

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 \$500,000 for Item Y00031,)
West Loch Substation/Makakilo)
Transformer #2.)
_____)

DOCKET NO. 03-0037

DECISION AND ORDER NO. 20225

Filed June 4, 2003
At 1:30 o'clock P.M.

Karen Higashi
Chief Clerk of the Commission

DEPT. OF CONSUMER AFFAIRS
DIVISION OF UTILITIES
CHIEF CLERK
STATE OF HAWAII

2003 JUN -5 P 4:19

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KAREN HIGASHI
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Commission, State of Hawaii.

K. Higashi

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In the Matter of the Application of)

HAWAIIAN ELECTRIC COMPANY, INC.)

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DECISION AND ORDER

I.

By an application filed on February 13, 2003, HAWAIIAN ELECTRIC COMPANY, INC. (HECO or Applicant) requests commission approval to commit an estimated \$872,427 for Item Y00031, Installation of West Loch Substation/Makakilo Transformer #2 (proposed project). HECO makes its request in accordance with Section 2.3.g.2 of General Order No. 7, Standards for Electricity Utility Service in the State of Hawaii and Hawaii Revised Statutes (HRS) § 269-27.6.

Copies of the application were served on the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs (Consumer Advocate).

By Order No. 20175, filed on May 8, 2003, the commission granted HECO's request to extend, until May 27, 2003, the applicable General Order No. 7, Section 2.3.g.2 requirement that the commission render a decision within 90 days after the filing of an electric utility's application. By Order No. 20196,

filed on May 27, 2003, the commission suspended the triggering of the 90th day automatic approval provision, in order to allow the Consumer Advocate and the commission additional time to complete its review and investigation of Applicant's proposed project. On May 30, 2003, the Consumer Advocate filed its partial Statement of Position relating to HECO's request for approval, pursuant to HRS 269-27.6(a), to construct a 46 kilovolt (kV) subtransmission line above the surface of the ground.

II.

A.

HECO is a corporation duly organized under the laws of the Kingdom of Hawaii on or about October 13, 1891, and now exists under and by virtue of the laws of the State of Hawaii. HECO is an operating public utility engaged in the production, purchase, transmission, distribution and sale of electricity on the island of Oahu.

B.

HECO proposes to commit funds for this proposed project with the issuance of purchase orders for long-lead material items, in accordance with Section 2.3(g)(2) of General Order No. 7 on Item Y00031, West Loch Substation/Makakilo Transformer #2. The total estimated cost of the proposed project is \$872,427.

C.

Project Justification

Since HECO's Kewalo A&B 30/40/50 MVA Transformers (Docket No. 7526) project is completed, HECO has 25kV capability in the Kakaako, Ala Moana, and Waikiki areas. The 12kV loads currently served from the McCully Substation were converted to 25kV, resulting in the McCully Substation having excess 12kV capacity. HECO plans to relocate an excess 46-12kV transformer and switchgears from the McCully Substation to the Makakilo and West Loch Substations, respectively. The 10/12.5 MVA transformer removed from the McCully Substation will be installed at the Makakilo Substation to meet the growing loads in the Makakilo area. The existing 5 MVA transformer at the Makakilo Substation will be removed and re-installed at the new West Loch Substation to meet the loads of the West Loch area. The switchgear removed from the McCully Substation will be re-installed at the new West Loch Substation.

The Makakilo 12kV underground work is required to meet the growing loads in the Makakilo area and to relieve the existing Makakilo #2 circuit of some of its existing load. The 12kV underground work at McCully substation transfers the loads off the McCully transformer that will be removed (and installed at Makakilo) onto a transformer that will remain.

D.

Project Description

1. West Loch Substation

The proposed project involves the construction of a new substation (the West Loch Substation), which includes the installation of one 46-12kV, 5 MVA transformer (currently installed at the Makakilo Substation) with two circuit radial switchgears (currently installed at the McCully Substation); one 46kV, 800 amp, group-operated disconnect switch, one 48 volt DC battery bank, three lightning arrestors, and related electrical equipment. The new West Loch Substation will be located on US Naval Magazine, West Loch, Pearl Harbor, property.

Within the new West Loch Substation area, HECO will construct one 14'-6" x 15' concrete pad for the transformer, one 10'-6"x 20' concrete pad for the switchgear, one 3' x 3'-6" pad for the battery bank, one 4'x 6' handhole, a 20-foot wide asphalt concrete driveway, approximately 125-feet of 2" ducts, 75-feet of 2-6" ducts, and foundations and steel structures to support disconnect switches, insulators and lightning arrestors. In addition, this substation will be surrounded by an 8-foot high galvanized chain link fence and the entire site will have a ground buried 18" deep and covered with 4" thick rockfill.

2.

West Loch 11.5kV Overhead

A single short span (less than 100 feet) of three-phase 11.5kV overhead conductors will be installed from the new

West Loch Substation's 11.5kV bus structure to a pole (to be provided by the Navy) just outside the substation's fence where the circuit will be spliced to the Navy's overhead facilities. HECO will provide the primary metering equipment, which will be installed on this pole.

3.

West Loch 46kV Overhead

The 46kV overhead work consists of a 46kV line drop from the existing Campbell Estate Industrial Park #46 46kV circuit to the new West Loch Substation. The 46kV overhead line work requires the installation of seven 60-foot wood poles, one 46kV switch and approximately 2,150 circuit feet of three-phase 336.4 KCM 46kV conductors.

4.

Makakilo Substation Transformer #2 Replacement

This item involves the replacement of one 46-12kV, 5 MVA, low-sound transformer at the Makakilo Substation with one 46kV, 10/12.5 MVA transformer (currently installed at McCully Substation) and related electrical equipment.

5.

Makakilo 12kV Underground (Makakilo #4 circuit)

The 12kV underground work consists of a 12kV underground tap from the Makakilo Substation's 12kV switchgear to the existing Makakilo #2 12kV circuit in HECO's handhole #G on

Makakilo Drive. The 12kV underground tap requires the addition of approximately 1.3250 circuit feet of 3-1/C KCM PEIJ 15kV aluminum cable.

6.

McCully Substation Transformer Removal

This item involves the removal of one 46-12kV, 10/12.5MVA, low-sound transformer and related electrical equipment from the McCully Substation. The existing 46kV auto transfer scheme will be modified to accommodate the transformer removal and configuration change.

7.

McCully 12kV Underground

The 12kV underground work for Hawaiian Village 2 12.47kV circuit consists of a 12kV underground connection at HECO's manhole (MH) #540 on Pumehana Street and a tap to the existing McCully #4 12.47kV circuit, also in MH #540 on Pumehana Street.

III.

Upon careful review, the commission finds that the proposed project is reasonable and consistent with the public interest. The project will allow HECO to meet the growing loads of the Makakilo and West Loch areas. Accordingly, the commission will approve HECO's application.

In addition, the commission finds that the proposed overhead construction of 46kV line extension at West Loch is reasonable and consistent with HRS § 269-27.6(a).¹ Specifically, the commission is not convinced that a benefit exists that outweighs the cost of placing the electric transmission system underground. In addition, the commission is unaware of any governmental policy either requiring the undergrounding or committal of funds for the costs of undergrounding. Further, no governmental agency or other party has indicated a willingness to pay for the costs of undergrounding. Moreover, the Consumer Advocate recommends that the 46kV line should be constructed above the surface of the ground. Specifically, the Consumer Advocate notes, among other things, that the benefits of undergrounding in this project do not outweigh the costs as "it will cost more than seven times to underground" the 46kV line extension. Moreover, "visual impact will not be significantly increased as there is an existing 46kV overhead line in the area[.]" Accordingly, the commission will approve the proposed

¹In this regard, whenever a public utility applies to the commission for approval to construct or otherwise build a new 46kV or greater high-voltage electrical transmission system, HRS §269-27.6(a) requires the commission to determine whether the proposed system shall be placed overhead or underground. In making this determination, HRS § 269-27.6(a) requires the commission to consider the following factors: (1) Whether a benefit exists that outweighs the costs of placing the electric transmission system underground; (2) Whether there is a governmental public policy requiring the electric transmission system to be constructed 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 Consumer Advocate's recommendation; and (5) Any other relevant factors.

construction of the 46kV line extension at West Loch, as more fully described in HECO's application.

IV.

THE COMMISSION ORDERS:

1. HECO's application, filed on February 13, 2003, to expend an estimated \$872,427 for Item Y00031, Installation of West Loch Substation/Makakilo Transformer #2, 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 install the 46kV line extension at West Loch above the surface of the ground, as more fully described in HECO's application, is approved.

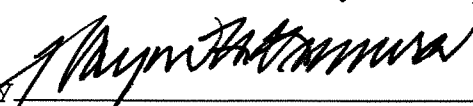
3. HECO shall submit a report within 60 days of the project's completion, with an explanation of any deviation of 10 per cent or more in the project's cost from that estimated in the application. Failure to submit the report, as required by this decision and order, will constitute cause to limit the cost of the project, for ratemaking purposes, to that estimated in the application.

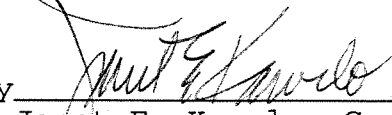
4. HECO shall serve two copies of the reports and information described in paragraph 3, above, upon the Consumer Advocate.

DONE at Honolulu, Hawaii this 4th day of June, 2003.


PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By 
Carlito P. Caliboso, Chairman

By 
Wayne H. Kimura, Commissioner

By 
Janet E. Kawelo, Commissioner

APPROVED AS TO FORM:


Kevin M. Katsura
Commission Counsel
03-0037.oc

CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 20225 upon the following parties, by causing a copy hereof to be mailed, postage prepaid, and properly addressed to each such party.

DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
DIVISION OF CONSUMER ADVOCACY
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Karen Higashi

DATED: June 4, 2003