EXPRESSIONS OF INTEREST UPDATE

FOR

NON-WIRES ALTERNATIVE UTILITY-SCALE OR DISTRIBUTED ENERGY RESOURCE GRID SERVICES

ISLAND OF HAWAIʻI

(WAIKOLOA AREA)

December 23, 2024

Hawaiian Electric

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1) INTRODUCTION

Hawaiian Electric Company (the Company) forecasts significant load growth in the Waikoloa area on Hawai‘i island in the coming years. The load is forecasted to increase by approximately 11.1 MVA by 2032 triggering overloads of existing electrical infrastructure during normal and contingency conditions. Therefore, the Company has identified a capacity and reliability grid need (see Performance Requirements) 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. This is an update to the EOI issued in April 2024 for the Waikoloa area. Since then, the capacity grid need has been revised to reflect new information on service requests in the Waikoloa area.

The Company 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 Waikoloa area of Hawai‘i island.

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 the Company will issue an RFP or an alternative means of procurement, and the decision to do so shall be in the sole discretion of the Company. While the Company may collectively summarize the results of the EOI, individual responses will be held in confidence and will not be published, including in any future RFP issued by the Company without first receiving prior permission to do so from the respondent.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 Hawai‘i 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 for the identified reliability grid need due to normal overloads on the Waikoloa substation transformer. 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

[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."

desired outcome of this process is to determine whether there are reliable, cost competitive NWAs to the traditional wires solution.

Interested parties are encouraged to provide the following information in the form provided by February 7, 2025.

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 installing a new 69-12kV 10 MVA transformer in the existing Waikoloa substation, installing approximately 1.5 miles of new underground and overhead conductors for two new distribution circuits and reconfiguring the existing distribution circuits to integrate the new circuits. This solution is preliminarily estimated to cost $9.45M, which meets the performance requirements below, as well as addresses forecasted capacity needs in the 2032 - 2036 timeframe[2] pending progress of various developments.

Performance Requirements:

The NWA capacity and energy grid needs by year, from 2032-2036, are shown in Table 1.

	2032	2033	2034	2035	2036
Capacity (MW)	1.06	1.18	1.34	1.52	1.71
Energy (MWH)	2.42	3.13	4.00	4.89	6.67

Table 1: Capacity (MW) and Energy (MWH) annual grid needs

To address this grid need, the Company is seeking NWA projects that can meet the needs shown in Table 1. A project that can meet the need for every year and defer the wires project for 5 years would be preferred however any amount of deferral will be considered. If the NWA project is for a 5-year deferral, initially, the Company may ask for a 5-year contract with an option to extend and increase as planning forecast needs increase. The forecasted load profiles and hourly peak MW and energy MWH profiles are shown in Appendix B. The requirements are needed 365 days of the year and the project's operation, and output may be required to be controlled by a control signal. If the proposed technology will charge from the utility grid, then it must do so at off-peak times, e.g. between the hours of 12:00 AM to 4:00 AM and 8:00 AM to 2:00 PM.

The NWAs must be located in an area identified in the map shown in Appendix C in order to be able to reduce the loading on the Waikoloa substation transformer.

[2] Note the wires solution provides more capacity than required to address the projected overload, which allows for future capacity needs.

Cost-Competitiveness:

This project is intended to defer a T&D solution to provide capacity to the Waikoloa substation. The NPV[3] to defer the wires project is based on the amount of deferral the NWA project can provide.

- NPV to defer T&D wires project 1 year: $1.38M
- NPV to defer T&D wires project 2 years: $2.24M
- NPV to defer T&D wires project 3 years: $3.02M
- NPV to defer T&D wires project 4 years: $3.73M
- NPV to defer T&D wires project 5 years: $4.38M

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 (Preferred Method): With pdf file attachment(s) and subject heading "Waikoloa Tsf 2 NWA EOI Response" to igp@hawaiianelectric.com

U.S. Mail*: Director, T&D and Interconnection Planning (mail code WA4-BB)
RE: Waikoloa Tsf 2 NWA EOI Response
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 February 7, 2025**.

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

[3] The NPV is based on a preliminary cost estimate, and is being provided as guidance to potential proposers. Responses to this EOI will be compared to the avoided value of the wires project to determine if an NWA will be cost-effective.

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 Waikoloa areas of Hawai'i island. 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 igp@hawaiianelectric.com.

4) SUMARY OF KEY DATES

- December 23, 2024 The Companies issues EOI via website
- February 7, 2025 Property Questionnaire due from Respondents

The Company looks forward to receiving informative responses.

APPENDIX A

Project Questionnaire

Request for Information: Waikoloa Tsf 2 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 Oʻahu, Maui, or Hawaiʻi.

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 February 7, 2025.

Email (preferred): With pdf file attachment(s) and subject heading "Waikoloa Tsf 2 NWA EOI Response" to igp@hawaiianelectric.com

U.S. Mail*:
Director, T&D and Interconnection Planning (mail code WA4-BB)
RE: Waikoloa Tsf 2 NWA EOI Response
T&D and Interconnection Planning
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

Fax: (808) 564-6622

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APPENDIX B

Capacity (MW) and Energy (MWH) Profile Needs

	2032	2033	2034	2035	2036
Capacity (MW)	1.06	1.18	1.34	1.52	1.71
Energy (MWH)	2.42	3.13	4.00	4.89	6.67

The requirements are based on the maximum capacity (MW) and energy (MWH) grid need in forecasted scenarios. The largest capacity (MW) and energy (MWH) grid need is expected during Normal conditions for 2032 – 2035, and during the N-1 condition where the Mauna Lani 14 distribution circuit is transferred to Waikoloa for 2036.

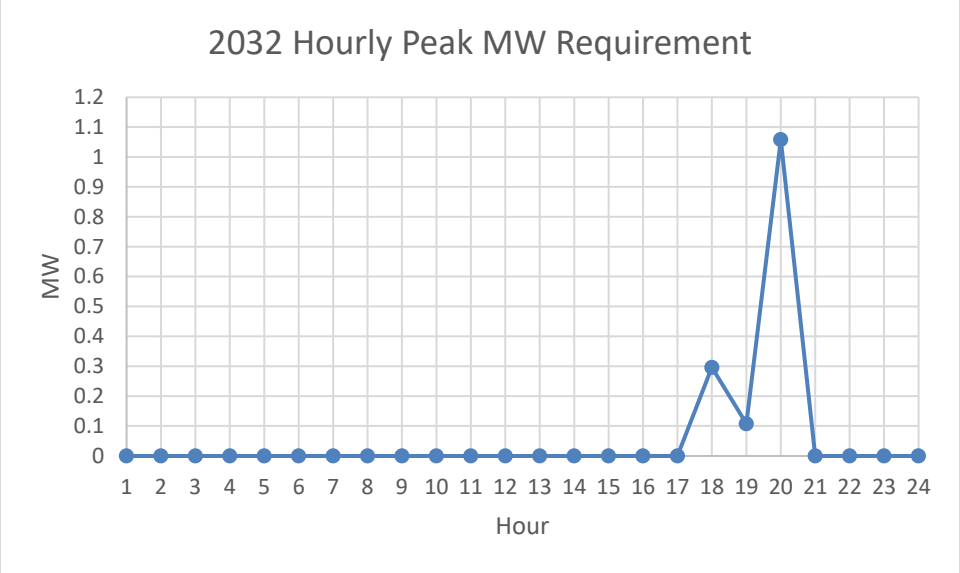

Figure B-1: 2032 Hourly Peak MW Requirement

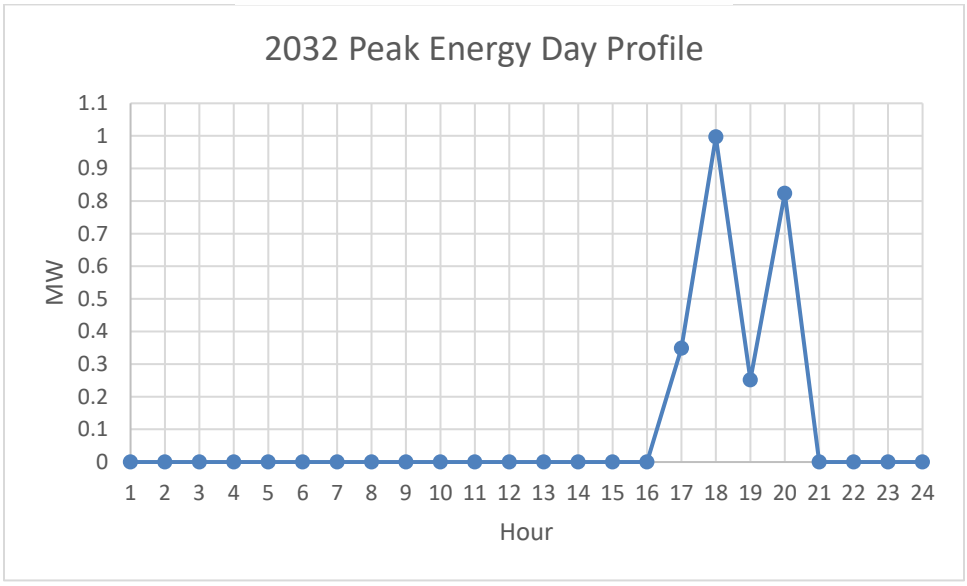

Figure B-2: 2032 Energy Profile for Peak Energy Day

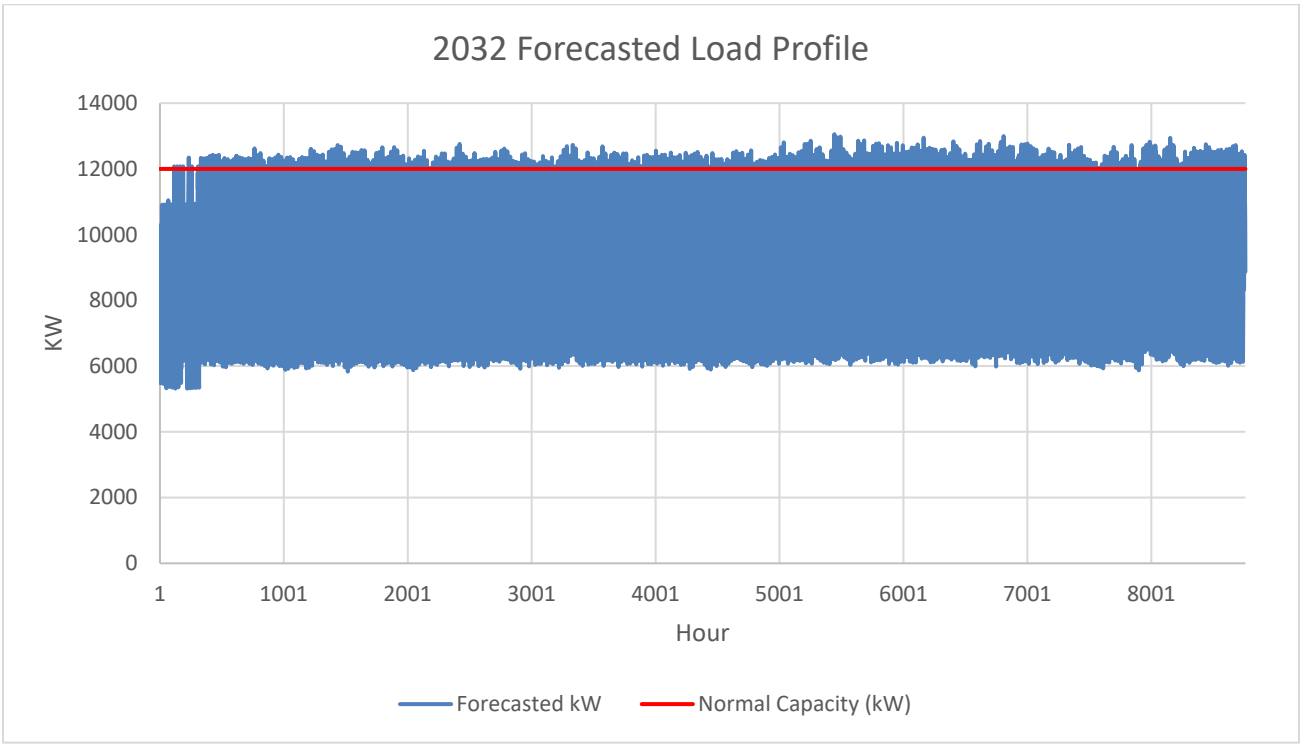

Figure B-3: 2032 Forecasted Load Profile

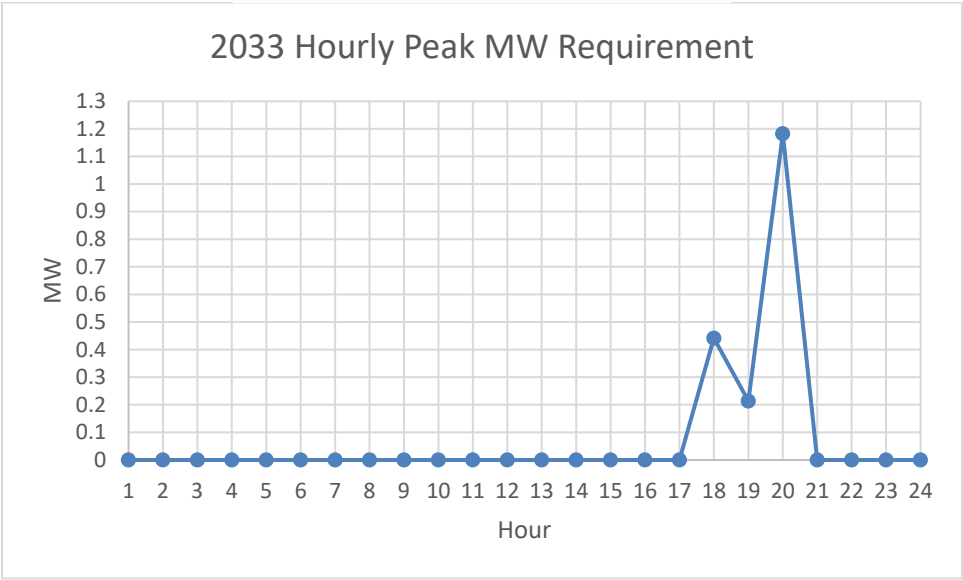

Figure B-4: 2033 Hourly Peak MW Requirement

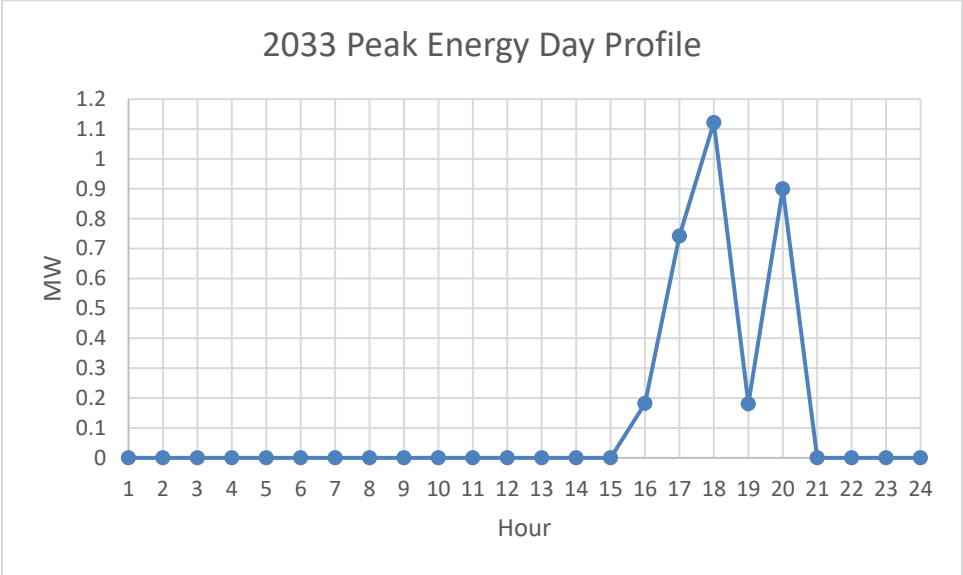

Figure B-5: 2033 Energy Profile for Peak Energy Day

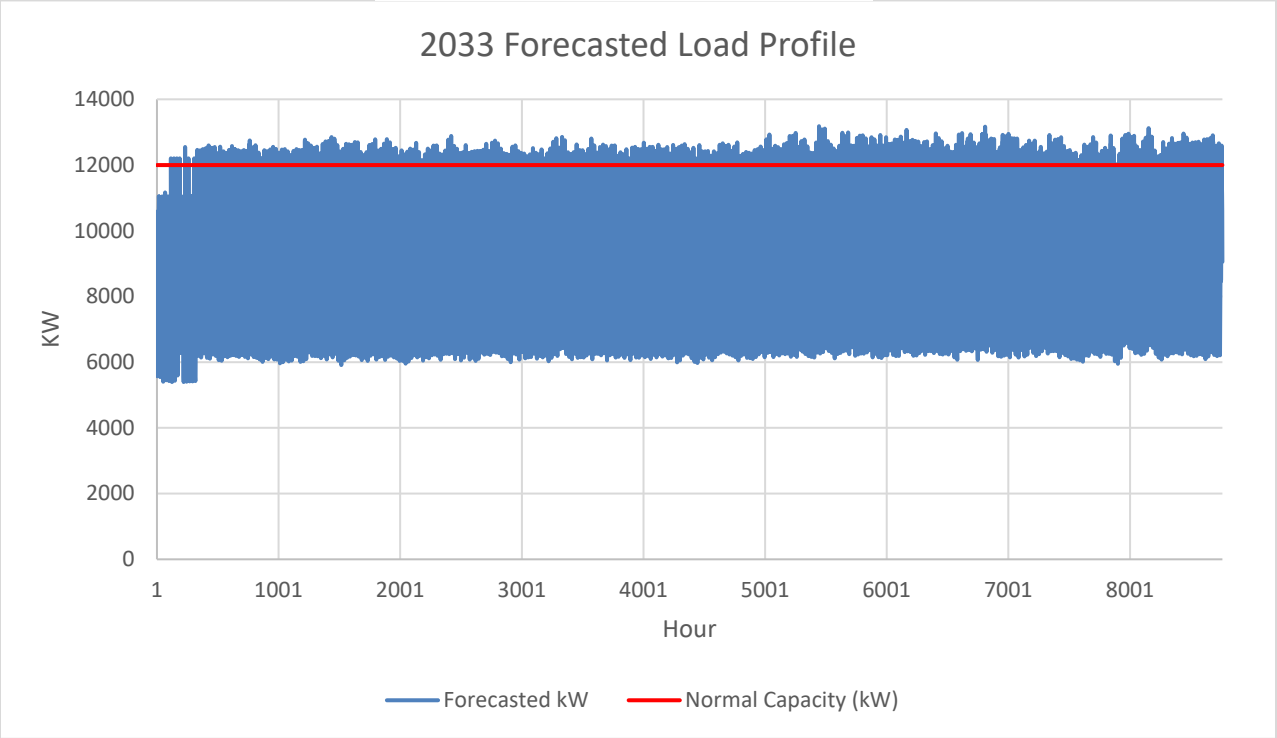

Figure B-6: 2033 Forecasted Load Profile

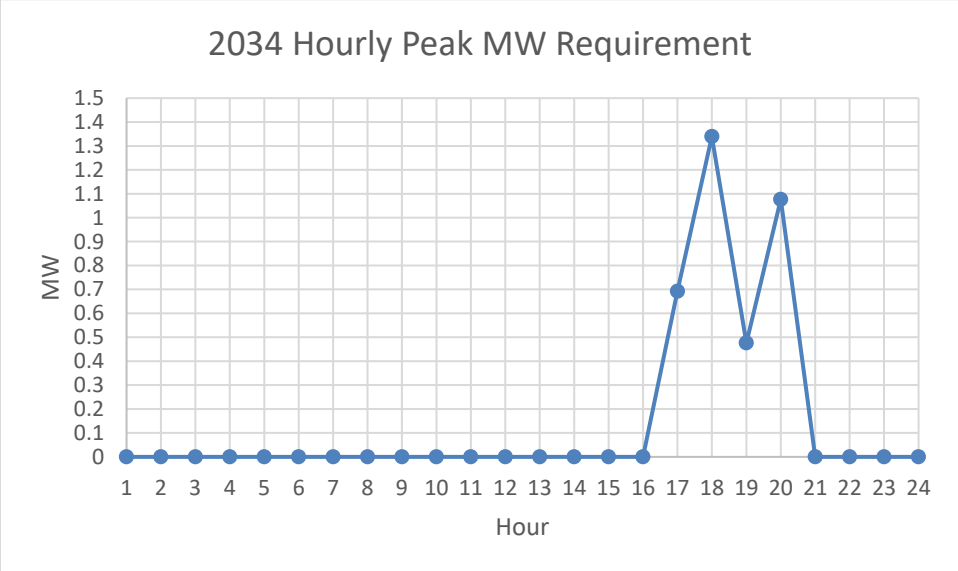

Figure B-7: 2034 Hourly Peak MW Requirement

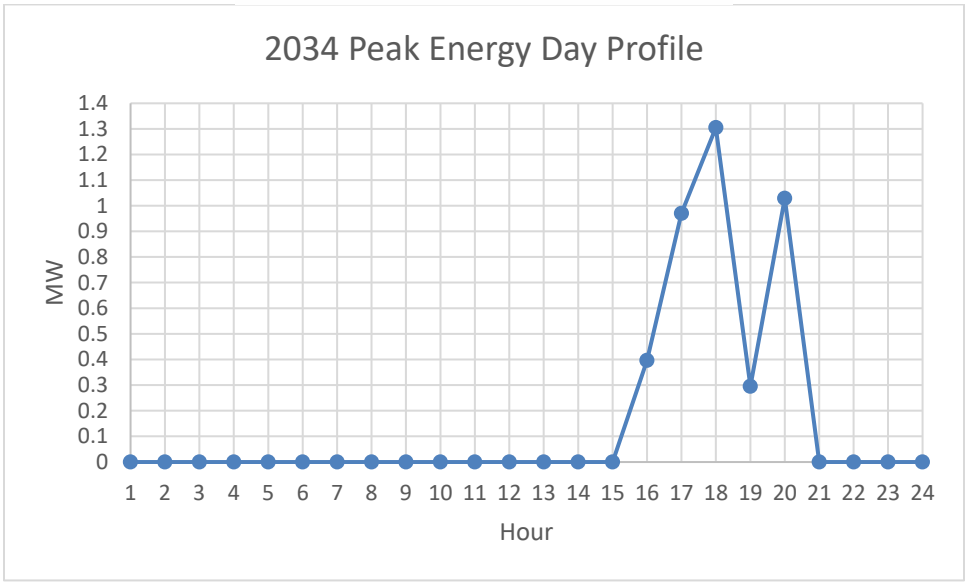

Figure B-8: 2034 Energy Profile for Peak Energy Day

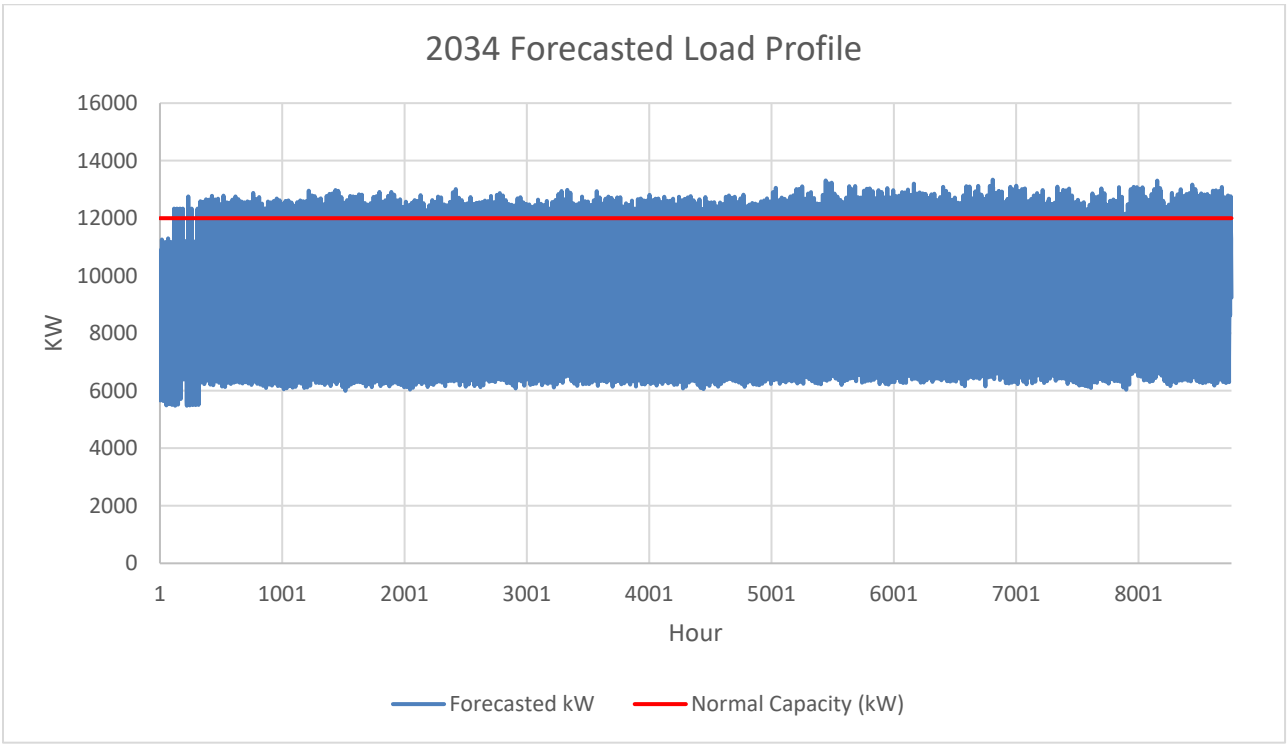

Figure B-9: 2034 Forecasted Load Profile

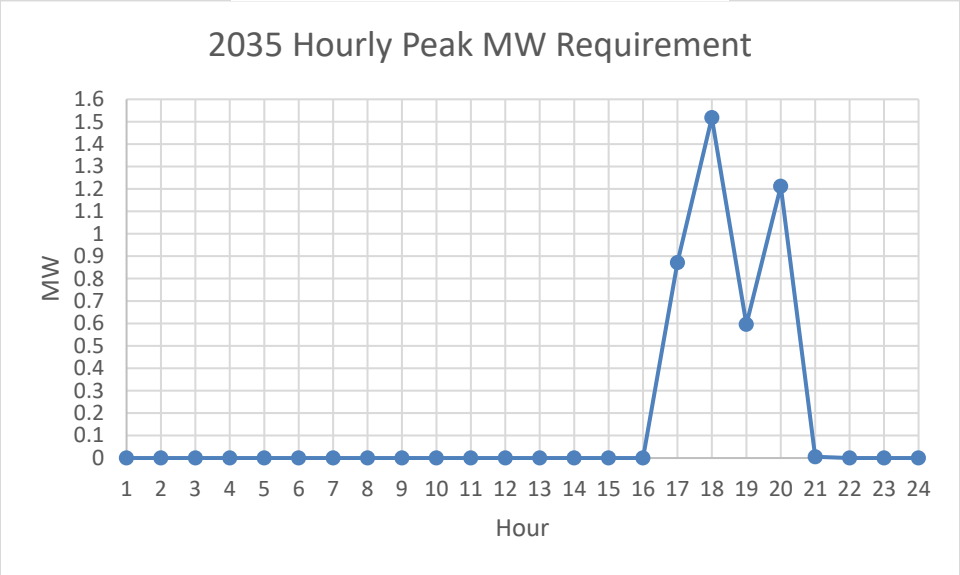

Figure B-10: 2035 Hourly Peak MW Requirement

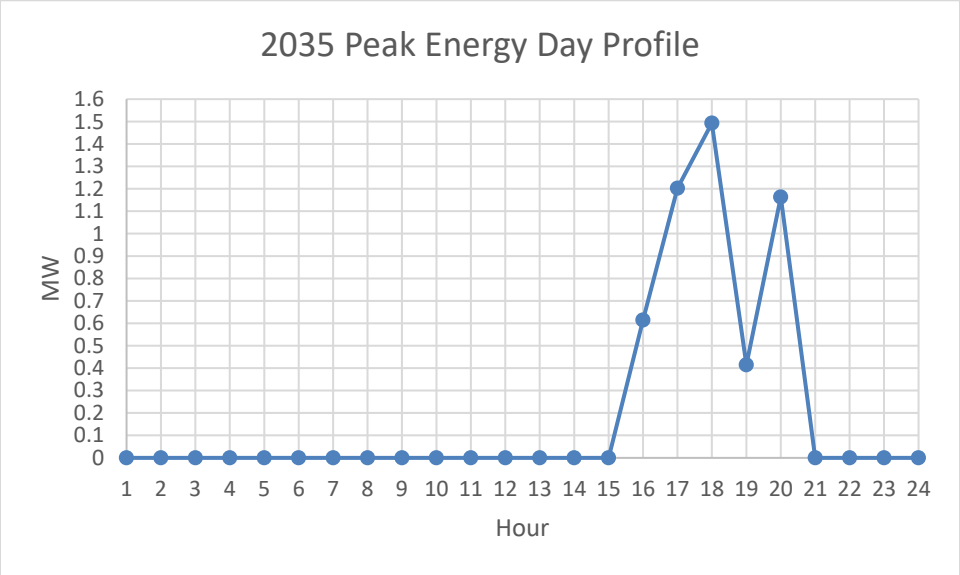

Figure B-11: 2035 Energy Profile for Peak Energy Day

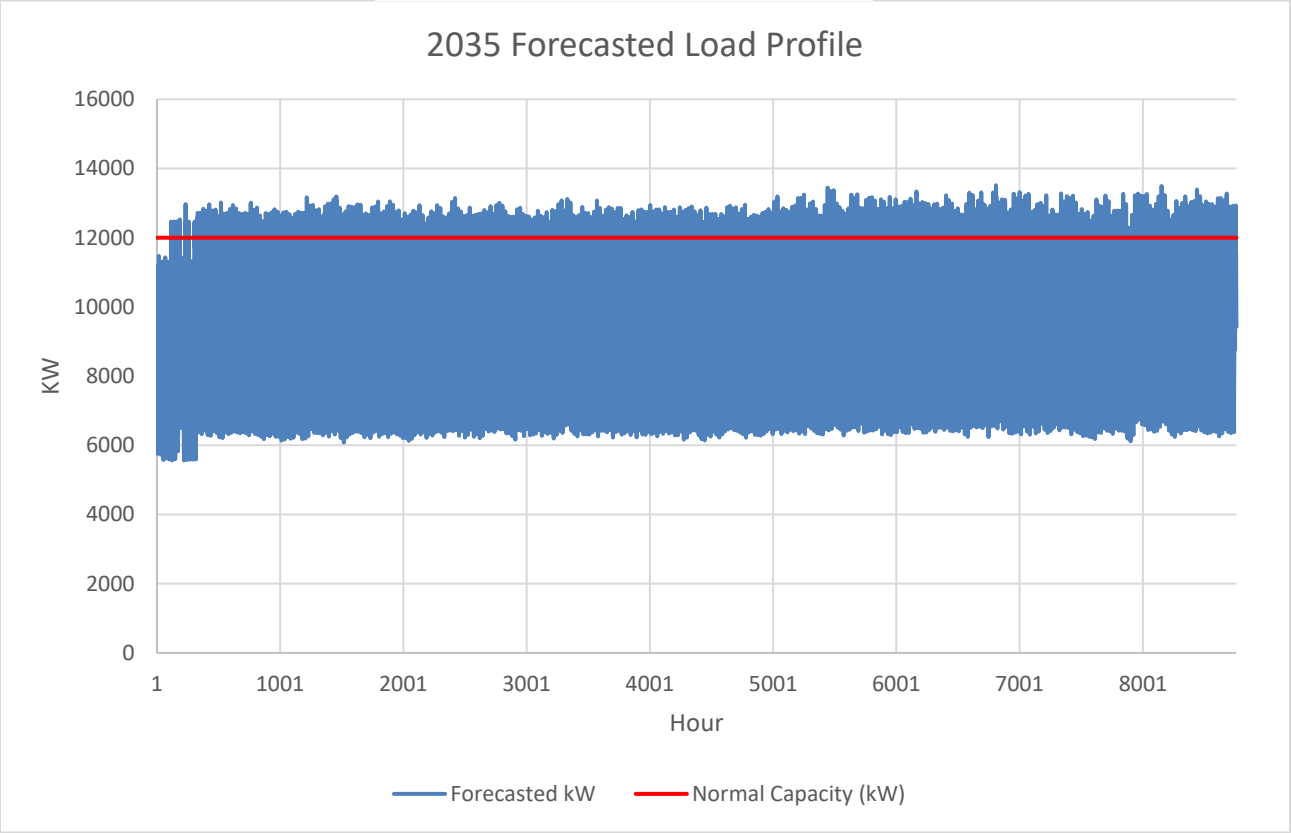

Figure B-12: 2035 Forecasted Load Profile

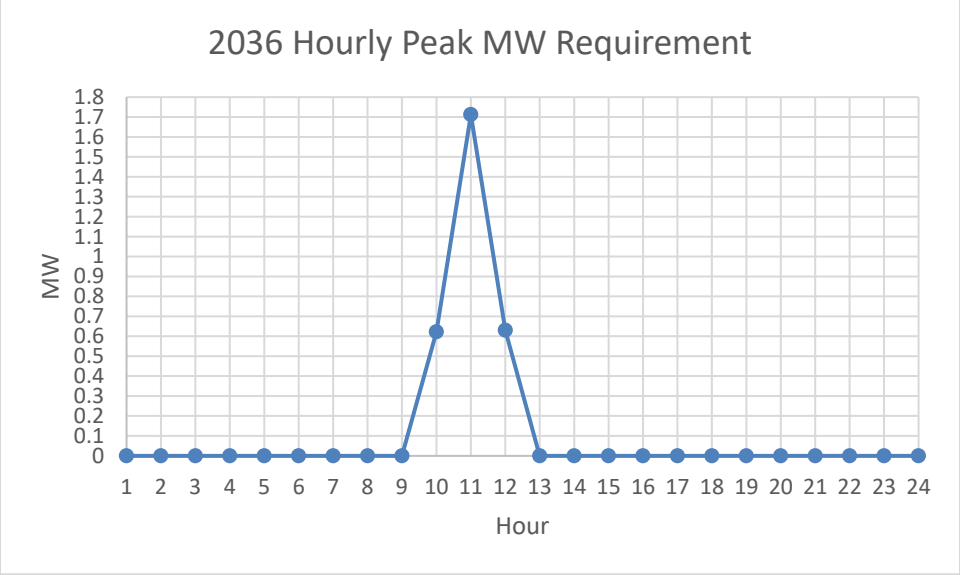

Figure B-13: 2036 Hourly Peak MW Requirement

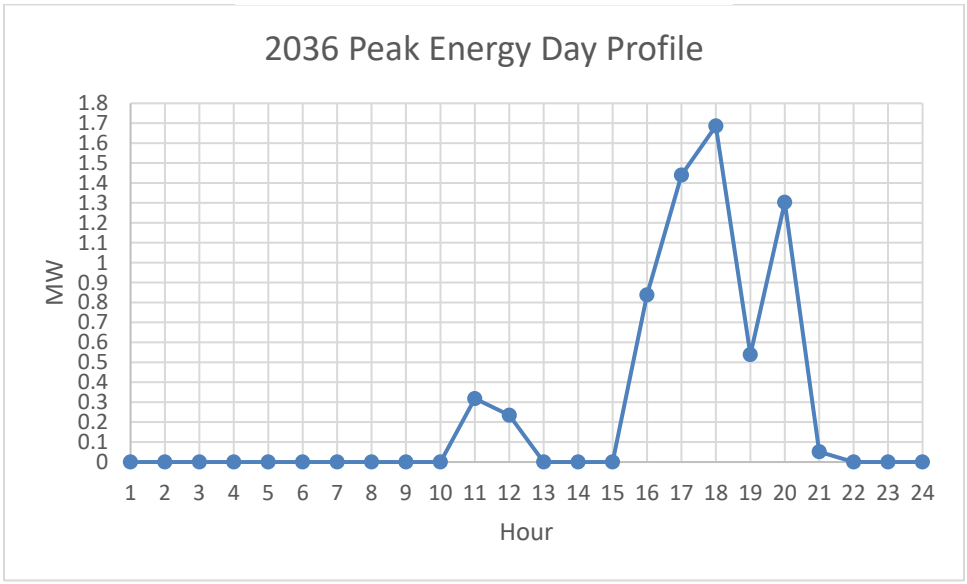

Figure B-14: 2036 Energy Profile for Peak Energy Day

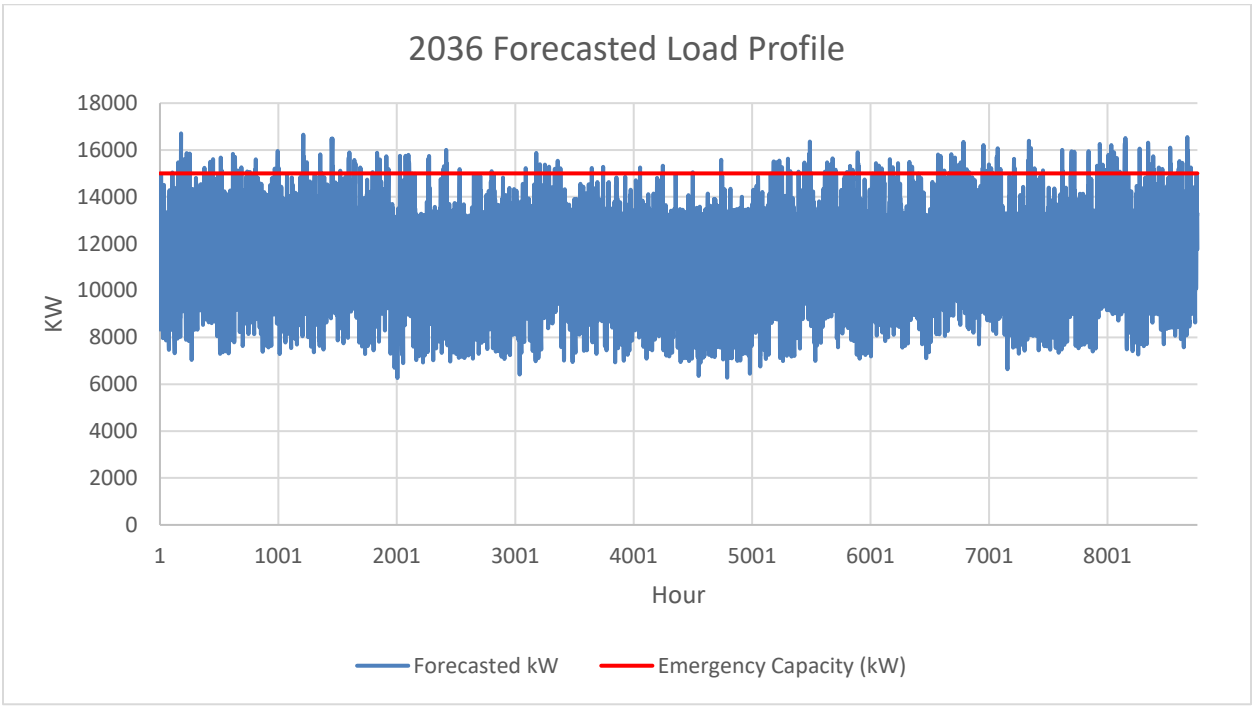

Figure B-15: 2036 Forecasted Load Profile

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APPENDIX C

Location Map