EXPRESSIONS OF INTEREST
FOR
NON-WIRES ALTERNATIVE UTILITY-SCALE
OR DISTRIBUTED ENERGY RESOURCE GRID SERVICES

ISLAND OF O‘AHU

April 1, 2022
Table of Contents

1)  INTRODUCTION

2)  PURPOSE

3)  INSTRUCTIONS TO INTERESTED PARTIES

4)  SUMMARY OF KEY DATES
1) INTRODUCTION

Hawaiian Electric Company (“Hawaiian Electric” or “Company”) is planning for the retirement of generating units Waiau 3 and 4 (with a combined rating of 115MVA) at its Waiau substation in the year 2024. Waiau Substation includes a 46kV sub-transmission system served by two 80 MVA transformers (Waiau A and Waiau B) operated in parallel. There are times throughout the year when the total load on the Waiau sub-transmission system exceeds the rating of a single 80 MVA transformer. As a result, during the contingency condition of losing either Waiau A or B transformer, the remaining transformer online may be overloaded. In these situations, generating units Waiau 3 and/or 4 are dispatched to avoid overloading the remaining transformer. Therefore, with the planned retirement of Waiau 3 and 4, the Company has identified a reliability grid need and is exploring the possibility of utility-scale renewable projects or aggregate distributed energy resources (DER) and energy efficiency (EE) that can be used to reduce loading to serve as a non-wires alternative (NWA) in place of a traditional wires system project.

Hawaiian Electric is requesting Expressions of Interest (“EOI”) from developers or aggregators who are capable of developing utility-scale renewable projects or aggregating DER/EE in the central and west area of O‘ahu.

Developers and aggregators are encouraged to submit comprehensive responses to this request. The information obtained from responses may assist in the development and issuance of a Request for Proposals (“RFP”) for Renewable Dispatchable Generation under the Framework for Competitive Bidding,¹ the issuance of another RFP, or the issuance of an alternative means of procurement, subject to approval by the Hawai‘i Public Utilities Commission. However, there is no assurance or certainty that Hawaiian Electric will issue an RFP or an alternative means of procurement, and the decision to do so shall be in the sole discretion of Hawaiian Electric. While Hawaiian Electric may collectively summarize the results of the EOI, individual responses will be held in confidence and will not be published, including in any future RFP issued by the Company without first receiving prior permission to do so from the respondent.

2) PURPOSE

The objectives of this EOI are to:

- Identify interested parties who are able to develop cost competitive utility-scale renewable projects or aggregating DER/EE projects on the island of O‘ahu to fulfill the grid service performance requirements defined below.

The Company intends to use the information gathered to evaluate and pursue, through follow on discussions with developers/aggregators that may be able to offer such services, suitable grid services

¹ Decision and Order No. 23121 in Docket No. 03-0372, issued on December 8, 2006, “Instituting a Proceeding to Investigate Competitive Bidding for New Generating Capacity in Hawaii.”
for the identified reliability grid need due to the retirement of Waiau 3 and 4 generators. Final proposals, negotiations, and contracting for the grid services will need to be completed separately from this initial EOI solicitation, and PUC approval is required to commence with the NWA project. The desired outcome of this process is to determine whether there are cost competitive NWAs to the traditional wires solution.

While the Company may collectively summarize the results of the EOI, the information contained in individual responses will be held in confidence and will not be published, including in any future request for proposals (“RFP”) issued by the Company, without first receiving prior permission to do so from the respondent.

Interested parties are encouraged to provide the following information in the form provided by May 12, 2022.

**Wires Solution:**

This EOI is being used to determine if an NWA is capable of deferring the planned wires solution cost-effectively and within the required timeframe. The wires solution consists of various 46 kV recircuiting and reconfiguration, and adding a new 80MVA transformer at Ewa Nui Substation with a new 46 kV line. This solution is preliminarily estimated to cost $10M, which meets the performance requirements below, as well as addresses forecasted capacity needs in the 2026-2029 timeframe pending progress of various developments. As the wires solution (or similar) will be required in 2026-2029, this NWA will be deferring the wires solution by approximately 3-5 years.

**Performance Requirements:**

The NWA in aggregate must provide the hourly peak MW requirement shown in Figure 1 and the energy profile shown in Figure 2. The largest daily MW peak is 47.03 MW. The requirements are needed 365 days of the year.
Figure 1: Hourly Peak MW Requirement

Figure 2: Energy Profile for Peak Energy Day
The NWAs must be located in an area identified in the map shown in Appendix B in order to be able to reduce the loading on the Waiau sub-transmission system.

For the NWA to successfully defer the wires solution, the aggregated amount of capacity installed by 12/31/2023 must be at least 33.4 MW.

**Cost-Competitiveness:**

This project is intended to defer a T&D solution to provide capacity to the 46 kV system for approximately five years. The NPV of the deferral value is: $3.7M².

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² The NPV is based on a preliminary cost estimate, and is being provided to provide guidance to potential proposers. Responses to this EOI will be compared to the deferral value of the wires project to determine if an NWA will be cost-effective.
3) INSTRUCTIONS TO INTERESTED PARTIES

Interested parties are asked to follow the instructions below in submitting the requested information:

a) **Submit Requested Information.** Complete the Project Questionnaire (see Appendix A) and submit the information using one of the following methods. The Company welcomes all information that respondents are comfortable with sharing; however, none of the fields in the questionnaire should be considered as required.

   Email: With pdf file attachment(s) to igp@hawaiianelectric.com

   U.S. Mail*: Director, T&D and Interconnection Planning (mail code WA4-BB)
   T&D and Interconnection Planning
   Hawaiian Electric Company, Inc.
   P.O. Box 2750
   Honolulu, Hawaii 96840-0001

b) **Due Date.** Please submit all information **by May 12, 2022.**

c) **Confidentiality.** Clearly and specifically mark any information that Respondent requests be treated as confidential and not be disclosed outside of the Company and its employees, consultants, and representatives involved with the review of information received in response to this EOI. The Company shall have the right to disclose Information submitted as part of the EOI process or other related regulated process to the State of Hawai‘i Public Utilities Commission ("Commission") and the Division of Consumer Advocacy ("Consumer Advocate") and their respective staffs and consultants, including information designated as confidential by the Respondent, provided that such disclosure is made under a protective order entered in the docket or proceeding with respect to which the disclosure will be made or any general protective order entered by the Commission. Any statement of condition in any information that attempts to restrict the Company’s rights under this section shall be void.

d) **Not a Request for Proposals.** The EOI is being solicited to inform the feasibility of near-term solutions from developers or aggregators who are capable of developing utility-scale renewable projects or aggregating DER/EE in the central and west area of O‘ahu. The EOI is not an RFP for proposals related to a specific project or solicitation of development for a single project proposal. Neither this EOI nor the disclosure of the confidential information shall result in any obligation on the part of either the Company or respondents to this EOI to enter into any further agreement with the other with respect to the subject matter hereof, to purchase any products or services from the other, or to require the Company to disclose any particular information to the respondents. Nothing in this EOI shall imply any
partnership or joint venture between the Company and any respondent or be construed as making either the agent of the other.

e) **Questions from Interested Parties.** If an Interested Party needs additional information or clarification regarding any part of the EOI document, or the EOI process outlined in this document, it may submit questions in writing to ken.aramaki@hawaiianelectric.com.

4) **SUMMARY OF KEY DATES**

- April 1, 2022    The Companies issues EOI via website
- May 12, 2022    Property Questionnaire due from Respondents

The Company looks forward to receiving informative responses.
Project Questionnaire

Request for Information: Waiau 3 & 4 Retirement NWA

Project Description

Technology:

Enter information regarding the proposed technology to meet the identified need, special conditions, etc.

Potential Capacity (MW) and Energy (MWh):

Enter information regarding the MW and MWh provided by the potential project.

Previous Commercial Application Examples:

Please identify any previous commercial applications of the intended technology (size (MW/MWh), and any duration/timing constraints (alternative plans) with developing the proposed project.

Timeline for Completion:

Please detail an expected timeline needed to develop such a project, including any phased approach to meet the identified need, as well as assumed RFP award timeline.

Project Siting:

Please detail the approximate square footage required for the project, including its interconnection facilities, or whether a potential host site for the project has been identified on the island of O'ahu, Maui, or Hawai'i.

Community outreach efforts:

Describe any plans for or provide a current status on community outreach efforts for a proposed energy project

Project development activities:

Describe any project development activities that have been performed to date (permitting, site access, design, resource measurement)
Contact information:

Enter any available contact information (Name, Phone Number, Email, Fax, Mailing Address)

Additional Information:

Enter any other information that you would like to share

Please send completed forms and any available photos of the property or topographical maps to one of the following by May 12, 2022.

Email (preferred): With pdf file attachment(s) to igp@hawaiianelectric.com

U.S. Mail*: Director, T&D and Interconnection Planning (mail code WA4-BB)
T&D and Interconnection Planning
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

Fax: (808) 564-6622
APPENDIX B

Location Map