

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of )  
HAWAIIAN ELECTRIC COMPANY, INC. )  
For Approval to Commit Funds in )  
Excess of \$2,500,000 (Excluding )  
Customer Contributions) for Item )  
P0001390, Whitmore Substation )  
Transformer #1 and 46 kV Circuit. )  

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Docket No. 2008-0132

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DIV. OF CONSUMER ADVOCACY  
DEPT. OF COMMERCE AND  
CONSUMER AFFAIRS  
STATE OF HAWAII

DECISION AND ORDER

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CONSUMER AFFAIRS  
STATE OF HAWAII

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COMMISSION

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Docket No. 2008-0132

DECISION AND ORDER

By this Decision and Order, the commission approves HAWAIIAN ELECTRIC COMPANY, INC.'s ("HECO") request to commit approximately \$5,492,710 million (excluding customer contributions) for Item P0001390, Whitmore Substation Transformer #1 and 46 kV Circuit ("Proposed Project"), pursuant to Section 2.3.g.2 of General Order No. 7, Standards for Electric Utility Service in the State of Hawaii ("General Order No. 7"). The commission also determines that it is appropriate for HECO to construct the 46 kV subtransmission line extension above the surface of the ground, as proposed in its application filed on June 27, 2008, under Hawaii Revised Statutes ("HRS") § 269-27.6(a).

I.

Background

HECO, a Hawaii corporation, is a public utility as defined by HRS § 269-1. HECO was initially organized under the

laws of the Kingdom of Hawaii on or about October 13, 1891; and its principal place of business is located in Honolulu, Hawaii. HECO is engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Oahu in the State of Hawaii ("State").

A.

Application

By application filed on June 27, 2008,<sup>1</sup> HECO requested commission approval to commit approximately \$5.5 million for the construction of a new dedicated distribution substation in the National Security Agency's ("NSA") Hawaii Regional Security Operations Center ("HRSOC") property ("Whitmore Substation") to serve the HRSOC and the Navy's Naval Computer and Telecommunications Area Master Station ("NCTAMS");<sup>2</sup> "the overhead extension of one existing 46 kV subtransmission line to the new substation site";<sup>3</sup> and "the installation of one, 3-phase,

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<sup>1</sup>Application; Exhibits I - XII; and Certificate of Service, filed on June 27, 2008 ("Application").

<sup>2</sup>Application at 1-2, 8. As proposed by HECO, the Whitmore Substation will be constructed northeast of the Whitmore development within the proposed HRSOC property. It includes "the installation of one 46-12 kV, 10/12.5 MVA, low-sound transformer; one 15 kV metal-clad outdoor switchgear with associated microprocessor-based relay protection equipment; telecom weatherproof outdoor cabinet; telecom line isolation cabinet; one DC battery bank; two 46 kV, 800 amp, group operated, disconnect switches with two motor operators and vacuum interrupters; one set of lightning arrestors; 46 kV bus conductors and connectors; Supervisory Control and Data Acquisition/Remote Terminal Unit ('SCADA/RTU') equipment; and associated electrical cables and wiring." Id. at 5-6.

<sup>3</sup>Application, at 2. According to HECO, "[t]his item involves the extension of the existing Wahiawa-Waiialua #2

15 kV underground cable in a new underground infrastructure from the new substation to the HRSOC switchgear."<sup>4</sup>

According to HECO, there are no 12 kV circuits serving the area of the proposed HRSOC facility, so Area Reviews were performed for the proposed HRSOC and NCTAMS projects in the Wahiawa area in order to determine the best alternatives for serving these projects. "For the HRSOC project, three alternatives were examined: (1) installing at least one 12 kV circuit from the Helemano Substation to the project site, (2) installing at least one 12 kV circuit from the Wahiawa Substation to the project site, and (3) extending one 46 kV circuit and installing a 46-12, 12/12.5 MVA distribution substation transformer at a new dedicated substation near the HRSOC project site. The study recommended that a new dedicated substation (i.e., Whitmore Substation) be constructed near the HRSOC site to serve the project."<sup>5</sup>

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46 kV subtransmission line to feed the new Whitmore [S]ubstation." Id. at 6. "The 46 kV subtransmission line extension from Kamehameha Highway at Whitmore Avenue to the new Whitmore Substation will require the extension of the existing Wahiawa-Waiialua #2 46 kV overhead line by installing 46 kV overhead conductors on new subtransmission wood poles along Whitmore Avenue and the new base entry road. The existing 46 kV overhead conductors near the intersection of Kamehameha Highway and Whitmore Avenue will be tapped at pole P.424 Kamehameha Highway and the 46 kV line extension will be installed along Whitmore Avenue and the new base access road to the new Whitmore Substation." Id. at 7.

<sup>4</sup>Application, at 2. "This item involves the installation of approximately 400 feet each of one 3-phase, 15 kV, 1000 KCM, aluminum, polyethylene insulated underground cable from the new substation site to the HRSOC switchgear located within the Customer's property." Id. at 7.

<sup>5</sup>Application, at 8-9.

In addition, HECO states that the Proposed Project will provide the following benefits: "1) allows HECO to establish 12 kV capacity near the load center to effectively feed the new HRSOC loads, as well as future HRSOC loads; 2) reduces losses to the system by reducing 12 kV circuit lengths in the Whitmore area; and 3) shorter circuit lengths increases the reliability of the distribution circuits by minimizing the exposure of the circuits to faults."<sup>6</sup>

B.

Consumer Advocate's Statement of Position

On October 15, 2008, the Consumer Advocate filed its Statement of Position<sup>7</sup> indicating that it does not object to approval of the Application. While the Consumer Advocate was concerned that HECO had not provided sufficient information in which to assess whether the proposed Whitmore Substation is reasonable in light of the Hawaii Clean Energy Initiative ('HCEI'),<sup>8</sup> it did not object to approval of HECO's commitment of funds for the Proposed Project, as an assessment of the impact of

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<sup>6</sup>Application at 8.

<sup>7</sup>Division of Consumer Advocacy's Statement of Position, filed on October 15, 2008 ("CA SOP").

<sup>8</sup>"The HCEI was established by the State and the Federal Department of Energy in a Memorandum of Understanding ("MOU") executed on January 28, 2008. The HCEI's intended goal is: . . . to accelerate use of renewable, indigenous energy resources in Hawaii while decreasing energy demand by increasing the scale and rate of renewable energy and energy efficiency technology market adoption in residential, building, industrial, utility, and transportation end-use sectors." CA SOP, at 9 n.16.

the HCEI may jeopardize the service date for HRSOC and NCTAMS.<sup>9</sup> The Consumer Advocate, however, recommended that "discussions begin with [HECO] to determine the type of analysis necessary to assess the HCEI impact. The Consumer Advocate believes that discussions need to begin now before any further applications are filed since there is a limited time for the [c]ommission and Consumer Advocate to perform its review of requests to commit funds for capital projects."<sup>10</sup>

With respect to HECO's proposal to construct the proposed 46kV line extension overhead, the Consumer Advocate stated that the criteria of HRS § 269-27.6(a) are satisfied.

Finally, with respect to the estimated project costs, the Consumer Advocate expressed concern regarding the labor and on-cost calculations, but stated that it will review "the reasonableness of the actual costs incurred to complete the project and pursue issues, if any, regarding the reasonableness of the instant project's actual costs in HECO's next rate proceeding."<sup>11</sup> Likewise, with respect to materials and outside services, which may change with bid proposals,

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<sup>9</sup>CA SOP, at 9-11.

<sup>10</sup>CA SOP, at 11.

<sup>11</sup>CA SOP, at 16.

the Consumer Advocate stated that it would "review the actual costs and determine the reasonableness of such costs when the final cost report is submitted."<sup>12</sup>

## II.

### Discussion

#### A.

#### General Order No. 7

Section 2.3.g.2 of General Order No. 7 states, in relevant part:

Proposed capital expenditures for any single project related to plant replacement, expansion or modernization, in excess of \$[2.5 million]<sup>13</sup> or 10 percent of the total plant in service, whichever is less, shall be submitted to the Commission for review at least 60 days prior to the commencement of construction or commitment for expenditure, whichever is earlier. If the Commission determines, after hearing on the matter, that any portion of the proposed project provides facilities which are unnecessary or are unreasonably in excess of probable future requirements for utility purposes; then the utility shall not include such portion of the project in its rate base. If the utility subsequently convinces the Commission that the property in question has become necessary or useful for public utility purposes; it may then be included in the rate base. Failure of the Commission to act upon the matter and render a decision and order within 90 days of filing

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<sup>12</sup>CA SOP, at 17.

<sup>13</sup>The commission increased the monetary threshold governing the filing of capital expenditure applications by HECO, from \$500,000 to \$2.5 million, exclusive of customer contributions. See Decision and Order No. 21002, filed on May 27, 2004, in Docket No. 03-0257.

by the utility shall allow the utility to include the project in its rate base without the determination by the Commission required by this rule . . . .<sup>14</sup>

Here, the commission agrees with the Consumer Advocate that HECO's cost benefit analysis appears to support the construction of the Whitmore Substation as the most feasible alternative. However, like the Consumer Advocate, the commission is concerned that HECO's analysis "is based on a projected forecasted load that does not consider impacts of the HCEI" and "does not consider the potential that utility plant may be under-utilized if projected load does not materialize."<sup>15</sup>

As an assessment of the impact of HCEI may jeopardize the service date of the Proposed Project, the commission will approve HECO's request to commit funds for the Project without an HCEI analysis. The commission will, however, direct HECO to begin discussions with the Consumer Advocate as to the type of analysis necessary to assess the impact of HCEI in the future. As noted by the Consumer Advocate, the time constraints of General Order No. 7 result in the commission having to approve

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<sup>14</sup>HECO waived the commission's 90-day review period for an additional thirty days by letter dated September 17, 2008.

<sup>15</sup>CA SOP, at 10. "As a result, if the forecasted load of either HRSOC or NCTAMS decreases significantly due to the installation of DSM measures, future DG installations or intra-governmental wheeling, the construction of the Whitmore Substation may not be the most feasible alternative in the long-term. Such a situation will result in the Whitmore Substation being underutilized and the facilities not being deemed to be 'used and useful' in the future." Id.

the commitment of funds for projects so as to not delay customer service. An agreement between HECO and the Consumer Advocate on the necessary analysis should be in place prior to any further requests for commission approval under General Order No. 7, and consistent with prior commission decisions, applications for commission approval to commit funds should include an assessment of the reasonableness of future capital improvement projects in light of the HCEI and the State's movement towards self-sufficiency.<sup>16</sup>

B.

HRS § 269-27.6(a)

HRS § 269-27.6(a) titled "Construction of high-voltage electric transmission lines; overhead or underground construction" states:

Notwithstanding any law to the contrary, whenever a public utility applies to the public utilities commission for approval to place, construct, erect, or otherwise build a new forty-six kilovolt or greater high voltage electric transmission system, either above or below the surface of the ground, the public utilities commission shall determine whether the electric transmission system shall be placed, constructed, erected, or built above or below the surface of the ground; provided that in its determination, the public utilities commission shall consider:

- (1) Whether a benefit exists that outweighs the costs of placing the electric transmission system underground;

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<sup>16</sup>In re Hawaiian Electric Company, Inc., Docket No. 2008-0070, Decision and Order filed August 14, 2008, at 27; see also In re Kauai Island Utility Cooperative, Docket No. 2006-0481, Decision and Order filed on October 3, 2008, at 8.

- (2) Whether there is a governmental public policy requiring the electric transmission system to be placed, constructed, erected, or built underground, and the governmental agency establishing the policy commits funds for the additional costs of undergrounding;
- (3) Whether any governmental agency or other parties are willing to pay for the additional costs of undergrounding;
- (4) The recommendation of the division of consumer advocacy of the department of commerce and consumer affairs, which shall be based on an evaluation of the factors set forth under this subsection; and
- (5) Any other relevant factors.

HRS § 269-27.6(a).

First, under HRS § 269-27.6(a)(1), there does not appear to be any benefit that exists that outweighs the costs associated with constructing the 46 kV line extension underground. HECO estimated that it would cost "[a]pproximately five times more to underground the 46 kV line than to construct it overhead (i.e., approximately \$7.96 million vs. approximately \$1.64 million)."<sup>17</sup> In addition, since there are other existing overhead lines in the affected area, placing the 46 kV lines overhead as opposed to underground will not dramatically impact the area visually.<sup>18</sup> No public comments were received at

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<sup>17</sup>Application, at 10.

<sup>18</sup>According to HECO, "[t]he visual impact of the proposed 46 kV overhead line extension will not be significantly increased, as there are existing 12.46 kV overhead lines along Whitmore Avenue. The new line would follow the existing pole alignment along the north side of Whitmore Avenue and, therefore, should not impose a significant change to the existing views along this corridor. From Kamehameha Highway, the utility poles along the proposed access road and the associated utility lines would seem relatively small against the distant HRSOC facility. In addition, views from

the public hearing regarding the benefits of placing the line underground. Accordingly, there does not appear to be a benefit that outweighs the additional costs of placing the 46kV line underground.

Second, under HRS § 269-27.6(a)(2), the commission is not aware of any governmental policies requiring the underground placement of the line. As noted by the Consumer Advocate, there have been State legislative efforts to study the feasibility of requiring underground placement of utility facilities, but none of the recommendations have resulted in a legislative mandate to underground electric transmission lines.

Third, under HRS § 269-27.6(a)(3), the commission is not aware of any governmental agency or any other party willing to pay for the additional costs of placing the lines entirely underground. By separate letters, the NSA and the State of Hawaii Department of Transportation expressly stated that they do not have the funds to underground the electrical line associated with the Proposed Project and will not contribute to the cost to underground the extension.<sup>19</sup>

Fourth, under HRS § 269-27.6(a)(4), the commission recognizes that the Consumer Advocate, after reviewing the Proposed Project under HRS § 269-27.6(a), stated that it

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the Whitmore Village residential areas would not be affected." Application, at 9.

<sup>19</sup>See Exhibit XI to the Application.

"it does not appear that there is a benefit to undergrounding the proposed 46kV line extension."<sup>20</sup>

Based on the foregoing, the commission concludes that the overhead construction of the 46 kV subtransmission line in association with the Proposed Project, in the manner set forth in the Application, should be approved.

### III.

#### Orders

##### THE COMMISSION ORDERS:

1. HECO's request to commit approximately \$5,492,710 million (excluding customer contributions) for Item P0001390, Whitmore Substation Transformer #1 and 46 kV Circuit, as described in Application, is approved; provided that no part of the project may be included in HECO's rate base unless and until the project is in fact installed, and is used and useful for utility purposes.

2. HECO's request to construct a 46 kV subtransmission line extension above the surface of the ground, as part of the Proposed Project, is approved, pursuant to HRS § 269-27.6(a).

3. HECO shall file a report within sixty days of the project's operation, with an explanation of any deviation of ten percent or more in the project's actual cost from that estimated in the Application. HECO's failure to submit this

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<sup>20</sup>CA SOP, at 15.

report will constitute cause to limit the cost of the project, for ratemaking purposes, to that estimated in the Application.

4. HECO shall conform to the commission's order set forth in paragraph 3 above. Failure to adhere to the commission's order may constitute cause for the commission to void this Decision and Order, and may result in further regulatory action as authorized by law.

DONE at Honolulu, Hawaii OCT 24 2008.

PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

By   
Carlito P. Caliboso, Chairman

By   
John E. Cole, Commissioner

By   
Leslie H. Kondo, Commissioner

APPROVED AS TO FORM:

  
Stacey Kawasaki Djou  
Commission Counsel

2008-0132.laa

CERTIFICATE OF SERVICE

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

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