRP.

Staff concurs with CUB that the impact of large customers in the industrial load forecast should be closely monitored. Staff supports PGE's plan on page 8 of its Reply Comments to "review… peer electric utility industrial load forecasts and… summarize findings in an IRP roundtable participant discussion during the next IRP."

In consideration of the NLDA program, the incremental nature of the large load above traditionally forecasted load is rationale of difference in stranded costs. That difference was paramount to the ability of the customer to enroll immediately in a direct access program and avoid many of the charges associated with other long-term direct access programs, which must seek to ensure the proper recovery of costs to serve their load. However, NLDA customers pay 20 percent of the standard fixed generation cost of energy supply. This payment may help offset costs associated with planning to serve load that instead ultimately decides to go direct access. CUB's NLDA comments recommend increases to expected NLDA load, however the cap in that program is a limiting factor. Staff finds PGE's approach reasonable, insofar as in it forecasts that the NLDA cap is met, but does not adjust forecasts beyond the currently approved NLDA cap of 119 MWa.

<u>Wholesale market electricity prices:</u>

PGE's Reply Comments address wholesale market electricity prices. Staff requests a workshop with PGE.

Stakeholder positions:
Swan Lake and Goldendale Energy Storage
Swan Lake and Goldendale write that the increased capacity shortage in 2026 found in the IRP Update makes PGE's need to acquire new capacity even more pressing.[5]

Staff's analysis:
PGE's IRP Update includes an update to the forecast of available market capacity. In the updated forecast, the availability of capacity market purchases becomes limited in the near future. Staff notes that if this lack of market liquidity manifests, it could put upward pressure on market prices at peak times. PGE's updated market price forecast does not appear to have been adjusted to reflect decreased availability of market purchases. Staff is interested in discussing the implications of limited market capacity on market prices with PGE going into the 2021 IRP.

PGE's market price forecast has changed since the 2019 IRP, but not substantially. The updated market price forecast inputs include the gas price forecast (updated to utilize the newest EIA AEO forecast values), and carbon price forecast (updated to reflect the newest CEC low, mid, and high carbon price forecasts.) The result is that the market price forecast is lower than the forecast in the 2019 IRP by a few percentage points.[6]

Staff does not find a reason for concern in the changes to PGE's market price forecast from the 2019 IRP to the IRP Update. Staff notes however that in both the IRP and the IRP Update, the 'high renewables buildout' price forecast seems surprisingly high for a future with enough renewables to meet 100 percent of load, WECC-wide. Staff would like to work with PGE before the 2021 IRP is filed to look at natural gas generation in the 'high renewables buildout' price forecast, and discuss whether gas resources would be likely to generate significantly less in that future, reducing market prices. Staff requests a workshop with PGE for this purpose.

Staff continues to have concerns about the high WECC renewables buildout and looks forward to working with PGE in the lead up to the next IRP.

Resource Economics:

PGE's Reply Comments address capacity contribution – ELCC values. Staff requests PGE perform additional analysis for its next IRP.

[5] Swan Lake and Goldendale Opening Comments at 8.
[6] *See* Figure 14 in PGE's IRP Update at 54.

Stakeholder positions:

REC

REC disputes PGE's capacity contribution values arguing that QF and Community Solar Program generation is overstated. REC recommends that "PGE should conduct a historical survey of how many QFs actually came online, came online by their COD."[7] REC argues that PGE's assumption that the second half of Community Solar Program resources coming online by 2023 is incorrect.

NewSun Energy

NewSun Energy also argues QF and Community Solar Program generation is overstated. NewSun Energy argues that PGE's proxy solar resource uses outdated technology and actual future solar installations would have higher ELCC values.[8]

Staff's analysis

Related to NewSun Energy's position about the proxy solar resource, Staff supports PGE's argument on page 16 of its Reply Comments, that "certain aspects of the proxy solar resource should [not] be updated in isolation." To this end, Staff supports PGE's continued use of the proxy solar resource characteristics.

Related to Community Solar Program generation, Staff supports PGE's argument on page 11 of its Reply Comments, that the Community Solar generation is planned to come online and thus should be included as the best possible forecast as of this filing.

Related to REC and NewSun Energy's suggestion to avoid overstatement of QF generation by adjusting it downwards based on the historical probability that a project does not come online, on page 12 of Reply Comments, PGE expresses concern that "past terminations may not provide a reasonable forecast of future terminations. The nature of the projects and developers of recently executed contracts may differ substantially from contracts executed in 2016 or 2017." Staff agrees with that statement by PGE, but nonetheless Staff's position is unchanged, "in the context of planning, REC recommends that PGE account for a more realistic rate at which QFs come online and renew or enter new contracts with PGE at the end of their current contracts. Staff genuinely appreciates REC's recommendations and is interested in further exploring these issues UM 2038" for the next IRP.[9]

PGE's position on page 12 of its Reply Comments, is that frequent updates of its snapshot of QFs is an appropriate approach because it also captures QF terminations. PGE also reminds parties of its earlier position that if QF termination rates were to be

[7] REC Opening Comments at 4.
[8] NewSun Energy Opening Comments at 5.
[9] LC 73, Staff Report for the March 16, 2020 Special Public Meeting at 60.

forecasted, then there should also be a forecast of new QF contracts. Staff notes that QFs have a documented history of delayed commercial operation dates (CODs) in power cost filings, and an adjustment to the QF output could be warranted if there is sufficient data to show that a certain percentage of QFs do not ever come online. In Order No. 19-329, PGE agreed to derate the expected generation of new QFs by the four-year historical annual average of actual versus projected QF costs.[10] In the 2020 NVPC forecast, this equated to a 54 percent derate of expected generation for new QFs.

Since Opening Comments, Staff has further explored whether PGE's capacity contribution values are dependent on its choice of the reference year 2025 for its modeling. In its response to Staff IR 233, PGE describes that "in a hypothetical scenario where Colstrip Unit 3 and Unit 4 retire in 2025, PGE's capacity need would increase and it is reasonable to assume that the quantity of [loss of load hours] LOLH would also increase." Staff adds that the quantity of storage and batteries on PGE's system will also affect the loss of load hours. While acknowledging that ELCC values change over time, on page 21 of its Reply Comments, PGE argues that "uncertainty both in the quantity of need and characteristics of the system over time" make a single year snapshot most appropriate.

In Docket No. UM 2011, Staff describes the recommendation from Staff's consultant Energy and Environmental Economics (E3): "E3 recommends that [Loss of Load Probability] (LOLP) periods should differ year-by-year to reflect expected changes in capacity supply and demand. Staff believes using yearly LOLP periods will be an improvement over utilities' current practice in IRPs of using values from a single year."[11] Throughout LC 73, PGE uses the single year of 2025. Staff requests that PGE compute ELCC values by year and present the findings with its next IRP. Staff and stakeholders can use the findings to determine whether the impact of resource retirements and additions, and other changes in the load and resource balance, significantly change the ELCC values.

Portfolio Analysis

PGE's Reply Comments address Stakeholder's Comments related to the preferred portfolio reducing capacity additions before renewable additions. Staff requests PGE develop sensitivities for analysis in its RFP.

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[10] In the Matter of PGE 2020 Annual Power Cost Update Tariff (Schedule 125), Order No. 19-329 at Stipulation Appendix A p. 3.
[11] See Staff's January 14, 2021 Opening Comments in UM 2011 at 9.

<u>Stakeholder positions:</u>

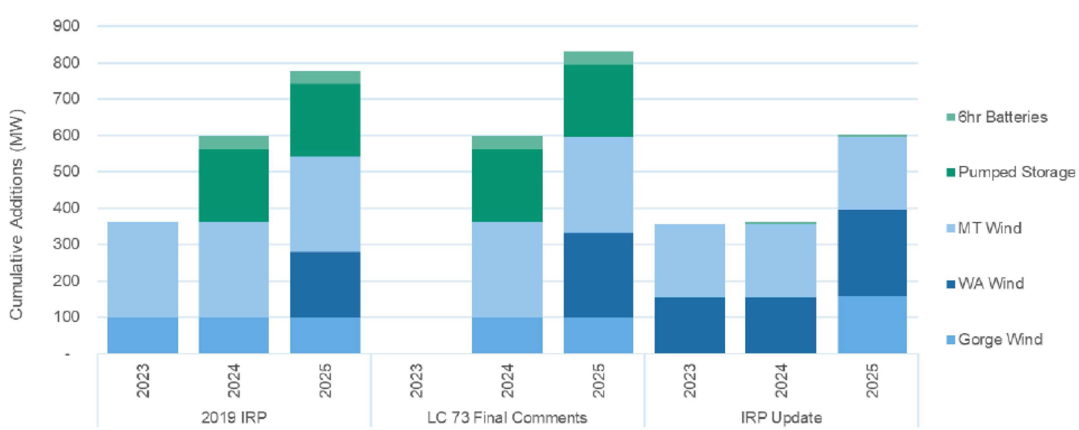
Renewable Northwest
In comments on the IRP Update, Renewable Northwest notes the removal of pumped hydro from the preferred portfolio, and requests PGE clarify whether bids from non-emitting capacity resources other than renewables will be accepted in the RFP.

NWEC
NWEC notes concerns that PGE should be sure to acquire enough capacity given recent regional stresses of meeting peak needs and the associated market price volatility. NWEC recommends PGE continue progressing toward a combined capacity and renewables RFP.

<u>Staff's findings:</u>
In addition to the IRP Update, Staff reviewed the recent AUT power cost filing, which included a description of the Douglas PPA and a copy of the PPA as Exhibit 301. Staff compared the selection of dispatchable capacity in the 2019 IRP to the selection of dispatchable capacity in the IRP Update.

PGE's 2019 IRP Update decreases the amount of dispatchable capacity the Company plans to acquire in the action plan timeframe, as shown in Figure 1, which is reproduced from IRP Update page 52:

Figure 1: Mixed full clean action plan window resource additions



12

PGE's IRP Update suggests that the Douglas PPA caused the change shown in Figure 1. However, PGE's June 2020 supplemental testimony in Docket No UE 377, the 2021

[12] PGE 2019 IRP Update. P 52.

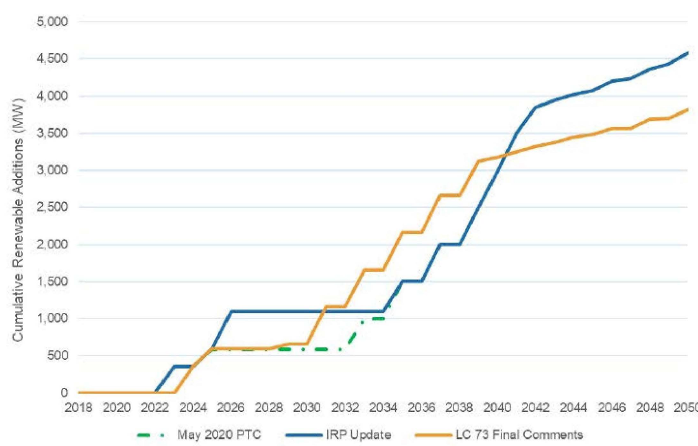
power cost update docket, describes the Douglas PPA as providing approximately 100-160 MW of capacity.[13] This confirms to Staff that the Douglas PPA does not provide enough capacity on its own to replace all of the 595 MW of dispatchable capacity selected through 2025 from PGE's 2019 IRP preferred portfolio, which is reproduced from IRP page 215 below:

Table 1: Cumulative dispatchable capacity additions in the preferred portfolio

	Reference Case			Low Need			High Need		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Storage Resources									
6hr Batteries (MW)	0	37	37	0	37	37	0	37	37
Pumped Storage (MW)	0	200	200	0	200	200	0	200	200
Total Storage (MW)	0	237	237	0	237	237	0	237	237
Capacity Fill (MW)	123	79	358	0	0	0	425	423	739
Total Dispatchable Capacity (MW)	123	316	595	0	237	237	425	660	976

The 2019 IRP Update preferred portfolio has less near-term dispatchable capacity than the 2019 IRP preferred portfolio, and includes additional renewables in 2023 and 2026. This appears to be a result of the 2020 PTC extension, as shown in the figure below reproduced from IRP Update page 53, which shows additional renewable additions before the extended 2026 PTC expiration:

Figure 2: PTC extension effect on cumulative renewable additions in the preferred portfolio reference case



[13] UE 377/ PGE/300, Suelan – Kim – Batzler /5.

Staff finds that PGE's IRP Update moves away from the dispatchable capacity resources in the 2019 IRP Preferred Portfolio and instead acquires slightly more non-dispatchable renewable resources through 2025, followed by 500 MW of additional non-dispatchable renewables in 2026. The 2026 addition is attributable to the most recent PTC extension, and may also be influenced by the forecast of continually increasing market prices throughout the planning timeframe. A high market price forecast tends to support the economics of procuring resources and going long to the market as a net energy seller.

In order to identify the extent to which the IRP model selection of near-term renewables is dependent on assumptions about increasing market prices and imminent PTC expiration, PGE should work with Staff to develop sensitivities for analysis in the RFP. PGE should use these sensitivities to inform its final shortlist and its choice between dispatchable, non-emitting capacity and near-term renewable resources for meeting its capacity needs. Staff requests that PGE collaborate with Staff in developing low market price and PTC extension sensitivities and reporting for inclusion with the Final Shortlist in the upcoming RFP.[14]

Avoided Costs

Page 30-32 of PGE's Reply Comments describe its disagreement with some Stakeholder positions related to avoided cost inputs. Staff supports PGE's IRP Update avoided cost inputs as a starting point for the May 1 avoided cost update.

Stakeholder positions:

NIPPC

NIPPC expresses concern about the reasonableness of avoided cost price decreases. NIPCC contemplates whether changes proposed by PGE for its next IRP may increase avoided cost prices, including: the "Governor's executive order on climate, new flexible load plan, its treatment of Colstrip, and responses to new state and federal policies [*See* PGE IRP Update at 53]."[15]

REC

As described above, REC disputes two assumptions that lower the solar ELCC: the quantity of GEAR resources and the quantity of Community Solar Program resources. REC argues that PGE's avoided cost price updates are one-sided by stating that "the most significant change to that pricing will be to reduce the value of solar resources." Because of its disagreement with PGE's quantity of solar used in the solar ELCC

[14] PGE. 2019 IRP Update. P 19.
[15] NIPPC Opening Comments at 7.

calculation, REC recommends that the Commission not acknowledge PGE's IRP Update.

NewSun Energy
As described above, NewSun Energy believes PGE has overstated the quantity of solar resources and argues that the characteristics of PGE's proxy solar resource are unrealistic for future projects. NewSun Energy also expresses dismay about the timing of PGE's response to its concerns raised about modeling assumptions, by noting that the concerns PGE replies to in its Reply Comments were also raised by NewSun Energy in the December 2020 IRP public input meeting.[16] Similar to Staff's Opening Comments, NewSun Energy discusses how PGE's request for acknowledgement is not made under OAR 860-027-0400 (Staff described in Opening Comments that PGE's request for acknowledgement is made in reference to Order No. 18-145 in Docket LC 66). NewSun Energy recommends that the Commission not acknowledge PGE's IRP Update.

<u>Staff Findings:</u>
Staff's Opening Comments described Staff's investigation of whether it is appropriate for the ELCC of solar to fall so sharply, so quickly. Staff continued this investigation via follow-up information requests and conversations with the Company. Staff focused on three major inputs to the ELCC model, finding that each could be improved, but were acceptable as a starting point.

- First, Staff recommends that PGE's assumption that all executed QF contracts will come online be further explored in UM 2038. Staff reviewed PGE's response to REC IR 17 related to delays and terminations of QF projects. All else equal, fewer existing solar projects will increase the solar ELCC because there will be greater need for resources during solar generation daytime hours.
- Second, on page 10 of its Reply Comments, PGE describes that "while PGE does not know the exact date on which the remainder of the Initial Program Capacity will launch, our long-term planning incorporates the expectation that the full size of the Initial Program Capacity will be brought online consistent with the Commission's [Community Solar Program] rules and stated intent." Therefore PGE has included the Community Solar Program resource in its load resource balance for the ELCC model despite not knowing when the solar will come online.
- Third, by using the reference year 2025 for its ELCC model, PGE might not be able to accurately capture future forecasted changes to its load and resource balance including the retirement of coal and the addition of storage. Coal retirement and storage additions might shift loss of load hours to during times of

[16] NewSun Energy Opening Comments at 3.

> solar generation which, all else equal, would increase the ELCC of solar. As stated above, Staff requests that, in PGE's next IRP, it compute the ELCC of solar (and other resources) in multiple years based on changing load and resource balances.

In PGE's Reply Comments, PGE notes that under OAR 860-029-0080(7), a utility may include in its May 1 avoided cost filing, changes in an acknowledged IRP update that are relevant to the calculation of avoided costs. Though the Company's acknowledgement request is not made under OAR 860-027-0400, the Commission may exercise its general powers to acknowledge an IRP Update, and it has done so, as illustrated by Order No. 18-145. Each of the three major assumptions that decreased PGE's solar ELCC values are acceptable as a starting point, therefore, Staff recommends that PGE's IRP Update be acknowledged as a starting point for the May 1 avoided cost update. Per Order No. 18-145, acknowledgement of the IRP Update docket will not guarantee the avoided cost input values will be accepted, nor does acknowledgement of an IRP Update establish avoided cost rates.[17] Further, despite being an acceptable starting point, Staff finds it reasonable for stakeholders to make arguments in the May 1 avoided costs update filing that adjustments to the three assumptions above would change the 5.5 percent solar ELCC value.

REC and NewSun Energy argue that PGE does not need to update its avoided cost prices at this time. Staff's thinking aligns with PGE that updating avoided cost prices is desirable to reflect newly available inputs.

Conclusion

Staff appreciates PGE's availability to respond to Staff questions during this IRP Update, as this IRP Update has had a relatively short timeline. The IRP guidelines call for an IRP update to conduct an assessment of major changes since the IRP acknowledgement that impact the utility's load, supply-side resources, demand-side resources and overall costs. Staff found that PGE's IRP update accomplished this requirement. PGE had no changes to its IRP Action plan.

Staff finds the 2019 IRP update meets the IRP guidelines. It describes what actions have been taken to implement the IRP action plan. Staff finds that actions taken thus far are good and that the actions would appear to be in keeping with the acknowledged IRP. Nonetheless, Staff repeats that it notes the change in the 2019 IRP Update preferred portfolio so that it has less near-term dispatchable capacity than the 2019 IRP preferred portfolio, and it includes additional renewables in 2023. Staff's requested sensitivities will further explore this change in the RFP.

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[17] *In the Matter of Portland General Electric Company, 2016 Integrated Resource Plan,* Docket LC 66, Order No. 18-145, Appendix A at 6 (May 1, 2018).

Two stakeholders, REC and NewSun Energy, recommend that the Commission not acknowledge PGE's IRP Update because of concerns about the avoided cost price inputs that will feed into PGE's May 1 avoided cost update. Staff notes that this IRP Update is not setting avoided cost prices and finds PGE's values to be a reasonable starting point for the May 1 avoided cost filing.

PROPOSED COMMISSION MOTION:
Acknowledge PGE's 2019 LC 73 IRP Update. Direct PGE to undertake the three actions recommended by Staff prior to its next IRP and in the upcoming RFP, summarized on pages 1-2 of this Staff Report.

LC 73 – PGE's 2019 LC 73 IRP Update.