

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 P0000658, the Waiiau 9 Exhaust)
Duct Replacement project)
_____)

DOCKET NO. 04-0109

DECISION AND ORDER NO. 21416

Filed Oct. 18, 2004
At 2 o'clock P.M.

Karen Higashi.
Chief Clerk of the Commission

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

2004 OCT 19 A 8:15

RECEIVED

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

K. Higashi.

Consumer Advocate (collectively, "Parties") filed their Proposed Stipulated Procedural Order for commission review and approval. On July 29, 2004, the commission issued Order No. 21189, approving the Parties Proposed Stipulated Procedural Order which among other things extended the 90-day period for the commission to act upon the Application until 30 days after either: (1) HECO provides notice that the proceeding is ready for decision making (and HECO does not file a Reply Statement of Position) or (2) HECO files a Reply Statement of Position.

On June 22, 2004, the Consumer Advocate served information requests upon HECO. On August 4, 2004, HECO filed its responses to the Consumer Advocate's information requests. While the stipulated schedule allowed for the filing of supplemental information requests, none were filed. On September 15, 2004, the Consumer Advocate filed its Statement of Position, stating that it does not object to commission approval of the instant Application. On September 20, 2004, HECO filed a letter informing the commission that this proceeding was ready for decision making. Accordingly, the deadline for the commission to act is October 20, 2004.

II.

Background

The Waiiau 9 generating unit is a 50 megawatt ("MW") combustion turbine generator located at HECO's Waiiau Power Plant. The Waiiau 9 and 10 generating units are currently used as peaking

units to provide generation during peak periods or provide quick load pick-up during system emergencies.

The Waiiau 9 generating unit consists of a General Electric model 7B combustion turbine and a 44.8 MW generator. The combustion turbine's exhaust duct is located at the tail end of the turbine where the exhaust exits the turbine. The exhaust ducts direct the exhaust gases (which may reach temperatures of 1000 degrees Fahrenheit) away from the turbine and other equipment at the Waiiau power plant and provides noise attenuation of the exiting gas. HECO has determined that due to the deteriorated state of the exhaust system it is necessary to replace the system during the generator's next scheduled outage in 2005.

The proposed scope of work of the proposed project consists of the purchase and installation of an exhaust system consisting of an exhaust plenum, transition duct, expansion joints, and an exhaust stack, to replace the original Waiiau 9 exhaust system. The proposed project will not change the combustion characteristics of the exhaust or the unit itself. Replacing the exhaust stack will not increase the capacity of Waiiau 9 generating unit or the emissions from the unit. HECO plans to replace the exhaust duct during the Waiiau 9 generating unit overhaul, currently scheduled during a 10-week maintenance outage starting on January 17, 2005.

HECO represents, based on various inspections, that the exhaust duct system is deteriorated and requires replacement. The duct has splits in several areas, probably due to corrosion, and thermal expansion and contraction problems. The splits have been weld repaired, but as the duct system continues to deteriorate, weld repairs will not be practical.

The interior of the exhaust plenum is also deteriorated, and the exhaust expansion joints have significant corrosion on the retaining bars. HECO represents that with the replacement of the exhaust duct and stacks, the Waiiau 9 generating unit can continue to provide reliable and economical service to HECO for many more years, and will likely be capable of operating until 2030.

HECO further represents that based on routine inspections and repairs to the exhaust duct system, HECO has been able to continue safe operation of the Waiiau 9 generating unit; however, HECO believes that waiting until the next scheduled extended maintenance outage beyond the January 2005 outage would significantly increase the risk of exhaust system failure. (The next planned extended outage will occur approximately eight years after the 2005 maintenance outage.)

HECO represents that if the exhaust duct system were to fail, hot (1000 degrees F) exhaust gas could be released at ground level, posing a significant safety hazard and the

possibility of potential substantial property damage. The unit subsequently would not be able to operate, which would result in an extended forced outage of approximately 30 weeks. This could adversely impact system reliability and scheduled maintenance on other units.

III.

Discussion

Based on our review, the commission concludes that the proposed Waiiau 9 exhaust duct replacement project is reasonable and consistent with the public interest. The exhaust duct will continue to deteriorate over time, thereby increasing the likelihood of failure of the system resulting in an outage for the Waiiau 9 generating unit. An unexpected outage may require approximately 30 weeks for a replacement duct to be installed. During this time the unit would be inoperable because running the turbine would be unsafe without its exhaust duct. The commission also agrees with HECO and the Consumer Advocate that the best time to do this proposed project will be during the 2005 overhaul, which mitigates the possibility of an extended or an unscheduled outage in the future.

IV.

Orders

THE COMMISSION ORDERS:

1. HECO's Application, filed on May 14, 2004, to commit an estimated \$1,232,708 for Item P0000658, The Waiiau 9 exhaust duct replacement project is approved, provided that no part of the cost of the proposed project may be included in HECO rate base unless and until the proposed project has been completed, and the proposed project is used and useful for utility purposes.

2. HECO shall submit a report within sixty (60) days of the project's commercial operation, with an explanation of any deviation of ten (10) per cent or more of the projected costs for the proposed project. 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.

3. HECO shall serve two (2) copies of the reports and information described in paragraph 2, above, upon the Consumer Advocate. Failure to adhere to our orders constitutes cause for the commission to void this decision and order, and may, result in further regulatory actions as authorized by law.

DONE at Honolulu, Hawaii this 18th day of October,
2004.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By 
Carlito P. Caliboso, Chairman

By (EXCUSED)
Wayne H. Kimura, Commissioner

By 
Janet E. Kawelo, Commissioner

APPROVED AS TO FORM:


Kevin M. Katsura
Commission Counsel
04-0109.ac

CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 21416 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-GOVT. & COMMUNITY AFFAIRS
HAWAIIAN ELECTRIC COMPANY, INC.
P. O. Box 2750
Honolulu, HI 96840-0001

PATSY H. NANBU
DIRECTOR - REGULATORY AFFAIRS
P.O. Box 2750
Honolulu, HI 96840-0001



Karen Higashi

DATED: OCT 18 2004