

ITEM NO. 4

PUBLIC UTILITY COMMISSION OF OREGON
REDACTED STAFF REPORT
PUBLIC MEETING DATE: December 4, 2018

REGULAR CONSENT EFFECTIVE DATE Upon Approval

DATE: November 21, 2018

TO: Public Utility Commission

FROM: Seth Wiggins *JPB for SW*

THROUGH: Jason Eisdorfer and JP Batmale *JPB for JE JPB*

SUBJECT: PORTLAND GENERAL ELECTRIC: (Docket No. UM 1934) PGE's request for acknowledgement for its final short list in its renewable request for proposals.

STAFF RECOMMENDATION:

The Oregon Public Utility Commission (Commission) should acknowledge Portland General Electric's (PGE's) final short list.

DISCUSSION:

Issue

Whether the Commission should acknowledge PGE's final short list in its 2018 Renewable Request for Proposals (RFP).

Applicable Law

On April 30, 2014, the Commission issued Order No. 14-149, adopting a revised list of 13 Competitive Bidding Guidelines, set forth in Appendix A of the order.¹ Under Guideline 5, an independent evaluator (Independent Evaluator or IE) must be used in an RFP to help ensure that all offers are treated fairly. The RFP must be designed and approved as provided in Guideline 6 and 7. Bid scoring requirements are set forth in Guidelines 8 and 9. Guideline 9.b further provides:

¹ These guidelines were revised and codified in administrative rule in August 2018, however as this RFP was issued before the rules were adopted (May 2018), it is not subject to the Competitive Bidding Rules.

“Selection of the final shortlist of bids should be based, in part, on the results of modeling the effect of candidate resources on overall system costs and risks. The portfolio modeling and decision criteria used to select the final shortlist of bids must be consistent with the modeling and decision criteria used to develop the utility’s acknowledged IRP Action Plan. The IE must have full access to the utility’s production cost and risk models.”

Under Guideline 10, the utility conducts the RFP process, scores bids, selects the initial and final shortlists and undertakes negotiations. The IE independently scores any benchmark resource and the associated unique risks and advantages, and scores all or a sample of bids to determine whether the selection for the initial and final shortlists are reasonable. The IE and the utility should compare score results and attempt to reconcile any scoring differences.

The IE prepares a closing report after the utility selects its final shortlist, per Guideline 11. Differences in scoring should be explained in this report as stated in Guideline 10.e.

With respect to acknowledgement of the final shortlist, Guideline 13 provides:

“RFP Acknowledgement: Except upon a showing of good cause, the utility must request that the Commission acknowledge the utility’s selection of the final shortlist of RFP resources. The IE will participate in the RFP acknowledgment proceeding. Acknowledgment has the same meaning as assigned to that term in Commission Order No. 89-507. RFP acknowledgment will have the same legal force and effect as IRP acknowledgment in any future cost recovery proceeding. The utility’s request should discuss the consistency of the final shortlist with the company’s acknowledged IRP Action Plan. The Commission will consider the request to acknowledge at a public meeting within 60 days of receiving the utility’s application.

Commission Staff will make a recommendation about whether the Commission should require IE involvement through final resource selection at the time of acknowledgement of the utility’s final shortlist of resources. Other parties, including bidders, may request expanded IE involvement at that time.”

With Commission Order No. 89-507, Docket UM 180, the Commission first adopted the least cost planning process for utility resource planning. In this order, the Commission states that “acknowledgement” of an integrated resource plan means only that the plan

seems reasonable to the Commission at the time the acknowledgement is given. It further states that favorable ratemaking treatment is not guaranteed by acknowledgment of a plan.

PGE's most recent Integrated Resource Plan (IRP), was filed in Docket LC 66. In Order No. 18-044, The Commission acknowledged PGE's revised action item to issue an RFP for new renewable energy sources of approximately 100 MWa with five conditions that included requirements for providing additional information as part of the RFP process. The Commission's conditions are:

1. Providing updated information: PGE will provide updates to its energy, capacity, and Renewable Portfolio Standard (RPS) needs within the RFP docket. PGE will update assumptions for qualifying facilities (QF) completion rates and unbundled Renewable Energy Credits (RECs) and incorporate those assumptions in the RFP analysis as sensitivities.
2. Use of glide path analysis in future IRPs and Renewable Portfolio Standard Implementation Plans (RPIPs): PGE will develop a glide path analysis for use in future IRPs and RPIPs.
3. Montana wind and Columbia Gorge wind questions: PGE will address RFP design and scoring elements relevant to Montana wind resources in the bidder and stakeholder workshops it conducts as part of the RFP public process.
4. Cost containment mechanism: The RFP will include a full description of the cost containment mechanism.
5. Delivering value from incremental RECs to customers: Staff may request that we open a docket on mechanisms for delivering value from incremental RECs to customers in a public meeting at a later date.

On May 16, 2018, the Commission approved, with modifications and guidance, the draft RFP, as memorialized in Order No. 18-171, and PGE subsequently issued its RFP seeking approximately 100 average megawatts (MWa) of long-term renewable energy supply, bundled with associated renewable energy credits (RECs). The Commission's modifications and guidance listed in Order No. 18-171 are as follows:

- We adopt a modification to the RFP so that a Power Purchase Agreement (PPA) bidder may elect 15 minute or 60 minute scheduling. PGE and the IE agreed to work together to make any related language changes to the RFP that are needed

to allow for the 15 minute option, including language specifying that the resource should use best practices for forecasting and scheduling.

We understand PGE's concerns over imbalance charges that the company will incur in the Energy Imbalance Market (EIM) for energy that is above or below PGE's hourly EIM schedule. In the event that a bid with 15-minute schedules is selected, we commit to considering these costs in the company's annual power cost forecast proceeding.

- We adopt a modification to the RFP to clearly state that a PPA bidder may omit or edit the specified energy provisions in the PPA. PGE and the IE agreed to work together to make these language changes.

In addition, if a PPA bidder elects to modify the specified energy terms, that bidder will not be penalized for those redlines, as further discussed in Issue 8 below.

- We make no changes to sections 4.f-4.j of Appendix H of the RFP that allows up to 30 points of the non-price score for conformance to RFP terms, but we provide guidance on two issues. First, we exclude redlines associated with the Specified Energy terms from any reduction in non-price score. Second, we agree with the IE's suggestion to work with PGE on a case-by-case basis when this scoring element is triggered to ensure it is implemented fairly, with lower scores used for redlines that shift additional significant cost and risk to ratepayers. [footnote omitted].
- We adopt a modification to the RFP so that bidders may rely upon up to three years of Bonneville Power Administration (BPA) conditional firm bridge service that converts to long-term firm upon completion of required upgrades. The bridge service should convert to long-term firm within three years of Commercial Operation Date (COD).

Commissioner Decker concurs with this decision, but notes that she would have favored five year bridge service to allow additional, potentially more diverse resources to bid into the RFP, where the risks associated with a longer bridge period could be balanced against lower costs or higher system values for ratepayers.

- We adopt the IE's clarification that it will complete a sensitivity around generic fill in order to ensure that the effect of using generic fill to compare bids of unequal length is visible.

- We discussed the increasing relevance of PGE's transmission rights, and our increasing need to understand the technical and complex information necessary to determine whether transmission rights held for the benefit of customers are being deployed to support least cost, least risk outcomes. We intend to hold a future Commissioner workshop to examine these transmission issues.

Analysis

Introduction

Staff believes the Commission should acknowledge PGE's final short list. This recommendation relies on five key points:

1. The IE believes this RFP has been both fair and transparent;
2. PGE followed the procedures approved by the Commission in Order No. 18-171;
3. Through a reasonable accommodation of stakeholder concerns, PGE allowed for some RFP requirements to be met after selection to the short list;
4. Staff and the IE agree that each removal of non-conforming bids by PGE was appropriate; and
5. The bids on the final short list provide competitive market prices.

Despite this recommendation of acknowledgement, Staff is concerned that the small number of viable bids in this RFP limited the value of the competitive process. Over the course of the RFP, PGE has removed **[Begin Confidential]** [REDACTED] **[End Confidential]** Most were removed on the basis of transmission requirements, though failure to meet other RFP requirements, such as interconnection, facilities studies, and the RFP's price screen led to PGE's removal of some bids. While PGE appeared to receive a diversity of bids for the RFP, the actual viability of most bids to be considered as part of the RFP evaluation process was undercut by a single threshold issue – access to transmission. This makes the diversity of bids at the front-end of the process appear quite differently. When considering only viable bids (those that conform to all transmission and interconnection requirements), this RFP result has much less diversity and far fewer bids, and MWs than described by PGE in its results section.² Both the quality and quantity of bids is important in any RFP, and better of both inspires more confidence that ratepayers are receiving competitive market prices. The Commission in Order No. 18-171 approved the transmission requirements, and the market responded as best as it was able, however that there were so few in this RFP greatly concerns Staff.

When moving forward sequentially from the issuance of Order No. 18-171, PGE's actions are appropriate; see points #1-4 above. However, with hindsight about the non-conforming bids, it is useful to move backwards over the process to evaluate its overall

² See PGE Request for Acknowledgement, pg. 9.

competitiveness. Knowing what we know now, and only considering viable, transmission-compliant and interconnection-conforming bids:

- A) The final short list **[Begin Confidential]** [REDACTED] [End Confidential]
- B) The initial short list **[Begin Confidential]** [REDACTED] [End Confidential]

There was some disagreement between Staff's Initial Comments and PGE's Reply Comments about point B above. Staff highlighted the three criteria listed in the RFP, Section 9 – Final Short List Determination:

1. Capacity factor analysis;
2. Security for performance analysis; and
3. Portfolio Analysis.

These three criteria *were not used* to create the final short list from bids on the initial short list. PGE's reply comments clarified that an additional four criteria were utilized to create the final short list:

4. Best and final price updates;
5. Final short list prequalification assessment;
6. Owner's cost analysis; and
7. Permitting review.

PGE states it "...applied these final short list analyses to all bids, *as applicable*, that were on the initial short list."^{3,4} However, six of the criteria would not be 'applicable' in moving if the seventh **[Begin Confidential]** [REDACTED]

[End Confidential] Referring to that final shortlist prequalification assessment, PGE states "No other bids were excluded from the final shortlist for any other reason..."⁵

³ Emphasis added.

⁴ PGE Reply Comments, pg. 4.

⁵ See both OPUC #s 14 & 30.

There was additional disagreement between Staff and PGE about whether the initial short list upheld the guidance approved by the Commission in Order No. 18-171. PGE claims they did. When viewing the initial short list moving forward from May as PGE did, then the initial short list did indeed meet their commitment to having 150 percent of the desired target (100MWa, so 150MWa) on the initial short list⁶, as it had approximately 320 MWa of non-benchmark resources.^{7,8}

However, in evaluating this RFP, Staff sees the composition of the initial short list differently. From Staff's viewpoint, which has the benefit of hindsight, bids which do not conform to the RFP do not count towards any evaluation of competitiveness.⁹ Thus, the initial short list contained far less viable capacity than the desired target of non-benchmark resources. As noted above, **[Begin Confidential]** [REDACTED]
[REDACTED] **[End Confidential]** PGE did state this initial short list commitment was "subject to receipt of a sufficient quantity and quality of Bids."¹⁰ As the difference arises from bid disqualification, even with hindsight PGE can accurately state that it fulfilled this commitment (again, points #1-4).

In its reply comments, PGE stated that "Of the top eight bids placed on the initial shortlist after best and final offers were received, only two were ultimately found to be non-conforming and the remaining six bids were included on the final shortlist."¹¹ This is a curious statement. There were 11 total bids on the initial short list, and the three not mentioned were also removed due to failing to uphold RFP requirements.¹² **[Begin Confidential]** [REDACTED]
[REDACTED] **[End Confidential]**

Despite Staff's concerns about the small number of viable bids, point #5 above is critical. Both Staff and the IE agree that had the non-viable bids held the necessary transmission products (and/or remedied all other deficiencies), **[Begin Confidential]** [REDACTED]
[REDACTED]

⁶ Staff erred its initial comments in referring to this as an RFP 'step'.

⁷ Numbers are approximate as the conversion from capacity (MW) to average energy (MWa) includes capacity factors, which are uncertain.

⁸ If one project had two bid variants, only the larger bid is included in this calculation.

⁹ So, Staff views **[Begin Confidential]** [REDACTED]
[REDACTED] **[End Confidential]**

¹⁰ PGE RFP Final Draft, pg. 32.

¹¹ PGE Reply Comments, pg. 6.

¹² Further, best and final offers were due August 17, while eight bids were eliminated earlier in the month.

¹³ Though not strictly dominant: **[Begin Confidential]** [REDACTED]
[REDACTED] **[End Confidential]**

[Redacted] [End Confidential] Table 7 in the IE's final report compares best and final update costs and benefits associated with each project placed on the initial short list.¹⁵ The costs associated with [Begin Confidential] [Redacted] [End Confidential] Evaluating bid's cost/benefit ratios produces a nearly identical ordering. Aggregated this gives Staff confidence that the final short list represents competitive market prices.

Indeed, *point #5 is the only reason why Staff recommends Acknowledgment*. If not for this, the concerns noted above would outweigh points #1-4, and Staff would not be confident that the RFP was sufficiently competitive for ratepayers to be ensured of the least-cost renewable acquisition. The two tables in Highly Confidential Appendix A support these conclusions. Table 1 in Appendix A provides illustrates the selection process from submitted bids to initial short list to final list with reasons for removal highlighted by color. Table 2 compares costs per MWh among all initial shortlist bids.

Competitive Bidding Guidelines

On August 30 2018, the PUC adopted competitive bidding rules that are not set forth in OAR Chapter 860, Division 89. However, per Order No. 18-324, the rules apply to RFPs issued after the effective dates of the rules, and this RFP was developed and issued prior to that date, under the competitive bidding guidelines found in Order No. 14-149. Had this RFP become subject to the competitive bidding rules, assuming the RFP had issued as drafted, the main concerns about the competitiveness of this RFP highlighted above would remain.¹⁶ The constraints to this RFP, notably the transmission restrictions approved by Commission Order No. 18-171, would still bind, and limit bidder participation. Future renewable RFPs will face similar constraints if the Commission agrees the cost of potential of transmission curtailment outweighs the benefit of lower prices.

Bid Ordering

There was a difference between PGE's Request for Acknowledgment and the IE's ordering of the final short list. [Begin Confidential] [Redacted]

¹⁴ [Begin Confidential] [Redacted]

[End Confidential]

¹⁵ Final IE Report, pg. 19.

¹⁶ The only major change with the rules concerned the draft RFP review period (increasing from 60 to 80 days). Other changes (such as a clarification of transmission acquisition) would not alleviate concerns in this RFP.

[Redacted]

[Redacted] **[End Confidential]** Staff highlights this as it could be an issue in any prudency review after the completion of the RFP.

Acquisition Size

Staff recommends the Commission acknowledge this final short list. Commission acknowledgement is an important step towards rate recovery, however, PGE must also demonstrate the prudence of their investment decision. On this latter issue Staff does not voice an opinion, but does flag an issue of concern.

As noted above, the genesis of this RFP was PGE's 2016 IRP, which identified coming capacity and RPS compliance short falls. PGE's original request for renewable resources totaled 175MWa. Commission Order No. 17-386 explicitly stated that the size of this acquisition was not justified. PGE later filed a revised plan for *approximately* 100MWa. Commission Order No. 18-044 approved this plan, calling the 100MWa a "target".

In its reply comments, PGE states that its economic analysis points to portfolio **[Begin Confidential]** [Redacted] **[End Confidential]**

PGE may acquire any resource it wants. However, to demonstrate the prudence of the preferred portfolio for recovery of costs in rates **[Begin Confidential]** [Redacted] **[End Confidential]** This issue is flagged here for the Commission to have as this process moves forward.

¹⁷ See PGE Reply Comments, Table 1, pg. 9, remembering that **[Begin Confidential]** [Redacted] **[End Confidential]**

¹⁸ Table 3 in PGE's Reply Comments, and Tables #8 & 9 in the IE Final Report **[Begin Confidential]** [Redacted] **[End Confidential]**

Load Forecast

In response to Staff's concerns that its Portfolio Analysis did not account for the risk of variation in load growth over the coming thirty years, PGE ran a sensitivity on the load forecast. The company chose to set upper and lower bounds for its forecast to be the 95 percent confidence intervals created from its econometric projections.¹⁹ The results from this sensitivity do not significantly change results of the Portfolio Analysis, as shown in PGE's Table 2.²⁰ Staff is not surprised by these results, for two main reasons: Only capacity benefits will vary with different load projections, and those capacity benefits are limited to reflect the acknowledged 112MW deficit.²¹

Staff understands PGE's hesitancy to evaluate a capacity deficit any larger than what has been acknowledged in an IRP by the Commission. However, under a high load growth scenario, PGE's capacity deficit will be higher, as will the value the resources provide. PGE has then two options: speculate on future capacity deficits in its RFP analysis that go beyond those scenarios utilized in the IRP, or ignore plausible variation 30 years into the future.

Of these two options, Staff believes the latter to be a far worse outcome. PGE (and all other utilities) should evaluate portfolio performance based on a range of load forecasts, taking as given any capacity deficits created. Given the concerns and context about this RFP noted above, doing so will not likely influence the rankings of the portfolios created from the initial short list. It therefore would be inappropriate for PGE to extend their analysis to include the other high/low scenarios employed by PGE, as suggested as a possibility by Staff in its Initial Comments. However, Staff strongly encourages the Commission to require load forecast sensitivities in future RFPs.

Cost/Risk Metric

Staff in its initial comments highlighted a serious shortcoming with the Cost/Risk metric employed by PGE in this RFP.²² Staff suggested the Company use the coefficient of variation. However, PGE stated how this is infeasible. PGE's solution to this problem – to use a semi-variance – would also be ineffective.²³ Additionally, following Staff's suggestion the Company ran a sensitivity testing the weighting cost versus risk, which produced predictable results: more emphasis on risk favors smaller portfolios, while

¹⁹ PGE claims this interval is not ideal, stating that it rather provided 'an extreme stress test'. In its initial comments, Staff suggested a 95 percent confidence interval was one possible method of evaluating load uncertainty. Other confidence intervals, such as 90, 68, or any other percent that better approximated 'insight driven scenarios' could have been chosen by the company; Staff's initial comments specifically invited PGE to present reasonable alternatives; See footnote 16, pg. 5 of Staff's Initial Comments.

²⁰ PGE Reply Comments, pg. 15.

²¹ The latest capacity deficit acknowledged by Commission in the 2016 IRP.

²² See Staff Initial Comments, pgs. 6-7.

²³ As PGE notes, with a normal distribution, the potential for preferring sub-optimal remains.

more emphasis cost favors larger ones.²⁴ Staff believes the use of the cost/risk metric to be an important issue that deserves serious attention, as it could lead to the selection of inferior portfolios.²⁵ Staff will continue to work to develop a better solution with the utilities as part of their upcoming IRPs.

Ordinal vs. Cardinal Rankings

In its initial comments, Staff erred in its characterization of the Portfolio Analysis' reliance on ordinal rankings. PGE highlighted in its reply comments that its analysis, in fact, relies on the average rankings across various future scenarios, signaling that Staff's concern was only applicable to the IE's report. While it is true that the IE's report relied on ordinal rankings, the statement that PGE's analysis relies on cardinal rankings is incomplete.

PGE's sensitivity results in the Portfolio Analysis do not display the actual numerical differences between Portfolios. Staff cannot say from PGE's table 4 how much better, for example, portfolio F-3 is relative to F-14 under either standard study assumptions or average sensitivity analysis.²⁶ Despite recommending acknowledgement, in the future, Staff and stakeholders need to understand the numerical magnitude of difference between Portfolios.

Net Customer Benefit

In its Request for Acknowledgment PGE presented estimates of the incremental costs of the RFP, which showed net savings in all but the most pessimistic futures.²⁷ In its reply comments Staff said this analysis ignored the counterfactual; when displaying incremental costs net savings don't necessarily reflect the best outcome, while net costs could still be preferable. Instead, the relevant metric should be the difference between this RFP and inaction. PGE in its reply comments estimated this difference. Assuming a renewable portfolio standards (RPS) compliance deficit starting in 2025, PGE calculated a savings of \$321 million dollars of conducting this RFP now (and capturing the full PTC benefits) rather than waiting until that estimated deficit materializes. This does not alleviate concerns noted above, as potentially more competition could lead to greater savings. However, with the assumption of the timing of the deficit, this figure gives Staff confidence about the reasonableness of the RFP today.

²⁴ See PGE Reply Comments, pg. 16.

²⁵ See Staff Initial Comments, pgs. 6 & 9.

²⁶ Staff does appreciate the ambiguity presented by displaying cost/risk units.

²⁷ No carbon price, high hydro conditions, and low natural gas prices.

STAKEHOLDER COMMENTS

A number of stakeholders have commented on PGE's Request for Acknowledgment – their comments about relevant issues in the RFP going forward are briefly summarized below. Four stakeholders support Commission acknowledgment, the fifth does not.

Oregon Citizen's Utility Board (CUB): Supports Commission acknowledgment. In the context of falling renewable prices and flattening load growth, having a glide path to meet increasing RPS compliance obligations is appropriate. However, CUB believes that the renewable acquisition should be limited to 100 MWa.

Renewable Northwest (RNW): Supports Commission acknowledgment. Leaning on IE analysis, RNW states that the final short list reflects diversity of technologies and resource types. This RFP is a way PGE can work towards long-term climate goals.

NW Energy Coalition (NVEC): Supports Commission acknowledgment. Supporting this claim, NVEC highlights the diversity of the final short list, as well as sensitivity analyses which point to the final short list bid's cost effectiveness. Further, NVEC highlights the difference between prices found in the RFP relative to what was forecast in the 2016 IRP. With this final short list, NVEC states that PGE should acquire more than 100 MWa.

Alliance of Western Energy Consumers (AWEC): Does not support Commission acknowledgement. AWEC supports this position with the fact that the IE did not recommend acknowledgment, as it did in PacifiCorp's recent RFP. Further, AWEC raised concerns about the output (but not use) of the cost/risk metric. Finally, AWEC raises multiple issues with PGE's ranking of final short list bids.

Northwest & Intermountain Power Producers Coalition (NIPCC). Supports Commission acknowledgment. Despite the large quantity of past concerns raised about the competitiveness of the RFP, NIPCC states that successful bidders should not be penalized for participating in it. NIPCC also suggests more investigation into transmission constraints.

Conclusion

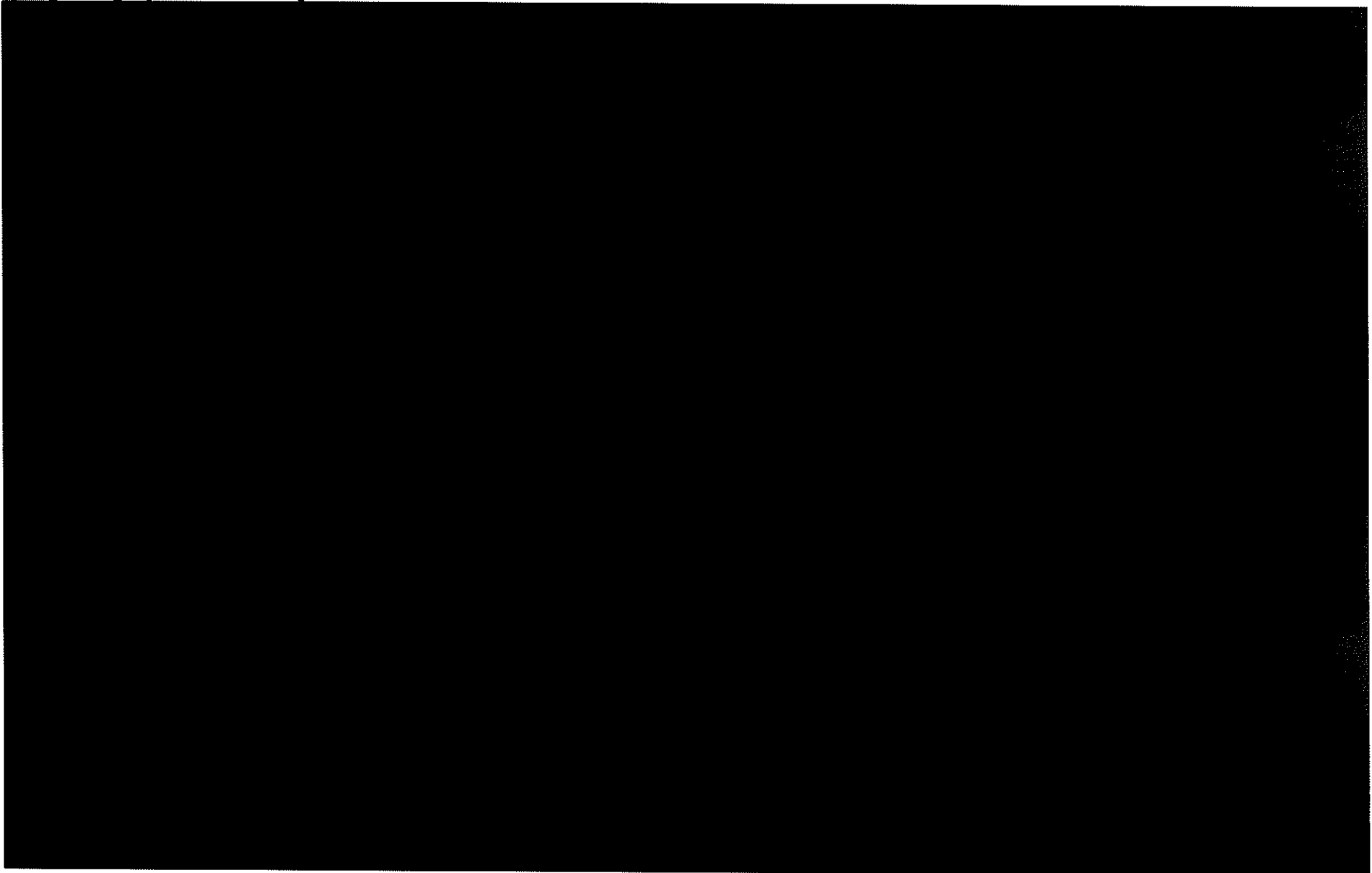
The Commission should acknowledge PGE's RFP final short list. This recommendation comes despite Staff's stated concerns about the RFP's overall competitiveness due to the limited number of viable alternatives remaining on the short list. Given the transmission and interconnection requirements approved for the RFP by the Commission in Order No. 18-171, this RFP represents the least cost and least risk

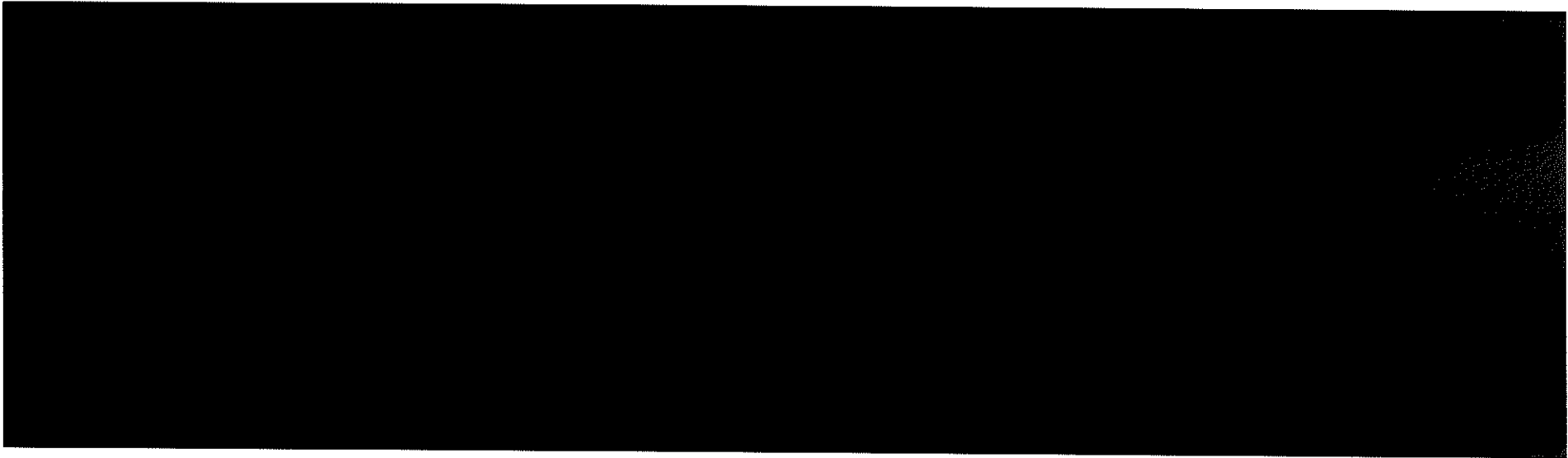
option for PGE to meet its forecasted energy, capacity, and RPS compliance needs. Future RFPs would be better served if they included a sensitivity analysis evaluating plausible variation in load forecasts, a reevaluation of the most appropriate method of evaluating cost and risk, and cardinal measures of the difference between portfolios. If these were all included in this RFP, Staff agrees with the IE that the results would likely be the same. Moving forward, the size of the resulting renewable acquisition will be a factor for prudence review. The original target for the RFP as acknowledged in the 2016 IRP was 100MWa. If PGE chooses to procure above this target, it will be responsible to demonstrate the prudence of its investment.

PROPOSED COMMISSION MOTION

Acknowledge PGE's 2018 Renewable RFP final short list.

[Begin Highly Confidential]





[End Highly Confidential]