

0/5  
Scan

For Approval to Commit Funds in )  
Excess of \$500,000 for Item )  
M0000482, Purchase of a GE LM2500PE) )  
Engine for Use as a Spare. )

RECEIVED

2003 NOV 28 PM 1:07

At 1 o'clock P..M.

*for Kink*  
\_\_\_\_\_  
Chief Clerk of the Commission

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

Knig

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of)	
MAUI ELECTRIC COMPANY, LIMITED )	Docket No. 03-0178
For Approval to Commit Funds in )	
Excess of \$500,000 for Item )	Decision and Order No. 20690
M0000482, Purchase of a GE LM2500PE)	
Engine for Use as a Spare. )	
<hr/>	

DECISION AND ORDER

I.

Introduction

MAUI ELECTRIC COMPANY, LIMITED ("MECO") requested commission approval to commit approximately \$3,400,000 for Item M0000482, purchase of a General Electric model LM2500PE combustion turbine engine for use as a spare ("Proposed Project"), in accordance with paragraph 2.3.g.2 of the commission's General Order No. 7, Standards of Electric Utility Service in the State of Hawaii ("General Order No. 7") in an application filed on June 19, 2003.

MECO served copies of the application on the Department of Commerce and Consumer Affairs, Division of Consumer Advocacy ("Consumer Advocate"). On July 10, 2003, the Consumer Advocate filed a preliminary statement of position indicating that it had questions and concerns relating to the docket, it will participate in the proceeding, and will state its position upon completion of its investigation. On August 14, 2003,

the Consumer Advocate served information requests upon MECO, to which it responded on September 19, 2003.

On September 11, 2003, MECO filed a letter requesting an extension of the date by which the commission must render a decision and order ("90-day Review Period") from September 17, 2003 to October 31, 2003.<sup>1</sup> The commission granted MECO's extension request, and required MECO to file its responses to the Consumer Advocate's information requests by September 19, 2003 and the Consumer Advocate to file its statement of position by October 20, 2003, in Order No. 20434, filed on September 12, 2003.

On September 26, 2003, MECO wrote to the commission to provide revised revenue requirement analyses, since it discovered inadvertent errors in its revenue requirements analyses provided with the application.

On October 20, 2003, MECO filed a second letter requesting an extension of the 90-day Review Period from October 31, 2003 to November 28, 2003. The commission granted MECO's request for extension, and requested that the Consumer Advocate file its statement of position by November 14, 2003, in Order No. 20608, filed on October 29, 2003.

---

<sup>1</sup>Paragraph 2.3.g.2 of General Order No. 7 provides that if the commission does not act on a public utility's application and render a decision and order within 90 days of filing, the utility will be allowed "to include the project in its rate base without the determination by the [c]ommission required by this rule."

By position statement filed on November 13, 2003, the Consumer Advocate stated that it does not object to our approval of the instant application.

## II.

### Discussion

#### A.

##### MECO

MECO is a corporation duly organized under the laws of the Territory of Hawaii on or about April 18, 1921, and exists under and by virtue of the laws of the State of Hawaii. MECO is an operating public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Maui, the production, transmission, distribution, and sale of electricity on the island of Molokai, and the production, distribution, and sale of electricity on the island of Lanai.

#### B.

##### Proposed Project Description

The Proposed Project involves the expenditure of approximately \$3,400,000 for the purchase of a General Electric ("GE") aeroderivative combustion turbine ("CT") engine, model number LM2500PE ("Spare Engine"). MECO intends to use the Spare Engine as a backup engine to any one of the four CT engines currently installed in electric generating units at the Maalaea Power Plant on the island of Maui during scheduled and unscheduled outages when the installed engine is required to be

removed and repaired. MECO's units, identified as M-14, M-16, M-17, and M-19, are nominal 20 (twenty) megawatt ("MW") electric generators that utilize GE CT engines, model number LM2500PE, as the prime mover.

MECO advises that included in the cost of purchasing the Spare Engine are costs for special tooling to support the maintenance of all four of MECO's installed LM2500 engines, and a storage container to store the Spare Engine when it is not in use. The purchase of the Spare Engine with a storage container is expected to be approximately \$3,000,000, based on a proposal from GE Energy Services dated March 10, 2003. The price of the special tooling is estimated at \$250,000.

MECO states that its reasons for purchasing the Spare Engine are as follows:

1. The cost effectiveness of owning a spare LM2500 engine, rather than continuing to participate in the lease program for a spare engine, since MECO now has four LM2500 engines<sup>2</sup>;
2. The reduced downtime due to the availability of an on-site spare engine for unscheduled outages;
3. The cost savings resulting from having an on-site spare engine for in-house component repairs and rebuilding (e.g., hot section, combustor, low pressure turbine, turbine midframe, transfer gearbox, etc.);

---

<sup>2</sup>MECO placed M-14, M-16, M-17, and M-19 in service in 1992 and 1993, 1998, and 2000, respectively.

4. The increased flexibility to perform CT maintenance with an on-site spare engine;
5. The elimination of waiting for parts that are currently ordered and shipped since the parts may be available through a spare;
6. The improved reliability and availability that a spare engine will provide; and
7. The increased plant efficiency resulting from the minimized Combined Cycle outage periods with the availability of a spare engine.

C.

Five Alternatives to the Proposed Project

MECO considered five alternatives to provide a spare engine for its CT units. To evaluate the alternatives, MECO conducted a revenue requirement analysis. This analysis was revised to include certain amendments suggested by the Consumer Advocate. As a result of the Consumer Advocate's amendments, MECO's revenue requirement analysis was adjusted as follows:

<u>Alternative</u>	<u>Net Present Value of Revenue Requirements</u>  (millions)	<u>30 Year Revenue Requirements</u>  (millions)
A. Purchase Spare Engine <sup>3</sup>	\$51.3	\$172.0
B. Lease pool program <sup>4</sup>	61.0	207.7
C. Lease with buyout <sup>5</sup>	52.0	172.8
D. Lease with annual renewal <sup>6</sup>	53.5	181.3
E. No action or status quo	63.8	217.5

D.

#### Consumer Advocate's Position

The Consumer Advocate initially was concerned with:

(1) whether MECO needed to purchase the Spare Engine; (2) whether

---

<sup>3</sup>This alternative involves the purchase of a GE LM2500PE engine for use as a spare, and, as the preferred method, is the subject of the instant docket.

<sup>4</sup>This option involves MECO's participation in a leased engine membership program. The current cost to participate in a leased engine program is approximately \$116,000 per engine per year, or approximately \$465,000 for MECO's four CT engines. In addition to annual lease membership payments, fees would also be paid for the periods of actual use of the leased engine. Membership in the program ensures that an engine could be made available on Oahu within 36 hours from notification of need. MECO estimates that it may take an additional 48 hours to transport the engine to the Maalaea Power Plant.

<sup>5</sup>This alternative requires MECO's execution of an operating lease for a spare engine and the exercise of an option to purchase at the end of a 7-year lease term at the fair market value (as of the end of the lease term).

<sup>6</sup>This alternative involves MECO entering into an operating lease for a spare engine and at the end of the initial 7-year term renew the lease annually.

such a purchase would result in "excess" capacity on MECO's system; and (3) whether MECO's revenue requirement analysis was reasonable. However, after it conducted its independent analysis, the Consumer Advocate determined that the Spare Engine "is necessary to avoid violations in MECO's capacity planning criteria and the most cost-effective manner in which to provide a spare is to purchase," and that MECO would not have excess backup capacity if the Spare Engine is purchased.

The Consumer Advocate notes that the estimated cost for the Spare Engine was provided based upon a proposal by GE Energy Services on March 10, 2003. It also notes that MECO is in the process of conducting a competitive bid for the purchase of the Spare Engine and the shipping container. Thus, the Consumer Advocate states that it cannot assess the reasonableness of the estimated costs associated with the Proposed Project at this time. Instead, the Consumer Advocate suggests that it can review and better quantify the reasonableness of the actual costs incurred to complete the Proposed Project and "pursue issues, if any, regarding the reasonableness of the [Proposed Project's] actual costs in MECO's next rate proceeding."

E.

#### Finding and Conclusion

The commission finds that the Proposed Project is reasonable and consistent with the public interest. The purchase of the Spare Engine will allow MECO a better opportunity to serve its Maui customers in a cost effective, reliable manner, and also



meet its reserve requirements. Accordingly, the commission concludes that the instant application for the Proposed Project should be approved.

### III.

#### Orders

##### THE COMMISSION ORDERS:

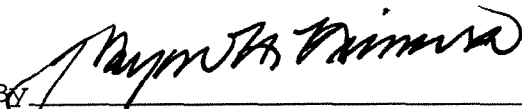
1. MECO's application, filed on June 19, 2003, to expend an estimated \$3,400,000 for the purchase of a GE model LM2500PE CT engine for use as a spare is approved; provided that no part of the Proposed Project may be included in MECO's rate base unless and until the Proposed Project is in fact installed, and is used and useful for utility purposes.


2. MECO shall report within 60 days of the Proposed Project's commercial operation, with an explanation of any deviation of 10 (ten) per cent or more in the Proposed Project's costs from that estimated in the application. MECO's failure to submit this report will constitute cause to limit the cost of the Proposed Project, for ratemaking purposes, to that estimated in the application.

DONE at Honolulu, Hawaii this 26th day of November,  
2003.

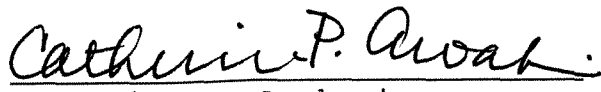
PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

By   
Carlito P. Caliboso, Chairman

By   
Wayne H. Kimura, Commissioner

By   
Janet E. Kawelo, Commissioner

APPROVED AS TO FORM:

  
Catherine P. Awakuni  
Commission Counsel

03-0178.eh

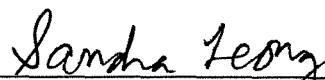
CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 20690 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

EDWARD L. REINHARDT  
PRESIDENT  
MAUI ELECTRIC COMPANY, LIMITED  
P. O. Box 398  
Kahului, HI 96733-6898

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

  
for Karen Higashi

DATED: November 26, 2003