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PUBLIC UTILITIES
COMMISSION

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 Draft Requests for Proposals

Dear Commissioners:

This letter and attached exhibits are being submitted by the Hawaiian Electric Companies'¹ in response to Order No. 34856 *Opening The Docket* issued October 6, 2017 in the subject proceeding ("Order 34856") and set forth the Companies' proposed competitive bidding process and development of such process. As described in Chapter 7 of the Companies' Power Supply Improvement Plan ("PSIP"), the Near-Term Action Plan detailed a set of actions that must be taken to continue on the path of reaching the Companies' 100% renewable energy goal. The Action Plan focused on the near-term 2017 to 2021 period and includes those activities that must be done within this period to accomplish goals that are beyond that period. Attachment 1 to the Companies' response to PUC-HECO-IR-88 (which was filed on February 6, 2017 in PSIP Docket No. 2014-0183) ("IR-88") lists these activities and the assumed timelines for commission review and approvals to meet these goals. The Companies plan to procure generation as set forth herein is consistent with the Companies' Near-Term Action Plan, which as noted in the Companies' response to IR-88 includes: (1) all applications and approvals necessary to acquire resources and undertake actions identified in the Companies' five-year plans; and (2) all applications and approvals necessary in the next five years to implement actions and resources installed or acquired after the five year plans.

The development of the Companies' competitive bidding process is set forth in Exhibit 3 to this letter in more detail. However, a brief summary of some of the key factors follows. In developing the competitive bidding process for each of the request for proposals ("RFPs") being requested in this docket the Companies established and followed a set of guiding principles. These include (1) the Companies' Power Supply Improvement Plans ("PSIP") provide the roadmap, (2) transparency, predictability and streamlining lowers costs to customers and fosters trust in the process; (3) community engagement is critical to near-term and long-term project

¹ The "Hawaiian Electric Companies" or "Companies" are Hawaiian Electric Company, Inc. ("Hawaiian Electric"), Hawai'i Electric Light Company, Inc. ("Hawai'i Electric Light"), and Maui Electric Company, Limited ("Maui Electric").

success; (4) coordination and collaboration of all parties involved is necessary to achieve a successful and timely procurement; and (5) there is no perfect answer, tradeoffs must be made.

Central to the Companies' proposed competitive bidding process was remaining consistent with the Companies' PSIP Near-Term Action Plans. Therefore, despite the Companies' assumption in response to IR-88 that dockets would be opened for the RFPs in the first quarter of 2017, the Companies are still committed to filing executed power purchase agreements ("PPAs") with the Commission in the first quarter of 2019. Not only is this consistent with the Companies Near-Term Action Plans, the Companies also believe it will enable developers to safe harbor the 2019 ITC.

In order to meet this timeline, the Companies have taken several steps to streamline the competitive bidding process. For example, for the variable dispatchable generation RFPs, the Companies are proposing to stage the competitive bidding process in two stages.² Both stages will use the same approved RFPs. However, the Companies may make revisions to the RFP in stage 2 to reflect lessons learned, advancements in technology, and any updated resource needs of the Companies. During Stage 1, the schedules for which are set forth in Exhibit 4 to this letter, the Companies propose to limit the total number of projects selected on each island, targeting selection of two (2) projects for O'ahu, two (2) projects for Maui, and one (1) project for Hawai'i island. However, the Companies reserve the right to select fewer projects or no projects if the pricing received does not provide a benefit for the Companies' customers. The Companies' also reserve the right to select more projects if they believe such projects are beneficial to the Companies' customers and can be completed in a timely manner, including moving through the procurement and construction process. In the event that the Companies do not procure all of the energy needed to meet the Companies' requirements set forth in the PSIP for 2022, the Companies intend to proceed to Stage 2 where the Companies will issue RFPs, using the Draft Variable RFP approved in this docket with any modifications as noted above, to procure such additional generation. Moving forward with a limited number of Projects in Stage 1 will help ensure the Company, the Commission and the Consumer Advocate can expedite the execution of each of their roles in the process given the Companies' goal of allowing for the safe harboring of the 2019 ITC.

The Companies have also clarified the interconnection process and set forth a detailed step-by-step process regarding the completion of interconnection requirements studies ("IRS"). This process is set forth in Exhibit 6 to this letter. This proposed process should allow for a more timely completion of the IRS further streamlining the procurement process.

In order to be as transparent as possible regarding the competitive bidding process and to seek and incorporate community and stakeholder feedback the Companies proposed a modified schedule to the Commission in a letter filed Friday, October 13, 2017 in this docket. This letter extends the time period for written stakeholder comments set forth in Order 34856 by only four

² Given the immediate need for firm resources on Maui, the Companies are not proposing to stage the firm RFP for the island of Maui.

days, but allows for three periods for outreach related to the Companies' draft RFPs and new model PPAs. The Companies believe that such a short delay will not impact the schedule, but instead will speed the overall process as it will allow the Companies to have an open dialogue with stakeholders and the community to improve and possibly further streamline the competitive bidding process.

As noted above, the Companies have also clarified the IRS process upfront allowing developers to adequately plan for the process and better estimate costs associated with the process. The draft RFPs also set forth clear threshold requirements for proposals and clear evaluation criteria. These aspects of the Companies' proposed competitive bidding process further lend to the transparency of the overall process.

In accordance with Order No. 34856, the Hawaiian Electric Companies' respectfully submit their draft RFPs, supporting documentation and explanation of the development of the competitive bidding process, as provided in the following exhibits:

- Exhibit 1 – Draft RFP for Firm Capacity Renewable Generation on the island of Maui (“Draft Firm RFP”)³ and Draft Firm Dispatchable Generation Power Purchase Agreement (“Draft Firm PPA”) (see Appendix C to Exhibit 1);
- Exhibit 2 – Draft RFP for Variable Renewable Dispatchable Generation on the island of O‘ahu (“Draft Variable RFP”)⁴ and Draft PV Renewable Dispatchable Generation Power Purchase Agreement (“Draft PV RDG PPA”)⁵ (see Appendix C to Exhibit 1);

³ Order No. 34856 states in footnotes 4 and 5 that Maui Electric filed a “MECO Maui Letter Request” on May 5, 2016 and an “Updated MECO Maui Letter Request” on January 6, 2017. The Companies hereby clarify that these were two separate letter requests and Maui Electric is requesting to issue two separate requests for proposals for the island of Maui; a dispatchable firm generation request for proposal and a variable renewable dispatchable generation request for proposal.

⁴ The Companies' have only submitted the Draft Variable RFP for the island of O‘ahu at this time. The RFPs for variable renewable dispatchable generation for Hawai'i Electric Light and Maui Electric will be very similar to the Draft Variable RFP and the Companies have determined it would be more efficient to file one version of the Draft Variable RFP, receive comments, and revise such draft and then create versions of the RFPs for Hawai'i Electric Light and Maui Electric, as opposed to making identical or very similar edits in three different documents at one time. The major differences in the RFPs among the islands relate to the amount of generation being procured and the schedule for each procurement. The Companies have set forth the amount of generation being sought on each island in Exhibit 3 and the schedule for such procurements in Exhibit 4.

⁵ The Companies' have only submitted the Draft PV RDG PPA for the island of O‘ahu at this time. The PV renewable dispatchable generation power purchase agreements for variable renewable dispatchable generation for Hawai'i Electric Light and Maui Electric will be very similar to the Draft PV RDG PPA with the exception of technical and performance standards specific to each island and the Companies determined it would be more efficient to file one version of the Draft PV RDG PPA and receive comments and revise such draft and then create versions of the power purchase agreement for Hawai'i Electric Light and Maui Electric as opposed to making identical or very similar edits in three different documents at one time. The Companies are also finalizing a wind version of the renewable dispatchable generation power purchase agreement which the Companies plan to file on approximately November 13, 2017. Finally the Companies are developing a version of the RDG PPA that includes

- Exhibit 3 – The Hawaiian Electric Companies' Proposed Process for Successful Execution of the Competitive Bidding Process;
- Exhibit 4 – Procurement Dates and Subsequent Timelines;
- Exhibit 5 – Hawaiian Electric Companies' Code of Conduct;
- Exhibit 6 – Proposed Interconnection Requirements Study Process;
- Exhibit 7 – Suspension of Lanai and Molokai RFPs.

The Companies confirm that they intend to issue RFPs for variable renewable dispatchable generation for Maui, O'ahu and Hawai'i Island, and for firm dispatchable generation for Maui. However, as explained in Exhibit 7, Maui Electric is proposing at this time to suspend its request to issue variable renewable dispatchable generation RFPs for Molokai and Lanai.

The Draft Firm RFP and Draft Variable RFPs (together, the "Draft RFPs") are intended to elicit proposals, consistent with the objectives of the procurement process set forth in the Commission's Framework for Competitive Bidding ("Framework"),⁶ that will enable the Companies to obtain renewable energy generation at a competitive, reasonable cost with reliability, viability and operational characteristics consistent with their long-term planning and energy policy requirements, Power Supply Improvement Plans ("PSIP"),⁷ and objectives as set forth in the Draft RFPs. The Companies will evaluate the proposals using the evaluation and selection process and evaluation criteria described in detail in Chapter 4 and Appendix L of the Draft RFPs. As set forth in the Draft RFPs, the Companies will evaluate and select proposals based on both price and non-price benefits and impacts to the Companies, customers and communities affected by the proposed projects.

The Companies have detailed the IRS process, including the facility study, in Exhibit 6 to this letter. Further information regarding the interconnection process is provided in Sections 2.3, 2.4, 5.1 and Appendix I of the Draft Firm RFP and Sections 2.2, 2.3, 5.1 and Appendix I of the Draft Variable RFP.

As noted by the Commission, the process leading to distribution of a RFP is generally monitored and reported on by an independent observer unless the Commission modifies the

storage with additional attachments to address the operational characteristics and performance requirements of storage. The additions to the RDG PPA to address storage will depend in large part on the storage options, if any, selected by the Companies as part of the requests for proposals. Therefore, this power purchase agreement is not available for review at this time, but the Companies have included a description of the storage characteristics being sought by the Companies in Sections 1.2 and 2.3.6 of the Draft Variable RFP.

⁶ See Docket No. 03-0372, Decision and Order No. 23121 (December 8, 2006).

⁷ See Companies' *PSIP Update Report: December 2016*, pages ES-4, ES-7, 7-2, and 7-3.

process for a particular competitive bid. Here, the Commission has directed the Companies to file the Draft RFPs prior to the retention of an independent observer.⁸

The Draft RFPs and Draft Firm PPA and Draft PV RDG PPA, as well as a Company-hosted RDG PPA webinar, will be made available to the public on Hawaiian Electric's website www.hawaiianelectric.com/competitivebidding ("2017 RFP Website") no later than October 24, 2017.

Pursuant to Section IV.B.6.b. of the Framework, the Hawaiian Electric Companies intend to hold a technical conference to discuss the Draft RFPs with interested parties (which may include potential bidders), tentatively scheduled for November 3, 2017.⁹ Notice and confirmation of the date, time and access to information for the technical conference will be posted on the 2017 RFP Website. As further described in Exhibit 3, while the Companies recognize that the Commission eliminated the requirement to hold a technical conference prior to receiving comments to speed the process set forth in the Framework, the Companies believe that such feedback is valuable and receiving such feedback earlier in the process will allow the Companies to consider and incorporate such feedback into the RFPs and PPAs, averting potentially disruptive and time consuming issues later in the process.

Sincerely,



Shelee M. T. Kimura
Senior Vice President
Business Development & Strategic Planning

cc: Division of Consumer Advocacy (with Attachments)

⁸ See Order No. 34856 § II; see also id., page 5, n.9.

⁹ The Companies will proceed with the technical conference provided that: (1) there is an independent observer in place; or (2) the Commission consents to proceeding with the technical conference prior to the Commission retaining an independent observer.

EXHIBIT 3

The Hawaiian Electric Companies' Proposed Process for Successful Execution of the Competitive Bidding Program

Exhibit 3
The Hawaiian Electric Companies' Proposed Process for Successful Execution of the Competitive Bidding Program

The Hawaiian Electric Companies'¹ competitive bidding process is set forth in detail in the Companies' draft Request for Proposals for Firm Capacity Renewable Generation on the island of Maui ("Draft Firm RFP") and draft request for proposals for Variable Renewable Dispatchable Generation on the island of O'ahu ("Draft Variable RFP") (Draft Firm RFP and Draft Variable RFP collectively, the "RFPs"). This Exhibit 3 sets forth the Hawaiian Electric Companies' process for developing the proposed competitive bidding process set forth in the Draft RFPs and the Companies' plans to successfully execute such process. In developing the competitive bidding process for each of the RFPs the Companies established and followed the following set of guiding principles:

1. The Companies' Power Supply Improvement Plans ("PSIP") provide the roadmap.

The Companies' PSIP provided a Near-Term Action Plan for 2017-2021 resources for each island in the Companies' service territory. The scope of the RFPs is focused on the utility scale renewable resources in the Near-Term Action Plan as well as the resources included in the PSIP for 2022. This expanded scope is driven by the passage of time since the Near-Term Action Plan was developed to the opening of this docket. The PSIP identified grid scale PV and wind as the additional variable renewable resources through 2022, but it also indicated that the RFPs to procure these resources would be technology agnostic to allow different renewable technologies to compete to provide the best value for all customers. Thus, the PSIP has been used to define the technology agnostic MWh needs from 2017 to 2022, and is the basis for the scope of these RFPs.

2. Transparency, predictability and streamlining lowers costs to customers and fosters trust in the process. The Companies have proposed a streamlined procurement process, including interconnection, and a new model renewable dispatchable generation power purchase agreement ("RDG PPA") for variable generation, as well as an updated model firm power purchase agreement, all of which are intended to provide greater transparency and predictability to Proposers. This should reduce uncertainty and duration of the RFP and approval process and enable selected Proposers to utilize the declining investment tax credit ("ITC"). The proposed new model RDG PPA should nearly eliminate developer uncertainty related to cash flows for externalities such as weather and curtailment, which in turn should allow for more accurate bids, less risk for developers and lower costs to customers.

¹ The "Hawaiian Electric Companies" or "Companies" refers collectively to Hawaiian Electric Company, Inc. ("Hawaiian Electric"), Hawai'i Electric Light Company, Inc. ("Hawai'i Electric Light"), and Maui Electric Company, Limited ("Maui Electric").

3. **Community engagement is critical to near-term and long-term project success.** Like all businesses in Hawai‘i, developers and/or independent power producers have a critical role and responsibility to Hawaii’s communities, particularly those in which they operate. The Companies expect its independent power producers to operate in a manner that is consistent with the Companies values, particularly Aloha – taking care of our community, our Hawai‘i and its future, and Integrity – being honest and ethical in our words and actions. These are the drivers for requiring selected Proposers to engage with the communities in which their projects will be located, providing transparency and opportunities for input to the proposed project. This will help reduce uncertainty of project execution and facilitate long-term success over the term of executed power purchase agreements (“PPA”) for both the Proposer and the Companies.
4. **Coordination and collaboration of all parties involved is necessary to achieve a successful and timely procurement.** As stated in the PSIP and related IR responses, the timeframes in the Near-Term Action Plans are aggressive, and to procure those amounts of energy will require the collaboration with and support of regulatory, state, and county agencies. The timeframes have grown even tighter with the passage of time and this need becomes even more acute. This proposed process assumes streamlined processes by all parties.
5. **There is no perfect answer; tradeoffs must be considered.** As the Companies seek to achieve many objectives such as transparency, predictability, expediency, reliability, community engagement, alignment with the PSIP and low cost, optimizing one objective may deteriorate another. This proposed process is the result of considering many options for many different aspects of the process and considering the inherent tradeoffs. Depending on different party’s priorities and interests, different conclusions could be made for such tradeoffs, and there is no perfect answer. This is why the upfront understanding and input into the process is important.

Consistency with PSIP & Streamlining the RFP Process

Based on the PSIP resource needs through 2022 as described above, the Companies are seeking up to approximately 485,000 MWh of variable renewable dispatchable generation on O‘ahu², up to approximately 240,000 MWh of variable renewable dispatchable generation on Hawai‘i

² The resource need for the island of O‘ahu identified in the Companies’ PSIP Update Report: December 2016 identified 180 MW of grid-scale PV and 30 MW of grid-scale wind in 2020, and an additional 40 MW of grid-scale PV in 2022. Hawaiian Electric completed a wind expression of interest ("Wind EOI") for O‘ahu and is currently in confidential non-binding discussions with respondents to this Wind EOI which may result in a request for waiver or waivers from the competitive bidding framework. As a result, the amount of generation set forth in the Companies’ PSIP through 2022 for O‘ahu has been reduced to remove the 30 MW of generation specified for wind. As the RFP only contains an annual energy target, these megawatts were converted to MWh for this RFP. For simplicity, Hawaiian Electric has described the energy target as up to 485,000 MWh per year.

Island³, up to approximately 270,000 MWh of variable renewable dispatchable generation on Maui, and 40 MW of firm capacity renewable generation on Maui.

The Companies acknowledge that the scope of this RFP targets resources just beyond the PSIP 5-year (2017-2021) action plan resources. However, as described in Chapter 7 of the Companies' PSIP, the Near-Term Action Plan focused on the near-term 2017 to 2021 period and includes those activities that must be done within this period to accomplish goals that are beyond that period. Given timing of this RFP to acquire resources originally scheduled for 2020, the 2020 and 2022 PSIP blocks of resources start to converge. In order to give the market clear information of resources that will be needed, ensure Proposers have adequate time to develop projects, and to seek resources in a technology agnostic manner, the Companies determined that it is prudent to include the block of 2022 resources in this RFP to give the market more options and flexibility for proposing low cost renewable energy projects.

As was explained in response to PUC-HECO-IR-88 (which was filed on February 6, 2017 in PSIP Docket No. 2014-0183) ("IR-88"), the Companies put together aggressive timelines based on assumptions that the RFP dockets would be opened in the first quarter of 2017 and processes would be modified to accelerate selection, review and decisions to meet the targets stated in the PSIP. Despite the fact that the dockets for the RFPs opened seven months later than what was assumed in the Companies' response to IR-88, the Companies believe that the proposed schedules outlined in Exhibit 4 to this letter will still enable projects to utilize the ITC benefits as was contemplated in response to IR-88. As noted above, in Attachment 1 of the Companies' response to IR-88 the Companies assumed that the dockets for the RFPs would be opened in the first quarter of 2017 and would therefore result in PPA Applications being filed in the first quarter of 2019 with PUC Approvals in the third quarter of 2019 to enable projects to take advantage of the expiring ITC. In the proposed schedule outlined in Exhibit 4 to this letter, the Companies are still assuming that the PPA applications will be filed in the first quarter of 2019 with PUC approvals in the third quarter of 2019. This aggressive and compressed schedule is accomplished in part, as described in more detail below, by 1) conducting staged solicitations, 2) limiting the number of projects selected in Stage 1, 3) negotiating PPAs in parallel with the IRS, 4) limiting projects to one project per circuit, and 5) having multiple, concurrent RFPs follow the same schedule where practical and efficient.

The Companies are proposing a staged solicitation process for the variable generation RFPs within the current docket to provide visibility to Proposers on future opportunities that are

³ The Companies' PSIP assumptions through 2022 for Hawai'i Island did not contemplate the recently approved Hu Honua project and therefore the target capacity has been reduced from 70 MW to 50 MW to reflect the size of the Hu Honua project. The 50 MW translates to the approximately 240,000 MWh shown above. However, stage 1 of the Hawai'i Island RFP will be limited to 20 MW or approximately 95,000 MWh, consistent with the 2020 PSIP until needed upgrades can be made to accommodate selection in Stage 2 of more renewables by 2022.

consistent with the Companies' PSIP.⁴ This will also allow the company to streamline the competitive bidding process for all parties involved in the process in order to enable safe harboring of the declining ITC. In this process the Companies are proposing a two stage solicitation. The RFPs will be seeking the amount of generation set forth in the PSIP for the Companies 2022 resource needs. The Companies intend to use the Draft Variable RFP as modified and approved by the Commission in this docket in both Stage 1 and Stage 2 of the competitive bidding process. However, in Stage 2 the Companies may make modifications to the RFP to reflect advances in technology, including, storage, and/or declining costs of equipment. Stage 1 has commenced with the opening of this docket and the Companies anticipate beginning Stage 2 in approximately August of 2019, though this is subject to further evaluation based on the results and final timing of Stage 1.

In Stage 1 the Companies will each issue an RFP, but intend to limit the variable generation projects selected under each of the RFPs and plan to target selection of two (2) projects for O'ahu, two (2) projects for Maui, and one (1) project for Hawai'i island. However, the Companies reserve the right to select fewer projects or no projects if the pricing received does not provide a benefit for the Companies' customers. The Companies' also reserve the right to select more projects if they believe such projects are beneficial to the Companies' customers and can be completed in a timely manner, including moving through the procurement, regulatory and construction process. In the event that the Companies do not procure all of the energy needed to meet the Companies' requirements set forth in the PSIP for 2022, the Companies intend to proceed to Stage 2 where the Companies will issue RFPs, using the Draft Variable RFP approved in this docket with any modifications as noted above, to procure such additional generation. System needs, including available hosting capacities, will be updated prior to the issuance of the Stage 2 RFPs.

Limiting the number of projects during Stage 1 of the procurement process will help projects move through contracting and PUC approval in a timely manner as required to meet target commercial dates. Moving forward with a limited number of Projects in Stage 1 will streamline the execution of the process for the Company, the Commission and the Consumer Advocate given the Companies' goal of enabling the safe harboring of the 2019 ITC. The proposed number of projects to be selected in Stage 1 was determined based on what the Companies reasonably believed based on past procurements could successfully be contracted for and approved in order to enable developers to safe harbor the 2019 ITC. When a project schedule is compressed for time, ensuring success usually means sacrificing cost or scope (e.g. number of projects negotiated, approved, developed and interconnected). As experienced over the years, whether a project is 5MW or 50MW the amount of time and effort that is invested in

⁴ Given the immediate needs for firm generation on the island of Maui, the Companies are not proposing a staged process for the Draft Firm RFP.

the process by the utility, developer and regulators is about the same. It is anticipated that there will be large and/or high capacity factor energy projects that will be proposed through these variable RFPs that will benefit from economies of scale. Therefore the structure of the solicitation will be to encourage lowest priced projects that displace significant amounts of higher cost fossil fueled energy that will fit into the system and enable utilization of tax credits by having multiple rounds of solicitations to increase the likelihood of timely execution by all parties involved (utility, developer, and regulators).

The Companies are also proposing several other improvements to streamline and simplify the competitive bidding process during Stage 1 to enable the safe harboring of the 2019 ITC. The Companies are proposing to negotiate PPAs in parallel with completing the interconnection requirements study (“IRS”). This will allow the Companies to execute the commercial terms of the PPAs and submit them to the Commission and Consumer Advocate to begin review while completing the IRS and technical attachments to the PPAs. The Companies also propose that the Commission preapprove the commercial terms of the Companies’ model PPAs. This will eliminate long negotiations over commercial PPA terms and standardize commercial provisions of PPAs so that all projects are treated the same. Negotiations would then only be focused on the technical provisions of the PPAs and shorten the time needed to approve PPAs after project selection.

Further, in addition to limiting the number of projects selected in Stage 1, the Companies also propose to limit projects to one project per circuit and such projects must fit within the existing hosting capacity on such circuit. This will speed the IRS review process and will allow for simpler and faster interconnection to the Companies’ systems.

Another mechanism the Companies have proposed to streamline and simplify the competitive bidding process is to have the RFPs follow the same schedule where practical and efficient. For example, the Companies propose holding one technical conference, gathering RFP comments at one time, and issuing the RFPs on the same date. However, the Companies propose to stagger the due date for proposals, evaluation, and selection of projects so that the Proposers have adequate time to prepare for proposals for one or more of the RFPs if they choose and the Companies can ensure they have available resources to evaluate the projects and begin PPA negotiations.

Further, the Companies have taken significant steps in the last year to advance the competitive bidding process and the Companies’ Near-Term Action Plans prior to the opening of the docket to ensure that the Companies continue to move forward with procuring the renewable generation needed to reach the Companies’ 100% renewable energy goals. Many of these efforts will continue in parallel with the competitive bidding process set forth herein. For example, the Companies’ issued a request for information for land (“Land RFI”) for all islands seeking available parcels to site renewable generation. The Companies have mapped the results of this Land RFI and included hosting circuit capacity information on such maps. This information was

made available to interested developers who executed non-disclosure agreements with the Companies. Hawaiian Electric issued an expression of interest for wind projects on O‘ahu (“Wind EOI”) to determine the interest of developers in developing such projects. Hawaiian Electric is using the results of the Wind EOI to advance the PSIP Near-Term Action Plans. Maui Electric has continued negotiations for a resource on Moloka‘i and intends to submit this project for Commission approval in the coming months. Maui Electric has also been working with Pūlama Lāna‘i, as the primary landowner and customer on Lāna‘i, regarding their energy resource preferences and plans in an effort to lower energy costs on Lāna‘i for all customers. The discussions with Pūlama Lāna‘i are ongoing. Hawai‘i Electric Light has entered into an amended and restated power purchase agreement with Hu Honua and continues to move forward with this renewable project. These are just examples of the efforts the Companies have made to continue to move forward with their renewable energy plans and remain consistent with the Companies’ PSIP plans.

Transparency and Predictability

Procedural steps to enhance transparency and predictability in the RFP process

The Companies believe that one of the main drivers of success of the competitive bidding process is to ensure transparency in such process and to seek the input of stakeholders and work collaboratively with such stakeholders to refine and improve such process. On Friday, October 13, 2017 the Companies filed a letter in this docket respectfully offering suggested additional procedural steps in order to provide further clarity regarding the process leading up to the issuance of the final, approved RFPs. These steps will allow for a more interactive process with open dialogue between the Companies and stakeholders allowing all parties an opportunity to clearly understand the facts, each party’s objectives and perspective, any concerns and alternative solutions, and provide input into the development of the final RFPs and model PPAs.

The Companies’ additional steps include hosting a webinar to provide an overview of the draft Renewable Dispatchable Generation (“RDG”) PPA (described below) with a follow-up Company-hosted RDG PPA workshop to allow stakeholders to hear from various consultants of the Companies regarding the development of and rationale for the RDG PPA and to seek input from stakeholders. While the Companies understand the Commission has proposed not holding a technical conference until after comments are received from stakeholders, the Companies’ proposed procedural steps include hosting a technical conference prior to the first round of stakeholder comments. The technical conference will allow stakeholders to ask questions and better understand the Companies’ proposed competitive bidding process and draft documents. Such opportunity will then allow the stakeholders to provide more informed, refined and detailed feedback regarding the process and draft documents. The Companies have also proposed a second round of stakeholder comments after the Companies file their proposed final RFPs based on the initial feedback received from Stakeholders and the Commission.

The Companies additional steps filed in a letter to the Commission on October 13, 2017, set forth time periods for final review of the RFPs by the Commission. The Companies believe that setting forth an expected timeline for completion of the RFPs will provide greater transparency and predictability into the process and inform potential proposers on when the RFPs will be issued, projects will be selected, filed and approved. The Companies strongly believe that the adoption of the proposed steps will increase the likelihood of success of the competitive bidding process and allow for more informed and competitive bids.

Transparency in selection criteria

The Companies' have also set forth clear threshold requirements and evaluation criteria in the RFPs. The Companies intend to discuss these requirements and criteria at the technical conference with interested stakeholders. Establishing clear evaluation criteria upfront will allow proposers to clearly understand how their proposals will be evaluated and proposers can take such criteria into account when putting together their proposals to ensure projects meet the needs being evaluated by the Companies.

Visibility on Interconnection Feasibility

The Companies have worked to define a straightforward interconnection process. This process is set forth in Exhibit 6 to this letter. Having a defined interconnection process up front provides potential proposers with information related to the scope and timing of the process so that they may create more accurate proposals and timelines. The Companies have also developed unit cost information to assist developers in developing interconnection estimates. In addition, as noted above, the Companies' issued a Land RFI, seeking information from land holders throughout the state of Hawai'i regarding available parcels of land to build renewable energy projects. The Companies' compiled maps of such locations detailing circuit capacity at such sites and these maps have been (and will continue to be) available to potential proposers. Providing such information allows proposers to select sites and properly size projects for more seamless interconnection to the Companies' systems. The Companies believe the steps detailed in this section allow potential proposers to develop more accurate bids, while also streamlining and simplifying the competitive bidding process.

New Model PPA reduces long-term uncertainty for developers

The Companies new model RDG PPA provides a contractual vehicle to integrate more renewables, provide flexibility on the Companies' grids, and addresses financing risks previously associated with curtailment. The RDG PPA gives the Companies complete dispatch rights over the renewable energy facilities and in exchange developers are provided a fixed monthly payment based on the availability of the facility which eliminates the developer's risk associated with resource variability and curtailment. Under the Companies' previous form of as-available PPA, the uncertainty of predicting future curtailment resulted in project developers increasing their energy price to cover their curtailment risk, this results in higher energy costs that are

passed on to our customers. Under the new model RDG PPA developers receive their fixed monthly payment whether or not the resource is available or the Companies dispatch the facility. This reduces long-term uncertainty for developers who may have a hard time estimating curtailment and resource availability over the 20 year term of the PPA. This reduction in long-term uncertainty should reduce financing costs to developers and thereby reduce the overall pricing proposed by developers in response to the Draft Variable RFP, benefiting the Companies' customers.

Community Engagement

It is imperative to seek public input regarding the competitive bidding process and any potential projects selected from such projects. In the past, independent power producer projects have faced execution risk based on the negative reaction to such projects from the public. The Companies have developed a new community engagement process whereby all developers will be required to engage in community outreach prior to signing a PPA with the Companies. This is outlined in the Draft RFPs. The Companies are also providing the draft RFPs and model PPAs on its website so that the community can easily review such documents and provide feedback on the proposed competitive bidding process to the Commission and the Companies. These steps should allow the Companies to obtain and consider community concerns and ideas regarding the competitive bidding process as well as the selected projects.

Coordination and Collaboration of All Parties

As noted above, the timeline has been compressed to enable projects to safe harbor the 2019 ITC, and the Companies have set forth an aggressive schedule which will require the collaboration with and support of Proposers and regulatory, state, and county agencies. In order to meet this timeline the Companies are proposing filing PPA applications in the first quarter of 2019 for the O'ahu, Hawai'i Island and Maui variable RFPs and that PUC approval for such PPAs is obtained for the O'ahu, Hawai'i Island and Maui variable RFPs in the third quarter of 2019. Construction for these projects would be expected in the same timeframe and therefore permitting from various state and county agencies would be needed to begin this process. If the parties work together to refine, approve and issue the RFPs, agree to model terms of the PPAs, and agree to the streamlined competitive bidding process set forth herein there will be a greater chance for success.

Issues and Tradeoffs Contemplated in Development of Proposed Competitive Bidding Process

In working through the development of the competitive bidding process and using the above guiding principles the Companies discussed and made decisions regarding several issues including (a) enabling the safe harbor of the 2019 ITC, (b) the inclusion of storage options in the RFPs, (c) whether to make the RFPs technology agnostic, (d) setting forth specific sites for projects or allowing developers to bid their own sites, (e) structure of the competitive process, (f)

limiting projects to the available hosting capacity on circuits, (g) curtailment and (h) length of the term of PPAs. The following sections set forth key examples of the issues and tradeoffs considered in developing the proposed process, the Companies' decisions and the reasoning for such decisions.

Enabling Safe Harbor of 2019 ITC

As noted above, the Companies are proposing a two stage solicitation process for the Draft Variable RFP. The Companies evaluated several options including the two stage evaluation process as set forth herein, procuring all of the generation in one stage, or a two stage evaluation process where the second stage commenced earlier in order to enable the safe harbor of the 2021 ITC. The Companies believe that procuring all of the generation contemplated in the Companies' PSIP through 2020 or 2022, by far the largest procurement undertaking in Hawaii's history for three companies at one time, would lengthen the overall procurement process delaying all projects and potentially not meeting the ITC deadlines. The Companies believed that it would be better to stage the process and increase the chances of successfully enabling the safe harbor of the 2019 ITC. Having Stage 2 start earlier could have also jeopardized the enabling of the safe harbor of the 2019 ITC because it would have squeezed resources in order to begin a new procurement while still working through the PPA approval process for the Stage 1 projects. Furthermore, allowing the Stage 1 projects to complete the IRS process and Commission approvals will establish the system baseline for the Stage 2 procurement process.

Inclusion of Storage

The Companies discussed whether storage should be included in the RFPs or procured separately on a grid level scale. In addition, the Companies contemplated the storage characteristics that the Companies would find beneficial to the Companies' grids. While storage directly connected to the grid may allow for greater flexibility through the ability to be charged from any resource on the grid, the ability of proposers to take advantage of the ITC may allow for proposers to procure and install batteries coupled with their projects at an economical price. In addition to batteries, the Companies are also interested to determine if there are other potential storage solutions that could be provided by developers in conjunction with their generation project that takes advantage of the ITC.

The Companies decided to seek characteristics in storage similar to the characteristics the Companies assumed for grid scale load shifting batteries in the Companies' PSIP.⁵ Acceptance of such storage from proposers could then lessen the amount of batteries the Companies would need to procure separately and potentially reduce costs to the Companies' customers. However, the Companies also recognize that generation plus storage may lead to higher proposed prices

⁵ In Stage 2 the Companies will use lessons learned in Stage 1 and reevaluate the storage options and requirements being sought to take advantage of advancements in technology and declining storage costs.

than a simple generation only project. Further, the Companies were concerned that requiring storage may limit the number of potential projects proposed in response to the RFPs. Therefore, the Companies have determined that they will accept and evaluate both standalone generation projects and generation plus storage projects in the RFPs, and take into account the benefits of the storage component displacing the requirements of the future grid scale load shifting batteries in the Companies' PSIP.

Technology Agnostic

In order to further increase the speed of the review, selection and approval of Stage 1 projects in the RFPs, the Companies contemplated making the RFPs technology specific. This would significantly simplify the evaluation process and allow the Companies to make a straight forward comparison of project proposals. It also may have made it possible to proceed with a reverse auction process as part of the evaluation. However, there were several downsides to this approach. First, a technology specific RFP is not aligned with the Companies' PSIP. Second, it would limit developer participation. Third, it does not allow the market to dictate technology and price. Fourth, it does not allow the Companies to do a portfolio cost-effectiveness analysis and choose the best mix of resources for the Companies' grid. For these reasons, the Companies determined that it would be best to move forward with technology agnostic RFPs at this time.

Project Sites

The Companies considered selecting specific sites to request generation. This would allow the Companies to place generation in the most needed places on the grid and would allow for a more straight forward comparison of project benefits. However, this would prevent developers who may already have a project site from bidding into the RFPs and could stifle competition. The Companies determined that having a more robust number of participants and therefore greater competition would result in the best pricing for our customers. Therefore, the Companies decided against offering only selected sites in the RFP. For future solicitations, the Companies are considering conducting a Land RFP to select lowest cost evaluated sites to enable site specific RFPs that will also enable pre-RFP steps such as site specific IRS' and interconnection projects.

Competitive Process

In order to maintain a competitive and fair process the Companies are proposing to follow the Commission's Framework for Competitive Bidding ("Framework")⁶ with only minor modifications. The Companies have also developed a best and final offer ("BAFO") stage where short listed proposers will be provided the opportunity to refresh their pricing proposals and compete against each other to provide the best projects at the lowest price possible. The BAFO

⁶ See Docket No. 03-0372, Decision and Order No. 23121 (December 8, 2006).

will be limited to only downward adjustments in pricing. Further, limiting the number (not MWh) of projects selected in Stage 1 as noted above should encourage developers to sharpen their pencils and propose competitive low cost projects in order to be selected for the limited number of projects on each island.

To increase competition and potentially reduce pricing further the Companies contemplated a reverse auction process for project selection. A reverse auction, however, is best used when evaluating apples to apples. In order to do a cost/benefit analysis based solely on cost as is done in the reverse auction, the benefits would need to be constant. Therefore, projects would need to have the same technology, site, size and other characteristics. As noted above, the Companies made the determination to be technology agnostic and to allow developers to propose their own sites. Further, being a new process the Companies were concerned that including a reverse auction in Stage 1 may lengthen the process of the procurement as the Companies and the stakeholders created and implemented this new solution. Therefore, the Companies determined that at least for Stage 1 a reverse auction would not be the best procurement method for the RFPs. However, as noted above the Companies have included a BAFO process to allow for increased pricing competition. For future solicitations, the Companies are open to conducting Reverse Auction RFPs that are technology and site specific.

Limiting Projects to Hosting Capacity of Circuit

As noted above, projects, including the impact of storage, must be less than or equal to the hosting capacity of the circuit in order to be considered in the RFP process. Implementing such requirement allows the Companies to fully dispatch the facilities and simplifies interconnection. However, such a limitation, without storage, could also limit the size of projects being proposed for a particular site even if the site could physically hold a larger project. Given the limited time available for developers to safe harbor the ITC, the Companies determined that limiting project size to the hosting capacity of a circuit would be the most efficient decision and would help enable a faster interconnection process. The Companies have provided the ability for proposers to propose a project coupled with energy storage. Where a photovoltaic (“PV”) energy resource is coupled with energy storage, the energy storage shall be sized to provide sufficient storage capacity to avoid export from the project that exceeds the available circuit-level hosting capacity and be able to discharge the stored energy for at least four hours.

Curtailment

The Companies have taken three large steps to address curtailment issues and concerns. First, the Companies have developed a new model RDG PPA. The RDG PPA provides a contractual vehicle to integrate more renewables, provide flexibility on the Companies’ grids, and address financing risks previously associated with curtailment. The RDG PPA gives the Companies complete dispatch rights over the renewable energy facilities and in exchange developers are provided a fixed monthly payment based on the availability of the facility. The

Companies' previous as available PPAs required that the energy produced by the facility be accepted regardless of cost based on the seniority of the project, and provided limited contribution from the as-available PPA to grid operational requirements. In contrast, the RDG PPA allows the Companies to consider relative cost impacts from available renewable sources, to match supply and demand, and optimize use of the facility to meet the system's energy and ancillary service requirements to supply cost-effective and reliable power. This is critically important over the 20 year term of the PPA due to the dynamic nature of the grid, its resources and customer demand as Hawai'i progresses toward its goal of 100% renewables by 2045. Admittedly whenever a new PPA structure is introduced there will be questions and time will be needed for stakeholders to become familiar with the new structure. The Companies felt the benefits of the RDG PPA described above, including the importance of moving to such PPA in order to be able to integrate more renewables on the system far outweigh the time needed for parties to evaluate the new model RDG PPA. In addition, the Companies are taking several steps to decrease the time needed for parties to understand and evaluate the new RDG PPA. The Companies have consulted with industry experts to draft the RDG PPA using standard industry metrics, addressed accounting issues with the structure, and addressed financeability. Further the Company is preparing a webinar to provide an overview of the RDG PPA and a workshop where industry experts will be available to answer questions regarding the importance of and structure of the RDG PPA.

Second, the Companies have provided the ability for proposers to submit projects with energy storage. The Companies will reserve the right to discharge the battery at times that are beneficial to the system and for customers and avoids overloading the circuit. The energy storage will allow the Companies to procure more renewable generation and to shift such generation to times when excess energy is not a concern on the Companies' systems (see discussion of inclusion of storage above).

Third, as noted above, the Companies have proposed to limit selected projects to one project per circuit and such project must fall under such circuit's hosting capacity. This should limit the times when the Companies would not be able to fully dispatch the facility due to constraints on the circuit (see discussion of hosting capacity above). The Companies considered options for allowing more than one project per circuit; however, this would significantly complicate and prolong the timeline for project evaluation, modeling and IRSs, putting the ITC at risk. Further, it increases the potential for increased interconnection costs and uncertainty, and therefore increased costs to customers.

The above three steps will eliminate the independent power producers' risk of reduced energy sales by providing a fixed payment, while providing benefits to the Companies' customers in the form of ancillary services, and the ability to more efficiently operate the Companies' systems. In addition, limiting projects to the hosting capacity available should significantly streamline the procurement process and allow for cheaper generation to be procured than previously procured by the Companies.

Term of RDG PPAs

The Companies contemplated both a 20 year term and a 25 year term for the RDG PPAs. Presumably a longer term RDG PPA would allow for cheaper pricing as the costs for the project would be spread out over a longer time period. However, locking in longer PPA terms may preclude taking cheaper and/or more efficient forms of energy in the future as equipment prices decline and technology improves and/or result in excess generation capacity as customers' and prosumers' needs and behaviors evolve over the next 20 years. Further the Companies' PSIP assumptions were based on 20 year term RDG PPAs. Therefore, the Companies made the determination to move forward with 20 year term RDG PPAs.

EXHIBIT 4

Timelines for Each Proposed Procurement

Exhibit 4
Timelines for Each Proposed Procurement

The following tables reflect the schedule for the proposal process that will be included within the respective request for proposal for Maui Electric (firm and variable), Hawai‘i Electric Light and Hawaiian Electric. Each schedule will be preceded with the following paragraph:

Table X sets forth the schedule for the proposal process (the “RFP Schedule”). The Company reserves the right to revise the RFP Schedule as necessary. Changes to the RFP Schedule will be posted to the RFP website.

Table 1
RFP Schedule – Oahu Variable RFP

Milestone	Schedule Dates
(1) PUC Opens RFP Docket	October 6, 2017
(2) Draft RFP is filed	October 23, 2017 ¹
(3) Technical Conference Webinar	November 3, 2017 ²
(4) 1 st Round of Stakeholder Comments submitted to Companies	November 17, 2017
(5) Companies Filing of Proposed Final RFP and Model PPA	December 21, 2017
(6) 2 nd Round of Stakeholder Comments submitted to Commission	January 12, 2018
(7) Completion of Commission review period of Proposed Final RFPs	January 29, 2018
(8) Commission approves Final RFP and Model PPA	30 days after (7) ³
(9) Final RFP is issued	5 business days after (8)
(10) Proposal due for Self-Build Option	1 day before (11) at 2:00 pm HST
(11) Proposals due for all Other Proposals	60 days after (9) at 2:00 pm HST
(12) Selection of Short List	30 days after (11)
(13) Publication of BAFO Information	5 business days after (12)
(14) Self-Build Option BAFO due (if any)	1 business day before (15)
(15) Other Proposers’ BAFOs due	5 business days after (13)
(16) Selection of Final Award Group	120 days after (15)
(17) Contract Negotiations Start	5 business days after (16)

¹ Subsequent dates are dependent on the procedural schedule set by the Commission.

² Order 34856 sets this date as November 13, 2017. The Companies have proposed to extend this date by four days to allow for a technical conference in which the Companies can seek feedback from stakeholders to improve the RFP process.

³ The Company intends to request PUC approval of the Proposed Final RFP and Model PPA within 30 days of filing of the Proposed Final RFP. The Commission’s Framework for Competitive Bidding, set forth in Docket No. 03-0372, Decision and Order No. 23121 (December 8, 2006), (“Framework”) provides for a thirty day period for Commission review and approval of the RFPs. The Companies propose expanding this review period as shown here in order to allow additional time, given that the review falls during the holidays.

In order to enable developers to safe harbor the 2019 ITC the Companies are proposing to file PPA applications for selected projects in Stage 1 in approximately the first quarter of 2019 for the O‘ahu, Hawai‘i Island and Maui variable RFPs and that PUC approval for such PPAs is obtained for the O‘ahu, Hawai‘i Island and Maui variable RFPs in the third quarter of 2019. Construction for these projects would be expected in the same timeframe. The above timeline and the ability to enable the safe harboring of the 2019 ITC will be contingent on the ultimate procedural schedule for this docket, including approval of the final RFPs in this docket and issuance of such RFPs and the results of contract negotiations. Further, the Companies anticipate beginning Stage 2 of the competitive bidding process in approximately August of 2019, though this is subject to further evaluation based on the results and final timing of Stage 1.

Table 2
RFP Schedule – Maui Firm RFP

Milestone	Schedule Dates
(1) PUC Opens RFP Docket	October 6, 2017
(2) Draft RFP is filed	October 23, 2017 ⁴
(3) Technical Conference Webinar	November 3, 2017
(4) 1 st Round of Stakeholder Comments submitted to Companies	November 17, 2017 ⁵
(5) Companies Filing of Proposed Final RFP and Model PPA	December 21, 2017
(6) 2 nd Round of Stakeholder Comments submitted to Commission	January 12, 2018
(7) Completion of Commission review period of Proposed Final RFPs	January 29, 2018
(8) Commission approves Final RFP and Model PPA	30 days after (7) ⁶
(9) Final RFP is issued	5 business days after (8)
(10) Proposal due for Self-Build Option	1 day before (11) at 2:00 pm HST
(11) Proposals due for all Other Proposals	110 days after (9) at 2:00 pm HST
(12) Selection of Short List	30 days after (11)
(13) Publication of BAFO Information	5 business days after (12)
(14) Self-Build Option BAFO due (if any)	1 business day before (15)
(15) Other Proposers' BAFOs due	5 business days after (13)
(16) Selection of Final Award Group	120 days after (15)
(17) Contract Negotiations Start	5 business days after (16)

⁴ Subsequent dates are dependent on the procedural schedule set by the PUC.

⁵ Order 34856 sets this date as November 13, 2017. The Companies have proposed to extend this date by four days to allow for a technical conference in which the Companies can seek feedback from stakeholders to improve the RFP process.

⁶ The Company intends to request PUC approval of the Proposed Final RFP and Model PPA within 30 days of filing of the Proposed Final RFP. The Framework provides for a thirty day period for Commission review and approval of the RFPs. The Companies propose expanding this review period as shown here in order to allow additional time, given that the review falls during the holidays.

Table 3
RFP Schedule – Hawai‘i Variable RFP

Milestone	Schedule Dates
(1) PUC Opens RFP Docket	October 6, 2017
(2) Draft RFP is filed	October 23, 2017 ⁷
(3) Technical Conference Webinar	November 3, 2017
(4) 1 st Round of Stakeholder Comments submitted to Companies	November 17, 2017 ⁸
(5) Companies Filing of Proposed Final RFP and Model PPA	December 21, 2017
(6) 2 nd Round of Stakeholder Comments submitted to Commission	January 12, 2018
(7) Completion of Commission review period of Proposed Final RFPs	January 29, 2018
(8) Commission approves Final RFP and Model PPA	30 days after (7) ⁹
(9) Final RFP is issued	5 business days after (8)
(10) Proposal due for Self-Build Option	1 day before (11) at 2:00 pm HST
(11) Proposals due for all Other Proposals	85 days after (9) at 2:00 pm HST
(12) Selection of Short List	30 days after (11)
(13) Publication of BAFO Information	5 business days after (12)
(14) Self-Build Option BAFO due (if any)	1 business day before (15)
(15) Other Proposers' BAFOs due	5 business days after (13)
(16) Selection of Final Award Group	120 days after (15)
(17) Contract Negotiations Start	5 business days after (16)

In order to enable developers to safe harbor the 2019 ITC the Companies are proposing to file PPA applications for selected projects in Stage 1 in approximately the first quarter of 2019 for the O‘ahu, Hawai‘i Island and Maui variable RFPs and that PUC approval for such PPAs is obtained for the O‘ahu, Hawai‘i Island and Maui variable RFPs in the third quarter of 2019. Construction for these projects would be expected in the same timeframe. The above timeline and the ability to enable the safe harboring of the 2019 ITC will be contingent on the ultimate procedural schedule for this docket, including approval of the final RFPs in this docket and issuance of such RFPs and the results of contract negotiations. Further, the Companies anticipate beginning Stage 2 of the competitive bidding process in approximately August of 2019, though this is subject to further evaluation based on the results and final timing of Stage 1.

⁷ Subsequent dates are dependent on the procedural schedule set by the PUC.

⁸ Order 34856 sets this date as November 13, 2017. The Companies have proposed to extend this date by four days to allow for a technical conference in which the Companies can seek feedback from stakeholders to improve the RFP process.

⁹ The Company intends to request PUC approval of the Proposed Final RFP and Model PPA within 30 days of filing of the Proposed Final RFP. The Framework provides for a thirty day period for Commission review and approval of the RFPs. The Companies propose expanding this review period as shown here in order to allow additional time, given that the review falls during the holidays.

Table 4
RFP Schedule – Maui Variable RFP

Milestone	Schedule Dates
(1) PUC Opens RFP Docket	October 6, 2017
(2) Draft RFP is filed	October 23, 2017 ¹⁰
(3) Technical Conference Webinar	November 3, 2017
(4) 1 st Round of Stakeholder Comments submitted to Companies	November 17, 2017 ¹¹
(5) Companies Filing of Proposed Final RFP and Model PPA	December 21, 2017
(6) 2 nd Round of Stakeholder Comments submitted to Commission	January 12, 2018
(7) Completion of Commission review period of Proposed Final RFPs	January 29, 2018
(8) Commission approves Final RFP and Model PPA	30 days after (7) ¹²
(9) Final RFP is issued	5 business days after (8)
(10) Proposal due for Self-Build Option	1 day before (11) at 2:00 pm HST
(11) Proposals due for all Other Proposals	110 days after (9) at 2:00 pm HST
(12) Selection of Short List	30 days after (11)
(13) Publication of BAFO Information	5 business days after (12)
(14) Self-Build Option BAFO due (if any)	1 business day before (15)
(15) Other Proposers' BAFOs due	5 business days after (13)
(16) Selection of Final Award Group	120 days after (15)
(17) Contract Negotiations Start	5 business days after (16)

In order to enable developers to safe harbor the 2019 ITC the Companies are proposing to file PPA applications for selected projects in Stage 1 in approximately the first quarter of 2019 for the O‘ahu, Hawai‘i Island and Maui variable RFPs and that PUC approval for such PPAs is obtained for the O‘ahu, Hawai‘i Island and Maui variable RFPs in the third quarter of 2019. Construction for these projects would be expected in the same timeframe. The above timeline and the ability to enable the safe harboring of the 2019 ITC will be contingent on the ultimate procedural schedule for this docket, including approval of the final RFPs in this docket and issuance of such RFPs and the results of contract negotiations. Further, the Companies anticipate beginning Stage 2 of the competitive bidding process in approximately August of 2019, though this is subject to further evaluation based on the results and final timing of Stage 1.

¹⁰ Subsequent dates are dependent on the procedural schedule set by the PUC.

¹¹ Order 34856 sets this date as November 13, 2017. The Companies have proposed to extend this date by four days to allow for a technical conference in which the Companies can seek feedback from stakeholders to improve the RFP process.

¹² The Company intends to request PUC approval of the Proposed Final RFP and Model PPA within 30 days of filing of the Proposed Final RFP. The Framework provides for a thirty day period for Commission review and approval of the RFPs. The Companies propose expanding this review period as shown here in order to allow additional time, given that the review falls during the holidays.

EXHIBIT 5

The Hawaiian Electric Companies' Code of
Conduct and Code of Conduct Manual for the
Competitive Bidding Program

Exhibit 5
The Hawaiian Electric Companies' Code of Conduct

Hawaiian Electric Company, Inc., Maul Electric Company, Ltd., and Hawaii
Electric Light Company, Inc. (collectively the "Company") Code of Conduct
Pertaining to the Implementation of a
Competitive Bidding Process for New Power Supplies

Purpose

The Framework for Competitive Bidding ("Framework") adopted on December 8, 2006, by the Public Utilities Commission of the State of Hawaii (the "Commission") pursuant to Decision and Order No. 23121 (Docket No. 03-0372, Instituting a Proceeding to Investigate Competitive Bidding for New Generating Capacity in Hawaii) requires that the utility develop and follow a Code of Conduct whenever a utility or its affiliate seeks to advance an energy generation resource proposal in response to a Company RFP (as defined below). The Framework, at Section III.A.4., requires the utility to submit to the Commission for review and approval (subject to modification if necessary), a Code of Conduct prior to the commencement of any competitive bid process under the Framework.

This Code of Conduct Pertaining to the Implementation of a Competitive Bidding Process for New Power Supplies ("Code of Conduct") outlines the policies and general procedures under which the competitive bidding process for generation resources will be undertaken by the Company and its affiliates to ensure that the competitive bidding process is undertaken in a fair and unbiased manner, that all bidders have access to the same information to ensure no bidder has an unfair advantage, and that self-build and/or affiliate options do not have any unfair competitive advantage over third-party bids.

Definitions

- Affiliate Team -- Employees and consultants of an Affiliate (as defined in Hawaii Revised Statutes §269-19.5(a)) who prepare a proposal to be submitted by the Company in response to a Company RFP.
- Code of Conduct Procedures Manual. The Company-prepared manual required by the Framework which implements procedures, in accordance with the policies outlined in the Framework and this Code of Conduct, for communications between the Company and bidders into an RFP, including an Self-Build Team and/or Affiliate Team.
- Company RFP – A written request for proposal issued by the electric utility to solicit bids from interested third-parties, and where applicable from the utility or its affiliate, to supply a future generation resource or a block of generation resources to the utility pursuant to the competitive bidding process.

- Company RFP Team – Company employees and consultants who prepare and evaluate responses to a Company RFP.
- Confidential Information – Includes any Confidential Resource Proposal Information and Confidential RFP Process Information. Confidential Information does not include public information, such as information on resources (including a utility's benchmark, Parallel Plan or Contingency Plan resource options) in PSIP filings with the Commission.
- Confidential Resource Proposal Information – Any non-public information developed and provided by the Company Self-build Team, its affiliates or third- party bidders during the RFP process (such non-public information may include, for example, the identity of competing bidders, and their technical, trade or financial information).
- Confidential RFP Process Information – Any non-public information regarding the RFP process developed and used during the competitive bidding solicitation process.
- Consumer Advocate – The Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, State of Hawaii
- Director of Renewable Acquisitions – The supervisor of the Department within the Company responsible for the implementation of the competitive bidding process pursuant to the Framework.
- Energy Contract Manager – The staff position(s) within the Company's Renewable Acquisitions Department responsible for managing the Company RFP Team(s).
- Independent Observer – The neutral person or entity retained by the electric utility to monitor the utility's competitive bidding process, and to advise the utility and Commission on matters arising out of the competitive bidding process, as described in Part III.C of the Framework.
- Self-build Team – Company employees and consultants who prepare a proposal to be submitted by the Company in response to a Company RFP.

Implementation and Application of the Code of Conduct

Employees of the Company and any Affiliates who will be involved in the competitive bidding process must comply with the Code of Conduct. Members of the Company RFP Team, Self-build Team, and Affiliate Team who may bid to provide a generation resource option must implement the Code of Conduct in order to be eligible to evaluate bids or participate in the development and submission of a Company or affiliate resource option. The Code of Conduct addresses: (1) communication requirements and procedures associated with the relationship between utility employees; (2) communication requirements and procedures associated with the relationship between utility RFP personnel and bidders; and (3) communication requirements associated with the relationship between Company management and the various entities involved in the competitive bidding process. The Code of Conduct Procedures Manual implements the requirements of the Framework and this Code of Conduct and provides further requirements for such communications.

The Code of Conduct also includes the procedures for addressing cases where resources and information may be shared among the Self-build Team and Company RFP Team. While the

Company will make every reasonable effort to develop internally separate teams for evaluating the bids and developing the self-build option, the small size of the Company and limitation of resources generally will require specialized services, information exchange and sharing of resources in certain limited circumstances, such as in the course of resource planning activities. This Code of Conduct does not apply to communications and information shared between utility employees in the normal course of their employment prior to the effective date of Commission approval of the Code of Conduct.

General Rules

1. Acknowledgement of Code of Conduct. Any employee (whether full-time, part-time, temporary or contract) or consultant involved in the competitive bidding process as a member of the Company RFP Team, the Self-build Team or the Affiliate Team shall comply with the procedures outlined herein in order to be eligible to evaluate bids or prepare self-build or affiliate options in response to the Company RFP and must sign an acknowledgement of the Code of Conduct.
2. Core Teams. To enhance the opportunity to maintain separation of resources between the Company RFP Team and the Self-build Team, while recognizing the potential problems associated with limited resources, the following procedures shall be followed. Both the Company RFP Team and the Self-build Team will identify core team members. The core members of each team will have no involvement with other teams (e.g., a core member of the Company RFP Team will have no involvement with the utility Self-build Team) in any defined team functions associated with the RFP. Further, no team member from one team may switch teams, i.e., from the Company RFP Team to the Self-Build Team and vice versa, within any particular RFP. Other employees could serve as Shared Resources, but will be subject to the conditions defined in General Rule 6 below.
3. Duty Not to Disclose Confidential Information Across Teams. Members of the Company RFP Team may work with members of the Self-build Team or with an affiliate on other projects not related to the Company RFP, but are precluded to the extent possible from discussing Confidential Information with the Self-build Team and any affiliates except in accordance with the procedures outlined in this Code of Conduct and the RFP, or with any Company employee, individual or entity without a business need to know.
4. Work Locations. Members of the Company RFP Team and the Self-build Team do not have to be physically separated from each other but members of each team must make reasonable efforts to keep all Confidential Information (including electronic data) pertaining to the competitive bidding process confidential.
5. Organizational Charts. A copy of the organizational charts for the Company RFP Team, the Self-build Team, Shared Resources, and Affiliate Team will be developed and provided to the Independent Observer. Core team members will be specifically identified by name and position.

6. Managing of Shared Resources. Certain Company resources, such as select staff from various functional areas of the Company (e.g. generation and transmission planning, engineering, system and power plant operations, environmental, financial analysis, risk management, etc.) that are not core team members, may be treated as a shared resource to perform services for the Company RFP Team and to carry on their regular functions throughout the resource planning process (including the development of the utility's Parallel Plan or Contingency Plan as defined in the Framework), which may require communication with or services performed for the Self-build Team. Any information received by employees serving as a Shared Resource from their communication with one team (either the Company RFP Team or Self-build Team) will not be provided to members on the other team or to other bidders, except through the formal RFP communication process. A written record of the time, date and substance of all conversations, data and written material directly or indirectly exchanged with any member of the Company RFP Team or the Self-build Team that pertain to the Company RFP, shall be maintained. In any case where information or resources are required to be provided by one team to another, all communications will be directed through the Energy Contract Manager with oversight of the Independent Observer.
7. Managing of Unassigned Company Resources. Certain unassigned Company resources may be requested to perform services for either the Company RFP Team or the Self-Build Team on an ad hoc basis that does not necessitate such resource being added to the team requesting assistance. Such unassigned Company resource may provide such services subject to maintaining a written record of such services in the same manner and fashion as the written record required of shared resources.
8. Access to Information During Bidding Period. It is the objective of the Company that all bidders, as well as the Self-build Team and any Affiliate Team, receive access to the same RFP information at the same time. All communications regarding the RFP will be provided to all bidders through the Company's website or other specialized means of access established for purposes of administering the RFP. No members of the Self-build Team or Affiliate Team will have access to such information before it is distributed to all potential bidders.
9. Duty Not to Disclose Confidential Resource Proposal Information During RFP Process. All Confidential Resource Proposal Information shall be held in confidence during the RFP evaluation and selection process and negotiation of contracts with selected bidders (if necessary), and shall not be discussed or exchanged by the Company RFP Team with any party except the bidder providing the information, Company management personnel responsible for resource decisions, Company RFP Team members, the Independent Observer, and the Commission and the Consumer Advocate, and their respective staffs and consultants. Dissemination of such Confidential Resource Proposal Information shall be limited, to the extent possible, to those with a business need to know.
10. Communications with Company's Interconnection Services Division. In order to provide advance information to prospective bidders of the interconnection requirements of any particular project that may be submitted, bidders shall be permitted the limited opportunity to directly contact the Company's Interconnection Services Division to

determine interconnection requirements for their particular project. The specific requirements for these limited communications outside of the prescribed communication process for bidders is found in the Company's Code of Conduct Procedures Manual.

11. Prohibition of Self-Build Team and Affiliates from Advance Disclosure of Confidential Resource Proposal Information to Company RFP Team. The Self-build Team and any Affiliate Team are prohibited from providing team members of the Company RFP Team with any Confidential Resource Proposal Information pertaining to the development of a Company Self-Build Team or Affiliate Team resource option in response to a Company RFP until after that proposal is officially submitted.
12. Treatment of Information Requests from Self-Build Team. The Company RFP Team will treat all requests from the Self-build Team and Affiliate Team for information pertaining to the Company RFP in the same manner as requests received from non-affiliate entities. The Self-build Team and the Affiliate Team will be required to submit all questions in writing and will receive a response via the website or other means specified in the RFP, as would any other bidders.
13. No Preferential Treatment. The Company RFP Team, when evaluating proposals will give all proposals the same consideration. Self-build options and Affiliate Team bids will not be given any preferential or discriminatory treatment.
14. Applicability of Code. Any employee or consultant who directly or indirectly takes part in the conduct of the competitive bidding process, whether an employee of the Company or of a company under contract, shall comply with the requirements for treatment of Confidential Information obtained during the competitive bidding process. Such employee or consultant shall execute an acknowledgement of the Code of Conduct required under General Rule 1 above.
15. Rules for Evaluators. Any employee or consultant taking part in the evaluation of bids or in the process of selecting power suppliers (the "evaluator") must comply with the following rules:
 - a. In carrying out his or her responsibilities, the evaluator must make his/her decision based on the merits of the proposal and irrespective of all partisan considerations;
 - b. The evaluator must not accept any gifts, favors, entertainment or other advantages from any bidder;
 - c. The evaluator must hold in confidence all Confidential Information obtained through the bidding process;
 - d. Should the evaluator be directly contacted by any bidder, including members of the Self-build Team, he/she must promptly relate such contact to the Energy Contract Manager.

16. Company Officer Certification of Code of Conduct Compliance. A Company officer, identified to the Independent Observer and the Commission, shall have the written authority and obligation to enforce the Code of Conduct. Such officer shall certify, by affidavit, Code of Conduct compliance by all employees participating in a specific RFP process after each specific RFP process ends.
17. Term. This Code of Conduct shall remain in effect with respect to a specific RFP process until the final contract(s) with the successful bidder(s) is executed or when written notice is provided by the Director of Energy Procurement or his/her designee to the Independent Observer and the Commission.

EXHIBIT 6

The Hawaiian Electric Companies' Interconnection Requirements Study Process

Exhibit 6
The Hawaiian Electric Companies' Interconnection Requirements Study Process

IRS PROCESS FOR RENEWABLE GENERATION RFP

1. At present and throughout the RFP, the Company will continue its normal practice of responding to email and telephone inquiries from developers about system capacity and the practicalities of interconnection.
2. On matters relating to grid access and IRS System Impact Study, the Interconnection Services Division of the T&D Planning Department is available to work with all developers on an equal basis. The email address is Interconnection.services@hawaiianelectric.com. The primary contact by telephone is Gerald Brooks at 808-594-3156.
3. Matters relating to cost estimates and IRS Facilities Study specific to a project will be referred to the Project Management Division of the Engineering Department after selection of the final award group.¹ Proposers should review the requests for proposals documents for information regarding interconnection costs. Questions regarding such costs should be submitted through the process set forth in the request for proposals.
4. Prior to the RFP, developers may inquire as to viability of proposed real project locations. Hypothetical projects and location strategies will be addressed only in general terms.
5. Developers may submit complete project drawings, data and models early and must submit the same by when the RFP proposals are due, so as to allow for screening to ensure that all proposals are valid in terms of potential to complete the IRS process on a timely basis.
6. Tariff Rule 19 requires all RFP projects to commence an IRS when the Short List is determined. For this RFP, however, an IRS is required only for the Final Award Group, and the scope of work is structured so that completion of the IRS will not delay the time between Short List and Final Award Group.
7. Based on the schedule at the end of this discussion, there is an opportunity for all developers to apply for completion of technical review work prior to announcement of the Final Award Group. There are many opportunities to expedite the overall work flow by early technical review and by preliminary study of projects on an individual basis. These are considered as optional to remain in compliance with Tariff Rule 19.
8. Developers may submit complete project data for evaluation comparable past system impact analysis for other utility scale projects, per a pre-developed list of data modeling requirements, upon payment of a fixed cost to be determined as part of the overall IRS agreement. This will

¹ The Project Management Division is for projects with Hawaiian Electric. Projects with Maui Electric and Hawaii Electric Light will be referred to the proper engineering department at such company.

include inspection of drawings and project data, basic project viability at the proposed location, and functional checkout of PSSE (both generic and custom user models required), ASPEN and detailed PSCAD models from equipment vendors. Problem solving to address data and model deficiencies will result in additional cost to the developer. A short form report will be provided to demonstrate completion of this early component of the IRS work.

9. For this RFP, initial maximum project size will be limited to hosting capacity numbers for interconnections on the subtransmission system, as identified through preliminary planning. Additional analysis performed for the full IRS may identify additional constraints.

10. In view of the RFP objective to meet early as possible in-service dates, the accommodation of projects will be limited so as to require no significant line capacity upgrades, and to streamline the IRS analyses whenever appropriate. The quantity of projects on any given circuit may be limited to enable once-through completion of the IRS, rather than incurring multiple iterations for complex combinations of projects. Proposed capacity upgrade solutions may be identified for future interconnection but are likely to be not viable within the RFP schedule.

11. To save additional time, standardized Interconnection Facilities will be identified, and which are to be in accordance with the Companies' Design Standards, and developers can base their proposals on unit costs provided by the Project Management Division of the Engineering Department as part of the requests for proposals documents.² Additional Interconnection Facilities are not expected to, but may be, identified in the more detailed IRS system impact analyses and impact the final costs.

12. To the extent that group study is necessary to evaluate cumulative system impacts, that work will start immediately after the Final Award Group is determined. Any project that is not ready to commence the work on time will be deemed withdrawn.

13. Study costs will be allocated to individual projects for all project-specific work, and prorated on a per project basis where the type of analysis is such that all projects benefit from the efficiency or necessity of group study. In general, depending on location and the quality of data and equipment models from the developers, analyses for smaller projects can be just as time consuming as for larger projects. A per MW allocation of study cost should be unnecessary, in that capacity upgrades are not expected for this RFP, and therefore relative project size does not implicate study complexity. In other words, the degree of difficulty of study is expected to be in the total quantity of projects, rather than in the size of the projects.

14. At the RFP Technical Conference, Interconnection Services will be available to discuss the IRS process. A follow-up webinar can be scheduled if there is sufficient interest among the developers. This can include full technical discussion on matters relating to study methods and

² See footnote 1.

functionality of the equipment models. Developers are encouraged to be sure to prepare and submit a high quality technical package when RFP proposals are due, so as to minimize the risk of rejection for lack of completeness.

15. A detailed IRS technical scope document will be provided for reference by the RFP Technical Conference, and that will be used to obtain price quotes from study consultants. The pricing will be categorized according to type of analysis and whether the cost is applicable to individual or group study. The per project group study cost allocation will not be known until after the Final Award Group is determined.

16. On the due date for RFP proposals, all data and models must be provided in complete form, and all projects will be screened for general completeness within 30 days. Any plainly incomplete submittals will be deemed withdrawn.

17. After the due date for RFP proposals, developers have a continuing opportunity to proceed with the more detailed technical review and checkout described above. This can provide assurance that there will be time to resolve model deficiencies and other technical problems.

18. At the time of selection of the Short List, a draft IRS agreement for the System Impact Study will be available with approximate costs that are likely to apply to the Final Award Group, and study consultants will be available to start work. Developers therefore should be prepared to enter into the agreement and pay a deposit for such work promptly after selection of the Final Award Group.

18. Upon announcement of the Final Award Group, the following strict schedule will apply:

- Signed IRS System Impact Study agreement and payment of deposit. (10 Days)
- Technical review and checkout of equipment models, notice of any deficiency. (20 days)
- Time for developers to resolve identified problems and cure defects. (10 days)
- Notice of any projects deemed withdrawn and final opportunity to cure. (10 days)
- Modeling and analyses by study consultants. (60 days)
- Draft IRS System Impact Study report for all projects. (10 days)
- Company interdepartmental review of IRS System Impact Study report. (10 days)
- Second draft of IRS System Impact Study report. (10 days)
- Opportunity for developers to review and comment on draft report. (10 days)
- Final IRS System Impact Study report. (10 days)

19. After completion of the System Impact Study, the Single Line Diagrams and associated notes from the System Impact Study will be forwarded to the Project Management Division³ to commence their process to provide an IRS Facilities Study for each project, which will include a cost and schedule estimate for the interconnection work to be performed by the Company. The Facility Study considers, among other things, any work associated with the project substation, telecom work, line extensions, revenue metering, and any work required at remote Company substations. Upon completion of the study, the developer will be able to make an informed decision whether to proceed with the project. The Facilities Study process is estimated to take approximately two months, including the contracting documentation to perform the study, conducting the study, and a meeting to discuss the results.

³ See footnote 1.

EXHIBIT 7

Suspension of Lanai and Molokai RFPs

Exhibit 7
Suspension of Lanai and Molokai RFPs

Maui Electric is requesting to suspend the variable renewable dispatchable generation request for proposals for Lāna‘i until further notice due to ongoing discussions with Pūlama Lāna‘i. Lāna‘i’s situation is unique in that 98% of the island is owned by Larry Ellison and managed by Pūlama Lāna‘i. As a result, the owner is in the unique position of having substantial control of the planning and implementation of most infrastructures developed on the island. This was evident in the recent Land Request for Information issued by the Companies where no parcels were submitted for Lāna‘i. As a result, the prospect of a competitive process through a request for proposals is limited because the outcome would essentially be controlled by Pūlama Lāna‘i through their land agreement with any potential developer. Over the past several months, Maui Electric has been in discussions with Pūlama Lāna‘i about the possibility of a renewable energy project that will serve the needs of Maui Electric’s customers on Lāna‘i while also meeting Pūlama Lāna‘i’s vision for Lāna‘i. The outcome of ongoing discussions with Pūlama Lāna‘i could result in either a request for a waiver or exemption from the Framework or a request for proposals process initiated through sites identified by Pūlama Lāna‘i. Maui Electric will inform the Commission if it determines a request for proposals is needed for the island of Lāna‘i.

The Companies’ Power Supply Improvement Plan identified a plan to reach 100% renewable energy on Moloka‘i by 2020.¹ Prior to the issuance of Order No. 34856, Maui Electric began negotiations with Molokai New Energy Partners, LLC for renewable generation coupled with energy storage on Moloka‘i. Maui Electric is requesting to suspend the variable renewable dispatchable generation request for proposals for Moloka‘i until such ongoing negotiations are completed. Because the project that is currently under consideration is substantial in size relative to the island’s load, a reassessment is underway to determine if adjustments are needed to procurement targets. If a PPA is executed, Maui Electric will adjust the scope of the request for proposals for Moloka‘i. If negotiations do not result in an executed PPA, Maui Electric will initiate the request for proposals consistent with what was targeted in the Companies’ Power Supply Improvement Plans (equivalent of 5MW of wind).

One of the more notable outcomes from several months of intensive community engagement efforts to gain public input from Moloka‘i residents and businesses on viable renewable energy options, is the consumer’s and general community’s expectation of a thorough and transparent process in considering and implementing renewable energy projects. Soliciting for new projects prior to completing discussions with Molokai New Energy Partners, LLC after community outreach has begun for such project could invite crippling opposition for future projects. With Molokai’s unique economic challenges and community identity, a delay pending the results of negotiations with the current proposed project will allow for a more effective RFP outcome in the future.

¹ See the Companies’ PSIP Update Report, filed on December 23, 2016, in Docket No. 2014-0183, Table 4-5, on page 4-19, and Table 6-3, on page 6-15.