

C: 3Cs KN SI RVD LYK NK

March 30, 2004

MAR 30

υ

LED

HAND DELIVER

Public Utilities Commission Kekuanaoa Building 465 South King Street, Room 103 Honolulu, Hawaii 96813 Attn: Kevin M. Katsura, Esq.

RE: Kauai Island Utility Cooperative 2003 Renewable Portfolio Standards Status Report

Dear Commissioners and Staff:

Enclosed please find Kauai Island Utility Cooperative's ("KIUC") Renewable Portfolio Standards (RPS) Status Report for the year ending December 31, 2003.

As shown in this report, renewable energy resources supplied 7.50% of KIUC's net electricity sales during the 2003 calendar year. This exceeds the 7% RPS goal established by Hawaii Revised Statutes ("HRS") §269-92(1).

As an informational filing, this report includes a breakdown of the renewable energy resources on Kauai comprising the 7.5% RPS for 2003, the RPS reached for 2001 and 2002 since Part V (Renewable Portfolio Standards) of HRS Chapter 269 was enacted, together with a discussion of KIUC's concerns regarding the future ability to increase or sustain renewable energy resources.

Thank you for your consideration. If you should have any questions, please call Alton Miyamoto at (808) 246-4375 or me at 528-4200.

ery truly yours.

Alan M. Oshima

enclosure

cc (w/encl.): Consumer Advocate Mr. Alton Miyamoto Mr. Michael Yamane Mr. Joseph McCawley

KAUAI ISLAND UTILITY COOPERATIVE RENEWABLE PORTFOLIO STANDARDS (RPS) STATUS REPORT YEAR ENDING DECEMBER 31, 2003

KIUC RPS Results for 2003

Kauai Island Utility Cooperative (KIUC) is pleased to have achieved a Renewable Portfolio Standard (RPS) percentage of 7.5% for calendar year 2003. This exceeds the RPS goal of 7.0% established for 2003 under HRS §269-92(1).

Year 2003 was an exciting and challenging year for KIUC. In addition to it being the first full year of operations as a member-owned electric cooperative, it was also a year that saw the highest demand and greatest electrical sales ever experienced by Kauai's electric utility.

KIUC met the electrical energy needs of its customers with a combination of companyowned fossil fueled generation, company-owned renewable generation, and non-firm (100% renewable) power purchases.¹ In addition to this generated electricity, Solar Water Heating (SWH) and Photovoltaic (PV) systems also supplied some of KIUC's customers' energy needs. The table attached as Exhibit 1 hereto illustrates how KIUC met the electrical energy needs of its 30,000⁺ customers. The SWH and PV renewable impacts are reflected on the net sales side of the RPS equation in Exhibit 1.

KIUC Prior RPS Results

Since the inception in 2001 of Part V of HRS Chapter 269 regarding renewable portfolio standards, KIUC has been able to exceed the 7% RPS standard in both 2001 and 2002 as illustrated below:

| Year | Net Sales (MWh) | Net Renewable Generation (MWh) | <u>RPS</u> |
|------|--------------------|-----------------------------------|------------|
| 2001 | 412,924 | 44,263 | 10.7% |
| 2002 | 421,561 | 36,111 | 8.6% |

Future Renewable Activities

As noted above, despite KIUC's attempts to ensure the continued ability to maintain existing renewable energy resources and to encourage the growth of new renewable energy resources, KIUC's RPS has been steadily declining. KIUC attributes the decline in its RPS to the following factors:

¹ KIUC has three non-firm power purchase contracts to purchase excess electrical power from Gay & Robinson (bagasse), Kauai Coffee (hydro), and Agribusiness Development Corp. (hydro).

1. As briefly noted above, 2003 was a year that saw the highest demand and greatest electrical sales ever experienced by Kauai's electric utility, a trend which is anticipated to continue. This increase in the RPS denominator results in a lower RPS.

2. The amount of fixed, non-renewable generation in KIUC's system has increased due to the 26.4 MW facility that came on-line in September of 2002, which resulted from an obligation that was incurred by KIUC's predecessor prior to the enactment of Part V of HRS Chapter 269.

3. The sudden closure of Lihue Plantation's (LP) renewable fueled (bagasse) power plant in 2002 and the resulting early termination of the power purchase contract between KIUC and LP removed approximately 14 MW of renewable firm capacity and energy that was previously included as part of KIUC's generation mix. During the 5-year period from 1996-2000, KIUC had annually purchased on average 44,000 MWh of electrical energy from LP, which in itself accounted for 9.0% - 12.0% of KIUC's annual energy sales. This underscores the challenge on Kauai of maintaining existing renewable energy resources, especially when the fuel source, such as sugar cane, is dependent upon economics that are not related to the production of electricity.

4. KIUC had attempted to add an additional renewable energy development to its generating mix through an agreement with Kauai Winds Inc. (KWI) back in December 2000. This development would have at least minimized the RPS impact resulting from the closure of the LP plant. This involved a 20-year Energy Purchase Agreement for KIUC to purchase as-available energy from a to-be-built KWI 5.4 MW wind facility. Unfortunately, KWI was unable to find a suitable location to build this facility and this project is no longer active. This project underscores the challenges on Kauai of finding a suitable location for a new renewable energy facility even when the project is technically and economically feasible.

As a result of the above conditions, KIUC believes that it will continue to be challenged in maintaining or increasing its RPS over the following years, as the above conditions are expected to continue to face KIUC. In addition, KIUC notes that the future ability to pursue renewable energy facilities will also be minimized as a result of the amount of KIUC's existing fixed plant and KIUC's current projections that no new generation will be needed until approximately 2012.

However, KIUC is committed to attempting to encourage the growth of new renewable energy resources and to maintain existing renewable energy resources on Kauai. In this connection, KIUC has undertaken the following:

1. KIUC is in the midst of negotiations with a renewable energy consultant to initiate a study that will identify the most technical, practical, and economically feasible renewable energy resources specifically applicable to Kauai. KIUC expects to be able to use the results of this study, expected to be completed later this year, to help encourage the growth of renewable energy resources on Kauai.

2. With the closing of LP, KIUC has accepted an offer by LP for KIUC to acquire at no charge the 1.3 MW Waiahi hydro power plants previously owned by LP. KIUC has been maintaining and operating these hydro facilities for the past year and is currently seeking a long-term non-consumptive water lease from the DLNR. Upon obtaining such a lease, KIUC will be in a position to further improve these generating facilities, allowing for the best use of this renewable energy source well into the future.

3. KIUC has taken the opportunity to exchange information and participate in meetings with various developers and individuals that have approached KIUC regarding potential applications of renewable energy resource projects on Kauai. These projects, ranging in size from a few KW to a few MW, have typically been in the study, research & development, and/or prototype development stages. They have involved water (ocean and in-land hydro) and biomass (direct or methane recovery) fueled, as well as photovoltaic and wind projects. KIUC is hoping that these contacts will result in the development of feasible renewable energy projects in the near and upcoming future.

4. In addition to large-scale renewable energy resources, KIUC has also recognized the important roles small-scale PV and SWH systems contribute toward achieving the RPS goals. During the period in which KIUC has been offering net-energy metering, a total of fifteen (15) residential and commercial customers have enrolled. This is more than on any of the other Hawaiian Islands. KIUC has offered a SWH incentive through its DSM program since 1998 and is offering a new SWH incentive outside of its DSM program this year to expand the eligibility for incentives. This will hopefully encourage more Kauai residents to install and experience the electrical energy savings provided by SWH systems.

Outlook for 2004

KIUC recognizes the benefits renewable energy resources provide to the visitors, residents, commercial and industrial sector, and the entire Kauai community as a whole. As such, KIUC will continue to evaluate, promote, and incorporate renewable energy resources that best meet the needs and desires of its members, the Kauai community, and the state. In that connection, KIUC has identified a strategic initiative goal for 2004 to "Identify and implement effective means to meet Kauai's current and future generation needs, with an emphasis on renewable supply sources…".

However, KIUC notes the steady decline in its RPS that has occurred over the past several years for the reasons discussed above. While KIUC is attempting to take the necessary steps to maintain and increase its RPS in order to reach the 8% goal by the end of 2005 as set forth by HRS §269-92(2), it recognizes that the reasons for its declining RPS will continue well into the future. It also recognizes the length of time it will take to design, permit and construct new renewable generation sources, and that, aside from small scale net metering and SWH programs offered by KIUC, KIUC is not aware of any other new renewable energy resource projects currently in the design, permitting, or construction phase on Kauai. KIUC intends to continue to monitor this situation.

Exhibit 1

2003

| | <u>MWH</u> | |
|---|-------------------|----------------|
| Power Plant Output ¹ | | |
| Total Fossil | 427,605 | |
| Total Renewable | 26,858 | |
| Total | 454,463 | |
| Sales | 431,315 | Losses = 5.09% |
| Power Plant Net Generation ² | | |
| Fossil | 405,825 | |
| Renewable | <u> 25,490</u> | |
| KIUC Hydro 558 | | |
| Gay & Robinson 2,521 | | |
| (Bagasse) | | |
| Kauai Coffee 20,331 | | |
| ADC (Hydro) 2,080 | 431,315 | |
| Total | 431,313 | |
| Displaced Sales ³ | | |
| Solar Water Heating (SWH) ^{3a} | 7,387 | |
| Photovoltaic (PV) ^{3b} | <u>65</u> | |
| Total | 7,453 | |
| Net Sales ⁴ | 438,768 | |
| Net Generation | ·,· | |
| Fossil | 405,825 | |
| Renewable | 32,884 | |
| Power Plant 25,490 | | |
| Displaced 7,453 | | |
| Total 32,943 | | |

7.50%⁵ Net sales supplied by Renewables

¹ Gross Generation produced on the utility side of the end-use customer meter.
² Net Generation = Gross Generation less transmission & distribution losses.
³ Displaced, i.e. non-generated, electrical energy associated with solar water heaters, and electricity produced by net-energy metered PV systems.
^{3a} Reflects 2900 SWH systems, 390 of which were installed per KIUC's DSM program.
^{3b} Reflects 15 net-energy metered PV systems.
⁴ Net Sales = KIUC net generation plus displaced sales.
⁵ Net Renewable generation ÷ Net Sales = PRS = 7.50%.