

Distribution Planning and Grid Services Joint Working Group Meeting 3: IGP Soft Launch

April 25, 2019

9:00 am – 2:30 pm

ASB 2 and WebEx

Attendees

Curt Middleton, Hawaii Pacific Solar
Daniel Lewis, SolarEdge Technologies
Andrew Schwartz, Tesla
Owen Sanford, Tesla
Carlito Caliboso, Yamamoto-Caliboso
David Morris, Yamamoto-Caliboso
Chris DeBone, Hawaii Energy Connection
Daniel Haughton, APS
Reid Shibata, Puget Sound Energy
Stephanie Imamovic, Puget Sound Energy
Daniel Lewis, SolarEdge
Paul De Martini, Newport Consulting
Keith Block, Hawaii Energy
Dave Parsons, PUC
Marie Tome, PUC
Mike Wallerstein, PUC
Steven Rymsha, SunRun
Nathan Wyeth, SunRun
Robert Harris, SunRun
Nguyen Le, Shifted Energy
Olin Lagon, Shifted Energy
Christian Rawson, Enel X
Doug Staker, Enel X
Jason Prince, Rocky Mountain Institute
Kylie Wager Cruz, Earth Justice
Li Yu, Quanta Technology
Zhuoning Liu, Quanta Technology
Marcey Chang, DCCA
Riley Saito, County of Hawaii
Todd Thurlow, Siemens
Will Rolston, Energy Island
Wren Wescoatt, Progression Hawaii Offshore

Wind
Henry Curtis, Life of the Land
Tod Nakahira, Duke University
Will Giese, HSEA
Sehun Nakama, Hawaii Energy
Leon Roose, HNEI
Marc Matsuura, HNEI
Ted Peck, Holu Hou Energy
Kathy Yonemine, HE
Corinne Chang, HE
Amanda-Joy Viramontes, HE
Alan Hirayama, HE
Marc Asano, HE
Meredith Chee, HE
Liza Jang-Che, HE
Susan Chow, HE
Blaine Hironaga, HE
Marie Olt, HE
Rich Barone, HE
Nohea Hirahara, HE
Lisa Giang, HE
Christopher Lau, HE
Jon Shindo, HE
Randal Lui-Kwan, HE
Greg Shimokawa, HE
Isaac Kawahara, HE
Marisa Chun, HE
Noa Dettweiler, HE
Anthony Hong, HE
Melanie Higa, HEL
Riley Ceria, HEL

Agenda

9:00 – 9:30 am	Introduction & Scope <ul style="list-style-type: none">• Ground rules• Soft Launch Purpose & Objectives• Revised Definitions NWA & Distribution Capacity Deferral Service
9:30 – 11:30 am	Distribution Grid Needs Assessment (break at 10:15) Review engineering analysis of needs associated with: <ul style="list-style-type: none">• Hoopili• Kapolei
11:30 – 12:00 pm	Lunch
12:00 – 2:00 pm	Soft Launch Distribution Investment Deferral Opportunity <ul style="list-style-type: none">• Discussion of Kapolei Opportunity & Performance Requirements• Initial Discussion of Proposal Criteria
2:00 – 2:15 pm	Wrap-up & Next Steps

Discussion

General Questions and Feedback

- Request further insight into forecast assumptions for load and DER; how does LoadSEER work?
 - Clarified that future storage, EVs, and energy efficiency are not included in the forecast used for this analysis.
 - This ties into what goes into the baseline snapshot and what potential NWA assets will be able to be installed to fulfill the projected need.
- Is real and reactive power looked at in the model?
 - Yes. Check capacity and voltages in the model. It is a steady-state view and constant power factors are assumed for transformers and circuits.
 - May want to start looking at dynamic change in reactive power throughout the day.
- Distinction needed between NWA resources and system resources.
 - NWA is addressing a local need (location specific capacity need in this case).
 - For the purposes of this demonstration project, would like to avoid blending NWA and system needs. Would need to make sure that NWA capacity is available and not used to serve system energy or services.
 - Would like to discuss more about value stacking and allowing the resource to serve an NWA need and system needs.
- Additional NWA performance parameters recommended, referring to Slide 7 of the meeting presentation. Refer to action items for list of additional parameters.

Hoopili Study Results

- Study summarized the need in the West Oahu region due to the Hoopili residential and commercial development.
- Concern raised on why the NWA is not an option for Hoopili at this time. Asked if the market's ability to fulfill this need should be tested.

- There is an obligation to serve load as requested. Will need to plan and execute a solution by 2023.
- Emphasized that additional overload issues are projected for 2025 even with the new substation transformers. These NWA opportunities would be considered in the IGP cycle next year.
- Request for a map of the substation circuit layout be provided for the West Oahu area.

Kapolei Study Results

- Will value stacking be allowed for energy delivered outside of the NWA window of hours?
- Could consider additional value after the NWA capacity relief is sufficiently addressed. Will need to be explored more. Could be presented as a permanent, all-day load reduction.
- Value stacking will be considered for future work.
 - Need to understand how to solve usability across locational needs and system services.
- What sets the deferment period?
 - Based on the load forecast and engineering analysis. Asking if loads will persist (longer than deferment period). Also weighing commercial availability and feasibility.
 - Feedback from industry on contract length is that four years is too short, ten years is ideal, and the average seen is around seven years.
- If the resource is being asked to be available 365 days a year, will there be a continuous revenue stream?
 - This will be a capacity payment, not based on energy produced.
 - Still in discussion is whether the NWA project will be automatically run everyday in the required time interval each day, or if it will be dispatched on demand during the contingency event only.
 - Minimum amount per developer?
 - Would like to feedback on minimum increments. How many awards are anticipated?

RFP Development, Anticipated Learnings, Solution Considerations

- Do we want to employ a maximum (per developer)?
 - RFP may result in one developer being selected based on proposed size and price.
 - However, part of the learning is understanding how to manage multiple resources and technologies.
 - Find a balance between establishing minimums and maximums and anticipated complexity of the portfolio.
- Are developers allowed to build within Companies' substations?
 - Will need to follow up on this (as a general question for future NWAs).
- Would like to overlap value from NWA and GSPA.
 - Could put the risks on the developers to meet all needs.
 - Send proper price signals to encourage developer response.
 - Trying to get this NWA demonstration off the ground in a timely manner.

- Is there a minimum value (in dollars or \$/kW) that is needed for the developers to participate? What is the threshold of feasibility for aggregators?
 - Another suggestion offered is to group NWA opportunities into a tariff instead of procurements.
- Is it ok for non-renewable projects to enter as NWAs?
 - Technically they could. However, will there be non-price consideration given towards renewable projects given the need to meet RPS?
 - Would need support from stakeholders on this issue.
- Clarification sought on participating in existing programs (like DR and DER) along with NWAs. Which assets belong to each program / opportunity?
 - Will need to provide this in the RFP.
- Will customer information be provided in the solicitation process?
 - Developers would like to know what customers to go after to meet the NWA need.
 - Could this be provided under NDA?
 - This may have been done in one other jurisdiction (possibly California).
 - Were the customers contacted first to get permission to release personally identifiable information (PII)?
 - From the DR perspective, sharing PII is strictly prohibited or will be challenging.
 - May need to get creative on how to provide guidance to developers without sharing customer PII.
 - This will taken back for action.

Action Items

1. What information can be shared to help guide developers toward the customers within the NWA need?
2. Will developers be allowed to build within the Companies' substations?
3. To be incorporated into the RFP:
 - a. Participation in the NWA and other programs or grid services?
 - b. Minimum number of developers?
 - c. Minimum solution size increments
 - d. Additional performance parameters:
 - i. In addition to the duration of hours, specify the window of time in the day.
 - ii. Max number of calls per year, month, and day
 - iii. Ramp rate
 - iv. Response time
 - v. Specifications of export or no-export of excess energy
 - vi. Reliability and available requirements
 - vii. Length of the contract and overall duration of the need
4. For future DPWG meetings, would like to learn more about forecast assumptions (load, DER) and how LoadSEER works.
5. More clarification / definition around value stacking of NWA, system services, and participation in other programs and tariffs.