

DRAFT REQUEST FOR PROPOSALS

FOR

VARIABLE RENEWABLE DISPATCHABLE GENERATION

ISLAND OF O'AHU

OCTOBER 23, 2017

FEBRUARY 2, 2018

Docket No. 2017-0352

This Request for Proposals ("RFP") is a DRAFT only. Hawaiian Electric Company. Inc. ("Hawaiian Electric") will employ a competitive bidding process to select renewable energy projects consistent with the State of Hawai'i Public Utilities Commission's ("PUC") Competitive Bidding Framework. Under the Competitive Bidding Framework, Hawaiian Electric has filed the initial draft RFP with the PUC. Hawaiian Electric then sought input from prospective Proposers and other stakeholders through the RFP Process and the PUC as well as from the Independent Observer as described in the draft RFP and has modified the draft RFP to the extent feasible to address input received in order to foster a robust competitive process. This proposed final RFP is being submitted to the PUC for approval and is subject to further revision based upon direction received from the PUC. After approval by the PUC, Hawaiian Electric will issue the final RFP. The proposed schedule for the foregoing process is set forth in this draft RFP in Table 1.

This Request for Proposals ("RFP") is a DRAFT only. Hawaiian Electric Company, Inc. ("Hawaiian Electric") will employ a competitive bidding process to select renewable energy projects consistent with the State of Hawai'i Public Utilities Commission's ("PUC") Competitive Bidding Framework. Under the Competitive Bidding Framework, Hawaiian Electric will file the initial draft RFP with the PUC. Then, Hawaiian Electric will seek input from prospective Proposers and other stakeholders through a Technical Conference as described in the draft RFP and will modify the draft RFP to the extent feasible to address input received in order to foster a robust competitive process. The proposed final RFP will be submitted to the PUC for approval and is subject to further revision based upon direction received from the PUC. After approval by the PUC, Hawaiian Electric will issue the final RFP. The proposed schedule for the foregoing process is set forth in this draft RFP in Table 1.

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<u>Chapter 1: Chapter 1: Introduction and General Information</u>

Hawaiian Electric Company, Inc. ("Hawaiian Electric" or the "Company") seeks proposals for the supply of qualified variable renewable energydispatchable generation to be delivered to the Hawaiian Electric System in accordance with this Request for Proposals ("RFP"). The total amount of electric energyvariable renewable dispatchable generation being solicited for O'ahu is upthe capability to provide 485,000 megawatt hours ("MWh") annually, over a preferred term of twenty (20) years. The resources acquired through this Final RFP must have Guaranteed Commercial Operations Dates that are no later than December 31, 2022 with the intent being that successful Proposers will be able to take advantage of the 2019 investment tax credit. Guaranteed Commercial Operations Date is a Threshold Requirement for this RFP. See Section 4.3 of this RFP.

The Company intends to solicit renewable dispatchable generation in stages. In the event the Company does not procure all of the variable renewable dispatchable generation needed to meet the Company's requirements set forth in the PSIP in this first "Stage 1" of the procurement process, or if additional generation is needed as otherwise determined by the Company, then the Company intends to issue "Stage 2" of this RFP to procure such additional generation. For Stage 1 of this solicitation the Company will not be submitting a self-build and the Company will not be accepting any affiliate bids, however, the Company reserves the right to allow such options in Stage 2.

The Company intends to contract for variable <u>renewable dispatchable</u> generation projects under this RFP using its new Renewable Dispatchable Generation Power Purchase Agreement ("RDG PPA"), which treats variable resources as fully dispatchable. A <u>copyThe Company has created two versions</u> of <u>the Modelits model</u> RDG PPA. The photovoltaic ("PV") version is attached <u>hereto</u> as <u>Appendix C. The Company plansC1</u> to <u>issue a separatethis</u> RFP <u>for renewable firm</u>,

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¹ The resource need for the island of O'ahu identified in the Companies' PSIPPower Supply Improvement Plans Update Report: December 2016 ("PSIP") 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 negotiations with respondents a developer that responded 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' 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 the remaining megawatts were converted to MWh for this RFP. For simplicity, Hawaiian Electric has described the energy target as upthe capability to provide 485,000 MWh per year. ² The Company's preferred term of 20 years reflects the assumptions and planning horizon used in the PSIP Update Report: December 2016 for the variable renewable dispatchable generation. Also, one goal of the RFP is to obtain renewable dispatchable generation at a price that will lower bills for customers. In the Company's experience, PPAs in the 20-year range have typically provided the overall best pricing for customers while also providing adequate revenue security for renewable energy developers, which in turn should lower a developer's cost of capital and lead to lower PPA pricing. Further, the term of a PPA may also impact accounting treatment. On this point, issues relating to accounting treatment have traditionally increased when the term of a PPA extends beyond 20 years.

dispatchable capacity, and energy for O'ahu.the wind version is attached as Appendix C2 to this RFP.³

Each successful Proposer will provide energyvariable renewable dispatchable generation to the Company pursuant to the terms of an RDG PPA to be negotiated between the Company and Proposer, which shallwill also be subject to PUC review and approval. If the proposed projectProject is for a technology other than wind or PV and/or contains an energy storage component, then the terms of the Model RDG PPA shallwill be modified to include additional attachments to address the operational characteristics and performance requirements of specific technology and/or to incorporate the storage component. Revisions to the RDG PPA will be necessary to incorporate storage and would be negotiated between the Companies and the Final Award Group for a Project that includes storage. Such revisions shall include, but shall not be limited to the RDG PPA sections listed in Appendix M attached to this RFP.

The Company will evaluate Proposals using the evaluation and selection process—and described in Chapter 4 of this RFP. The Company will evaluate and select Proposals based on both price and non-price factors that impact the Company, its customers, and communities affected by the proposed projects. The amount of generation that the Company may acquire from this RFP depends on, among other things, the quality of bids received in response to this RFP; economic comparison to other RFP responses; updates to the Company's forecasts; transmission availability; and changes to regulatory or legal requirements.

A detailed description of the technical requirements for Proposers is included in <u>Chapter 2</u> of this RFP, in the Proposer's Response Package attached to this RFP as <u>Appendix B</u> (and various model contracts to this RFP, in the <u>RDG PPAs</u> attached as <u>exhibits Appendices C1 and C2</u> to this RFP), and onin the Electronic Procurement Platform described in <u>Section 3.2</u> (i.e. <u>PowerAdvocate Platform</u>). of this RFP.

All requirements necessary to submit Proposal(s) are provided in this RFP. All capitalized terms used in this RFP shall have the meaning set forth in the Glossary of defined terms attached hereto as Appendix A to this RFP. Capitalized terms that are not included in Appendix A shall have the meaning ascribed hereinin this RFP.

1.1 Authority and Purpose of the Request for Proposals

1.1.1 This RFP is issued in response to Order No. 34856 issued on October 6, 2017 in Docket No. 2017-0352 as part of a procurement process established by the State of Hawai'i Public Utility Commission ("PUC").

1.1.2 This RFP is subject to Decision and Order ("D&O") No. 23121 in Docket No. 03-0372 (To Investigate Competitive Bidding for New Generating Capacity in Hawai'i), which sets forth the PUC's Framework for Competitive Bidding ("Framework" or "Competitive Bidding Framework").

³ Note that the RDG PPAs provided in Appendices C1 and C2 of this RFP have been prepared for use by Hawaiian Electric Company, Inc. Please see the Draft Requests for Proposals for Variable Renewable Generation for the Islands of Maui and Hawai'i for adaptations of such documents for use by Maui Electric Company, Limited and Hawai'i Electric Light Company, Inc.

- 1.1.3 All Proposals submitted in response to this RFP shallmust utilize qualified Renewable Energy resource(s) as defined under the Hawai'i Renewable Portfolio Standards ("RPS"). By statute, "Renewable energyEnergy" means energy generated or produced using the following sources: (1) wind; (2) the sun; (3) falling water; (4) biogas, including landfill and sewage-based digester gas; (5) geothermal; (6) ocean water, currents, and waves, including ocean thermal energy conversion; (7) biomass, including biomass crops, agricultural and animal residues and wastes, and municipal solid waste and other solid waste; (8) biofuels; and (9) hydrogen produced from renewable energy sources. HRS § 269-91.
- 1.1.4 Proposers should thoroughly review the Hawaiian Electric Companies' Power Supply Improvement Plans ("PSIPs"), filed in Docket No. 2014-0183 on December 23, 2016 ("PSIP Update Report: December 2016").
- 1.1.5 Consistent with the PSIP Update Report: December 2016, the primary purpose of this RFP is to obtain Renewable Energy to enableso that the Company tocan continue to transform Oahu's power supply portfolio from fossil fuel-based generation to renewable-based generation to to and lower costs for customers. The Company does not have a predetermined preference for a particular renewable energy source or technology and acknowledges that the requirements of this RFP may be satisfied by a portfolio of generation resource options. The Company believes that this approach allows for flexibility and encourages Proposers to develop and submit a broad range of innovative Proposals.
- 1.1.6 This RFP is intended to elicit Proposals that will enable Hawaiian Electric to obtain variable renewable energydispatchable generation at a competitive, reasonable cost with reliability, viability and operational characteristics consistent with the Company's long-term planning and energy policy requirements.

1.2 Scope of the RFP

- 1.2.1 Consistent with the resource needs for the islandIsland of O'ahu in the Company's PSIP Update Report: December 2016, the Company is seeking Proposals for the capability to provide the supply of up to approximately 485,000 MWh per year ("MWh/year") of Renewable Energyvariable renewable dispatchable generation to be delivered to the Hawaiian Electric System on the Island of O'ahu in the State of Hawai'i, under contract terms to be negotiated between the Company and the Proposer in an RDG PPA.
- 1.2.2 This RFP targets projects that can satisfy the resource needs identified in the PSIP Update Report: December 2016. In the event the Company does not procure all of the energy variable renewable dispatchable generation needed to meet the Company's requirements set forth in the PSIP, or generation is needed to fulfill later requirements set forth in this first "Stage 1" of the PSIP, or procurement process, or if additional generation is needed as otherwise determined by the Company, then the Company intends to issue

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⁴ RPS requirements in Hawai'i are codified asin Hawai'i Revised Statutes ("HRS") §§ 269-91 through 269-95.

"Stage 2" of this RFP to procure such additional generation. System needs, including available hosting capacities, will be updated prior to the issuance of Stage 2 or any subsequent RFPs. The Company would consider projects Projects that cannot reach a Commercial Operations Date byof December 31, 2022 in Stage 2 or in subsequent RFPs.

- 1.2.3 The Company will approach procuring the energy amount targeted in this RFP in two stages. The Company is focused on helping projects Projects meet the 2019 investment tax credit, and is targeting signing aiming to sign two PPAs on O'ahu in "Stage 1" of the procurement process. The Company believes that limiting the number of projects Projects during Stage 1 of the procurement process will help projects Projects selected to the Final Award Group move through contracting and PUC approval in a more timely manner- and improve the prospects of meeting the aggressive timeline required to optimize benefits to customers. The targeted number of Proposals sought in Stage 1 was determined based on severalthe Companies' desire to meet the ITC deadlines and the Company's required Commercial Operations Date of December 31, 2022. Several factors, including influence the speed of the selection, contracting and development of Projects. Projects that require extensive system upgrades to integrate into the system will take longer to complete studies for and to interconnect onto the system; therefore the Company considered in its determination of how many projects to selected factors such as, the size of the largest contingency unit and available hosting capacity $\frac{5}{2}$ on transmission-level circuits. The Company also evaluated the time it is estimated to take to expedite Projects through the contracting and Interconnection Requirements Study phases. As noted in Section 1.2.2 above of this RFP, if the Company is unable to procure all of the energy variable renewable dispatchable generation needed to meet the Company's requirements in Stage 1, the remaining variable renewable dispatchable generation need will be sought in Stage 2 of this RFP. In Stage 2, the Companies will also 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.
- 1.2.4 Proposers are required to offer proposals for Facilities that are no larger than 135 MW due to To avoid increasing the size of contingency events and to ensure system reliability requirements, no single point of failure from the Facility shall result in a decrease in net electrical output greater than 135MW. The current largest single contingency on the Company's system is the size of the largest generating unit on the System at any given time. The proposed renewable generation limit of not greater than 135 MW is an Eligibility Requirement for this RFP. See Section 4.2 of this RFP. The minimum size of a Facility shallwill be the threshold for a waiver from the Framework for Competitive Bidding Framework applicable to O'ahu. See Part II.A.3.f of the Framework Section H.A.f.

⁵ For context, each transmission-level circuit (46 kV and 138 kV on O'ahu) has a certain amount of "hosting capacity." This is the amount of power a conductor can safely carry within engineering limits. For the purposes of this RFP, the hosting capacity is expressed in megawatts ("MW"). The available hosting capacity on a given transmission-level circuit is the difference between the total hosting capacity and the amount of peak power already carried on a transmission circuit.

- 1.2.5 Proposals that will require extensive system upgrades (e.g.,system upgrades where the construction of which, in the judgment of the Company (in consultation with the IO), creates a significant risk that cannot be constructed in time to meet the targeted the Guaranteed Commercial Operations Date) will not be met or the Project will not be able to capture the ITC, will not be considered in this RFP. Guaranteed Commercial Operations Date is a Threshold Requirement for this RFP. See Section 4.3 (Threshold Requirements) of this RFP.
- 1.2.6 Proposers will determine their <u>project siteProject Site</u>. Proposers have the option of <u>engaging with landowners and submitting a proposalProposal</u> for any potential <u>Company Offered SitesSite</u> that may be offered as described in Section 3.10 <u>below</u> of this RFP.
- 1.2.1 Proposers accepting the terms and conditions of the Model RDG PPA will be given preference over Proposers that take exceptions to the Model RDG PPA's terms and conditions. Any provisions of the Model RDG PPA approved and deemed non-negotiable by the PUC may not be modified by the Proposer.
- 1.2.7 For purposes of this RFP, the Company shallwill only consider Proposals for Projects located on the Island of O'ahu. This is an Eligibility Requirement for this RFP. See Section 4.2 of this RFP.
- 1.2.8 Each Proposal submitted in response to this RFP must represent a Project that is capable of meeting the requirements of this RFP without having to rely on the completion or implementation of any other Project submitted in response to this RFP or any other RFP.
- 1.2.9 Successful Proposers will own and operate be responsible for the operation of the Facility during the term of the PPA and will be responsible for all costs, including project Project development, completion of an Interconnection Requirement Study ("IRS"), land acquisition, permitting, financing, construction of the facility and all Interconnection Facilities, and operations and maintenance.
- 1.2.10 Proposer will build, finance, and operate the Facility. PPAs for projects selected through this RFP will be based on the ModelRDG PPA, as described in Section 3.8 below of this RFP. Under the ModelRDG PPA, the Company will maintain exclusive rights to fully direct the dispatch of the Facility.
- 1.2.11 The preferred Term of the PPA will be twenty (20) years.

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⁶ See Section 3.4410 regarding results of the Land RFI.

1.2.12 Proposals may be submitted in either of the following configurations: ⁷

• Not coupled with energy storage. Where a proposed Facility is not coupled with energy storage, the maximum output of the Facility shallmust not exceed the eircuittransmission-level available hosting capacity of the transmission-level circuit to which the Facility will be interconnected. Available Transmission Circuit Capacity is a Threshold Requirement for this RFP. See Section 4.3 of this RFP.

Coupled with energy storage.

Where a photovoltaic ("PV"): Proposals may contain storage which may be charged during periods when full potential export is not being taken by the Company, and used to provide energy resource is coupled withto the Company during periods when source energy storage is not available. While the Company maintains complete charging rights (limited to the periods during which the generator is generating) and dispatch rights over the entire Facility and may charge and dispatch the Facility at any time, the energy storage shall should be sized at a minimum to provide sufficient storage capacity to avoid export from the project that exceeds the available circuitlevel hosting capacity and able to discharge the stored equal to the greatest amount of projected energy for at least during the Facility's projected most productive continuous four hours. For example, if the PV has a maximum output rating of 50 MW_{ac} and the available circuit-level hosting capacity is 20 MW, the project may export up to 20 MW directly to the system. In this case, the energy storage shall be sized to store the excess energy that exceeds the available circuit-level hosting capacity (up to 50 MW - 20 MW = 30 MW). The amount of energy stored shall be sufficient to export the excess capacity (30 MW in this example) over a four hour period at some later time. If the available circuit-level hosting capacity is 0 MW, the project may not be dispatched between 9 a.m. and 4 p.m., and the energy storage shall be sized to store its energy at any period during the year and designed to provide one full discharge for export at the project's rated capacity over a four hour period at some later time. every 24 hours. The Company will reserve the right to dispatch net energy available from the facility, either from Facility, reflecting the PV combined available renewable and/or storage available capacity, at times that are beneficial to the system and for customers under the terms of the PPA. It should be noted that excess energy conditions may occur from time to time between 9 a.m. and 4 p.m., even though the circuit level hosting capacity is not exceeded. Flexibility in charging/discharging periods is necessary due to uncertainty in future demand

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⁷ For context each subtransmission circuit (46 kV on Oʻahu) has a certain amount of "hosting capacity." This is the amount of power a conductor can safely carry within engineering limits. For the purposes of this RFP, the hosting capacity is expressed in megawatts ("MW"). The remaining hosting capacity on a given circuit is the difference between the total hosting capacity and the amount of peak power already carried on a circuit.

⁸ Proposers are advised that circuit loadings may change in the future. This will reduce the available circuit level hosting capacity.

⁹ Proposers are advised that transmission circuit loadings may change in the future. This will reduce the available transmission-level hosting capacity.

profiles over the life of the contract. The proposed storage must be charged solely by the Facility and grid charging will not be allowed.

Where a wind energy resource is coupled with storage, the energy storage shall consider the reduced need and ability to accept available energy production during solar production periods and low customer use. The Company will provide data to support design (net demand data). Excess energy conditions are also likely to occur during the midnight to 5 a.m. period, when system demand is typically low. During these periods, the export from the wind resource may need to be adjusted. Projects with wind coupled with storage must have adequate circuit capacity to allow the combined export of the wind resource and storage.

Proposers are encouraged to confer with the Company as described in <u>Section 2.2.1</u> <u>below of this RFP</u> should they have any questions about <u>circuittransmission</u>-level or system-level <u>hosting capacity or system level available</u> hosting capacity or excess energy concerns.

- 1.2.13 Consistent with the assumptions in the PSIP Update Report: December 2016, Proposer will Proposers shall pursue all available applicable federal and state tax credits, and Proposal pricing shallmust be set to incorporate the benefit of such tax credits or to pass the benefit of the tax credits to the Company's customers (. See Appendix C (Model PPA, Attachment J, Section 5)). of the RDG PPA, attached as Appendix C1 and Appendix C2 to this RFP.
- 1.2.14 Payments under the Model-RDG PPA will be made by the Company to the Seller as set forthdescribed in the Model RDG PPA, attached as Appendix C1 and Appendix C2 to this RFP.
- 1.2.15 The Project will interconnect to the Company's grid at the subtransmission 46 kV or transmission 138 kV level. Interconnection Requirements and the IRS process are set forthdescribed in Section 2.3 and Section 5.1 below of this RFP.
- 1.2.16 A Proposer's proposed Interconnection Facilities shall be compatible with the Company System and must meet the requirements set forth in the IRS and the Model PPA, as may be revised to reflect the results of the IRS. Proposer shall be responsibletake responsibility for all costs related to the design and installation of all Interconnection Facilities. The communications and control requirements will be determined during the Interconnection Requirements review, and will define telemetry, control, and communications facilities provided by the Proposer to the Point of Interconnection. Alternate control will be required and may consist of interconnection with the Company's microwave system.
- 1.2.17 Storage systems that are coupled with a Facility shall onlymust be charged only by Renewable Energy generated by the Facility (and not delivered from the grid). This is an Eligibility Requirement for this RFP. See Section 4.2 of this RFP.

- 1.2.18 Storage Supplemental equipment to generating resources such as power electronics and storage systems may be utilized by the Seller, inat the Seller's discretion, to meet the Performance RequirementsStandards for energy delivery specified in the Model RDG PPA, including frequency response (droop characteristics), company dispatch of power, ramp rates, disturbance ride through capabilities, etc., in in addition to shiftingconsideration of storage to supply Dispatchable energy delivery to the power system to during periods where resource production exceeds Company dispatch requirements. the source Renewable Energy from the Facility is not available as described in Section 1.2.12. Where supplemental equipment and/or storage isare utilized, the functionality and characteristics of the storage shallmust be maintained throughout the lifeterm of the facilityPPA.
- 1.2.19 If selected, Proposers shall be responsibletake responsibility for the decommissioning of the Project and the restoration of the Site upon the expiration of the PPA, as described in Attachment G, Section 7 of the Model RDG PPA. In addition to the requirements in the PPA, decommissioning responsibilities should also include developing and implementing a program for the recycling to the fullest extent possible, or otherwise proper disposal, of installed infrastructure. Proposer should describe its decommissioning plan, including programs for recycling of installed infrastructure, if any, and how Site restoration to its original ecological condition will be guaranteed in the event of default by the Proposer in the applicable Site Control documentation. RDG PPA.

1.3 Competitive Bidding Framework

Consistent with the Framework, this RFP outlines the Company's requirements in relation to the resources being solicited, and the procedures for conducting the RFP process, and. It also includes information and instructions to prospective Proposers participating in and responding to this RFP.

1.4 Role of the Independent Observer

- 1.4.1 Part III.C.1 of the Framework sets forth the circumstances under which an Independent Observer is required in a competitive bidding process. In particular, the Framework provides that "[a]n Independent Observer is required whenever the utility or its affiliate seeks to advance a project proposal (i.e., in competition with those offered by [Proposers]) in response to a need that is addressed by its RFP, or when the Commission otherwise determines." Accordingly, the The PUC has retained an Independent Observer both to overseeadvise and monitor the process for this RFP. The All phases of the RFP process will be subject to the Independent Observer's oversight, and the Independent Observer will coordinate with PUC staff throughout the RFP process to ensure that the RFP processit is undertaken in a fair and unbiased manner. In particular, the Company will review and discuss with the Independent Observer all decisions regarding the evaluation, disqualification, non-selection, and selection of Proposals prior to notifying Proposers of such decisions.
- 1.4.2 The role of the Independent Observer, as described in the Framework, will include the following but is not limited to:

- Monitor all steps in the competitive bidding process
- Monitor communications (and communications protocols) with Proposers
- Monitor adherence to the Company's Code of Conduct
- Submit comments and recommendations, if any, to the PUC concerning the RFP
- Review the utility's Proposal evaluation methodology, models, criteria, and assumptions
- Review the utility's evaluation of Proposals
- Advise the utility on its decision-making
- Participate in dispute resolution as set forth in Section 1.10 of this RFP
- Monitor contract negotiations with Proposers
- Report to the PUC on monitoring results during each stage of the competitive bidding process
- Provide an overall assessment of whether the goals of the RFP were achieved
- 1.4.3 The Independent Observer for this RFP is listed below: Bates White, LLC. [NAME, ADDRESS, CONTACT INFO]

1.5 Communications Between the Company and Proposers – Procedures Manual

- 1.5.1 Communications and other procedures under this RFP are governed by the "Procedures Manual," developed by the Company as required by the Framework, which describes: (1) the protocols for communicating with bidders, the self-build team, prospective Proposers and others; (2) the evaluation process in detail and the methodologies for undertaking the evaluation process; (3) the documentation forms, including logs for any communications with bidders; and (4) other information consistent with the requirements of the RFP process. The Company's Procedures Manual is attached hereto as Appendix D (Code of Conduct Procedures Manual for the Competitive Bidding Program). is attached as Appendix D to this RFP.
- 1.5.2 Pursuant to the Procedures Manual, all pre-Proposal communication with prospective Proposers, including the Company's Self-Build Team and any Affiliate Team (as those terms are defined in the Procedures Manual), will be conducted via the Company's website, Electronic Procurement Platform and/or electronic mail ("Email") as specified in the Procedures Manual. Any Email to the Company must be sent to the address specified in Section 1.6 belowof this RFP (the "RFP Email Address"). Any correspondence sent to any other Email address will not receive a response. Frequently asked questions submitted by prospective Proposers and the answers to those questions may be posted on the Company website or sent through the Electronic Procurement Platform to registered individuals. The Company reserves the right to respond only to comments and questions it deems are appropriate and relevant to the RFP, in its sole discretion.
- 1.5.3 After submission of Proposals, all contacts between the Company and Proposers will be coordinated by the Energy Contract Manager identified in Section 1.6 of this RFP. During this post-Proposal submission period, the Company may have communications and meetings with individual Proposers for purposes of clarifying Proposals.

- 1.5.4 Each Proposer must execute a Mutual Confidentiality and Non-Disclosure Agreement ("NDA") attached hereto as Appendix F.as Appendix F to this RFP. The full execution of agreements or other documents required is an Eligibility Requirement for this RFP.

 See Section 4.2 of this RFP. All confidential information will be transmitted to the requesting party via the RFP email address and/or the Electronic Procurement Platform, only after receipt of such fully executed NDA. Notwithstanding the execution of a NDA by a requesting party, the Company reserves the right, in its sole discretion, not to disclose certain confidential information.
- 1.5.5 Except as expressly permitted and in the manner prescribed in the Procedures Manual, any unsolicited contact by a Proposer or prospective Proposer with personnel of the Company pertaining to this RFP is prohibited-and may constitute grounds for disqualification.

1.6 Company Contact for Proposals

The Energy Contract Manager and primary contact for this RFP is:

Greg Shimokawa

Ken Horita

Energy Contract Manager Hawaiian Electric Company, Inc. Central Pacific Plaza Building, 21st FloorSuite 2100 220 South King Street Honolulu, Hawai'i 96813

RFP Email Address: oahuvariablerfp@hawaiianelectric.com

1.7 Proposal Submittal Requirements

- 1.7.1 Detailed requirements regarding the form and organization of the Proposal are set forth in <u>Chapter 3</u> of this RFP. Proposals <u>shallmust</u> be submitted in the <a href="format specified in the Electronic Procurement Platform and must include all of the information in the Proposer's Response Package attached <u>hereto-as Appendix B</u> (Proposer's Response Package) <u>pursuant-to-chapter 3 of-this RFP.</u>
- 1.7.2 ByIn submitting a Proposal in response to this RFP, each Proposer certifies that the Proposal has been submitted in good faith and without fraud or collusion with any other person or entity. The Proposer shall complete and submit with each Proposal, a Certificate of Non-Collusion in the form provided on the Electronic Procurement Platform. Signature and certification are Eligibility Requirements for this RFP. See Section 4.2 of this RFP.
- 1.7.3 Proposals shallmust be submitted via the Electronic Procurement Platform and must be received (confirmed by a time and date stamp) by 2:00 pm Hawai'i Standard Time (HST) on the date shown in the RFP Schedule in Section 3.1, Item 11, below 10 of this RFP.

Incomplete Proposals will not be accepted. No hard copies of the Proposals will be accepted.

1.8 Proposal Fee

- 1.8.1 Proposers are required to tender a non-refundable Proposal Fee of \$10,000 for each proposal submitted. Proposal submitted. The Proposal Fee submission deadline is an Eligibility Requirement for this RFP. See Section 4.2 of this RFP.
- 1.8.2 Proposers may submit multiple Proposals for projects. If such Proposals are on the same or differing different Sites if or different generation technologies, a separate Proposal Fee ismust be paid for each separate Proposal. The only exception being, except that a Proposer may submit a Proposal for a project Project with and without a storage option for a Project on the same siteSite for a single Proposal Fee, as described in Section 1.2.13.12 of this RFP. Proposers may submit up to three (3) Proposals with minor variations (i.e., pricing terms, size) (for with and without storage) on the same Site using the same generation technology without having to pay a separate Proposal Fee for these three (3) variations. The method of submitting multiple Proposals within this RFP is described in Section 3.2 and Appendix E. Whether or not a separate Proposal Fee is required each variation of a Proposal, no matter how minor such variation is, should be submitted separately through Power Advocate, including separate entries for a proposal with storage and without.
- 1.8.3 The Proposal Fee shallmust be in the form of a cashier's check made payable to Hawaiian Electric Company, Inc. and must be delivered to and received by the Company's Energy Contract Manager by 2:00 pm (HST) on the date shown in the RFP Schedule in Section 3.1, Item 11, below, the same day10 of this RFP. Proposers are strongly encouraged to utilize a delivery service method that provides proof of delivery to validate delivery date and time.

<u>If</u> the Proposal is due. Failure to submit Fee is to be delivered by U.S. Postal Service (with registered, certified, receipt verification), the <u>Proposal Fee by Proposer shall use:</u>

Ken Horita
Energy Contract Manager
Hawaiian Electric Company, Inc.
Mail Code CP21-IU
PO Box 2750
Honolulu, HI 96840

If the Proposal Fee is to be delivered in person, or via an alternative registered, certified delivery service, the Proposer shall use the address specified deadline shall result in disqualification.in Section 1.6.

¹⁰ To the extent that Proposers submit Proposals with and without storage, a total of up to (6) six variations may be submitted for a single Proposal Fee, 3 for the with storage Proposal and 3 for the without storage Proposal.

1.9 Procedures for a No Self-Build Option or Affiliate Options

Consistent with the The Competitive Bidding Framework, the Company will have allows the opportunity Company the option to offer a Proposal in response to this RFP (the "("Self-Build Option"). With regard to The Company will NOT be providing a Self-<u>Build Option in response to this Stage 1 of the preparation of RFP but reserves the</u> evaluation of the Self-Build Optionright to do so in Stage 2 or in future solicitations. Therefore, the Company will follow certain procedures designed to safeguard against and address concerns associated with preferential treatment or preferential access to information. If the Company decides to propose a Self Build Option, the Framework provides that the procedures developed for an RFP shall call for arms length dealing with regard to agents of the Company who are developing amay participate in the development of a future Self-Build Option (the "Self-Build Team") and those agents of the Company who perform the evaluation"). The procedures of the RFP (the "Evaluation Team"). The Company's Code of Conduct and the Procedures Manual submitted to the PUC in Docket No. 2017-0352 on October 23, 2017, are in place to safeguard against and address concerns associated with preferential treatment or preferential access to information. A copy of the Procedures Manual is attached hereto as Appendix D. The Independent Observer will assist the PUC in ensuring that the established procedures and the terms of the Code of Conduct are followed and administered fairly such that no preferential treatment or preferential access to information will be provided to the Self-Build Team by the Evaluation Team. Pursuant to the Framework and as set forth in the RFP Schedule, the Company will submit the Proposal for the Self-Build Option(s) through the Electronic Procurement Platform a minimum of one (1) Day before other Proposals are due.as Appendix D to this RFP.

The Competitive Bidding Framework also allows affiliates of the Company to submit Proposals to RFPs issued by the Company. However, for this Stage 1 of the RFP, the Company will not accept any Proposals from affiliates but reserves the right to do so in Stage 2 or in future solicitations.

1.10 Dispute Resolution Process

- 1.10.1 If disputes arise under the RFP, the provisions of this Section 1.10 of this RFP and the dispute resolution process established in the Framework shallwill control. See Part V of the Framework.
- 1.10.2 Proposers who challenge or contest any aspect of the RFP process must first attempt to resolve their concerns with the Company and the Independent Observer ("Initial Meeting"). The Independent Observer will seek to work cooperatively with the parties to resolve any disputes or pending issues, and may offer to mediate the Initial Meeting to resolve disputes prior to such issues coming before the PUC.
- 1.10.3 Any and all disputes arising out of or relating to the RFP which remain unresolved for a period of twenty (20) days after the Initial Meeting takes place may, upon the agreement of the Proposer and the Company, be submitted to confidential mediation in Honolulu, Hawai'i, pursuant to and in accordance with the Mediation Rules, Procedures, and

Protocols of Dispute Prevention Resolution, Inc. ("DPR") (or its successor) or, in its absence, the American Arbitration Association then in effect ("Mediation"). The Mediation shallwill be administered by DPR. If the parties agree to submit the dispute to Mediation, the Proposer and the Company shall each pay fifty percent (50%) of the cost of the Mediation (i.e., the fees and expenses charged by the mediator and DPR) and shall otherwise each bear their own Mediation costs and attorney's fees.

- 1.10.4 If settlement of the dispute is not reached within sixty (60) days after commencement of the Mediation, or if after the Initial Meeting, the parties do not agree to submit any unresolved disputes to Mediation, then as provided in the Framework, the Proposer may seek a determination of the issue by the PUC.
- 1.10.5 In accordance with the Framework, the PUC will serve as the arbiter of last resort for any disputes relating to this RFP involving Proposers. The PUC will use an informal expedited dispute resolution process to resolve the issue within thirty (30) days, as described in Parts III.B.8 and \underline{V} of the Framework. There shallwill be no right to hearing or appeal from this informal expedited dispute resolution process.
- 1.10.6 If any Proposer initiates a dispute resolution process for any dispute or claim arising under or relating to this RFP, other than that permitted by the Framework and Section 1.10 of this RFP (e.g. arbitration or court proceeding), then such Proposer shall be responsible for any and all attorney's fees and costs that may be incurred by the Company or the PUC in order to resolve such claim.

1.11 No Protest or Appeal

Subject to Section 1.10 of this RFP, no Proposer or other person will have the right to protest or appeal any award of a Project made by the Company.

1.12 **Modification or Cancellation of the Solicitation Process**

1.12.1 Unless otherwise expressly prohibited, the Company may, at any time up to the final award, in consultation with the Independent Observer, postpone, withdraw and +/or cancel any requirement, term or condition of this RFP, including deferral of the award of any contract, and //or cancellation of the award all together, all of which shall will be without any liability to the Company.

1.12.2 The Company may modify this RFP subject to requirements of the Framework, i.e. reviewwhereby the modified RFP will be reviewed by the Independent Observer and submissionsubmitted to the PUC with thirty (30) Days' notice before the modified RFP

¹¹ The informal expedited dispute resolution process does not apply to PUC review of contracts that result from the RFP. See Decision and Order No. 23121 at 34-35. Further, the informal expedited dispute resolution process does not apply to the Framework's process relating to issuance of a draft and final RFP, and/or to the PUC approval of the RFP asbecause: (1) the Framework (and the RFP) set forth specific processes whereby interested parties may provide input through the submission of comments; and (2) the Framework's dispute resolution process applies to "Bidders" and there are no "Bidders" at this stage in the RFP process.

may be issued Days prior to its issuance, unless the PUC directs otherwise. See Framework Part IV.B.10. The Company will follow the same procedure with regard to any potential postponement, withdrawal or cancellation of the RFP or any portion thereof.

Chapter 2: Resource Needs and Requirements

2.1 Performance Standards

Proposals must meet the attributes set forth in this RFP and the Performance Standards identified in the Model RDG PPA. RDG PPA. This RFP and the RDG PPA set forth the minimum requirements that all Proposals must satisfy to be eligible for consideration in this RFP. Attributes and Performance Standards are Threshold Requirements for this RFP. See Section 4.3 of this RFP. Additional Performance Standards may be required based on the results of the IRS.

2.2 Transmission and Distribution System

- 2.2.1 Company information regarding the relative remainingan initial assessment of potential MW capacity of subtransmission46 kV and 138 kV transmission circuits on O'ahuproviding possible points of interconnection has been developed for Sites included in the Land RFI as described in Section 3.10 of this RFP and will be made available to Proposers only after execution of a Non-Disclosure Agreement. Non-confidential information has been published in the Companies' December 23, 2016 PSIP Update Report on beginning on page N-56 of Appendix N. Proposers should perform their own evaluation of project locations, and the Company does not guarantee any project output or ability to connect based on such information. Proposers are invitedstrongly encouraged to meet with the Company prior to submitting a Proposal to discuss specific questions regarding a particular Proposal. Please direct inquiries to Interconnection Services at Interconnection.services@hawaiianelectric.com.
- 2.2.1.1 The objective of the analysis was to determine the available capacity of the transmission lines that are in close proximity to the Land RFI parcels. Load flow analyses were performed by adding a generating unit at select locations and increasing its MW output until the thermal limit of the transmission system was met. Existing transmission system infrastructure and distributed generation resources were assumed. Individual load flow simulations did not take into account potential impacts of additional generating projects added to the transmission system.

For Oahu, the RFP assumes new generators connecting to existing substations at the transmission level. Load flow analyses were performed by adding a generating unit at select transmission substations near Land RFI parcels and increasing its MW output until the maximum transfer capability of the transmission system is reached (under N-1-1 contingency).

In addition for Oahu, the Hawaiian Electric Sub-Transmission Electrical System was analyzed to determine the largest generator that can be placed onto the Sub-Transmission Electrical System. Each Transmission Substation Transformer

(138/46kV) and its normally connected Sub-Transmission Circuits were analyzed together. Models of each Sub-Transmission Circuit are modeled as a consolidation of multiple sections of conductor or cable that represent the entire circuit.

For each Section on the Sub-Transmission Circuits, a load flow analysis was conducted to monitor the voltage and ampacity by placing a generator on the section of interest. Only one generator is placed on the circuit for each simulation, and the generator's size was increased until a voltage or ampacity issue was witnessed. The result produced the amount of Generation that can be placed on one section or at one interconnection point.

- 2.2.2 Prior to the RFP, developers may inquire as to viability of proposed real project_Proj
- 2.2.3 Additional site-specific information will be provided in the IRS process.

2.3 Interconnection to the Company System

- 2.3.1 The means of interconnection between a proposed Facility and the Company System is a critical consideration for all Proposers. All Proposals should include a description of the respondent's plan to transmit power from the Facility to the Company System. The Proposers' proposed Interconnection Facilities shallmust be compatible with the Company System. Proposers shall demonstrate that all proposedIn the design, Projects must adequately consider their Company requirements to address impacts on the performance and reliability of the Company System. The In addition to the Performance Standards and findings of the Interconnection Study, the design of the Interconnection Facilities, including power rating, Point(s) of Interconnection with the Company System, and scheme of interconnection, shallmust meet Company standards and be designed such that, with the addition of the facility Facility, the Company system can meet all relevant Transmission Planning Criteria and any amendments thereto. The Company will provide its construction standards and procedures to the Proposer if requested via email upon the execution of an NDA as specified in Section 1.6.
- 2.3.2 The Interconnection Facilities includes both: (1) Seller-Owned Interconnection Facilities; and (2) Company-Owned Interconnection Facilities.
- 2.3.3 Tariff Rule No. 19, a copy of which is attached hereto-as Appendix J to this RFP, establishes provisions for Interconnection and Transmission Upgrades. The tariff provisions are intended to simplify the rules regarding who pays for, installs, owns, and operates interconnection facilities in the context of competitive bidding. Proposers may propose to build the Company-Owned Interconnection Facilities except for any work to be done in the Company's existing facilities. Construction of Company-Owned Interconnection Facilities by the Proposer must comply with industry standards, laws,

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¹² Transmission Planning Criteria <u>isare</u> further described in the Companies' December 23, 2016 PSIP Update Report on beginning on page O-11 of <u>Appendix O</u>.

and license information, as well as the Company's specific construction standards and procedures that the Company will provide upon request. (See Section 2.3.1.) The Company uses the breaker-and-a-half scheme for its transmission switching station as shown in Attachment A of Tariff Rule No. 19. Proposers should follow this scheme for purposes of their estimates.

- 2.3.4 Selecting a site for new generation and / or transmission line terminus has cost impacts to the Company System. The Proposer shall be responsible for all costs required to interconnect a Project to the Company System, including all Seller-Owned Interconnection Facilities and Company-Owned Interconnection Facilities.
- 2.3.5 Proposers are required to include in their pricing proposal, all costs for interconnection and transmission upgrades or distribution upgrades expected to be required between their Facility and their proposed Point of Interconnection. See Appendix I (Interconnection Facilities and Cost Information). to this RFP. Selected Proposers will be responsible for the actual final costs of all Seller-Owned Interconnection Facilities and Company-Owned Interconnection Facilities.—, whether or not such costs exceed the costs set forth in a Proposer's Proposal. No adjustments will be allowed to the offered price in a Proposal if actual costs for Interconnection Facilities exceed the amounts Proposed.
- 2.1.1 Proposals that include a storage component must design their facility to provide:
 - Load Shifting, which means that energy is absorbed by the battery in one period of time and discharged to the grid at another period of time; and
 - Frequency Response, which means that the battery will respond with rapid import or export during imbalances of supply and demand on the grid where the system frequency will increase or decrease suddenly.
 - Frequency Regulation, which means that the power output of or input to the battery can be adjusted in response to signals from the Company EMS such that the battery can contribute to the system's regulating reserve capacity
 - Regulating Reserve, which means the amount of capacity between the current load operating point and its maximum import and export capacity.
 - Storage functionality that is maintained throughout the lifetime of their facility.
- 2.1.2 Proposers are required to include in their Proposal a \$/year Lump Sum Payment amount per \$100,000 of actual interconnection costs (de-escalator). The Company will use the \$/year figure along with the Proposer's interconnection cost estimate (or, in the Company's discretion, the Company's estimate) in the initial economic analysis of the Proposal.
- 2.3.6 All <u>projectsProjects</u> will be screened for general readiness to comply with the requirements for interconnection. Proposals selected to the Final Award Group will be subject to further study in the form of an Interconnection Requirements Study. The IRS

process is further described in <u>Section 5.1</u> of this RFP. The IRS will provide information <u>on</u> including, but not limited to, a power systems analysis and identification of equipment, costs, and schedule to evaluate the upgrades necessary to interconnect the proposed Project into the Company System, individually or on a portfolio basis. The results of the completed IRS, as well as any mitigation measures identified, will be incorporated into the terms and conditions of a final executed PPA. The Proposer must provide all Proposal information required to complete the IRS with the Proposal, as described in <u>Appendix B to this RFP</u>. Any additional information required must be provided no later than <u>fifteen</u> (15) days after request by the Company.

Chapter 3: Chapter 3: Instructions to Proposers

3.1 Schedule for the Proposal Process

<u>Table 1</u> sets forth the schedule for the proposal process (the "RFP Schedule"). This schedule is designed to provide Proposers the opportunity to safe harbor tax credits. 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

Milestone	Schedule Dates
(1) PUC Opens RFP Docket	October 6, 2017
(2) Draft RFP is filed	October 23, 2017 ¹³
(3) Technical Conference Webinar	November 3, 2017
(4) 1st Round of Stakeholder Comments	November 17 13, 2017
submitted to Companies PUC	
(5) Companies Filing of Proposed Final RFP and	December 21 20, 2017
Model PPACompanies' Response to	
Stakeholder Comments filed	
(6) 2nd Round of Stakeholder Comments	January 12, 2018
submitted to CommissionPUC Order	
Providing Guidance	
(7) Proposed Final RFPs filed	<u>February 2, 2018</u>
(7)(8)Completion of Commission review period	January 29No later than February
of Proposed Final RFPs	<u>19,</u> 2018
(8) Commission approves Final RFP and Model	30 days after (7) ¹⁴
PPA	
(9) Final RFP is issued	5 business days after $(8)^{\frac{15}{2}}$
(10) Proposal due for Self-Build Option	1 day before (11) at 2:00 pm HST
(11)(10) Proposals due for all Other Proposals	60 days after (9) at 2:00 pm HST
(12)(11) Selection of Short List	30 days after (11 <u>10</u>)
(13) Publication of BAFO Information	5 business days after (12)
(14) Self-Build Option BAFO due (if any)	1 business day before (15)
(15)(12) Other Proposers' BAFOs due	5 business days after (1311)
(16)(13) Selection of Final Award Group ¹⁶	120 <u>105</u> days after (15 <u>12</u>)
(17)(14) Contract Negotiations Start	<u>52</u> business days after (<u>1613</u>)

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 Oʻahu ,Hawaiʻi Island, and Maui variable RFPs and that PUC approval for such PPAs is obtained for the Oʻahu, Hawaiʻi Island, and Maui variable RFPs in the third

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⁴³ Subsequent dates are dependent on the procedural schedule set by the PUC.

¹⁴ The Framework for Competitive Bidding 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 for Competitive Bidding, adopted by the Commission through Order No. 23121, filed on December 8, 2006 in Docket No. 03-0372, summarized in an Order issued on February 24, 2011 in Docket No. 2011-0038, and cited throughout Order No. 34856, 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.

¹⁵ Subsequent dates are dependent on the procedural schedule set by the PUC.

¹⁶ If the quantity and complexities of the Proposals allow for a quicker evaluation period, the Final Award Group will be announced sooner to allow more time for subsequent steps.

quarter of 2019 and the Maui variable RFP in August 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.

3.2 Company RFP Website—Electronic Procurement Platform

3.2.1 The Company has established a website for general information to share with potential Proposers. The website is located at the following link:

www.hawaiianelectric.com/competitivebidding

The Company will provide general notices, updates, schedules and other information on the RFP website throughout the process. Proposers should check the website frequently to stay abreast of any new developments. This website will also contain the link to the Electronic Procurement Platform employed by the Company for the receipt of Proposals. The Company will send updates posted on the website through the Electronic Procurement Platform.

"Sourcing Intelligence," developed by Power Advocate is the Electronic Procurement Platform that the Company has licensed and will utilize for this RFP. Proposers who do not already have an existing account with PowerAdvocate, and who intend to submit a Proposal for this RFP, will need to register as a "Supplier" with PowerAdvocate.

- 3.2.2 There are no license fees, costs, or usage feefees to Proposers for the use of the PowerAdvocate Platform.
- 2.1.3 Proposers can register for a new account by clicking on the "Registration" button on the PowerAdvocate website at the following address:

 www.poweradvocate.com

See <u>Appendix E</u> to this <u>RFP</u> for <u>registration</u>, user information and instructions on PowerAdvocate's Sourcing Intelligence procurement platform.

- 2.1.4 In order to complete the registration, the Proposer will need to review and accept PowerAdvocate's Terms of Use. The Terms of Use are available online and a copy is also attached for convenience in <u>Appendix E</u> (PowerAdvocate User Information).
- 2.1.5 Once a Proposer has successfully registered as a Supplier with PowerAdvocate, the Proposer shall request access to the subject RFx¹⁷ event from the Company Contact via email through the RFP Email Address. The email request must list the Supplier name

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⁴⁷RFx event is the terminology used in Sourcing Intelligence to describe the RFP event.

under which the Proposer has registered with PowerAdvocate. Once the RFx event is opened, Proposers will have online access to general notices, RFP-related documents, and other communications via Sourcing Intelligence, and may begin to submit their Proposal.

- 3.2.3 Proposals shallwill be accepted only through the PowerAdvocate Platform.
- 3.2.4 Proposals must be submitted through Sourcing Intelligence by 2:00 pm Hawai'i Standard Time (HST) on the date shown in the RFP Schedule in Section 3.1., Item 10 of this RFP. Sourcing Intelligence will not accept the submittal of late information for this RFx event. It is the Proposer's sole responsibility to ensure that its complete information has been submitted on time. AnyThe Proposal information that is merely SAVED, but not SUBMITTED will not be considered submission deadline via the PowerAdvocate Platform is an Eligibility Requirement for this RFP. See Section 4.2 of this RFP.
- 3.2.5 All Proposals must be prepared in accordance with the procedures and format specified in the RFP and the RFx event. Proposers are also are required to respond to all questions and provide all information requested in the RFP and the RFx event, as applicable. This process is intended to provide an orderly, consistent and fair evaluation of the Proposals.

3.3 Technical Conference

The Company is open to ideas and feedback on these draft RFP documents and on the RFP process in general. To facilitate that feedback, the Company will hold held a webinar ("Technical Conference (webinar) Webinar") in accordance with the Competitive Bidding Framework for prospective Proposers and other stakeholders to discuss the provisions and requirements of this and other RFPs being offered in parallel for prospective Proposers and other stakeholders. The Technical Conference will allow Webinar allowed stakeholders to asksubmit questions and was intended to help them better understand the Companies' proposed competitive bidding process and draft documents. Such opportunity will then allow the stakeholders to provide more refined and detailed feedback regarding the process and draft documents.

The Company encourages any party interested in submitting a Proposal to attend the Technical Conference. This Technical Conference will be Webinar was held on November 3, 2017 as described in the Schedule in Section 3.1 above. Parties interested in attending the Technical Conference should check the RFP Website for updates or further announcements on the time of the Technical Conference. An electronic version of the webinar will be made Technical Conference Webinar is available on demand via the RFP website listed in Section 3.2.1 above. Prospective Proposers may submit written questions in advance regarding the proposed RFP to the RFP Email Address set forth in Section 1.6. The Company will attempt to answer such questions during the Technical Conference. No answers to questions will be sent or posted prior to the Technical Conference. The Company will respond only to questions it deems relevant and reserves the right not to respond to questions. The Company will endeavor to address questions and comments received during the Technical Conference and may, but is not required to, post or send select written responses subsequent to the Technical Conference. In the event a conflict exists between any oral and post conference written response, the post-

conference written response shall control.

After PUC approval and issuance of the final RFP, the Company may hold a Proposers' Conference to clarify any aspect of the RFP for potential questions that will be helpful to prospective Proposers. If the Company elects to hold such a conference, the date and time will be posted on the RFP Website via a Q&A section on the RFP website. Once the PowerAdvocate RFx event has been opened and the RFP is open for bid submissions, Proposer questions should be directed through PowerAdvocate's messaging feature.

The Company has-also prepared a webinar to introduce the concepts and provisions of the new Model-RDG PPA. ("RDG PPA Webinar"). The Company encourages any party interested in submitting a Proposal to view the RDG PPA Webinar. as well. This RDG PPA Webinar will be made available on-demand on October 24, 2017 via the Company website listed in Section 3.2.1 above of this RFP. Parties interested in submitting questions regarding the RDG PPA Webinar may send them to renewableacquisition@hawaiianelectric.com. the email address set forth in Section 1.6 of this RFP.

3.4 Preparation of Proposals

- 3.4.1 Each Proposer shall be solely responsible for reviewing the RFP (including all attachments and links) and for thoroughly investigating and informing itself with respect to all matters pertinent to this RFP, the Proposer's Proposal, and Proposer's anticipated performance under the PPA.
- 3.4.2 Proposers shall rely only on official information provided by the Company in this RFP when preparing their Proposal. The Company will rely only on the information included in the Proposals and additional information from Proposers solicited by the Company to evaluate the Proposals received.
- 3.4.3 Each Proposer shall be solely responsible for and shall bear all of its costs incurred in the preparation of its Proposal and—or its participation in this RFP, including, but not limited to, all costs incurred with respect to the following: (1) review of the RFP documents, attending; (2) meetings with the Company; (3) Site visits; (4) third-party consultant consultation; and (5) investigation and informing itself with respect to matters pertaining research relating to its Proposal and this RFP, and any. Any such costs associated with the same shallwill not be reimbursed by the Company to any Proposer, including the selected Proposer(s).
- 3.4.4 Each Proposal shallmust contain the full name and business address of the Proposer and shallmust be signed by an authorized officer or agent¹⁸ of the Proposer. Signature and certification are Eligibility Requirements for this RFP. See Section 4.2 of this RFP.

¹⁸ Proposer's officer or agent must be authorized, to sign the Proposal. Such authorization must be in writing, and may be granted via Proposer's organizational documents (i.e., Articles of Incorporation, Articles of Organization, By-laws, etc.), resolution, or similar documentation.

3.5 Organization of the Proposal

<u>Appendix B (Proposer's Response Package)</u> E to this <u>RFP</u> provides information for submitting Proposal information thoughthrough the PowerAdvocate Platform.

<u>Each</u> Proposer shall be required to agree to the use of electronic signature within the PowerAdvocate Platform and provide an electronic signature or on the other appropriate certification form forms for the Proposal.

3.6 Proposal Limitations

Proposers expressly acknowledge that Proposals are submitted subject to the following limitations:

The RFP does not commit or require the Company to award a contract, pay any costs incurred by a Proposer in the preparation of a Proposal, or procure or contract for products or services of any kind whatsoever. The Company reserves the right, in its sole discretion-consultation with the Independent Observer, to accept or reject, in whole or in part, any or all Proposals submitted in response to this RFP, to negotiate with any or all Proposers eligible to be selected for award, or to withdraw or modify this RFP in whole or in part at any time.

- <u>The Company reserves</u> the right, in <u>its sole discretion consultation with the Independent Observer</u>, to request additional information from any or all Proposers relating to their Proposals or to request <u>that Proposers to clarify</u> the contents of their Proposals. Proposers <u>thatwho</u> are not responsive to such information requests may be eliminated from further consideration upon consultation with the Independent Observer.
- The Company reserves the right, in its sole discretion consultation with the Independent Observer, to solicit additional Proposals from Proposers after reviewing the initial Proposals. Other than as provided herein this RFP, no Proposer will be allowed to alter its Proposal or add new information to a Proposal after the due date for submission of Proposals.
- All material submitted in response to this RFP shallwill become the sole property of the Company, subject to the terms of the NDA.

3.7 Proposal Compliance and Bases for Disqualification

Proposers may be deemed non-responsive and—/or Proposals may not be considered for reasons including, but not limited to, the Eligibility Requirements listed in Section 4.2 and the following:

 Any unsolicited contact by a Proposer or prospective Proposer with personnel of the Company pertaining to this RFP as described in Section 1.5.5.

- The Proposal does not meet one or more of the Eligibility Requirements specified in Section 4.2.
- The Proposal does not meet one or more of the Threshold Requirements specified in Section 4.3.
- The Proposal is not in conformance with the RFP requirements and instructions; deemed to be unacceptable through a fatal flaws analysis as described in Section 4.4.2.
- The Proposal is conditional in a manner not permitted by the RFP;
- Company is not satisfied, in its sole discretion, that the Proposer is capable of meeting its financial obligations with respectdoes not respond to its Proposalthe Company's request for reasons including, but not limited additional information to, Proposer's inadequate credit rating or creditworthiness or Proposer's failure to supply a requested letter of credit, or other form of security acceptable to the Company; and/or clarify the contents of its Proposal.
- Company is not satisfied, in its sole discretion, that the Proposer is capable of fully and timely implementing its Proposal.

3.8 Power Purchase Agreement

3.8.1 The Power Purchase Agreement for Proposers selected under this RFP will be in the form of the Company's ModelRDG PPA¹⁹, attached as Appendix C2 to this RFP.

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¹⁹ As directed by the PUC in the Kuia Solar (2015-0224) and South Maui Renewable Resources (2015-0225) dockets, the Company has been exploring alternative contract structures to implement that better address the growing issue of curtailment of excess energy as the Company progresses towards 100% renewable energy. Additionally, as generation resources continue to shift from primarily centralized, utility-owned facilities to more distributed facilities owned by independent power producers, greater operational flexibility is required to ensure the safe, reliable, and cost effective operation of the grid. As described in the whitepaper prepared for the Companies in December 2016 by the Smart Electric Power Association Alliance ("SEPA") and ScottMadden Inc. filed in Dockets 2015-0224 and 2015-0225, "as the islands evolve to ever-increasing levels of renewable energy, the ability to treat any type of energy as 'must-take' [as under the RAP or As-Available PPA models] is increasingly limited." Moreover, such "must-take" models "fail to allocate curtailment risk in a way that is equitable to all parties, transparent to all stakeholders, and sustainable in the future with increasing need to control energy production to match demand." Consistent with meeting the future needs of the grid, the expectation is that all generation resources, whether utility, IPP or customer owned, will contribute to maintaining system stability. As a result, the Company is looking to move away from the traditional, intermittent renewable energy model of payments for energy and is seeking to select Projects based on the ModelRDG PPA where payments are instead based on a Facility's availability and performance for a measured level of available solar or wind resource. This eliminates the revenue uncertainty associated with curtailment for IPPs while also providing the Company's system operators with the ability to dispatch resources as required to meet load as well as and to address reliability needs through their use as ancillary services. The proposal evaluation methods and contract provisions for this approach are further described in Appendix Appendices L and Appendix C in this RFPC1 and C2, respectively, to this RFP.

- 3.8.2 In general, under the Model-RDG PPA, payment to the Seller shall be made incontains two parts: a Lump Sum Payment component to cover the fixed costs of the Project and an Energy Payment (\$/MWh component) to cover variable operations and maintenance costs (if applicable, depending on the resource). In return, the Seller shall guarantee minimum availability metrics to ensure that the Facility is maintained and available for production, as well as provide an indication of the available energy available in near real-time for the Company's dispatch.
- 3.8.3 Proposers may propose modifications to the RDG PPA but are encouraged to accept the RDG PPA in order to expedite the overall RFP process and potential PPA negotiations. As a component of their Proposals, Proposers who elect to propose modifications to the Model RDG PPA-shall provide a red-line version of the Model RDG PPA withidentifying their requested changes and revisions modifications as a component of their Proposals well as a detailed explanation and supporting rationale for each modification. Such modifications will be evaluated as a non-price evaluation criteria as further described in <u>Section 4.4</u> and <u>AttachmentAppendix L</u>. In order to facilitate this process, the Company will make available electronic versions of the Model PPA. The Company will review and consider the requested changes and reflect the suggested changes in the overall risk assessment associated with the evaluation of each Proposal. Proposers are strongly discouraged from proposing fundamental changes to the risk allocation set forth in the Model PPA. Any terms of the Model PPA designated as nonnegotiable by the PUC will not be open for negotiation and must be accepted by the selected Proposer(s) as is RDG PPA. Any proposed modifications to the RDG PPA will be subject to negotiation between the Company and the Final Award Group. Certain provisions of the RDG PPA, such as the calculation of availability and payment terms, may be administratively burdensome to endeavor if they differ between selected Projects. Therefore, the Company will endeavor to negotiate similar provisions across the Final Award Group for such provisions.
- 1.3.1 The following sections of the PPA, in addition to any additional sections designed by the PUC as non-negotiable, are not negotiable and Proposers who submit proposals showing revisions to these sections are subject to disqualification: Article 1, Article 2, Article 3, Article 7, Article 8, Article 9, Article 11, Article 12.3, Article 14, Article 15, Article 16, Article 17, Article 18, Article 20, Article 21, Article 22, Article 25, Article 26, Article 27, Section 29.15, Sections 2 and 3 of Attachment B, Attachment C, Attachment H, Attachment I, Attachment J, Attachment M, Attachment T, and Attachment U. Changes to the above sections will be allowed to reflect the results of the IRS and or changes in law that occur prior to the Execution Date. Although the Company is unlikely to consider substantive changes to Attachment Q, the Company intends to receive Proposer input on this attachment.
- 3.8.4 Proposals that do not include proposed revisions to the attached ModelRDG PPA shallwill be deemed to have accepted the ModelRDG PPA terms. Modifications to the PPA provisions previously identified in Section 3.8.4 are not allowed and such provisions will not be subject to negotiation.
- 1.3.2 The Company shall have the right to reject any Proposal or evaluate it unfavorably based on the nature of the exceptions to the Model PPA proposed by a Proposer.

3.9 -Pricing Formula Requirements

- 3.9.1 Proposers may submit pricing for one or both options, as described in <u>Section 1.2.13.12 of this RFP.</u> Please also refer to <u>Section 1.8</u>:
 - Proposal without a storage component
 - Proposal with a storage component
- 3.9.2 Proposer's Response Package shallmust include the following pricing for each option:
 - Lump Sum Payment —(\$/year) payment): Payment amount for full availability. Payment will be made in monthly increments. No escalation of the Lump Sum Payment over time will be allowed. A Proposal's Lump Sum Payment will be compared to other Proposals on a \$/MWh basis based on the NEP RFP Projection, which is the annual estimated Net Energy Production (MWh) of the Facility for the term of the PPA as described further in Section 3.1411.2 of this RFP.
 - Estimated Total Interconnection Costs (See Appendix I (Interconnection Facilities and Cost Information)).to this RFP): Proposers are required to include in their pricing proposal all costs for interconnection and transmission upgrades or distribution upgrades expected to be required between their Facility and their proposed Point of Interconnection (see diagrams from. (See Attachment A to Tariff Rule No. 19)..)
 - Energy Payment Price —(\$/MWh) payment): Payment for delivery of Net Energy.
 - Total Project Capitalization Interconnection Costs (\$) for Self-Build Proposals only.
 - Annual Revenue Requirement (\$) for Self-Build Proposals only.
 - \$\frac{\\$/\section{savings Rate (\\$/\gentyear-amount): Amount per \\$100,000 (lower than the estimate) of actual interconnection costs.
 - The intent of the Interconnection Costs Savings Rate is to include a shared savings mechanism between Projects selected in the Final Award Group and the Company's customers. Proposers should include a downward adjustment to their Lump Sum Payment for every \$100,000 in savings Proposers achieve based on their actual interconnection costs as compared to the proposed interconnection costs set forth in their Proposal. The Lump Sum Payment will automatically be reduced by the Interconnection Cost Savings Rate in increments if a Proposer in the Final Award Group achieves at least \$100,000 in savings between its proposed Estimated Total Interconnection Costs and its actual total interconnection costs. Savings will be rounded to the nearest \$100,000. The

Final Award Group will be required to submit evidence of their actual total Interconnection Costs (i.e. invoices, purchase orders) to the Company upon the Commercial Operations Date. For Example: Assume a selected Proposal includes a Lump Sum payment of \$5,000,000/year and an Interconnection Costs Savings Rate of \$2,000/year per \$100,000 and the Total Estimated Interconnection Costs set forth in the Proposal are \$1,000,000. Further assume that the evidence submitted by the selected Proposer reflected actual total interconnection costs of \$725,000. The actual interconnection costs would be rounded to \$700,000 and there would be a savings to the developer of \$275,000 in Interconnection Costs. Rouding the savings to nearest \$100,000 brings us to \$300,000, so the Interconnection Costs Savings rate would be multiplied by 3. In such case the Lump Sum Payment due the selected Proposer would be reduced by \$6,000 (3 x \$2,000) to \$4,994,000/year. The savings realized by the Company's customers and the selected Proposer would be as follows:

- Customers = \$120,000 (\$6,000 x 20 years) in savings
- Selected Proposer = \$155,000 (\$275,000-\$120,000) in savings
- 3.9.3 All <u>proposal Proposal</u> information must be independent of changes to state or federal investment tax credit policies. <u>The requirement that Proposals must not be contingent upon changes to laws or regulations is an Eligibility Requirement for this RFP. See Section 4.2 of this RFP.</u>

3.10 Sites Identified by the Company

As an alternative to a site identified by the Proposer, the Company has identified potential Sites where landowners have expressed a willingness to negotiate a lease or purchase of the land to support a renewable energy project. These Sites were identified through a Land Request for Information ("Land RFI"). Proposers will be responsible for working directly with the land owner and must secure site control with such land owner as set forth in Section 4.3 prior to submitting a Proposal. Site Control is a Threshold Requirement for this RFP. See Section 4.3 of this RFP. Additional information about the sitesSites identified in the Land RFI werewas provided to interested parties thatwho signed Land RFI NDAs. Land RFI information remains available to other interested parties thatwho sign the Land RFI NDA. The Land RFI is further described in Appendix G—to this RFP. Proposers are not required to select a site identified in the Land RFI and as noted above may propose any site. A Proposer may meet with the Company as set forth in Section 2.2.1 if it would like to obtain similar hosting capacity information for its site as identified for the Land RFI parcels.

3.11 Project Description

3.11.1 Proposers must agree to provide all information pertaining to the design, development and construction of the Interconnection Facilities as specified in <u>Appendix B (Proposer's Response Package)</u>, <u>B</u> to this RFP, including, but not limited to, the following:

- Facility size (MW_{AC} and MW_{DC}), available capacity factor;
- Proposed interconnection point;
- Site Plan, including any line extension;
- Permitting Plan;
- Single line and three line diagrams with a wet stamp by a registered Professional Engineer in Hawai'i;
- Details of major equipment, including, but not limited to, name of manufacturer, models, key metrics, characteristics of the equipment, and performance specifications;
- Projected hourly annual energy production profile²⁰ of <u>the</u> Facility (8760 hours/year);
- High-level cost information including costs for equipment, construction, engineering, Seller-Owned Interconnection Facilities, Company-Owned Interconnection Facilities, Land, and Annual O&M; and
- Weather profile (<u>e.g.,</u> solar resource information; wind resource information; etc.) used in arriving at Net Energy Potential information.

Proposers must also agree to provide open and complete access to their books and project financial information as described, including a Project financial pro forma with supporting documentation and proposed project finance structure in the form attached in Appendix B.

Each Proposer must also agree to provide Project financial information, including a proposed Project finance structure in the form in Appendix B, attached to this RFP. Such information will be used to evaluate the non-price criteria, Financial Strength and Financing Plan, set forth in Attachment L of this RFP and the Financial Viability of Proposer which is a Threshold Requirement for this RFP. See Section 4.3 of this RFP. Upon selection, the Final Award Group may be requested to provide further detailed cost information if requested by the PUC or the Consumer Advocate as part of the PPA approval process. If requested such information would be provided to the PUC and Consumer Advocate pursuant to a protective order in the docket.

3.11.2 Proposers must also provide the following information in their Proposer's Response Package template:

NEP RFP Projection—<u>estimated</u>: <u>Estimated</u> annual Net Energy Production (MWh) of the-Facility for the term of the PPA, including relevant supporting information and assumptions used, such as resource measurements, energy production studies, warranted levels of annual degradation, and related information. If a Proposal is selected to the Final Award Group and a PPA is executed bybetween the Company and the Proposer, the NEP RFP Projection will be further evaluated at several steps throughout the process as set forth in the ModelRDG PPA, and adjustments to the Lump Sum Payment will be required to be made accordingly. After the Facility has achieved commercial operations,

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The projected hourly annual energy production profile shall beis the projected output from the generating facility without curtailment and before any energy is directed to an energy storage facility, if one will be provided.

baseline performance metrics will be established. The performance of the Facility will be assessed on a continuing basis.

- A Self-Build Proposal shall also provide revenue requirements for the term of the PPA.
- 3.11.3 The Proposer agrees that no material changes or additions to Facility from what is submitted with this Proposal shallwill be made without the Proposer first having obtained prior written consent from the Company. Material omissions are not allowed and are an Eligibility Requirement for this RFP. See Section 4.2 of this RFP.

3.12 Confidentiality

- 3.12.1 Each prospective Proposer must submit an executed NDA in the form attached hereto as Appendix F to this RFP by the due date for Proposals specified in the RFP Schedule in Section 3.1. The form of the NDA is not negotiable. Information designated as confidential by the Company will be provided on a limited basis, and only those prospective Proposers that who have submitted an executed NDA will be considered. The full execution of agreements or other documents required is an Eligibility Requirement for this RFP. See Section 4.2 of this RFP.
- 3.12.2 Proposers must clearly identify all confidential information in their Proposals. However, Proposers should take care to designate as confidential only those portions of their Proposals that genuinely warrant confidential treatment. The Company discourages the practice of marking confidential each and every page of a Proposal as "Confidential.".

 The Company will make reasonable efforts to protect any such confidential information that is clearly marked as "Confidential." confidential. The Company reserves the right to share any information, even if marked Confidential confidential, to its agents or, contractors, or the Independent Observer for the purpose of evaluating the Proposal, as set forth in the NDA.
- 3.12.3 The Company will request that the PUC issue a Protective Order to protect confidential information provided by Proposers to the Company. A copy of the Protective Order, once issued by the PUC, will be provided to Proposers. Proposers should be aware that the Company may be required to share certain confidential information contained in Proposals with the PUC, the Division of Consumer Advocacy, State of HawaiiHawaii Department of Commerce and Consumer Affairs, and the parties to any docket instituted by the PUC, provided that recipients of confidential information have first agreed in writing to abide by the terms of the Protective Order. Notwithstanding the foregoing, no Proposer shallwill be provided with Proposers be provided with any other information contained therein in such Proposals or provided by or with respect to any other Proposer, the Best and Final Offer.

3.13 Credit Requirements Under the PPA

3.13.1 Proposers with whom the Company concludes <u>PPA</u> contract negotiations of a <u>PPA</u> are required to post Development Period Security and Operating Period Security as set forth

in the ModelRDG PPA, attached as Appendix C. Credit/Collateral Requirements are Threshold Requirements for this RFP. See Section 4.3 of this RFP.

- 3.13.2 The Development Period Security and Operating Period Security identified in the ModelRDG PPA are minimum requirements. Proposers may not propose an amount lower than that set forth in the ModelRDG PPA.
- 3.13.3 <u>Each</u> Proposer shall be required to provide a satisfactory irrevocable standby letter of credit in favor of the Company to secure Proposer's payment of all Company-Owned Interconnection Facilities costs <u>whichthat</u> are payable to Company as described in Appendix G ofto the <u>ModelRDG PPA</u>.
- 3.13.4 Proposer Proposers may be required to fund a monetary escrow account in lieu of the required Source Code Escrow required under Attachment B ofto the Model RDG PPA.

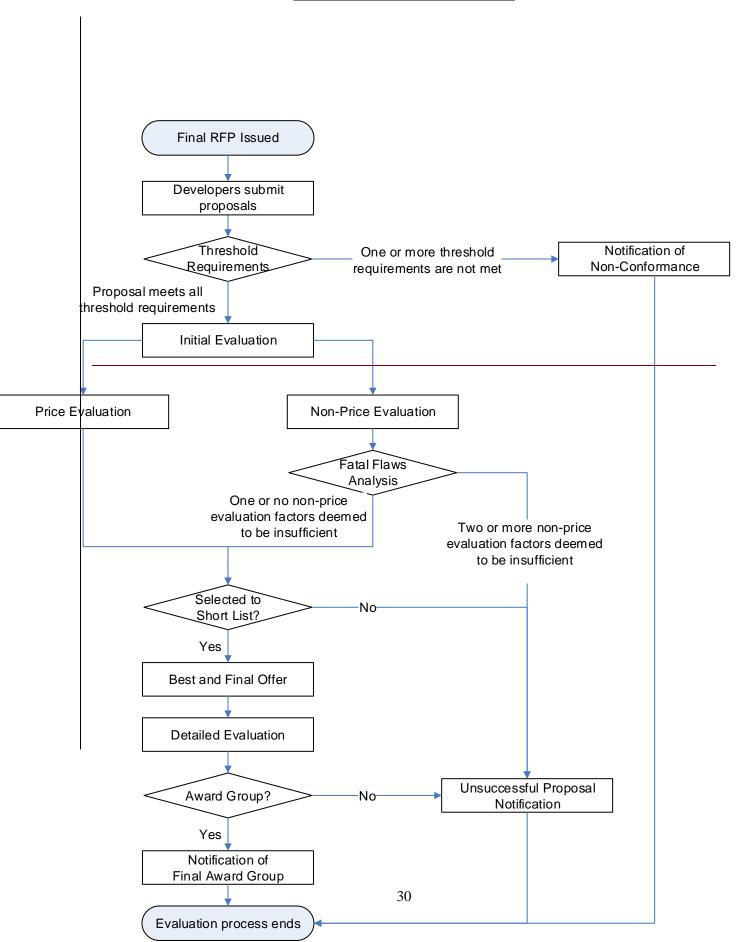
Chapter 4: Chapter 4: Evaluation Process and Evaluation Criteria

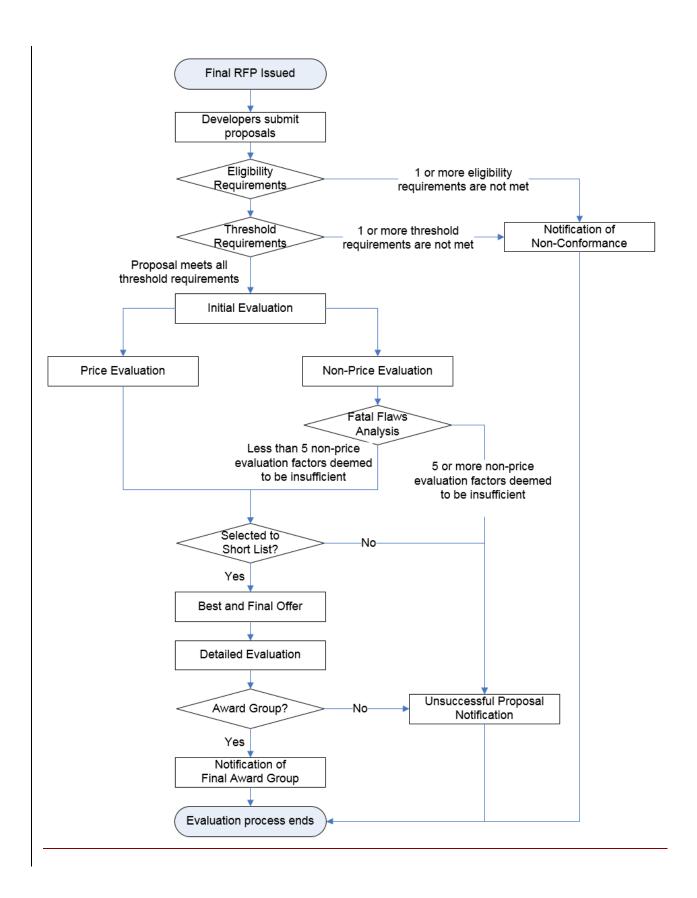
4.1 Proposal Evaluation and Selection Process

The Company will be employing a multi-step evaluation process. Once the Proposals are received, the Proposals will be subject to a consistent and defined review, evaluation, and selection process. This Chapter will provide a description of each step of the process, along with the requirements of Proposers at each step. Further details of the steps in the process are provided in Appendix L to this RFP. Figure 1 sets forth the flowchart for the proposal evaluation and selection process.

Upon receipt of the Proposals, the Company will ensure that the Proposals meet the Eligibility Requirements, and if so, <u>will</u> review the Proposals to ensure that the Threshold Requirements have been met. Proposals that have successfully <u>passedmet</u> the initial eligibility and threshold criteria will then enter a two-phase process for Proposal evaluation, which <u>encompassesincludes</u> the development of a Short List and then an evaluation of the selected Short List Proposals based on Best and Final Offers.

Figure 1 – Evaluation Workflow





4.2 Eligibility Requirements

Upon receipt of the Proposals, each Proposal will be reviewed to ensure that it meets the following Eligibility Requirements. Failure to meet any of these requirements could lead to disqualification of the Proposal from further review and evaluation.

- The Proposal must be received on time- via the PowerAdvocate Platform.
- The non-refundable Proposal Fee must be received on time.
- The Proposal must not contain material omissions.
- The Proposal must be signed and certified by an officer or other authorized person of the Proposer.
- There must not have been, in the Company's sole determination, illegal or undue attempts by or on behalf of the Proposer or others to influence the Proposal review process.
- The Proposal must not contain misrepresentations.
- <u>The Proposers havemust</u> fully <u>executed execute</u> the agreements or other documents required pursuant to this RFP.
- <u>The Proposer provides must provide</u> a certificate of good standing from the State of Hawai'i Department of Commerce and Consumer Affairs.
- <u>The Proposer provides must provide</u> Federal and State tax clearance certificates for the Proposer.
- The Proposal <u>ismust</u> not <u>be</u> contingent upon changes to existing county, state or federal laws or regulations.
- Proposed The proposed Project is must be located on the Island of O'ahu.
- No single point of failure from the Facility shall result in a decrease in net electrical output greater than 135 MW.
- Storage systems that are coupled with a Facility must only be charged by the renewable energy generated by the Facility and not delivered from the grid.

The Company in coordination with the IO will determine if a Proposer is allowed to cure any aspect of its Proposal or whether the Proposal would be eliminated based on failure to meet Eligibility Requirements. If it is deemed that a Proposer will have the opportunity to cure any aspect of its Proposal, the Proposer shall be given three (3) business days to cure from the date of notification of such failure.

4.3 Threshold Requirements

Proposals that meet all the Eligibility Requirements will then be evaluated to determine compliance with the Threshold Requirements, which have been designed to screen out proposals that are insufficiently developed, lack demonstrated technology, or will impose unacceptable financial accounting consequencesexecution risk for the Company. RFP Process.. RFP Process.. <a href="Proposals must satisfy to be eligible for further consideration in Stage 1 of the RFP Process.. Proposals that fail to meet a Threshold Requirement. Proposals that fail to meet a Threshold Requirement.

will be eliminated from further consideration upon concurrence with the IO. The Threshold Requirements for this RFP are the following:

- **Site Control:** The Proposal must demonstrate that the Proposer has Site Control for all real property required for the successful implementation of a specific Proposal at a <u>siteSite</u> not controlled by the Company, including any Interconnection Facilities for which the Proposer is responsible. The need for a firm commitment is necessary to ensure that Proposals are indeed realistic and can be relied upon as the Company moves through the remainder of the RFP process. To meet this Site Control requirement, Proposers must <u>either provided</u> one of the following:
 - <u>Provide</u> documentation <u>indicating</u>confirming that <u>they own</u> the <u>Site Proposer</u> owns 100% of the fee interest in the <u>Site</u> on which the Project will be situated;
 - holdProvide documentation confirming that the Proposer holds a leasehold interest in the Site for a term at least equal to the term of a 20 year PPAthe PPA as specified in the Proposer's Proposal (taking into account the timelines set forth in this RFP fromfor selection, negotiation, and execution of a PPA; and PUC approval of a PPA); or
 - have Provide documentation confirming that the Proposer has an executed option agreement to purchase the Site or to lease the Site for a term at least equal to the term of a 20 year PPA. the PPA as specified in the Proposer's Proposal. This option agreement does not need to be exclusive to the Proposer at the time the Proposal is submitted, but may be contingent upon selection of the Proposal to the Final Award Group.

Where government or publicly-owned lands are part of the Site or are required for the successful implementation of the Proposal, the Proposer must provide a credible and viable plan, including evidence of any steps taken to date, to secure all necessary Site Control for the Proposal, including securing necessary and appropriate permits, approvals, rights-of-way, access, and other appurtenances necessary for the project, including but not limited to evidence of sufficient progress toward approval of by the government agency or other body vested with the authority to grant such approval (as demonstrated by records of the agency). Proposals that do not demonstrate Site Control will be rejected.

If the Threshold Requirement for Site Control is met, Site Control will be further evaluated as a part of the Non-Price evaluation. <u>See Section 4.4 belowof this RFP</u>.

• Performance Standards: The proposed Facility must be able to meet the attributes identified in this RFP and the Performance Standards identified in the RDG PPA. The Company will review the Proposal information received, including the design documents and operating procured materials provided in the Proposal, and will make a determination on whether the Project as designed is able to meet the Performance Standards identified in this RFP and the Model PPA. Additional Performance Standards may be the RDG PPA and in this RFP. Proposals should provide the information required based on the results of the IRSto make such a

determination in an organized manner to ensure this evaluation can be completed on a timely basis.

Proven Technology: This criterion is intended as a check to ensure that the technology proposed is viable and can reasonably be relied upon to meet the objectives of this RFP. The Company will only consider Proposals utilizing technologies that have been sufficiently provensuccessfully reached commercial operations in multiple commercial applications as (i.e., a PPA) at the scale being proposed. Technologies proposed in this RFP are required to be of a "bankable" grade asset class. 21 – should be considered mature energy technologies at the scale being proposed.

Proposals should include any supporting information for the Company to assess the commercial and financial maturity of the technology being proposed.

• Experience of the Proposer: The Proposer, its affiliated companies, partners, and —/or contractors and consultants on the Proposer's Project team shallmust have experience in the development and operation of at least one (1) electricity generation project similar in size, scope, technology, and structure to the Project being proposed by Proposer. The Company will consider a Proposer to have reasonably met this Threshold Requirement if the Proposer can provide sufficient information to demonstrate that the member of the project team whose experience is being identified to meet this threshold criterion has a firm commitment to provide services to the Proposer.

• Financial Compliance

This Project must not cause the Company to be subject to consolidation and capital lease treatment as set forth in Financial Accounting Standards Board ("FASB") Accounting Standards Codification Topic 810 ("Consolidation") and 840 ("Leases"), respectively, as issued and amended from time to time by FASB. Proposers are required to state to the best of their knowledge, with supporting information to allow the Company to verify such conclusion, that the proposal will not: (1) trigger a capital lease accounting treatment under FASB ASC 840 or; (2) result in the Seller under the PPA being a Variable Interest Entity ("VIE") that would trigger consolidation of the Sellers's finances on to the Company's financial statements under FASB ASC 810. The Company will perform a preliminary consolidation and capital lease assessment based on the Proposals received. If the Company believes that the Proposal may be subject to such treatment, it will inform the Proposer and either may request additional information or work with the Proposer to structure its agreement to avoid the capital lease and consolidation treatment. The Company reserves the right to allow a Proposal to proceed through the evaluation process through selection of the Short List and work with the Proposer on this issue. If the Company believes, in its discretion, that the Company and the Proposer cannot

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²¹ An asset is considered "bankable" (i.e. financial investors view the technology risk as very low) if it has known standards, known performance expectations and appropriate warranties. Vendor capabilities (including both technology vendors and specifying vendors), pricing, and other market forces drive market uptake (i.e. "demand pull").

resolve consolidation and capital lease issues during the RFP process, the Company reserves the right to reject the Proposal as nonconforming to the Threshold Requirements. A final consolidation and capital lease assessment will be performed prior to execution of a PPA.

- Credit—/Collateral Requirements: Proposers shall agree to post Development Period Security and Operating Period Security as set forthdescribed in Section 3.13 (Credit Requirements Under the PPA) of this RFP.
- Available <u>Transmission</u> Circuit Capacity: The output capacity of the Proposed project must not exceed the available capacity of the <u>transmission-level</u> circuit to which it will interconnect. <u>Circuit Transmission circuit</u> available capacity information should be confirmed with the Company during project-specific discussions regarding interconnection feasibility <u>prior to Proposal submittal</u>.
- Financial Viability of Proposer: Proposers shallmust provide evidence that thea basic financial plan for the project with details on the sources of debt and equity, capital structure, etc. Evidence is provided of general support for the project financing (i.e. interest in financing the project). Participants are reasonably strong financially. Proposer has the financial resources and adequate financial strength to complete. The proposer, its affiliate or credit support provider has a moderate net worth based on its financial statements and operate the project as planned. Proposers must demonstrate they have completed a sufficient degree of planningan investment grade credit rating (BBB- and due diligence on how the proposed Project is to beabove) and has financed by submitting a financing plan, as well as describing their experience in successfully financing electrical generation-projects, as described in Appendix B of similar magnitude.
- Guaranteed Commercial Operations Date: The project's Guaranteed Commercial Operations Date shallmust be no later than December 31, 2022. This date will be a Guaranteed Milestone in Attachment K to the Model RDG PPA.

Proposers should provide a description of the Project and an explanation as to how and why the project meets the Threshold Requirements in its submission.

4.4 Initial Evaluation – Price and Non-Price Analysis

Proposals that meet the Threshold Requirements will then be subject to a price and non-price analysis assessment. The results of the price and non-price analysis will be a relative ranking and scoring of all eligible proposals. Price-related criteria will account for SIXTY PERCENTsixty percent (60%) of the total score and non-price-related criteria will account for FORTY PERCENTforty percent (40%) of the total score. This 60% price-related criteria 4/40% non-price-related criteria weighting is consistent with

previous RFPs.²² The criteria and methodology for applying the criteria are explained below and in Appendix L, attached to this RFP.

<u>Appendix L</u> (Selection Criteria) of this RFP provides the components of the price and non-price evaluation criteria that will be included in the initial evaluation, but is not necessarily an exhaustive list of all criteria that may be considered.

The Company will employ a closed_bidding process for this solicitation in accordance with Part IV.H.3 of the Framework where neither the specific weightssome of the non-price evaluation criteria nor the price and non-price evaluation models to be used will not be provided to Proposers. However, the Company will provide the Independent Observer with all necessary information to allow the Independent Observer to understand the evaluation models and to enable the Independent Observer to observe the entire analysis in order to ensure a fair process. The evaluation models will be finalized prior to receipt of Proposalsthe receipt of Proposals. The detailed modeling assumptions used by the Company in their models can be found in Appendix J (Modeling Assumptions Data) to the PSIP. The Company will review and discuss with the Independent Observer all decisions regarding the evaluation, disqualification, non-selection, and selection of Proposals, as further discussed in Section 1.4 of this RFP.

4.4.1 Initial Evaluation of the Price Related Criteria

As an initial filter before additional evaluation is performed, using the provided Lump Sum Payment (\$/month), Energy Payment Price (\$/MWh), and the NEP RFP Projection (MWh) information defined in Section 3.11.2 of the RFP, an equivalent energy price (\$/MWh) will be calculated for each Proposal. Equivalent energy pricing for self-build proposals will be determined from the Total Project Capitalization Costs and the NEP RFP Projection.

In the initial evaluation of proposals for a variable generation resource only compared with proposals for a variable generation resource coupled with energy storage, the Company will adjust the variable generation resource only bid by adding the cost of an energy storage facility of the size described in Section 1.2.13 above. This will enable the Company to compare proposals on an equal basis. The Company will then rank Proposals from lowest equivalent energy price to highest equivalent energy price. Clear outliers will be eliminated from further consideration in Stage 1 of the overall RFP process. Further evaluation will then be performed by using production simulations to assess the effects both types of projects may have on grid operations. These effects will be evaluated in determining which type of project would produce greater benefits for customers.

One of the key pricing related considerations will be the extent to which customers' bills will be impacted by integration of the proposed project onto the system. The proposed project that

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²² Including the evaluation weighting in the Company's Docket No. 2013-0156, Waivers from the Framework for Competitive Bidding.

²³ Appendix J to the PSIP can be found at https://www.hawaiianelectric.com/Documents/clean energy hawaii/grid modernization/dkt_2014_0183_20161223_companies_PSIP_update_report_3_of_4.pdf

provides the greatest bill savings on a particular circuit will advance to the next step in the evaluation process. A proposed project with the lowest equivalent energy price may not necessarily result in the largest customer bill reduction as factors such as project size and energy output profile may influence the customer bill impact calculation. Production simulations will be performed to determine how the overall system will behave when the proposed project is integrated onto the system. The production simulation results and calculations of total resources costs over the long-term will be used to estimate impacts on customer bills. The proposed projects will then be ranked from highest to lowest customer bill reduction. A project's impact on changing long-term total resource costs may be used as an indicator of customer bill impacts.

4.4.2 For the price analysis, a levelized cost of energy (\$/MWh) will be calculated for each Proposal, which represents the cost of energy that is produced by the proposed Facility, that if applied over the term of the Proposal, is equal to the net present value of the anticipated payments to the Proposer when discounted back to the base year.

In order to fairly evaluate Proposals of different technologies using levelized price, at this stage in the evaluation, the Company will group Proposals into technology buckets, where the inclusion of storage results in a separate bucket (e.g., PV, PV + storage, wind, wind + storage, etc.). The Company will then award evaluation points within each technology bucket in accordance with the relative ranking of levelized price per MWh. The Proposal with the lowest levelized price in each technology bucket will receive 600 points. All other Proposals in that technology bucket will be awarded 600 points as reduced by the "Applicable Percentage," defined below. The Applicable Percentage is the percentage by which the Proposal's levelized price exceeds the lowest levelized price in that technology bucket. For example, if a Proposal's levelized price is ten percent (10%) higher than the lowest levelized price in that technology bucket, the Proposal will be awarded 540 points (that is, 600 points less 10%). The result of this assessment will be a ranking and scoring of each Proposal within each technology bucket.

4.4.2 Initial Evaluation of the Non-Price Related Criteria

For the non-price analysis, each Proposal will be evaluated on each of the non-price criteria set forthdescribed in Appendix L. During the Each non-price criteria evaluation, a fatal flaws analysiscriterion will be conducted such that any Proposal that is deemed to not meet the minimum standard level for two or more of the non-price criteria-weighted equally and will be disqualified scored on a one (1, poor) to five (5, highly preferable) scale. The minimum standard level for each non-price criteriacriterion is defined in Appendix L. The Company will then rank Proposals using sum up the scorescores received and weighting assigned for each evaluation criterianon-price criterion and award evaluation points in accordance with the relative rankings. ranking of scores. The Proposal with the best combined non-price score will receive 400 points, and all other Proposals will receive points equal to the Proposal's score divided by the top score, multiplied by 400.

<u>During the non-price criteria evaluation, a fatal flaws analysis will also be conducted</u> such that any Proposal that is deemed not to meet the minimum standards level for five

(5) or more of the eleven (11) non-price criteria will be disqualified given that the Proposal has failed to meet nearly half of the non-price factors that are indicative as to the general feasibility and operational viability of a proposed project.

4.5 Selection of the Short List

At the conclusion of both the price and non-price analysis, a total score will be calculated for each Proposal using the 60% price-related criteria—40% non-price criteria weighting outlined above. Proposals will then be grouped according to the circuit to which the proposed Project will interconnect. In order to minimize the complexities associated with studying the cumulative effects and interdependencies of multiple projects on a circuit, only the highest scoring Projects (one with storage and one without storage) per circuit will be eligible to advance to the Short List/40% non-price-related criteria weighting outlined above. The price and non-price analysis, and the summation of both price and non-price scores described above, will result in a ranking of Proposals within each technology bucket.

The Company will select a Short List from the highest-scoring remaining Proposals submitted per circuit. Whilefrom across the total different technology buckets. The Company's objective for the Short List selection process is to identify and select Proposals that are low cost and viable Projects, as defined by the price and non-price rankings will serve as the basis of evaluation, the Company reserves the right to select a Short List that could include a diversity of resource characteristics, project types, and other options. weights at this stage in the process. The Company reserves the right to determine the number of projects Projects selected to the Short List. Proposals that are not included on the Short List will be released when the Short List is established. All other Proposals must remain valid through the are eligible for selection ofto the Final Award Group, and if included in the Final Award Group, through the eligible for signing of a PPA for the Project and approval of the PPA by the PUC.

4.6 Best and Final Offer (BAFO)

- 4.6.1 The Company will solicit a Best and Final Offer from Proposers selected to the Short List. Proposers will have the opportunity to update (downward only) the following pricing elements of their Proposal, including the:
 - Lump Sum Payment (\$/year) amount
 - Energy Payment price (\$/MWh) amount
- 4.6.2 If a Proposer does not modify its Proposal, the original Proposal will be deemed its Best and Final Offer.
- 4.6.3 Proposers will not be allowed to increase the pricing in their Proposals to address interconnection and/or system upgrade costs or for any other reason.
- 4.1.1 If selected to the Short List, the Self Build Option, will also have the same opportunity to provide a Best and Final Offer in accordance with the terms of this RFP. The Best and

Final Offer for the Self-Build Option will be due prior to the Best and Final Offers for all other Proposers, as specified on Table 1.

4.7 **Detailed Evaluation**

The Best and Final Offers of the Short Listed Proposals will be further analyzed, as described in <u>Appendix L</u>, to determine the <u>optimal portfoliofinal group</u> of Proposals <u>forselected in support of</u> the Company system's needs as identified for the <u>islandIsland</u> of O'ahu in the Company's PSIP Update: <u>Report:</u> December 2016, <u>subject to any limitations provided in this RFP.</u> Every Proposal on the Short List will not necessarily be included in the <u>final optimized portfolio of Proposals</u>. <u>Final Award Group.</u>

During the evaluation and before the Proposals advance to the Final Award Group, the Company will perform load flow analyses to determine if certain Project combinations introduce transmission circuit constraints that will factor into the selection process. This is to address the possibility that even though sufficient line capacity was identified for an individual Project, large Projects on separate transmission circuits that are in close proximity with each other could introduce additional transmission circuit constraints. The Projects selected must not have any additional constraints imposed based on the Load Flow Analysis to advance to the Final Award Group. However, the Company reserves the right, in consultation with the IO, to allow minor modifications to a Proposal to avoid such additional constraints. If such modification resulted in a reduced size of the facility, the pricing proposed would also need to be revised. Under no circumstances would a Proposer be allowed to increase their price as a result of such minor modification. In addition, the Company will ensure Projects selected as the Final Award Group are not on the same transmission circuit.

In addition, a sensitivity analysis may be performed that considers the Interconnection Costs Savings Rate included in Proposals selected to the Short List in the event that there are Proposals with approximately the same Total Net Cost to the Company in the detailed evaluations. The Company may run additional scenario analyses if requested by the IO and the time and capability exist to run such analyses.

4.8 Selection of the Final Award Group

Based on the results of the Detailed Evaluation, including the Load Flow Analysis and review of circuits, and review with the Independent Observer, the Company will select a Final Award Group from which to begin contract negotiations. The Company intends to select two (2) Projects in this-Stage 1-RFP. All Proposers will be notified at this stage of the evaluation process whether their Proposal is included in the Final Award Group. However, Proposal evaluation results and rankings will not be disclosed to the Proposers in the Final Award Group. Selection to the Final Award Group and/or entering into contract negotiations does not guarantee execution of a PPA. Any projectProject not selected to the Final Award Group may resubmit their projects be resubmitted in Stage 2 of this RFP or in a subsequent RFP.

<u>Chapter 5: Unless time permits and in consultation with the Independent Observer, after the selection of the Final Award Group, if at any time a Project no longer continues, the Company will not seek a replacement Project in Stage 1 but will seek the supply of variable renewable dispatchable generation from the Stage 2 solicitation process.</u>

Chapter 5: Post Evaluation Process

5.1 Interconnection Requirements Study

The Company will complete Interconnection Requirements Studies for the Proposals selected to the Final Award Group to assess the costs of system upgrades necessary to integrate the Projects into the Company System. Submission of Facility models and documentation required to perform the IRS is required aton the Proposal due date. Proposers must be prepared to provide, any additional data necessary for the IRS within fifteen (15) days of request. Failure to provide all requested material within the time specified, or changes to the data provided after the deadline, is grounds for elimination from the Final Award Group. Proposer will Proposers must pay for the cost of the IRS, which will take into consideration other Proposals selected to the Final Award Group. The IRS provides information including, but not limited to, an estimated cost for required Interconnection Facilities for a particular Project and mitigation measures. Proposer Proposers will be responsible for the actual final costs of all Seller-Owned Interconnection Facilities and Company-Owned Interconnection Facilities. No upward adjustments to pricing will be permitted as a result of the actual final costs. However, there may be downward adjustments to the pricing as a result of a lower estimated cost for required Interconnection Facilities previously provided for a particular Project. Proposers will have the opportunity to terminate the PPA in the event that the actual final costs are higher than the estimate provided by the Company. See Section 12.4 of the Model RDG PPA.

All Proposals selected to the Final Award Group will require a new IRS, including any Proposal at a Site where an IRS might have been previously performed in connection with other RFPs or proposed PPAs.

5.2 Contract Negotiation Process

Proposers selected for the Final Award Group will be required to indicate, in writing, to the Company's primary contact for this RFP, whether they intend to proceed with their Proposals within Mithin five (5) business days of being notified by the Company of its intent to enter into contract negotiations. Proposers selected for the Final Award Group will be required to indicate, in writing to the Company's primary contact for this RFP, whether they intend to proceed with their Proposals. Proposers who elect to remain in the Final Award Group will be required to keep their Proposal valid through the award period. Contract negotiations will take place in parallel with the IRS process.

The Company's goal is to complete contract negotiations within four (4) months of notification of intentand submit PPAs for approval to enter into contract negotiations. the PUC by December 31, 2018. The IRS maywill not be completed at such time. If this is

the case, the The Company intends to execute and file the PPA with the PUC for approval and later amend the PPA to include the results of the IRS.

5.3 Community Outreach and Engagement

No later than in parallel with the PPA contract negotiation process, Proposers shall at minimum conduct a public meeting in the community where the proposed Project is located, provide adequate public notice of the meeting of two weeks or more, and inform the Company of the meeting. This public meeting shallmust include an opportunity for stakeholders and other interested parties to learn about the proposed Project, and to engage in dialogue about concerns, mitigation measures and potential community benefits, and must inform the community of the process and/or intent for input and engagements. Following the public meeting, the public will be allowed thirty (30) days to submit comments to the Company. If a PPA is executed by the Proposer and the Company, the Company's application for PUC approval of that PPA will contain an attachment including those comments. Proposers must also comply with any other requirement set forth in the Model RDG PPA relating to Community Outreach.

Following submission of the PUC approval application, the Company will provide another opportunity for the public to comment on the proposed Project. The Company's statement of position filed in the docket associated with the Project will contain an attachment including those comments.

5.4 PUC Approval of PPA

Any signed PPA resulting from this RFP is subject to PUC approval as described in the ModelRDG PPA, including Article 12 and Section 29.20 thereof.