

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of)
)
KAUAI ISLAND UTILITY COOPERATIVE)
)
For approval to commit funds in)
Excess of \$500,000 for the Port)
Allen steam plant automation)
Project)
_____)

DOCKET NO. 04-0041

DECISION AND ORDER NO. 21192

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

Filed July 30, 2004
At 2:30 o'clock P.M.

Karon Higashi.
Chief Clerk of the Commission

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

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of))	
KAUAI ISLAND UTILITY COOPERATIVE)	Docket No. 04-0041
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DECISION AND ORDER

I.

Introduction

On February 20, 2004, KAUAI ISLAND UTILITY COOPERATIVE ("KIUC"), filed an application for approval to commit funds in excess of \$500,000 for the Port Allen Steam plant automation project ("Proposed Project").¹ Applicant seeks approval pursuant to General Order No. 7, Standards for Electric Utility Service in the State of Hawaii, to commit funds for and to commence construction that is expected to cost in excess of \$500,000.

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

Pursuant to Order No. 21023, filed on June 2, 2004, the Consumer Advocate served information requests on KIUC on April 29, 2004. KIUC responded on May 20, 2004, and subsequently

¹The estimated Proposed Project cost is \$580,000.

provided the confidential information on May 27, 2004 pursuant to Protective Order No. 20994, filed on May 21, 2004. The Consumer Advocate filed its Statement of Position on June 23, 2004 stating that it does not object to the application.

II.

Background

KIUC's dual train combined cycle generating unit at Port Allen consists of two (2) gas turbines, GT-1 and GT-2, and a steam turbine, S-1. The combined cycle unit is capable of providing 59.2 megawatts (MW) of power, which accounts for 47.6 per cent of KIUC's generating capacity.

The existing steam plant controls ("Control System") are made up of four (4) components: (1) the heat recovery system generator controls; (2) the steam plant process controls and instrumentation; (3) the boiler burner management; and (4) the data acquisition system. These components were installed with the original steam turbine and are over thirty-six years old.

KIUC represents that due to the age of the existing Controls System, spare parts have not been available for over ten (10) years. As a result of the unavailability of spare parts, KIUC claims that the plant operators' attention has been diverted to other duties which has resulted in reliability concerns. KIUC further states that the condition of the pneumatic controls had degraded to the point that the controls are unreliable and non-repeatable. KIUC represents that the "tuning" of the system

is drifting and causing additional control problems at different operating levels.

KIUC also states that the Controls System's current condition limits the operation of the boiler's burner such that only incremental adjustments in the loading of the steam turbine can be made or else the boiler is at risk for "flaming out."² KIUC states that this situation limits the responsiveness of the steam generator to react to changes in KIUC's load, which could cause load shedding of the system when generators' output is not able to compensate for the current load.

III.

Discussion

Based on our review, the commission concludes that the Proposed Project is reasonable and consistent with the public interest. The combined cycle generating unit at Port Allen is one of the more efficient units on KIUC's system and should be available to meet current and future loads on Kauai. The combined cycle operation of the gas turbines with the steam turbine lowers the heat rate that would be achieved when only the combustion turbines were operated.³ The lower heat rate results in lower fuel use which should translate to lower fuel costs.

²The extinguishing of the burner tip of the boiler, which may be caused by the improper air-fuel mixture which is controlled by the Controls System.

³See CA-IR-76.2.

The other added benefits of the new Controls System include data historian, trending, redundant controls, available spare parts, enhanced troubleshooting and problem recognition, superior alarming and expandability. Accordingly, the commission will approve KIUC's application.

IV.

Orders

THE COMMISSION ORDERS:

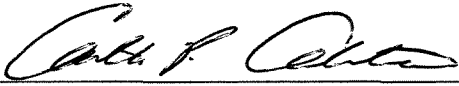
1. KIUC's application, filed on February 20, 2004, to commit an estimated \$580,000 for the Port Allen Steam plant automation project is approved; provided that no part of the cost of the Proposed Project may be included in KIUC's rate base unless and until the Proposed Project has been completed, and the Proposed Project is used and useful for utility purposes.

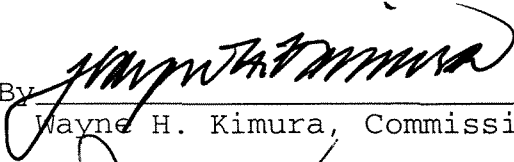
2. KIUC shall submit a report within 60 days of the project's commercial operation, with an explanation of any deviation of 10 per cent or more of the projected costs for the proposed project. Failure to submit the report as required by this decision and order, will constitute cause to limit the cost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

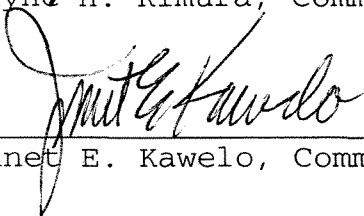
3. KIUC shall serve two (2) copies of the reports and information described in paragraph 2, above, upon the Consumer Advocate. Failure to adhere to our orders constitutes cause for the commission to void this decision and order, and may, result in further regulatory actions as authorized by law.

DONE at Honolulu, Hawaii this 30th day of July, 2004.

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

04-0041.eh

CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 21192 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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DATED: July 30, 2004