

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)
P0000739, the Waiau 5 Generator)
Stator Rewind Project; and for)
Waiver of Paragraph 2.3(g)(2) of)
General Order No. 7.)

DOCKET NO. 02-0407

DECISION AND ORDER NO. 20054

Filed March 4, 2003
At 10:30 o'clock A.M.

Karen Higashi
Chief Clerk of the Commission

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

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KAREN HIGASHI
Chief Clerk, Public Utilities
Commission, State of Hawaii.

K. Higashi

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In the Matter of the Application of)

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DECISION AND ORDER

I.

On November 21, 2002, HAWAIIAN ELECTRIC COMPANY, INC. (HECO) filed an application for approval to commit \$986,988, an estimated amount, for Item P0000739, the Waiau 5 Generator Stator Rewind project (proposed project). HECO makes its request in accordance with Rule 2.3.g.2 of General Order No. 7, *Standards for Electric Utility Service in the State of Hawaii* (G.O. No. 7).¹

Additionally, pursuant to Rule 1.2.b of G.O. No. 7,² HECO seeks a waiver (or temporary exemption) of the Rule 2.3.g.2

¹For the purposes of this decision and order, "Rule" and "Paragraph" are synonymous.

²Rule 1.2.b of G.O. No. 7 states:

If unreasonable hardship to a utility or to a customer results from the application of any rule herein prescribed, application may be made to the Commission for the modification of the rule or for temporary or permanent exemption from its requirement.

requirement that it submit its application for review at least 60 days before the "commencement of construction or commitment for expenditure, whichever is earlier" (waiver request). It requested that a commission decision on the waiver request be issued by December 2, 2002. By Order No. 19820, filed on November 26, 2002, the commission approved HECO's waiver request.

HECO served the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs (Consumer Advocate) with copies of its application. On January 8, 2003, the Consumer Advocate served HECO with information requests (IRs). HECO filed responses to the Consumer Advocate's IRs on January 31, 2003.

Since the 90-day period for the commission to act was approaching,³ by Order No. 20022, filed on February 18, 2003, the commission suspended the application in this docket to provide additional time for the Consumer Advocate to file its statement of position and for the commission to thoroughly review the docket.⁴ By statement of position filed on February 18, 2003, the Consumer Advocate informed the commission that it does not object to the approval of HECO's application.⁵

³See Rule 2.3.g.2 of G.O. No. 7.

⁴On February 13, 2003, the parties filed their proposed Stipulation for Protective Order in this docket. The commission issued Protective Order No. 20027 on February 18, 2003.

⁵For the record, we note that Order No. 20022 was filed at 10:30 a.m. on February 18, 2003, while the Consumer Advocate's statement of position was filed at approximately 3:55 p.m. on the same day.

II.

A.

Waiau Unit 5 (Waiau 5) is a nominal 54 MW non-reheat steam unit. It is a hydrogen-cooled generator and is one of the main cycling units in HECO's system used to meet daily peak demands. The main components of the generator are: (1) the rotor (the rotating portion of the generator); (2) the stator (the stationary portion of the generator); (3) the stator coils; and (4) the hydrogen cooling system.

In mid-October 2002, during a routine test performed to verify the integrity of Waiau 5's stator core, a hot-spot within the stator core iron was found. The test was conducted during a scheduled overhaul of the generator, which began on September 14, 2002 (Waiau 5 overhaul project). HECO contends that a hot-spot can eventually lead to a "potentially catastrophic generator failure" and informs us that removal of the stator coils is required to replace the damaged portion of the stator core.

B.

Under the proposed project, HECO proposes to install new generator stator coils after the damaged portion of the stator core iron is replaced. HECO's general consultant for the Waiau 5 overhaul project, Advanced Generator Technology Services, recommended that new stator coils be installed during the current overhaul instead of re-installing the existing stator coils. This recommendation was based on: (1) the high probability of compromised strand insulations; (2) the potential for a

catastrophic failure of the generator; (3) the age of the original stator coils; and (4) the present capacity of the system which can accommodate an extended outage of Waiau 5. HECO states that it is highly probable that the integrity of the strand insulation system of the stator coils has been compromised since the stator coils are over 40 years old. Additionally, HECO contends that removal of the stator coils subjects them to stresses and that the strand insulation system of the stator coils cannot be visually inspected or tested. HECO, further, represents that failure of the stator coils would require a forced outage of approximately four months and contends that such an outage can adversely impact the reliability of HECO's system and the scheduled maintenance of its other generating units.

The Waiau 5 overhaul project has been extended to facilitate repair of the stator core and installation of new stator coils. HECO contends that Waiau 5 will remain out of service until the new stator coils can be installed.

C.

Upon completion of its review, the Consumer Advocate informs the commission that the proposed project appears to be reasonable since HECO's: (1) assessment of the existing stator coils support the replacement of the coils at this time to prevent unit failure; and (2) system capacity allows for the extended outage to install the new stator coils at this time. While the Consumer Advocate states that HECO's proposed capitalization of the cost of this project appears to be

reasonable, it indicates concerns regarding the reasonableness of certain estimated cost elements. However, the Consumer Advocate recognizes that these cost concerns can be more appropriately reviewed upon the submittal of the final project cost report, submitted by HECO upon the completion of the proposed project, and asserts that it can pursue these issues, if any, during HECO's next rate proceeding.⁶

III.

Upon careful review of the record, the commission finds HECO's proposed project to be reasonable and in the public interest. The timing of the proposed project, to be conducted during the overhaul of Waiau 5, appears to be logical and reasonable. Moreover, it appears to be in the public interest to install new generator stator coils when replacing the damaged portion of the stator core since, as represented by HECO, the existing stator coils are over 40 years old, among other things. Additionally, it appears reasonable to conclude that failure of the existing stator coils could lead to an extended forced outage, negatively impacting HECO's ability to serve the public.

⁶In its statement of position, the Consumer Advocate requested that HECO be required to file a copy of Siemens Westinghouse's bid in response to HECO requests for proposal regarding the proposed project. In response to the Consumer Advocate's request, HECO filed the bid response from Siemens Westinghouse for the proposed project on February 20, 2003.

Thus, the commission concludes that HECO's application should be approved.

IV.

THE COMMISSION ORDERS:

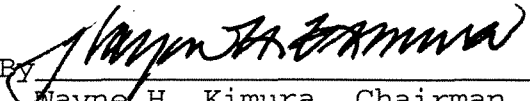
1. HECO's request to expend approximately \$986,988 for Item P0000739, the Waiiau 5 Generator Stator Rewind project, is approved; provided that no part of the project may be included in HECO's rate base unless and until the project is in fact installed, and is used and useful for utility purposes.

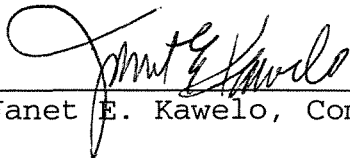
2. Within 60 days of the completion of the proposed project, HECO shall submit an accounting report with an explanation of any deviation of 10 per cent or more of the projected costs for the proposed project.


3. Failure to submit the report, as required in this decision and order, constitutes cause to limit the total cost of the proposed project for ratemaking purposes to that estimated in HECO's application.

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

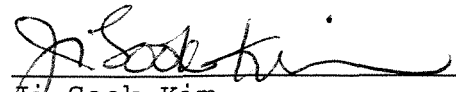
PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By 
Wayne H. Kimura, Chairman

By 
Janet E. Kawelo, Commissioner

By 
Gregg J. Kinkley, Commissioner

APPROVED AS TO FORM:


Ji Sook Kim
Commission Counsel

02-0407.eh

CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 20054 upon the following parties, by causing a copy hereof to be mailed, postage prepaid, and properly addressed to each such party.

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DIVISION OF CONSUMER ADVOCACY
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Karen Higashi

DATED: March 4, 2003