BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

LC 66

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, 2016 Integrated Resource Plan	**Renewable Northwest's Comments on PGE's Revised Renewable Action Plan**

I. INTRODUCTION

Renewable Northwest thanks the Oregon Public Utility Commission ("Commission") for this opportunity to comment on the Revised Renewable Action Plan ("Revised Plan") that Portland General Electric ("PGE" or the "Company") filed as an addendum to its 2016 Integrated Resource Plan ("IRP"). Under its Revised Plan, PGE would issue a request for proposals ("RFP") for approximately 100 average megawatts ("MWa") of RPS-eligible resources.[1] The RFP would include a "cost-containment screen" that would require that resources in the short list have a forecasted value (for only energy and capacity) in excess of their forecasted cost.[2] Finally, PGE would commit to returning to its customers the value associated with renewable energy credits ("RECs") from resources procured through the Revised Plan until 2025.[3]

In Order No. 17-386, the Commission recognized that "unique attributes of renewable resources may favor earlier action than would be required for traditional resource investments."[4] The Commission also mentioned factors that can weigh in favor of delaying resource additions like "minimiz[ing] near-term rate impacts".[5] However, the Commission also "recognize[d] that expiring tax incentives represent a time-limited opportunity that could significantly benefit customers" and that "the company must act soon to capture the[ir] full value."[6] As a result, the Commission ultimately gave PGE the opportunity to work with Staff and other parties and then present a revised proposal.[7] The Commission also offered guidance for its development.[8]

[1] 2016 IRP Addendum at 4.
[2] *Id*. at 4, 12.
[3] *Id*. at 4.
[4] Order 17-386 at 14.
[5] *Id*.
[6] *Id*. at 3.
[7] *Id*.

Renewable Northwest encourages the Commission to acknowledge PGE's Revised Plan as it complies with the guidance that the Commission offered for its development in Order 17-386.

II. THE REVISED PLAN COMPLIES WITH THE COMMISSION'S GUIDANCE IN ORDER NO. 17-386

The 2016 IRP Addendum shows how PGE incorporated the Commission's guidance in Order No. 17-386 when designing its Revised Plan. In Order No 17-386, the Commission advised PGE to "more fully consider short-term impacts and long-term risks, including renewable resource portfolio diversity and alignment with near-term system needs, strategies for avoiding or mitigating front-loaded rate impacts, resource sizing that maintains long-term optionality, and other considerations raised in this order and parties' comments."[9]

In discussing the Company's original Renewable Action Plan, the Commission determined that PGE:

> should have considered, among other things, how renewable resources could contribute most cost-competitively to near-term capacity and energy needs, the role PURPA qualifying facility additions will play in RPS compliance, and the proper sizing of resource investments to balance near-term opportunities to minimize future compliance costs with preservation of optionality through retaining RPS head room to fill with future technological advances and opportunities.[10]

PGE followed the Commission's guidance in designing its Revised Plan. For example, PGE's Addendum adds details—in addition to what PGE had shown in its 2016 IRP—regarding how the renewables from the Revised Plan would contribute to the Company's near term energy and capacity needs.[11] The Company also proposes a cost-containment screen intended to ensure that those renewables provide cost-effective energy and capacity.[12]

PGE's 2016 IRP Addendum also shows that PGE considered and addressed stakeholder arguments in opposition to its original plan that were related to the timing of the Company's Oregon's Renewable Portfolio Standard ("RPS") compliance needs. As a result, the Company proposes to return to its customers the value associated with the volume of RECs procured prior to 2025 from resources in the Revised Plan.[13] Through this proposal, the Company would only

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[8] *Id*.
[9] *Id*.
[10] *Id*. at 16.
[11] 2016 IRP Addendum at 15-17.
[12] *Id*. at 4.
[13] *Id*.

retain RECs for RPS compliance purpose after 2025, a date that the Commission has recognized as the beginning of PGE's deficiency period for purposes of its renewable PURPA rates.[14]

In preparing the Revised Plan, PGE also followed the Commission's guidance on identifying a resource size that balances near-term opportunities with long-term optionality.[15] Indeed, PGE designed several procurement strategies, or "glide paths," to get to a 50% RPS by 2040.[16] For each glide path, PGE identified near-term considerations like the opportunity for tax credit capture and rate impacts, and long-term considerations like the the RPS head-room that each glide path would allow.[17] The Company went on to identify a blended glide path strategy aimed at balancing near and long term considerations.[18] As part of that strategy, the Company would procure the 100 MWa that it ultimately proposed for its Revised Plan.[19]

Finally, in designing the Revised Plan, PGE also followed the Commission's guidance that the Company "more fully consider strategies for avoiding or mitigating front-loaded rate impacts."[20] Indeed, near-term rate impacts were part of the Company's considerations in determining the size of the procurement.[21] Additionally, in the 2016 IRP Addendum the Company provided what could be conservative estimates[22] of the Revised Plan's near-term impact on customer rates,[23] and proposed to further mitigate near-term costs by monetizing a portion the RECs and returning their value to customers.[24]

III. CONCLUSION

Renewable Northwest thanks the Commission for this opportunity to submit comments on PGE's Revised Plan. We are also grateful to PGE for its work to engage stakeholders as it designed the Revised Plan, and to Staff and stakeholders for their input throughout this process.

We encourage the Commission to acknowledge PGE's Revised Plan because it represents PGE's efforts to follow the Commission's guidance in Order No. 17-386 as well as an effort to address various concerns that stakeholders raised in response to its original Renewable Action Plan.

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[14] *In the Matter of Portland General Electric Company, Application to Update Schedule 201 Qualifying Facility Information*, Docket No. UM 1728, Order No. 17-347 at 1 (Sep. 14, 2017).
[15] Order No. 17-386 at 3.
[16] Attachment 1 - PGE's Response to OPUC DR 130 at 2.
[17] *Id*.
[18] *Id*.
[19] *Id*. at 3.
[20] Order No. 17-386 at 3.
[21] Attachment 1 - PGE's Response to OPUC DR 130 at 2.
[22] Bids into an RFP could be lower than the Company's assumptions for the purpose of preparing the 2016 IRP Addendum.
[23] 2016 IRP Addendum at 22-23.
[24] *Id*. at 14.

PGE's Revised Plan shows thoughtful consideration of short and long term benefits, risks, and impacts, as guided by Order No. 17-386. Therefore, PGE's Revised Plan is reasonable and we encourage the Commission to acknowledge it.

Respectfully submitted this 1st day of December, 2017.

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November 28, 2017

TO: Kay Barnes
Oregon Public Utility Commission

FROM: Patrick Hager
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
LC 66
PGE Response to OPUC Data Request No. 130
Dated November 21, 2017

Request:

How did PGE determine 100MWa was the optimal size for this revised renewable action item? What role did PGE's glide path analysis play in making this determination?

Response:

In determining the size of the Revised Renewable Action, PGE considered the long-term analysis conducted in the 2016 IRP as well as near-term cost impacts and the desire for future procurement flexibility given potential uncertainties in PGE's RPS obligations over time.

The long-term economic analysis conducted in the 2016 IRP indicated that a larger target size (i.e., greater than the 175 MWa originally proposed) would yield greater expected-case economic benefits to customers on a Net Present Value Revenue Requirement (NPVRR) basis. However, as procurement size increases, the near-term costs of procurement also increase, all else equal. While the IRP has not traditionally considered near-term cost impacts outside of their contribution to the NPVRR, PGE considered feedback from the Commission and stakeholders regarding concerns around near-term cost impacts in re-considering the size of the Renewable Action. In addition, PGE took into consideration the Commission's direction at the August 8, 2017 OPUC Public Meeting to more directly tie the Renewable Action to a long-term RPS strategy and the emphasis in Order 17-386 on analyzing "how long-term optionality can be maintained." Order 17-386 at page 16.

To specifically consider the impacts of year-one costs, the potential for future cost reductions, and long-term procurement needs; PGE designed two glide paths (i.e., procurement paths through 2040) that would effectively equalize estimated rate impacts over time associated with meeting the 2040 RPS obligation. Because technology costs for renewables have tended to decrease over time and resource value is forecasted to increase over time in the 2016 IRP, these paths tend to accelerate procurement over time, leading to a slower procurement rate in the near-term and a more rapid procurement rate approaching 2040.

In one of these glide paths, the Company required that the estimated year-one net variable power cost impact of new renewable resource additions in each year be a constant fraction of the estimated revenue requirement. This glide path resulted in 15% of the total renewable procurement required between now at 2040 to be procured by 2025. In the second glide path, the Company allowed the estimated year-one net variable cost impact to grow at the Company's discount rate in order to preferentially backload more of the procurement into later years. In this glide path, 9.4% of the procurement required between now and 2040 would occur by 2025.

PGE compared these two glide paths to the original Early Action portfolio (175 MWa in 2020) as well as the Delay Portfolio (with no procurement through 2028) and to a glide path that achieves physical RPS compliance every five years between 2025 and 2040. In addition, the Company considered a Blended Glide Path that balances the near-term and long-term considerations reflected across the five considered glide paths by calculating the average procurement by 2025 across the glide paths. These glide paths are illustrated in Figure 2 of PGE's IRP Addendum.

The implied near-term procurement targets (i.e., procurement through 2025) as a fraction of the 2040 incremental renewable procurement need is listed for each glide path in the table below.

Glide Path	**2025 Procurement target as fraction of 2040 incremental procurement need**
Early Action Portfolio	18%
Delay Portfolio	0%
Fixed Year-One Impact	15%
Fixed Discounted Year-One Impact	9%
5-year Physical Compliance	10%
Blended Glide Path	11%

Based on this analysis, the Company tested a strategy of procuring approximately 100 MWa (11% of the incremental RPS need by 2040) by 2021 in order to maintain long-term optionality between now and 2040. The Company sized the 2021 procurement target based on the glide paths to 2025 because the 2016 IRP demonstrated that the value of the federal production tax credit is large enough to result in lower costs for portfolios that accelerate procurement from 2025 in order to capture the PTC. PGE refreshed this analysis in the IRP Addendum and found that the value of accelerating procurement of 100 MWa of renewables from 2025 to 2021 was approximately $121 million on an NPVRR basis.

In addition, PGE considered long-term uncertainty in the Company's RPS obligations through 2040 and the impact of this uncertainty on the procurement optionality across this period. In the Zero Load Growth Sensitivity described on page 19-20 of PGE's IRP Addendum, the Company found that 100 MWa would represent 15% of the total cumulative procurement need between now and 2040 if the Company's load experiences zero growth between 2018 and 2040. The alignment of this 15% with the 9-15% range associated with the glide paths that consider year-one cost impacts provides reasonable confidence that a 100 MWa target represents a sensible balance between long-term value and near-term costs, while allowing for significant procurement flexibility to accommodate future uncertainties between now and 2040.