February 21, 2023

The Honorable Chair and Members
of the Hawai‘i Public Utilities Commission
Kekuanao‘a Building, First Floor
465 South King Street
Honolulu, Hawai‘i 96813

Subject: Docket No. 2017-0352 – To Institute a Proceeding Relating to a Competitive Bidding Process to Acquire Dispatchable and Renewable Generation
Correction to Companies Letter dated February 17, 2023

Dear Commissioners:

On February 17, 2023 the Hawaiian Electric Companies[1] filed their letter *Response to Commission's February 7, 2023 Guidance on Injection Studies* (Companies' Letter) in the subject proceeding. Upon further review, the Companies discovered the table referenced on page two was inadvertently removed prior to filing. Accordingly, the Hawaiian Electric respectfully submits a revised version of the Companies' Letter which now includes the aforementioned table. The Companies apologize for any confusion this may have caused.

Sincerely,

/s/ Rebecca Dayhuff Matsushima

Rebecca Dayhuff Matsushima
Vice President, Resource Procurement

cc: Division of Consumer Advocacy

[1] Hawaiian Electric Company, Inc. ("Hawaiian Electric"), Hawai‘i Electric Light Company, Inc. ("Hawai‘i Electric Light"), and Maui Electric Company, Limited ("Maui Electric") are collectively referred to as the "Hawaiian Electric Companies" or "Companies".

(REVISED 2-21-2023)

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Subject: Docket No. 2017-0352 – To Institute a Proceeding Relating to a Competitive Bidding Process to Acquire Dispatchable and Renewable Generation
Response to Commission’s February 7, 2023 Guidance on Injection Studies

Dear Commissioners:

On February 7, 2023, the Commission provided its guidance, comments and request for clarifications regarding the Hawaiian Electric Companies[1] injection studies filed in the subject proceeding (“Commission’s Guidance”). The Hawaiian Electric Companies appreciate the Commission’s time and attention to ensuring a fair and robust Stage 3 Request for Proposals (“RFP”).

The Commission’s Guidance specifically requested the Companies:

(1) to remove the Kahana Solar project and the 40 MW firm generating unit when calculating and providing hosting capacity information in response to bidders’ inquiries during the RFP phase,
(2) to provide bidders with updated information to the extent they have been provided information based on the studies including these two generators,
(3) to consider the guidance applicable to Hawai‘i Island and O‘ahu for any project on these respective systems that has withdrawn or has not yet been approved by the Commission,
(4) to be as detailed as possible when providing these analyses to bidders,
(5) to the extent not already being done, internally log all questions and responses to proposers and provide copies to the Independent Observer (“IO”) and Independent Engineer (“IE”),
(6) to be consistent in providing the same information to other proposers who have a similar request for information on all islands, and
(7) to include any questions and answers that were provided to the IE related to injection studies for all proposers to access on the Companies’ website dedicated to Q&As for all of the Stage 3 RFP, unless island-specific.

[1] Hawaiian Electric Company, Inc. (“Hawaiian Electric”), Hawai‘i Electric Light Company, Inc. (“Hawai‘i Electric Light”), and Maui Electric Company, Limited (“Maui Electric”) are collectively referred to as the “Hawaiian Electric Companies” or “Companies”.

(REVISED 2-21-2023)

The Hawaiian Electric Companies commit to removing the Kahana Solar project and the 40 MW firm generator when calculating and providing hosting capacity information in response to proposers' inquiries during the RFP phase. The following table shows a side-by-side comparison of injection results provided in the Maui Transmission System Injection Study (pg. ES-4, Table ES-1 20 MW SPOF scenario) and an updated injection analysis with the following changes; (1) removal of a 40 MW contingency generator at Waena Switching Station, and (2) removal of Kahana Solar due to its recent withdrawal. The updated injection analysis supersedes the results provided in the Maui Transmission System Injection Study filed December 22, 2022. The updated results do not include a Potential 30-MW Single Point of Failure Scenario, as the removal of Kahana Solar inhibits the ability to raise the single point of failure limit from 20 MW to 30 MW. As noted in the study, a minimum requirement to raise the single point of failure ("SPOF") limit is the successful commissioning of all planned Stage 1 (i.e., 60 MW Kuihelani Solar and 14 MW Paeahu Solar) and Stage 2 projects (i.e., 40 MW Waena BESS, 40 MW Kamaole Solar, and 40 MW Kahana Solar) to provide the necessary contingency reserves to mitigate underfrequency load shedding.

Injection Location	**69-kV Transmission Line or Substation**	Table ES-1 (Dec. 22, 2022)	Revised Table ES-1 (Feb. 15, 2023)
		Capacity Limit (MW)[1,2,3,4]	Capacity Limit (MW)[1,2,3,4]
		20MW SPOF	**20MW SPOF**
C1	MPP-Lahainaluna	7	20
C2	MPP-Waiinu	20	20
C3	MPP-Waena	9.5	20
C4	Waena-Kealahou	11	20
C5	Waena-Pukalani	10.5	20
C6	Pukalani-Kula	12	20
C7	Kula-Kealahou	12.5	20
C8	Lahainaluna Switching Station	7	20
C9	Kealahou Switching Station	12.5	20
C10	MPP-KWP2	0	0
C11	KWP2-Lahaina	0	0
C12	Lahainaluna-Kahana	0	20
C13	Kahana-Napili	0	20
C14	Lahaina-Napili, Makai Line	0	20

[1] Capacity limits represent the lowest capacities for each site in all load flow simulations based on thermal limits and SPOF requirements, as defined in the criteria of this Study.

[2] Capacity limits at the various injection sites are interdependent and assume no additional generation at the other injection locations.

(REVISED 2-21-2023)

[3] Capacity limits are dependent on specific resource scenarios, as assumed in this Study. Any changes to available resource(s) can change the capacity limits.

[4] Final injection capacity limits will be determined by the System Impact Study.

To the extent that the Companies had already responded to proposers' inquiries including such generators in the response, the Companies are in the process of reaching out to such potential proposers and updating the Companies' responses. Moving forward, the updated injection analysis shown in the table will be used to answer proposer inquiries.

As noted in the Commission's Guidance, the Kahana Solar project was originally included in the studies because the studies were completed before the project's withdrawal. The Companies agree it is appropriate to remove the project from assumptions regarding hosting capacity.

The inclusion of a proxy 40 MW generator at Waena switchyard was to ensure that the Companies could meet their obligation under the Competitive Bidding Framework[2] to respond to or address a system reliability need either through self-bid and/or through a Contingency and/or Parallel Plan.[3] Should the Contingency Plan be needed, and the Companies need to undertake transmission upgrades (due to no transmission capacity being available) to implement the Contingency Plan, the Companies may not be able to meet the timeframe in which the Contingency Plan resource would be needed.[4] Under the Framework when the Companies identify a firm capacity need specifically due to system reliability issues or concerns, the Companies must develop a project proposal that is responsive to such need.[5] If the Companies choose not to submit a proposal, the Framework requires several actions by the Companies, including requiring the Companies to develop a Contingency Plan[6] to respond if the competitive bidding process fails to produce a viable project.[7]

The Framework further states: "If the RFP process results in the selection of non-utility (or third-party) projects to meet a system reliability need or statutory requirement, the utility shall

[2] Framework for Competitive Bidding issued by the Commission on December 8, 2006 in Docket No. 03-0372 ("Competitive Bidding Framework" or "Framework").
[3] "Contingency Plan" and "Parallel Plan" are defined and have the meanings given to them in the Framework.
[4] For example, assume the Companies were to select an RDG project that would by its location use the hosting capacity available at Waena. As defined by the Maui Stage 3 RFP, such RDG project would not meet the requirements to fulfill the firm capacity need. If there were no proposals to meet the 40 MW firm capacity need or if there were proposals that were selected and later failed, the Companies would not be able to put into action their Contingency Plan as the 40 MW of hosting capacity would not be available at the only location the Company currently has available to site its Contingency Plan. This could result in the Companies have having to build new transmission infrastructure which may delay the commercial operation of such a facility.
[5] Framework, Section VI.A.1.
[6] Section I of the Framework, defines Contingency Plan to mean an electric utility's plan to provide either temporary or permanent generation or load reduction programs to address a near-term need for capacity as a result of an actual or expected failure of an RFP process to produce a viable project proposal, or of a project selected in an RFP."
[7] Framework, Section VI.A.2.b.

develop and periodically update its Contingency Plan and, if necessary, its Parallel Plan to address the risk that the third-party projects may be delayed or not completed."[8] A firm capacity need has been identified for Maui to address system reliability concerns and that capacity need is being sought in the Maui Stage 3 RFP. The Companies do not intend to submit a self bid proposal to meet such need. However, as required under the Framework, the Companies are preparing a Contingency Plan in the event the Companies do not receive viable proposals in the Maui Stage 3 RFP to meet such need.

The Companies intend to file an application for Commission approval of the Contingency Plan prior to the proposal submittal date set forth in the Maui Stage 3 RFP. It is intended that the Contingency Plan project will be located on the Companies' property at Waena, as this is the only property owned by the Companies suitable for such project.

However, after further assessment as noted above, the Companies will remove the proxy 40 MW contingency from the study assumptions for purposes of providing potential proposers with hosting capacity information at this time. The Companies believe this is prudent to ensure a robust procurement. In order to meet the Companies' obligation under the Framework and avoid the Companies' concerns raised above, the Companies will perform a detailed evaluation consistent with the RFP. In selecting the final award group, the Companies will consider the appropriate size of the Contingency Plan and scenarios in which the Contingency Plan may be needed (i.e., simulating projects not meeting commercial operations or withdrawing), and if needed, "in consultation with the Independent Observer, to allow minor modifications and/or downsize [a] project to a Proposal to avoid such additional constraints or the Proposer can choose to perform interconnection upgrades to eliminate the constraints."[9] Given the Companies' obligation to prepare a Contingency Plan, the Companies confirm that they do not intend to offer the Waena Switching Station for interconnection to third parties in the Maui Stage 3 RFP.

Proposers should be aware that while removing the Kahana Solar project and the proxy 40 MW firm generator will increase transmission capacity for some locations, a proposed project's size will still be required to meet all other requirements of the RFP. For example, Section 1.2.11 of the Stage 3 Maui RFP and Maui transmission planning criteria[10] require that no single point of failure from the Facility[11] shall result in a decrease in active power output measured at the Project's POI greater than 20 MW when the system is under normal configuration or for generation on any remaining radial transmission circuit when there is a transmission element outage. Such a requirement limits the ability of a project to exceed 20 MW through the studied interconnection sites, even if there is capacity available on the line or switching station, unless a

[8] Framework, Section VI.C.
[9] Maui Stage 3 RFP, Section 4.3, p. 59.
[10] See Exhibit 1, pg. 226 of: https://www.hawaiianelectric.com/documents/clean_energy_hawaii/integrated_grid_planning/20211105_grid_needs_assessment_methodology_review_point_book_1.pdf
[11] Capitalized terms not otherwise defined herein shall have the meaning given to them in the Stage 3 Maui RFP.

new transmission line is constructed between a company-remote substation and the interconnection site.

The Companies have considered the Commission's guidance with regards to the O‘ahu and Hawai‘i Island injection studies. The Companies have reevaluated the assumptions used in the O‘ahu 138 kV injection study and Hawai‘i Island East and West injection studies, and confirm those studies and have not identified any assumptions that need to be removed at this time. The O‘ahu 46 kV hosting capacity analysis; however, is impacted by one planned CBRE project (Kaukonahua Solar), which if removed from the analysis, provides 6MW of capacity on the Wahiawa-Waialua 1 46 kV line. While this project neither has a signed nor approved PPA, the Company does not recommend allowing Stage 3 bidders to propose projects on this line as it would create a coordination issue between the two projects.

The Companies take the Commission's guidance to provide as much detail as possible in responding to hosting capacity requests seriously and confirm that as much information as possible is given with regard to such questions. Generally speaking, the Companies provide to developers that have executed a Non-Disclosure Agreement ("NDA") the available capacity amount (MW) with regard to the identified location based on the results on the Injection Capacity Study of each respective island, along with any already identified significant systems upgrade work that has been identified. If there are follow-up questions about the assumptions made in the study, justifications for certain conditions or alternative scenarios, the Companies provide the best available information while highlighting that detailed studies were not performed on the non-recommended locations. For example, a follow-on question asking what would be required to provide additional capacity might be answered by explaining that: (1) a proposed interconnection to the line would require that a transmission line be added and terminated at the next nearest networked transmission substation, and (2) that this is required to ensure the full capacity of the proposed Project can be exported to the system without excessive risk following an N-1 (single contingency) event. The Companies' would also typically note that more upgrades such as reconductoring portions of the line may also be required, which will need to be confirmed by additional studies.

Such studies would require further information from proposers and could not be reasonably completed for every potential location each proposer is considering during the limited duration for Proposal development in the RFP timeline. For some areas, specifically the points of interconnection originally specified by the Companies as the only allowable places to interconnect in the Stage 3 RFPs, the Companies were able to complete such analysis and have more detailed information. Therefore, the amount of information that the Companies provide to proposers in response to their inquiries varies by location based on the information the Companies have readily available. Further, the level of detail provided may depend on the proposer's project. The Companies strive to be as consistent as possible with regard to inquires received on the same or similar topics, while also taking into consideration any project specific information. Given this, while the Companies endeavor to provide as much information as the Companies have readily available, it is not possible to ensure this is consistent across locations. This is one area that the

Companies have identified for improvement in future procurements. The Companies are analyzing this issue through the Integrated Grid Planning process to proactively plan renewable energy infrastructure (i.e., renewable energy zones) in anticipation of future renewable energy projects to streamline the procurement and interconnection process and open up more capacity on the system.

The Companies confirm that all questions from and responses to potential proposers are logged. Further, the Companies include the IO on all communications with proposers including all questions and answers. The Companies include the IE on all technical related questions, including those related to hosting capacity. However, the Companies do not include the IE on other questions, such as questions relating to RFP procedural clarifications, requests to be added to the Electronic Procurement Platform or requests to execute an NDA. The RFP instructs Proposers to include the IO and IE on communication to the Companies, but if the Companies receive questions from proposers where the proposers do not include the IO and/or the IE, the Companies make sure to include the IO and/or IE in all responses.

To the extent possible, the Companies post general information to the respective Q&A webpages, including across the three webpages if not island specific. However, the Companies do not post the Companies' confidential information that is given to proposers under an NDA, nor do they always post information that is for clarification purposes in nature. Posting the Companies' confidential critical infrastructure and grid information could result in the provision of information that could be used by bad actors to attack or otherwise harm the system. However, if another proposer were to ask for the same information and had executed an NDA, they would be provided the same information in a confidential response. Further, if the responses provided to a proposer include confidential information of the proposer, the Companies will first attempt to genericize the response before posting to the Q&A webpages. If it is not possible to provide a response that is generic, then such questions and responses are also not posted to the Q&A, as the Companies are legally obligated not to release such information, and such information could also materially impact the competitiveness of the Stage 3 RFP.

The Hawaiian Electric Companies are hopeful that this letter and follow-on actions committed to in the letter address the Commission's Guidance. To the extent that the Commission has further guidance or questions, the Companies are more than willing to work on addressing any outstanding points. The Companies look forward to continuing to work with the Commission and all stakeholders on a successful Stage 3 RFP procurement.

(REVISED 2-21-2023)

Sincerely,

/s/ Rebecca Dayhuff Matsushima

Rebecca Dayhuff Matsushima
Vice President, Resource Procurement

cc: Division of Consumer Advocacy

Nojiri, Andrew

From: puc@hawaii.gov
Sent: Tuesday, February 21, 2023 8:50 AM
To: Nojiri, Andrew
Subject: Hawaii PUC eFiling Confirmation of Filing

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