

EXHIBIT 1

Description of Development of the Proposed draft
Stage 3 RFP

Exhibit 1
Description of Development of the Proposed Stage 3 Hawai‘i Island Request for Proposals

This Exhibit 1 explains the Hawaiian Electric Companies’¹ process and rationale for developing the proposed competitive bidding process set forth in the Request for Proposals (“RFPs”) for the Hawai‘i Island’s Stage 3 solicitation.

I. Background

On January 21, 2021, the State of Hawai‘i Public Utilities Commission (“Commission”) issued a letter to Hawaiian Electric Company, Inc. requesting the Company to proceed with developing a Stage 3 RFP, specifically for Hawai‘i Island (“Stage 3 RFP”). The letter stated, “the Commission intends that this will be an “all-source” procurement, based upon an updated assessment of grid needs for the island, and open to a variety of utility-scale and distributed renewable energy technologies.”

In response to the Commission’s letter, the Company submitted a letter dated February 25, 2021 that supported and agreed with the Commission that the development of a Stage 3 RFP for Hawai‘i Island should be based upon an updated assessment of grid needs for the island. The letter offered explanatory details about the Company’s plans and timelines.

The Commission responded with a letter dated April 20, 2021 to the Hawaiian Electric Companies offering feedback and guidance. The Commission requested the Companies complete their studies by July 15, 2021, and file a draft Stage 3 RFP no later than October 15, 2021.

The Company completed the Hawai‘i Island Near-Term Grid Needs Assessment Draft Report (“Grid Needs Assessment”) and filed it with the Commission on July 15, 2021. The requirements in the proposed draft Stage 3 Hawai‘i RFP are guided by the results of the Grid Needs Assessment and guidance provided by the Commission.

In addition, the draft Stage 3 Hawai‘i RFP was shaped by the Company’s following guiding principles, which are used for all the Company’s RFPs developed pursuant to the Competitive Bidding Framework (“Guiding Principles”):

- 1. Transparency, predictability and streamlining lowers costs to customers and fosters trust in the process.** As discussed in more detail below, the Company has worked hard to continue its efforts to learn from past procurements and to further streamline the process and make it more transparent and predictable for all stakeholders. For example, in Stage 3, refinements to the interconnection requirements study (“IRS”) process have been proposed, including adding a threshold criteria for evaluation of model performance, performing initial model checks during the Stage 3 Hawai‘i RFP proposal evaluation stage, and completing the IRS process prior to execution of a PPA and filing of the PPA for approval. In addition, the

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

Company is working to further improve and clarify interconnection cost information for developers. The Company has also worked to streamline and reorganize the model contracts so that island or project specific information is separate from the body of the PPA, with the body being consistent among islands. The Company believes such changes will shorten and streamline the IRS process, make navigating the model contracts easier, and will provide greater clarity to the Commission when reviewing PPAs.

- 2. Community engagement is critical to near-term and long-term project success.** As the Company has noted in past procurements, like all business in Hawai‘i, developers and/or independent power producers have a critical role and responsibility to Hawai‘i’s communities, particularly those in which they operate. The Company expects independent power producers to operate in a manner that is consistent with the Company’s 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. In this spirit, the Company has carried over its more robust community engagement requirements found in the Company’s Stage 2 RFP. The Company has also created a separate non-price evaluation for community engagement, whereas in Stage 2, it was combined with evaluation of cultural resource impacts. In Stage 3, each of these categories has their own separate evaluation allowing for more weight to be applied to each. In addition, the community outreach criterion has been doubly weighted. In addition to specifying independent power producers’ responsibilities for these community engagement efforts, the Company also intends to complete community outreach for the development of the RFP. As discussed further below, the Company has scheduled a community meeting to seek feedback on the draft RFP, which is a new step in the RFP development process. The Company’s intent with these requirements and outreach is to help reduce uncertainty of project execution and facilitate long-term success over the term of the executed PPAs for both the Proposer and the Company.
- 3. Coordination and collaboration of all parties involved is necessary to achieve a successful and timely procurement.** As the State heads towards its 100% renewable energy goals and tackle implementation in these uncertain times, project development is becoming more difficult. The procurement targets are aggressive and to procure this amount of energy will require collaboration with and support of regulatory, state, and county agencies, in addition to developers, communities, non-profits and other industry stakeholders.
- 4. There is no perfect answer; tradeoffs must be considered.** As the Company seeks to achieve many objectives, such as transparency, predictability, expediency, reliability, community engagement, alignment with grid needs and low cost, optimizing one objective may deteriorate another. The proposed Stage 3 RFP is the result of considering many options for many different aspects of the process and considering the inherent tradeoffs. Depending on a particular party’s priorities and interests, different conclusions could be made for such tradeoffs, and there is no perfect answer. This is why the Company believes upfront understanding and input into the process is so important. Accordingly, the Company looks forward to engaging with the Commission, Consumer Advocate, developers, communities, and other stakeholders to further refine the RFP.

To provide more clarity to the RFP documents, the following sections explain some of the various improvements and scoping changes in the development of the Stage 3 RFP from prior Stage 1 and Stage 2 RFPs.

II. Hawai‘i Island Grid Needs Assessment

The Companies’ Grid Needs Assessment follows the Integrated Grid Planning (“IGP”) process, assessing Hawai‘i Island’s grid needs based on a capacity expansion optimization analysis to add new cost-effective resources and identification of grid needs, a reliability assessment of the system, validation of the operations of the future system through production cost simulations, and a transmission and system security assessment. Through various near-term scenarios and sensitivities, the Grid Needs Assessment identified grid needs under different potential outcomes over the next 10 years.

A transmission needs assessment was performed using recent studies to inform a system security assessment. High-level system security recommendations include requiring grid-forming control on new resources, the need for inertia to limit the rate of change of frequency during system events, voltage support requirements, and fault current to maintain the efficacy of the distribution protection system.

Additionally, a steady-state analysis was performed to assess the transmission system capacity and voltage constraints. From the high-level analysis, the near-term steady-state needs for the proposed scenarios were identified.

The Grid Needs Assessment also considers enhancements to system resilience. The portfolios were tested against low renewable conditions to determine whether poor wind and solar conditions would impact the reliability of the system. The analysis did not find any significant impacts to reliability due to prolonged poor weather conditions. Geographic diversity of resources was also considered in the transmission needs analysis. Hawai‘i Island is unique in its transmission system, which requires balanced generation supplied from different areas of the island to avoid voltage collapse and transmission congestion locally or on cross-island transmission lines, but alternatively, offers potential for geographic and resource diversity. High-level analysis and past analyses conclude that generation heavily provided by one area of the island can result in low voltage violations on the opposite side of the island or cross-island transmission tie-line overloads. The recent Stage 1 and 2 procurements selected 120 MW of solar and energy storage systems in West Hawai‘i. Therefore, new resources should be located in East Hawai‘i for reliability and resilience.

The complete Grid Needs Assessment report is included in the RFP as Appendix I. Its recommendations form the basis for the procurement targets and scope. Note that the analysis performed to inform the grid needs for the RFP are not all inclusive, and individual projects shall undergo an interconnection requirements study to determine any additional requirements needed to safely and reliably interconnect such projects.

III. Requests for Proposals

Procurement Targets and Scope

Based on the Grid Needs Assessment, the Stage 3 RFP seeks to acquire up to 206 gigawatt hours annually of renewable energy and up to 95 MW of capacity to add additional energy reserve margin capacity situated on the eastern portion of the Company's Hawai'i Island system. The Company seeks new renewable dispatchable generation and energy storage projects, but is open to also accepting proposals from existing renewable generation projects for new terms after the expiration of their current agreement. The number of projects that the Company may acquire from this RFP depends on, among other things, the quality and cost-effectiveness of proposals received in response to this RFP and economic comparison to other RFP responses. If attractive proposals are received that will provide energy and other services in excess or less than the targeted amounts, the Company will consider selecting such proposal(s) if benefits to customers are demonstrated.

Allowed Technologies

Recognizing the Commission's requirement that this Stage 3 RFP be an "all-source" procurement – in other words, to allow all eligible generation technologies defined in the State's Renewable Portfolio Standards law – the RFP is open to any renewable dispatchable generation project, projects with or without energy storage systems, standalone energy storage projects, and/or aggregated customer-sited distributed energy resource projects ("Aggregator Projects"). The Company intends to use all projects selected for the Final Award Group in accordance with the performance and dispatchability requirements described in the model Stage 3 contracts to meet various grid needs identified in Appendix I of this RFP. The Company is committed to selecting a portfolio of projects based on the results of the RFP to meet the systems needs and not focused on any particular technology. Therefore, acquiring the amount of grid needs set forth in Appendix I will be dependent on the final resource mix selected. As detailed in this RFP, during the detailed evaluation, modeling will be performed to assess the grid resources being provided by the final selected portfolio.

Stage 3 Contracts

The Company intends to contract any variable renewable dispatchable generation projects using its Model Renewable Dispatchable Generation Power Purchase Agreement ("RDG PPA"), which treats variable generation facilities as fully dispatchable; any firm dispatchable generation projects using its Model Firm Renewable Dispatchable Generation Power Purchase Agreement ("Firm PPA"); any standalone energy storage projects using its Model Energy Storage Purchase Agreement ("ESPA"); and any aggregated customer-sited distributed energy resources proposal using its Model Grid Service Purchase Agreement ("GSPA"). If a proposed project utilizes a technology that is not encompassed by the model purchase agreements provided, then the terms of the most applicable model purchase agreement will be modified to address the specific technology and/or component.

Inclusion of Fuel

In adhering to the requirement for an "all source" RFP and to ensure fair comparison of proposals of differing technologies, all proposals with a generation component that operates on qualified renewable energy fuel must commit to providing the fuel for the entire proposed term of the applicable Stage 3 contract. Proposals operating on fuel must also include any and all cost of its fuel for the entire Stage 3 contract term in its proposal. The fuel price must be fixed and not tied to an index, but it can escalate at a fixed escalation rate. However, recognizing the unlikelihood of

securing biofuel pricing for an entire Stage 3 contract term, a concession for proposals operating on biofuel was included to require only a biofuel price forecast and heat rate curves. Proposals utilizing fuel must also describe their fuel supply plan that will ensure sufficient fuel for unconstrained dispatch and fuel storage on island for at least 30 days. In addition to a fuel component, firm generators can also include a variable operations and maintenance (“O&M”) component in their pricing. The variable O&M component must be fixed. However, escalation will be allowed at a fixed rate. Escalation must not be tied to an index. Variable generation, storage, and Aggregator Projects must only provide fixed lump sum pricing.

Aggregator Projects

Aggregator Projects are also known as virtual power plants, aggregators, or distributed energy resources (e.g., aggregation of customer-sited water heaters, battery storage, PV and storage, or commercial loads). Under the GSPA, the Company shall maintain exclusive rights to fully direct dispatch of the aggregated resources either similar to the ESPA telemetry and control requirements or a traditional aggregator model of delivering through discrete grid services. GSPA resources will be treated the same as standalone storage projects. Recognizing Aggregator Projects may not be able to provide all the telemetry and control capabilities, a concession is made to allow those proposals to either provide all the grid services of a standalone storage project or to provide for some grid services. The evaluation will weigh the benefits of the services offered with their associated cost, as compared to other proposals and their benefits and cost.

Community Outreach

In Stage 3, the Company included for the first time in the RFP schedule, a community meeting early in the process, as described in Exhibit 2. Across many different initiatives, the Companies have heard the desire of communities to play a more engaged role early on in the process. The Companies want to make sure that Companies listen, understand, and work with communities through the renewable project development process. The Company has scheduled the community meeting for the evening of October 28, 2021.

Available Sites

The Companies re-issued its most recent Land RFI on June 15, 2020. This updated initiative is similar to the Land RFI that was issued in 2017 in that it seeks to make information about potential locations for renewable energy development on the islands of O‘ahu, Hawai‘i, Maui, and Moloka‘i to be more accessible to potential developers. The Companies will share information for Hawai‘i Island collected in the Land RFI with interested developers who execute confidentiality agreements with the Companies. These developers can then reach out directly to the landowners to discuss using such sites for Stage 3 renewable energy projects.

The Company will also offer two existing Company substations, both located in the desired, eastern side of Hawaii Island for interconnection consideration. Proposers must inquire about the available MW capacity and substation conditions, but they are offered as potential opportunities to reduce cost or shorten development timelines.

Modeling Requirements and Interconnection Requirements Study

The Company also seeks to improve the Interconnection Requirements Study (“IRS”) process. In an attempt to address the cause for delays experienced in Stage 1, the Company has added a Technical IRS Model check to the RFP’s Threshold Requirements. The intent of this is to drive Proposer effort to focus on the model requirements and to better ensure their model submissions are in good working order. For those proposals that advance to the Priority List, the Company has also added a Technical IRS Model evaluation step in parallel to the Detailed Evaluation phase. The intent is to perform the initial model checkout for the system impact study earlier, so that those proposals that advance to the Final Award Group can move through the system impact study quicker. Proposers would be required to pay a \$15,000 fee, which will be used for a consultant to perform this initial model checkout. Any portion of the funds not used would be refunded if the proposal was not selected or would be applied to the completion of model checkout if selected.

The Company is also proposing to complete the IRS prior to execution of a PPA and filing of the PPA with the Commission. In Stage 1 and Stage 2, PPA negotiations and the IRS were bifurcated, with the IRS being completed after the PPA was executed and filed, and in many cases approved. This was done in an effort to allow submission and approval of the PPA while technical details were being finalized. The benefits to this were to allow developers the potential to take advantage of declining tax credits and move the project forward in parallel with the IRS. However, in some instances this has led to further delay with the need to seek separate approval for overhead interconnection lines after completion of all or a substantial portion of the IRS was completed. It also has appeared to lead to some confusion with stakeholders as to the process and what is being proposed for each project. In Stage 2, the Company has seen significant improvements to the IRS process, significantly shortening the time to complete the IRS. With the addition of the modeling improvements proposed above, the Company believes that the IRS can be completed within approximately 10 months of selection of projects in the Stage 3 RFP. Therefore, to eliminate the confusion that seemed to arise from the bifurcation of the process and given the efforts made to improve the IRS process to date, the Company has proposed to complete the IRS prior to execution of the PPAs. This change has been reflected in the proposed draft Stage 3 RFP. However, this change has not yet been reflected in the model contract documents. To the extent that such proposal is acceptable to the Commission and stakeholders, the Company intends to modify the model contract documents to reflect such change in the next draft.

Pro Forma Requirement

In the Stage 3 RFP, the Company is again proposing to require that each Proposer provide project financial information, including a proposed project finance structure and a project pro forma cashflow. In addition to providing information beneficial for a more robust evaluation of the project in the RFP, including the Financial Compliance Threshold Requirement and the Financial Strength and Financing Plan and State of Project Development and Schedule non-price criteria, the increased requests for tracking of costs in the Performance Based Ratemaking and other dockets would be better informed by this information. Despite not being required by the RFP, project pro formas have been requested by the Consumer Advocate for Stage 1 and Stage 2 RFP projects, though not made available to the Company. Additionally, a project pro forma would assist both the Company and the Commission in evaluating any concerns raised by developers after selection with regards to project cost or pricing.

Procurement Timeline

The Grid Needs Assessment identified sufficient system capability to delay the acquisition of new renewable dispatchable generation and energy storage projects to as late as 2030. By allowing a longer procurement and development horizon, the Company hopes it provides for and encourages a wider variety of projects and technologies to submit proposals into the Stage 3 RFP.

Interconnection Cost Updates

The interconnection facilities and cost information the Company provides as Appendix H to assist Proposers in developing more accurate cost estimates is again being updated. All updated costs and drawings were not completed at the time of this filing, but work continues to ensure they will be available by the final issuance of the RFP.

Number of Variations Allowed

In trying to balance developers' interest in proposal flexibility with the difficulty and complexity of evaluating portfolios in an all-source RFP scope, the Company has proposed to reduce the number of variations that may be submitted with a single proposal fee from four (4) to two (2). The Company understands that allowing variations gives Proposers flexibility to consider different options and prior RFPs have allowed up to four (4) variations. However, the complexities involved with evaluating proposals of various technologies, and portfolios of projects with varying technologies and capabilities put enormous demand on the limited resources available to evaluate all variations submitted. Thus, by encouraging Proposers to submit only their most attractive proposal variations, the Company hopes to balance limited resources while still providing flexibility to Proposers and advancing the most attractive proposals into the evaluation portfolios. Proposers may still submit additional variations above two, but they would be required to submit these as new proposals with an additional proposal fee.

Storage

Solar projects must pair their projects with a battery energy storage system ("BESS"). The BESS must be for a four-hour duration. Wind projects may choose to, but are not required to, pair their projects with a BESS. Wind projects that include a BESS and standalone storage projects may provide either a two-hour or four-hour option. With the exception of aggregators, which are not allowed to grid charge, all paired storage projects, whether paired with wind or solar, and standalone storage projects must allow for grid charging in order to extract greater reliability and resilience benefits from these resources. For paired storage, grid charging will be allowed to start after the first five years of the project to allow the project to take advantage of the federal Investment Tax Credit ("ITC"). Storage projects that are not capable of taking advantage of the ITC must be grid charging from commercial operations.

IV. Contracts

To capture the technologies that the Company foresees the Stage 3 RFP attracting, the Company developed five different model contracts for five different categories of technologies: Model PV+BESS RDG PPA; Model Wind+BESS RDG PPA; Model Firm PPA; Model ESPA; and Model

GSPA.

RFP Contracts – RDG PPAs

The PV+BESS RDG PPA and Wind+BESS RDG PPA adhere closely to the model RDG PPAs submitted with the Stage 2 RFP, with modifications made to further improve and streamline the contracts. Many of the same revisions made to the Community Based Renewable Energy (“CBRE”) Large RDG contracts² were captured in the Stage 3 updates to the RDG PPAs. The largest change is the bifurcation of the commercial terms and technical attachments into separate documents. This change allowed the Company to create a PPA that is applicable to all islands; the project specific information (such as which island a project is located on and operating requirements) are now in a separate Project Specific Addendum. A number of revisions were made to provide further clarification. For example, clarifications were made regarding calculation of performance metrics, liquidated damages (“LD”) measurement periods, and dispatch rights. Many of the revisions made were based on requested revisions or negotiated revisions by developers during the Stage 2 RFP PPA negotiations.

Both RDG PPAs were updated to allow only for a Lump Sum Payment, eliminating the option of a purchase price for an electric energy component. This change reflects what has been seen in the market in recent procurements, where few PV and wind projects bid a purchase price for electric energy, and is reflective of the fact that such technologies have minimal variable cost. It also helps to streamline processes and allow for a more predictable pricing structure for Proposers.

In the spirit of accelerating the overall development process, the Company is proposing to make the RDG PPAs non-negotiable. The Project Specific Addendum would remain negotiable and customizable for project specific information and requirements. The bifurcation of the contract form allows the legal and commercial terms to stay consistent in the model and lends itself to pre-approval. The current RFP draft does not make this a requirement, but if the Commission were to find this approach acceptable, the Company will make the adjustments for the next draft.

Firm PPA

The Firm PPA started with the Amended and Restated Puna Geothermal Venture PPA as its base document, as this was the most recently negotiated firm PPA for Hawai‘i Island. The Firm PPA was revised to make it applicable to multiple types of firm generation and to incorporate updates to commercial and legal terms similar to what is found in the Companies’ RDG PPAs. Terms were also made consistent with the requirements of the Stage 3 RFP, including performance standards, pricing, and single point of failure requirements.

ESPA

The ESPA, similar to the RDG PPAs, was based on the Stage 2 model ESPA and updated to provide clarifications and incorporate lessons learned from Stage 2. The biggest change made to the ESPA was the allowance for either 2 hours or 4 hours of storage to be proposed. As with the RDG PPAs,

² The model contracts for Large CBRE projects were filed on August 25, 2021 in Docket 2015-0389, *Application for Approval to Establish a Rule to Implement a Community Based Renewable Energy Program*.

clarification edits were made to further clarify LD measurement periods, calculation of performance metrics, and Company dispatch.

GSPA

The GSPA was also based on the Stage 2 version of the GSPA and then updated to reflect lessons learned, to meet the requirements of the RFP, and to allow for a more accurate comparison to other resource types in this all-resource procurement. Notably, the ability to provide pricing by separate grid services was removed and Proposers are required to provide a lump sum for the all the grid services they are providing. Aggregators will have a choice to provide technical standards set forth in the ESPA or to provide a discrete set of grid services. Further, while past versions of the Companies' GSPA allowed ramping of kW to enroll and enable customers until the targets under the GSPA were hit, in Stage 3, the ability to ramp was removed. Instead, an aggregator has to reach its Guaranteed Commercial Operations Date fully subscribed. As a result of removing the ability to ramp, there is no need for enablement fees and those have been removed.

V. Next Steps

As noted above, the Company has scheduled a Community Meeting on October 28, 2021. The Company has also anticipated that the Commission would continue its practice of holding a Technical Status Conference. The Company has tentatively indicated a date of October 29, 2021 for the Technical Status Conference. However, the Company recognizes the Commission may set a different date for such conference or may forgo holding such conference at all. The Company will present the details of the draft RFP and contract documents at these meetings. Stakeholders are invited to participate and may submit comments to the Company until November 19, 2021 or such other time the Commission may set. The Company will review submitted comments and thoughtfully consider them, in coordination with the Independent Observer, prior to preparing a proposed final Stage 3 RFPs to be filed on January 28, 2022.

The Company looks forward to continuing to work with the Commission, Consumer Advocate, Independent Observer, and stakeholders to finalize the Stage 3 RFP to significantly increase the benefits of renewable energy available to customers.