Hawaiian Electric

IGP Soft Launch Debrief Session and Next Steps

Distribution Planning Working Group

March 9, 2020

Agenda / Context

- **Next Steps**
- **Soft Launch Purpose & Objectives**
- **Demonstration Scope**
- **Stakeholder Feedback Incorporated**
- **Apply Lessons Learned**
- **Lessons Learned from Working Group and RFP**
- **New Real Estate Development Programs**
- **Stakeholder Questions / Open Discussion**

Based on soft launch learnings, Hawaiian Electric will:

- Conduct future NWA procurements for a distribution opportunity based upon learnings (scope, timing, customer type, etc.);
- Evaluate a programmatic local-specific DER effort to obtain distribution services from DERs for East Kapolei / Hoʻopili to reduce longer-term needs for distribution in the area;
- Proceed with minimal distribution investment to meet the near term customer needs that preserves opportunities for NWAs for future growth in the area.
  - Seek approval in March/April 2020 to build Hoʻopili Substation with one substation transformer in 2023 (instead of original plans to build 2 transformer units)
  - Re-evaluate options as load grows (~2024-2025 timeframe) – pricing, programs, or procurement, or additional investment needed to meet baseload need

Original Soft Launch Purpose & Objectives

Purpose:

- Inform development of the full scale IGP planning and sourcing effort

Objectives:

- Demonstrate the sourcing processes and evaluation methods for distribution non-wires alternatives
- Provide real-world experience associated with the identification of needs for a resource choice like aggregated DER because of locational impacts of DER
- Sourcing and evaluation in 2019 with anticipated solution deployment in 2020-21 and operational testing by 2022

Soft Launch RFP Scope

Summary

- Seek proposals for qualified non-wires alternatives (“NWA”) to provide Reliability (back-tie) Services for the East Kapolei Area Distribution System

Deferral Opportunities (5 year deferral value)

- Kapolei 4 Circuit Extension ($2.3M NPV)
- Ho‘opili Substation ($4.5M NPV)

Solution Types

- Behind the meter (BTM)
- In-front of the meter (IFTM)

Resource Types

- Demand-Side Resources
- Inverter-Based Resources

Incorporation of Stakeholder Feedback

Expanded RFP to test the market for two distinct types of opportunities:

- Ho'opili: long duration, high MW need for new development
- East Kapolei: moderate duration, moderate MW need for load growth

Utilized an Independent Observer to oversee RFP process

- The Company used an IO for the Soft Launch RFP. Clarifying revisions to Competitive Bidding Framework on-going in the CPWG

Other feedback incorporated

- Allowed solutions to be bid in multiple procurements for "value stacking"
- Realized technical requirements for 5-minute reconnection time

Company considered extending 5-year term but did not incorporate

- Industry standard: 5-7 year contracts
- Load growth uncertainty, difficult to commit for more than 5+ years
  - Possible higher costs for customers if transformer or additional NWA is need during contract term

The Company received a low response to the RFP

Hawaiian Electric sought feedback from Proposers and Potential Proposers

- Debriefing sessions offered to all who registered in PowerAdvocate

Discussion

- The soft launch RFP was clear and comparable to other industry RFPs
- Performance and operation requirements were reasonable.
- The long duration need and # of calls were a challenge
- However, felt that the Company provided excellent information and data of the need as part of Appendix J
- Desire for 5-year term (i.e., 10-year term for ESS technology)
  - 5-7 years has been the industry standard
- Customer Acquisition
  - New residential developments more speculative vs. an existing customer base
  - Would be beneficial to have customer load profiles

Here's what we learned through WG meetings and RFP process

One of, if not, the first procurement of Distribution Reliability (back-tie) Service nationally

Need to explore ways to cost-effectively mitigate the impact of large new real estate (R/E) development loads (e.g., residential, institutional and commercial) on the existing grid.

Challenges:

- Load of new homes/buildings needs to be addressed during construction to mitigate overloads on existing grid to avoid new and/or upgrades to infrastructure
- R/E Developers are a short-term customer during development – ownership of new homes/buildings change with sale

Learnings will be applied to the IGP process going forward

- Leverage the NWA Evaluation Framework developed by the DPWG to determine opportunities best suited for procurements
- Continue to pursue market solutions to acquire least cost, best fit solutions for customers; however, consider tariff and program options to complement procurements
- Evaluate a programmatic local-specific DER effort to obtain distribution services from DERs for East Kapolei / Hoʻopili to reduce longer-term needs for distribution in the area
- Continue discussion in SEOWG to capture multiple services from resources (i.e., dispatchable customer resources that provide multiple services for a lump sum price) at longer duration contracts
- Pursue standard form RFP for NWAs streamline process for short lead time/near-term needs. This can be discussed as part of the CPWG

New Real Estate Development Programs

Proposal:

- Augment existing EE and DER programs and tariffs to address the incremental grid need through new real estate development programs for residential, institutional and commercial buildings.
- Work with developer and Hawaii Energy to incorporate enhanced energy efficiency, solar PV and storage to mitigate the incremental load on the grid during construction to minimize costs and achieve performance from the start.
- Collaborate with developer to source market based solutions that address grid and developer's needs

Critical that R/E Developer has primary role in determining acceptable NWA solution/s for their development.

New R/E Development Programs

Scope:

- Develop programmatic approach for each new real estate development that addresses the specific needs of the developer and identified grid impacts.
- Combine existing EE and DER programs with incremental program options to achieve desired operational performance.
  - Leverage existing Hawaii Energy programs
  - Leverage existing DER programs
  - Create incremental EE/DER programs based on the avoided cost value of the wires alternative.

Questions/Discussion