



April 20, 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 Maui Injection Analysis Update

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Dear Commissioners:

In accordance with the Companies' Motion for leave to suspend the firm generation portion of the Maui Stage 3 RFP,<sup>1</sup> the Company provides its Maui Injection Analysis Update.

The table below reflects an update to the injection results previously submitted to the Commission. With the exception of the addition of the Waena Switchyard injection limit, all other interconnection location injection limits remain unchanged. For clarity, a side-by-side comparison of injection results previously submitted<sup>2</sup> and the updated injection results is shown.

The Waena Switchyard has an injection limit of 105 MW, which does not take into account a 40 MW injection from the Companies' proposed Waena BESS project submitted in Docket No. 2020-0132. The addition of the 40 MW Waena BESS will reduce the injection capacity of the Waena site by 40 MW, which leaves a balance of 65 MW for potential proposals. The Company is currently constructing the Waena Switchyard with four (4) generation tie points, of which two (2) are planned for the 40 MW BESS.<sup>3</sup> The remaining two (2) generation tie points are being made available to renewable firm generation proposals in the Companies' Stage 3 RFP.

Assuming each generation tie point interconnects 20 MW each, there is a maximum injection limit of 80 MW that can be tied to the Waena Switchyard with the current design. As the Waena Switchyard has the capability to inject up to 105 MW, an additional 25 MW of generation will require the expansion of the Waena Switchyard beyond current plans.

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<sup>1</sup> See Docket No. 2017-0352, "Hawaiian Electric Companies' Motion For Leave To Suspend The Firm Generation Portion Of The Maui Stage 3 RFP," filed April 12, 2023.

<sup>2</sup> See Docket No. 2017-0352, "To Institute a Proceeding Relating to a Competitive Bidding Process to Acquire Dispatchable and Renewable Generation, Maui Injection Analysis Update," filed March 16, 2023.

<sup>3</sup> As specified in the RFP section 1.2.11, "No single point of failure from the Facility shall result in a decrease in active power output measured at the Project's POI greater than 20 MW."

Injection Location	69-kV Transmission Line or Substation	Revised Table ES-1 (Mar. 15, 2023)	Revised Table ES-1 (April 20, 2023)
		Capacity Limit (MW) <sup>1,2,3,4</sup>	Capacity Limit (MW) <sup>1,2,3,4</sup>
		<b>20MW SPOF</b>	<b>20MW SPOF</b>
C1	MPP-Lahainaluna	20	20
C2	MPP-Waiinu	20	20
C3	MPP-Waena	20	20
C4	Waena-Kealahou	20	20
C5	Waena-Pukalani	20	20
C6	Pukalani-Kula	20	20
C7	Kula-Kealahou	20	20
C8	Lahainaluna Switching Station	20	20
C9	Kealahou Switching Station	20	20
C10	MPP-KWP2	0	0
C11	KWP2-Lahaina	0	0
C12	Lahainaluna-Kahana	20	20
C13	Kahana-Napili	20	20
C14	Lahaina-Napili, Makai Line	20	20
C15	Waena Switchyard	n/a	105

[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.

[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.

Please feel free to contact the undersigned with any questions.

Sincerely,

/s/ Ken Aramaki

Ken Aramaki  
Director, T&D and Interconnection Planning

cc: Division of Consumer Advocacy