

**TAP Resource Adequacy and Modeling Subgroup
08/11/2022**

This feedback to HECO is based on HECO's slides and presentation on 08/11/2022.

Presenter

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Sub-committee chair summary:

HECO updated the TAP subgroup regarding the O’ahu and Maui GNAs filed on July 29, 2022. HECO started the presentation by discussing near-term GNA objectives, Stage 3 RFP targets, and stakeholder feedback on the draft GNAs. The discussion was followed by an overview of Oahu and Maui GNAs covering the following aspects:

- a near-term action plan
- bookend modeling scenarios
- customer technology forecast
- RESOLVE resource plan
- ERM reliability analysis
- probabilistic resource adequacy analysis
- unserved energy heat map

HECO presented the next steps for IGP grid needs analysis by asking the TAP subgroup the following questions:

- Are there any changes to the IGP grid needs process that should be considered for the broader IGP analyses that will follow the GNAs developed for O’ahu, Maui, and Hawai’i Island to support the Stage 3 RFPs?
- Based on the results of the probabilistic resource adequacy analyses and RESOLVE testing of the thermal HDC and different ERM targets, should RESOLVE be further calibrated?

TAP feedback and comments are divided into three categories:

1. Informational, no action needed
2. Action required, expected in coming months
3. Concern or suggestion, for future discussion or consideration
4. Clarification needed

TAP Comments During the Meeting and HECO Responses

- The sign conventions on slide 11 seem to be different?
 - The impact of customer technology (e.g., energy efficiency, EV, etc.) is peak load reduction, so the sign should be negative.
- What is the threshold used in the analysis?
 - The threshold used was 0.002% of the total load (or 0.137 GWh) (see slides 17 and 18). (HECO)
 - In AEMO, the EUE (whose threshold is 0.002% of the total load) is the sum of the weighted EUE at 50 POE and weighted EUE at 10 POE. Weights are 0.696 for 50 POE and 0.304 for 10 POE. This approach may be something to consider in the future.
 - In systems with more renewables (and so more variability in shortfall risk), 0.001-0.002% NEUE may imply deeper shortfalls than what is considered acceptable during shortfall events today
- Probabilistic RA
 - Probabilistic RA is a good approach to carry forward. The matrix of results is suitable to continue. [How to consider extreme events in probabilistic RA?](#)
- How to decide which renewable options will be implemented?

- Stage 3 RFP is based on 270 MW PV (land constrained scenario). For higher renewables, REZ will be required. REZ will take more time as this involves a mini-engagement process. REZ will be included in the IGP RFPs. (HECO)
 - [Should we integrate RESOLVE in the RFP process to help in the decision making?](#)
- Why procure firm capacity now?
 - Firm capacity will help ensure there is enough capacity while waiting for new renewables to come in. (HECO)
- Was probabilistic RA done in the analysis on page 43?
 - No. (HECO)
 - HDC for thermals are based on unforced capacity. Maintenance is also deducted from the capacity. (HECO)