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 ) 
P0000750, the Kahe Unit 5 Reheater ) 
Element Replacements; and for ) 
Waiver of Paragraph 2.3(g)(2) of ) 
General Order No. 7. )

ORDER NO. 20238

Filed June 18, 2003
At 11:00 o'clock .A.M.

Chief Clerk of the Commission

ATTEST: A True Copy
KAREN HIGASHI
In the Matter of the Application of

HAWAIIAN ELECTRIC COMPANY, INC.

For Approval to Commit Funds in Excess of $500,000 for Item P0000750, the Kahe Unit 5 Reheater Element Replacements; and for Waiver of Paragraph 2.3(g)(2) of General Order No. 7.

ORDER

I.

By application filed on May 30, 2003, HAWAIIAN ELECTRIC COMPANY, INC. ("HECO") requests commission approval to commit approximately $1,176,419 for Item P0000750, the Kahe Unit 5 ("Kahe 5") Reheater Element Replacements project ("proposed project"). HECO’s request is made pursuant to paragraph 2.3.g.2 of the commission’s General Order No. 7, Standards for Electric Utility Service in the State of Hawaii ("G.O. No. 7").

HECO served copies of the application on the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs ("Consumer Advocate").

Pursuant to section 1.2.b of G.O. No. 7, HECO also seeks a waiver of the section 2.3.g.2 requirement that its application "be submitted to the commission for review at least 60 days prior to the commencement of construction or commitment for expenditure, whichever is earlier" ("60-day notice period"). The instant order,
thus, only addresses HECO's request for a waiver of the section 2.3.g.2 applicable requirement, and does not make a determination on HECO's request to commit funds for the proposed project.

II.
A.

The proposed project involves replacing all 53 elements of the Kahe 5 generator. The Kahe 5 is a nominal 142 megawatts, base loaded, reheat steam-generating unit originally placed into service in December 1974.

Since June 1990, Kahe 5 has experienced ten tube failures in five separate incidents.\(^1\) In each of the incidents, the failure was found to be due to oil ash corrosion on the exterior of the tubes. This occurs when oil ash deposits become molten on the exterior of the tubes at temperatures in excess of 1,100 degrees Fahrenheit. The oil ash attacks the metal causing the tube wall to waste away and eventually fail. Over time, the presence of oxide scale on the inside of the tubes accumulates, becoming excessively thick, restricting the flow of steam through the tubes, which then results in diminished heat transfer from the tubes to the steam. The proposed project would replace the 53 elements with tube materials more resistant to this formation of oil ash corrosion.

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\(^1\)Superheated steam enters the tubes through the Reheater Inlet Header, going through the single reheater, and leaving through the Reheater Outlet Header. The five tube circuits connected to the Reheater inlet and Outlet Headers comprise one "element". There are 53 elements.
HECO proposes to install the new reheater elements during Kahe 5's next unit overhaul, scheduled to start on or about January 5, 2004. From the time of order, production and delivery of the elements is expected to take at least 25 weeks. The installation of the new reheater elements will take approximately 12 weeks. HECO asserts that the tubes are severely deteriorated and require replacement during the unit's next overhaul.

HECO considered the options of either doing nothing, and reacting to tube failures as they occur, or replacing only those tubes deemed to be at greatest risk for failure. HECO determined that the option of doing nothing would not be economically and operationally prudent. HECO thus proceeded with a partial replacement of the tubes by the then scheduled March 2003 overhaul date. Overhaul of the Kahe 5 was subsequently rescheduled to January 2004, due to unforeseen problems with several of HECO's other units. Consequently, because the new overhaul date of January 2004 allows HECO sufficient lead-time for ordering all 53 of the elements, HECO submitted the instant application, asserting that replacing all of the elements at this time is the best way to ensure unit reliability.

B.

HECO represents that the Consumer Advocate does not object to HECO's request for waiver of the 60-day notice period.

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2HECO states that replacing the 20 elements with the greatest risk for failure would cost less than $500,000, thus not requiring commission approval pursuant to G.O. No. 7.
The Consumer Advocate does, however, according to HECO, reserve the right to complete a review of the instant application and to state its position on the merits of the application based upon this review.

Upon review, the commission finds good cause to approve HECO's request for a waiver of the 60-day notice period. The commission emphasizes, however, that this order does not constitute a decision on the merits of HECO's application. As HECO acknowledges in its application, "if the [c]ommission does not approve [the] [a]pplication, HECO will have the burden of proof to justify the reasonableness of the capital expenditures in its next rate case."

III.

THE COMMISSION ORDERS that HECO's request for a waiver of the section 2.3.g.2 requirement to file its application at least 60 days prior to the commencement of construction or commitment for the expenditure of funds, filed on May 30, 2003, is approved.
DONE at Honolulu, Hawaii this 18th 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:

Benedyne S. Stone
Commission Counsel
CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Order No. 20238 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
P. O. Box 541
Honolulu, HI 96809

WILLIAM A. BONNET
VICE PRESIDENT, GOVERNMENT & COMMUNITY AFFAIRS
HAWAIIAN ELECTRIC COMPANY, INC.
P. O. Box 2750
Honolulu, HI 96840-0001

LORIE ANN NAGATA
TREASURER
HAWAIIAN ELECTRIC COMPANY, INC.
P. O. Box 2750
Honolulu, HI 96840-0001

DATED: June 18, 2003

Karen Hagashi