



March 10, 2022

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

Dear Commissioners:

Subject: Docket No. 2017-0352 – To Institute a Proceeding Relating to a Competitive Bidding Process to Acquire Dispatchable and Renewable Generation  
Docket No. 2018-0165 – Instituting a Proceeding to Investigate Integrated Grid Planning  
Development of Stage 3 RFPs for O'ahu and Maui

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The Hawaiian Electric Companies<sup>1</sup> are in receipt of the letter from the Hawai'i Public Utilities Commission ("Commission") dated February 18, 2022, filed in Docket No. 2017-0352 ("Letter"), regarding the development of Stage 3 Request for Proposals for Renewable and Dispatchable Generation on O'ahu and Maui ("O'ahu and Maui Stage 3 RFPs").

The Companies share in the Commission's urgency to address both near-term and future system and renewable energy needs. This must, of course, be done in an efficient and effective manner. For the reasons set forth below, the Companies believe the most efficient and effective pathway to address the Commission's concerns outlined in its Letter would be to first complete the grid needs assessment for each island in the Integrated Grid Planning ("IGP") docket and issue the next round of RFPs as contemplated within the IGP process later this year. This would provide strong foundation and significant benefit with only a modestly different schedule and will allow us to continue to involve IGP stakeholders in the development of the RFP. This will also allow the Companies to remain focused on the immediate near-term needs of the systems and shepherding existing Stage 1 and Stage 2 RFP projects to into service.

**Proceeding with Integrated Grid Planning will Lead to the Best Outcome for the Next Round of RFPs**

The Commission's February 18<sup>th</sup> Letter is consistent with the IGP process, which sets out to conduct a full grid needs assessment of each island grid to inform an integrated competitive

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<sup>1</sup> 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".

procurement. The Commission has recently supported this synergy between IGP and upcoming RFPs when it requested an update to the Hawai'i Island Grid Needs Assessment to inform the Stage 3 RFP for Hawai'i Island.<sup>2</sup>

On August 19, 2021, the Companies filed their final IGP Inputs and Assumptions, which incorporated substantial feedback from stakeholders.<sup>3</sup> On November 5, 2021, the Companies filed their *Grid Needs Assessment Methodology Review Point* ("Review Point"), among other deliverables, in response to Order No. 37730, issued on April 14, 2021 in Docket No. 2018-0165.<sup>4</sup> This filing described the planning criteria and suite of modeling tools and process used to (1) identify the near-term quantity and timing of grid needs, (2) develop resource plans to solve for near-term needs, and long-term objectives, and (3) evaluate proposed solutions as part of an RFP to meet grid needs.

Since November 2021, the Companies have continued to ready the models based on the Review Point filings and input from various parties and the Technical Advisory Panel ("TAP"). The Companies met with the TAP Resource Adequacy & Modeling Sub-Committee on November 1 and 18, 2021, and January 20, 2022 to reach consensus on Energy Reserve Margin ("ERM") and Hourly Dependable Capacity ("HDC") methodologies. The Transmission Sub-Committee met on December 13, 2021, January 21, 2022, and February 25, 2022 to discuss the Companies' System Stability Studies, among other transmission related topics. The materials and TAP feedback from those meetings are available at: <https://www.hawaiianelectric.com/clean-energy-hawaii/integrated-grid-planning/stakeholder-engagement/technical-advisory-panel>.

The Companies previously stated that the Grid Needs Assessment evaluation and analysis would begin upon Commission approval of the Inputs and Assumptions and Grid Needs Assessment Methodology Review Point. On March 3, 2022, the Commission issued Order No. 38253 in Docket No. 2018-0165 approving, with modifications the Company's Inputs and Assumptions. By March 31, 2022, the Companies will submit the finalized Inputs and Assumptions which, pursuant to Order No. 38253,<sup>5</sup> will be automatically approved ten days after they are filed unless the Commission orders otherwise. With multiple proceedings requiring an

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<sup>2</sup> See Commission's *Request that Hawaiian Electric Consider Further Revisions to the Draft Stage 3 Request for Proposals for Hawaii Island*, filed on October 15, 2021, filed on January 20, 2022 in Docket No. 2017-0352, at 3-4.

<sup>3</sup> See *Hawaiian Electric Revision to Updated and Revised Inputs and Assumptions*, filed on August 19, 2021, which updated the August 3, 2021 filing in Docket No. 2018-0165. The Companies also filed their reply to Party Comments on September 21, 2021 in Docket No. 2018-0165.

<sup>4</sup> See *The Hawaiian Electric Companies' Grid Needs Assessment Methodology Review Point*, filed on November 5, 2021 in Docket No. 2018-0165. The Companies also filed their reply to Party Comments on January 10, 2022 in Docket No. 2018-0165.

<sup>5</sup> See Order No. 38253, issued on March 3, 2022 in Docket No. 2018-0165, at 71.

updated Grid Needs Assessment to better inform and align multiple resource objectives, and in light of the need to issue a procurement for long-term resources, the Companies believe that IGP should proceed as planned so that a Grid Needs Assessment can be developed with the benefit of stakeholder input, and a near-term action plan can be developed with an eye towards meeting long-term objectives. There are several benefits to completing the full Grid Needs Assessment prior to proceeding with further procurements:

- **Grid Needs Assessment is needed to meaningfully coordinate and advance other dockets.** As Stakeholder Council member and intervenor Ulupono Initiative raised in a March 9, 2022 Stakeholder Council Meeting,<sup>6</sup> there are several interrelated dockets that are necessary and reliant upon work products of the IGP proceeding. Those dockets include Docket Nos. 2015-0389 (CBRE), 2017-0352 (Competitive Bidding Process to Acquire Dispatchable and Renewable Generation), 2018-0088 (Performance-Based Regulation), 2018-0163 (Microgrid Services Tariff), 2018-0135 (Electrification of Transportation Roadmap), and 2019-0323 (Distributed Energy Resource Policies). A completed and accepted Grid Needs Assessment would help to establish a foundation and reference for future programs and policies being established in each of these dockets; for example, services needed for new programs, informed DER export rates for long-term programs, ideal locations for microgrids, electrification of transportation rates and programs, and various projects or applications for resources, scoping of competitive procurements, among others.
- **Planning must proceed with urgency to meet the State's decarbonization policies.** The State has established a net negative economywide decarbonization policy by 2045. The Companies have also committed to decarbonizing their electric generation emissions by seventy percent compared to 2005 levels by 2030.<sup>7</sup> While the Companies are well on their way, 2030 is only eight years away. A lot of work must be done to cost effectively reach that goal, which includes evaluating the cost-effective deployment of significant amounts of energy efficiency and distributed energy resources, developing transmission infrastructure to enable the interconnection of additional low cost, zero emissions resources, among others.
- **The interconnection process can be improved with a completed Grid Needs Assessment.** Effective Renewable Energy Zone development will take effort and some

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<sup>6</sup> See [https://www.hawaiianelectric.com/documents/clean\\_energy\\_hawaii/integrated\\_grid\\_planning/stakeholder\\_engagement/stakeholder\\_council/20210309\\_igp\\_sc\\_strategic\\_dkts.pdf](https://www.hawaiianelectric.com/documents/clean_energy_hawaii/integrated_grid_planning/stakeholder_engagement/stakeholder_council/20210309_igp_sc_strategic_dkts.pdf)

<sup>7</sup> See <https://www.hawaiianelectric.com/hawaiian-electric-sets-goal-of-70-percent-carbon-reduction-by-2030-envisions-zero-emissions-by-2045>

time, including working with communities, stakeholders, landowners, government agencies, and developers. The Companies must start as soon as possible to be informed by economic and technical analyses to interconnect the next tranche of renewables by 2030.

- **Further delays to IGP may jeopardize realizing Investment Tax Credits.** As Progression Hawaii Offshore Wind (“PHOW”) stated, “[a]ssuming the IGP process moves forward without undue delay, PHOW further submits that offshore wind should be included as an eligible technology in the anticipated 2023 Requests for Proposal (‘RFP’) by the Companies. This timing should allow realization of benefits of the Investment Tax Credit which currently is expected to remain available through 2035 offshore wind projects, which supports moving forward with the Grid Needs Assessment without further delay.”<sup>8</sup> In other words, the anticipated RFP informed by the Grid Needs Assessment (*i.e.*, Stage 3) needs to be issued by 2023 for customers to potentially realize the benefits of these longer development time projects if they are selected through the RFP process.

Therefore, the Companies propose the following schedule that balances the urgency of completing a Grid Needs Assessment with allowances for incorporation of reasonable stakeholder feedback.

No.	Tentative Schedule	Start	Finish	Weeks
	<b>Issue Final Inputs and Assumptions</b>	3/31/2022	3/31/2022	
	<b>Inputs &amp; Assumptions Approved</b>	4/11/2022	4/11/2022	
	<b>Grid Needs Assessment</b>			
1	Preliminary RESOLVE Results Preliminary Resource Adequacy, Production Simulations <sup>9</sup>	2/1/2022	4/30/2022	13
2	Transmission Needs – System Security Analysis	4/30/2022	8/30/2022	17
3	Distribution Grid needs	3/31/2022	9/15/2022	24

<sup>8</sup> See *Progression Hawaii Offshore Wind, LLC’s Comments on Hawaiian Electric Companies’ Grid Needs Assessment*, filed on December 20, 2021 in Docket No. 2018-0165, at 4.

<sup>9</sup> Pursuant to Order No. 38253, RESOLVE cases will include the high, low, base, EE supply curves as a resource (all islands), and land constrained (O’ahu only) scenarios. This approximate finish date also is dependent on methodology agreed upon by the Companies and the TAP to run probabilistic resource adequacy analyses which is labor and computationally intensive, and any associated iterations. The Companies will initially complete a probabilistic analysis for the base scenario by this date. At minimum the Companies could run ERM tests for all scenarios by this date, if desired.

No.	Tentative Schedule	Start	Finish	Weeks
4	Additional modeling to incorporate stakeholder feedback, if necessary <sup>10</sup>		TBD	
5	Resilience Needs	6/1/2022	3/31/2023	43
6	Publish & File Final GNA Report	9/30/2022	9/30/2022	
	<b>Commission Review Point – Grid Needs Assessment</b>			
7	Commission Issues Procedural Order	10/14/2022	10/14/2022	
8	Parties' Comments	10/14/2022	11/2/2022	3
9	Hawaiian Electric Reply Comments	11/2/2022	11/23/2022	3
10	Commission Order	11/23/2022	1/20/2023	8
	<b>Integrated Solution Sourcing (Programs, Pricing, Procurements)</b>			
11	DER Program Updates/Proposals/GSPA Procurements <sup>11</sup>	8/30/2022	2/20/2023	25
12	Grid-Scale RFP Development	8/30/2022	8/30/2022	
13	Issue RFP	2/20/2023	2/20/2023	
14	Bid Period	2/20/2023	4/20/2023	8
15	<b>Commission Review Point – Commission Review of Proposed Solutions</b>	4/20/2023	5/20/2023	4
16	Solution (Bid) Evaluation	5/20/2023	9/20/2023	17.5
17	Final Awards	9/20/2023	9/20/2023	

As described above, the Companies have been meeting on a regular basis with the TAP sub-committees. The Companies have undertaken substantial system stabilities which are expected to be relied upon to identify system security needs. The Companies have been seeking feedback from the TAP on those studies and sensitivities. Given the importance and novelty of generation reliability and resource adequacy analyses, the Companies have established meetings roughly once every six weeks with the Resource Adequacy and Modeling sub-committee to discuss various modeling methods. Through these meetings, the Companies have reached agreement<sup>12</sup> with the TAP to conduct probabilistic analysis using a resource plan developed in

<sup>10</sup> Additional time may be needed to the extent significant iterations are needed based on stakeholder feedback.

<sup>11</sup> The solution sourcing process will include the DER, EV, EE “freeze”, and managed vs unmanaged base case scenarios to inform program updates and/or development.

<sup>12</sup> See [https://www.hawaiianelectric.com/documents/clean\\_energy\\_hawaii/integrated\\_grid\\_planning/stakeholder\\_engagement/technical\\_advisory\\_panel/20220120\\_tap\\_additional\\_evaluation\\_of\\_hdc.pdf](https://www.hawaiianelectric.com/documents/clean_energy_hawaii/integrated_grid_planning/stakeholder_engagement/technical_advisory_panel/20220120_tap_additional_evaluation_of_hdc.pdf)

RESOLVE using the 80<sup>th</sup> percentile HDC. The next scheduled meeting with the TAP on this topic is March 10, 2022. The resource plan will be evaluated in PLEXOS using historical profiles in a probabilistic resource adequacy methodology. The Companies are currently conducting model testing to enable probabilistic resource adequacy modeling and working out details of the methodology with the TAP. This should address the Commission's concerns expressed on page 30 of Order No. 38253. However, the Companies note that these newly proposed methods may be "less conservative" than previous methods proposed by the Companies, which were intended to ensure and address reliability concerns raised in other dockets that sufficient generation may not exist.

The Companies will also continue to meet with the Stakeholder Council on strategic issues and stakeholder technical working group to seek feedback as preliminary results of the modeling scenarios are completed in the April 2022 timeframe as well as July/August 2022 timeframe for the system security and distribution needs analyses. The Resilience Working Group ("RWG") will also resume meetings to discuss resilience solutions, building upon the earlier Resilience Working Group Report. The Companies will seek RWG input to support: (1) refinement of critical customer lists and taxonomies, and (2) prioritization and solutions for critical circuits.

Should the Commission have concerns with this approach and schedule or with the Review Point filings to date, the Companies request that they be notified as soon as possible to the extent those concerns would warrant having to redo or "start over" the Grid Needs Assessment step in the IGP process.

**Critical Near Term Reliability Needs Counsel for as Much as Reasonably Possible Preserving Focus and Resources for In-Progress and Pending Projects**

The Companies believe that to address near-term capacity needs on O'ahu and Maui, it is imperative that efforts remain keenly focused on preserving schedules and mitigating any further delays to the Stage 1 and Stage 2 projects and also on solutions that are ready for decision-making or currently in-progress. Stage 3 projects will not be available in time to address capacity needs cited in the Commission's Letter.

The following is a fast-tracked schedule for these RFPs:

<b>Activity</b>	<b>Time to Complete</b>
Completion of Grid Needs Assessment	See above

Draft RFPs	1.5 Months
Stakeholder and Community Engagement on Draft RFP	2 Months
Revise and Finalize Draft RFP	1 Month
Run RFP (including 60-day period for proposal submission)	8 Months
Completion of IRS and PPA Negotiations (new proposal to complete IRS prior to executing PPAs)	12 Months
Commission Approval (assuming no public and/or contested case hearings)	3 to 6 Months
Development Period for Project	24 to 36 Months
Earliest GCOD (assuming starting before the grid needs assessment)	Mid-2026 to Late 2027
Earliest GCOD (allowing until for completion of grid needs assessment as laid out above)	Late 2026 to Early 2028

Based on this schedule, even if the Grid Needs Assessment had already been completed and the process could start in March 2022, new projects would not reach commercial operations until sometime between mid-2026 at the very earliest and late 2027, assuming the above expedited schedule was followed. However, as discussed above, without a Grid Needs Assessment, it is not advisable to begin immediately.

Requiring Stage 1 and Stage 2 projects that have encountered issues and requested PPA amendments to re-bid into new RFPs would not address the near-term capacity needs cited by the Commission. Realistically, work on these projects could not start until after selections are made in the new RFPs and contracts are subsequently approved by the Commission, which assuming a best-case scenario in which no IRS work was needed for these projects, would likely still take approximately six months from selection. In a no-IRS scenario, a schedule, at best, would look like the following:

<b>Activity</b>	<b>Time to Complete</b>
Completion of Grid Needs Assessment	See above
Draft RFPs	1.5 Months
Stakeholder and Community Engagement on Draft RFP	2 Months
Revise and Finalize Draft RFP	1 Month
Run RFP (including 60-day period for proposal submission)	8 Months
Completion of PPA Negotiations (assuming no IRS restudies are needed for projects that rebid)	4 Months
Commission Approval (assuming no public and/or contested case hearings)	3 to 6 Months
Development Period for Project	12 to 24 Months
Earliest GCOD (assuming starting before the grid needs assessment)	Early 2Q 2025 to Early 2Q 2026
Earliest GCOD (allowing until for completion of grid needs assessment as laid out above)	Mid-2025 to Mid-2026

At the earliest, updated guaranteed commercial operations dates (“GCODs”) for these projects, assuming no additional time spent to complete a grid needs assessment or any updated IRS work, would be in the mid-2025 to mid-2026 timeframe. Therefore, the Companies believe that it is imperative that all parties’ efforts be focused on the continued need to preserve and mitigate delays to the Stage 1 and Stage 2 projects given the extraordinary challenges facing these projects.

The Companies also respectfully request continued focus on projects currently pending before the Commission. For example, the pending Waena BESS project has demonstrable customer benefits and is critical to providing needed grid services, including capacity, grid forming capability, among others required by the grid in the near-term. That application has been ready for



decision-making in Docket No. 2020-0132 since August 2021.<sup>13</sup> The Companies also note that the Barbers Point Solar project (Docket No. 2020-0143), as well as the overhead line approval for the Paeahu Solar project (Docket No. 2018-0433), are currently pending Commission decisions. Additionally, the Kupo Solar project (Docket No. 2022-0007) and other project overhead line approvals (*e.g.*, Kahana Solar (Docket No. 2020-0142)) are also in various stages of the docketed regulatory process. The Commission has an incredibly busy calendar and workload, but decision-making in those dockets as expeditiously as possible will be of great immediate benefit in addressing reliability and capacity concerns raised in the Commission's Letter in a timelier fashion than new RFPs.

The Companies further note that there is concern moving forward with Stage 3 RFPs at the same time as other significant procurements efforts, including eight Community Based Renewable Energy RFPs, the Stage 3 RFP for Hawai'i Island, and the O'ahu Firm RFP, a draft of which was filed with the Commission on February 28, 2022. Developers have limited resources and issuing multiple procurements at the same time and could force developers to choose between RFP(s) to preserve resources. This may result in limited responses in one or more of the RFPs. Further, the Companies have observed issues due to limited contractor resources in Hawai'i causing an increase in project costs, as all developers are competing for the same local labor resources. A more staggered approach to procurements would allow the build out of a robust construction industry and may help to reduce prices for such services. Even a limited delay to allow the Grid Needs Assessment to be completed, as set forth above, before issuing the draft Stage 3 RFPs for O'ahu and Maui could help to alleviate some of these issues and allow for some staggering of completion schedules while still pushing to get new projects into service in the 2026 to 2028 timeframe. Finally, the current renewables market is suffering from the impacts of reduced supply chain and delivery delays, and rising prices on most commodities to unprecedented levels. Allowing the next procurements for O'ahu and Maui to begin the drafting stage later this year, after IGP modeling is completed and a comprehensive picture of grid needs is determined, will ensure the Companies are procuring resources to appropriately meet system needs. At the same time, staggering RFPs may help to mitigate supply and demand issues and also allow time for a rebound of supply chains and market stabilization.

The Companies are committed to seeing through the IGP process to establish foundational plans and then running its next set of procurements based on these results. Moving forward under

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<sup>13</sup> Since that time, the Company has notified the Commission that due primarily to pandemic-related supply chain and logistical impacts, the battery manufacturer's pricing has increased. See Maui Electric's informational filing titled, "Pandemic Pricing Impact" filed on December 3, 2021 in Docket No. 2020-0132.

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IGP, with an approved grid needs assessment, the Companies plan to issue procurements on a regular cycle to address the future needs of the grid.

The Companies look forward to working with the Commission, community members, and stakeholders to collaborate on these tasks and address system needs across the islands.

Sincerely,

/s/ Rebecca Dayhuff Matsushima

Rebecca Dayhuff Matsushima  
Vice President  
Resource Procurement

/s/ Marc Asano

Marc Asano  
Director  
Integrated Grid Planning

cc: Service List

SERVICE LIST  
(Docket Nos. 2017-0352 and 2018-0165)

DEAN NISHINA  
EXECUTIVE DIRECTOR  
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS  
DIVISION OF CONSUMER ADVOCACY  
P.O. Box 541  
Honolulu, HI 96809  
[Dean.K.Nishina@dcca.hawaii.gov](mailto:Dean.K.Nishina@dcca.hawaii.gov)

1 Copy  
Electronic Transmission

JOSEPH K. KAMELAMELA  
CORPORATION COUNSEL  
MALIA KEKAI  
DEPUTY CORPORATION COUNSEL  
COUNTY OF HAWAI'I  
101 Aupuni Street, Suite 325  
Hilo, Hawaii 96720  
Attorneys for COUNTY OF HAWAI'I  
[Malia.Kekai@hawaiiicounty.gov](mailto:Malia.Kekai@hawaiiicounty.gov)

1 Copy  
Electronic Transmission

ISAAC H. MORIWAKE  
KYLIE W. WAGER CRUZ  
Earthjustice  
850 Richards Street, Suite 400  
Honolulu, HI 96813  
Attorneys for BLUE PLANET FOUNDATION  
[imoriwake@earthjustice.org](mailto:imoriwake@earthjustice.org)  
[kwager@earthjustice.org](mailto:kwager@earthjustice.org)

1 Copy  
Electronic Transmission

WILLIAM J. ROLSTON  
DIRECTOR – ENERGY ISLAND  
73-4101 Lapa'au Place  
Kailua Kona, Hawaii 96740-8424  
[willenergyisland@gmail.com](mailto:willenergyisland@gmail.com)

1 Copy  
Electronic Transmission

BEREN ARGETSINGER  
Keyes & Fox LLP  
P.O. Box 166  
Burdett, NY 14818  
Counsel for HAWAI'I PV COALITION  
[bargetsinger@keyesfox.com](mailto:bargetsinger@keyesfox.com)

1 Copy  
Electronic Transmission

TIM LINDL  
Keyes & Fox LLP  
580 California Street, 12th Floor  
San Francisco, CA 94104  
Counsel for HAWAI'I PV COALITION  
[tlindl@keyesfox.com](mailto:tlindl@keyesfox.com)

1 Copy  
Electronic Transmission

SERVICE LIST  
(Docket No. 2018-0165)

ROBERT R. MOULD  
HAWAII SOLAR ENERGY ASSOCIATION  
PO Box 37070  
Honolulu, HI 96817  
[rmould@hsea.org](mailto:rmould@hsea.org)

1 Copy  
Electronic Transmission

HENRY Q CURTIS  
VICE PRESIDENT FOR CONSUMER AFFAIRS  
LIFE OF THE LAND  
P.O. Box 37158  
Honolulu, Hawaii 96837  
[henry.lifeoftheland@gmail.com](mailto:henry.lifeoftheland@gmail.com)

1 Copy  
Electronic Transmission

DOUGLAS A. CODIGA  
MARK F. ITO  
Schlack Ito  
A Limited Liability Law Company  
Topa Financial Center  
745 Fort Street, Suite 1500  
Honolulu, Hawaii 96813  
Attorneys for PROGRESSION HAWAII OFFSHORE WIND, LLC  
[dcodiga@schlackito.com](mailto:dcodiga@schlackito.com)

1 Copy  
Electronic Transmission

GERALD A. SUMIDA  
ARSIMA A. MULLER  
Carlsmith Ball LLP  
ASB Tower, Suite 2100  
1001 Bishop Street  
Honolulu, HI 96813  
Attorneys for ULUPONO INITIATIVE LLC  
[gsumida@carlsmith.com](mailto:gsumida@carlsmith.com)  
[amuller@carlsmith.com](mailto:amuller@carlsmith.com)

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