

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of)
)
KAUAI ISLAND UTILITY COOPERATIVE)
)
For a Declaratory Ruling Regarding)
Its Adequacy of Supply/Reserve)
Margin Criteria.)
_____)

DOCKET NO. 2007-0418

DECISION AND ORDER NO. 24078

Filed March 6, 2008

At 11 o'clock A.M.

Karen Higashi

Chief Clerk of the Commission

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DIV. OF CONSUMER ADVOCACY
DEPT. OF COMMERCE AND
INDUSTRY AFFAIRS
HONOLULU, HAWAII

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

Karen Higashi

OF THE STATE OF HAWAII

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Docket No. 2007-0418

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DECISION AND ORDER

By this Decision and Order, the commission declares that KAUAI ISLAND UTILITY COOPERATIVE's ("KIUC") adequacy of supply/reserve margin criteria should be based on KIUC having sufficient reserve capacity available to meet its: (1) evening peak load with its largest generator unit out for any reason; and (2) morning peak load with its largest generator unit out for any reason plus its third largest generator unit out for scheduled maintenance.

I.

Background

KIUC is a Hawaii non-profit cooperative association organized under the laws of the State of Hawaii with its principal place of business in Lihue, Kauai, Hawaii. An operating public utility, KIUC is engaged in the production, transmission, distribution, purchase, and sale of electric energy on the island of Kauai.

KIUC has been operating as a public utility since November 1, 2002, when it purchased all of the assets and assumed the operations of the Kauai Electric Division of Citizens Communications Company ("KE") (the "Transfer").¹ Through this transaction, KIUC was assigned the legislatively-granted franchise previously held by KE to manufacture, sell, furnish, and supply electric light, current, and power on the island of Kauai.

A.

The Petition

On December 20, 2007, KIUC filed a petition (the "Petition")² requesting that the commission issue a declaratory order to "clarify and/or authorize" it to utilize, on a going forward basis, the adequacy of supply/reserve margin criteria referenced in Decision and Order No. 10687, filed on June 29, 1990, in Docket No. 6606 ("Decision and Order No. 10687"). According to KIUC, Decision and Order No. 10687 states that KIUC should have sufficient reserve capacity available to meet its: (1) evening peak load with its largest

¹The commission approved the Transfer in In re Citizens Communications Company, Kauai Electric Division and Kauai Island Utility Cooperative, Docket No. 02-0060, Decision and Order No. 19658, filed on September 17, 2002, as amended by Decision and Order No. 19755, filed on October 30, 2002.

²KIUC served copies of its Petition on the DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS ("Consumer Advocate"), an ex officio party to this proceeding pursuant to Hawaii Revised Statutes § 269-51 and Hawaii Administrative Rules ("HAR") § 6-61-62. KIUC and the Consumer Advocate are the sole parties to this proceeding.

generator unit out for any reason; and (2) morning peak load with its largest generator unit out for any reason plus its third largest generator unit out for scheduled maintenance. KIUC filed its Petition pursuant to HAR § 6-61-160.³

KIUC states that since the Transfer, it has been filing its annual adequacy of supply reports, pursuant to Section 5.3 of General Order No. 7, Standards for Electric Utility Service in the State of Hawaii ("G.O. No. 7"), based on an adequacy of supply/reserve margin criteria utilizing a single evening peak criterion. This criterion requires KIUC to have sufficient generating capacity to meet its evening peak load with the loss of its largest generator unit ("Single Evening Peak Criterion"). Based on calculations using the Single Evening Peak Criterion and KIUC's most recent integrated resource plan load forecast, KIUC represents that its next generation addition would not be required until the year 2015.

However, KIUC states that it has recently experienced an increase in generation related outage and power fluctuations, which KIUC primarily attributes to aging equipment. For example, KIUC states that its Gas Turbine ("GT") No. 2 recently experienced an exciter failure resulting in the unit being unavailable for approximately six weeks while a new exciter was manufactured and shipped to KIUC. KIUC asserts that these conditions suggest that it would be prudent for KIUC to begin planning for its next generation addition in the very near future

³In its Petition, KIUC voluntarily and intentionally waived the 45-day period within which commission action must be taken regarding the Petition as set forth in HAR § 6-61-162. See Petition at 2 n.1.

as opposed to the 2015 timeframe. KIUC states that it concluded that "consideration of only an evening peak criterion on a going forward basis to determine the timing of its next generation addition is not appropriate for its current generation planning needs, as it does not appropriately coincide with KIUC's actual operating experience and capacity timing needs."⁴ Further, KIUC contends that a target date of 2015 for its next generation addition is not in the best interest of its customers.⁵

According to KIUC, it discovered a discrepancy in commission decisions addressing KIUC's reserve margin during its internal review of the history surrounding its adequacy of supply/reserve margin criteria (i.e., between Decision and Order No. 9697, filed March 14, 1988, in Docket No. 6055 ("Decision and Order No. 9697") and Decision and Order No. 10687). In Decision and Order No. 10687, the commission denied KE's request to change its existing reserve margin criteria and, in doing so, referenced KE's "existing" criteria as including both an evening peak criterion and a morning peak criterion as follows:

The current reserve criterion is meeting KE's evening peak load with its largest unit out and meeting its morning peak load with the largest unit out plus the third largest unit out for scheduled maintenance.

Petition at 5-6 (citing Decision and Order No. 10687 at 7; emphasis in original).

KIUC maintains that the commission, in Decision and Order No. 10687, stated that the above criterion was established

⁴Id. at 5.

⁵Id. at 4.

in Decision and Order No. 9697. However, KIUC states that upon review it discovered that the only discussion of reserve margin criteria in Decision and Order No. 9697 is as follows:

[I]f recent growth rates continue, KE will need the capacity of the second unit in 1990 based on the existing reserve margin criteria . . . KE has elected to improve its reserve criteria in 1990 to cover the largest unit down for maintenance and the unscheduled outage of another unit in the system other than GT No. 1 during morning peaks.

Petition at 6 (citing Decision and Order No. 9697 at 8; footnote omitted).

KIUC contends that these decisions are inconsistent. First, KIUC states that Decision and Order No. 9697 describes the morning criterion as the largest unit down for maintenance and the unscheduled outage of another unit other than GT No. 1 (i.e., the third largest unit); while Decision and Order No. 10687 describes the morning criterion as the largest unit down and third largest unit out for scheduled maintenance. Moreover, KIUC asserts that Decision and Order No. 9697 did not specifically approve or establish the use of any specific reserve margin criteria, as Decision and Order No. 10687 "appears to indicate," nor did the order set forth in full the existing reserve margin criteria that was or otherwise should be in effect.

Due to these discrepancies and to resolve the appropriate criteria to apply on a going forward basis, KIUC filed this Petition seeking clarification from the commission. According to KIUC, the criteria set forth in Decision and Order No. 10687 provides the most appropriate adequacy of supply/reserve margin criteria for KIUC to use on a going forward

basis. KIUC "believes that the use of both the morning and evening peak criteria [as set forth in Decision and Order No. 10687] is appropriate, prudent, and is in the public interest, because it is consistent with KIUC's actual operating experience and will better ensure that KIUC's adequacy of supply/reserve margin reporting more closely and accurately ties with KIUC's actual operating experience and generation planning needs."⁶

B.

Consumer Advocate's Position

On February 4, 2008, the Consumer Advocate filed its Statement of Position ("CA's SOP") in this docket. In its SOP, the Consumer Advocate states that it does not object to KIUC's request for a declaratory ruling that "KIUC be authorized to use the reserve criterion requiring KIUC to have sufficient reserve capacity to meet the (a) evening peak load with the largest generator unit out for any reason; and (b) the morning peak load with the largest generator out for any reason plus the **third largest** generator unit out for scheduled maintenance."⁷

The Consumer Advocate's position is based on its review of the history surrounding KIUC's reserve margin. In particular, upon review of Docket No. 6055, the Consumer Advocate concluded that the commission had approved KE's proposed application of the

⁶Id. at 8.

⁷See CA's SOP at 8 (emphasis in original).

more stringent reserve criterion in Exhibit C-2 of KE's application in the docket.⁸ The Consumer Advocate's conclusion is based on the commission's statement in Decision and Order No. 9697 "that in order for KE to meet expected demands and improve the installed reserve for unforeseen loads and system emergencies, KE's recommendation to install two medium speed diesels as shown in Exhibit C-1 of the [a]pplication is the most appropriate and the least-cost generation additions for KE's system."⁹ According to the Consumer Advocate, this "more stringent" reserve criterion would "require KE to meet the system morning peak loads with the loss of the largest single unit plus a unit on maintenance other than the second largest unit in KE's system for the period 1990 through 1998."¹⁰

The Consumer Advocate asserts that the discussion in Decision and Order No. 9697 reflected a modification of the proposal advanced by KE in Exhibit C-2 of the application which the Consumer Advocate asserts resulted from a proposed decision and order provided by KE's counsel on March 9, 1988. The Consumer Advocate states that its records do not indicate that KE proposed a change in the criteria advanced in Exhibit C-2 of its application in Docket No. 6055 prior to the submission of KE's counsel. Based on the above, the Consumer Advocate believes it reasonable "to conclude that the proposed more stringent reserve

⁸Id. at 4.

⁹Id. (citing Decision and Order No. 9697 at 10).

¹⁰Id. (citing Docket No. 6055, Exhibit C-2, Section D Reserve Criteria; internal quotes omitted).

criterion to be applied from 1990 to 1998 requires KIUC to have sufficient capacity to meet the morning peak with the loss of the largest single unit (i.e., GT 1) plus a unit on maintenance other than the second largest unit (i.e., GT 2) in KE's system."¹¹

As recognized by KIUC in its Petition, the Consumer Advocate also notes that the commission denied KE's request¹² to further amend KE's reserve margin criterion in Decision and Order No. 10687. Similar to KIUC, the Consumer Advocate acknowledged that the commission in Decision and Order No. 10687 indicated that "KE's then current reserve criterion is to meet KE's (a) evening peak load with its largest unit out and (b) its morning peak load with the largest unit out plus the third largest unit out for maintenance."¹³ Moreover, the Consumer Advocate states that the commission acknowledged that the criterion was established in Decision and Order No. 9697. The Consumer Advocate contends that "[g]iven the above, it appears reasonable to conclude that KE's current authorized reserve criterion is to meet KE's (a) evening peak load with its

¹¹Id. at 5 (emphasis in original).

¹²Accordingly to the Consumer Advocate, KE, in Docket No. 6606 proposed to adopt a reserve criterion that would "require KE to: (a) meet its evening peak load with the largest unit out; and (b) meet its morning peak load with the largest unit out plus the second largest unit out for scheduled maintenance." See CA's SOP at 5 (emphasis in original).

¹³Id. at 5-6 (citing Decision and Order No. 10687 at 7; emphasis in original).

largest unit out and (b) its morning peak load with the largest unit out plus the third largest unit out for maintenance."¹⁴

With regards to KIUC's concern regarding the distinction between "scheduled" versus "unscheduled" maintenance, when describing the morning peak criterion, the Consumer Advocate asserts that it is unclear how this distinction arose in Docket No. 6055. However, the Consumer Advocate states that the "critical point for consideration in determining whether the reserve criterion will be met for planning purposes [is] to ensure that sufficient generation is available whether the third largest unit on KE's system is out for maintenance, whether scheduled or not scheduled."¹⁵ Nonetheless, the Consumer Advocate states that it will not object to the requested clarification that the unit other than the largest unit out during the morning peak be the third largest unit on scheduled maintenance.

II.

Discussion

G.O. No. 7, Section 5.3(a) (Adequacy of Supply) requires:

The generation capacity of the utility's plant, supplemented by electric power regularly available from other sources, must be sufficiently large to meet all reasonably expectable demands for service and provide a reasonable reserve for emergencies. A [s]tatement shall be filed annually with the [c]ommission within 30 days after the close of

¹⁴Id. at 6 (emphasis in original).

¹⁵Id. at 7 (emphasis in original).

the year indicating the adequacy of such capacity and the method used to determine the required reserve capacity which forms the basis for future requirements in generation, transmission, and distribution plant expansion programs required . . .

G.O. No. 7, Section 5.3(a).

Upon review, the commission finds it reasonable and appropriate to declare that KIUC's adequacy of supply/reserve margin criteria, prospectively, should be based on KIUC having sufficient reserve capacity available to meet its: (1) evening peak load with its largest generator unit out for any reason; and (2) morning peak load with its largest generator unit out for any reason plus its third largest generator unit out for scheduled maintenance.

First, it appears that KIUC's use of the Single Evening Peak Criterion to satisfy the requirements of Section 5.3, G.O. 7 is inconsistent with prior commission orders. Prior commission orders regarding KIUC's adequacy of supply/reserve margin criteria appear to recognize both an evening and morning peak criterion. Additionally, according to KIUC, use of the Single Evening Peak Criterion is incompatible with KIUC's actual operating experience and generation planning needs.¹⁶

Second, KIUC's request that it be allowed to utilize the adequacy of supply/reserve margin criteria referenced in Decision and Order No. 10687 appears to be proper. Although KIUC expressed concern that the criteria mentioned in Decision and Order No. 10687 was not "approved" in Docket No. 6055 as alluded

¹⁶See Petition at 5.

to in the decision and order, such concern is not fully warranted. Upon stating KE's "current reserve criterion," the commission in Decision and Order No. 10687 stated that this criterion was "established upon approval by this [c]ommission in Docket No. 6055 of the installation of diesel units 6 and 7."¹⁷ The installation of the two diesel units (i.e., units 6 and 7)¹⁸ was approved in Decision and Order No. 9697 in Docket No. 6055.¹⁹ Accordingly, it appears that the adequacy of supply/reserve margin criteria advanced by KE in Docket No. 6055 was implicitly "approved" in that proceeding as indicated by the commission in Decision and Order No. 10687. The Consumer Advocate appears to agree with the commission on this issue.²⁰

KIUC's additional concern regarding the distinction between "scheduled" maintenance and "unscheduled" outage regarding its morning criterion is a matter that the commission will allow KIUC certain leeway. KIUC states that a significant difference exists between having to meet its loads with a unit out for scheduled maintenance versus an unscheduled outage.²¹ KIUC explains that under an unscheduled outage load review, KIUC must analyze whether it can meet its loads with that unit out during periods or months of highest peak loads since it cannot

¹⁷See Decision and Order No. 10687 at 7.

¹⁸These diesel units are assumed to be diesel units 6 and 7, since at that time KE had the diesel units 1-5 already on line. See CA's SOP at 3.

¹⁹See Decision and Order No. 9697 at 10.

²⁰See CA's SOP at 4.

²¹See Petition at 7 n.9.

plan for them; however, during its load analysis under scheduled maintenance, KIUC would focus on whether it can meet its loads with a unit out during historically low peak periods since KIUC can control the timing of when scheduled maintenance would occur.²² Additionally, like the Consumer Advocate, the commission is not clear where the distinction between "scheduled" versus "unscheduled" arose in Docket No. 6055. Moreover, the commission is confident that should the criterion declared herein (that the unit other than the largest unit out during the morning peak be the third largest unit on scheduled maintenance) prove to be problematic, KIUC may petition to amend its criterion as it has in the past.

Finally, it is consistent with the public interest for the commission to clarify the appropriate adequacy of supply/reserve margin that KIUC should apply on a going forward basis. This measure is important to ensure that KIUC has sufficient generation to meet all reasonable expected demands for service and provide a reasonable reserve for emergencies. Moreover, KIUC's adequacy of supply/reserve margin sets forth the basis for its generation planning needs to satisfy future requirements.

Based on the foregoing, the commission concludes that KIUC should, on a going forward basis, utilize the adequacy of supply/reserve margin articulated in Decision and Order No. 10687 as requested in KIUC's Petition. Specifically, KIUC should have sufficient reserve capacity available to meet its: (1) evening

²²Id.

peak load with its largest generator unit out for any reason; and
(2) morning peak load with its largest generator unit out for any
reason plus its third largest generator unit out for scheduled
maintenance.

III.

Orders

THE COMMISSION ORDERS AND DECLARES:

1. KIUC's adequacy of supply/reserve margin, on a
going forward basis, should be based on KIUC having sufficient
reserve capacity available to meet its: (1) evening peak load
with its largest generator unit out for any reason; and
(2) morning peak load with its largest generator unit out for any
reason plus its third largest generator unit out for scheduled
maintenance.

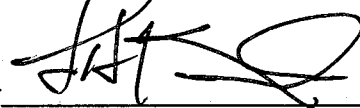
2. This docket is closed unless otherwise ordered by
the commission.

DONE at Honolulu, Hawaii MAR - 6 2008.


PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By 
Carlito P. Caliboso, Chairman

By 
John B. Cole, Commissioner

By 
Leslie H. Kondo, Commissioner

APPROVED AS TO FORM:


Ji Sook Kim
Commission Counsel

2007-0418.cp

CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing Decision and Order No. 24078 upon the following parties, by causing a copy hereof to be mailed, postage prepaid, and properly addressed to each such party.

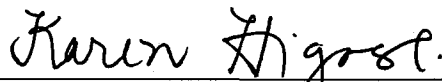
CATHERINE P. AWAKUNI
EXECUTIVE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
DIVISION OF CONSUMER ADVOCACY
P. O. Box 541
Honolulu, HI 96809

RANDALL J. HEE
PRESIDENT AND CHIEF EXECUTIVE OFFICER
KAUAI ISLAND UTILITY COOPERATIVE
4463 Pahe'e Street, Suite 1
Lihue, HI 96766-2000

TIMOTHY BLUME
KAUAI ISLAND UTILITY COOPERATIVE
4463 Pahe'e Street, Suite 1
Lihue, HI 96766-2000

KENT D. MORIHARA, ESQ.
KRIS N. NAKAGAWA, ESQ.
SANDRA L. WILHIDE, ESQ.
RHONDA L. CHING, ESQ.
MORIHARA LAU & FONG LLP
Davies Pacific Center
841 Bishop Street, Suite 400
Honolulu, HI 96813

Attorneys for Kauai Island Utility Cooperative



Karen Higashi

DATED: MAR - 6 2008