### BEFORE THE PUBLIC UTILITIES COMMISSION

## OF THE STATE OF HAWAII

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In the Matter of the Application of)

HAWAIIAN ELECTRIC COMPANY, INC.

For Approval to Commit Funds in Excess of \$500,000 for Item P0000893, the Honolulu 8 Generator ) Rotor Rewind Project; and for Waiver of Paragraph 2.3(g)(2) of General Order No. 7.

DOCKET NO. 03-0206

<u>ORDER NO. 20367</u>



Filed <u>August 6</u>, 2003 At <u>11:00</u> o'clock <u>A</u>.M. 2003

Chief Clerk of the/Commission

ATTEST: A True Copy KAREN HIGASHI Chief Clerk, Public Utilities Commission, State of Hawaii.

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#### ORDER

I.

By application filed on July 21, 2003, HAWAIIAN ELECTRIC COMPANY, INC. ("HECO") requests commission approval to commit approximately \$570,995 for Item P0000893, the installation of the Honolulu 8 Generator Rotor Rewind Project ("Proposed Project"). HECO's request is made pursuant to paragraph 2.3.g.2 of the commission's General Order No. 7, <u>Standards for Electric Utility</u> 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.

## Α.

The Honolulu 8 is a nominal 54 megawatt non-reheat steam unit that was commissioned in 1954. It is one of two cycling units currently in operation at the Honolulu Generating Station, running week day mornings prior to the morning peak, and shutting down following the evening peak. Honolulu 8 also runs as system requirements dictate.

The main components of the generator are the generator rotor, rotor coils, stator, stator coils, and the hydrogen cooling system. An inspection performed by HECO in June 2003<sup>1</sup> to determine the condition of the Honolulu 8 generator revealed that the two #7 coils of the rotor, which originally had four copper end-turn connections between the two, currently have no intact connections. One of the connections has two breaks and one was found loose in the rotor bushing box. HECO represents that the condition of the connectors can be attributed to the higher thermal expansion, centrifugal forces, and vibration to which these coils have been subjected to over the years. While only one of the four connections is required to maintain the necessary electrical

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<sup>&</sup>lt;sup>1</sup>The inspection was performed as part of a scheduled maintenance outage for the Honolulu 8.

continuity between the two coils, at least two are needed to reliably handle the full rated filed current.

The Proposed Project consists of rewinding the generator rotor with new rotor coils and installing new formed copper bars for the number seven coils.<sup>2</sup> In addition, the existing formed copper bars from coils number one through six will be inspected for possible reuse, and if necessary, new formed copper bars for any damaged coils will also be installed. The new rotor coils will be created from new and/or existing formed copper bars.

The generator cannot be returned to service without at least two of the original four #7 coil end-turn connections in place. Unless they are replaced, the region of the end-turn connection will be susceptible to overheating and vibration due to uneven thermal expansion of the rotor. To facilitate repair of the rotor, overhaul for the Honolulu 8 has been moved to October 2003.<sup>3</sup>

в.

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

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<sup>&</sup>lt;sup>2</sup>HECO evaluated two alternatives to repair the generator rotor: (1) purchasing a new rotor, and (2) rewinding (either field rewinding or shop rewinding) the rotor. HECO settled on shop rewinding as being the most economical and timely.

<sup>&</sup>lt;sup>3</sup>HECO states that in order to meet this overhaul deadline, the required materials must be ordered by July 25, 2003.

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 that it file its application at least 60 days prior to the commencement of construction or commitment for the expenditure of funds, filed on July 21, 2003, is approved.

DONE at Honolulu, Hawaii this 6th day of August, 2003.

PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

By (EXCUSED) Carlito P. Caliboso, Chairman

APPROVED AS TO FORM:

Benedyne S. Stone Commission Counsel

03-0206.cs

ayne H. Kimura, Commissioner

By

Janet E. Kawelo, Commissioner

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I hereby certify that I have this date served a copy of the foregoing <u>Order No. 20367</u> 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

Karin Karen H:

DATED: August 6, 2003