# BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

In the Matter of the Requests of

HAWAIIAN ELECTRIC COMPANY, INC.,

HAWAII ELECTRIC LIGHT COMPANY, INC.,

AND MAUI ELECTRIC COMPANY, LIMITED

To Institute a Proceeding Relating

To a Competitive Bidding Process

To Acquire Dispatchable and

Renewable Generation.

DOCKET NO. 2017-0352

ORDER NO. 35529

AUTHORIZING THE HAWAIIAN ELECTRIC COMPANIES
TO EXPAND THE NUMBER OF PROJECTS SELECTED FOR
THEIR RESPECTIVE FINAL AWARD GROUPS PURSUANT TO
THE FINAL VARIABLE REQUESTS FOR PROPOSALS SUBMISSIONS

PUBLIC UTILITIES

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In the Matter of the Requests of HAWAIIAN ELECTRIC COMPANY, INC., HAWAII ELECTRIC LIGHT COMPANY, INC.,) AND MAUI ELECTRIC COMPANY, LIMITED To Institute a Proceeding Relating To Competitive Procurement Of Dispatchable and Renewable Generation.

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AUTHORIZING THE HAWAIIAN ELECTRIC COMPANIES TO EXPAND THE NUMBER OF PROJECTS SELECTED FOR THEIR RESPECTIVE FINAL AWARD GROUPS PURSUANT TO THE FINAL VARIABLE REQUESTS FOR PROPOSALS SUBMISSIONS

The Public Utilities Commission ("commission"), by this Order, authorizes the HAWAIIAN ELECTRIC COMPANIES1 ("the HECO Companies" or "the Companies") to expand the number of projects selected for the Final Award Group for each respective Company, pursuant to the Final Variable Requests for Proposals ("RFPs"), filed with the commission on February 27, 2018, based on

to this Parties docket. are HAWAIIAN ELECTRIC INC. ("HECO"), HAWAII ELECTRIC LIGHT COMPANY, COMPANY, ("HELCO"), MAUI ELECTRIC COMPANY, LTD. ("MECO") (collectively, the "HECO Companies" or "Companies"); and the DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"), an ex officio party to this proceeding, Hawaii Revised Statutes § to 269-51 and Hawaii Administrative Rules § 6-61-62(a).

the results of the Detailed Evaluation and review of the results with the Independent Observers, as discussed herein, and authorizes the Companies to prioritize projects paired with energy storage in their review.

The commission also encourages the Companies to accelerate the evaluation of the Short List projects and selection of the Final Award Group so as to begin the Contract Negotiations phase as soon as possible.

Additionally, to maintain momentum through Phase 1 of this RFP process, and in recognition of the renewed opportunity for project selection that Phase 2 represents, the commission also directs that Phase 2 of this RFP process will begin no later than January 2019. The commission will issue a forthcoming order providing the Companies with guidance for filing the Proposed Variable RFPs for Phase 2 subsequent to the selection of the Final Award Group.

I.

#### Background

On October 6, 2017, the commission opened the subject docket to receive filings, review approval requests, and resolve disputes, if necessary, related to the HECO Companies' plan to

acquire dispatchable firm generation and new renewable energy generation.<sup>2</sup>

On October 23, 2017, the HECO Companies filed their Draft RFPs with the commission.<sup>3</sup>

On November 13, 2017, several stakeholders filed comments on the Companies' Draft RFPs.

On December 20, 2017, the HECO Companies filed their "Response to Stakeholder Comments," and attached exhibit, in the instant docket.

On January 12, 2018, the commission issued Order No. 35224, "Providing Guidance on the Hawaiian Electric Companies' Proposed Requests for Proposals for Dispatchable and Renewable Generation," which appointed NAVIGANT CONSULTING, INC. as the Independent Observer ("IO") for the Maui Variable RFP and

<sup>&</sup>lt;sup>2</sup>Order No. 34856, "Opening the Docket," filed on October 6, 2017 ("Order No. 34856").

<sup>3&</sup>quot;Hawaiian Electric Companies' Draft Requests for Proposals, Books 1 and 2, Filed October 23, 2017; Exhibit 1, Draft Request for Proposals for Renewable Firm Capacity and Dispatchable Energy Resources on the island of Maui (including Appendices A-L); Exhibit 2, Draft Request for Proposals for Renewable Energy Project(s) on the island of O'ahu (including Appendices A-L); Exhibit 3, The Hawaiian Electric Companies' Proposed Process for Successful Execution of the Competitive Bidding Program; Exhibit 4, Timelines for Each Proposed Procurement; Exhibit 5, The Hawaiian Electric Companies' Code of Conduct and Code of Conduct Manual for the Competitive Bidding Program; Exhibit 6, The Hawaiian Electric Companies' Interconnection Requirements Study Process; and Exhibit 7, Suspension of Lanai and Molokai RFPs," filed on October 23, 2017.

Maui Firm RFP, and BATES WHITE, LLC as the IO for the Oahu and Hawaii Island Variable RFPs.<sup>4</sup> Order No. 35224 directed the HECO Companies to work with the respective IOs to draft Proposed Final Variable RFPs, in accordance with the guidance therein, and set forth a procedural schedule to govern the next steps in this proceeding.<sup>5</sup>

On February 2, 2018, the Companies filed their "Proposed Final Draft Variable Requests for Proposals," with the commission.

In Order No. 35224, the commission also stated its intent to establish a performance incentive to reward exceptional performance and encourage the Companies to successfully execute the procurement process, resulting in low-cost renewable energy project proposals submitted to the commission by the end of 2018.

6"Hawaiian Electric Companies' Proposed Final Draft Variable Requests for Proposals, Books 1-3; and Certificate of Service," filed on February 2, 2018. The Proposed Final Draft Variable RFPs include: Exhibit 1, Description of Development of the Proposed Final Variable RFPs; Exhibit 2, Proposed Final Draft RFP for Variable Renewable Dispatchable Generation on the island of O'ahu; Exhibit 3, Proposed Final Draft RFP for Variable Renewable Dispatchable Generation on the Island of Maui; Exhibit 4, Proposed Final Draft RFP for Variable Renewable Dispatchable Generation on the Island of Hawai'i; Exhibit 5, Revised Procurement Dates and Subsequent Timelines; Exhibit 6, Revised Code of Conduct;

<sup>4</sup>Order No. 35224 at 39.

<sup>&</sup>lt;sup>5</sup>The commission also stated that it intended to institute appropriate competitive safeguards to ensure a level playing field for all participants in both the Variable and Firm procurement efforts, and initiated a separate proceeding on March 22, 2018, (Docket No. 2018-0065), to more comprehensively consider necessary competitive safeguards and requirements for any potential affiliate transactions and relationships, including development of a comprehensive Code of Conduct, to help further address any issues surrounding self-build and affiliate bids.

On February 20, 2018, the commission issued Order No. 35286, "Approving the Hawaiian Electric Companies' Proposed Final Variable Requests for Proposals, With a Modification."

On February 27, 2018, the Companies filed their "Final Variable Requests for Proposals."

On April 6, 2018, the commission issued Order No. 35405, "Establishing a Performance Incentive Mechanism for Procurement in Phase 1 of the Hawaiian Electric Companies' Final Variable Requests for Proposals."

Per the schedule set forth in the Final Variable RFPs,
April 30, 2018, was the final deadline for submission of Proposals
to the Companies. The Companies, with the assistance of the IOs,

Exhibit 7, Maui Specific RDG PPA Attachments; and Exhibit 8, Hawai'i Island Specific RDG PPA Attachments.

<sup>7&</sup>quot;Hawaiian Electric Companies' Final Variable Request for Proposals; Exhibits 1-6; and Certificate of Service," filed on February 27, 2018. Exhibit 1 is the Final RFP for Variable Renewable Dispatchable Generation on the Island of Oahu ("Oahu Final Variable RFP"), Exhibit 2 is the Final RFP for Variable Renewable Dispatchable Generation on the Island of Maui ("Maui Final Variable RFP"), and Exhibit 3 is the Final RFP for Variable Renewable Dispatchable Generation on the Island of Hawaii ("Hawaii Island Final Variable RFP").

<sup>\*</sup>Oahu Final Variable RFP at 19; Maui Final Variable RFP at 19; Hawaii Island Final Variable RFP at 18. The commission's citations for the Final Variable RFPs refer to the page numbers below the Exhibit number in the upper right corner of the Final Variable RFPs, not to the page numbers in the bottom center of those documents.

selected Proposals for their respective Short Lists on June 1, 2018, and Best and Final Offers ("BAFOs") were due to the Companies on June 6, 2018.9

II.

#### Discussion

Α.

### Lava Flows in Lower Puna

On May 3, 2018, the Lower Puna area of the Big Island began experiencing increased lava flows and earthquakes as a result of volcanic activity along Kilauea Volcano's lower East Rift Zone. Description of lava from various major fissures in that area is currently ongoing. Starting on May 3, 2018, the Puna Geothermal Venture plant ("PGV"), which is a geothermal energy conversion facility that sells the electricity it generates through the use of a steam-powered turbine generator to HELCO, was taken offline because of its proximity to the volcanic activity. As of

<sup>&</sup>lt;sup>9</sup>The commission is aware that the HECO Companies slightly modified the final deadlines, with the concurrence of the IOs.

<sup>10</sup>See Department of the Interior, United States Geological Survey, "Kīlauea Volcano Erupts," available at: <a href="https://www.usgs.gov/news/k-lauea-volcano-erupts">https://www.usgs.gov/news/k-lauea-volcano-erupts</a> ("USGS Kīlauea eruption website").

<sup>&</sup>lt;sup>11</sup>Honolulu Star-Advertiser, "Overnight, earthquakes Hawaii lava become the new on island," norm 2018, updated May 2018, 4, http://www.staradvertiser.com/2018/05/03/breaking-news/kilauea-

June 1, 2018, the main access road to the PGV plant has been covered and blocked by lava and two geothermal wellheads, a substation, and adjacent warehouse, have been destroyed. 12

HELCO has assured the public, the commission, and its customers that "[d]espite the loss of independent power producer [PGV] on May 3, [HELCO] still has sufficient generation to meet the island's electricity needs using wind, hydropower, solar, and fossil fueled generation." However, while there may not be immediate danger of an impending generation shortfall on Hawaii Island, the PGV plant provided 38 MW of firm dispatchable power, which constitutes a significant resource for meeting Hawaii Island's daily peak demand of between 170-190 MW. 14 In 2017, PGV also supplied 54% of Hawaii Island's renewable energy

volcano-may-2018/ ("On [May 3, 2018], Puna Geothermal Venture operations have shut down indefinitely until further notice.")

<sup>12</sup>Honolulu Star-Advertiser, "Lava burns 2 buildings at Puna Geothermal plant," June 1, 2018, available at: <a href="http://www.staradvertiser.com/2018/06/01/breaking-news/lava-burns-2-buildings-at-puna-geothermal-plant/">http://www.staradvertiser.com/2018/06/01/breaking-news/lava-burns-2-buildings-at-puna-geothermal-plant/</a>.

<sup>13</sup>HELCO website, Lava Eruption Updates & Resources, Frequently Asked Questions, last visited on: June 13, 2018, available at: <a href="https://www.hawaiielectriclight.com/safety-and-outages/lava-eruption-updates?hid=20180606">https://www.hawaiielectriclight.com/safety-and-outages/lava-eruption-updates?hid=20180606</a> hero lava.

<sup>&</sup>lt;sup>14</sup>See HELCO 2018 Adequacy of Supply Report, filed on January 30, 2018.

and contributed approximately 4% to the HECO Companies' consolidated renewable portfolio. 15

With PGV out of service, HELCO is currently relying on power from fossil fuel plants with the capacity to replace the electricity that would have otherwise come from PGV. 16 However, reliance on these fossil fuel plants is costly for HELCO's customers. HELCO's June 2018 Energy Cost Adjustment Clause ("ECAC") filing shows that HELCO's purchased energy price for PGV's primary block of energy was generally lower per kWh than the cost of utilizing power from these other plants. 17

<sup>&</sup>lt;sup>15</sup>In 2017, PGV produced 322,609 MWh out of a total of 592,251 MWh produced on Hawaii Island. "2017 Renewable Portfolio Standard Status Report for [the HECO Companies] For the Year Ended December 31, 2017," filed with the commission on February 8, 2018, available at: <a href="https://puc.hawaii.gov/wp-content/uploads/2018/02/RPS-HECO-2017.pdf">https://puc.hawaii.gov/wp-content/uploads/2018/02/RPS-HECO-2017.pdf</a>.

On June 8, 2015, Act 97, Relating to Renewable Standards, increased the State's 2020 Renewable Portfolio Standard ("RPS") target to 30%, kept the 2030 RPS target at 40%, and added a 2040 RPS target of 70% and a 2045 RPS target of 100%. See HRS § 269-92.

<sup>16</sup>Compare HELCO ECAC Filings from March, April,
and May 2018, with HELCO ECAC Filing from June 2018, available at:
https://www.hawaiianelectric.com/billing-and-payment/rates-andregulations/energy-cost-adjustment-filings/hawaii-energy-costadjustment-filings.

<sup>17</sup>HELCO ECAC Filing: June 2018, Attachment 2, Sheet 2 of 2, available at: <a href="https://www.hawaiianelectric.com/Documents/my\_account/rates/energy\_cost\_adjustment\_filings/hawaii/2018/hawaii\_ecac\_2018\_06.pdf">https://www.hawaiianelectric.com/Documents/my\_account/rates/energy\_cost\_adjustment\_filings/hawaii/2018/hawaii\_ecac\_2018\_06.pdf</a>.

In addition to the reliability, renewable energy, and electricity cost impacts, the need for scheduled maintenance of the currently in-service power plants in HELCO's service territory, as well as the ongoing possibility of future supply disruptions, have the potential to create more pressing generation shortfall concerns. As a result, the commission recognizes the value of accelerating the development of new renewable projects that are currently in the pipeline that is the subject of this docket, particularly renewable projects paired with energy storage, to replace some of the lost PGV generation capacity<sup>18</sup> (i.e., in the case of Proposals specific to HELCO's service territory), and help contribute to the State's forward progress towards meeting its 2020 RPS target of 30% (i.e., in the case of Proposals in all three of the Companies' service territories). 19

<sup>&</sup>lt;sup>18</sup>The commission also observes that the curtailment of other renewable resources on Hawaii Island should be minimized, to the extent possible, to mitigate the impact of the shutdown of PGV.

<sup>&</sup>lt;sup>19</sup>The commission notes that there are a number of other renewable energy projects that have been approved by the commission over the past year that will also help contribute to the State's ability to meet the 2020 RPS target.

## HECO Companies' Selection of Projects for Final Award Group

In their respective Final Variable RFPs, filed on February 27, 2018, HECO, HELCO, and MECO stated that they intended to select a predetermined number of Final Award Group projects off of their Short Lists for Phase 1 of this docket - 2, 1, and 2, respectively.20 Because of the Kilauea eruption on Hawaii Island and the loss of PGV, and the resultant cost considerations, reliability concerns, and collective desire to achieve the State's 2020 RPS target discussed above, the commission authorizes and encourages the Companies to expand the number of projects eligible for the Final Award Group that are selected from the Short List each respective Company, "[b] ased on the results of for the Detailed Evaluation and review of the results the Independent Observer."21 The commission also observes that projects paired with energy storage are likely to reduce potential grid integration concerns, increase available capacity for Hawaii Island, and facilitate an earlier in-service date. Accordingly, the Companies are authorized to prioritize these factors in their review. Finally, the Companies shall continue to

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<sup>20</sup>Oahu Final Variable RFP at 31; Maui Final Variable RFP at 32; Hawaii Island Final Variable RFP at 30.

<sup>&</sup>lt;sup>21</sup>Final Variable RFPs, Appendix L, Section G.

work with the IOs in the evaluation and selection of projects from the Short List for the Final Award Group.

The commission also notes that the schedules set forth in the Final Variable RFPs allow approximately three months between the submission of BAFOs and the evaluation and selection of the Final Award Group. 22 However, the commission encourages the Companies to accelerate the evaluation and selection of the Final Award Group so as to begin the Contract Negotiations phase of this process with the Final Award Group as soon as possible. This is consistent with the Companies' statement that "[i]f the quantity and complexities of the Proposals allow for a quicker evaluation period, the Final Award Group will be announced sooner to allow more time for subsequent steps."23 Additionally, for the reasons discussed above, the commission intends to prioritize its review of any power purchase agreements for projects on Hawaii Island that may arise out of Phase 1 of this RFP process.

Finally, expansion of the number of projects selected in Phase 1 is not intended to negatively affect the performance incentive mechanism ("PIM") established for the HECO Companies in

<sup>&</sup>lt;sup>22</sup>Oahu Final Variable RFP at 19; Maui Final Variable RFP at 19; Hawaii Island Final Variable RFP at 18 (all stating that BAFOs are due on June 6, 2018, and Selection of the Final Award Group will occur by September 17, 2018).

<sup>&</sup>lt;sup>23</sup>Oahu Final Variable RFP at 19; Maui Final Variable RFP at 19; Hawaii Island Final Variable RFP at 18.

Order No. 35405. The commission may consider modifying this PIM through a subsequent order, and directs the Companies to file any proposed PIM amendments as a result of the authorization provided in the instant Order with the commission, by June 20, 2018.

To maintain momentum through Phase 1 of this RFP process, and in recognition of the renewed opportunity for project selection that Phase 2 represents, the commission also directs that Phase 2 of this RFP process will begin no later than January 2019. The commission will issue a forthcoming order providing the Companies with guidance for filing the Proposed Variable RFPs for Phase 2 subsequent to the selection of the Final Award Group for Phase 1.24

III.

#### Orders

#### THE COMMISSION ORDERS:

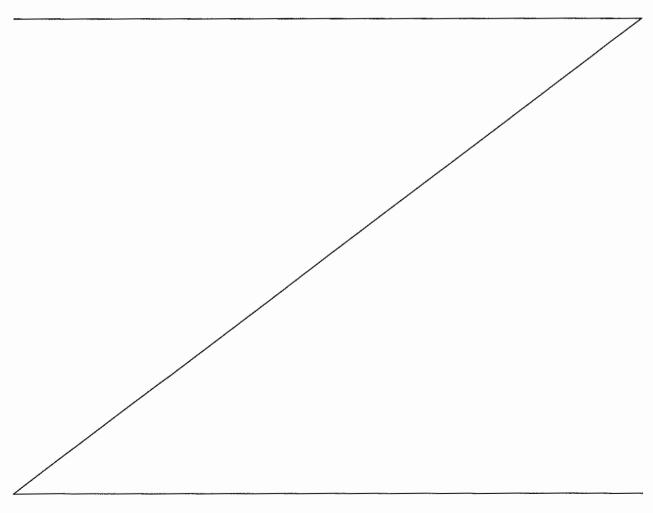
1. The commission authorizes the HECO Companies to expand the number of projects selected for the Final Award Group for each respective Company, based on the results of the Detailed Evaluation and review of the results with the Independent Observers, as discussed herein, and authorizes the

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<sup>&</sup>lt;sup>24</sup>The commission reiterates the importance of the Companies continuing to work with the IOs to ensure a level playing field and robust competition in Phase 2 of this RFP process.

Companies to prioritize projects paired with energy storage in their review.

- 2. The commission encourages the Companies to accelerate the evaluation of the Short List projects and selection of the Final Award Group so as to begin the Contract Negotiations phase of this process as soon as possible.
- 3. To maintain momentum through Phase 1 of this RFP process, and in recognition of the renewed opportunity for project selection that Phase 2 represents, the commission also directs that Phase 2 of this RFP process will begin no later than



January 2019. The commission will issue a forthcoming order providing the Companies with guidance for filing the Proposed Variable RFPs for Phase 2 subsequent to the selection of the Final Award Group for Phase 1.

DONE at Honolulu, Hawaii

PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

Randall Y. Iwase, Chair

By Many H. Cheba.

Lorraine H. Akiba, Commissioner

James P. Griffin, Commissioner

APPROVED AS TO FORM:

Caroline C. Ishida Commission Counsel

2017-0352.ljk

#### CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

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