



Portland General Electric

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July 9, 2021

Public Utility Commission of Oregon
Attention: Filing Center
P.O. Box 1088
Salem, OR 97308-1088

Re: UM 2011 –PGE Comments to Staff’s straw proposal ELCC modeling standard

Portland General Electric Company (PGE) respectfully submits these comments and proposed updated language to Staff’s straw proposal ELCC modeling standard.

PGE is concerned that the ELCC modeling standard straw proposal shared by Staff is overly prescriptive, impractical, and likely to transfer costs and risk to utility customers. Rather than attempting to identify detailed and prescriptive methodological requirements, PGE believes that UM 2011 parties should focus on establishing frameworks and guiding principles to be used when estimating capacity contribution.

Overly prescriptive rules could unintentionally result in the attribution of inaccurate or misleading capacity contribution to resources. Specifically, Staff’s proposed requirement No. 1 and requirement No. 2 would appear to encourage utilities to acquire capacity in advanced of need without any requisite economic justification. PGE requests clarification from Staff on whether these requirements would compel utilities to purchase capacity from resources that are not needed to meet established capacity planning objectives identified in utility Action Plans. Additionally, detailed and prescriptive modeling rules will likely restrict the advancement and development of PGE’s capacity contribution modeling, meaning that after technological or market changes, PGE could be forced to continue to use an obsolete model. Instead of prescriptive rules, identifying guiding principles preserves the flexibility needed to adapt to changing environments. For all these reasons, PGE recommends a more thorough discussion of the implications of Staff’s straw proposal.

The straw proposal as written by Staff would require an impractical amount of work by each utility to assess all resource’s capacity contribution. The number of individual results required by Staff’s proposal due to differences in technology and test year cannot be assessed by PGE using the requested methods within a reasonable amount of time.

Notwithstanding the above and in the interest of providing Staff with clear language, PGE proposes the below updated language. The straw proposal will be broken out into sections below with commentary regarding PGE’s proposed changes.

Purpose: PGE proposes that UM 2011 result in a statement of Commission policy regarding the preferred methodologies to rely upon when determining capacity contribution. PGE does not believe it would be appropriate to create requirements or rules in this proceeding that would establish detailed, prescriptive methodologies to be required in IRPs, RFPs, or for other ‘reliability purposes’. Instead, it is essential to preserve flexibility to consider alternative capacity contribution methodologies when



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required. Following a utility's demonstration of good cause, the Commission may accept alternative methodologies for unique applications, for certain technologies for which necessary information is unavailable, and/or when industry standards change. Accordingly, PGE proposes the following language:

Proposed Commission policy for preferred methodology to be used when estimating resource capacity contribution

Requirement No. 1 -- Staff's requirement No. 1 narrowly defines an acceptable ELCC methodology. The methodology as proposed would 1) place the utility in a position to credit for capacity without limit even when there is no capacity need, 2) encourage utilities to acquire capacity ahead of need¹ 3) interfere with the utilities' responsibility as the customer's reliable service provider, and 4) constrain the utilities' ability to innovate and improve capacity contribution methodologies - an area where there has been considerable progress in the PGE's last two IRP cycles. PGE proposes the following language to address some of these concerns:

1. The preferred method for estimating the capacity contribution of supply-side and demand-side resources is the Effective Load Carrying Capability (ELCC) methodology or similar probabilistic methods that estimate capacity performance based upon simulated reliability metrics. For the purposes of estimating incremental resource capacity contributions, the marginal capacity contribution methods should be identified (ex. "Last-in ELCC"). Utilities are invited to use alternative methodologies following demonstration of good cause to the Commission.

Requirement No. 2 – Staff's proposal would require that utilities calculate separate capacity contribution estimates annually for each resource across the IRP planning horizon. PGE disagrees that making resource decisions based on such long-term estimates furthers customer interests or reliability objectives. PGE has yet to hear any compelling reasons why utilities should make resource acquisitions and purchases based on such long-term capacity forecasts. Instead such a practice would encourage utilities to acquire capacity resources out of step with need and to incur customer price increases for capacity resources that may not be needed. Additionally, requiring utilities to estimate capacity values on a yearly basis would dramatically increase the necessary amount of analysis for each utility to impractical levels. PGE's latest IRP included 12 proxy renewable and storage resources, and the single test year methodology employed estimated 12 ELCC curves. Generating yearly curves would create 240 ELCC curves without also considering Staff's additional requirements regarding generic resource classes. The number of permutations considered must be limited to allow for practical evaluation of the subject.

PGE recognizes that Staff favors additional information regarding capacity contribution estimates in years past the traditional 'test-year.' However, this important methodological question should not be determined in isolation within UM 2011 without the benefit of evidence and thoughtful consideration of the impact. Instead PGE proposes that the number of years for which capacity contribution estimates

¹ PGE notes the important difference between 1) acquiring capacity resources ahead of a future reliability need as compared to 2) acquiring a renewable resource ahead of a renewable portfolio standard (RPS) compliance need. PGE has recently procured renewable resources ahead of RPS compliance obligations based upon Commission acknowledged economic analysis associated with the capture of federal tax credits. Instead, Staff's straw proposal would encourage capacity resource procurement ahead of a reliability need without a specific economic justification.



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are developed be identified and addresses within the IRP process. Indeed, as a part of PGE's 2019 IRP Update, Staff recommended, PGE agreed, and the Commission ordered that capacity contribution estimates be developed for years beyond the test year in PGE's subsequent IRP. Rather than prejudging the usefulness and utility of such estimates within this proceeding, PGE favors explicitly considering and evaluating the number of test years to be evaluated within the IRP process. PGE proposes the following edits:

2. Capacity contribution estimates should be developed for each generic resource class.
 - a. The capacity contribution values should be based on one or multiple test year(s) or test year period(s).
 - b. The test year(s) or test-year period(s) will be identified and updated in utility IRPs
 - c. Capacity contribution estimates should be updated in each IRP and IRP Update as appropriate.
 - d. The appropriate number of generic resource classes for which capacity contribution estimates are required will be determined within a utility IRP. Factors to be considered when determining a meaningful number of distinct resource classes include characteristics such as technology, plant design, and geography for generating sources and duration and efficiency for energy storage.
 - e. Capacity contribution estimates should include all resource additions and resource retirements that are committed or otherwise contractually obligated as of the time of the study.

Requirement No. 3 – Staff's straw proposal identifies additional requirements regarding the quantity of input data that must be included in capacity contribution estimations. These requirements should consider scenarios when data is unavailable or may not be suitable for inclusion. PGE proposes the following suggested language to address some of these concerns:

3. When developing capacity contribution estimates for variable generation resources, the methodology should include a reasonable quantity of available data forecasting the output of variable generation resources.
 - a. When estimating the capacity contribution of existing resources, the analysis should include the lesser of a) eight years of the most recent historical output data for the resource, or b) all available historical output data (if eight years of actual output data are not available, the utility should consider whether supplementing the historical output data with third-party synthetic data would improve the expected accuracy of the capacity contribution estimate).
 - b. When estimating the capacity contribution of new resources, the analysis should include the lesser of a) eight years of the most recent measured weather-related data, or b) all available measured weather-related data (if eight years of measured weather-related data are not available, the utility should consider whether supplementing the historical record with third-party synthetic data would improve the expected accuracy of the capacity contribution estimate).



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Climate Change Forecasts and Requirements No. 4 & 5: PGE agrees that it is important to consider how climactic trends associated with climate change can affect the forecasted availability of resources. However, as PGE evaluated within in its 2016 IRP, the mechanisms by which climate change can affect forecasted generation is complex and difficult to estimate. PGE recommends evaluating the availability of such data and assessing confidence in such forecasts before establishing rules on their use. Lastly, PGE believes that the language in requirements No. 4 and No. 5 are not necessary to the straw proposal. Requirement No. 4 is duplicative to the fundamental approach deployed in ELCC or similar analyses and is therefore not necessary. Requirement No. 5 is duplicative of Requirement No. 2.d.

Thank you for the opportunity to provide comments on Staff's straw proposal. PGE looks forward to discussing these suggestions with a larger group.

Sincerely,

\s\ Robert Macfarlane

Robert Macfarlane

Manager, Pricing & Tariffs