

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

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

---

DOCKET NO. 2017-0352

ORDER NO. 36474

APPROVING THE HAWAIIAN ELECTRIC COMPANIES'  
PROPOSED FINAL PHASE 2 REQUESTS FOR PROPOSALS,  
WITH MODIFICATIONS

FILED  
2019 AUG 15 P 3:21  
PUBLIC UTILITIES  
COMMISSION

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Requests of )  
 )  
HAWAIIAN ELECTRIC COMPANY, INC., ) Docket No. 2017-0352  
HAWAII ELECTRIC LIGHT COMPANY, INC., )  
AND MAUI ELECTRIC COMPANY, LIMITED ) Order No. 36474 ±  
 )  
To Institute a Proceeding Relating )  
To Competitive Procurement )  
Of Dispatchable and )  
Renewable Generation. )  
 )

---

APPROVING THE HAWAIIAN ELECTRIC COMPANIES'  
PROPOSED FINAL PHASE 2 REQUESTS FOR PROPOSALS,  
WITH MODIFICATIONS

The Public Utilities Commission ("commission"),  
by this Order, approves, with modifications, the HAWAIIAN  
ELECTRIC COMPANIES'<sup>1</sup> ("the HECO Companies" or "the Companies")  
Proposed Final Stage 2 Requests for Proposals ("Proposed Final

---

<sup>1</sup>The Parties to this docket are HAWAIIAN ELECTRIC COMPANY, INC. ("HECO"), HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), MAUI ELECTRIC COMPANY, LTD. ("MECO") (collectively, the "HECO Companies" or "Companies"); and the DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"), an ex officio party to this proceeding, pursuant to Hawaii Revised Statutes § 269-51 and Hawaii Administrative Rules § 16-601-62(a).

Phase 2 RFPs"), filed on July 10, 2019,<sup>2</sup> as supplemented by the Companies' July 26, 2019 filing,<sup>3</sup> in connection with the procurement process to acquire new renewable energy and grid services for Oahu, Maui, and Hawaii Island. The HECO Companies shall issue the Proposed Final Phase 2 RFPs, consistent with the commission's direction set forth in this Order.

I.

BACKGROUND

A.

Procedural History

On October 6, 2017, the commission opened the subject docket to receive filings, review approval requests, and resolve disputes, if necessary, related to the HECO Companies' plan to acquire dispatchable firm generation and new renewable energy generation.<sup>4</sup> At the time, the commission stated that it expected

---

<sup>2</sup>[HECO Companies'] Proposed Final Stage 2 Renewable and Grid Services RFPs, including Books 1-7; Exhibits 1-11, filed on July 10, 2019.

<sup>3</sup>[HECO Companies'] Revisions to Proposed Final Stage 2 Renewable and Grid Services RFPs; and Exhibits 1-13," filed on July 26, 2019.

<sup>4</sup>Order No. 34856, "Opening the Docket," filed on October 6, 2017 ("Order No. 34856"). The aforementioned HECO Companies' June 6, 2016 and January 6, 2017 letters requesting that the commission open the docket were included as attachments to Order No. 34856.

that procurement of new dispatchable and renewable generation through this round of solicitations will generally adhere to the Framework for Competitive Bidding,<sup>5</sup> but the commission may exercise its discretion to expedite and/or amend certain parts of the Framework to accommodate time constraints that may apply to the potential commercial transactions under these solicitations.<sup>6</sup>

On February 27, 2018, the Companies filed their Final Variable Requests for Proposals with the commission.<sup>7</sup>

Following the bid selection process pursuant to the filing of the Companies' Final Variable Requests for Proposals, as overseen by the Independent Observers ("IOs"),<sup>8</sup> the Companies

---

<sup>5</sup>See Docket No. 2003-0372, Instituting a Proceeding to Investigate Competitive Bidding for Generating Capacity in Hawaii, Decision and Order No. 23121, Exhibit A - Framework for Competitive Bidding ("Framework"), filed on December 8, 2006.

<sup>6</sup>Order No. 34856 at 1.

<sup>7</sup>"[HECO Companies'] Final Variable Requests for Proposals, including Exhibits 1-6; and Certificate of Service," filed on February 27, 2018.

<sup>8</sup>On January 12, 2018, the commission issued Order No. 35224, "Providing Guidance on the Hawaiian Electric Companies' Proposed Requests for Proposals for Dispatchable and Renewable Generation," which appointed Navigant Consulting, Inc. ("Navigant") as the IO for the Maui Variable RFP and Maui Firm RFP, and Bates White, LLC ("Bates White") as the IO for the Oahu and Hawaii Island Variable RFPs.

filed seven applications requesting approval of power purchase agreements ("PPAs") on December 31, 2018.<sup>9</sup>

On March 25, 2019, the commission approved six PPAs for grid-scale, solar-plus-storage projects for Oahu, Maui, and Hawaii Island, which in total, represents approximately 247 MW of solar energy and 988 MW of storage, and with costs that range from \$0.08 to \$0.10 per kilowatt-hour.

On January 31, 2019, the commission issued a Notice of Status Conference regarding Phase 2, requesting that the Companies "present their proposed plans for Phase 2 of the competitive procurement process, as well as an estimate of the Companies' expected timeline to file their Phase 2 Proposed RFPs for commission review."<sup>10</sup> On February 7, 2019, the commission held the Status Conference, during which the HECO Companies presented their proposed plans for Phase 2, and responded to questions from the commission, the Consumer Advocate, and stakeholders.<sup>11</sup>

---

<sup>9</sup>See Docket Nos. 2018-0430, 2018-0431, 2018-0432, 2018-0433, 2018-0434, 2018-0435, and 2018-0436.

<sup>10</sup>Docket No. 2017-0352, "Notice of Status Conference," filed on January 31, 2019.

<sup>11</sup>The Companies' presentation at the Status Conference "Next Steps for Procurement of Grid-Scale Energy Resources," was filed in the instant docket on February 7, 2019 ("Companies' February 7 presentation").

On February 27, 2019, the commission issued Order No. 36187, "Providing Guidance in Advance of the Hawaiian Electric Companies' Phase 2 Draft Requests for Proposals for Dispatchable and Renewable Generation," in response to the presentation and discussion regarding the Companies' plans at the February 7, 2019 Status Conference.

On April 1, 2019, the Companies filed their Phase 2 Draft Requests for Proposals ("Phase 2 Draft RFPs").<sup>12</sup>

The commission convened another Status Conference to discuss the Companies' Phase 2 Draft RFPs on April 18, 2019 ("April 18 Status Conference"). Following the April 18 Status Conference, the commission convened a follow-up Status Conference on May 2, 2019 ("May 2 Status Conference"), to provide the Companies with the opportunity to present proposed changes to their Phase 2 Draft RFPs as a result of feedback that the Companies received from the commission at the April 18 Status Conference.

At the May 2 Status Conference, the Companies presented on their updated RFP scope, timelines for procurement, contingency plans for the retirements of the AES Hawaii Power Plant on Oahu ("AES Plant") and the Kahului Power Plant ("KPP") on Maui,

---

<sup>12</sup> "[HECO Companies'] Phase 2 Draft Requests for Proposals, Books 1-3, including Exhibits 1-10," filed on April 1, 2019. The Companies filed certain technical attachments related to the Phase 2 Draft Requests for Proposals on April 8, 2019.

the Lanai and Molokai RFPs, Self-Build plans, and their Grid Services Code of Conduct.<sup>13</sup>

The commission solicited comments from all Parties and interested stakeholders, including "elaboration on, or reiteration of, concerns expressed through questions or comments at the Status Conferences held by the commission on April 18 and May 2, 2019."<sup>14</sup> The commission received several comments on the Companies' Draft Phase 2 RFPs in response to Order No. 36290.<sup>15</sup>

The Companies filed a revised proposed Grid Services Shared Savings Mechanism on May 31, 2019.

On June 10, 2019, the commission issued Order No. 36356, "Providing Guidance on the Hawaiian Electric Companies' Phase 2

---

<sup>13</sup>HECO Companies' Presentation for May 2 Status Conference, filed on May 1, 2019.

<sup>14</sup>Order No. 36290, "Soliciting Comments on the Hawaiian Electric Companies' Phase 2 Draft RFPs," filed on May 6, 2019 ("Order No. 36290").

<sup>15</sup>Comments from Rob Weltman, filed on May 17, 2019; and Life of the Land Comments; Clearway Energy Group LLC Comments; AES Distributed Energy, Inc. Comments; "Sunrun's Comments on the Hawaiian Electric Companies' Phase 2 Draft Requests for Proposals"; "[HECO] Companies' Comments re Stage 2 Draft RFPs"; "Questions and Comments of Apollo Energy Corporation Regarding HECO Companies' Phase 2 Draft Requests for Proposals"; "Hawaii Clean Power Alliance's Comments on the Hawaiian Electric Companies' Phase 2 Draft RFPs"; and "Division of Consumer Advocacy's Comments regarding the Hawaiian Electric Companies' Phase 2 Draft Requests For Proposals" (as redacted by the Consumer Advocate's Motion to Seal, filed on May 21, 2019), all filed on May 20, 2019.

Draft Requests for Proposals for Dispatchable and Renewable Generation," which was subsequently clarified by Order No. 36406,<sup>16</sup> in response to a Motion for Clarification filed by the HECO Companies<sup>17</sup> on June 20, 2019.

On July 10, 2019, the Companies filed their Proposed Final Stage 2 Renewable and Grid Services RFPs (collectively, "Proposed Final Phase 2 RFPs," and individually "Proposed Final Phase 2 Renewable RFP," and "Proposed Final Phase 2 Grid Services RFP").<sup>18</sup> The Companies filed substantive revisions to their Proposed Final Phase 2 RFPs on July 26, 2019.<sup>19</sup>

---

<sup>16</sup>Order No. 36406, "Addressing the Hawaiian Electric Companies' Motion for Clarification of Order No. 36356," filed on July 5, 2019.

<sup>17</sup>"[HECO] Companies' Motion for Clarification of Order No. 36356; and Certificate of Service," filed on June 20, 2019.

<sup>18</sup>"[HECO Companies'] Proposed Final Stage 2 RFPs, Books 1-7," filed on July 10, 2019.

<sup>19</sup>"[HECO Companies'] Revisions to Proposed Final Stage 2 Renewable and Grid Services RFPs, including Exhibits 1-14," filed on July 26, 2019 (including a cover letter entitled "Submission of Revisions to the Proposed Final Draft Requests for Proposals"; collectively, "July 26, 2019 Revisions"). Collectively, references to the "Proposed Final Phase 2 Renewable and Grid Services RFP" filings in this Order incorporate the information contained in the Companies' Revisions filed on July 26, 2019.



Stakeholders subsequently filed comments in response to the Companies' Proposed Final Phase 2 RFPs.<sup>20</sup>

B.

Competitive Bidding Process

By Decision and Order No. 23121, filed on December 8, 2006, in Docket No. 03-0372, the commission adopted the Framework to govern competitive bidding as a mechanism for acquiring new energy generation in Hawaii. Under the Framework, competitive bidding is the required mechanism for acquiring a future generation resource or a block of generation resources, subject to certain conditions and exceptions.<sup>21</sup> The process of acquiring future generation resources through a competitive bidding process is described in the Framework.

As a general matter, the "primary role" of the commission in a competitive bidding process is to ensure that each competitive bidding process "is fair in its design and implementation so that

---

<sup>20</sup>"Hawaii Clean Power Alliance's Comments on the Hawaiian Electric Companies' Phase 2 Proposed Final RFPs," filed on July 26, 2019; Sean Lester "Request for Language Clarifying Firm Energy Component for MECO Final RFP"; and Clearway Energy Group, LLC's Comments Regarding Hawaiian Electric Companies' Phase 2 Draft Request for Proposals," filed on July 29, 2019; and 7 Generation Consulting "Public Comments on Phase 2 Proposed Final RFPs," filed on July 31, 2019.

<sup>21</sup>Framework, Part II.A.3, at 3-4.

selection is based on the merits;" that projects selected through a competitive bidding process are consistent with the utility's PSIPs or other current planning documents; that the utility's actions represent prudent practices; and that throughout the process, the utility's interests are aligned with the public interest, even where the utility has dual roles as designer and participant.<sup>22</sup>

To assist the commission, the Framework contemplates the use of an IO in a variety of situations, as the commission deems beneficial and necessary.<sup>23</sup> The commission has appointed Navigant as the IO for the MECO Phase 2 Renewable RFP, and Bates White as the IO for the HECO and HELCO Phase 2 Renewable RFPs, and the Proposed Final Phase 2 Grid Services RFPs for HECO, MECO, and HELCO. The IOs have numerous obligations under the Framework, which include monitoring all steps in the competitive bidding process, including the communications between the utility and bidders; certifying to the commission at various stages of the competitive bidding process that the utility's judgment creates no unearned advantage for the utility; advising the utility on its

---

<sup>22</sup>Framework, Part III.B.1, at 12. The original Framework language made reference to the utilities' "Approved [Integrated Resource Plan]," rather than to the PSIPs.

<sup>23</sup>Framework, Part III.C.1, at 13.

decision-making during the various stages of the competitive bidding process; and reporting to the commission on its monitoring results during each stage of the process.<sup>24</sup>

However, as the commission previously stated in Phase 1 and reiterates here,<sup>25</sup> while these procurements will generally adhere to the spirit of the Framework, the commission has exercised its discretion to expedite and/or amend certain parts of the Framework to improve the efficiency of the Phase 2 process, and in recognition of the reality of deadlines relevant to the acquisition of proposed resources.

## II.

### DISCUSSION

As previously stated in the order opening this docket:<sup>26</sup>

1. This docket is intended to receive filings, review approval requests, and resolve disputes, if necessary, related to

---

<sup>24</sup>Framework, Part III.C.2, at 13-15.

<sup>25</sup>See Order No. 34856 at 1 n.1 ("The commission expects that procurement of new dispatchable and renewable generation through this round of solicitations will generally adhere to the Framework for Competitive Bidding, but the commission may exercise its discretion to expedite and/or amend certain parts of the Framework to accommodate time constraints that may apply to the potential commercial transactions under these solicitations.")

<sup>26</sup>Order No. 34856 at 4-5.

the HECO Companies' plan to acquire renewable generation and grid services on the islands of Oahu, Hawaii, and Maui.

2. The subject docket is intended to serve as a repository for the requisite filings and a forum for resolving approval requests and disputes, and any amendments for this proceeding adopted by the commission, if necessary.

3. The commission does not consider the subject docket to be a contested case proceeding.

4. All matters that may require commission approval related to the resulting RFPs, with the exception of the commission's review and adjudication of any power purchase agreements that may arise from the resulting RFP, will be resolved in this docket.

5. The commission has appointed IOs to serve as the monitors of the Phase 2 competitive bidding process and to report on the progress and results thereto to the commission.

As the commission has previously stated, Phase 2 is "an opportunity for creative, competitive procurement to increase renewable energy in Hawaii, reduce costs to customers, address the planned retirement of existing fossil fuel generation, and further progress towards Hawaii's renewable energy goals."<sup>27</sup> As such, below, the commission discusses the IO's feedback on the Companies'

---

<sup>27</sup>Order No. 36187 at 2.

Proposed Final Phase 2 RFPs, and sets forth additional modifications and guidance in advance of the Companies' filing of their Final Phase 2 RFPs.

A.

Commission Appointment of Technical Advisor

In addition to the IOs appointed for this proceeding, the commission appoints Nicholas Miller as Technical Advisor for the Phase 2 RFPs. The Technical Advisor will provide enhanced oversight by monitoring the procurement process, complementing the role of the IOs. The Technical Advisor will focus primarily on the Companies' application of technical and performance requirements in the bid evaluation and selection process. The Technical Advisor will recommend corrective actions, as needed.

B.

IO's Comments

Both Navigant and Bates White provided "Pre-Bid Reports" to the commission on the HECO Companies' Proposed Final Phase 2 RFPs.<sup>28</sup> The comments from the IOs' Pre-Bid Reports are summarized below.

---

<sup>28</sup>"Pre-Bid Report of Navigant Consulting, Inc. as Independent Observer," prepared for the State of Hawaii Public Utilities Commission, dated August 12, 2019 ("Navigant Pre-Bid Report");

1.

Navigant Pre-Bid Report

Regarding the MECO Proposed Final Phase 2 Renewable RFP, the Navigant Pre-Bid Report ultimately finds that "the changes made by the Company reflected in the Proposed Final Maui Variable RDG and Energy Storage RFP are responsive to our key concerns, and increase the clarity, transparency and objectives underl[y]ing the Solicitation."<sup>29</sup>

a.

Navigant Comments on the MECO Proposed Final  
Phase 2 Renewable RFP

Navigant highlights a number of "key changes"<sup>30</sup> it observes in the MECO Proposed Final Phase 2 Renewable RFP, that it states "addressed many of the Stakeholder comments and all of our remaining concerns."<sup>31</sup>

---

and "Pre-Bid Report of the Independent Observer for the Hawaiian Electric Companies' Request for Proposals for Dispatchable Generation and Energy Storage on O'ahu and Hawai'i Island and for Delivery of Grid Services from Customer-Site Distributed Energy Resources" prepared for the Hawaii Public Utilities Commission, dated August 12, 2019 ("Bates White Pre-Bid Report"). Both reports are included as attachments to this Order.

<sup>29</sup>Navigant Pre-Bid Report at 2, 13.

<sup>30</sup>Navigant Pre-Bid Report at 12.

<sup>31</sup>Navigant Pre-Bid Report at 11.

Regarding MECO's SBO proposal, Navigant states that it had concerns prior to the filing of the MECO Proposed Final Phase 2 Renewable RFP regarding evaluation of a Self-Build Option ("SBO") - specifically because of concerns about additional costs being passed through from a self-build project onto ratepayers.<sup>32</sup> As such, Navigant states that it "sought to ensure that all capital costs, operations and maintenance costs would be included in the SBO submittal upfront[,] and communicated its concern to the Companies about "the lack of a specific bar that detailed how many proposals would proceed to the BAFO and detailed evaluation process."<sup>33</sup>

In response, Navigant notes that MECO revised its Proposed Final Phase 2 Renewable RFPs such that:

1. The proposed capital costs and O&M costs will be subject to a firm cap on cost recovery reflecting the amounts that were included in the original proposal, as further specified in the "Appendix G Attachment 1 - Self Build Option Team Certification." The G07 application for cost recovery that would be presented to the Commission would memorialize this requirement.
2. Additional detail with respect to what should be included in terms of the total project capital costs, and operations and maintenance costs, has been provided.
3. Detail regarding how the Company intends to assess the revenue requirement impact of the

---

<sup>32</sup>Navigant Pre-Bid Report at 10.

<sup>33</sup>Navigant Pre-Bid Report at 11.

SBO has been provided such that stakeholders could replicate the calculation using their own assumptions for project capital cost and O&M.

4. Additional clarifications have been added to evaluate the SBO on the same non-cost bases as the IPP proposals.<sup>34</sup>

Other changes that Navigant highlights in the MECO

Proposed Final Phase 2 Renewable RFP, include:

1. Increase of targets seeking a larger quantity of renewable energy, particularly in light of the loss of KPP;
2. Updates from the 2016 PSIP regarding specific forecast related to fuel prices, load, and unit addition capital costs;
3. Adjustment to the minimum Guaranteed Commercial Operation Dates ("GCOD") and extended the latest GCOD to 2025, creating the potential for additional projects to compete;
4. The requirement that bidders accept the PPA provisions as "non-negotiable" has been removed;
5. Provision of access to MECO's sites;
6. Modification of the approach to capturing the value of the Hawaii Renewable State Tax Credit to an approach that would consider the non-Tax Credit price as part of the evaluation;
7. Removal of the requirement to submit a pro forma cash flow statement; and

---

<sup>34</sup>Navigant Pre-Bid Report at 11.



8. Amendments to language relating to shared representatives.<sup>35</sup>

Furthermore, Navigant noted that it expressed a "need to specify a minimum bar of projects that would proceed to the BAFO and detailed evaluation[,]" and in response, MECO has "modified this provision" to require "projects falling within 15% of the lowest price per technology-based evaluation category to proceed [in the bid evaluation process]. . . ." <sup>36</sup>

Navigant concludes that it is "satisfied with these key changes" as "responsive to [its] concerns." <sup>37</sup>

2.

Bates White Pre-Bid Report

Bates White ultimately concludes that overall, "the [HECO and HELCO Phase 2 Renewable RFPs, and the Proposed Final Phase 2 Grid Services RFPs for HECO, MECO, and HELCO], as filed and as a whole package, are reasonable. There are no fatal flaws, in our view, that should prevent the Commission from

---

<sup>35</sup>Navigant Pre-Bid Report at 11-12.

<sup>36</sup>Navigant Pre-Bid Report at 11.

<sup>37</sup>Navigant Pre-Bid Report at 12.

going forward with the Renewable RFPs and the Grid Services RFP."<sup>38</sup>  
Bates White also notes that "the Companies were willing to make changes to those documents consistent with the dictates of the Commission's orders, stakeholders' concerns, and the IOs' suggestions."<sup>39</sup>

a.

Bates White Comments on Improvements to the  
Proposed Final Phase 2 RFPs

Bates White initially notes that "the revised RFPs contain numerous improvements[,]" citing as "[s]ignificant revisions":<sup>40</sup>

1. Elimination of the concept of "non-negotiable" terms of the PPA(s);
2. Clarification regarding the "treatment of degradation assumptions for both generation and energy storage proposals in the Renewable RFPs, allowing degradation to be assumed only for renewable generation projects, not for energy storage";
3. 3<sup>rd</sup>-party bidders are not required to provide pro forma financial information;
4. Inclusion of "portfolio modeling," which will "allow for a more robust evaluation that will help

---

<sup>38</sup>Bates White Pre-Bid Report at 12 (but further recommending that "the Companies adopt our suggested edits to the documents as explained [in its Pre-Bid Report].")

<sup>39</sup>Bates White Pre-Bid Report at 4.

<sup>40</sup>Bates White Pre-Bid Report at 5.

- determine the optimal portfolio of winning projects”;
5. Increased transparency and clarification of the Price and Non-Price scoring methodology;
  6. The offer of an additional Companies'-owned site (Puna) to potential bidders;
  7. Clarification that they will not be submitting a self-build offer in the Grid Services RFP;
  8. Improved requirements for proposers in submitting their models for the interconnection study (“IRS”) process;
  9. Proposers can “not take the risk associated with Hawaii state tax credits, while maintaining the requirement that winning proposers pursue all available tax credits and pass the proceeds . . . on to ratepayers”;
  10. Commitment to pursuing additional transparency in the disclosure of the results of the RFPs;
  11. More targeted language limiting the use of ‘shared representatives’ to address legal representation only, with the use of appropriate firewalls.<sup>41</sup>

b.

Bates White Comments on Key Issues

Bates White provides additional comments on the following “key issues,” as set forth below:

1. SBO: Noting that “allowing SBO/affiliate bids places a premium on the evaluation methodology and the treatment

---

<sup>41</sup>Bates White Pre-Bid Report at 5-6.

of SBO/affiliate bids to ensure a level playing field for all participants[,]” Bates White notes that it “confirmed that [affiliate] bids will be treated identically to third party bids, including the execution of PPAs with any winning affiliate offers[,]” and that it “worked extensively with the Companies and Navigant in developing the evaluation methodology and criteria” related to the SBO.<sup>42</sup> Bates White states that after this process, with the exceptions discussed below, “we are comfortable with the SBO evaluation methodology.”<sup>43</sup>

Bates White raises an issue relating to the adjustments to commercial terms in the PPA, noting that according to Section D.2 of Appendix G of Proposed Final Phase 2 Renewable RFPs, “the SBO will achieve performance standards ‘subject to reasonable adjustment . . . consistent with the Company’s negotiation of such performance standards that would be completed with an independent power producer under similar circumstances.’”<sup>44</sup> Noting that this “raise[s] two points,” Bates White states that,

---

<sup>42</sup>Bates White Pre-Bid Report at 7. This included both attempting to “arrive at a methodology that treated the SBO offers like third party bids[,]” and seeking “to ensure that any winning SBO offers would be held to their cost and performance promises as a third party bidder would through a PPA.” Id.

<sup>43</sup>Bates White Pre-Bid Report at 7.

<sup>44</sup>Bates White Pre-Bid Report at 7.

first, it is unclear how a "negotiation" would work, citing concerns that an SBO could "simply adjust metrics in an *ad hoc* manner or during its operations." It suggests as a solution that any SBO would have to note its exceptions to the model PPA parameters in its offer, and then could be held to these parameters if their bid was selected even though the SBO would not be signing the PPA.<sup>45</sup> Second, Bates White states that the RFP claims that "the Performance Standards included in the RDG PPAs or ESSPA are non-negotiable[,] and it is unclear whether this applies to the SBO - Bates White suggests that this should be made clear, and that "the SBO should be held to the same standards."<sup>46</sup>

2. Imputed Debt: Bates White notes that Section 7 of the Proposed Final Phase 2 Renewable RFPs states that imputed debt may be included in the evaluation of project costs, but that it "prefer[s] to conduct evaluations without imputed debt due to the fact that it has somewhat less than defined effect and the potential to bias the bid selection away from third-party bids/PPAs."<sup>47</sup> Bates White states that "[i]f the Companies wish to include it here we ask that, at a minimum, the effect be clearly

---

<sup>45</sup>Bates White Pre-Bid Report at 8.

<sup>46</sup>Bates White Pre-Bid Report at 8.

<sup>47</sup>Bates White Pre-Bid Report at 8.

broken out in the bid evaluation so that we can observe if the imposition of imputed debt alters the selection of bids."<sup>48</sup>

3. Six-Hour Standalone Storage Requirement for Oahu Renewable RFP: Citing the Companies' request in the Oahu Proposed Draft Phase 2 Renewable RFP that standalone storage proposals have a minimum of six hours of discharge duration, Bates White states that it "do[es] not see the need to limit the solution to six hour batteries[,] " noting that "[a]t this point four hours is a standard discharge amount, used in California, New York, and elsewhere."<sup>49</sup> Bates White recommends instead that HECO keeping a four hour minimum, and then "optimize the selection of bids received."<sup>50</sup>

4. PSIP Standalone Storage Cost Assumption: Given that standalone storage was not procured in Phase 1, Bates White stresses the importance of "vet[ting] PSIP assumptions against more up-to-date cost estimates" for standalone storage.<sup>51</sup>

5. High-Level Project Cost Solicitation: Bates White notes that "[b]idders who are seeking to provide [Fast Frequency

---

<sup>48</sup>Bates White Pre-Bid Report at 8 (stating that "if the imputed debt costs become a decisive factor in the evaluation, we will notify the [c]ommission and make that point clear in our post-bid reports." Id.)

<sup>49</sup>Bates White Pre-Bid Report at 8.

<sup>50</sup>Bates White Pre-Bid Report at 8-9.

<sup>51</sup>Bates White Pre-Bid Report at 9.

Response ("FFR")] FFR-1 on Hawaii are going to be required to isolate and specify the portion of their lump sum costs that are applicable to FFR-1 only[,]” expressing concern that “[b]idders could specify an unreasonable portion - either very high or very low - of their lump sum costs to be associated with the FFR-1 product, which could have an undue impact on the evaluation of FFR-1 proposals.”<sup>52</sup> Bates White suggests that high-level cost information could be useful in vetting the reasonableness of the FFR-1 bids.

6. Definition, Procurement of FFR: Bates White notes that, in line with with the commission’s directives in Order No. 36406, that it is “happy to work with the Companies” on “further refinement to the definitions of FFR-1 and FFR-2[,]” emphasizing the importance of definition consistency whether FFR-1 is provided by a grid resource or by distributed energy resources.<sup>53</sup> In addition, Bates White notes that the Proposed Final Phase 2 Grid Services RFP contains a screen for the Value of Services “to ensure that projects provide net benefits[,]” but suggests that contingency storage proposals should be compared against “this value or a similar benchmark[,]” “[g]iven the fact

---

<sup>52</sup>Bates White Pre-Bid Report at 9.

<sup>53</sup>Bates White Pre-Bid Report at 10.

that paired and standalone storage will compete with distributed energy resources for the provision of FFR on Hawaii[.]”<sup>54</sup> Bates White also requests clarification on how FFR offers will be extended to be comparable with storage offers, given that “[i]t is not fully clear what will be done with these costs, whether they are being added, or simply kept the same from the initial offer.”<sup>55</sup>

7. Grid Services RFP Scoring: Bates White offers three suggestions to finalize the Grid Services RFP’s evaluation scoring:

- a. The Grid Services RFP language should be adjusted to read: “. . . and all other Proposals will receive points based on a proportionate reduction using the percentage by which the Proposer’s levelized energy price exceeds the lowest levelized energy price[,]” thereby mirroring the language of the Renewable RFPs at Section 4.4.1;
- b. The Companies should correct the inadvertent inconsistency between the language on page 23 and footnote 8 of the Grid Services RFP (such that page 23 is consistent with the correct language in footnote 8 regarding non-price criteria); and
- c. The Companies should clarify Section 4.6 to state that the Short List will not necessarily be limited to the “total quantity of grid services as solicited[,]” reasoning that the Companies “should be able to take additional quantities beyond the target procurement

---

<sup>54</sup>Bates White Pre-Bid Report at 10.

<sup>55</sup>Bates White Pre-Bid Report at 10.



amount for each service" to ensure a robust Short List.<sup>56</sup>

8. Grid Services Purchase Agreement Term: Bates White states that "[t]he Grid Services RFP could benefit from additional clarification when it comes to contract length and service period[,] " to make clear "the latest that a proposer can start service and when enablement must be complete to remove any possibility of confusion."<sup>57</sup>

After review, the commission determines that implementing the recommendations provided by Bates White will improve the clarity and consistency of the RFP documents. As such, the commission directs the Companies to make modifications prior to filing its Final Phase 2 RFPs, consistent with Bates White's guidance and the suggested modifications set forth in its Pre-Bid Report.<sup>58</sup>

---

<sup>56</sup>Bates White Pre-Bid Report at 11.

<sup>57</sup>Bates White Pre-Bid Report at 11-12.

<sup>58</sup>The commission notes that, while Bates White only reviewed the HECO and HELCO Proposed Final Phase 2 Renewable RFPs (and not the Proposed Final Phase 2 MECO Renewable RFP), any suggested guidance and modifications that Bates White made regarding the HECO and HELCO Renewable RFPs should also be adopted, where applicable, in the Final MECO Renewable RFP for clarity and consistency.

3.

Stakeholder Comments on Proposed Final Phase 2 RFPs

a.

Shared Representation

On July 29, 2019, the commission received a public comment from Clearway Energy Group LLC ("Clearway") regarding the Proposed Final Phase 2 Draft RFPs, which voiced "concerns about the restrictions on Shared Representatives in Section 1.7.3 of the RFP specifically regarding shared individual legal counsel."<sup>59</sup> Clearway argues that "[t]his restriction is not realistic given the large number of PPAs that will need to be reviewed pre-bid and negotiated post-bid, and the specialized legal knowledge, as well as license to practice in Hawai'i, that is required to negotiate PPAs awarded out of the Phase 2 RFP."<sup>60</sup> Clearway suggests, instead, that "[a] more workable alternative would be to require individual

---

<sup>59</sup>Clearway Energy Group LLC's "Comments Regarding Hawaiian Electric Companies' Phase 2 Draft Request for Proposals ("RFP")," filed on July 29, 2019 ("Clearway Comments"), at 1. The commission observes that on July 26, 2019, Hawaii Clean Power Alliance also filed extensive comments regarding the Shared Representatives Provision in the Proposed Final Phase 2 RFPs, noting similar concerns. See "Hawaii Clean Power Alliance's Comments on the Hawaiian Electric Companies' Phase 2 Proposed Final RFPs," filed on July 26, 2019 ("HCPA Comments").

<sup>60</sup>Clearway Comments at 1 (noting that "[b]ased on Clearway's first-hand experience, there are only a handful of individual attorneys with sufficient qualifications and experience with the complex RDG PPA . . . .").

attorneys involved in multiple PPA negotiations to sign a certificate or affidavit certifying that they have not shared information obtained from one developer with another[,]” which “could be submitted at the conclusion of PPA negotiations.”<sup>61</sup>

The commission agrees with Clearway’s concerns, particularly given that attorneys already “are not permitted to disclose the confidential information of their clients under the applicable professional rules of conduct[,]”<sup>62</sup> and directs the Companies to adopt Clearway’s proposed revision regarding Shared Representatives (in Section 1.7.3 of the Proposed Final Draft Phase 2 Renewable RFPs, and in any other relevant sections of the Phase 2 RFPs and their accompanying attachments and exhibits).

b.

#### Site Control & Permit Approvals

On July 31, 2019, a public comment was filed in the docket by Wren Wescoatt on behalf of 7 Generation Consulting (“7 Generation”).<sup>63</sup> 7 Generation voices concern over an addition made by the Companies to Section 4.3 of the Draft RFP which,

---

<sup>61</sup>Clearway Comments at 1.

<sup>62</sup>Clearway Comments at 1-2.

<sup>63</sup>Public Comment (7 Generation Consulting); Docket No. 2017-0352, filed July 31, 2019 (“7 Generation Comment”).

7 Generation maintains, may result in the exclusion of viable RFP applications.<sup>64</sup> Section 4.3 of the Draft RFP states that an applicant "must provide a credible and viable plan, including evidence of any steps taken to date, to secure all necessary and appropriate permits necessary for the project."<sup>65</sup> 7 Generation takes issue with the following draft language inserted by the Companies, which specifically requires an applicant to "provide evidence of Proposer's verification with the appropriate government agency that the project complies with HRS Section 205-2 and Section 205-4.5, relating to solar energy facilities placed on agricultural land," and that a claimed exemption under HRS § 205-6 must be substantiated by actual "possession of a valid, unexpired and nonappealable special use permit[.]"<sup>66</sup>

---

<sup>64</sup>The HCPA Comments cite similar concerns, at 5-7.

<sup>65</sup>7 Generation Comment at 2 (quoting Section 4.3 of the Proposed Draft Final Phase 2 Renewable RFPs).

<sup>66</sup>7 Generation Comment at 2 (quoting Section 4.3 of the Proposed Draft Final Phase 2 Renewable RFPs). Under HRS § 205-2(d), solar energy facilities may be constructed on agricultural lands with soil productivity ratings of B, C, D, or E. Furthermore, solar energy facilities built on agricultural land with a soil classification of B or C may only occupy ten percent of the acreage of the parcel, or up to twenty acres, whichever is less. Id. Exemptions to these restrictions may be granted via a special use permit issued by the county planning commission, pursuant to HRS § 205-6.

7 Generation contends that this requirement places an unreasonable burden on applicants, as "obtaining a [special use permit] requires 12-18 months of studies and permitting with [the Department of Planning and Permitting], [the Land Use Commission], and others - and an application [for a special use permit] may not even be considered until a project has at least been selected by HECO in an RFP."<sup>67</sup> Furthermore, 7 Generation argues this delay makes it impossible for any project to satisfy the administrative processes while complying with the October RFP submission deadline.<sup>68</sup>

7 Generation recommends removing the language which specifically refers to providing "evidence of Proposer's verification with the appropriate government agency that the project complies with HRS [§] 205-2 and [§] 205-4.5," including actual possession of an HRS § 205-6 special use permit.<sup>69</sup> 7 Generation contends that the remaining language requiring an applicant to "provide a credible and viable plan, including evidence of any steps taken to date, to secure all necessary and appropriate permits necessary for the project[,] is sufficient to "allow HECO to evaluate and score each proposal

---

<sup>67</sup>7 Generation Comment at 1.

<sup>68</sup>7 Generation Comment at 1.

<sup>69</sup>7 Generation Comment at 2.

according to the time needed to obtain permits without needlessly eliminating many projects from eligibility."<sup>70</sup>

Upon review, the commission agrees with 7 Generation's concerns and directs the Companies to adopt their proposed revision to Section 4.3. In light of the fact that Section 4.3 already affords HECO discretion to reject those applications that lack a "credible and viable plan" to secure all necessary permits, and that this proved sufficient in prior solicitations, including Phase 1 of this RFP process, the commission is not persuaded that adding more stringent language would be necessary or useful at this time.

C.

Commission Direction Regarding Issuance of the  
Final Variable RFPs

Based on its review of the Proposed Final Phase 2 RFPs, as well as the Pre-Bid Reports provided by the IOs, the commission approves the Companies' Proposed Final Phase 2 RFPs, subject to the modifications required above, and those discussed below:

---

<sup>70</sup>7 Generation Comment at 2.

1.

Improve Basis for Comparing Pricing Across Technologies

The Companies' evaluation appendices currently state that standalone storage projects in Phase 2 are going to be evaluated on a \$/MWh basis,<sup>71</sup> which appears inconsistent with the Companies' plan to evaluate renewable and renewable + storage projects on a \$/MWh basis, and grid services projects on a \$/kW basis,<sup>72</sup> in that it does not account for the cost of the electricity to charge a battery and thus cannot be viewed as having an equivalent cost of delivered energy compared to renewables + storage projects or grid services projects. The commission directs the Companies to work with the IOs to ensure consistent methodologies are applied when evaluating projects across technologies.

2.

Any New Value of Service Study Requires Commission Review

The Companies state that they intend to update their current Value of Service study based on new plans and input

---

<sup>71</sup>July 26, 2019 Revisions, Exhibit 1 at 38-39, and Exhibit 2 at 38-39 (Section 4.4); and Proposed Final Phase 2 Renewable RFPs, Exhibit 11 (MECO) at 35-36.

<sup>72</sup>Proposed Final Phase 2 Grid Services RFP, Exhibit 3 at 27 (Section 4.5).

assumptions.<sup>73</sup> The commission will review the new study as soon as it is available, given its importance to the Phase 2 RFPs.<sup>74</sup>

3.

Evaluation of Phase 1 Projects' Ability to Meet Existing  
Capacity and FFR Needs

In the Companies' July 26, 2019 Revisions, they set forth new requirements related to the procurement of FFR on Oahu and Hawaii Island,<sup>75</sup> stating that "[t]he FFR procurement plan set forth will allow the Companies to assess the market value for FFR and the least cost, best fit solutions to provide frequency response services."<sup>76</sup> Specifically for Oahu, the Companies state that they "intend to evaluate the Proposed Final Renewable RFP and the Proposed Final Grid Services RFP Proposals, to identify the ideal quantities of both FFR and [Primary Frequency Response ("PFR")] with consideration for cost, technical capabilities,

---

<sup>73</sup>July 26, 2019 Revisions, Exhibit 3 at 27-28.

<sup>74</sup>The Companies had stated that they had intended to file their updated Value of Service study on August 9, 2019.

<sup>75</sup>Submission of Revisions to the Proposed Final Draft Requests for Proposals at 3-8.

<sup>76</sup>Submission of Revisions to the Proposed Final Draft Requests for Proposals at 5.



and limitations such as grid charging and the as-available (i.e., cloudy days) nature of PFR services from the Stage 1 RDG PPAs.”<sup>77</sup>

However, regarding Hawaii Island, the Companies do not make any statements regarding the potential for Phase 1 projects to potentially meet FFR and/or PFR needs.<sup>78</sup> The commission directs the Companies to conduct such analysis for the HELCO system as well. In addition, the commission directs that, similar to the Companies’ consideration of Phase 1 projects capability to meet contingency needs on Oahu, the Companies should consider including an option for Oahu and Hawaii Island Phase 1 projects to bid into this RFP possible amendments to previously-approved projects to meet Oahu and Hawaii Island FFR requirements.

4.

Transparency of Bid Results

The commission reiterates, consistent with the Companies’ stated commitment regarding transparency of the Phase 2

---

<sup>77</sup>Submission of Revisions to the Proposed Final Draft Requests for Proposals at 5 (adding that “because the Stage 1 projects’ Interconnection Requirement Studies [] including fully validated models of the Stage 1 facilities are on-going, the Companies will conduct a technical re-assessment of FFR and PFR requirements following the completion of the Stage 1 IRSs and prior to selection of the Stage 2 projects to determine the frequency response needs.” Id. at 6).

<sup>78</sup>Submission of Revisions to the Proposed Final Draft Requests for Proposals at 7.

bidding results, that it intends to make public, with confidential treatment, the results of Phase 2 bidding following the close of Phase 2 of this proceeding. Additional transparency regarding proposals and the Companies' evaluation and selection will help increase confidence in the overall RFPs.

D.

Shared Savings Mechanisms

On April 1, 2019, the Companies filed their proposed Shared Savings Mechanisms for the Proposed Phase 2 Renewable and Grid Services RFPs.<sup>79</sup> On May 31, 2019, the Companies filed a revised Proposed Shared Savings Mechanism for the Proposed Phase 2 Grid Services RFP.<sup>80</sup> In the Companies' July 26, 2019 Revision, they state that they do not have any updates to the revised Proposed Shared Savings Mechanism for the Proposed Final Phase 2 Grid Services RFP, filed on May 31, 2019, and offer one additional comment related to the Shared Savings Mechanism for the Proposed Final Phase 2 Renewable RFP filed on April 1, 2019 – "the Companies propose that the pricing benchmark for [the] Shared Savings

---

<sup>79</sup>Phase 2 Draft RFPs at Exhibits 2 (filed under seal) and 3.

<sup>80</sup>Companies' Proposed Shared Savings Mechanism, filed on May 31, 2019.

Mechanism be adjusted to account for a without State tax credit price."<sup>81</sup>

Similar to the establishment of the shared savings mechanism in Phase 1 of this proceeding, the commission intends to establish any final Phase 2 shared savings mechanisms by subsequent order.

### III.

#### ORDERS

##### THE COMMISSION ORDERS:

1. The commission approves, with the modifications set forth above, the Proposed Final Phase 2 RFPs, filed by the HECO Companies on July 10, 2019, as revised on July 26, 2019, in connection with the procurement process to acquire renewable energy and grid services resources for Oahu, Maui, and Hawaii Island.

---

<sup>81</sup>July 26, 2019 Revision, Exhibit 1 at 18.

2. The HECO Companies shall issue the Final Phase 2 RFPs by August 22, 2019, consistent with the commission's direction set forth in this Order.

DONE at Honolulu, Hawaii AUG 15 2019.

PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

By James P. Griffin  
James P. Griffin, Chair

By Jennifer M. Potter  
Jennifer M. Potter, Commissioner

By Leodoloff R. Asuncion, Jr.  
Leodoloff R. Asuncion, Jr., Commissioner

APPROVED AS TO FORM:

Caroline C. Ishida  
Caroline C. Ishida  
Commission Counsel

2017-0352.kmc



**Maui Electric Company Stage 2 Request for Proposals for Variable Renewable Dispatchable Generation and Energy Storage**

**Pre-Bid Report of Navigant Consulting, Inc.  
as Independent Observer**

**Prepared for:**

**The State of Hawaii Public Utilities Commission**



**STATE OF HAWAII  
PUBLIC UTILITIES COMMISSION**

**Submitted by:**  
Navigant Consulting, Inc.  
685 Third Ave  
14<sup>th</sup> Floor  
New York, NY 10017

646.227.4200  
navigant.com

August 12, 2019

*Confidential and Proprietary*  
©2019 Navigant Consulting, Inc.  
Do not distribute or copy

**TABLE OF CONTENTS**

**Executive Summary ..... 2**

**Introduction ..... 3**

    Commission Guidance ..... 4

    Our Work Scope ..... 5

    Our Activities ..... 5

**Assessment of the Draft Variable RFP, Supporting Documents and Changes Made by the Company ..... 6**

    Summary of Documents Reviewed ..... 6

    Assessment of the Draft Variable RFP and Subsequent Changes by the Company ..... 6

        Stakeholder Comments ..... 8

        Our Concerns ..... 9

        Company Response ..... 11

    Assessment of the Evaluation Protocol and Subsequent Changes by the Company ..... 12

        Our Concerns ..... 12

        Company Response ..... 12

**Findings ..... 13**

    Findings Concerning Proposed Final Variable RDG & Energy Storage RFP ..... 13

    Findings Concerning the Revised Evaluation Protocol ..... 13

## EXECUTIVE SUMMARY

This report summarizes the pre-bid assessments and findings (the "Pre-Bid Report") of Navigant Consulting Inc. ("Navigant") as the Independent Observer ("IO") for the Stage 2 Request for Proposal for Variable Renewable Dispatchable Generation for the Island of Maui competitive procurement solicitation (the "Stage 2 RFP") that is being performed by the Maui Electric Company (the "Company"). Under the Solicitation, the Company intends to issue a Request for Proposals to the public to provide up to 295,000 megawatt hours ("MWh") annually from new renewable dispatchable resources on the island of Maui with commercial operation by December 31, 2025 and standalone energy storage or generation coupled with energy storage to meet the Company's need for 58,400 MWh on the island of Maui with commercial operation no later than April 30, 2023 (each a "Project", or "Facility" or "Resource") over a preferred term of twenty (20) years. The new Projects would satisfy the new resource need identified by the Company in the 2016 Power System Implementation Plan for the Hawaiian Electric Companies (the "PSIP") in addition to accelerating achievement of the RPS target.

By order dated February 27, 2019, the Hawaii Public Utilities Commission (the "Commission") directed the Companies to file their draft RFPs ("Stage 2 Order").<sup>1</sup> The Company, along with the Hawaii Electric Company and the Hawaiian Electric Light Company (together the "Companies"), filed a draft request for proposals for variable renewable dispatchable generating and energy storage resources for the island of Oahu with the Commission on April 1, 2019, which included a chart of differences between the base RFP across all 3 solicitations ("Draft RFP"). This draft filing also contemplated incorporating the need that was formerly included and filed separately on October 23, 2017, known as the firm dispatchable generating resources for the island of Maui (the "Maui Firm RFP"). The Commission subsequently convened a status conference on April 18, 2019 and an additional status conference on May 2, 2019. Subsequent to the status conferences, the Commission issued an order on June 10, 2019 providing further guidance and direction to the Company to file its final draft RFP by July 10, 2019. In response to the Order, the Company filed a proposed final version of the Maui Variable Renewable Dispatchable Generation and Energy Storage RFP (the "Proposed Final RFP") with the Commission on July 10, 2019, which was developed pursuant to feedback received from stakeholders, the Commission, and the IO.

Navigant was appointed to perform the services of an IO as described under the Framework for both the Maui Variable RFP and the Maui Firm RFP,<sup>2</sup> which are now combined into the single RFP contemplated in Stage 2. Pursuant to the requirements of the competitive bidding framework,<sup>3</sup> this Pre-Bid Report constitutes our formal comments.

Upon issuance of the Stage 2 Order, we immediately began participating in conference calls hosted by the Companies to review and discuss the Order and the modifications necessary to develop the draft RFP and all the associated documents. We held substantive discussions on the modifications, reviewed modified documents from the Companies, and participated in additional conference calls prior to the July 10, 2019 filing.

<sup>1</sup> Hawaii Public Utilities Commission, Docket No. 2017-0352, Order No. 36187 - Providing Guidance In Advance Of The Hawaiian Electric Companies' Phase 2 Draft Requests For Proposals For Dispatchable And Renewable Generation

<sup>2</sup> Docket No. 2017-0352, Requests of Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited Instituting a Proceeding Relating to a Competitive Bidding Process to Acquire Dispatchable and Renewable Generation, Draft Requests for Proposals, October 23, 2017.

<sup>3</sup> Hawaii Public Utilities Commission, Docket No. 2017-0352, Order No. 35224 - Providing Guidance on The Hawaiian Electric Companies' Proposed Requests for Proposals for Dispatchable And Renewable Generation, Section II(B)

We have completed the work scope with respect to the Draft RFP and the Proposed Final RFP and find the following:

- We find that the changes made by the Company reflected in the Proposed Final RFP are responsive to our key concerns, and increase the clarity, transparency and objectives underlying the Solicitation.
- Further changes made by the Company reduce the more onerous requirements that were noted in the Draft RFP and, accordingly, should help increase the confidence and participation rate of the developer community.
- We find that the changes made by the Company reflected in the revised Evaluation Protocol are responsive to our key concerns. They provide the appropriate expanded level of information required for a proposer to adequately apprise itself of the key success factors that it must address in its response to the RFPs. In particular, proposers are now provided with expanded information regarding the specific steps to be undertaken as part of both the price and non-price evaluations.

This Pre-Bid Report summarizes our review and findings as of the date of this Pre-Bid Report. For our work, we have relied on documents, correspondence, analyses and other information provided to us the Company. While we believe this information to be reliable, it has not been independently verified for either accuracy or validity, and no assurances are offered with respect thereto. We make no representations, warranties or opinions concerning the enforceability or legality of the laws, regulations, rules, agreements or other similar documents reviewed as part of our work. Navigant and its employees are independent contractors providing professional services to the Commission and are not officers, employees, or agents of the Commission.

## INTRODUCTION

The RFP that the Company is intending to issue is pursuant to the Power Supply Improvement Plan (PSIP) accepted by the Commission under the order issued on July 14, 2017. By order dated October 6, 2017, the commission established docket 2017-0352 in order to facilitate the receipt of filings, approval requests, and other attendant matters related to the RFPs. The Company filed its draft Stage 1 RFP on October 23, 2017. In the initial filings, the Company contemplated the release of two separate RFPs:

1. The Firm Capacity Renewable Dispatchable Generation RFP ("Firm RFP") intended to address the capacity/reliability need on Maui caused by the retirement of the Kahului Power Plant (KPP).
2. The Variable Renewable Dispatchable RFP ("Variable RFP") intended to further progress Hawaii towards meeting the 100% renewable energy by 2040 target.

On January 12, 2018, the commission provided further guidance to the Company with respect to the Stage 1 RFP. As part of the guidance, the commission indicated that the Company should prioritize filing of the Variable RFP, in addition to indicating a strong preference against a self-build option and affiliate bids participating in the first phase of RFPs. Pursuant to the order, we worked with the Company to ensure that the Variable RFP was designed in a manner that is both compliant with the competitive bidding framework and addresses the commission's guidance. A detailed discussion of our findings with



respect to the Variable RFP from Stage 1 is included as an attachment to the commission's order dated February 20, 2018, approving the Stage 1 RFP for variable renewable dispatchable generation.<sup>4</sup>

The Company issued the Stage 1 RFP on February 27, 2018. In the first phase, the Company pursuant to a competitive bidding process on which we served as IO selected two (2) projects that represent a combined Net Energy Potential ("NEP") of 205,000 MWh, which was below the target threshold of 270,000 MWh. The project that was next in-line under that solicitation would have exceeded the target threshold. The Company instead opted to procure the balance under a separate, subsequent solicitation, which was consistent with the RFP evaluation process. The Company entered into Power Purchase Agreement (PPA) negotiations with the two winning bidders. A detailed report with respect to our findings with respect to the Stage 1 RFP process and PPA negotiations was filed on the docket on February 7, 2019.<sup>5</sup>

On February 7, 2019, the Commission convened an initial Status Conference regarding Stage 2 during which the Company presented their proposed plans and responded to questions from stakeholders.<sup>6</sup>

## Commission Guidance

On February 27, 2019, the commission issued an order providing guidance on the Company's Stage 2 RFPs. Of key focus in the Stage 2 RFPs, as set forward in the commission's order, is to replace the capacity, energy and ancillary services of the Kahului Power Plant (KPP), which was the subject of the above mentioned Firm RFP. The commission ordered that the approach specifically for the Maui RFP should be a combined RFP soliciting both Firm and Variable proposals. The Company filed its draft Request for Proposals on April 1, 2019. The commission convened two additional status conferences on April 18, 2019 and May 2, 2019, and provided further guidance in an order dated June 10, 2019. Pursuant to the feedback at the status conferences and subsequent order, the commission directed the Company to:

1. Review and expand the solicited amounts to capture and accelerate the amount of renewable energy that could be integrated on the island and to replace production that would be lost due to KPP's retirement.
2. Address the risk posed by a Hawaii tax law change, eliminating such risk to the developers.
3. Update and detail the forecasts and assumptions used in the portfolio evaluation and selection processes for Stage 2, and incorporate sensitivity analyses.
4. Expand the eligible Guaranteed Commercial Operation Date (GCOD) out to December 31, 2025, but with preference for earlier GCODs.
5. Working with the IOs, further refine the process by which the Self-Build Option would be evaluated vis-à-vis Independent Power Producer (IPP) proposals, addressing the lack of detail in the original draft RFP filing.

<sup>4</sup> <https://dms.puc.hawaii.gov/dms/DocumentViewer?pid=A1001001A18B21B10705D00169>

<sup>5</sup> <https://dms.puc.hawaii.gov/dms/DocumentViewer?pid=A1001001A19B08B00712B00278>

<sup>6</sup> Hawaii Public Utilities Commission, Docket No. 2017-0352, Notice of Procedures for Status Conference on February 7, 2019 - Docket No. 2017-0352, In re Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., Maui Electric Company, Ltd, ("the Companies"), To Institute a Proceeding Relating to a Competitive Bidding Process To Acquire Dispatchable and Renewable Generation, February 5, 2019

6. Remove the "non-negotiable" approach to the model PPA proposed by the Company.
7. Correct the restriction on the use of shared representatives to avoid unnecessarily constraining bidders' abilities to developing bids, in working with the IOs, narrowly tailor the provision to ensure adequate protection against potential disclosure of confidential/proprietary information across bidders.
8. Remove the Pro-Forma submittal requirement that required Proposers to disclose Project financial information.

## Our Work Scope

The Commission appointed Navigant Consulting Inc. ("Navigant", "we" or "us") as the Independent Observer for the Maui RFPs and directed us to monitor the competitive bidding process and report on the progress and results to the Commission in the instant proceeding.

## Our Activities

Our role as the IO for the Company's proposed RFP has continued throughout Stage 1 and into Stage 2. As part of our oversight, we have participated in conference calls hosted by the Companies to review and discuss the commission's Orders, schedule the Company's proposed plan to develop the draft filings in response to the commission's orders, and preliminary drafts of the Stage 2 RFP and its associated documents. We focused on the changes from the Stage 1 RFP, incorporating all lessons learned to improve the quality of the solicitation, in addition to each of the guidance items received from the commission. During the course of these discussions, we worked with the Companies' to understand their position and established our own position on each, recommending specific changes to the documents to resolve the positions where necessary. The Companies modified the documents for our review, which was then the subject of additional conference calls during the days prior to the July 10, 2019 filing date.

## ASSESSMENT OF THE DRAFT VARIABLE RFP, SUPPORTING DOCUMENTS AND CHANGES MADE BY THE COMPANY

### Summary of Documents Reviewed

Our work included review of the following documents:

- Draft Request for Proposals for Variable Renewable Dispatchable Generation for the Island of Oahu (filed 4/1/2019) with a chart of Differences between RFPs
- Draft Request for Proposals for Variable Renewable Dispatchable Generation for the Island of Maui (filed 7/10/2019)
- Model PV RDG PPA
- Model Wind RDG PPA
- Model Energy Storage Power Purchase Agreement (ESPPA)
- Updated RFP Evaluation Protocol
- Schedule leading to the July 10 Filing
- The Hawaiian Electric Companies' Code of Conduct
- Example of proposal levelized price calculation
- December 2016 Power Supply Implementation Plan, and Appendix K. Analytical Steps and Results, and Appendix J. Modeling Assumptions Data
- Documents from Standard & Poor's concerning imputed debt methodology, and prior filings by the Companies concerning cost of capital and imputed debt

### Assessment of the Draft Variable RFP and Subsequent Changes by the Company

The initial draft Variable Dispatchable Generation and Storage RFP sought Projects that fulfill two needs:

1. Dispatchable renewable generation in the amount of 65,000 MWh annually.
2. Energy storage with the capability of dispatching 58,400 MWh annually, which is equivalent to a 40 MW/4 hour battery.

Specifically, the energy storage requirement is intended to address the retirement of the KPP plant, compensating for the reliability that the plant contributed. For both projects, the Company seeks the full rights and capability to dispatch (control) the Projects to balance the electrical generation needs on Maui. This will be accomplished through the Company's automated control systems whereby signals are sent from the Company directly to the Projects to increase or curtail production, as necessary.

Projects seeking to address the reliability requirement had a stated GCOD requirements of both 12/2022 and 12/2023, with all others no later than 12/2024 but preferred by 12/2022.

For projects that include a generation component, IPP or affiliate bids are to quote a fixed “Lump Sum” price to cover the fixed costs of the proposed Project, plus an Energy Payment Price to cover the variable operations and maintenance costs of the proposed Project. For projects that are standalone storage, projects must propose only a lump sum price (\$/year). Self-Build proposals must state annual project capital costs by year. Projects must comply with the stated Availability target under the relevant ESPPA or RDG PPA, among other performance metrics. In order for a proposal to advance to the evaluation process under the RFP, it must meet certain stated eligibility and threshold requirements. The eligibility requirements state that proposals must be in conformance with the RFP rules, as established, which are largely within the control of the proposer to address and comply with. The threshold requirements address specific concerns with respect to the quality and attributes of the proposal, including:

- Site Control
- Performance Standards
- Proven Technology
- Experience of the Proposer
- Credit/Collateral Requirements
- Available Circuit Capacity
- Viability of Proposer’s Financial Plan
- Financial Compliance

The above threshold requirements, as further defined in the RFP, must be met in order to proceed. Several of the threshold requirements have been updated to reflect lessons learned from Stage 1, including site control assessment, providing additional clarification as to how this assessment is considered, and with respect to the viability of Proposer’s Financial Plan, clarifying the nature of the assessment to focus on the proposers’ plan to achieve project financing and overall credit quality.

The evaluation process follows a similar path as conducted in Stage 1 with the addition of the portfolio analysis, to be conducted after the Best and Final Offer (“BAFO”) process, as follows. The multi-stage RFP evaluation process commences with the eligibility and threshold determinations, then proceeds through an Initial Price and Non-Price evaluation, which is weighted and composed of 60% and 40% of the total evaluation score, respectively. As part of the Non-Price Evaluation, proposals which are found to be insufficient in four or more of the 11 non-price evaluation factors are removed from further consideration. The highest scoring Projects, grouped by technology, are selected as part of the short list. Projects that proceed to the Short List are asked to submit a BAFO, where Proposers will have an opportunity to revise their proposed pricing downward. A detailed evaluation process ensues, including a portfolio evaluation of projects that seeks to optimize the selection of units by demonstrating the net impacts of projects running in conjunction with each other (and not isolation). The optimal combination of proposals, that make up the targeted firm capacity to provide for system reliability and renewable energy, would proceed to the Final Award Group. Projects in the Final Award Group proceed to contract negotiations with the goal of executing a PPA. However, this is not guaranteed under the RFP. Individual Projects which fail to proceed at this late stage may be replaced, if time permits, under the RFP.

### Stakeholder Comments

Stakeholders posted comments on the draft RFP. The initial RFP was written for the island of Oahu that serves as the base template for all RFPs across the Islands, however, a chart of differences was provided as part of the filing to show the key differences between the Oahu solicitation and Maui solicitation. The Oahu solicitation is very similar to the Maui solicitation in that both involve a reliability component due to a fossil unit retirement in addition to a renewable generation component.

Stakeholders were provided with an opportunity to provide comments on the docket pursuant to the commission's order dated May 6, 2019, soliciting comments "from all Parties and interested stakeholders on the HECO COMPANIES' Phase Draft Requests for Proposals."<sup>7</sup> In addition, stakeholders were provided the opportunity to speak at the status conferences to voice their concerns. Several comments were received, as summarized below by category:

- Environmental and Permitting:
  - A stakeholder requested that each applicant provide a table estimating its GHG impact during construction and operation.
  - The Applicant should have a single table that lists the status of all permits and should clearly identify any law, rule, or regulation that may need to be modified, altered, or suspended to bring the project online.
- Shared Representation:
  - A stakeholder voiced concern regarding the use of shared legal representation, and requested expansion of the reporting requirements on bidders with respect to their consultants and legal representation.
  - Bidders were concerned with the language provided by the Company which might tie up specific hard to come by talent, including consultants, contractors, attorneys and other representatives, from helping other bidders in the context of the RFP.
- Interconnection:
  - A potential bidder was concerned about the process behind estimating and including interconnection costs in a proposal, which might result in unexpectedly high costs.
  - A potential bidder requests further streamlining of the Interconnection Requirements Study ("IRS") process.
  - A bidder suggested not limiting the size to transmission capacity available.
- PPA, generally:
  - Several bidders voiced concern with the non-negotiability of the PPA, noting that the form of PPA is still in "innovative" form for the industry. In addition, bidders noted that not all negotiated provisions in the context of Stage 1 was incorporated in the model PPA presented for Stage 2.

---

<sup>7</sup> Hawaii Public Utilities Commission, Docket No. 2017-0352, Order No. 36290 - Soliciting Comments on the Hawaiian Electric Companies' Phase 2 Draft RFPs

- Bidders also noted that a new PPA was introduced in Stage 2, the model Energy Storage PPA for standalone storage projects.
- Bidders provided comments with respect to specific provisions they took issue with, including some changes that were in the Stage 1 approved PPAs but not featured in the Stage 2 draft.
- Tax Credits:
  - A potential bidder voiced concern that the structure of the state tax credit section did not allow for price changes should there be a change in law that eliminates the eligibility of the proposed project.
- GCOD Dates:
  - A potential bidder requested that the requirement for a base 2022 GCOD bid be removed, in favor of allowing any GCOD date up to the outside date of December 31, 2024.
- Site Control:
  - A potential bidder requested that any company-owned site that the Company and their affiliates has site control over should be provided to IPP developers as well.
- Bid Requirements:
  - A stakeholder requested that the detailed pro forma cashflow should be removed as it is confidential and proprietary information.
- Transparency:
  - A stakeholder suggested that the RFP bid selection process be more transparent and efficient, with additional disclosures to ensure fairness and consistency.

### ***Our Concerns***

We share many of the same concerns as the Stakeholders, in addition to some of our own additional concerns. With respect to the above comments, we were in favor of those observations that eased the burden on bidders to submit responses into the RFP that do not materially impact the evaluation process. In addition, to the extent certain sections had to be clarified to further differentiate between projects using lessons learned from previous rounds, we were amenable to such changes. Our positions on the comments noted above are as follows:

- Environmental and Permitting: We agreed that certain sections should be further clarified and updated, including environmental and permitting requirements as noted by a stakeholder.
- Shared Representation: We also agreed with prospective bidders that the shared representation language, as drafted, was too broad and unduly restricted the ability of bidders to use scarce resources on Hawaii that are necessary to develop a proposal. Accordingly, we recommended that the Company more narrowly tailor the provision to address its specific concerns with respect to the sharing of confidential positions during the PPA negotiations.

- **Interconnection:** With respect to interconnection study handling, we note that this is an area of concern not only for the instant RFP but more broadly for the industry. We encourage efforts to streamline the process to the extent possible. Regarding limiting bids to transmission capacity available, we note that the RFP only restricts the net output to such amount equal to the transmission capacity available, however, projects could be overbuilt so long as output onto the grid is controlled and does not exceed available capacity.
- **PPA:** We shared the concerns of the bidders that the non-negotiable approach to the PPA may cause some bidders to withdraw from the process if certain terms are deemed to be unacceptable. As the form PPA is still relatively new to the industry, the potential for this is significant and for that reason were in favor of continuing to allow the PPAs to be negotiated.
- **Tax Credits:** In evaluating the RFP language, we noted that the approach to monetizing the tax credit may be inconsistent across bidders, as bidders would have to incorporate such tax credits into its proposed price, and also bear the risk should the law change. We shared this concern and suggested that this risk be removed from IPPs.
- **GCOD Dates:** We agree with the comments that there should be no base GCOD requirement. In the interest of maximizing competition in the RFP, if certain projects are unable to meet the 2022 in-service date, it would not be able to compete in the RFP. Therefore, we were in favor of removing this requirement.
- **Site Control:** To the extent that the Company has site control over company-owned sites that it plans to use for the SBO, we agree that such sites should also be provided to IPP developers as well. Given that Hawaii is land resource constrained, we believe that this would be a positive change to additionally improve the competitive nature of the RFP.
- **Bid Requirements:** Regarding the requirement for a pro forma cash flow statement, both the company and IPPs have made compelling arguments regarding why it is necessary to include and exclude from the RFP. However, in the interest of maximizing the competitive nature of the RFP, and addressing other concerns raised by the developers regarding the sensitivity of such information, we agree that like in the Stage 1 process, this requirement should be removed from Stage 2
- **Transparency:** We agree that to the extent additional information can be provided to bidders at the conclusion of the process, that such information should be provided so that bidders can enhance their offers and address their deficiencies in subsequent solicitations.

Our additional concerns centered on the evaluation of the SBO. To ensure that the SBO "bakes in" the correct pricing for the term of the PPA, that such costs be subject to cap followed by a regulatory mechanism that ensures that no additional costs can be passed through from the project onto ratepayers. In addition, our comments centered around ensuring all cost centers are included, both for fixed and

variable costs. Accordingly, we sought to ensure that all capital costs, operations and maintenance costs would be included in the SBO submittal upfront.

Another concern we communicated was the lack of a specific bar that detailed how many proposals would proceed to the BAFO and detailed evaluation process.

### ***Company Response***

Review of the Proposed Final RFP reveals that the Company has addressed many of the Stakeholder comments and all of our remaining concerns.

Regarding the SBO evaluation, the Company has clarified the following:

- The proposed capital costs and O&M costs will be subject to a firm cap on cost recovery reflecting the amounts that were included in the original proposal, as further specified in the "Appendix G Attachment 1 - Self Build Option Team Certification." The GO7 application for cost recovery that would be presented to the Commission would memorialize this requirement.
- Additional detail with respect to what should be included in terms of the total project capital costs, and operations and maintenance costs, has been provided.
- Detail regarding how the Company intends to assess the revenue requirement impact of the SBO has been provided such that stakeholders could replicate the calculation using their own assumptions for project capital cost and O&M.
- Additional clarifications have been added to evaluate the SBO on the same non-cost bases as the IPP proposals.

As part of our feedback, we focused on the need to specify a minimum bar of projects that would proceed to the BAFO and detailed evaluation. The Company has modified this provision from one that allowed total discretion to one that, through our oversight, requires that all at minimum projects falling within 15% of the lowest price per technology-based evaluation category to proceed should the circumstances warrant (a large number of competitive projects received in response).

Other changes made in the Proposed Final RFP are as follows:

- Expanded the amounts solicited to 295,000 MWh.
- The shared representation language was redrafted to ease the burden on bidders and to more narrowly tailor it to the chief concern of the Company.
- The requirement that bidders accept the PPAs in their entirety has been removed.
- The Company addressed the tax credit risk by removing consideration of the tax credit as part of the evaluated price, but requiring that bidders pass through such credits upon receipt.
- The GCOD requirements have been relaxed to not require a base GCOD as part of each proposal. In addition, GCODs of as late of December 2025 is now allowed for the non-reliability projects.
- The Company has expanded access to its sites in response to stakeholder feedback.
- The requirement to submit a pro forma cash flow statement has been removed.



We are satisfied with these key changes. They are responsive to our concerns and address the guidance issued by the commission.

## Assessment of the Evaluation Protocol and Subsequent Changes by the Company

### *Our Concerns*

The Evaluation Protocol consists of two parts. The first part consists of the relevant paragraphs of the Draft RFP, as set forth in Chapter 4.<sup>8</sup> This is available to proposers. The second part consists of the internal Evaluation Protocol. This is not available to proposers. We reviewed both parts of the protocol in consideration of both Stakeholder comments and our concerns based on our experience with resource procurement. The Evaluation Protocol largely follows the Stage 1 process that has been previously vetted. However, for the purposes of Stage 2, changes have been made to address additional insight gained from the Stage 1 process which flow from the changes made to the evaluation criteria detail noted in RFP draft, as follows:

- Site Control criteria has been updated to require a plan to secure necessary and appropriate permits, approvals, rights-of-way, access, and other appurtenances for the project, in addition to evidence of compliance with certain laws with respect to the use of agricultural land.
- Community Outreach and Cultural Resource Impacts category has been expanded to emphasize the need for community support as a part of project viability and success.
- The financial strength and plan criteria has been updated to streamline the evaluation process in this area, avoiding the need for extensive financial statement analysis. The corresponding threshold requirement has been updated accordingly.
- The evaluation process incorporates a portfolio analysis, reflecting results of different combinations of proposals to evaluate the total net system cost as passed onto ratepayers.
- The evaluation assumptions have been updated from the original PSIP document to capture the latest fuel price forecast, load forecast and capital cost assumptions available.

### *Company Response*

Review of the relevant paragraphs of the Proposed Final RFP and the internal Company scoring guidelines, reveals that the Company has addressed many of our concerns. Many of the changes noted in the initial draft were items discussed and incorporated pursuant to feedback provided.

We are satisfied with these changes. They are responsive to our concerns and address the commission's guidance.

---

<sup>8</sup> In the Stage 1 RFP, relevant detail was broken out into a separate Appendix. This has now been incorporated into a single section contained in Chapter 4 of the draft RFP to avoid the potential for conflicts.

## FINDINGS

### Findings Concerning Proposed Final Variable RDG & Energy Storage RFP

We find that the changes made by the Company reflected in the Proposed Final Maui Variable RDG and Energy Storage RFP are responsive to our key concerns, and increase the clarity, transparency and objectives underling the Solicitation. The changes made address many of the key Stakeholder concerns, particularly with respect to the participation of an SBO which was the subject of many comments.

The changes made by the Company in the Proposed Final RDG PPA for Maui reflect changes previously made in Stage 1 with the benefit of understanding the key concerns that bidders raised in the context of the negotiations in that round. However, bidders have indicated that not all key changes were made to the draft PPAs, so it was necessary to ensure that the terms of the Maui RDG and Energy Storage PPAs are negotiable. This change was reflected in the final draft of the RFP. At this time, a Proposer may address all concerns relating to the PPAs directly with the Company through submittal of specific markups as part of the solicitation process.

### Findings Concerning the Revised Evaluation Protocol

We find that the changes made by the Company reflected in the revised Evaluation Protocol are responsive to our key concerns and address key learnings from the Stage 1 RFP. With respect to the SBO evaluation protocol vis-à-vis IPP proposals, the level of information provided allows an IPP bidder to essentially replicate the total evaluated cost of such proposals. In addition, the updated RFP provides an expanded level of information required for a proposer to adequately apprise itself of the key success factors that it must address in its response to the RFPs. Both the price and non-price evaluation processes are well defined and provide the detail necessary for bidders to prepare their responses accordingly.



**PRE-BID REPORT  
OF THE INDEPENDENT OBSERVER FOR THE  
  
HAWAIIAN ELECTRIC COMPANIES'**

**REQUEST FOR PROPOSALS FOR VARIABLE  
RENEWABLE DISPATCHABLE GENERATION  
AND ENERGY STORAGE ON O'AHU AND  
HAWAI'I ISLAND AND FOR DELIVERY OF GRID  
SERVICES FROM CUSTOMER-SITED  
DISTRIBUTED ENERGY RESOURCES**

**Presented to:  
HAWAI'I PUBLIC UTILITIES COMMISSION**

**Prepared by  
Vincent Musco  
Frank Mossburg**

**August 12, 2019**

## TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION AND BACKGROUND .....</b>	<b>3</b>
<b>II.</b>	<b>FINDINGS .....</b>	<b>4</b>
	A. Assessment of the Process Working With the Companies, IOs .....	4
	B. Assessment of the Revisions to the RFP Documents .....	5
	1. Selected Areas of Improvement in the RFPs .....	5
	2. Key Issues to Highlight in the RFPs .....	7
<b>III.</b>	<b>OVERALL RECOMMENDATION .....</b>	<b>12</b>

## I. INTRODUCTION AND BACKGROUND

On July 10, 2019, the Hawaiian Electric Companies (“Companies”)<sup>1</sup> filed their proposed final Phase 2 renewable and grid services Request for Proposals (“RFPs”).<sup>2</sup> The RFPs included the proposed final RFPs for Variable Renewable Dispatchable Generation and Energy Storage for O’ahu, Maui, and Hawai’i Island (“Renewable RFPs”) and the proposed final RFP for Delivery of Grid Services from Customer-Sited Distributed Energy Resources on the island of O’ahu, Maui, and Hawai’i Island (“Grid Services RFP”). Bates White, LLC (“Bates White”) is the Independent Observer (“IO”) for the Renewable RFPs on O’ahu and Hawai’i Island, as well as the IO for the Grid Services RFP. The Commission requested that we provide a public report at this point in the process that addresses our overall recommendation for the RFPs and identifies any key issues for potential revision. The purpose of this report is to explain and assess the process of working with the Companies and the other IO, provide our view of the revisions made to the draft RFP documents and to provide the Commission with our recommendation on how best to proceed.

The Companies’ July 10 Filing was the culmination of a process that has taken much of 2019. On February 7, 2019, the Commission held a status conference regarding the RFPs during which the Companies presented their proposed plans. On February 27, the Commission issued Order No. 36187,<sup>3</sup> directing the Companies to file draft RFPs for variable dispatchable renewable generation, energy storage, and grid services from distributed energy resources. The Companies’ filed their draft RFPs on April 1, 2019. On April 18, the Commission held a second status conference, allowing the Companies to present their updated RFPs to the Commission and stakeholders and parties to ask questions of the Companies. A third status conference was held on May 2, and on May 20, parties had the opportunities to submit written comments on the draft RFPs. Since late May, the Commission has issued two additional guidance orders to the Companies: Order No. 36356,<sup>4</sup> issued on June 10, 2019, and Order No. 36406,<sup>5</sup> issued on July 5. In these recent Orders, the Commission provided several specific areas of guidance for the

---

<sup>1</sup> The Hawaiian Electric Companies include Hawaiian Electric Company, Inc. (“HECO”), Hawaii Electric Light Company, Inc. (“HELCO”), and Maui Electric Company, Ltd. (“MECO”).

<sup>2</sup> Hawaiian Electric Companies, “Hawaiian Electric Companies’ Proposed Final Stage 2 Renewable and Grid Services RFPs,” filed July 10, 2019 in Docket No. 2017-0352 (“July 10 Filing”).

<sup>3</sup> Public Utilities Commission of the State of Hawaii, “Order No. 36187 Providing Guidance in Advance of the Hawaiian Electric Companies’ Phase 2 Draft Requests for Proposals for Dispatchable and Renewable Generation,” February 27, 2019, Docket No. 2017-0352 (“Order No. 36187”).

<sup>4</sup> Public Utilities Commission of the State of Hawaii, “Order No. 36356 Providing Guidance on the Hawaiian Electric Companies’ Phase 2 Draft Requests for Proposals for Dispatchable and Renewable Generation,” June 10, 2019, Docket No. 2017-0352 (“Order No. 36356”).

<sup>5</sup> Public Utilities Commission of the State of Hawaii, “Order No. 36406 Addressing the Hawaiian Electric Companies’ Motion for Clarification of Order No. 36356,” July 5, 2019, Docket No. 2017-0352 (“Order No. 36406”).

Companies to follow in revising its RFPs and related documents. The areas of guidance included (a) procurement targets, (b) fairness and transparency in the RFPs, and (c) consideration of stakeholder feedback.<sup>6</sup> The Commission also directed the Companies to continue to work with the IOs in revising their RFPs and sought the IO's "independent assessment of whether the process is fair and includes adequate protections for customers."<sup>7</sup>

As IO, we have worked with the Companies (and Navigant, the IO for the Maui, Molokai, and Lanai Renewable RFPs) throughout 2019, holding numerous conference calls (typically at least one per week), providing edits and comments on multiple drafts of RFP documents, and providing regular advice on ways to improve the RFPs and RFP process. Throughout our work, we have attempted to incorporate stakeholder comments, received both in written format in the docket as well as during oral discussions at the various status conferences, and Commission guidance. Throughout the process, the Companies were forthright in their discussions and made their subject matter experts available to discuss the relevant topics at issue.

## **II. FINDINGS<sup>8</sup>**

### **A. Assessment of the Process Working With the Companies, IOs**

From a process standpoint, as with our work on the Phase 1 RFPs,<sup>9</sup> we found the collaborative work with the Companies and Navigant to be very productive and efficient. Through numerous iterations, we were able to help effectuate substantial revisions to the RFP, evaluation, and PPA documents that will help clarify the process for bidders and encourage positive results for the Companies' ratepayers. We found the Companies to be responsive to all of our questions, requests for clarifications, and invitations for discussion on a variety of provisions within the documents. Moreover, the Companies were willing to make changes to those documents consistent with the dictates of the Commission's orders, stakeholders' concerns, and the IOs' suggestions.

---

<sup>6</sup> Order No. 36356, page 9.

<sup>7</sup> Order No. 36356, page 19.

<sup>8</sup> We note here that our work is limited as IO to the O'ahu and Hawai'i Island Renewable RFPs and the Grid Services RFPs only. Our collaboration with the Companies was not meant to address every item raised by every stakeholder, nor will we address every stakeholder item here. Moreover, our overall recommendation that the revised RFP documents is, as a total package, reasonable, is based on the reality that our collaboration with the Companies necessarily resulted in areas of compromise which ensured that no stakeholder, Commission, or IO will be fully satisfied with every provision, clause, term, or condition of the RFPs and the PPAs.

<sup>9</sup> Bates White Economic Consulting, "The Independent Observer's Report Regarding Hawaiian Electric Companies' Request for Proposals for Dispatchable and Renewable Generation on Oahu," January 24, 2019.

## **B. Assessment of the Revisions to the RFP Documents**

**Overall, it is our assessment that the revised documents, as filed and as a whole package, are reasonable.** There are no fatal flaws, in our view, that should prevent the Commission from going forward with the Renewable RFPs or the Grid Services RFP.

We provide some additional, more detailed findings below. We begin with some select areas where the RFP documents have been improved since the draft RFPs were filed on April 1, 2019. We then provide commentary on several additional issues.

### **1. Selected Areas of Improvement in the RFPs**

Since their initial filing in April 2019, the revised RFPs contain numerous improvements. Significant revisions include:

- One of the biggest changes made by the Companies was to largely eliminate the concept of “non-negotiable” terms of the model power purchase agreements (“PPAs”).<sup>10</sup> This will allow bidders more flexibility in negotiating a reasonable contract and will prevent the potential for unreasonable non-negotiable provisions from having a negative impact on participation in the RFPs. Importantly, both the Grid Services RFP and the Renewable RFPs retain a non-price scoring criteria regarding exceptions and/or edits to the filed PPAs that reduce a bidder’s score if they change the risk profile, terms, and conditions of the filed PPAs to place more risk on ratepayers.
- The Companies have clarified their treatment of degradation assumptions for both generation and energy storage proposals in the Renewable RFPs, allowing degradation to be assumed only for renewable generation projects, not for energy storage.<sup>11</sup>
- Third-party bidders are no longer required to provide pro forma financial information.
- The RFPs will include portfolio modeling, a feature for which we have advocated in the past.<sup>12</sup> This will allow for a more robust evaluation that will help determine the optimal portfolio of winning projects.

---

<sup>10</sup> The PPAs include the renewable generation PPAs and energy storage PPAs for use in the Renewable RFPs, as well as the grid services purchase agreement.

<sup>11</sup> See, for example, Oahu Renewable RFP at section 2.1.

<sup>12</sup> See, for example, Bates White Economic Consulting, “The Independent Observer’s Report Regarding Hawaiian Electric Companies’ Request for Proposals for Dispatchable and Renewable Generation on Oahu,” January 24, 2019, page 24.

- Increased transparency and clarification of the Price and Non-Price scoring methodology.
- The Companies are now offering an additional Companies-owned site (Puna) for potential bidders.
- The Companies have clarified that they will not be submitting a self-build offer in the Grid Services RFP, an important point of clarification given the content of the Grid Services Code of Conduct, which does not contain the same provisions regarding self-dealing as is found in the Renewable RFPs' Code of Conduct.
- Using experience from Phase 1, the RFPs include improved requirements for proposers in submitting their models for the interconnection study process.<sup>13</sup>
- The Renewable RFPs now allow proposers to not take the risk associated with Hawaii state tax credits, while maintaining the requirement that winning proposers pursue all available tax credits and pass the proceeds of any such tax credits on to ratepayers.<sup>14</sup>
- The Companies have committed to pursuing additional transparency in the disclosure of the results of the RFPs.<sup>15</sup> We will work with the Companies to increase disclosure, subject to the results of the RFPs.
- The RFPs now contain more targeted language limiting the use of “shared representatives.” The language is intended to address legal representation only, and allows for a single firm to represent two suppliers, as long as appropriate firewalls are in place.

We also point out that the RFPs retain many of the characteristics of the Phase 1 RFPs, which themselves were the product of discussions and revisions with the IOs, as informed by stakeholder comments and Commission orders. Those features, which included evaluation clarifications, the provision of modeling assumptions, information regarding available circuit capacity, and streamlining of the Eligibility and Threshold Requirements.

---

<sup>13</sup> See, for example, section 5.1 of the Oahu Renewable RFP.

<sup>14</sup> See, for example, section 1.2.18 of the Oahu Renewable RFP.

<sup>15</sup> Companies' Application, Exhibit 1, page 15.



## 2. Key Issues to Highlight in the RFPs

### a. SBO Evaluation

The Renewable RFPs allow for both self-build options (“SBO”) and affiliate bids in which the Companies can submit offers to build renewable generation, energy storage, or both. In our experience in serving state public utilities commissions monitoring and evaluating competitive RFPs, it is important to encourage as much participation and competition as possible. This includes utility self-build and/or affiliate bids. Nevertheless, allowing SBO/affiliate bids places a premium on the evaluation methodology and the treatment of SBO/affiliate bids to ensure a level playing field for all participants.

Regarding affiliate bids, we confirmed that such bids will be treated *identically* to third party bids, including the execution of PPAs with any winning affiliate offers. This allays our major concerns regarding affiliate offers. Regarding SBO offers, we worked extensively with the Companies and Navigant in developing the evaluation methodology and criteria and did so with two goals in mind. First, we aimed to arrive at a methodology that treated the SBO offers like independent third party bids. Second, we sought to ensure that any winning SBO offers would be held to their cost and performance promises as a third party bidder would through a PPA.

With one exception – the issue of imputed debt, which we discuss in the next subsection – we are comfortable with the SBO evaluation methodology. Appendix G of the Renewable RFPs contains the categories of capital and operating and maintenance (“O&M”) costs that the SBO must specify in its offer. We vetted these costs at length with the Companies and are satisfied that collectively, they represent a reasonable set of costs that the Companies face in developing the SBO project(s), one that is similar to the costs faced by independent third party bids. Appendix G include references to many key cost categories that should be included with the bid. This includes items such as allowance for funds used during construction (“AFUDC”) that can sometimes be omitted from utility-sponsored proposals in order to artificially lower the bid cost.

Moreover, the guarantees the SBO will provide (in Appendix G) seem adequate. Most important is that the SBO be held to its capital and O&M cost assumptions and to the same performance standards as third-party offers. These cost caps – coupled with the Appendix G cost submittal requirements – will help ensure the bid will be reasonable. In addition, we as the IO will review the reasonableness of the costs of any offers made.

One item that still raises questions has to do with adjustments to commercial terms in the PPA. According to Section D.2 of Appendix G the SBO will achieve performance standards “subject to reasonable adjustment...consistent with the Company’s negotiation of such performance standards that would be completed with an independent power producer under similar circumstances.” Appendix G contains several references to milestones being “subject to

reasonable adjustment agreeable to the Company consistent with the Company's negotiation" with a third party producer.

Conceptually this is reasonable and fair, but it does raise two points. First, it is unclear how this "negotiation" would work. The danger is that the SBO would simply adjust metrics in an *ad hoc* manner or during its operations. One way is for the SBO, just like any bidder, to simply note any exceptions to the model PPA parameters in their offer. While the SBO would not be signing the PPA, they could then be held to these parameters if their bid was selected. The second issue is that the RFP claims that "the Performance Standards included in the RDG PPAs or ESSPA are non-negotiable."<sup>16</sup> It is unclear if this applies to the SBO or not. We believe that should be made clear and that the SBO should be held to the same standards.

#### **b. Use of Imputed Debt in Evaluation Methodology**

Section 4.7 of the Renewable RFPs states that imputed debt may be included in the evaluation of project costs. In our Phase 1 pre-bid report, we explained our point of view on this issue extensively, and will not repeat it here.<sup>17</sup> Suffice to say, we prefer to conduct evaluations without imputed debt due to the fact that it has a somewhat less than defined effect and the potential to bias the bid selection away from third-party bids/PPAs. If the Companies wish to include it here we ask that, at a minimum, the effect be clearly broken out in the bid evaluation so that we can observe if the imposition of imputed debt alters the selection of bids. Then, if the imputed debt costs become a decisive factor in the evaluation, we will notify the Commission and make that point clear in our post-bid reports.

#### **c. Six-Hour Standalone Storage Requirement for the Oahu Renewable RFP**

The Oahu Renewable RFP requests standalone storage proposals to have a minimum of six hours of discharge duration.<sup>18</sup> We understand this is essentially from a study the Company conducted looking at a worst-case production scenario and the resulting shortfall.<sup>19</sup> While we see that there is some shortfall according to this study we do not see the need to limit the solution to six hour batteries. At this point four hours is a standard discharge amount, used in California, New York and elsewhere. A six hour limit might increase costs and/or decrease competition. A better approach could be to keep a four hour minimum, then optimize the selection of bids

---

<sup>16</sup> See, for example, Oah'u Renewable RFP at section 3.8.7.

<sup>17</sup> Bates White Economic Consulting, "Pre-Bid Report of the Independent Observer for the Hawaiian Electric Companies' Request for Proposals for Dispatchable and Renewable Generation on O'ahu and Hawai'i Island," February 12, 2018, pages 19 to 21.

<sup>18</sup> Oahu Renewable RFP, section 1.2.12.

<sup>19</sup> See Docket No. 2018-0434, HECO Response to CA/HECO-IR-15.

received. Bidders can then offer different proposals and the Company can optimize their selection.

**d. PSIP Standalone Storage Cost Assumption**

In the Commission’s Order No. 36356, the Commission stated that it “fully expects the Companies to update and detail, to the extent possible, the forecasts and assumptions used by the Companies in their portfolio evaluation and selection process for Phase 2.”<sup>20</sup> The Commission continued that “[t]hese forecasts and assumptions should include all Phase 1 project in the base case for both the Draft Renewable and Grid Services RFPs, as well as updated fuel price forecasts, load forecasts, and capital cost assumptions for future capital investments.”<sup>21</sup> This constructive suggestion by the Commission has been incorporated, and we note that we will vet assumptions for capital costs for projects/technologies that fall outside the Phase 1 portfolio. For example, standalone storage was not procured in Phase 1, meaning that the cost of standalone storage must derive from another source. Since the Companies have appropriately identified their PSIP as their “roadmap” for these RFPs,<sup>22</sup> it will be important to vet PSIP assumptions against more up-to-date cost estimates.

**e. High-Level Project Cost Solicitation**

The RFPs are not requiring bidders to provide pro formas, as was the case in the draft RFPs filed in April. Instead, the RFPs seek high-level project costs. We think this is a reasonable request, as it is consistent with what was sought in Phase 1 and given the fast frequency response for contingency (“FFR-1”) procurement on Oahu and Hawaii (where grid services and renewables/storage proposals will compete directly). Bidders who are seeking to provide FFR-1 on Hawaii are going to be required to isolate and specify the portion of their lump sum costs that are applicable to FFR-1 only. Bidders could specify an unreasonable portion – either very high or very low – of their lump sum cost to be associated with the FFR-1 product, which could have an undue impact on the evaluation of FFR-1 proposals. The high-level cost information could be useful in vetting the reasonableness of the FFR-1 bids. We also note that the Code of Conduct prohibits the Companies from sharing any bid information with the SBO or affiliate teams.

**f. Definition, Procurement of FFR**

The Companies have revised their target procurement amounts to equal those laid out in their May 20<sup>th</sup> filing in the instant docket.<sup>23</sup> The new targets include solicitation of 18 MW of

---

<sup>20</sup> Order No. 36356, page 13.

<sup>21</sup> Ibid.

<sup>22</sup> Companies’ Application, Exhibit 1, page 1.

<sup>23</sup> Hawaiian Electric Companies’ May 20, 2019 Letter to the Commission, Docket No. 2017-0352.

FFR-1; the Companies have proposed a procurement approach in which distributed energy resources, standalone storage, and paired generation with storage projects will compete to provide this service, consistent with the Commission's directives in Order No. 36406. The Companies have also indicated that they are in the process of determining whether the Commission's recent order "denying without prejudice Hawaiian Electric's request to commit approximately \$104 million for a Contingency and Regulating Reserve...Battery Energy Storage System..." will require any "changes to the Proposed Final RFPs" to address Order No. 36406.<sup>24</sup> The Companies also note that they "will work with the IO to further refine and clarify the FFR1 and FFR2 definition and requirements (sic) whether such resource comes from grid services, paired projects or a standalone battery."<sup>25</sup> The Companies reiterate: "Company will re-issue Exhibit A-1 [Fast Frequency Response Grid Service Description and Requirements] upon completion of defining FFR-1 which is a faster proportional response that is comparable to the requirements for Contingency Storage. The current FFR is a requirement for FFR-2, and will be labeled as such when FFR-1 requirements are added."<sup>26</sup>

Regarding the impact of recent Commission directives as it relates to the need for additional FFR on any of the islands, it is our view that such determinations likely require detailed engineering studies, which as we understand it, have not been conducted to date. We will work with the Companies to ensure that, subsequent to any changes in the procurement, that such changes are implemented in a manner that minimizes disruption to the process and encourages the best results for ratepayers.

Regarding the further refinement to the definitions of FFR-1 and FFR-2, we are happy to work with the Companies on this matter. We note the importance of defining FFR-1, in particular, in a manner that is consistent whether provided by a grid resource (e.g., standalone storage or a paired resource) or by distributed energy resources, and that any differences be appropriately justified. This will allow for a fair, unbiased comparison of offers.

Another issue in this evaluation has to do with the Grid Services RFP screen for the Value of Services.<sup>27</sup> This will be conducted for all grid services offers to ensure that projects provide net benefits. Given the fact that paired and standalone storage will compete with distributed energy resources for the provision of FFR on Hawaii, it may make sense to also screen such contingency storage proposals against this value or a similar benchmark. Our understanding is that the Contingency Storage is equivalent in this case (for Hawaii) in providing the FFR-1 product.

---

<sup>24</sup> Companies' Application, Exhibit 1, page 5.

<sup>25</sup> Ibid., page 6.

<sup>26</sup> See Grid Services Purchase Agreement, Appendix L, page 82.

<sup>27</sup> Grid Services RFP, section 4.5.1.

Finally, Section 4.8 of the GS RFP explains how FFR offers will be extended to be comparable with storage offers. The first scenario states that “Costs are extended by creating theoretical contract years beyond the initial 5-year period” followed by the bullet points “Incentive Amounts” and “Management Fees.” It is not fully clear what will be done with these costs, whether they are being added, or simply kept the same from the initial offer. The Companies should clarify. In addition the section refers to “50 year contract costs” which we assume should be “5 year.”

#### **g. Grid Services RFP Scoring**

The Grid Services RFP’s evaluation offers clear guidance to bidders and provides reasonable criteria for selecting the best offers. We offer three suggestions to finalize the scoring. First, Section 4.5.1 of the Grid Services RFP details how points will be awarded to a bid for their price. Prices will be calculated by creating a levelized cost of the bid based on the Enablement Fee and Management fee. According to the RFP “The Proposal with the highest total price score (lowest price) will receive 400 points, and all other Proposals will receive points equal to the Proposals score divided by the top score, multiplied by 400.” As written this appears to be circular since you would need a price score in order calculate a price score. We presume this refers to the levelized cost of the proposals and the comparison will be between the Proposal score and the lowest-cost proposal. The RFP language should be adjusted to read, in relevant part, “...and all other Proposals will receive points **based on a proportionate reduction using the percentage by which the Proposer’s levelized energy price exceeds the lowest levelized energy price.**” This revised language mirrors that of the Renewable RFPs at section 4.4.1.

Second, there is an inadvertent inconsistency between the language on page 23 and footnote 8 of the Grid Services RFP. The footnote is correct, stating that a proposers must meet a minimum score of “3” in at least four criteria to be further considered. The text incorrectly indicates that proposers must meet a minimum score in “five” non-price criteria. The text should be corrected to match the footnote.

Third, section 4.6 should be clarified to state that the Short List will not necessarily be limited to “the total quantity of grid services as solicited.” The Companies should be able to take additional quantities beyond the target procurement amount for each service. This will encourage a robust Short List and a better result for ratepayers.

#### **h. Grid Services Purchase Agreement Term**

The Grid Services RFP could benefit from additional clarification when it comes to contract length and service period. The RFP requests products to serve annual targets between 2020 and 2024.<sup>28</sup> In section 1.4.7 of the Grid Services RFP, the Companies request that

---

<sup>28</sup> Grid Services RFP, Table 1-1.

enablement be completed before December 31, 2022. In addition, footnote 1 says that “Proposers are permitted to propose enablement of incremental services through the end of year 3 of the contract period.” This aligns with the above requirement assuming services starts in 2020. However, it not fully clear if this footnote still applies if services start in 2021 or later. It is also unclear if a proposer can offer a five-year contract that starts in 2021 or later. The Companies should clarify the latest that a proposer can start service and when enablement must be complete to remove any possibility of confusion.

### **III. OVERALL RECOMMENDATION**

Our overall finding to the Commission is that the revised documents, as filed and as a whole package, are reasonable. There are no fatal flaws, in our view, that should prevent the Commission from going forward with the Renewable RFPs and the Grid Services RFP. We further recommend that the Companies adopt our suggested edits to the documents as explained above.

CERTIFICATE OF SERVICE

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

DEAN NISHINA  
EXECUTIVE DIRECTOR  
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS  
DIVISION OF CONSUMER ADVOCACY  
P.O. Box 541  
Honolulu, HI 96809

JOSEPH P. VIOLA, ESQ.  
VICE PRESIDENT  
REGULATORY AFFAIRS  
HAWAIIAN ELECTRIC COMPANY, INC.  
P.O. Box 2750  
Honolulu, HI 96840-0001