

IGP Stakeholder Technical Working Group Meeting

Wednesday, September 14, 2022

10:00am – 12:00pm

Teams

Attendees

Teams

Aaron Burdick	Erin Takamatsu	Peter Young
Aaron Schwartz	Fuong Nguyen	Peter Polonsky
Abel Siu Ho	Gina Yi	Rene Kamita
Alyssa Nada	Grace Relf	Richard Wang
Andy Hoke	Henry Lee	Riley Fukuji
Anne Fuller	Isaac Lum	Riley Saito
Bill Wooton	Jerry Sumida	Rod Aoki
Brian Lam	Kenneth Walter	Samantha Ruiz
Christopher Kinoshita	Kevin Schneider	Sherilyn Hayashida
Christopher Lau	Mackenzie Wodicker	Stephen Mariani
Christopher Ono	Marc Asano	Steven Rymsha
Clarice Schafer	Mathew McNeff	Talin Sokugawa
Daniel Lum	Mike Wallerstein	Therese Klaty
Dean Oshiro	Natalie Frick	Wren Wescoatt
Elena Cardenas	Nicole Cernohorsky	
Eli Morris	Noelani Kalipi	

Agenda

- TAP Progress Update
- Energy Efficiency Supply Curve Update
- Resource Adequacy Workplan

Discussion

TAP Progress Update

- I. Andy Hoke, TAP Chair, provided an update on the various subcommittees.
 - a. The resource adequacy subcommittee met once since the last update to discuss the O’ahu and Maui Grid Needs Assessments, any changes that need to be made to the grid needs process for the broader IGP analyses, and further calibration of the RESOLVE model. Discussion is ongoing.
 - b. The resource adequacy and transmission subcommittees also exchanged feedback via email on the types of mitigations identified in system security that would require an iteration of the grid needs assessment. The Company developed a table of mitigations and categorized whether an iteration was

needed. The TAP approved the overall approach with suggested redlines to the table.

Energy Efficiency Supply Curve Update

- II. HE: Recent Commission guidance was provided to re-evaluate the EE supply curves using an adjusted peak period. The Company worked with AEG to adjust the supply curves for O’ahu and saw no significant difference in the bundles.
 - a. Stakeholder: What was done to adjust the bundles for the peak period? What changed in the bundling process?
 - i. AEG: The way measures are assigned to bundles is based on the ratio of the average impact across the peak hours versus a flat shape; or basically, is the measure consistent throughout the year or is it concentrated during the hours of interest. The changes to the bundles were limited to taking the average of this expanded peak window and comparing it to a flat shape and if anything changed, to reassign the measure from a “Peak” bundle to an “Other” bundle.
 - b. Stakeholder: What is the importance of the comparison of the bundles to the flat shape?
 - i. AEG: It is a way of determining the value by separating groups of measures that otherwise have the same cost-effectiveness. For example, both A bundles have similar TRC range, but it’s a way of separating out measures that are more focused during the peak period versus measures that are more evenly distributed across the year.
 - ii. AEG: For example, an energy star refrigerator will evenly save energy throughout the year since it is running constantly throughout the day but a high-efficiency air conditioner may be more focused during the peak window. We are not just trying to look at the cost-effectiveness, but also separating based on their impact to the peak.
 - c. Stakeholder: Looking at the Peak A bundle, which I think had a lot of the savings for the overall portfolio, it appears to have its peak during the extended window, but then drops off sharply. Just wondering why you put a lot of savings into that bundle as opposed to taking the measures that have a lot of peak savings and separating it out.
 - i. AEG: Bundles were also defined based on the cost-effectiveness. The most cost-effective measures based on B/C test in the market potential study were placed in the Peak-A bundle, then B, C, D in order of cost effectiveness.
 - d. Stakeholder: It seems like the primary factor of bundling is cost-effectiveness and the resulting shape is driven by the measures in that bundling?
 - i. AEG: Peak versus Other was one way of looking at the load shape and grouping was based on whether they will impact the peak. From there, the measures were further grouped based on their cost-effectiveness in the potential study.

- e. Stakeholder: From what I recall, most of the savings were only in a couple of the bundles. How effective will this exercise be if most of the savings are only in a couple of the bundles?
 - i. HE: One of the things we want to know from this modeling is whether the model will select levels of EE that exceed our base forecast, especially when we let these EE resources compete against other supply side resources. This would help us decide whether there is additional EE that we want to procure. In addition to these supply curves, we plan to run an EE freeze case to understand the value of the EE base forecast.
 - ii. AEG: Yes, most of the potential are in the A and B bundles, which were determined to be cost-effective during the potential study.
- f. Stakeholder: Are any incentives due to recent legislation (Inflation Reduction Act) expected to impact these results?
 - i. AEG: It will probably have minimal impact because the supply curves started from the potential study which used the technical potential, but it's hard to say without redoing the potential study.
- g. Stakeholder: Are you planning to use previous supply curves or updated curves?
 - i. HE: Our intent is to use the previous curves that were already filed in our inputs and assumptions.

Resource Adequacy Workplan

- I. HE: The Commission directed the Company to develop an ELCC based criteria. In response, we filed a motion for clarification asking why the Commission is shifting to an ELCC approach and proposed to explore ELCC against other reliability criteria following completion of the first round of IGP. We also discussed with the TAP and their feedback was incorporated into the workplan.
 - a. Stakeholder: What resource adequacy criteria does KIUC use?
 - i. HE: Not aware if they are using any of these methods.
 - b. HE: We are planning to start evaluation of the three resource adequacy methods following IGP in Q1 2023 and expect to be done by Q2 2024.
 - c. Stakeholder: Our understanding is that the IGP and procurement are going to proceed in parallel. Is that correct? Will the new schedule push out any of the procurements?
 - i. HE: What we want to do is finish up the current round of IGP then go into the new criteria evaluation. Future rounds of IGP could potentially use this new criteria.
 - d. Stakeholder: You don't expect this schedule for the resource adequacy methodology evaluation to affect the schedule for future procurements?
 - i. HE: The resource adequacy criteria schedule is separate from the Stage 3 procurement, which will proceed in parallel.
 - e. Stakeholder: Regarding the different resource adequacy criteria, think we all need to determine what is the benchmark that makes the most sense (i.e. is it one interruption a year? Ten? Fifty?) As we move to renewables, we need to set a realistic benchmark that customers may be willing to live with as we transition.

- i. HE: Agree, we will probably have that discussion as we go through the resource adequacy methodology evaluation.
 - ii. HE: A standard needs to be selected as part of the process and standards adopted by other jurisdictions can be used as a starting point. We can then adjust the stringency of the standard for us.
- f. Stakeholder: Can you remind us if there is an established standard in Hawaii for reliability?
 - i. HE: Prior to ERM, there was Rule 1 for loss of largest unit. O'ahu also has an LOLP guideline of 1 day in 4.5 years.
- g. Stakeholder: Regarding the ERM/HDC, just wondering how that plays into the 4 months and whether or not work done previously can or will be used in this resource adequacy methodology evaluation?
 - i. HE: There probably is an opportunity to use some of the previous analysis from the GNAs but it needs to be discussed with the various stakeholders. Recently, through the TAP, we did make some adjustments to the HDC but we can review what was done with everyone and go from there.

Next Steps

- Stakeholders may provide feedback on today's discussion to igp@hawaiianelectric.com.