BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of	)	
	)	
MAUI ELECTRIC COMPANY, LIMITED	)	Docket No. 2006-0387
	)	
For Approval of Rate Increases and Revised Rate Schedule and Rules	)	
	)	

PARTIAL CONFIDENTIAL (IN SEALED ENVELOPE)

MECO
2007 TEST YEAR

MECO Responses to
CONSUMER ADVOCATE
Information Requests

Book 6 of 6

October 30, 2007

CA-IR-354

Ref: MECO Response to CA-IR-148, Attachment A (Customer Service Staffing).

Please provide the following:

a. Update Attachment A through all available months of 2007.

b. Explain whether MECO has incurred any temporary contract labor expenses that were not included in the test year forecast as a result of vacancies that existed, relative to forecasted staffing assumptions.

c. If your response to part (b) is that supplemental contract labor was required, explain each temporary supplemental staffing arrangement and provide the monthly costs by RA and activity where such costs were incurred in 2007.

MECO Response:

a. See Attachment A for an update of Customer Service Staffing through August 2007.

b. The Company confirms that it has incurred temporary contract labor expenses that were not included in the test year forecast that are in lieu of overtime expenses that were included in the test year forecast.

c. In 2007, the Company has supplemented the Customer Service Department workforce with temporary contract labor through Employers Options. Specifically and as indicated in Attachment B, a temporary position was used in the RA=MCM for a Field Services Clerk who was hired to cover for a vacant Meter Reader position. Further, two temporary positions are being used in the RA=MCR to allow for two senior level employees to take on additional responsibilities to process the higher volume of billing work in the Customer Billing section, and to attempt to improve the service level, i.e., the percentage of calls answered within 30 seconds, in the Customer Assistance Center during normal business hours. (Attachment A, pages 1-3, of the response to CA-IR-148 shows the historical statistics and the declining service level from 2005 to 2007.) The additional coverage for higher level work in RA=MCR is by the Company's senior level

employees, and the temporary positions are for the entry level Clerk Typist I and Customer Service Clerk positions (lines 12 and 14, respectively, in Attachment A of the response to part a. above). See Attachment B for an update of temporary contract labor expenses incurred through July 2007, and which also updates Attachment C of CA-IR-148. The Company provides the July financial information subject to Protective Order No. 23379 because it is confidential until it is publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
12/31/05, 2006, YTD 2007

	A	B		C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V	W	X	Y	Z	AA
			2005	2006												2007										
Line	Position	RA	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	TY 2007	Actual 10/31/06	TY vs. Actual
1	Administrator	MCA	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
2	Customer Information Systems Administrator	MCA	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0
3	Manager, Customer Service	MCA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
4	Customer Field Representative	MCF	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	4	0
5	Senior Customer Service Representative	MCF	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
6	Supervisor, Field Services	MCF	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
7	Meter Reader	MCM	8	8	8	8	8	8	8	8	8	8	9	9	9	6	7	7	8	8	8	8	8	8	9	0
8	Commercial Services Supervisor	MCN	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0
9	Commercial Account Manager	MCN	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	0
10	Energy Efficiency Program Manager	MCN	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0
11	Cashier	MCR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0

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MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
12/31/05, 2006, YTD 2007

	A	B		C	D	E	F	G	H	J	K	L	M	N	O	Q	R	S	T	U	V	W	X	Y	Z	AA
			2005	2006												2007										
Line	Position	RA	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	TY 2007	Actual 10/31/06	TY vs. Actual
12	Clerk Typist I	MCR	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
13	Customer Assistance Representative	MCR	6	6	7	7	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	6	0
14	Customer Service Clerk	MCR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
15	Senior Billing & Accounts Clerk	MCR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0
16	Supervisor, Customer Accounts Services	MCR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
17	Customer Assistance Representative	MCT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
18	Meter Reader/ Collector	MCT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
19	Office Administrator	MCT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
20	Energy Efficiency Program Manager	MCZ	0	0	0	0	0	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	0
21	Integrated Resource Planning Specialist	MCZ	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
22	Supervisor, IRP	MCZ	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
23	Clerk Typist III (DSM)	MCZ	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
24	TOTALS		37	38	39	38	37	38	38	40	39	38	39	38	40	38	39	40	42	42	43	43	43	43	39	0

MAUI ELECTRIC COMPANY, LTD.
CUSTOMER SERVICE DEPARTMENT
AGENCY TEMPS - EMPLOYERS OPTIONS - for invoices received as of 7/31/07[1]

PO #	ADDITIONAL PO INFO	RA	WO	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007
M32238	TEMP MAIL CLERK [2]	MCR	CS000031	-	1561.71 [6]	3,139.78 [5]	1,929.66 [6]	2518.37	5,056.32
M33792	TEMP MAIL CLERK [2]	MCR	CS000031	-	-	-	-	-	731.20
M32238	TEMP SWITCHBD OPERATOR[3]	MCR	CS000032 CS000033	-	-	-	-	-	-
M32720	FIELD SVC CLERK [4]	MCM	CS000367	-	-	762.45 [5]	2,897.31 [5]	762.45 [5]	-
		GRAND TOTAL		-	1,561.71	3,902.23	4,826.97	3,280.82	5,787.52

[redacted]

[1] Some invoices for work done in June 2007 were not posted until July 2007, but are included in the total shown above. Invoices for work done in July 2007 are not included in the shown total.

[2] Temp Mail Clerk was hired to allow for additional coverage in the Customer Billing Section of the Department.

[3] Temp Swtichboard Operator was hired to allow for additional coverage in the Customer Assistance Center Section of the Department.

[4] Field Services Clerk was hired to cover a vacant Meter Reader position.

[5] These costs were previously provided in CA-IR-148.

[6] These costs, previously provided in CA-IR-148, include prior period adjustments.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

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CA-IR-355

Ref: MECO Response to CA-IR-148, Attachment B (Customer Service Labor Hours).

Please provide the following:

a. 2007 projected monthly "Productive Hours" by RA and "Overtime Hours" by RA, in a format comparable to the information presented in MECO-704.

b. 2007 actual monthly "Productive Hours" by RA and "Overtime Hours" by RA, for all available months of 2007 to-date, in a format comparable to MECO-704.

c. Explain the reasons for each significant variance in year-to-date actual productive hours or overtime hours by RA, in relation to projected test year levels in MECO-704.

MECO Response:

a. See Attachment A for 2007 projected monthly "Productive Hours" by RA and "Overtime Hours" by RA.

b. The source for overtime hours data is from the Company's payroll system, which records data on a bi-weekly pay period basis, which is distinguished from a calendar month basis. For that reason, actual monthly data for 2007 "Productive Hours" by RA and "Overtime Hours" by RA cannot be provided. In lieu of that, the Company is providing the YTD recorded payroll data for the pay periods beginning on January 1, 2007 and ending on August 26, 2007, and will compare that information to the YTD budget data through August 31, 2007 in Attachment B.

c. The reasons for the significant variances in year-to-date actual productive hours or overtime hours in relation to projected test year levels in MECO-704 are as follows:

1. RA=MCA: The actual productive hours to-date are less than the projected test year level due to a vacancy in the Administrator position for the first two months of the year. The position was filled on February 28, 2007.

2. RA=MCA, MCN, MCZ: The overtime hours to-date in these divisions are less than budget primarily due to the amount of unpaid merit overtime hours. The unpaid merit overtime hours are included in the budget, but are not included in the YTD actuals.

3. RA=MCM: The actual productive hours to-date are less than the projected test year level due to vacancies in two Meter Reader positions during the first three months of the year. One position was filled on February 12, 2007, and the second position was filled on April 9, 2007. The actual overtime hours incurred to-date are less than the projected test year level partially due to a change in the way the work is being accomplished. In lieu of having the existing staff work overtime when staffing is short, the Company has used other resources. The new Customer Field Representative is sometimes retained to assist with meter reading. Further, a temporary Field Services Clerk was hired from March 2007 to April 2007, while a Meter Reader position was vacant, to assist with administrative work normally done by the Meter Readers at the end of the work day. The non-labor costs of the temporary Clerk are reported in the Company's responses to CA-IR-148 and CA-IR-354.

4. RA=MCN: The actual productive hours to-date are less than the projected test year level due to a vacancy in a Commercial Account Manager position for the first three months of the year. The position was filled on April 9, 2007.

5. RA=MCR: The actual overtime hours are less than the projected test year level due to the hiring of temporary employees, whose expenses are recorded under non-labor expenses in Account No. 921. The addition of a temporary Mail Clerk and a temporary Switchboard Operator have afforded the Customer Account Services

Division the ability to have an extra Customer Assistance Representative and Senior Billing and Account Clerk to avoid overtime, and maintain customer coverage during regular business hours.

6. RA=MCT: The actual overtime hours to-date are less than the projected test year level due to the timing of vacation of the office staff. The employees plan to take vacation during the last four months of 2007. Since the employees will incur overtime to cover the responsibilities for the employee on vacation, it is expected that the overtime hours will increase over the remaining months of the year.

7. RA=MCZ: The actual productive hours are less than the test year projected test year level due to a vacancy in the Clerk Typist III position for the first five months of the year. The position was filled on June 4, 2007.

MAUI ELECTRIC COMPANY, LIMITED

2007 TEST YEAR
CUSTOMER SERVICE DEPARTMENT OVERTIME COMPARISON
2007 ANNUAL FORECAST BY MONTH

Line			A	B	C	D	E	F	G	H	I	J	K	L
			JANUARY			FEBRUARY			MARCH			APRIL		
	RA	RA Description	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT
1	MCA	Administrative	522.0	194.0	0.0%	522.0	156.0	0.0%	522.0	180.0	0.0%	522.0	192.0	0.0%
2	MCF	Field Services	1,218.0	106.0	8.7%	1,218.0	(62.0)	-5.1%	1,218.0	30.0	2.5%	1,218.0	(26.0)	-2.1%
3	MCM	Meter Reading	1,392.0	80.0	5.7%	1,392.0	16.0	1.1%	1,392.0	88.0	6.3%	1,392.0	16.0	1.1%
4	MCN	Energy Services	870.0	160.0	0.0%	870.0	31.0	0.0%	870.0	112.0	12.9%	870.0	71.0	8.2%
5	MCR	Cust Acct Service	2,262.0	388.0	17.2%	2,262.0	66.0	2.9%	2,262.0	290.0	12.8%	2,262.0	170.0	7.5%
6	MCT	Molokai	522.0	48.0	9.2%	522.0	(28.0)	-5.4%	522.0	24.0	4.6%	522.0	0.0	0.0%
7	MCZ	IRP	696.0	222.0	31.9%	696.0	165.0	23.7%	696.0	199.0	28.6%	696.0	206.0	29.6%
8	MC0	Total Dept	7,482.0	1,198.0	16.0%	7,482.0	344.0	4.6%	7,482.0	923.0	12.3%	7,482.0	629.0	8.4%

			MAY			JUNE			JULY			AUGUST		
	RA	RA Description	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT
9	MCA	Administrative	522.0	114.0	21.8%	522.0	142.0	0.0%	522.0	208.0	0.0%	522.0	234.0	0.0%
10	MCF	Field Services	1,218.0	86.0	7.1%	1,218.0	(26.0)	-2.1%	1,218.0	30.0	2.5%	1,218.0	86.0	7.1%
11	MCM	Meter Reading	1,392.0	80.0	5.7%	1,392.0	88.0	6.3%	1,392.0	80.0	5.7%	1,392.0	80.0	5.7%
12	MCN	Energy Services	870.0	163.0	18.7%	870.0	71.0	0.0%	870.0	106.0	0.0%	870.0	159.0	0.0%
13	MCR	Cust Acct Service	2,262.0	378.0	16.7%	2,262.0	176.0	7.8%	2,262.0	274.0	12.1%	2,262.0	378.0	16.7%
14	MCT	Molokai	522.0	44.0	8.4%	522.0	0.0	0.0%	522.0	24.0	4.6%	522.0	44.0	8.4%
15	MCZ	IRP	696.0	141.0	20.3%	696.0	156.0	22.4%	696.0	229.0	32.9%	696.0	261.0	37.5%
16	MC0	Total Dept	7,482.0	1,006.0	13.4%	7,482.0	607.0	8.1%	7,482.0	951.0	12.7%	7,482.0	1,242.0	16.6%

			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	RA	RA Description	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT
17	MCA	Administrative	522.0	156.0	29.9%	522.0	114.0	21.8%	522.0	86.0	16.5%	522.0	20.0	3.8%
18	MCF	Field Services	1,218.0	(82.0)	-6.7%	1,218.0	70.0	5.7%	1,218.0	14.0	1.1%	1,218.0	(42.0)	-3.4%
19	MCM	Meter Reading	1,392.0	80.0	5.7%	1,392.0	144.0	10.3%	1,392.0	152.0	10.9%	1,392.0	272.0	19.5%
20	MCN	Energy Services	870.0	27.0	3.1%	870.0	159.0	18.3%	870.0	115.0	13.2%	870.0	60.0	6.9%
21	MCR	Cust Acct Service	2,262.0	72.0	3.2%	2,262.0	378.0	16.7%	2,262.0	284.0	12.6%	2,262.0	186.0	8.2%
22	MCT	Molokai	522.0	(24.0)	-4.6%	522.0	48.0	9.2%	522.0	24.0	4.6%	522.0	(4.0)	-0.8%
23	MCZ	IRP	696.0	164.0	23.6%	696.0	142.0	20.4%	696.0	109.0	15.7%	696.0	36.0	5.2%
24	MC0	Total Dept	7,482.0	393.0	5.3%	7,482.0	1,055.0	14.1%	7,482.0	784.0	10.5%	7,482.0	528.0	7.1%

SOURCE:
Recorded Information from Payroll Recap Report
Forecast Information from PILLAR System Files

MAUI ELECTRIC COMPANY, LIMITED

2007 TEST YEAR
CUSTOMER SERVICE DEPARTMENT OVERTIME COMPARISON
2007 AUGUST YTD ACTUALS VS 2007 AUGUST YTD FORECAST

Line			A	B	C	D	E	F	G		H	I
			August YTD Actual			August YTD Forecast			August YTD Variance			
	RA	RA Description	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	%	Overtime Hours	%
1	MCA	Administrative	3,744.0	0.0	0.0%	4,176.0	1,420.0	0.0%	(432.0)	-10.3%	(1,420.0)	-100.0%
2	MCF	Field Services	9,440.0	188.3	2.0%	9,744.0	224.0	2.3%	(304.0)	-3.1%	(35.7)	-15.9%
3	MCM	Meter Reading	10,126.3	355.8	3.5%	11,136.0	528.0	4.7%	(1,009.7)	-9.1%	(172.2)	-32.6%
4	MCN	Energy Services	6,190.0	0.0	0.0%	6,960.0	873.0	0.0%	(770.0)	-11.1%	(873.0)	N/A
5	MCR	Cust Acct Service	17,282.2	393.6	2.3%	18,096.0	2,120.0	11.7%	(813.8)	-4.5%	(1,726.4)	-81.4%
6	MCT	Molokai	4,080.0	83.0	2.0%	4,176.0	156.0	3.7%	(96.0)	-2.3%	(73.0)	-46.8%
7	MCZ	IRP	4,544.0	4.8	0.1%	5,568.0	1,579.0	28.4%	(1,024.0)	-18.4%	(1,574.2)	N/A
8	MC0	Total Dept	55,406.5	1,025.5	1.9%	59,856.0	6,900.0	11.5%	(4,449.5)	-7.4%	(5,874.5)	-85.1%

SOURCE:
Recorded Information from Payroll Recap Report
Forecast Information from PILLAR System Files

CA-IR-356

Ref: MECO-WP-704, Updated April 2007 (Account 903 Expense Increases over 2006 actuals).

According to updated MECO-WP-704, Account 903 Labor and Non-labor Expenses are projected to be 31.7% and 25.1% higher than 2006 actual expenses. Please provide the following:

a. Provide a monthly test year 2007 Account 903 labor and non-labor expense projection, breaking out proposed expense levels for each month of 2007.

b. Provide comparable monthly actual labor and non-labor 2007 expenses recorded in Account 903 for each month through August 2007.

c. Explain the reasons for each individually significant variance in projected versus actual spending in each month, based upon your responses to parts (a) and (b) of this information request.

MECO Response:

a. See Attachment A (lines 1-3), for the labor and non-labor 2007 test year expenses budgeted in Account 903 for each month through August 2007.

b. See Attachment A (lines 4-6) for the actual labor and non-labor 2007 expenses recorded in Account 903 for each month through August 2007. The Company provides the July and August financial information subject to Protective Order No. 23379 because it is confidential until it is publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

c. The actual labor expenses to-date are less than the 2007 test year budget due to less work being charged to Customer Assistance Expense activities, Account 903. The underrun in Account 903 is primarily attributed to less overtime being worked by the Customer Account Services Division, RA=MCR. As stated in the response to CA-IR-355, in lieu of using

overtime expenses that were budgeted in the 2007 test year, the Company hired temporary employees, whose expenses are recorded under non-labor expenses in Account No. 921. The addition of a temporary Mail Clerk and a temporary Switchboard Operator have afforded the Customer Account Services Division the ability to have an extra Customer Assistance Representative and Senior Billing and Account Clerk to avoid overtime, and maintain customer coverage during regular business hours. Further, there was a vacancy in the Administrator position of the Administration Division, RA=MCA, in the first two months of the year, as mentioned in the response to CA-IR-355, part c. item 1. This position was budgeted to charge time to the activities that record against Account 903. (See MECO-WP-702, page 3.)

However, the lower labor expenses to-date in Account 903 are somewhat offset by more work and higher expenses being charged to activities such as Read Billing Meters in RA=MCF that are recorded to Account 902, Develop and Manager Customer Relationships in RA=MCN that are recorded to Account 910, and Administer and Implement IRP in RA=MCZ that are recorded to Account 910.

The actual non-labor expenses to-date are slightly higher than the 2007 test year budget due to the timing differences between the recording of invoices and the budget.

Maui Electric Company, Limited
Maui Division
2007
Account 903 by Labor and Non-labor Expenses
903-Cust Records & Collect

line		A	B	C	D	E	F	G	H	I
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	YTD
	Budget									
1	Labor	118,055	103,821	114,948	108,199	114,755	104,698	108,311	116,773	889,560
2	Non-labor	45,650	45,793	46,818	48,434	55,445	60,488	53,811	50,338	406,777
3	Total Budget	163,705	149,614	161,766	156,633	170,200	165,186	162,122	167,111	1,296,337
	Actual									
4	Labor	86,587	73,647	82,885	84,649	86,970	85,717			
5	Non-labor	32,364	38,656	44,614	43,049	43,911	58,685			
6	Total Actual	118,951	112,303	127,499	127,698	130,881	144,402			
	Budget v. Actual									
7	Labor	31,468	30,174	32,063	23,550	27,785	18,981			
8	Non-labor	13,286	7,137	2,204	5,385	11,534	1,803			
9	Total Budget vs. Actual	44,754	37,311	34,267	28,935	39,319	20,784			

Confidential Information Deleted
Pursuant to Protective Order No. 23379

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CA-IR-356

Ref: MECO-WP-704, Updated April 2007 (Account 903 Expense Increases over 2006 actuals).

According to updated MECO-WP-704, Account 903 Labor and Non-labor Expenses are projected to be 31.7% and 25.1% higher than 2006 actual expenses. Please provide the following:

a. Provide a monthly test year 2007 Account 903 labor and non-labor expense projection, breaking out proposed expense levels for each month of 2007.

b. Provide comparable monthly actual labor and non-labor 2007 expenses recorded in Account 903 for each month through August 2007.

c. Explain the reasons for each individually significant variance in projected versus actual spending in each month, based upon your responses to parts (a) and (b) of this information request.

MECO Response:

a. The actual labor and non-labor 2007 expenses recorded in Account 903 for each month through August 2007 are not currently available, and are expected to be available in mid-September 2007. MECO plans to file the requested information on, or before, September 21, 2007.

b. See the response to part a. above.

c. See the response to part a. above.

CA-IR-357

Ref: MECO-WP-712, page 24 (Cost Support for Field Service Charges).

Please explain the procedures employed and provide complete copies of all cost studies, workpapers and other documents supportive of the Company's proposed increased charges for each of the five listed field service elements.

MECO Response:

The proposed increased charges for each of the five field service elements listed on page 24 of MECO-WP-712 were developed based on estimated time and expenses incurred by the Company to process each type of transaction. See Confidential Attachment A for workpapers used to support the Company's proposed increased charges for each of the five listed field service elements. The Company provides the supporting workpapers subject to Protective Order No. 23379 because these documents include confidential hourly wage information.

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Pursuant to Protective Order No. 23379

The requested information is confidential and will be provided pursuant to Protective Order No. 23379, dated April 23, 2007.

CA-IR-358

Ref: MECO T-8 June Update (DSM Employee Transfers).

An adjustment was proposed by CA-T-1 in HECO Docket No. 2006-0386 to reclassify DSM program costs for IRP/DSM surcharge recovery to accommodate transition to non-utility administration. Please provide the following information with respect to application of this approach to MECO test year proposed expenses:

a. Identify each of the employee positions, before and after the Company's June update, for which labor hours are charged wholly or partially to Account 186 surcharge recoverable accounts.

b. For each of the positions identified in your response to part (a) of this information request, provide a breakdown of actual calendar year labor hours distribution by activity, before and after the Company's June update.

c. For each of the positions identified in your response to part (a) of this information request, provide a breakdown of actual labor hours distribution by activity for each month of 2006 and 2007 to-date.

d. Provide calculations supporting the adjustment that would be required to reclassify MECO's proposed base rate recovery of DSM labor and related on-costs to IRP/DSM surcharge recovery in the manner proposed by the Consumer Advocate in the pending HECO rate case.

MECO Response:

a. The employee positions, before the Company's June update, for which labor hours are charged wholly to Account 186 surcharge recoverable accounts are listed below. There are no employee positions for which labor hours are charged partially to Account 186.

    a. Energy Efficiency Program Manager-Commercial & Industrial (MCN)

    b. Energy Efficiency Program Manager-Residential (MCZ)

    c. Clerk Typist III – DSM (MCZ)

The Company's June update for T-8 included a proposal to recover the costs of these three DSM positions through base rates. If the Company's proposal is approved by the Commission in this docket, these positions would charge wholly to Account 910.

b. See Attachment A which includes a breakdown of actual calendar year 2007 labor hours distribution by activity, i.e., Activity 714, which records costs in Account 186, under the currently approved DSM surcharge component of the IRP Cost Recovery Provision for each of the positions identified in the response to part (a) of this information request.

The Company's June update proposed to include these three regular employee DSM positions in base rates. If the Company's proposal is approved in this docket, these positions would charge their labor hours to Activity 713, which records costs to Account 910. As stated in the response to CA-IR-249, even if certain DSM program are transitioned to a non-utility, third-party administrator in 2009, the Company anticipates that the three employees will be engaged in load management programs, which the Company is planning to file proposals for later this year, and other work activities in the Customer Service Department.

c. See Attachment A for a breakdown of actual labor hours distribution by activity for each month of 2006 and 2007 to-date, before and after the Company's June update, for each of the positions identified in the response to part (a) of this information request.

d. The calculations supporting the adjustment that would be required to reclassify MECO's proposed base rate recovery of DSM labor and related on-costs to IRP/DSM surcharge recovery in the manner proposed by the Consumer Advocate in the pending HECO rate case are the amounts identified in the Company's June 2007 update for T-8, Attachment A.

Maui Electric Company, Limited
DSM Employees
2006 - YTD July 2007 Actual Labor Hours

	A
Energy Efficiency Program Manager (MCN)	ACT 714
January-06	160.50
February-06	174.75
March-06	217.75
April-06	145.50
May-06	209.50
June-06	198.75
July-06	175.00
August-06	82.00
September-06	0.00
October-06	0.00
November-06	0.00
December-06	50.50
January-07	200.75
February-07	151.50
March-07	189.00
April-07	171.50
May-07	183.75
June-07	150.75
July-07	173.50
Energy Efficiency Program Manager Total	2635.00

Maui Electric Company, Limited
DSM Employees
2006 - YTD July 2007 Actual Labor Hours

	A
Energy Efficiency Program Manager (MCZ)	ACT 714
January-06	0.00
February-06	0.00
March-06	0.00
April-06	0.00
May-06	0.00
June-06	0.00
July-06	8.00
August-06	169.00
September-06	146.00
October-06	166.00
November-06	149.00
December-06	176.00
January-07	316.00
February-07	197.00
March-07	176.00
April-07	160.00
May-07	152.00
June-07	152.00
July-07	128.00
Energy Efficiency Program Manager Total	2095.00

Maui Electric Company, Limited
DSM Employees
2006 - YTD July 2007 Actual Labor Hours

	A
Clerk Typist III (MCZ)	ACT 714
January-06	0.00
February-06	0.00
March-06	0.00
April-06	0.00
May-06	0.00
June-06	0.00
July-06	0.00
August-06	0.00
September-06	0.00
October-06	0.00
November-06	0.00
December-06	0.00
January-07	0.00
February-07	0.00
March-07	0.00
April-07	0.00
May-07	0.00
June-07	152.50
July-07	172.25
Clerk Typist III Total	324.75

CA-IR-359

Ref: MECO Responses to CA-IR-154 and CA-IR-250 (Non-labor expenses).

Please provide the following information:

a. Update Attachment A to include detailed non-labor expenses in the "YTD 2007" column through August 2007.

b. Explain the causes for each individually significant variance in actual YTD 8/07 spending, relative to projected test year amounts.

c. Update the narrative responses to CA-IR-250 to reconcile updated actual expense amounts to the explanations previously supplied.

MECO Response:

a. See Attachment A for the detailed non-labor expense information through August 2007. The Company provides the YTD August 2007 financial information subject to Protective Order No. 23379 because it is confidential until it is publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

b. See Confidential Attachment B for the individually significant variances in actual YTD 8/07 spending, relative to projected test year amounts.

c. See Attachment C for the updated narrative responses to CA-IR-250. Note: The narrative responses to b.1 through b.6 and response to part c. of the response to CA-IR-250 have been updated. The response to part a. of CA-IR-250 was not updated.

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Pursuant to Protective Order No. 23379

RA	Act	Loc	Ind	Proj	EE	2003	2004	2005	2006	YTD August 2007	2007 Budget ($)	Budget YTD	YTD Variance
Account No. 909 Supervision - Customer/Consumer Expense													
Maui Division (909)													
G/L Codes					301						-313	-208	
G/L Codes					401						-773	-512	
G/L Codes					406						-44,157	-29873	
G/L Codes					422						-147,272	-99634	
G/L Codes					423						-33,675	-22785	
G/L Codes					_	-15,473	-14,640	-13,958	-19,205		202,900	137226	
MCA	112	MAU	NS	NMCZZZZZ	301	8,544	4,381	771					
MCA	112	MAU	NS	NMCZZZZZ	406	3,821	3,831	3,275	3,346		2,598	1762	
MCA	112	MAU	NS	NMCZZZZZ	422	8,161	7,932	8,141	10,618		8,666	5876	
MCA	112	MAU	NS	NMCZZZZZ	423	3,223	3,369	2,947	3,056		2,853	1936	
MCA	112	MAU	NS	NMCZZZZZ	501						1,000	1000	
MCA	112	MAU	NS	NMCZZZZZ	520						5,000	5000	
MCA	112	MAU	NS	NMCZZZZZ	521	32	49	134	248		1,500	500	
MCA	112	MAU	NS	NMCZZZZZ	522	31	431	277	229				
MCA	711	MAU	NS	NMCZZZZZ	406				498		1,688	1143	
MCA	711	MAU	NS	NMCZZZZZ	422				1,512		5,630	3820	
MCA	711	MAU	NS	NMCZZZZZ	423				438		1,854	1256	
MCA	711	MAU	NS	NMCZZZZZ	521		243	61					
MCA	711	MAU	NS	NMCZZZZZ	522	315	843	72					
SUBTOTAL Maui (909)						8,654	6,439	1,720	740		7,499	6,507	
Total for Account No. 909						8,654	6,439	1,720	740		7,499	6,507	
Account No. 910 Customer/Consumer Expense													
Maui Division (910)													
G/L Codes					_	-166,168	-113,990	-110,079	-173,064		-200,323	-135368	
M9P	750	MAU	NE	NMAZZZZZ	406	758	99	56	15				
M9P	750	MAU	NE	NMAZZZZZ	422	1,646	228	145	44				
M9P	750	MAU	NE	NMAZZZZZ	423	1,346	191	117	32				
M9P	750	MAU	NE	NMAZZZZZ	522	1,065	153	64					
MAX	750	MAU	NE	NMAZZZZZ	406	16							
MAX	750	MAU	NE	NMAZZZZZ	422	36							
MAX	750	MAU	NE	NMAZZZZZ	423	9							
MCA	110	MAU	NE	M0000455	501		51,425						
MCA	110	MAU	NE	M0000455	502	19,064	433		630				
MCA	110	MAU	NE	M0000455	521	87		38					
MCA	110	MAU	NE	M0000455	522	186		208	104				
MCA	110	MAU	NE	M0000455	550	2,835	6,864	32,073	18,227		47,531	31825	
MCA	110	MAU	NE	NMCZZZZZ	205	12							
MCA	112	MAU	NE	M0000531	201								
MCA	112	MAU	NE	NMCZZZZZ	301		1,425	475	691				
MCA	112	MAU	NE	NMCZZZZZ	406		4						
MCA	112	MAU	NE	NMCZZZZZ	422		9						
MCA	112	MAU	NE	NMCZZZZZ	423		3						
MCA	112	MAU	NE	NMCZZZZZ	501						1,000	0	
MCA	112	MAU	NE	NMCZZZZZ	520						5,000	0	
MCA	112	MAU	NE	NMCZZZZZ	521	194			68		500	0	
MCA	112	MAU	NE	NMCZZZZZ	522	30	31						
MCA	711	MAU	NE	NMCZZZZZ	406		20		62				
MCA	711	MAU	NE	NMCZZZZZ	422		45		206				
MCA	711	MAU	NE	NMCZZZZZ	423		13		43				

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RA	Act	Loc	Ind	Proj	EE	2003	2004	2005	2006	YTD August 2007	2007 Budget ($)	Budget YTD	YTD Variance
MCA	713	MAU	NE	M0000014	521			19					
MCA	713	MAU	NE	M0000015	521			19					
MCA	713	MAU	NE	M0000016	521			19					
MCA	713	MAU	NE	M0000017	521		69						
MCN	110	MAU	NE	M0000455	521	52							
MCN	110	MAU	NE	M0000455	522	16		27					
MCN	110	MAU	NE	NMCZZZZZ	201	8,895	8,515						
MCN	110	MAU	NE	NMCZZZZZ	406	505	12						
MCN	110	MAU	NE	NMCZZZZZ	422	1,093	27						
MCN	110	MAU	NE	NMCZZZZZ	423	330	9						
MCN	110	MAU	NE	NMCZZZZZ	501	2,033	2,310						
MCN	112	MAU	NE	M0000455	406	2,426	57		19				
MCN	112	MAU	NE	M0000455	422	5,349	126		63				
MCN	112	MAU	NE	M0000455	423	1,584	42		14				
MCN	112	MAU	NE	M0000455	521	1,300							
MCN	112	MAU	NE	M0000455	522	7							
MCN	112	MAU	NE	M0000531	406						906	612	
MCN	112	MAU	NE	M0000531	422						3,023	2045	
MCN	112	MAU	NE	M0000531	423						651	439	
MCN	112	MAU	NE	NMCZZZZZ	201			175					
MCN	112	MAU	NE	NMCZZZZZ	205	488	594	-73	141				
MCN	112	MAU	NE	NMCZZZZZ	301	4,604	5,115	7,195	6,661		5,317	3536	
MCN	112	MAU	NE	NMCZZZZZ	406	19,423	16,083	13,080	18,547		22,035	15009	
MCN	112	MAU	NE	NMCZZZZZ	422	41,517	33,190	32,545	58,651		73,489	50061	
MCN	112	MAU	NE	NMCZZZZZ	423	13,024	11,524	9,713	13,419		15,827	10782	
MCN	112	MAU	NE	NMCZZZZZ	451	26,556	29,060	38,359	34,179		38,359	25576	
MCN	112	MAU	NE	NMCZZZZZ	501	16,752	2,952	1,505	2,746		21,000	5666	
MCN	112	MAU	NE	NMCZZZZZ	515			250	250				
MCN	112	MAU	NE	NMCZZZZZ	520						10,000	5000	
MCN	112	MAU	NE	NMCZZZZZ	521	137	74	358	912		7,300	9700	
MCN	112	MAU	NE	NMCZZZZZ	522	997	2,431	979	424		5,200	3600	
MCN	112	MAU	NE	NMCZZZZZ	550				4,753				
MCN	711	MAU	NE	NMCZZZZZ	406	301	2,283		60				
MCN	711	MAU	NE	NMCZZZZZ	422	613	4,782		183				
MCN	711	MAU	NE	NMCZZZZZ	423	200	1,683		44				
MCN	711	MAU	NE	NMCZZZZZ	521	26	73						
MCN	711	MAU	NE	NMCZZZZZ	522	7	305	7					
MCN	713	MAU	NE	M0000014	201	503	218	80					
MCN	713	MAU	NE	M0000014	406	54			576		352	232	
MCN	713	MAU	NE	M0000014	422	109			1,837		1,175	784	
MCN	713	MAU	NE	M0000014	423	35			426		253	168	
MCN	713	MAU	NE	M0000014	501	1,944							
MCN	713	MAU	NE	M0000015	201	362	211	69					
MCN	713	MAU	NE	M0000015	406	22			571		352	232	
MCN	713	MAU	NE	M0000015	422	44			1,782		1,175	784	
MCN	713	MAU	NE	M0000015	423	14			419		253	168	
MCN	713	MAU	NE	M0000016	201	431	211	52					
MCN	713	MAU	NE	M0000016	406				221		352	232	
MCN	713	MAU	NE	M0000016	422				696		1,175	784	
MCN	713	MAU	NE	M0000016	423				163		253	168	
MCN	713	MAU	NE	M0000016	501								
MCN	713	MAU	NE	M0000017	201	1,621	7,339	974					
MCN	713	MAU	NE	M0000017	406	30		419	22		705	472	
MCN	713	MAU	NE	M0000017	422	61		975	73		2,350	1568	

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RA	Act	Loc	Ind	Proj	EE	2003	2004	2005	2006	YTD August 2007	2007 Budget ($)	Budget YTD	YTD Variance
MCN	713	MAU	NE	M0000017	423	19		288	15		506	336	
MCR	112	MAU	NE	NMCZZZZZ	521								
MCZ	110	MAU	NE	NMCZZZZZ	406		174						
MCZ	110	MAU	NE	NMCZZZZZ	422		368						
MCZ	110	MAU	NE	NMCZZZZZ	423		129						
MCZ	112	MAU	NE	NMCZZZZZ	451				3,479				
MCZ	112	MAU	NE	NMCZZZZZ	501			268					
MCZ	112	MAU	NE	NMCZZZZZ	522	36							
MCZ	711	MAU	NE	NMCZZZZZ	201		681		252				
MCZ	711	MAU	NE	NMCZZZZZ	205		37						
MCZ	711	MAU	NE	NMCZZZZZ	406	4,840	4,829	4,544	6,368		4,198	2847	
MCZ	711	MAU	NE	NMCZZZZZ	422	10,339	9,955	11,317	20,120		14,003	9496	
MCZ	711	MAU	NE	NMCZZZZZ	423	2,949	3,226	3,179	3,585		3,016	2047	
MCZ	711	MAU	NE	NMCZZZZZ	501		3,542	-189	1,475				
MCZ	711	MAU	NE	NMCZZZZZ	515		750	1,500					
MCZ	711	MAU	NE	NMCZZZZZ	521		131		84				
MCZ	711	MAU	NE	NMCZZZZZ	522	1,694			71				
MCZ	711	MAU	NE	NMCZZZZZ	550			648					
MCZ	713	MAU	NE	M0000014	406			393	273		440	296	
MCZ	713	MAU	NE	M0000014	422			979	871		1,469	976	
MCZ	713	MAU	NE	M0000014	423			275	166		316	208	
MCZ	713	MAU	NE	M0000015	406			393	273		440	296	
MCZ	713	MAU	NE	M0000015	422			979	871		1,469	976	
MCZ	713	MAU	NE	M0000015	423			275	166		316	208	
MCZ	713	MAU	NE	M0000016	406	3,640		393	258		440	296	
MCZ	713	MAU	NE	M0000016	422	7,818		979	826		1,469	976	
MCZ	713	MAU	NE	M0000016	423	2,220		275	157		316	208	
MCZ	713	MAU	NE	M0000017	406	3,743		402	1,503		440	296	
MCZ	713	MAU	NE	M0000017	422	8,047		1,004	4,662		1,469	976	
MCZ	713	MAU	NE	M0000017	423	2,283		281	815		316	208	
MCZ	713	MAU	NE	M0000894	406								
MCZ	713	MAU	NE	M0000894	422								
MCZ	713	MAU	NE	M0000894	423								
MCZ	713	MAU	NE	NMCZZZZZ	201								
MCZ	713	MAU	NE	NMCZZZZZ	406								
MCZ	713	MAU	NE	NMCZZZZZ	422								
MCZ	713	MAU	NE	NMCZZZZZ	423								
MDC	750	MAU	NE	M0000363	404	102							
MDC	750	MAU	NE	M0000363	406	39							
MDC	750	MAU	NE	M0000363	422	87							
MDC	750	MAU	NE	M0000363	423	28							
MDK	750	MAU	NE	M0000363	404	102							
MDK	750	MAU	NE	M0000363	406	17							
MDK	750	MAU	NE	M0000363	422	39							
MDK	750	MAU	NE	M0000363	423	12							
MDM	112	MAU	NE	NMCZZZZZ	404	1,594	1,689	1,065	123				
MDM	112	MAU	NE	NMCZZZZZ	406	270	316	137	15				
MDM	112	MAU	NE	NMCZZZZZ	422	591	712	353	44				
MDM	112	MAU	NE	NMCZZZZZ	423	168	234	118	12				
MDM	750	MAU	NE	M0000363	404		60						
MDM	750	MAU	NE	M0000363	406		12						

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RA	Act	Loc	Ind	Proj	EE	2003	2004	2005	2006	YTD August 2007	2007 Budget ($)	Budget YTD	YTD Variance
MDM	750	MAU	NE	M0000363	422		22						
MDM	750	MAU	NE	M0000363	423		9						
MDR	112	MAU	NE	NMCZZZZZ	404			210					
MDR	112	MAU	NE	NMCZZZZZ	406			26					
MDR	112	MAU	NE	NMCZZZZZ	422			71					
MDR	112	MAU	NE	NMCZZZZZ	423			31					
MGA	711	MAU	NE	NMCZZZZZ	406				37				
MGA	711	MAU	NE	NMCZZZZZ	422				111				
MGA	711	MAU	NE	NMCZZZZZ	423				39				
MGA	750	MAU	NE	M0000363	406			60					
MGA	750	MAU	NE	M0000363	422			150					
MGA	750	MAU	NE	M0000363	423			39					
MSA	100	MAU	NE	NMSZZZZZ	550	16,117	20,669	3,995	22,833		29,971	16419	
MSA	750	MAU	NE	M0000363	201	140							
MSA	750	MAU	NE	M0000363	406				141		807	556	
MSA	750	MAU	NE	M0000363	422				428		2,693	1860	
MSA	750	MAU	NE	M0000363	423				88		606	420	
MSA	750	MAU	NE	NMSZZZZZ	406		8		501				
MSA	750	MAU	NE	NMSZZZZZ	422		14		1,588				
MSA	750	MAU	NE	NMSZZZZZ	423		6		308				
MSA	750	MAU	NE	NMSZZZZZ	521								
MSA	750	MAU	NE	NMSZZZZZ	550	390	52	3,780	132		2,067	1428	
MSC	750	MAU	NE	M0000363	201	25,686	22,265	20,567	17,666		38,100	25399	
MSC	750	MAU	NE	M0000363	205	3,702	4,069	2,823	4,416				
MSC	750	MAU	NE	M0000363	301		775	2,033	2,214				
MSC	750	MAU	NE	M0000363	401						4,423	2952	
MSC	750	MAU	NE	M0000363	406	7,114	6,947	6,296	6,116		6,419	4258	
MSC	750	MAU	NE	M0000363	422	15,200	14,349	15,677	19,434		21,408	14210	
MSC	750	MAU	NE	M0000363	423	4,625	4,894	4,693	4,727		4,818	3199	
MSC	750	MAU	NE	M0000363	501	5,977	4,536	17,209	2,242		2,200	50	
MSC	750	MAU	NE	M0000363	521	135	203	163	391		1,200	799	
MSC	750	MAU	NE	M0000363	522	4,100	3,559	3,585	3,524		3,500	2333	
MSC	750	MAU	NE	M0000363	550	32,586	36,784	46,001	40,729		46,167	25167	
MSC	750	MAU	NE	NMSZZZZZ	205	8	190	127	583				
MSC	750	MAU	NE	NMSZZZZZ	515			10,000					
MSP	750	MAU	NE	NMSZZZZZ	406	38	4						
MSP	750	MAU	NE	NMSZZZZZ	422	81	7						
MSP	750	MAU	NE	NMSZZZZZ	423	19	2						
MSS	750	MAU	NE	NMSZZZZZ	406	199	296	521	246		1,482	968	
MSS	750	MAU	NE	NMSZZZZZ	422	417	585	1,270	791		4,945	3232	
MSS	750	MAU	NE	NMSZZZZZ	423	124	206	387	184		1,143	752	
MWL	713	MAU	NE	M0000894	404								
MWL	713	MAU	NE	M0000894	406								
MWL	713	MAU	NE	M0000894	422								
MWL	713	MAU	NE	M0000894	423								
MWP	711	MAU	NE	NMCZZZZZ	406				66				
MWP	711	MAU	NE	NMCZZZZZ	407				290				
MWP	711	MAU	NE	NMCZZZZZ	422				200				
MWP	711	MAU	NE	NMCZZZZZ	423				60				
MWS	711	MAU	NE	NMCZZZZZ	404				184				
MWS	711	MAU	NE	NMCZZZZZ	406				22				
MWS	711	MAU	NE	NMCZZZZZ	422				67				
MWS	711	MAU	NE	NMCZZZZZ	423				14				
SUBTOTAL Maui (910)						181,916	223,544	199,413	171,766		267,782	158,723	

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Pursuant to Protective Order No. 23379

RA	Act	Loc	Ind	Proj	EE	2003	2004	2005	2006	YTD August 2007	2007 Budget ($)	Budget YTD	YTD Variance
Lanai Division (910L)													
G/L Codes					_	-146	-9	-122			-163	-157	
MSC	750	MAL	NE	M0000363	201	583	602	193			700	466	
MSC	750	MAL	NE	M0000363	401						81	56	
MSC	750	MAL	NE	M0000363	406	34		30			29	29	
MSC	750	MAL	NE	M0000363	422	70		70			98	98	
MSC	750	MAL	NE	M0000363	423	25		23			22	22	
MSC	750	MAL	NE	M0000363	522	187		73			200	200	
SUBTOTAL Lanai (910L)						753	593	267	0		967	714	
Molokai Division (910M)													
G/L Codes					_	-64	-9	-5			-174	-165	
MCN	713	MAM	NE	M0000017	521		47						
MCT	713	MAM	NE	M0000017	406	13							
MCT	713	MAM	NE	M0000017	422	29							
MCT	713	MAM	NE	M0000017	423	6							
MSC	750	MAM	NE	M0000363	201	583	602	289			1,300	866	
MSC	750	MAM	NE	M0000363	401						151	104	
MSC	750	MAM	NE	M0000363	406						29	29	
MSC	750	MAM	NE	M0000363	422						98	98	
MSC	750	MAM	NE	M0000363	423						22	22	
MSC	750	MAM	NE	M0000363	522						250	250	
SUBTOTAL Molokai (910M)						567	640	284	0		1,676	1,204	
Total for Account No. 910						183,236	224,777	199,964	171,766		270,425	160,641	
Account No. 911 Information/Advertising Expense													
Maui Division (911)													
G/L Codes					_	-20			-1,031		-2,240	-1528	
MSA	751	MAU	NE	M0000364	406				225		440	298	
MSA	751	MAU	NE	M0000364	422				684		1,469	1003	
MSA	751	MAU	NE	M0000364	423				137		331	227	
MSC	751	MAU	NE	M0000364	201	1,142	135						
MSC	751	MAU	NE	M0000364	501	20,195	14,173	16,081	18,448		30,000	20,000	
SUBTOTAL MAUI (911)						21,317	14,308	16,081	18,463		30,000	20,000	
Molokai Division (911M)													
MSC	751	MAM	NE	M0000364	501		47						
SUBTOTAL MAUI (911M)						0	47	0	0		0	0	
Total for Account No. 911						21,317	14,355	16,081	18,463		30,000	20,000	
Total for all accounts						**213,207**	**245,571**	**217,765**	**190,969**		**307,924**	**187,148**	

Confidential Information Deleted
Pursuant to Protective Order No. 23379

The requested information is confidential and will be provided pursuant to Protective Order No. 23379, dated April 23, 2007.

CA-IR-250

Ref: Responses to CA-IR-155, Attachment A; CA-IR-154, Attachment A (Actual versus Proposed TY Expenses).

According to Attachment A, actual 2006 and YTD 2007 Account 910 Non-labor expenses are significantly below the projected test year expense level of $298,000 (exclusive of DSM/IRP). Please provide the following:

a. Explain the general reasons for higher anticipating spending in 2007, relative to actual 2006 and YTD 2007 levels, indicating specific forecasted expenditure items for 2007 that have not been incurred.

b. For each of the following test year projected expense elements, please explain present spending plans for the balance of 2007 and provide copies of documents supporting commitments to undertake the projected activities at test year spending levels:

1.	MCA	Act 110	EE550	$47,531
2.	MCN	Act 112	EE422	$73,489
3.	MCN	Act 112	EE501	$21,000
4.	MCN	Act 112	EE520	$10,000
5.	MSA	Act 100	EE550	$29,971
6.	MSC	Act 750	EE201	$38,100

c. Explain any changes in specific spending plans for 2007 and/or any reasons why test year expenses should not be adjusted to reflect historical and ongoing expense levels.

MECO Response:

a. The higher anticipated spending in 2007 for non-labor expenses in Account No. 910 is due to the staffing, technical support and training that is needed to operate as our business grows (tied to growth in customers). The specific forecasted expenditure items for 2007 that have not been incurred are addressed in the response to part (b) of this information request.

b. The present spending plans for the balance of 2007 for the following test year projected expense elements are:

1. MCA Act 110 EE 550 $47,531

   This expense is forecast for technical support from Hawaiian Electric Company, Inc. ("HECO") to assist with providing information concerning various types of potential electrotechnology projects. The Company expects to be billed for these expenses later in the year.

2. MCN Act 112 EE 422 $73,489

   This expense is for employee benefits tied to the addition of the Commercial Services Supervisor in 2006, and the full staffing of Commercial Account Manager position as discussed in MECO T-8, which are reflected in the expenses recorded to-date, and are expected to continue through the end of the year.

3. MCN Act 112 EE 501 $21,000

   The expenses estimated for the test year are related to the PCEA/Expo, which MECO, HECO and HELCO co-hosted. The event was held on Maui from September 6 - 8, 2007, and most of the registration, co-hosting and other expenses are included in the expenses recorded to-date with the remaining charges to be recorded in the near future.

4. MCN Act 112 EE 520 $10,000

   The expenses estimated for the test year are related to the mainland travel for the Commercial Services Division. The Company plans to spend

approximately $9,000 (EE 501, 520 521) to send three (3) Commercial Account Managers ("Account Managers") to Honolulu for a Certified Energy Manager ("CEM") training and certification course in November. The Account Managers have applied to the Association of Energy Engineers for membership, and have registered for the course. The registration expenses are expected to be recorded in the next month, with the travel expenses anticipated to be recorded in November.

The Commercial Services Supervisor will incur approximately $3,500 (EE 501, 520, 521) for attendance at the 20th Annual ESource Forum from September 25-28, 2007 in Boulder, Colorado. The expenses for this training are expected to be recorded in October.

5. MSA Act 100 EE 550 $29,971

The expenses estimated for the test year are related to intercompany billings from HECO for market research. The expenses include administration of the Company's customer satisfaction surveys and other marketing studies by the HECO Research and Evaluation staff that are expected to be recorded in the next month because the Company's Residential Customer Survey was conducted during the second and third quarters of the year.

6. MSC Act 750 EE 201 $38,100

The expenses estimated for the test year are related to material purchases for our Customer Relations programs. A substantial amount of this expense item was incurred in the second quarter and additional expenses are anticipated in the third quarter of the test year since the Company's annual community event, MECO In Our Community was held on August 25, 2007. The Company also expects that expenses associated with other community outreach events such as the Kids' Days, School Programs, and Speakers' Bureau presentations will be recorded later in the year soon after they are held.

c. The test year expenses should not be adjusted to reflect historical and ongoing expense levels because the actual level of spending is expected to be close to forecast at year-end.

CA-IR-359

Ref: MECO Responses to CA-IR-154 and CA-IR-250 (Non-labor expenses).

Please provide the following information:

a. Update Attachment A to include detailed non-labor expenses in the "YTD 2007" column through August 2007.
b. Explain the causes for each individually significant variance in actual YTD 8/07 spending, relative to projected test year amounts.
c. Update the narrative responses to CA-IR-250 to reconcile updated actual expense amounts to the explanations previously supplied.

MECO Response:

a. The detailed non-labor expense information through August 2007 needed to update Attachment A is not currently available, and is expected to be available in mid-September. MECO plans to file the requested information on or before, September 21.

b. See the response to part a. above.

c. See the response to part a. above.

CA-IR-360

Ref: MECO Response to CA-IR-155, Attachment A; MECO-804 (Expense Comparisons).

Please provide the following:

a. An updated Attachment A inserting monthly 2007 data for all available months.
b. An explanation of causes for significant deviations from projected test year levels in year-to-date actual spending

MECO Response:

a. See Attachment A for updated monthly 2007 data through July 2007. The Company provides the July financial information subject to Protective Order No. 23379 because it is confidential until it is publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

b. Significant deviations from projected test year levels in year-to-date actual spending are found in the non-labor expenses for Account No. 910. This deviation is primarily due to timing differences between the recording of expenses and the operating budget. For example, as was reflected in the Company's response to CA-IR-250, expenses for the Pacific Coast Electrical Association, and training for the Commercial Services team are expected in the latter part of the year. Further, the additional expenses for Integrated Resource Planning ("IRP"), which are included in Attachment A, Column Q, Account No. 910 as normalization adjustments, are expected to be incurred later in the year due to the timing of activities consistent with the procedural schedule of the MECO IRP-3 Plan, Docket No. 04-0077, and the payment of the invoices related to those activities. These IRP expenses are not included in the recorded amounts for Account No. 910 because such costs are still recovered through the IRP Cost Recovery Provision and booked to Account No. 186. The amount in Column Q represents IRP planning costs that are being proposed to be included in base rates in this docket. (See MECO T-8, pages 26 to 29.)

Maui Electric Company, Limited
Maui Division

Update to MECO-804, Page 1 of 2

2001 - 2007
CUSTOMER SERVICE EXPENSE
Accounts 909, 910 and 911 by Labor and Non-labor Expenses
($ THOUSANDS)

Line		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
		<----------								Recorded						Oper.			Test Year
											2007				YTD	Budget	Budget		Estimate
		2001	2002	2003	2004	2005	2006	Jan	Feb	Mar	Apr	May	Jun	Jul	07/31/07	2007	Adj	Normalization	2007
	909 Supervision																		
1	Labor	73	76	39	41	37	45	6	3	5	5	5	5	[redacted]		59	0	0	59
2	Non-labor	7	13	9	6	2	1	0	0	0	0	2	0	[redacted]		7	0	0	7
3	Total 909	80	89	48	47	39	46	6	3	5	5	7	5	[redacted]		66	0	0	66
	910 Cust. Assistance																		
4	Labor	383	346	360	274	256	333	35	27	31	31	40	34	[redacted]		374	0	100	474
5	Non-labor	4,960	5,144	2,879	3,162	2,672	3,184	304	184	220	210	355	350	[redacted]		2,668	-2,400	696	964
6	Total 910	5,343	5,490	3,239	3,436	2,928	3,517	339	211	251	241	395	384	[redacted]		3,042	-2,400	796	1,438
	911 Informational Advertising																		
7	Labor	0	0	0	0	0	2	0	0	0	0	0	1	[redacted]		4	0	0	4
8	Non-labor	45	32	21	14	16	19	1	0	1	1	1	3	[redacted]		30	0	0	30
9	Total 911	45	32	21	14	16	21	1	0	1	1	1	4	[redacted]		34	0	0	34
10	Total Customer Service Expense	5,468	5,611	3,308	3,497	2,983	3,584	346	214	257	247	403	393	[redacted]		3,142	-2,400	796	1,538

SOURCE:
MECO-WP-804

Note: Differences between exhibits and workpapers are due to rounding.

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ATTACHMENT A
PAGE 1 OF 2

CA-IR-155
DOCKET NO. 2006-0387
ATTACHMENT A
PAGE 1 OF 2
(Updated 9/18/07)

Maui Electric Company, Limited
Maui Division

Update to MECO-804, Page 2 of 2

2001 - 2007
CUSTOMER SERVICE EXPENSE
Accounts 909, 910 and 911 by Labor and Non-labor Expenses W/O IRP & DSM Amortization Expenses
($ THOUSANDS)

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
		<----------								Recorded					----------	Oper.			Test
											2007				YTD	Budget	Budget		Year
Line		2001	2002	2003	2004	2005	2006	Jan	Feb	Mar	Apr	May	Jun	Jul	07/31/07	2007	Adj	Normalization	2007
	909 Supervision																		
1	Labor	73	76	39	41	37	45	6	3	5	5	5	5			59	0	0	59
2	Non-labor	7	13	9	6	2	1	0	0	0	0	2	0			7	0	0	7
3	Total 909	80	89	48	47	39	46	6	3	5	5	7	5			66	0	0	66
	910 Cust. Assistance																		
4	Labor	383	346	360	274	256	333	35	27	31	31	40	34			374	0	100	474
5	Non-labor	162	250	182	224	199	172	4	5	11	16	19	11			2,668	-2,400	696	964
6	Total 910	545	596	542	498	455	505	39	32	42	47	59	45			3,042	-2,400	796	1,438
	911 Informational Advertising																		
7	Labor	0	0	0	0	0	2	0	0	0	0	0	1			4	0	0	4
8	Non-labor	45	32	21	14	16	19	1	0	1	1	1	3			30	0	0	30
										1									
9	Total 911	45	32	21	14	16	21	1	0	1	1	1	4			34	0	0	34
	Customer Service Expense																		
10	Labor	456	422	399	315	293	380	41	30	36	36	45	40			437	0	100	537
11	Non-labor	169	263	191	230	201	173	4	5	11	16	21	11			2,675	-2,400	696	971
12	Total Customer Service Expense	670	717	611	559	510	572	46	35	48	53	67	54			3,142	-2,400	796	1,538

SOURCE:
MECO-WP-804

Note: Differences between exhibits and workpapers are due to rounding.

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Pursuant to Protective Order No. 23379

CA-IR-360
DOCKET NO. 2006-0387
ATTACHMENT A
PAGE 2 OF 2

CA-IR-155
DOCKET NO. 2006-0387
ATTACHMENT A
PAGE 2 OF 2
(Updated 9/18/07)

CA-IR-361

Ref: MECO Response to CA-IR-247, Attachment A (Customer Service Department Staffing).

Please provide the following:

a. Monthly actual staffing by RA and position within each RA for 2006 and 2007 to-date.
b. Projected monthly test year staffing by RA and position within each RA.
c. Explain the reasons for each difference between the staff counts included in the test year for each position and the actual monthly data provided in your responses to parts (a) versus (b) of this information request in 2007.

MECO Response:

a. See MECO's response to CA-IR-354 part a. for monthly actual staffing by RA and position within each RA for 2006 and 2007 to-date. Also see Attachment A, pages 3-4, for actual 2007 to-date information.

b. See Attachment A, pages 1-2, for the projected monthly test year staffing by RA and position within each RA.

c. See Attachment A, pages 5-6, column K, for the reasons for each difference between the staff counts included in the test year for each position and the actual monthly data for 2007 provided in the responses to parts (a) versus (b) of this information request.

MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
2007 TEST YEAR ESTIMATE

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
			2007 Estimate											
Line	**Position**	**RA**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
1	Administrator	MCA	1	1	1	1	1	1	1	1	1	1	1	1
2	Customer Information Systems Administrator	MCA	1	1	1	1	1	1	1	1	1	1	1	1
3	Manager, Customer Service	MCA	1	1	1	1	1	1	1	1	1	1	1	1
4	Customer Field Representative	MCF	5	5	5	5	5	5	5	5	5	5	5	5
5	Senior Customer Service Representative	MCF	1	1	1	1	1	1	1	1	1	1	1	1
6	Supervisor, Field Services	MCF	1	1	1	1	1	1	1	1	1	1	1	1
7	Meter Reader	MCM	8	8	8	8	8	8	8	8	8	8	8	8
8	Commercial Services Supervisor	MCN	1	1	1	1	1	1	1	1	1	1	1	1
9	Commercial Account Manager	MCN	3	3	3	3	3	3	3	3	3	3	3	3
10	Energy Efficiency Program Manager	MCN	1	1	1	1	1	1	1	1	1	1	1	1
11	Cashier	MCR	2	2	2	2	2	2	2	2	2	2	2	2
12	Clerk Typist I	MCR	1	1	1	1	1	1	1	1	1	1	1	1
13	Customer Assistance Representative	MCR	7	7	7	7	7	7	7	7	7	7	7	7
14	Customer Service Clerk	MCR	1	1	1	1	1	1	1	1	1	1	1	1
15	Senior Billing & Accounts Clerk	MCR	1	1	1	1	1	1	1	1	1	1	1	1
16	Supervisor, Customer Accounts Services	MCR	1	1	1	1	1	1	1	1	1	1	1	1
17	Customer Assistance Representative	MCT	1	1	1	1	1	1	1	1	1	1	1	1

MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
2007 TEST YEAR ESTIMATE

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
			2007 Estimate											
Line	**Position**	**RA**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
18	Meter Reader/ Collector	MCT	1	1	1	1	1	1	1	1	1	1	1	1
19	Office Administrator	MCT	1	1	1	1	1	1	1	1	1	1	1	1
20	Energy Efficiency Program Manager	MCZ	1	1	1	1	1	1	1	1	1	1	1	1
21	Integrated Resource Planning Specialist	MCZ	1	1	1	1	1	1	1	1	1	1	1	1
22	Supervisor, IRP	MCZ	1	1	1	1	1	1	1	1	1	1	1	1
23	Clerk Typist III (DSM)	MCZ	1	1	1	1	1	1	1	1	1	1	1	1
24	TOTALS		43	43	43	43	43	43	43	43	43	43	43	43

MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
YTD 2007 ACTUAL

	A	B	C	D	E	F	G	H	I	J
			2007 Actual							
Line	**Position**	**RA**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**
1	Administrator	MCA	0	1	1	1	1	1	1	1
2	Customer Information Systems Administrator	MCA	1	1	1	1	1	1	1	1
3	Manager, Customer Service	MCA	1	1	1	1	1	1	1	1
4	Customer Field Representative	MCF	5	5	5	5	5	5	5	5
5	Senior Customer Service Representative	MCF	1	1	1	1	1	1	1	1
6	Supervisor, Field Services	MCF	1	1	1	1	1	1	1	1
7	Meter Reader	MCM	6	7	7	8	8	8	8	8
8	Commercial Services Supervisor	MCN	1	1	1	1	1	1	1	1
9	Commercial Account Manager	MCN	2	2	2	3	3	3	3	3
10	Energy Efficiency Program Manager	MCN	1	1	1	1	1	1	1	1
11	Cashier	MCR	2	2	2	2	2	2	2	2
12	Clerk Typist I	MCR	1	1	1	1	1	1	1	1
13	Customer Assistance Representative	MCR	6	6	7	7	7	7	7	7
14	Customer Service Clerk	MCR	1	1	1	1	1	1	1	1
15	Senior Billing & Accounts Clerk	MCR	1	1	1	1	1	1	1	1
16	Supervisor, Customer Accounts Services	MCR	1	1	1	1	1	1	1	1
17	Customer Assistance Representative	MCT	1	1	1	1	1	1	1	1
18	Meter Reader/ Collector	MCT	1	1	1	1	1	1	1	1
19	Office Administrator	MCT	1	1	1	1	1	1	1	1
20	Energy Efficiency Program Manager	MCZ	2	1	1	1	1	1	1	1

MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
YTD 2007 ACTUAL

	A	B	C	D	E	F	G	H	I	J
			2007 Actual							
Line	**Position**	**RA**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**
	[illegible]									
21	Integrated Resource Planning Specialist	MCZ	1	1	1	1	1	1	1	1
22	Supervisor, IRP	MCZ	1	1	1	1	1	1	1	1
23	Clerk Typist III (DSM)	MCZ	0	0	0	0	0	1	1	1
24	TOTALS		38	39	40	42	42	43	43	43

Source: CA-IR-354, Attachment A

MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
TEST YEAR ESTIMATE MINUS YTD ACTUAL

	A	B	C	D	E	F	G	H	I	J	K
			2007								
Line	Position	RA	J	F	M	A	M	J	J	A	TY vs. Actual
1	Administrator	MCA	1	0	0	0	0	0	0	0	Position filled February 2007.
2	Customer Information Systems Administrator	MCA	0	0	0	0	0	0	0	0	
3	Manager, Customer Service	MCA	0	0	0	0	0	0	0	0	
4	Customer Field Representative	MCF	0	0	0	0	0	0	0	0	
5	Senior Customer Service Representative	MCF	0	0	0	0	0	0	0	0	
6	Supervisor, Field Services	MCF	0	0	0	0	0	0	0	0	
7	Meter Reader	MCM	2	1	1	0	0	0	0	0	Meter Reader promoted to Customer Assistance Rep; Transferred December 2006; Temporary Meter Reader hired October - December 2006; 1 position filled February 2007; 1 position filled April 2007.
8	Commercial Services Supervisor	MCN	0	0	0	0	0	0	0	0	
9	Commercial Account Manager	MCN	1	1	1	0	0	0	0	0	Position filled April 2007.
10	Energy Efficiency Program Manager	MCN	0	0	0	0	0	0	0	0	
11	Cashier	MCR	0	0	0	0	0	0	0	0	
12	Clerk Typist I	MCR	0	0	0	0	0	0	0	0	

MAUI ELECTRIC CO., LTD.
EMPLOYEE COUNT BY POSITION - CUSTOMER SERVICE
TEST YEAR ESTIMATE MINUS YTD ACTUAL

	A	B	C	D	E	F	G	H	I	J	
			2007								
Line	Position	RA	J	F	M	A	M	J	J	A	
13	Customer Assistance Representative	MCR	1	1	0	0	0	0	0	0	Meter Reader promoted to Customer Assistance Rep; Transferred December 2006; 1 position filled March 2007.
14	Customer Service Clerk	MCR	0	0	0	0	0	0	0	0	
15	Senior Billing & Accounts Clerk	MCR	0	0	0	0	0	0	0	0	
16	Supervisor, Customer Accounts Services	MCR	0	0	0	0	0	0	0	0	
17	Customer Assistance Representative	MCT	0	0	0	0	0	0	0	0	
18	Meter Reader/ Collector	MCT	0	0	0	0	0	0	0	0	
19	Office Administrator	MCT	0	0	0	0	0	0	0	0	
20	Energy Efficiency Program Manager	MCZ	-1	0	0	0	0	0	0	0	Cross-training of departing EEPM with new EEPM
21	Integrated Resource Planning Specialist	MCZ	0	0	0	0	0	0	0	0	
22	Supervisor, IRP	MCZ	0	0	0	0	0	0	0	0	
23	Clerk Typist III (DSM)	MCZ	1	1	1	1	1	0	0	0	Position filled on June 4, 2007.
24	TOTALS		5	4	3	1	1	0	0	0	

Source:
Columns C-J = Test Year Staffing count minus Actual Staffing count
Column K = CA-IR-148, Attachment A, column Y

CA-IR-362

Ref: MECO Response to CA-IR-294, Attachment A; MECO WP-812 (Incremental IRP Costs).

Please provide the following information:

a. Provide an updated calculation substituting July and August actual values in place of the "2007 Remaining" amounts shown in columns H and I.

b. Provide an updated statement of MECO's best estimate of "2007 Remaining" amounts to replace columns J through N.

c. Provide MECO's current estimate of expenses to be incurred in each line for budget year 2008.

MECO Response:

a. See Attachment A, columns G and H, for an update of the July and August 2007 recorded actuals. The Company provides the July and August 2007 financial information subject to Protective Order No. 23379 because it is confidential until it is publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

b. See Attachment A, columns J through N, for an update of the "2007 Remaining" amounts. Although there is a difference between the 2007 budget amount (Attachment A - line 34, column P) and year-to-date August recorded and updated 2007 remaining amount (Attachment A - line 34, column O), this difference is mitigated by the fact that the test year amount is normalized (using an average of three years). This normalization methodology is consistent with that used by Hawaiian Electric Company, Inc. in its test year 2007 rate case, Docket No. 2006-0386, and to which the Consumer Advocate did not take exception.

The lower than expected spending for 2007 (compared to the 2007 operating budget) is primarily due to (1) a shortened procedural schedule related to the Stipulation Regarding

Hearing and Commission Approval filed by the Company and the Division of Consumer Advocacy on September 21, 2007 waiving any right to an evidentiary hearing on the matters in the MECO Integrated Resource Planning proceeding, Docket No. 04-0077 (which mainly impacts the estimate for the IRP and Power Supply Services items) and (2) deferral of survey work in the Forecast & Research item.

c. See Attachment A, column Q for MECO's current estimate of expenses to be incurred for budget year 2008.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

CA-IR-362
DOCKET NO. 2006-0387
ATTACHMENT A
PAGE 1 OF 1
(UPDATED 9/27/07)

MAUI ELECTRIC COMPANY, LIMITED

ANNUAL, INCREMENTAL IRP ACTUALS AND BUDGET
2007-2008 COST TYPE DETAIL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	2007 Actual									2007 Remaining							
Line	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD	Sep	Oct	Nov	Dec	Remaining Months	YTD + Remaining	Budget 2007	Budget 2008
1 Labor	5,077	4,384	4,615	4,615	5,263	3,589				5,263	5,263	5,263	5,263	21,052		57,101	61,309
2 Overhead	4,065	3,511	3,696	3,696	4,082	2,782				4,082	4,082	4,082	2,782	15,028		44,165	46,679
3 Total Labor	9,142	7,895	8,311	8,311	9,345	6,371				9,345	9,345	9,345	8,045	36,080		101,266	107,988
Non-Labor																	
MATERIALS																	
4 (201) Materials-Purchases	18	467	5	221	149	161				-	-	-	-	-		859	824
FREIGHT, POSTAGE AND BULK MAIL																	
5 (640) Freight, Postage & Bulk Mail	-	-	-	-	-	-				-	-	-	-	-		-	-
6 TRANSPORTATION	-	-	-	-	-	-				-	-	-	-	-		-	-
INFORMATION SYSTEM SERVICES																	
7 (451) IS Expenses-Production	-	-	-	-	-	-				-	-	-	-	-		-	-
8 (462) IS Expenses-PC Software	-	-	-	-	-	-				-	500	-	-	500		-	500
CONTRACTS/SERVICES																	
9 (501) Outside Services-General	-	-	25,516	-	-	393					15,000	15,000	10,000	40,000		56,000	81,000
10 (550) Intercompany Billings:																	
11 Transmission Planning	-	-	-	-	-	-				2,395	1,000	1,000	1,000	5,395		-	
12 Energy Services	-	-	741	978	2,032	-				250			1,000	1,250		3,751	2,259
13 Energy Projects	-	-		234	412	-				212	5,000	5,000	5,000	15,212		16,155	3,884
14 Corporate Communications	-	-	994	(81)	-	-				-	-	-	-	-		1,097	1,130
15 Engineering	-	-	-	-	-	-								-		12,921	7,936
16 Regulatory Affairs	-	261	323	-	1,654	1,777				3,454	3,000	3,000	3,000	12,454		7,098	7,290
17 Environmental	-	-	-	-	-	-				-	-	-	-	-		2,464	2,552
18 IRP	-	15,519	25,065	-	19,444	9,266				4,947	15,000	15,000	15,000	49,947		250,579	208,306
19 Technology	-	-	687	-	282	-				507	300	500	500	1,807		27,903	22,027
20 Education & Consumer Affairs	-	-	252	-	336	-								-		2,319	1,206
21 Forecast & Research	-	-	-	-	5,123	-				12,753	2,500	2,500	5,000	22,753		168,704	207,527
22 Power Supply Services	-	4,785	5,794	731	1,971	3,808				8,198	3,000	3,000	8,400	22,598		133,137	84,116
23 Customer Technology Applic	-	-	-	-	-	-				-	-	-	-	-		13,144	
24 IT&S	-	-	-	-	-	-				-	-	-	-	-		-	
25 Legal	-	-	-	-	-	-				-	-	-	-	-		-	
26 Mgmt. Acctg. & Financial Svcs	-	-	-	-	-	-				-	-	-	-	-		-	
27 Corp Admin Billable Overhead	-	-	-	-	-	-				-	-	-	-	-		-	
28 (502) Outside Services-Legal	12,534	-	228	-	-	516				10,700	5,000	5,000	5,000	25,700		21,000	21,000
29 (503) Outside Services - Temp Hire	-	-	-	-	-	-				-	-	-	-	-		-	-
30 (520) Mainland Travel	-	-	-	-	-	-				3,000	-	-	-	3,000		2,500	3,000
31 (521) Meals & Entertainment	-	-	-	47	-	297				-	-	-	906	906		1,250	1,750
32 (522) Interisland Travel	265	-	-	281	457	378				100	188	188	500	976		8,000	4,800
33 Total Non-Labor	12,817	21,032	59,605	2,412	31,860	16,597				46,515	50,488	50,188	55,306	202,497		728,881	661,108
34 Total	21,959	28,927	67,916	10,723	41,205	22,968				55,860	59,833	59,533	63,351	238,577		830,147	769,096

CA-IR-362

Ref: MECO Response to CA-IR-294, Attachment A; MECO WP-812 (Incremental IRP Costs).

Please provide the following information:

a. Provide an updated calculation substituting July and August actual values in place of the "2007 Remaining" amounts shown in columns H and I.
b. Provide an updated statement of MECO's best estimate of "2007 Remaining" amounts to replace columns J through N.
c. Provide MECO's current estimate of expenses to be incurred in each line for budget year 2008.

MECO Response:

a. The August 2007 information is not currently available, and is expected to be available in mid-September. MECO plans to file the requested information on, or before, September 21.

b. The updated "2007 Remaining" amounts will be provided with the YTD August 2007 information requested in part a. above.

c. See Attachment A, column Q for MECO's current estimate of expenses to be incurred for budget year 2008.

MAUI ELECTRIC COMPANY, LIMITED

ANNUAL, INCREMENTAL IRP ACTUALS AND BUDGET
2007 COST TYPE DETAIL

Line		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
		2007 Actual							2007 Remaining									
		Jan	Feb	Mar	Apr	May	Jun	YTD	Jul	Aug	Sep	Oct	Nov	Dec	Remaining Months	YTD + Remaining	Budget 2007	Budget 2008
1	Labor	5,077	4,384	4,615	4,615	5,263	3,589	27,543	4,798	5,038	4,319	5,038	4,558	5,807	29,558	57,101	57,101	61,309
2	Overhead	4,065	3,511	3,696	3,696	4,082	2,782	21,832	3,695	3,880	3,326	3,880	3,511	4,041	22,333	44,165	44,165	46,679
3	Total Labor	9,142	7,895	8,311	8,311	9,345	6,371	49,375	8,493	8,918	7,645	8,918	8,069	9,848	51,891	101,266	101,266	107,988
	Non-Labor																	
	MATERIALS																	
4	(201) Materials-Purchases	18	467	5	221	149	161	1,021	-	-	-	-	-	-	-	1,021	859	824
	FREIGHT, POSTAGE AND BULK MAIL																	
5	(640) Freight, Postage & Bulk Mail	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
6	TRANSPORTATION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	INFORMATION SYSTEM SERVICES																	
7	(451) IS Expenses-Production	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	(462) IS Expenses-PC Software	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	500
	CONTRACTS/SERVICES																	
9	(501) Outside Services-General	-	-	25,516	-	-	393	25,909	84	[illegible]	12,584	17,017	84	76	29,929	55,838	56,000	81,000
10	(550) Intercompany Billings:																	
11	Planning & Engineering	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	Energy Services	-	-	741	978	2,032	-	3,751	-	-		-	-	-	-	3,751	3,751	2,259
13	Energy Projects	-	-		234	412	-	647	1,478	1,478	1,478	1,478	1,478	8,118	15,508	16,155	16,155	3,884
14	Corporate Communications	-	-	994	(81)	-	-	913	-	-	-	-	-	184	184	1,097	1,097	1,130
15	Engineering	-	-	-	-	-	-	-	2,012	2,012	1,936	[illegible]	1,936	3,089	12,921	12,921	12,921	
16	Regulatory Affairs	-	261	323	-	1,654	1,777	4,015	539	439	439	539	688	439	3,083	7,098	7,098	7,290
17	Environmental	-	-	-	-	-	-	-	411	411	411	411	411	411	2,464	2,464	2,464	2,552
18	IRP	-	15,519	25,065	-	19,444	9,266	69,294	32,432	29,168	29,122	32,447	[illegible]	29,058	181,285	250,579	250,579	208,306
19	Technology	-	-	687	-	282	-	968	4,330	5,155	4,206	4,206	4,831	4,206	26,935	27,903	27,903	22,027
20	Education & Consumer Affairs	-	-	252	-	336	-	588	289	289	289	289	289	[illegible]	1,731	2,319	2,319	1,206
21	Forecast & Research	-	-	-	-	5,123	-	5,123	31,399	27,389	27,009	23,363	25,636	[illegible]	163,581	168,704	168,704	207,527
22	Power Supply Services	-	4,785	5,794	731	1,971	3,808	17,090	18,441	18,441	18,441	18,441	18,441	23,841	[illegible]	133,137	133,137	92,052
23	Customer Technology Applic	-	-	-	-	-	-	-	2,408	1,974	2,408	1,974	1,974	2,407	[illegible]	13,144	13,144	
24	IT&S	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
25	Legal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	Mgmt. Acctg. & Financial Svcs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	Corp Admin Billable Overheac	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	(502) Outside Services-Legal	12,534	-	228	-	-	516	13,278	1,287	1,287	1,287	1,287	1,287	1,287	7,722	21,000	21,000	21,000
29	(503) Outside Services - Temp Hire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	(520) Mainland Travel	-	-	-	-	-	-	-	2,500	-	-	-	-	-	2,500	2,500	[illegible]	3,000
31	(521) Meals & Entertainment	-	-	-	47	-	297	344	-	500	-	-	-	406	906	1,250	1,250	1,750
32	(522) Interisland Travel	265	-	-	281	457	378	1,381	-	500	1,750	3,869	-	500	6,619	8,000	8,000	[illegible]
33	Total Non-Labor	12,817	21,032	59,605	2,412	31,860	16,597	144,323	97,609	89,126	101,359	107,256	86,112	103,096	584,559	728,882	728,881	661,108
34	Total	21,959	28,927	67,916	10,723	41,205	22,968	193,698	106,102	98,044	109,004	116,174	94,181	112,944	636,450	830,148	830,147	769,096

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(Revised 9/17/07)

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ATTACHMENT A
PAGE 1 OF 1

CA-IR-294
DOCKET NO. 2006-0387

CA-IR-362

Ref: MECO Response to CA-IR-294, Attachment A; MECO WP-812 (Incremental IRP Costs).

Please provide the following information:

a. Provide an updated calculation substituting July and August actual values in place of the "2007 Remaining" amounts shown in columns H and I.
b. Provide an updated statement of MECO's best estimate of "2007 Remaining" amounts to replace columns J through N.
c. Provide MECO's current estimate of expenses to be incurred in each line for budget year 2008.

MECO Response:

a. The August 2007 information is not currently available, and is expected to be available in mid-September. MECO plans to file the requested information on, or before, September 21.

b. The updated "2007 Remaining" amounts will be provided with the YTD August 2007 information requested in part a. above.

CA-IR-363

Ref: MECO-927 & response to CA-IR-156, page 16 (Abandoned Project Costs).

Page 16 of the response to CA-IR-156 provides an update of MECO-927 to include 2006 actual abandoned project amounts. Please provide the following:

a. For each year 2002 through 2006, please provide a detailed listing of the specific projects abandoned, showing NARUC account distribution.

b. For each abandoned project identified in response to part (a) above greater than $10,000, please provide a narrative description of the intended purpose and objective of undertaking each project, including copies of any related Project Identification Forms.

c. For each abandoned project identified in response to part (a) above greater than $10,000, please provide a narrative description of the facts and circumstance leading to the abandonment of each project.

MECO Response:

a. See Attachment 1 for the requested information.

b. See Attachment 2 for the requested information.

c. See Attachment 2 for the requested information.

MAUI ELECTRIC COMPANY, LTD.
ABANDONED PROJECT COSTS
RECORDED DATA FOR 2002 THROUGH 2006
($)

NARUC	Project/WO No.	Description	2002	2003	2004	2005	2006
588L	CE022040	LANAI WATER COMPANY (ENG'G)		658.64			
588L	CE019672	LANAI WELL NO. 8 (CONSTR)			294.12		
588L	CE017729	LANAI WELL NO.8 (ENG'G)			4,068.99		
588L	CE018198	Tiboris Residence-Puulani Ridge #111				412.84	
588L	CE026231	Miki Basin Truss Plant-Kaumalapau Hy			3,832.12		
588L	CE024379	LANAI COMPANY-200 8TH ST-LANAI		35.75			
588L	CE024381	CASTLE&COOKE-7TH ST/DOLE PARK-LANAI		35.75			
588L	CE024380	CASTLE&COOKE-7TH ST/DOLE PARK-LANAI		35.75			
588L	CE019594	CSTL&CKE, HII TANK, LANAI CITY	76.45				
		Sub-Total Lanai Distribution Abandoned Projects	76.45	765.89	8,195.23	412.84	-
Sub-total Lanai Abandoned Projects			**76.45**	**765.89**	**8,195.23**	**412.84**	**-**
566	FI007566	69KV RELOCATION WAINEE ENGR	1,075.54				
566	CE014045	Kah Airport Access Rd-Engineering			9,631.57		
566	EE001836	Kailua Substation-Outside Services			2,104.89		
566	EE001543	Kailua Sub-Land			515.99		
566	EE001542	Kailua Substation-Engineering			1,661.53		
566	CE029995	Peahi Farms 1 LLC			138.32		
566	EE002010	Kaanapali #1/Ckt 1221 Dossier (Eng'g)			2,761.98		
566	EE001432	HUELO SUBSTN NO 74 LAND			465.80		
566	CE017867	PUNANA LEO O MAUI PRESCHL POLE RELOC ENG			4,019.14		
566	CE002065	Ameron HC&D-E4 Haleakala Hy Pole Reloc.	2,574.47				
566	EE002637	PMCo Easement Relocation Clause-Eng'g					4,727.16
566	EE002638	PMCo Easement Relocation Clause-Land					17,868.31
		Sub-Total Maui Transmission Abandoned Projects	3,650.01	-	21,299.22	-	22,595.47
588	CE001340	MARTIN VASEY-UG SVC (ENGR)	0.50				
588	CE005108	MARY FISH--PERM UG SWO (CONSTR)	0.50				
588	CE020806	KAUPALOLO-RVMP UG SVC-747 MAKIKI ST	19.08				
588	CE011322	MALTESE,PEGGY-110 HAWEA PL-MAK-RTO	31.93				
588	CE015723	BOERINGA,KIM-763 KAMEHAMEIKI RD-KUL-RTO	35.57				
588	CE016757	O'CONNOR-ROBERT-70 MIKIOLA ST-MAK-RTO	35.60				
588	CE021267	GALAPON-RELOCATE MTR-927 KIKA ST	37.68				
588	CE018908	E5 ANCHOR-REPAIR ANCHOR-NANILOA DR	38.22				
588	CE019031	J MALAFU,975 KONIA PL (BK HSE),KIHEI	38.35				
588	CE011695	BAKER,CHERI-590 OLINDA RD-MAK-RTO	38.65				
588	CE019856	WHITEY'S-REVAMP OH SVC-KOKOMO RD-HAIKU	39.16				
588	CE013657	DANIEL BAKER-RELOC GUY	44.69				
588	CE013794	ELIZABETH TADE-PERM UG SVC	44.69				
588	CE012558	M HAUEN-LIMKILDE -- RELOC MTR #70389	45.93				
588	CE017013	M MALEK,H'PIILANI/CANE HAUL RD,OLOWALU	49.45				
588	CE016613	T LYAU,236 MEHANI CIR,KIHEI	49.81				
588	CE007616	PAT CURELL-INST OH SVC-WKSHP-ULUMALU RD	51.35				
588	CE001219	MOREY,JOHN-UG LINE EXT-LAND-RTO	51.95				
588	CE019206	HIEP DO-RVMP OH SVC-61 E.WAIKO RD	55.43				
588	CE008662	ALBETE,ZACHARY-2801 KEIKILANI ST-PUK-RTO	56.36				
588	CE010368	JOSEPH TAN-UG SVC	57.03				
588	CE009283	HUFFORD,RANDY-104 L KULA RD-#MH-KUL-RTO	60.01				
588	CE012735	CARVALHO,MARGARET-310 MAHA RD-MAK-RTO	62.27				
588	CE006516	REZENTS,ERNEST-808 MAKAWAO AV-MAK-RTO	63.44				
588	CE004081	ALAMILLO,EDWARD-30 KAPUAHI ST-MAK-RTO	73.11				
588	CE018273	SYSTEM-POLE RELOCATION-PALANI/ALU RD	74.48				
588	CE022276	JONES-REVAMP-UG SVC-302 PAANI PL-PAIA	75.37				
588	CE021335	ACTION FUEL-RELOCATE MTR-EENA ST	75.85				
588	CE018423	D RUSHER,PUAMANA UNIT 46-2,LAHAINA	75.96				
588	CE018225	STEWART-OH TO UG CONV-HAHANA RD-HAIKU	76.30				
588	CE020677	COM-ROAD IMPROVEMENT PROJECT	76.63				
588	CE019030	J MALAFU,975 KONIA PL (CTG),KIHEI	76.75				
588	CE018845	R HOEHN,1390 S KIHEI RD (CTG),KIHEI	76.75				
588	CE019157	CNTRL M.BSYRD-OFF MOKULELE HWY	76.76				

MAUI ELECTRIC COMPANY, LTD.
ABANDONED PROJECT COSTS
RECORDED DATA FOR 2002 THROUGH 2006
($)

NARUC	Project/WO No.	Description	2002	2003	2004	2005	2006
588	CE020724	SPENCER HMS,LILOA DR #SALES OFF	77.18				
588	CE020122	P HART,657 KAAPUNI PL #CTG,KI	77.25				
588	CE004245	SARSONA,CLAUDE-1130 NAKUI ST-MAK-RTO	78.00				
588	CE019067	LABANG-UG COM SVC-W KUIAHA RD-HAIKU	78.10				
588	CE011011	WATERHOUSE,A D-1112 MANO DR-KUL-RTO	81.75				
588	CE008941	THE ARTERY-OH SVC-99 HANA HWY	83.94				
588	CE008663	HEESEMAN,MARGOT-473 HALEAKALA HWY-K	87.03				
588	CE017218	TALLMAN-UPGRADE UG SVC-KALO RD-HANA	87.53				
588	CE002803	HILLS, JOHN-1 MAKANOE PL-MAK-ENG-RTO	89.57				
588	CE000916	MOREY,JOHN-UG LINE EXT-STAFF-RTO	90.73				
588	CE020995	GS EXCAV-OH SVC-CNTRL M. BSYD	94.58				
588	CE020562	KRANICHFELD-UG SVC-WAIPUHIA PL-HAIKU	95.87				
588	CE003296	FEHRING,BRUCE/CYNTHIA-751 PULEHUIKI-KUL	96.17				
588	CE019296	ONEHEE RESURFACING PROJECT	96.82				
588	CE000758	BACOS,ANTHONY-RELOC OH SVC-ENG-RTO	100.23				
588	CE016802	KAPALUA LAND, HONOLUA VLG	100.58				
588	CE011866	CARINO,WARLITO-641 OMAOPIO RD-#A-KU	107.10				
588	CE009863	ENEIM,RAY-137 ALEA PL-PUK-RTO	109.97				
588	CE019471	ESTY,EDWARD-IKENA KAI PL-KUL-RTO	112.84				
588	CE019465	M MATHEWS,485 KAIWAHINE ST #CTG	114.33				
588	CE018909	POLE E2-INSPCT LEANING POLE-NANILOA DR	114.99				
588	CE020503	F CONSTANT,7640 MAKENA RD,MAK	115.79				
588	CE010618	AH YUEN,MARTIN-40 KAPUAHI ST-MAK-RTO	117.36				
588	CE021170	J NEIZMAN,1412 OLONA PL,LAH	117.48				
588	CE021174	P SCHAMEL,60 HALELANI PL,KIHEI	117.48				
588	CE018021	REEF DEV-COM'L UG SVC-MAUI MALL-KAHULUI	130.60				
588	CE002804	OKUMURA,MICHAEL-1285 OLINDA RD-MAK-RTO	130.73				
588	CE003192	AMERON MAUI QUARRY - ENRG.	131.18				
588	CE002043	CORDEIRO'S AUTO-MAKAWAO AV-ENG-RTO	133.19				
588	CE019910	IAO SCHOOL-RELOCATE POLE-KAOHU ST	133.78				
588	CE018714	KE ALII KAI SUBD LT-86	134.32				
588	CE004694	GILREATH,URIEL-502 L KIMO DR-KUL-RTO	141.21				
588	CE009507	PETE WILLIAMS-TEMP OH SWO-NAHIKU RD	143.27				
588	CE022057	SMITH-UG SVC-200 MAUU PL-HAIKU	144.20				
588	CE008353	ZARRO,GENE-25 MOHALA PL-PUK-RTO	144.79				
588	CE009787	DILLON TRUST-KANAIO KALAMA PARK-KUL-RTO	150.91				
588	CE020167	KAPAKU-RVMP OH SVC-842 KUHIO PL	191.42				
588	CE018523	S DOUGLAS,3129 MAPU PL #MH,KIHEI	193.92				
588	CE005976	THEROS,GEORGE-ANUHEA PL-KUL-RTO	194.47				
588	CE012598	H COONEY-OH REVAMP @ 621C HANA HWY, KUAU	204.98				
588	CE021354	MARSTELLER-RELOCATE OH TO UG-HIAHIA ST	208.64				
588	CE016273	GLESNE-OH TO UG CONV-LILIKOI RD-HAIKU	210.29				
588	CE020382	RICHARDSON-ANCHOR RELOC-1072 LAELAE ST	229.27				
588	CE005007	AKELEY,KURT-OMAOPIO RD-KUL-RTO	229.59				
588	CE016635	BORTHWICK MORTUARY LN EXT - HAIKU	229.67				
588	CE021179	M LINDSEY,393 FRONT ST,LAH	234.48				
588	CE018277	KALEHUAWEHE-RELOC.SVC DROP-612 KALAKAUA	242.29				
588	CE007029	AMERON PRIMARY CRUSHER - ENGR	247.68				
588	CE022882	COM DEPT PRKS,KAMAOLE 3, KIHEI	266.71				
588	CE016009	PHILIPPE VISINTINER-POLE RELOCATION	280.05				
588	CE009308	TALLMADGE,LAURA-370 KEKAULIKE AV-#A-KUL-	290.83				
588	CE019550	HAW DRG, TEMP STR LTS @ N KIHEI RD&HPIIL	305.79				
588	CE003073	ANTHONY RODRIGUES-OH COMM SVC-(ENG-AI)	309.03				
588	CE019627	SOH-RMV S/L-KUIHELANI HY-PARK-N-RIDE	327.22				
588	CE005866	THEROS,GEORGE-ANUHEA PL-KUL-RTO	348.11				
588	CE020847	P HART,657 KAAPUNI PL,KI	363.02				
588	CE000396	MATICHYN,NICHOLAS-RELOC POLE-ENG-RT	381.63				
588	CE009089	THOMAS LEEWORTHY-OH LN EXT--LAND	391.89				
588	EE000236	HTCO - Low Power Lines, Design	406.77				
588	CE005918	JOHN GROVER--PERM UG SWO (ENGR-AI)	431.58				
588	CE002035	CARELLO,KATHLEEN-PIIHOLO RD-MAK-RTO	447.30				
588	CE021158	KAONOHI-RVMP OH SVC-KAHAKULOA VALLEY	456.91				

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NARUC	Project/WO No.	Description	2002	2003	2004	2005	2006
588	CE019272	NEXT LVL MRBL & GRANITE 3PH SVC	457.78				
588	EE000171	HTCO JP 80-348, Design	458.20				
588	CE022261	Nellie's Retail Alterations-137 Hana Hy	484.83				
588	CE016440	SCHEEL-OH TO UG CONV-293 WAIEHU BCH RD	485.70				
588	WH779103	HTCO JP 80-336 - INST DIST OH COND/	490.93				
588	CE023857	NEXTEL @ HAIKU MARKETPLACE	493.80				
588	CE016441	FLORES-INST OH TSF-1799 PIIHANA RD	501.30				
588	WH790101	RICHARD TAVARES-SURVEY COST	517.81				
588	CE023146	Celebrites-764 Front St-Lahaina	518.56				
588	CE000554	COLE,ROBERT-TEMP OH SWO-ENG-RTO	520.46				
588	EE001015	3D BLDRS(JOHNSON)-1082 KAHAU PL-MAK	530.84				
588	CE006737	BARRATT DAVID-111 HOOPALUA DR #MH-PUK-RO	662.22				
588	CE016436	P.LEE-RELOCATE OH SVC-1200 MALAIHI RD	693.05				
588	CE017136	A DEANDRADE--CONVERSION @ HAUMANA RD	701.74				
588	CE005417	Haiku Marketplace 23kv Reloc (ckf)	833.81				
588	CE016787	ACKERMAN-OH TO UG CONV-WAIKINA LP-HAIKU	893.25				
588	CE007746	NIEHAUS,DAVID-1630 PIIHOLO RD-MAK-RTO	1,251.00				
588	CE006045	PAIA YOUTH COUNCIL INC.--RELOCATION	1,285.97				
588	CE020505	A WASSON,501 KUPULAU DR,KIHEI	1,311.26				
588	CE001168	MARGARET HECHT-OH SVC-NAELE RD-KULA-RTO	1,322.31				
588	CE019035	P BOLINSKI,226 KEALA PL,KIHEI	1,396.87				
588	EE000737	Kaonohi-Line Relocation (Engr)	1,606.64				
588	WH779111	HTCO JP 80-336 - INST TRANS OH COND	1,648.99				
588	CE000496	MOREY,JOHN-UG LINE EXT-ENG-RTO	2,456.72				
588	EE001588	SYSTEM-RELOC E150 HANA HWY, KUAU	2,473.56				
588	CE019243	Nextel-Pacific Radio Group-311 Ano St	2,627.81				
588	EE000889	Sys - E42 Kahana, Design	2,802.63				
588	WH779190	HTCO JP 80-336 - SYSTEM ENG LABOR	2,867.20				
588	WH779102	HTCO JP 80-336 - INST DIST ANC,GUYS	2,898.37				
588	CE010564	PMCO - I Pump - design (dmo)	3,069.40				
588	EE001525	SYS-REPL POLES @ LONO, KAM & HINA AVE.	3,337.52				
588	CE001615	TALMIDGE,LAURA-370A KEKAULIKE-KUL-ENG-RO	3,373.33				
588	CE018575	ML ISLAND-RELOC OH LINE-E18 ML PRKWY	3,496.39				
588	CE002999	FAUGHT,THOMAS-2927 KALUANUI RD-MAK-RTO	4,257.77				
588	CE002654	FROYAM EDEL-OH LN EXT/TEMP SWO (ENG-AI)	6,028.13				
588	CE001608	COM POLE RELOC-ULUMALU RD. (ENGR)	7,994.87				
588	WH783101	HTCO JP APPL MO 212-INST DIST POLES	8,069.86				
588	WH786190	HTCO JP 80-350 KULA HWY-ENGR DESIGN	8,588.68				
588	CE000171	AMERON QUARRY - TRANSFORMER	16,571.21				
588	WH789190	DIST RECIRC MAKAWAO/PUKALANI-ENGR	28,311.22				
588	CE013618	CE013618 JONES-UG LINE EXT-KALUA KOI RD-LOT 272		16.94			
588	CE014952	GLENN BRUGMAN-OH SVC		39.14			
588	CE027027	STEEL,W-515 PUALANI ST,WKU		39.52			
588	CE026799	G COOK,952 OLIOLI ST,PUK		39.79			
588	CE028043	S GARCIA,10 KAHOA RD,PUKALANI		39.79			
588	CE025953	ML ISLAND-14 PU'U EHU PL LT# 70-2,K		40.30			
588	CE024183	D GRAYDON,L KULA RD LT-1A,KULA		57.90			
588	CE022406	MONACO, L-2106 ULUWEHI ST, WKU		59.13			
588	EE000426	SYS:HTCO JP 70-923 Kahekili Hy CONST		65.00			
588	CE011697	WILSON,DARLENE-20 AI ST-MAK-RTO		76.11			
588	CE011657	PUKOO RESIDENCE-UG LINE EXT-KAM V HWY		79.97			
588	CE022630	LOPEZ-RVMP OH SVC-KOKOMO RD-HAIKU		83.87			
588	CE021516	KEE ENTERPRISES-61 KEE RD-MAK-RTO		85.10			
588	CE019057	SSFM INTERNATIONAL-KULA HY/KEKAULIKE AV-		87.33			
588	CE002909	OSWALD,STEVE-672 OMAOPIO RD-KUL-ENG		91.80			
588	CE024227	AALFS-OH Line Ext-Waikoloa Rd-Hana		96.55			
588	CE025377	KAWASAKI,C-605 KAIKOO ST,WKU		101.72			
588	CE012379	CE012379 LANKFORD-OH LINE EXT-ALAELUA ST-HOOLEHUA		114.29			
588	CE016382	TAVENY-UG EXT-465 HUELO RD-HAIKU		115.59			
588	CE024984	PIIHOLO FARMS SUBD--PIIHOLO RD		117.48			
588	CE027417	J KASPRZYCKI,2599 OLINDA RD,MAKAWAO		119.77			
588	CE023326	J COFFEE,694 U KIMO DR,KULA		124.71			
588	CE017779	POAIPUNI,RUSSELL-KANAIO-KUL-RTO		128.58			

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588	CE018662	RICHARDSON-UG LINE-WAIPUHIA PL-HAIKU		130.55			
588	CE020947	CE020947 PACIFIC RADIO GROUP/ CONSTR		143.89			
588	CE007596	One Wailea/Easements		146.74			
588	CE007597	One Wailea/Constr		160.39			
588	CE024983	PIIHOLO FARMS SUBD--PIIHOLO RD		160.76			
588	CE026105	D BUNZEL,3584 KEKAHI PL #CTG,MAK		162.76			
588	CE025274	C.L.& H.-RVMP OH SVC-38 MELIA PL-PAIA		166.12			
588	CE022165	HOWARD NURSERIES-2301 OMAOPIO RD-KUL		168.32			
588	CE019753	MINATOGAWA,ROY-5080 PULEHU RD-KUL-RTO		173.90			
588	CE024063	K MURRAY,113 LOPAKA PL #CTG,KULA		184.89			
588	CE025814	GEORGE-UG CONV-35 OLUOLUMAU PL-HAIKU		194.46			
588	CE024184	KANALOA AV IMPVMTS E21 LINE CREW INSTALL		206.35			
588	CE023397	D SMITH,2-2-016-118 #CTG,KULA		227.48			
588	CE002033	VOLCANO VEGGIES-649A OMAOPIO RD-KUL		228.39			
588	CE001229	MICHEELSEN,MARTIN-RELOC OH SVC-ENG-		279.74			
588	CE005697	KRAIG KRISTOFFERSON-CONVERSION		295.50			
588	CE026354	LIVING WATERS-OFF MALAIHI RD,WKU		307.25			
588	CE011656	CE011656 COLON-TEMP OH SWO-MAMALU LAI PL-HOOLEHUA		316.18			
588	CE018992	Bastian-OH Est-Ulumau Pl-Paia		323.04			
588	CE005523	PALMIERI,VINCENT-221 KAWEHI PL-KUKL		333.73			
588	CE020725	CE020725 WILLY'S PLACE/ENG'G		335.39			
588	CE022248	CE022248 SIDES CONSTR-OH LINE-HANA HWY-NAHIKU		351.69			
588	CE001003	COM-INST ST LITE-POLE E11-PUK-ENG-R		352.83			
588	CE011791	CE011791 LAHAIANALUNA SHELL/ENG'G		373.47			
588	CE005870	DWYER,DAVID-1674 MAKAWAO AV-MKA-RTO		415.42			
588	CE020946	CE020946 PACIFIC RADIO GROUP/ENG'G		428.15			
588	CE021967	CE021967 Harbor Village (Eng'g)		469.43			
588	CE021876	2259 VINEYARD ST-ENCROACHMENT		501.82			
588	CE023477	REZENTS-EST FOR OH SVC-HAIKU RD-HAIKU		512.73			
588	CE002604	COLE,PATRICIA-66 OHALA PL-KUL-ENG-RTO		560.15			
588	CE014416	JOHNSON,ANTHONY-1082 KEHAU PL#A-MAK-RTO		723.18			
588	CE013983	Dang Residence-4341 Wailina St-Wailea		757.00			
588	CE005572	Ulupalakua Ranch Pole/Line Reloc. D		793.38			
588	CE019515	BRADBURY-RELOC OH LINES-HANA HWY-HANA		865.52			
588	CE001842	Ka'ono'ulu Estates IV Relocation, D		926.78			
588	CE007246	Clarence Perriera-Design		961.64			
588	CE024664	Kihei Akahi Assn-2531 S Kihei Rd-Ki		1,103.12			
588	CE000954	PARKER,STEPHEN-RES OH SEC/SVC-ENG-R		1,130.83			
588	EE002175	HOME MAID BAKERY-REPL. XFMR/SVC		1,150.96			
588	CE018854	Stephen Parker Conversion - Engr		1,246.09			
588	CE007244	Ulumalu Water System-Design		1,343.65			
588	CE026331	Hale Kaanapali Villas-Const Install		1,413.07			
588	CE007564	South Beach Mauka Land		1,469.35			
588	CE026217	Hale Kaanapali Villas-Engineering		1,562.03			
588	EE001985	PALM,BOB-KANAIO RD-KUL		2,832.01			
588	CE024160	KANALOA AV IMPROVEMENTS E21 ENGINEERING		3,759.58			
588	CE002341	South Beach Mauka Engr		4,726.17			
588	CE002673	O-ANN RIDAO-4 LOT SUBD DESIGN		7,920.93			
588	CE007595	One Wailea/Eng'g		8,993.54			
588	CE018949	COM N/S Collector Road Design			2,862.43		
588	CE018664	SOH Kahului Airport Improv Design			4,467.10		
588	CE021653	SOH Kahului Airport Improv Easement			203.82		
588	CE017091	Airport Ind III Offsite Improv Engr			21,051.25		
588	CE020376	SHUTTLEWORTH-UG LINE XT-KEALAKAI PL			7,221.98		
588	CE025881	Waiehu Aina Sub'd/ (ENG'G)			8,506.30		
588	CE000753	COM S KIHEI RD (UPGRADE)-ENGR			14,191.63		
588	CE004590	COM-S KIHEI RD IMPROV/PH4 (ENG'G)			19,137.27		
588	CE015590	ENGR-MICRO GAIA PH-2			2,299.31		
588	CE030718	H'PIILANI REALIGN PH 1A			62.26		
588	CE017777	KITV Repeater Station/ENG'G			5,150.35		
588	CE006703	LAHAINA CENTER #A201			707.87		
588	CE006702	LAHAINA CENTER #A201			998.77		
588	CE025826	AZAR-PERM UG SVC- 280 WAIPIO RD #A-HAIKU			542.29		

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588	CE023592	B MCGUIRE,351 NALANI ST #OHANA,PUK			190.31		
588	CE021484	BISARRA-RELOCATE MTR-412 ONE ST			150.73		
588	CE025137	BURNSTEIN-ASK UG LINE EXT-HOGBACK RD-HKU			247.09		
588	CE025518	CASE-OH 2 UG CONV-565 ULUMALU RD #A			90.11		
588	CE017038	COM S/L-INST ST. LITE-MAHAOLUI ST/KAM AV			78.45		
588	CE023600	DALTON,STUART-KULA HY-KUL-RTO			996.91		
588	CE025110	FINAN,JAMES-75 KEALA PL-KIHEI			3,077.26		
588	CE027184	FOLEY-RELOCATE OH SVC-1 ULALENA LP-HAIKU			417.93		
588	CE024193	GAGNE-RVMP UG SVC-26 HUELO RD			83.84		
588	CE017266	GSE FUEL TANK-UG SVC-KAH AIRPORT			81.36		
588	CE028652	HO,CHRISTINE-226 PUALEI DR #1,LAH			279.58		
588	CE025513	I BROWN,5240 KULA HWY,KULA			1,196.64		
588	CE030141	KEKAHUNA-OH LINE ENCRCHMT-1328 L NAHIKU			701.99		
588	CE024476	L CHONG,268 HAULANI ST #MH,PUK			98.10		
588	CE027684	LUJAN-UG SVC-8 LAUPAPA PL #A-HAIKU			64.39		
588	CE024798	MAMA'S FSH HSE-RVMP UG SVC-41 KAIHOLO PL			136.09		
588	CE025480	N. HOLOKAI RD-ST.LITES-HAIKU			180.26		
588	CE027013	NUESCA-UG EST-HUELO RD			87.51		
588	CE027498	RAAPHORST-UG SVC-157 HOHANI PL-CTG			331.65		
588	CE023526	S DALTON,KULA 2-2-2-001-019 LT-19			171.55		
588	CE026785	SALTER,B-5184 L H'PIILANI HWY,LAH			920.00		
588	CE010205	SIMON,GARY-164 KULA HWY-KUL-RTO			1,526.25		
588	CE027524	STU DALTON,KAMEHAMEIKI PRCL 40,KULA			1,444.86		
588	EE001430	SUBSTN NO 74 HUELO ENGR			5,570.13		
588	CE026157	T MCKINLAY,240 PUKALANI ST,PUK			456.00		
588	CE015260	THACKER,RICHARD-526H(1865)OLINDA RD-MAK			841.97		
588	CE024318	TOWNSEND,NANCY-61 KEE RD-STABLE-MAK			1,338.27		
588	CE029430	villaluz,quirinos-60 piina pl-lt33-lah			334.96		
588	CE025703	W FREDRICKSEN,170 ALIIOLANI ST,PUK			131.15		
588	CE028252	WAILEA FAIRWAY VILLAS-SWIM POOL MTR			895.88		
588	EE002384	Sys-Royal Lahaina AutoSwitch-design				567.47	
588	CE023488	G HAYWOOD, MAUNA PL NEAR E1,KULA				2,001.84	
588	CE018782	KULA MEADOWS-IRRIG CONTROL-PULEHU				2,155.90	
588	CE029954	yates,mark-991 malaihi rd-wku				1,161.18	
588	EE001957	Kaonohi-Line Relocation (Engr)				1,690.23	
588	CE029825	ANCHETA,R JR-3562 KAHEKILI HWY,WKU				2,397.32	
588	CE028663	BLOCK-RVMP UG SVC-1037 MAKALII ST-K				46.41	
588	EE001754	Sys-Reloc E150 (Mama's Fish House)				6,578.83	
588	TD012864	RO005539 RPL E1-30 HAWAIIN CEMENT R				2,795.61	
588	CE024052	Arisumi Bros Dairy Rd,Design				2,110.66	
588	CE022403	HI EXPERIENCE THEATER-824 FRONT ST,				1,124.74	
588	CE023209	ENGLISH,S-AWAIKU ST LT# 19A,LAH				2,443.56	
588	EE001632	SYS-POLE INST-390 MAKANI RD-MAK				1,352.00	
588	CE031739	BETSILL WELL PUMP KAMALII ALAYNA (E				1,268.10	
588	CE017871	WAILEA CABLE HUB				2,258.40	
588	CE023046	SYS-REPLACE LEANING POLE(P. MEDEIRO				1,100.10	
588	CE017580	Stream Resources, Design				1,432.38	
588	FI000414	CIRILO CORPUZ (ENG) CKF					29.14
588	CE016147	COM Garage B'yard-Kaohu St-Wku					1,104.42
588	CE031887	ED ROBINSON DIVING ADVENTURES					675.02
588	CE020052	HAIKU MKTPL RELC POLE					2,376.43
588	CE027265	HANA RANCH CO REPL TRANSFORMERS (E					2,352.64
588	CE030345	HANA RANCH PARTNERS LLC (ENGINEERIN					2,390.52
588	CE026940	HAWAII EXPERIENCE (ENG.)					549.01
588	CE008263	Kahului Airport Fuel Storage (ENG)					2,867.58
588	FI000413	NAGASAKO FISH MRKT (ENG) CKF					748.51
588	CE013052	WENDY WALSH OH TO UG CONVERSION					5,357.48
588	CE026341	BILLABONG (ENGINEERING)					300.96
588	CE032307	CAROL JUNG (UNIT F5)					180.32
588	CE017204	First Hawaiian Bank-644 Lanai Av					1,267.22
588	CE031399	HOT ISLAND GLASS (ENG.)					1,409.86
588	CE031416	HOT ISLAND GLASS (SERVICE CREW)					204.70
588	CE030527	LAHAINA INN (SERVICE CREW)					73.90

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588	CE030520	LAHAINA INN-AC UNITS (ENGINEERING)					815.64
588	CE015461	Martin Nunez-Central Maui Baseyard-					343.42
588	CE014458	Maui Ind Met Fab-Mokulele Hy-Puunen					587.53
588	CE028844	Maui Temp Jet-A Fuel Facility-Kahul					484.76
588	CE019284	Maui Trading Co-Kula Hy-Kula					388.73
588	CE030508	WAILUKU AGRIBUSINESS					279.54
588	CE013804	KAAHANUI-OH TO UG-FARRINGTON AVE					60.76
588	CE031976	EMMETT & RENETTE RODRIGUES					147.26
588	CE031347	GREENSPON-OH LINE EXT-HANA HWY-HANA					2,263.28
588	CE021020	EKO Composting-Design					5,986.48
588	CE029919	GARCIA-POLE RELOCATION-ESTIMATE					3,885.55
588	CE029138	HAWAIIAN RESEARCH OFFICE					1,120.86
588	CE020764	HENRY D KAONA-24 PAUHANA RD					2,064.02
588	CE021291	KAPALUA VENTURES LLC-1 KAPALUA PL					1,993.83
588	CE027725	M WATKINS,321 WAIPOLI RD,KULA					1,113.38
588	CE023316	MAIO JR,H-82 L WAIEHU BEACH RD,WKU					1,016.63
588	CE029763	B KUNDELATSCH,CALASA RD,KULA					4,796.13
588	CE021788	KIOWEA PARK PAVILLION, MOLOKAI					5,572.20
588	CE032600	Hauoli St Pole Relocation					343.30
588	CE033296	MILLERWATTS TEMP, KAH AIRPORT					171.36
588	CE032834	C BEIGEL 65 HOKAI PL,KIHEI-OH SVC					650.52
588	EE001763	Sys-Reloc E150 (Mama's Fish Hse) E					67.13
588	CE029831	AKINAKA-OH LINE EXT-HONOPOU RD-HAIK					64.22
588	CE026469	BAILEY-UG RVMP-2024 W.LELEHUNA ST-H					58.27
588	CE025586	BAILEY-UG RVMP-2024 W.LELEHUNA ST-H					136.38
588	CE028453	BARGER-900 E. KUIAHA RD-HAIKU					233.98
588	CE028333	BARR-OH RVMP-333 WAIPALANI RD-HAIKU					58.07
588	CE024800	BEASOM-OH TO UG CONV-2520 POLOLEI P					407.89
588	CE028240	BELL-RVMP UG SVC-1210 W.KUIAHA RD-H					96.67
588	CE017259	BERMAN-OH LINE EXT-HIKIAU RD-HAIKU					398.82
588	CE021439	BIGELOW-REVAMP UG-ALOHIA PL-HAIKU					37.64
588	CE030011	CARROLL-RELOCATE STUBB POLE-5090 HA					429.70
588	CE030045	CARROLL-RELOCATE STUBB POLE-5090 HAN HWY					12.50
588	CE023803	CRAVALHO-OH LINE EXT/SVC-1811 KAUPA					204.81
588	CE001198	DAVID SALEME-OH LN EXT (ENG)					2,182.88
588	CE029026	DELANEY-OH RVMP-85 PALEKANA ST-PAIA					19.92
588	CE031432	DIEHL-OH LINE EXT-65 AKAHAI ST-HAIKU					87.92
588	CE030912	DIEHL-OH LINE EXT-65 AKAHAI ST-HAIKU					2,649.61
588	CE028835	DOSLAND-PERM UG SVC-HUELO RD-HAIKU					117.97
588	CE029032	ESTRELLA-RELOCATE GUY-901 LWR HOGBA					59.73
588	CE027336	FAULKNER-OH LINE EXT-1060 HANA HY-NAHIKU					637.26
588	CE029340	GODWIN-OH 2 UG CONV-520 KAHUA PL-PA					99.56
588	CE022525	HANA HOU CAFE-OH REVAMP-HAIKU RD-HA					207.63
588	CE026665	HOEHN-ESTIMATE-BURNS RD-HAIKU					2,014.42
588	CE029341	ISHIMINE-TMP UG SVC-1641 W. KUIAHA					123.81
588	CE018994	IWAMKIW-OH SVC-ULALENA LOOP-HAIKU					671.70
588	CE028662	JACOBS-RVMP OH SVC-34 AKONI PL-PAIA					39.17
588	CE023035	KLEMME-OH 2 UG CONV-20 N LANIKAI PL					113.08
588	CE023781	KNOX-UG LINE EXT-OFF HANA HY-KAILUA					550.75
588	CE024141	KOOLAU PROP.-UG SVC-27 LAE PL-PAIA					114.09
588	CE025278	LAPOW-OH LINE EXT-2560 KOKOMO RD-HA					175.10
588	CE018446	LEONARD KEITH--UG LINE EXT					89.04
588	CE020758	LINDSEY-UG SVC-HOHANI PL-LOT 14-HAI					75.26
588	CE029129	LITZ-UG SVC-4544 HANA HWY-HAIKU					188.07
588	CE029134	MANALO-UG SVC-KANE RD-LT 8-HAIKU					19.99
588	CE031078	MAUISCAPE HELICOPTERS-KAHULUI AIRPORT					153.59
588	CE030967	MAUISCAPE HELI-OH SVC-KAHULUI AIRPORT					875.42
588	CE024575	PASION-TEMP OH SVC-4320 HANA HWY-HAIKU					147.23
588	CE029446	PERREIRA-RVMP UG SVC-2994 KAILILI R					59.75
588	CE032896	R NIMS-PM TSF & SVC-MAUNAOLU SUBD-LT11					484.41
588	CE028175	RIGLER-UG LINE EXT-58 OHE'ALA PL-MA					311.91
588	CE028237	SCHUELLER-OH LINE EXT-HANA					502.39
588	CE022937	SELF-OH TO UG CONV-535 KAHUA PL-PAI					376.14

MAUI ELECTRIC COMPANY, LTD.
ABANDONED PROJECT COSTS
RECORDED DATA FOR 2002 THROUGH 2006
($)

NARUC	Project/WO No.	Description	2002	2003	2004	2005	2006
588	CE016224	ST. JOHN-OH SVC-KOKOMO RD-HAIKU					329.70
588	CE031901	SUCK 'EM UP PUMPING, CENTRAL MAUI BSYD					200.65
588	CE028539	SUSTAINABLE FISHERIES HAWAII-HANA					155.87
588	CE027202	SYKOS-OH SWO-HANA HWY MM28-NAHIKU					77.73
588	CE033243	SYS-ALEIKI PL-ADD TSF-POLE E8-KUAU					708.63
588	CE022687	TORRANCE-UPGRD SVC-4200 ALLKOA PL					79.77
588	CE023464	WILLIAMS-UG LINE EXT-29 ULALENA LP-					458.55
588	CE026163	WILTZ-MOVE TMP-165 HOHANI PL-CTG-HA					97.09
588	CE023665	WILTZ-MOVE TMP-165 HOHANI PL-CTG-HA					148.94
588	CE027911	WINN-OH RVMP-3911 LEPO ST-HAIKU					135.43
588	CE024382	4TH MARINE MEMORIAL PARK TENNIS COU					757.39
588	CE031067	GETTE,T-HOLOWAI PL,WKU					236.48
588	CE028980	GETTE,T-HOLOWAI PL,WKU					1,769.20
588	CE020053	HAWAII JOB CORP CUL. ARTS BLDG-IKE					3,419.47
588	CE021419	John Varel-Kahekili Hy-Wailuku					2,686.61
588	CE031669	MICHAEL ROSA, 339 LELEIHOKU ST					1,032.74
588	CE027607	PO'OKELA CHURCH MULTI PURP BLDG.					2,277.35
588	CE030171	R ROCK,PULEHU RD KULA MEADOWS LT-8					4,685.82
588	CE021843	TNT Office Bldg-1865 Wili Pa Lp-Wai					941.89
588	CE027921	young bros-kaumalapau harbor-lanai					868.04
588	CE033760	COM DEPT OF PARKS & REC, KIHEI BASEYARD					167.08
588	CE033759	COM DEPT OF PARKS & REC, KIHEI BASEYARD					172.96
588	CE028689	M.FLOWER GROWERS ASSOC-OH LINE EXT-HANA					1,725.44
588	CE033659	MAUI AINA CO LLC, RELOCATE OH LINE					323.00
588	CE028449	A&B PROPERTIES-RVMP UG SVC-MAUI MALL #C4					135.75
588	CE030017	b kundelatsch,calasa rd 2-2-015-013,kula					325.46
588	CE024450	B LANE,1255 LO KULA DR,KULA					865.14
588	CE031377	BASKIN-OH 2 UG CNOV-27 HOLO PL-PAIA					699.94
588	CE031165	BASKIN-OH 2 UG CNOV-27 HOLO PL-PAIA					2,184.79
588	CE032644	FAULKNER-RELOCATE POLE-KAHIAPO RD-HAIKU					999.61
588	CE031616	FAULKNER-RELOCATE POLE-KAHIAPO RD-HAIKU					1,400.48
588	CE026520	KAILIEHU BARN--HANAMU RD					1,075.29
		Sub-Total Maui Distribution Abandoned Projects	141,641.99	54,110.73	109,523.85	32,484.73	102,469.06
Sub-total Maui Abandoned Projects			**145,292.00**	**54,110.73**	**130,823.07**	**32,484.73**	**125,064.53**
588M	CE004772	MOLOKAI BAPTIST CHURCH--REVAMP		1,425.87			
588M	CE026062	KE ALII KAI S/D #LOT 47 TEMP SVC		554.13			
588M	CE015014	YOUNG-OH LINE EXT-KAM V HWY-KAUNAKAKAI		159.39			
588M	CE024550	KUALAPUU ELEMENTARY-TEMP OH-FARR AVE		449.69			
588M	CE019002	Potable Water Well 17 Site				25,479.32	
588M	EE000391	SYS-REPLACE LEANING POLE(P. MEDEIROS)				5,807.12	
588M	CE021060	MOL-MENDIJA-RVMP OH SVC-280 KALOHI	94.83				
588M	EE000698	ENGR-KAUNAKAKAI TOWN CONVER PH 2		13,033.24			
588M	EE000537	SYS:HTCO JP MO-187 ENG		169.21			
588M	EE000556	SYS:HTCO JP MO-194 CONSTR		148.13			
588M	CE032673	Brown's Trucking Temp Relocation					3,633.45
		Sub-Total Molokai Distribution Abandoned Projects	94.83	15,939.66	-	31,286.44	3,633.45
Sub-total Molokai Abandoned Projects			**94.83**	**15,939.66**	**-**	**31,286.44**	**3,633.45**
Total Abandoned Projects Costs			**145,463.28**	**70,816.28**	**139,018.30**	**64,184.01**	**128,697.98**

MAUI ELECTRIC COMPANY, LTD.
ABANDONED PROJECT COSTS

Project / Work Order	Description	Abandoned Costs	Project Description	Explanation for Abandonment
EE002637 EE002638	PMCo Easement Relocation Clause-Eng'g PMCo Easement Relocation Clause-Land	4,727.16 17,868.31	This project was created to address one-time relocation clauses in certain transmission line easement agreements under which the Company could at some point be required to relocate its lines. See Attachment 3 for a copy of the related PIF.	The decision was made to abandon this project when it became evident that rising property values made the project too costly to pursue at that time. MECO would address relocation of the line or the pursuit of amending easement when approached by the land owner. At that time, we would make a determination which approach would be most economical.
CE000171	AMERON PRIMARY CRUSHER- ENGR AMERON QUARRY - TRANSFORMER	247.68 16,571.21	This project was created to addresss a customer's request for electrical service to Ameron's primary rock crusher. The rock crusher was then currently powered on a generator with an estimated then remaining life span of 6 months.	After months of inquiries by MECO personnel as to the status of this project and the customer's request, and receiving no response from Ameron, the project was abandoned.
WH789190	DIST RECIRC MAKAWAO/PUKALANI-ENGR	28,311.22	This project was created to address re-circuiting of MECO's distribution lines in the Upcountry area, which included an initial investigation and planning of the system design.	After making improvements to the system by other means, MECO decided to abandon this project.
CE017091	Airport Ind III Offsite Improv Engr	21,051.25	This project was created in response to a customer's request to convert the existing overhead lines to underground.	MECO completed it's design and sent a proposal to the customer outlining the conversion requirements. Due to inactivity by the customer, MECO inquired on the project status and found that the customer did not have funding and, in addition, lost their prospective buyer for one of the lots. As such, the project was abandoned by the customer.
CE000753 CE004590	COM S KIHEI RD (UPGRADE)-ENGR COM-S KIHEI RD IMPROV/PH4 (ENG'G)	14,191.63 19,137.27	This project was created pursuant to a Utility Agreement executed with the County of Maui for a road improvement project on South Kihei Road.	MECO waited for the NTP (Notice to Proceed) from the County which did not materialize. After several years of inactivity and not receiving the NTP due to the County's lack of funding source, MECO decided to abandon the project until funding becomes available. To date the County has not received funding to reactivate this project.
CE019002	Potable Water Well 17 Site	25,479.32	This project was requested by the customer to rebuild the old well site. To accomplish this, the first phase of the project required MECO to remove its existing lines and the service to the old well. Also, part of Phase 1 was to relocate the power line along the new roadway built by the customer. The customer has not completed the 2nd phase of the project which would be the service installation to the new well equipment.	After several years of inactivity, the customer was contacted to get an update on the status of their construction. MECO was notified by the customer that funding for the project was not available. The customer also indicated that they did not have any timeframe of when this project would resume. Therefore, this project was abandoned.
EE000698	ENGR-KAUNAKAKAI TOWN CONVER PH 2	13,033.24	This project was created for the purpose of upgrading the primary voltage from 2.4kV to 12kV in Kaunakakai Town.	Due to lower demand on the system, the need to convert the primary voltage became unnecessary and the project was abandoned.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Project Title: PMCo Esmt Reloc Clause

Project Number: M0000354
(Permanent)

Stategic Plan Linkage: 1E - Reliability
(Primary)

Plant Addition Date: 2006-01

Commitment Date: 2005-08

Primary Corporate Goal: SAIF

Impact on Goal: High

Project Forecast (Thousand $)

(Attach the "PR9105-P: For PIF" report obtained from the estimators' Pillar file.)

Prior Years	2005	2006	2007	2008	2009	Future Years	Total
$0	$85	$0	$0	$0	$0	$0	$85

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	15	0	0	12	72

Purpose/Objectives:

To determine the feasibility for a "buy out" of the "one-time relocation clause" as stated in our perpetual easement document for our Lahaina #1 and #2 69kV transmission lines.

Scope Description:

MECO will contract Legal services to provide an appraisal of the real estate encumbered by our facilities, develop the cost factors associated with a "buy out" as compared to a one-time relocation and advise us of the most prudent course of action.

This NP project is currently estimated at a total cost of $85,410.74 and projected for 2005 only.

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Resource Needs:

WLTC = 100 hours
WPDENR = 24 hours
WPSUPV = 40 hours
Outside Legal Services=$75,700

Justification:

Much of this land traversed by our transmission lines has been sold to developers who have retained the right to exercise the "one-time relocation clause" as stated in the easement documents. These developers are individually approaching MECO with their relocation requests in support of their projects which may ultimately be more costly to our Company in comparison to a "buy out".

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

With the currently high land values on our real estate, this study will allow us to compare relocation costs against land values. Per preliminary legal advice, the "buy out" should be done in phases. The phases will be by major land ownership; the first being PMCO (Pioneer Mill Company).

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

Contributions:

Contributions in aid of construction (CIAC):

- **In Kind** NONE

- **In Cash** NONE

Cash Advance NONE

Cost Sharing
(under HECO Policy UG Lines, October 2000)

NONE

Other type of payment (cash, non-cash) by outside party

NONE

PROJECT IDENTIFICATION FORM - AUTHORIZE PROJECT

The Project identified below has already been established in MIMS

PUC Approved: ○ Approval Required ● Not Required

○ Approved, Date of Decision & Order: - - Docket Number:

○ Awaiting PUC Approval, Application Filed - -

Authorization for: ☐ Engineering ☐ Materials ☐ Construction

Approval Option: Authorize expenditures that are budgeted

Submitted by: Bernadette Johnson **Phone/Ext #:** 2369

Originator's Name: Greg Kauhi

Responsible Estimator: Greg Kauhi
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: B. Johnson

Date: 08/08/2005

Required Approvals to Initialize a Project:

N/A
Responsible Manager **Date**

N/A
MECO President **Date**

Required Approvals to Authorize a Project:

8/11/05

8/16/05
Responsible Manager **Date**

8/18/05

N/A
VP, Government and Community Affairs **Date**
(not required if PUC approval is obtained)

8/22/05

8/
MECO Accounting Manager **Date**

Edward J. Reidmuller 8/22/05
MECO President **Date**

8/8/2005 *PIA/VIEW: Total Proj $> PMCo Esmt 8:21AM

*Project #	Project	*In...	*R...	*Ac...	*Lo...	*E...	*Labor Class #	Line item	FY06	Total 5 Yea...
M0000354	PMCo Esmt Reloc Clause	*	*	*	*	406		Corp Adm OH M0000354	184.00 $3.76 $616.64	$616.64
M0000354	PMCo Esmt Reloc Clause	*	*	*	*	407		Cust Install OHM0000354	24.00 $32.96 $791.04	$791.04
M0000354	PMCo Esmt Reloc Clause	*	*	*	*	421		NPW OH M0000354	164.00 $4.38 $718.32	$718.32
M0000354	PMCo Esmt Reloc Clause	*	*	*	*	422		Empl Benefits OHM0000354	164.00 $8.74 $1,433.36	$1,433.36
M0000354	PMCo Esmt Reloc Clause	*	*	*	*	423		PR Tax OH M0000354	5,655.92 $0.08760 $495.46	$495.46
M0000354	PMCo Esmt Reloc Clause	NP	MWL	928	MAU	150	WLTC	PMCo Esmt Reloc Clause- - Land Agent	100.00 $31.06 $3,106.00	$3,106.00
M0000354	PMCo Esmt Reloc Clause	NP	MWP	302	MAU	150	WPDENR	PMCo Esmt Reloc Clause-- Engr Designer	24.00 $38.38 $921.12	$921.12
M0000354	PMCo Esmt Reloc Clause	NP	MWP	302	MAU	150	WPSUPV	PMCo Esmt Reloc Clause-- Engr Supv	40.00 $40.72 $1,628.80	$1,628.80
M0000354	PMCo Esmt Reloc Clause	NP	MWP	925	MAU	570		PMCo Esmt Reloc Clause- - O/S Legal	75,700.00 $1 $75,700.00	$75,700.00
									$85,410.74	$85,410.74

CA-IR-364

Ref: MECO-917 (EEI Lobbying Expenses).
MECO-917 proposes the exclusion of 25% of the Company's EEI membership dues for regular activities and 70% of the SFA Industry Structure Assessment as estimated lobbying expense. Please provide the following:

a. Please confirm that HECO's direct filing (see HECO-1304, page 5) in Docket No. 2006-0386 proposed the same 25%/70% lobbying exclusions set forth on MECO-917. If this cannot be confirmed, please explain.

b. Please confirm that for settlement purposes in Docket No. 2006-0386 HECO proposed to increase the exclusion of EEI membership dues for regular activities from 25% to 40%, as set forth in the following table. If this cannot be confirmed, please explain.

NARUC Operating Expense Category	Dues %
Legislative Advocacy	20.39%
Legislative Policy Research	5.34%
Advertising	1.29%
Marketing	3.94%
Public Relations	8.81%
Total Excluded Expenses	39.77%

MECO Response:

a. Yes. This confirms that HECO's direct filing (HECO-1304, page 5) in Docket No. 2006-0386 proposed the same 25% and 70% lobbying exclusions that are shown in MECO-917.

b. Yes. This confirms that for settlement purposes in Docket No. 2006-0386 HECO proposed to increase the lobbying exclusion of EEI membership dues for regular activities from 25% to 40% as indicated in the table above. As stated in the settlement agreement between HECO, the Consumer Advocate and the Department of Defense, dated September 5, 2007 (and filed September 6, 2007) in Docket No. 2006-0386, "[t]he agreements set forth in Exhibit 1 are for the purpose of simplifying and expediting this proceeding, and represent a negotiated compromise of the matters agreed upon, and do not constitute an admission by any party with respect to any of the matters agreed upon herein. The Parties expressly reserve their right to take different positions regarding the matters agreed to herein in other proceedings."

CA-IR-365

Ref: MECO-918 & response to CA-IR-156 (Research & Development).

MECO-918, as updated by the response to CA-IR-156 (page 14), compares the amount of R&D expense (Account 9302) included in the 2007 forecast test year with historical levels. Please provide the following:

a. For each program listed on MECO-918 and any new R&D programs not identified on MECO-918, please provide actual monthly expenditures in 2007, by NARUC account.

b. Referring to MECO-918 and the response to part (a) above, please provide a detailed description of each identified R&D program.

c. According to MECO-918, the Company has included $497,737 of R&D expense (including EPRI) in the 2007 rate case test year.

   1. Does this amount reflect all R&D program costs the Company has proposed to include in test year expense?

   2. If not, please provide the following:

      (a) identify each additional R&D program;

      (b) a detailed description of each program or provide a pinpoint reference to the portion of the MECO witness testimony that contains such description; and

      (c) a listing of the related test year amount by R&D program (by NARUC account).

MECO Response:

a. Please see Attachment A to this response for the requested information.

b. In addition to providing cost estimates for projects/programs included in the test year, MECO-918 also included recorded cost data for projects/programs that were completed in prior years. MECO's understanding of the instant information request is that the Consumer Advocate is seeking descriptions of the projects/programs with 2007 expenditures (and not the ones that were completed in prior years). Attachment B to this response was prepared on the basis of this understanding. In addition to describing the projects/programs with actual expenditures in 2007, Attachment B also provides descriptions for projects/programs with test year 2007 estimates as well as for new R&D projects/programs not identified on

MECO-918. Please note that the projects/programs listed on Attachment B are generally consistent with the objectives identified in MECO's proposed IRP-3 action plans (Docket No. 04-0077, MECO Integrated Resource Plan), such as the pursuit of potential renewable energy projects, facilitating the development of emerging renewable energy technologies and the evaluation of programs designed for customer-sited photovoltaics.

c. The $497,737 test year estimate shown on MECO-918 was revised to $490,537 with the MECO T-9 June 2007 Update filed with the Commission on July 10, 2007. The updated test year estimate of $490,537 represents all of the R&D costs that the Company has included in its test year expenses.

MAUI ELECTRIC COMPANY, LIMITED
Total Monthly Recorded Charges to Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE

	Actuals							YTD July	Test Year 2007 Updated
	Jan	Feb	Mar	Apr	May	Jun	Jul	2007	June 2007
EPRI Dues	18,511	18,511	18,511	18,511	19,420	19,419	19,420	132,303	222,200
Local Research & Development:									
Sun Power for Schools								-	95,879
Photovoltaic/Solar Park								-	-
BIPV demonstration								-	-
Biodiesel feasibility assessment								-	-
Hawaii Energy Test Lab	481							481	-
Electronic shock absorber								-	-
Lanai pumped storage								-	-
CHP phase 1								-	-
Solar air conditioning								-	80,000
Photovoltaic County grant								-	25,000
Power Quality Technologies								-	29,500
Advanced HVAC Systems								-	25,000
Other projects to be determined								-	-
Sub-total local R&D	481	-	-	-	-	-	-	481	255,379
Other:									
Others (primarily labor & on costs)			109	(724)	116	682		183	12,958
Coding error - should be charged to account 902							77	- 77	
Sub-total other	-	-	109	(724)	116	682	77	260	12,958
Total	18,992	18,511	18,620	17,787	19,536	20,101	19,497	133,044	490,537

CA-IR-365
DOCKET NO. 2006-0387
ATTACHMENT A
PAGE 1 OF 1

MAUI ELECTRIC COMPANY, LTD.
Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT PROJECT DESCRIPTIONS

A. PROJECTS IDENTIFIED ON ATTACHMENT A:

Sun Power for Schools:
The Sun Power for Schools is a Green Pricing Program which promotes the concept of photovoltaic (PV) systems as an alternative to the use of conventional fuels for generating electricity. The program forms a three-way partnership between the HECO utilities, the State of Hawaii Department of Education (DOE), and MECO's customers. The funds collected from voluntary contributions from MECO's customers are used to purchase materials for the installation of photovoltaic systems in the public schools within Maui County. MECO's research and development funds are used for the balance of the installation costs. The systems installed under the Sun Power for Schools program complement the PV projects installed under legislative action by Act 96.

Hawaii Energy Test Lab
In partnership with Maui Community College, MECO used the Hawaii Energy Test Lab at the Community College to perform scientific validations of potential solar water heating design improvements. The goal of this project was to perform simulations and tests to optimize the solar water heating system design and/or operational parameters. The results are to be disseminated to the Hawaii solar industry and the public. When applicable, changes to existing utility standards and specifications would also be proposed. Examples of design and operational improvement possibilities include: systems with tank sizes with more than one day's storage, prohibiting some tank plumbing designs, verifying the off orientation performance tables, changing the check valve location, collector water flow rates, active and passive system comparisons, and temperature limiting methods.

Solar Air Conditioning:
MECO is working with the Maui High Performance Computing Center (MHPCC) in Kihei to evaluate the possibility of installing a solar absorption cooling system. The project would be designed to include enough solar panels to provide power to a 30 ton single-stage absorption chiller to supplement cooling for their new building. The Commercial Account Manager for MHPCC is working with a local contractor to determine pricing for such a system.

Photovoltaic County grant:
MECO is in discussions with the County of Maui's Office of Economic Development, Maui Community College, Maui Economic Opportunity and solar contractors to collaborate on a project that increases the use of renewable energy in Maui County by installing PV systems on customers' homes. The project objectives are to a) spur development and growth in the fledging solar electric industry; b) establish internships for our local students by offering training through apprenticeships with the solar contractors; c) assist seniors and low income households to stabilize their energy payments in the near term and nearly eliminate them in the long term and

d) encourage the use of an emerging renewable energy resource. The cost of the PV systems would be provided by the County grant. The $25,000 in MECO's research and development budget will be used to hire a consultant to manage the project.

Power Quality Technologies
MECO's Commercial Account Managers work with MECO's Engineering Department to respond to a significant number of commercial customer complaints related to the failure of equipment to operate properly as a result of power disturbances; many of these are attributable to momentary disturbances that may be mitigated by devices that can provide some level of voltage ride-through. MECO works with such customers to evaluate possible electro technology solutions such as written-pole and flywheel premium power technologies that have been installed at other commercial facilities. By demonstrating a premium power solution, MECO hopes to provide a pathway for increased reliability of the customers' facilities while minimizing complaints of poor utility power quality.

Advanced Heating Ventilation Air Conditioning (HVAC) Systems
Electric chillers are installed at the facilities of the majority of MECO's large commercial customers. There are new energy efficient air conditioning technologies which are planned to be explored and installed at major customer sites to help them reduce their electricity bills while reducing demand on the electrical system. Examples of possible projects include: frictionless compressor technology (FCT), and Demand Control Ventilation (DCV) technology.

B. PROJECTS NOT IDENTIFIED ON ATTACHMENT A BUT IDENTIFIED FOR POTENTIAL 2007 INSTALLATION

Small-scale Wind Power:
MECO plans to partially fund a 6 kW wind turbine project at the Maui Ocean Center. The system will be made up of six 1 kW turbines manufactured and supplied by Aerovironment. These turbines are the first of their kind, harvesting the energy in the wind as it accelerates over the roofline on windward facing façades.

Scotopically Enhanced Lighting:
MECO plans to work with the Electric Power Research Institute (EPRI) and the Sheraton Maui Resort to test out the concept of scotopically enhanced lighting. The concept underlying this technology indicates that scotopically enhanced lighting can provide more visible lumens than a system that provides the same or more catalog lumens. Essentially, the whiter the light source, the brighter the light appears to the human eye. This allows for a correctly designed 2-lamp fluorescent system to outperform a 4-lamp system, providing substantial energy savings to the customer.

CA-IR-366

Ref: MECO-918 & response to CA-IR-156 (Research & Development).

Referring to the historical comparison of R&D program costs set forth on MECO-918, please provide the following:

a. Please explain why total R&D expense (including EPRI dues) was negative during 2006.

b. Please provide the amount of R&D expense recognized in the test year forecast in MECO's last rate case.

c. In the event that the Commission were to allow ratemaking recovery of all (or part) of the $497,737 R&D program expense set forth on MECO-918, would the Company commit to annually fund R&D programs in an amount at least equal to the amount allowed in rates during the effective period of the rates resulting from the pending rate case? If not, please explain.

MECO Response:

a. The total R&D expense recorded in Account No. 9302 was negative for 2006 due to lower EPRI dues expense as a result of MECO's decision to not renew its membership in 2006, together with reimbursements recorded from EPRI, and Sun Power for Schools contributions. MECO's decision to not renew its EPRI membership in 2006 was discussed in MECO T-9, page 69, beginning on line 4. EPRI reimbursements received in 2006 included $39,000 for the Hawaii Energy Test Lab, $38,500 for the Lanai Pumped Storage project, and $7,600 for the BIPV (building integrated photovoltaic) demonstration project. Sun Power for Schools contributions amounted to $8,300 for 2006.

b. As indicated in amended Decision and Order No. 16922, April 6, 1999, Docket No. 97-0346, which was MECO's last rate case, the total R&D expense included in the 1999 test year was $234,600, including EPRI dues.

c. The Commission determines an overall level of revenue requirement for a given test year as opposed to mandating that specific amounts be spent for each specific cost item. Actual

costs may be higher or lower than test year estimates for specific cost items, at times due to management's need to alter operating plans based on existing conditions. Further, the costs of a particular program or project may vary from year to year depending on the activities implemented in a particular year. While management currently intends to generally fund future year R&D activities at the test year level of expenditures, future conditions may result in actual expenditure levels in each year being more or less than the test year estimate of R&D program costs included in the test year revenue requirement approved in the Commission's Decision and Order in this docket.

CA-IR-367

Ref: Ref: MECO-918 & response to CA-IR-2 (Research & Development).

Referring to Attachment A (pages 5 and 10) of the response to CA-IR-2, MECO T-9 provides a listing of Direct Non-Labor amounts included in the 2007 test year forecast, with reference to additional supporting documentation. For the $257,879 of non-EPRI R&D program costs set forth on Attachment A (Activity 731, Develop and Demonstrate New Technology), MECO T-9 refers to supporting information to be provided by MECO witnesses T-6 ($255,379) and T-7 ($2,500). Please provide the following:

a. Please provide a pinpoint reference to the specific documentation supplied by MECO T-6 and MECO T-7 to support the 2007 test year forecast of R&D program costs included in Account 9302. If no such workpapers have been supplied, please so state.

b. Referring to the response to part (a) above, please provide forecast documentation for the non-EPRI R&D program costs.

MECO Response:

a. MECO's response to CA-IR-369 includes a revised Attachment A to the MECO T-9 response to CA-IR-2. The revisions provided in the response to CA-IR-369 include the pinpoint references requested herein. To clarify, for the non-EPRI R&D program costs set forth on Attachment A of the MECO T-9 response to CA-IR-2, the supporting documentation for the $255,379 amount was provided by the witness for MECO T-8, not the witness for MECO T-6. Likewise, the forecast documentation for the $2,500 amount identified above was provided by the witness for MECO T-6, not the witness for MECO T-7.

b. Please see the response to part a. above.

CA-IR-368

Ref: MECO-918 & response to CA-IR-265 (R&D Green Pricing Program & Sun Power for Schools).

MECO's response to CA-IR-265 indicates that the 2007 test year forecast (MECO-918) inadvertently failed to reflect a credit or offset for estimated voluntary contributions expected to be received during the test year and that the Sun Power for Schools forecast should be reduced by $8,000. Please provide the following:

a. Please confirm this understanding. If this cannot be confirmed, please explain.
b. Referring to MECO-918 (updated by the response provided to CA-IR-156, page 14), MECO has recorded "negative" R&D program costs for the Sun Power for Schools program in 2004, 2005 and 2006. Why is the expense amount negative for this program in these years? Please explain.
c. Please provide MECO's total expenditures, before credits or offsets, for the Sun Power for Schools program for each year during the period 2001-2006.
d. Based on the historical information set forth on MECO-918, please provide a detailed explanation supporting MECO's proposal to recover from ratepayers significantly more costs for the Sun Power for Schools program via the 2007 test year forecast than in all years during the 2001-2006.

MECO Response:

a. Yes. MECO confirms that its response to CA-IR-265 indicated that the 2007 test year estimate shown in MECO-918 for research and development expense inadvertently failed to reflect a credit or offset for estimated voluntary contributions expected to be received during the test year and that the Sun Power for Schools estimate of $95,900 should be reduced by $8,000.

b. MECO-918, which was updated to provide 2006 recorded data in MECO's response to CA-IR-156, page 14, presents negative amounts for the Sun Power for Schools program for the years 2004, 2005 and 2006. As explained in MECO's response to CA-IR-265, voluntary contributions are initially recorded to a liability account. On an annual basis, MECO's Accounting Department records a journal entry to the liability account and to credit or offset research and development expenses associated with Sun Power for Schools installations. The amounts for the Sun Power for Schools program for the years 2004, 2005 and 2006

shown on the updated MECO-918 are negative because the amount of credits or offsets for voluntary contributions recorded in MECO's general ledger for those years exceeded the amount of costs incurred.

c. The requested information is provided in Attachment 1 to this response.

d. As shown in the updated MECO-918, the Company's test year 2007 estimate for the Sun Power for Schools program is $95,900. As explained in MECO's response to CA-IR-265, a correction to decrease the test year 2007 estimate by $8,000 would be required to properly include the credit or offset for estimated voluntary contributions expected to be received in the test year. The test year 2007 estimate is higher than the recorded amounts in the years 2001 through 2006 because the number of installations assumed for the test year 2007 estimate (i.e. two) is generally higher than in each of the preceding years from 2001 through 2006. In addition, a higher cost per installation was assumed for the test year 2007 estimate, due to expected higher outside services costs than what MECO had incurred for previous installations. The expected higher outside services costs for the test year are consistent with the level of costs incurred for the recent building integrated photovoltaic (BIPV) system installed at Lanai High and Elementary School as well as with the assumption of no receipts of Utility PhotoVoltaic Group (UPVG) cost-sharing funds which MECO had received for similar projects in the past. The costs for the Lanai High and Elementary School BIPV project were incurred during 2004 and 2005 and totaled about $81,000 after EPRI reimbursements. The costs for this project were charged to Account No. 9302L and were not included in MECO-918, which presents Research and Development expense for Maui Division only. In addition, for previous Sun Power for Schools projects, MECO received UPVG cost-sharing funds ranging around $15,000 to $17,000, which reduced MECO's recorded Research and Development expense for the Sun Power for Schools program.

MAUI ELECTRIC COMPANY, LTD.
SUN POWER FOR SCHOOLS PROGRAM
TOTAL EXPENDITURES BEFORE CREDITS OR OFFSETS
RECORDED DATA FOR 2001 THROUGH 2006 ($)

Recorded 2001	Recorded 2002	Recorded 2003	Recorded 2004	Recorded 2005	Recorded 2006
7,171	15,712	9,802	6,658	896	-

CA-IR-369

Ref: MECO T-9 response to CA-IR-2 (A&G Nonlabor Forecast).

Referring to Attachment A, multiple line items refer to MECO witnesses T-6 or T-7 for additional documentation supporting the 2007 test year forecast amounts. It is not clear whether and how such amounts have been provided to the Consumer Advocate in the referenced witness' workpaper documentation or in response to Consumer Advocate information requests. Please provide the following:

a. For each reference to MECO T-6 or T-7 in Attachment A, please provide a pinpoint reference to the source of the supporting documentation previously supplied to the Consumer Advocate. If none, please so state.

b. For each item that the response to part (a) above fails to provide a pinpoint reference to supporting documentation previously supplied to the Consumer Advocate by MECO T-6 or T-7, please provide the missing forecast workpapers.

MECO Response:

a. Please see pages 2 through 13 of this response for a revised Attachment A to the MECO T-9 response to CA-IR-2, which contains the requested references to previously supplied supporting documentation. Please note that the originally filed Attachment A to the MECO T-9 response to CA-IR-2 erroneously referenced the MECO T-7 response to CA-IR-2 for certain line items. The revised Attachment A found on pages 2 through 13 of this response correctly references the MECO T-8 response to CA-IR-2 for those line items.

b. Not applicable.

MAUI ELECTRIC COMPANY, LTD.
DIRECT NONLABOR SUPPORT SUMMARY

	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
1	923	M8M	720	MAU	NE	NMAZZZZZ	900	61,066		61,066	T-9	MECO-911 AND ATTACHMENT B
2	920	M8M	723	MAU	NE	NMAZZZZZ	900	433,476	(339,827)	93,649	T-9	ATTACHMENT C
3	926	M8M	779	MAU	NE	NMAZZZZZ	509	(58,535)		(58,535)	T-9	ATTACHMENT D
4	9302	M8M	877	MAU	NE	NMAZZZZZ	515	35,064		35,064	T-9	ATTACHMENT E
5	921	M9P	700	MAU	NE	NMAZZZZZ	451	2,640		2,640	T-9	ATTACHMENT F
6	921	M9P	700	MAU	NE	NMAZZZZZ	522	4,200		4,200	T-9	ATTACHMENT P, PAGE 4
7	921	M9P	700	MAU	NE	NMAZZZZZ	301	10,634		10,634	T-9	ATTACHMENT J
8	921	M9P	701	MAU	NE	NMAZZZZZ	522	1,800		1,800	T-9	ATTACHMENT P, PAGE 4
9	921	M9P	720	MAU	NE	NMAZZZZZ	522	6,600		6,600	T-9	ATTACHMENT P, PAGE 4
10	921	M9P	745	MAU	NE	NMAZZZZZ	522	600		600	T-9	ATTACHMENT P, PAGE 4
11	921	M9P	749	MAU	NE	NMAZZZZZ	521	250		250	T-9	ATTACHMENT P, PAGE 3
12	921	M9P	749	MAU	NE	NMAZZZZZ	501	1,000		1,000	T-9	ATTACHMENT P, PAGE 2
13	921	M9P	749	MAU	NE	NMAZZZZZ	522	1,800		1,800	T-9	ATTACHMENT P, PAGE 4
14	9302	M9P	753	MAU	NE	NMAZZZZZ	522	720		720	T-9	ATTACHMENT P, PAGE 4
15	9302	M9P	755	MAU	NE	NMAZZZZZ	522	300		300	T-9	ATTACHMENT P, PAGE 4
16	9302	M9P	755	MAU	NE	NMAZZZZZ	521	1,000		1,000	T-9	ATTACHMENT P, PAGE 3
17	9302	M9P	755	MAU	NE	NMAZZZZZ	501	16,000		16,000	T-9	MECO-921
18	921	M9P	807	MAU	NE	NMAZZZZZ	522	600		600	T-9	ATTACHMENT P, PAGE 4
19	921	M9P	807	MAU	NE	NMAZZZZZ	201	1,200		1,200	T-9	ATTACHMENT P, PAGE 1
20	921	M9P	968	MAU	NE	NMAZZZZZ	201	150		150	T-9	ATTACHMENT P, PAGE 1
21	921	MAA	612	MAU	NE	NMAZZZZZ	451	1,536		1,536	T-9	ATTACHMENT F
22	921	MAA	618	MAU	NE	NMAZZZZZ	501	1,800		1,800	T-9	ATTACHMENT O, PAGE 3
23	923	MAA	618	MAU	NE	NMAZZZZZ	502	600		600	T-9	MECO-909 AND ATTACHMENT O, PAGE 4
24	923	MAA	700	MAU	NE	NMAZZZZZ	900	38,682	(38,682)	-	T-9	RESPONSE TO CA-IR-3
25	923	MAA	700	MAU	NE	NMAZZZZZ	900	553,570	(81,496)	472,074	T-9	MECO-912
26	9302L	MAA	700	MAL	NE	NMAZZZZZ	900	90,000	96,100	186,100	T-9	MECO-908
27	9302M	MAA	700	MAM	NE	NMAZZZZZ	900	180,000	184,000	364,000	T-9	MECO-908
28	923	MAA	701	MAU	NE	NMAZZZZZ	550	5,160		5,160	T-9	MECO-911 AND ATTACHMENT G
29	923	MAA	701	MAU	NE	NMAZZZZZ	550	13,410		13,410	T-9	MECO-911 AND ATTACHMENT G
30	923	MAA	710	MAU	NE	NMAZZZZZ	550	4,938		4,938	T-9	MECO-911 AND ATTACHMENT G
31	921	MAA	720	MAU	NE	NMAZZZZZ	201	1,800		1,800	T-9	ATTACHMENT O, PAGE 1
32	921	MAA	720	MAU	NE	NMAZZZZZ	301	5,317		5,317	T-9	ATTACHMENT J
33	921	MAA	720	MAU	NE	NMAZZZZZ	522	5,400		5,400	T-9	ATTACHMENT N
34	921	MAA	720	MAU	NE	NMAZZZZZ	501	6,000		6,000	T-9	ATTACHMENT O, PAGE 3
35	923	MAA	720	MAU	NE	NMAZZZZZ	550	1,665		1,665	T-9	MECO-911 AND ATTACHMENT G
36	923	MAA	720	MAU	NE	NMAZZZZZ	550	2,982		2,982	T-9	MECO-911 AND ATTACHMENT G
37	923	MAA	720	MAU	NE	NMAZZZZZ	550	5,828		5,828	T-9	MECO-911 AND ATTACHMENT G
38	923	MAA	720	MAU	NE	NMAZZZZZ	550	11,576		11,576	T-9	MECO-911 AND ATTACHMENT G
39	923	MAA	720	MAU	NE	NMAZZZZZ	550	51,261		51,261	T-9	MECO-911 AND ATTACHMENT G
40	923	MAA	720	MAU	NE	NMAZZZZZ	550	134,976		134,976	T-9	MECO-911 AND ATTACHMENT G
41	9302	MAA	730	MAU	NE	NMAZZZZZ	900	222,132	7,268	229,400	T-9	MECO-919
42	928	MAA	735	MAU	NE	NMAZZZZZ	900	-	341,800	341,800		MECO-915
43	923	MAA	737	MAU	NE	NMAZZZZZ	550	12,491		12,491	T-9	MECO-911 AND ATTACHMENT G

MAUI ELECTRIC COMPANY, LTD.
DIRECT NONLABOR SUPPORT SUMMARY

	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
44	923	MAA	738	MAU	NE	NMAZZZZZ	502	500		500	T-9	MECO-909 AND ATTACHMENT O, PAGE 4
45	923	MAA	738	MAU	NE	NMAZZZZZ	550	5,575		5,575	T-9	MECO-911 AND ATTACHMENT G
46	923	MAA	738	MAU	NE	NMAZZZZZ	550	15,451		15,451	T-9	MECO-911 AND ATTACHMENT G
47	923	MAA	739	MAU	NE	NMAZZZZZ	550	1,339		1,339	T-9	MECO-911 AND ATTACHMENT G
48	923	MAA	745	MAU	NE	NMAZZZZZ	550	4,079		4,079	T-9	MECO-911 AND ATTACHMENT G
49	9302	MAA	749	MAU	NE	NMAZZZZZ	515	15,900		15,900	T-9	MECO-917, page 1 of 2
50	9302	MAA	749	MAU	NE	NMAZZZZZ	515	68,007	(20,734)	47,273	T-9	MECO-917, page 2 of 2
51	923	MAA	753	MAU	NE	NMAZZZZZ	550	100		100	T-9	MECO-911 AND ATTACHMENT G
52	9302	MAA	755	MAU	NE	NMAZZZZZ	550	8,665		8,665	T-9	MECO-911 AND ATTACHMENT G
53	923	MAA	756	MAU	NE	NMAZZZZZ	550	3,050		3,050	T-9	MECO-911 AND ATTACHMENT G
54	923	MAA	760	MAU	NE	NMAZZZZZ	550	4,125		4,125	T-9	MECO-911 AND ATTACHMENT G
55	923	MAA	760	MAU	NE	NMAZZZZZ	550	6,367		6,367	T-9	MECO-911 AND ATTACHMENT G
56	923	MAA	760	MAU	NE	NMAZZZZZ	550	40,666		40,666	T-9	MECO-911 AND ATTACHMENT G
57	923	MAA	761	MAU	NE	NMAZZZZZ	550	4,687		4,687	T-9	MECO-911 AND ATTACHMENT G
58	923	MAA	761	MAU	NE	NMAZZZZZ	501	28,800		28,800	T-9	MECO-WP-902
59	923	MAA	761	MAU	NE	NMAZZZZZ	501	59,280		59,280	T-9	MECO-WP-902
60	923	MAA	777	MAU	NE	NMAZZZZZ	550	5,886		5,886	T-9	MECO-911 AND ATTACHMENT G
61	923	MAA	777	MAU	NE	NMAZZZZZ	550	6,000		6,000	T-9	MECO-911 AND ATTACHMENT G
62	926	MAA	779	MAU	NE	NMAZZZZZ	509	5,290,996	(144,000)	5,146,996	T-9	ATTACHMENT K
63	921	MAA	789	MAU	NE	NMAZZZZZ	501	3,750		3,750	T-9	ATTACHMENT L
64	923	MAA	815	MAU	NE	NMAZZZZZ	550	46		46	T-9	MECO-911 AND ATTACHMENT G
65	923	MAA	815	MAU	NE	NMAZZZZZ	550	669		669	T-9	MECO-911 AND ATTACHMENT G
66	923	MAA	815	MAU	NE	NMAZZZZZ	550	670		670	T-9	MECO-911 AND ATTACHMENT G
67	923	MAA	815	MAU	NE	NMAZZZZZ	550	5,225		5,225	T-9	MECO-911 AND ATTACHMENT G
68	923	MAA	817	MAU	NE	NMAZZZZZ	550	7,775		7,775	T-9	MECO-911 AND ATTACHMENT G
69	923	MAA	817	MAU	NE	NMAZZZZZ	550	9,684		9,684	T-9	MECO-911 AND ATTACHMENT G
70	923	MAA	817	MAU	NE	NMAZZZZZ	550	10,037		10,037	T-9	MECO-911 AND ATTACHMENT G
71	921	MAA	817	MAU	NE	NMAZZZZZ	501	-	11,000	11,000	T-9	RESPONSE TO CA-IR-3
72	921	MAA	818	MAU	NE	NMAZZZZZ	451	1,500		1,500	T-9	ATTACHMENT F
73	923	MAA	818	MAU	NE	NMAZZZZZ	550	837		837	T-9	MECO-911 AND ATTACHMENT G
74	923	MAA	818	MAU	NE	NMAZZZZZ	550	944		944	T-9	MECO-911 AND ATTACHMENT G

MAUI ELECTRIC COMPANY, LTD.
DIRECT NONLABOR SUPPORT SUMMARY

	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
75	923	MAA	818	MAU	NE	NMAZZZZZ	550	1,784		1,784	T-9	MECO-911 AND ATTACHMENT G
76	923	MAA	818	MAU	NE	NMAZZZZZ	550	3,436		3,436	T-9	MECO-911 AND ATTACHMENT G
77	923	MAA	818	MAU	NE	NMAZZZZZ	550	8,873		8,873	T-9	MECO-911 AND ATTACHMENT G
78	923	MAA	818	MAU	NE	NMAZZZZZ	550	274,800		274,800	T-9	MECO-911 AND ATTACHMENT G
79	923	MAA	825	MAU	NE	NMAZZZZZ	550	120		120	T-9	MECO-911 AND ATTACHMENT G
80	923	MAA	825	MAU	NE	NMAZZZZZ	550	135		135	T-9	MECO-911 AND ATTACHMENT G
81	923	MAA	825	MAU	NE	NMAZZZZZ	451	636		636	T-9	ATTACHMENT G
82	923	MAA	825	MAU	NE	NMAZZZZZ	550	2,000		2,000	T-9	MECO-911 AND ATTACHMENT G
83	923	MAA	825	MAU	NE	NMAZZZZZ	550	3,767		3,767	T-9	MECO-911 AND ATTACHMENT G
84	923	MAA	825	MAU	NE	NMAZZZZZ	550	5,940		5,940	T-9	MECO-911 AND ATTACHMENT G
85	923	MAA	825	MAU	NE	NMAZZZZZ	550	15,614		15,614	T-9	MECO-911 AND ATTACHMENT G
86	923	MAA	825	MAU	NE	NMAZZZZZ	550	17,388		17,388	T-9	MECO-911 AND ATTACHMENT G
87	923	MAA	825	MAU	NE	NMAZZZZZ	550	17,729		17,729	T-9	MECO-911 AND ATTACHMENT G
88	9302	MAA	826	MAU	NE	NMAZZZZZ	550	2,017		2,017	T-9	MECO-911 AND ATTACHMENT G
89	9302	MAA	826	MAU	NE	NMAZZZZZ	550	10,680		10,680	T-9	MECO-911 AND ATTACHMENT G
90	9302	MAA	826	MAU	NE	NMAZZZZZ	502	14,000		14,000	T-9	ATTACHMENT G
91	9302	MAA	826	MAU	NE	NMAZZZZZ	550	21,382		21,382	T-9	MECO-911 AND ATTACHMENT G
92	9302	MAA	826	MAU	NE	NMAZZZZZ	550	48,067		48,067	T-9	MECO-911 AND ATTACHMENT G
93	923	MAA	827	MAU	NE	NMAZZZZZ	550	2,230		2,230	T-9	MECO-911 AND ATTACHMENT G
94	923	MAA	835	MAU	NE	NMAZZZZZ	550	669		669	T-9	MECO-911 AND ATTACHMENT G
95	923	MAA	835	MAU	NE	NMAZZZZZ	550	1,059		1,059	T-9	MECO-911 AND ATTACHMENT G
96	923	MAA	835	MAU	NE	NMAZZZZZ	550	2,230		2,230	T-9	MECO-911 AND ATTACHMENT G
97	923	MAA	836	MAU	NE	NMAZZZZZ	550	-	1,000	1,000	T-9	MECO-901, PAGE 21 AND 22, AND MECO-911
98	923	MAA	836	MAU	NE	NMAZZZZZ	550	7,393		7,393	T-9	MECO-911 AND ATTACHMENT G
99	923	MAA	836	MAU	NE	NMAZZZZZ	550	8,527		8,527	T-9	MECO-911 AND ATTACHMENT G
100	923	MAA	836	MAU	NE	NMAZZZZZ	550	60,046		60,046	T-9	MECO-911 AND ATTACHMENT G
101	923	MAA	842	MAU	NE	NMAZZZZZ	550	3,218		3,218	T-9	MECO-911 AND ATTACHMENT G
102	923	MAA	842	MAU	NE	NMAZZZZZ	550	47,510		47,510	T-9	MECO-911 AND ATTACHMENT G

MAUI ELECTRIC COMPANY, LTD.
DIRECT NONLABOR SUPPORT SUMMARY

	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
103	923	MAA	843	MAU	NE	NMAZZZZZ	550	3,024		3,024	T-9	MECO-911 AND ATTACHMENT G
104	923	MAA	843	MAU	NE	NMAZZZZZ	550	46,502		46,502	T-9	MECO-911 AND ATTACHMENT G
105	923	MAA	843	MAU	NE	NMAZZZZZ	550	129,148		129,148	T-9	MECO-911 AND ATTACHMENT G
106	923	MAA	844	MAU	NE	NMAZZZZZ	550	24,111		24,111	T-9	MECO-911 AND ATTACHMENT G
107	921	MAA	898	MAU	NE	NMAZZZZZ	201	600		600	T-9	ATTACHMENT O, PAGE 1
108	921	MAA	916	MAU	NE	NMAZZZZZ	501	3,600		3,600	T-9	ATTACHMENT O, PAGE 3
109	923	MAA	950	MAU	NE	NMAZZZZZ	550	35,120		35,120	T-9	MECO-911 AND ATTACHMENT I
110	925	MAA	950	MAU	NE	NMAZZZZZ	900	791		791	T-9	MECO-913 AND ATTACHMENT H
111	925	MAA	950	MAU	NE	NMAZZZZZ	900	3,005		3,005	T-9	MECO-913 AND ATTACHMENT H
112	925	MAA	950	MAU	NE	NMAZZZZZ	900	14,761		14,761	T-9	MECO-913 AND ATTACHMENT H
113	925	MAA	950	MAU	NE	NMAZZZZZ	900	32,707		32,707	T-9	MECO-913 AND ATTACHMENT H
114	925	MAA	950	MAU	NE	NMAZZZZZ	900	51,814		51,814	T-9	MECO-913 AND ATTACHMENT H
115	925	MAA	950	MAU	NE	NMAZZZZZ	900	334,022		334,022	T-9	MECO-913 AND ATTACHMENT H
116	923	MAA	951	MAU	NE	NMAZZZZZ	550	41,858		41,858	T-9	MECO-913 AND ATTACHMENT I
117	924	MAA	951	MAU	NE	NMAZZZZZ	900	640		640	T-9	MECO-913 AND ATTACHMENT H
118	924	MAA	951	MAU	NE	NMAZZZZZ	501	36,678		36,678	T-9	ATTACHMENT M
119	924	MAA	951	MAU	NE	NMAZZZZZ	900	712,974		712,974	T-9	MECO-913 AND ATTACHMENT H
120	923	MAA	953	MAU	NE	NMAZZZZZ	550	1,657		1,657	T-9	MECO-911 AND ATTACHMENT I
121	925	MAA	953	MAU	NE	NMAZZZZZ	900	15,230		15,230	T-9	MECO-913 AND ATTACHMENT H
122	925	MAA	953	MAU	NE	NMAZZZZZ	900	68,249		68,249	T-9	MECO-913 AND ATTACHMENT H
123	923	MAA	960	MAU	NE	NMAZZZZZ	550	11,196		11,196	T-9	MECO-911 AND ATTACHMENT G
124	921	MAA	965	MAU	NE	NMAZZZZZ	501	3,000		3,000	T-9	ATTACHMENT O, PAGE 3
125	921	MAB	612	MAU	NE	NMAZZZZZ	451	5,592		5,592	T-9	ATTACHMENT F
126	921	MAB	701	MAU	NE	NMAZZZZZ	522	1,200		1,200	T-9	ATTACHMENT N
127	921	MAG	612	MAU	NE	NMAZZZZZ	451	3,060		3,060	T-9	ATTACHMENT F
128	921	MAG	777	MAU	NE	NMAZZZZZ	522	1,200		1,200	T-9	ATTACHMENT N
129	921	MAP	842	MAU	NE	NMAZZZZZ	201	1,200		1,200	T-9	ATTACHMENT O, PAGE 1
130	921	MAP	842	MAU	NE	NMAZZZZZ	501	1,200		1,200	T-9	ATTACHMENT O, PAGE 3
131	921	MAP	842	MAU	NE	NMAZZZZZ	205	9,300		9,300	T-9	ATTACHMENT O, PAGE 2
132	921	MAP	844	MAU	NE	NMAZZZZZ	522	1,200		1,200	T-9	ATTACHMENT N
133	921	MAX	817	MAU	NE	NMAZZZZZ	522	1,200		1,200	T-9	ATTACHMENT N
134	921	MCA	736	MAU	NE	NMCZZZZZ	501	25,000		25,000	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 25)
135	923	MCA	736	MAU	NE	NMCZZZZZ	550	16,974		16,974	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 29)
136	9302	MCA	753	MAU	NE	NMCZZZZZ	201	5,000		5,000	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 38)

MAUI ELECTRIC COMPANY, LTD.
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	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
137	925	MCA	795	MAU	NE	NMCZZZZZ	205	250		250	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 30)
138	925	MCF	795	MAU	NE	NMCZZZZZ	205	250		250	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 31)
139	9302	MCN	731	MAU	NE	NMCZZZZZ	501	25,000		25,000	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 41)
140	9302	MCN	731	MAU	NE	NMCZZZZZ	501	109,500		109,500	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 39)
141	9302	MCN	753	MAU	NE	NMCZZZZZ	201	10,000		10,000	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 40)
142	925	MCN	795	MAU	NE	NMCZZZZZ	205	250		250	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 32)
143	925	MCR	795	MAU	NE	NMCZZZZZ	205	629		629	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 33)
144	932M	MCT	931	MAM	NE	NMCZZZZZ	201	363		363	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 37)
145	932M	MCT	931	MAM	NE	NMCZZZZZ	501	1,000		1,000	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 36)
146	932M	MCT	931	MAM	NE	NMCZZZZZ	501	3,600		3,600	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 35)
147	921M	MCT	934	MAM	NE	NMCZZZZZ	201	461		461	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 26)
148	921M	MCT	934	MAM	NE	NMCZZZZZ	501	5,646		5,646	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 27)
149	921M	MCT	936	MAM	NE	NMCZZZZZ	501	730		730	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 28)
150	9302	MCZ	731	MAU	NE	NMCZZZZZ	550	5,273		5,273	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Pages 45-47)
151	9302	MCZ	731	MAU	NE	NMCZZZZZ	550	5,606		5,606	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Pages 42-44)
152	9302	MCZ	731	MAU	NE	NMCZZZZZ	501	10,000		10,000	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 48)
153	9302	MCZ	731	MAU	NE	NMCZZZZZ	501	100,000		100,000	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 49)
154	925	MCZ	795	MAU	NE	NMCZZZZZ	205	250		250	T-9	TO BE PROVIDED BY MECO T-8 (Attachment B, Page 34)
155	932	MDE	931	MAU	NE	NMDZZZZZ	201	135		135	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #155)
156	932	MDE	931	MAU	NE	NMDZZZZZ	205	1,642		1,642	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #156)
157	932	MDE	931	MAU	NE	NMDZZZZZ	501	75,219		75,219	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Pages 1-2)
158	932	MDE	932	MAU	NE	NMDZZZZZ	205	2,745		2,745	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #158)
159	932	MDE	932	MAU	NE	NMDZZZZZ	501	3,270		3,270	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #159)
160	932	MDE	932	MAU	NE	NMDZZZZZ	201	3,485		3,485	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #160)
161	932	MDE	932	MAU	NE	NMDZZZZZ	501	3,600		3,600	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #161)
162	932	MDE	932	MAU	NE	NMDZZZZZ	501	6,000		6,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #162)
163	932	MDE	932	MAU	NE	NMDZZZZZ	501	17,240		17,240	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #163)

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	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
164	921	MDE	933	MAU	NE	NMDZZZZZ	205	103		103	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #164)
165	921	MDE	933	MAU	NE	NMDZZZZZ	501	600		600	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 1)
166	921	MDE	934	MAU	NE	NMDZZZZZ	501	2,520		2,520	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Pages 3-5)
167	921	MDE	934	MAU	NE	NMDZZZZZ	201	4,000		4,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13F, Page 2, Line 7)
168	921	MDE	934	MAU	NE	NMDZZZZZ	501	15,360		15,360	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Pages 3-5)
169	921	MDE	934	MAU	NE	NMDZZZZZ	501	21,622		21,622	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Pages 3, 4, 6)
170	921	MDE	934	MAU	NE	NMDZZZZZ	501	29,970		29,970	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Pages 3-5)
171	921	MDE	936	MAU	NE	NMDZZZZZ	501	6,467		6,467	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #171)
172	932L	MDL	931	MAL	NE	NMDZZZZZ	501	3,244		3,244	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #172)
173	9302	MDR	753	MAU	NE	NMDZZZZZ	201	2,000		2,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #173)
174	925	MDR	950	MAU	NE	NMDZZZZZ	501	50,000		50,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Pages 7-11)
175	932M	MDT	931	MAM	NE	NMDZZZZZ	201	10		10	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #175)
176	932M	MDT	931	MAM	NE	NMDZZZZZ	205	829		829	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #176)
177	932M	MDT	931	MAM	NE	NMDZZZZZ	501	17,620		17,620	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #177)
178	921M	MDT	936	MAM	NE	NMDZZZZZ	501	720		720	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #178)
179	921	MSA	700	MAU	NE	NMSZZZZZ	501	230		230	T-9	ATTACHMENT R, PAGE 1
180	923	MSA	721	MAU	NE	NMSZZZZZ	550	504		504	T-9	ATTACHMENT R, PAGE 73
181	923	MSA	721	MAU	NE	NMSZZZZZ	550	1,111		1,111	T-9	ATTACHMENT R, PAGE 73
182	923	MSA	721	MAU	NE	NMSZZZZZ	550	1,283		1,283	T-9	ATTACHMENT R, PAGE 73
183	921	MSA	722	MAU	NE	NMSZZZZZ	501	1,800		1,800	T-9	ATTACHMENT R, PAGE 2
184	921	MSA	722	MAU	NE	NMSZZZZZ	201	2,400		2,400	T-9	ATTACHMENT R, PAGE 3
185	921	MSA	722	MAU	NE	NMSZZZZZ	522	4,500		4,500	T-9	ATTACHMENT R, PAGE 4
186	921	MSA	722	MAU	NE	NMSZZZZZ	301	5,317		5,317	T-9	ATTACHMENT R, PAGE 72
187	921	MSA	722	MAU	NE	NMSZZZZZ	205	6,000		6,000	T-9	ATTACHMENT R, PAGE 5
188	923	MSA	722	MAU	NE	NMSZZZZZ	550	2,317		2,317	T-9	ATTACHMENT R, PAGE 74
189	921	MSA	723	MAU	NE	NMSZZZZZ	521	280	(280)	-	T-9	ATTACHMENT R, PAGE 6 AND RESPONSE TO CA-IR-3
190	921	MSA	723	MAU	NE	NMSZZZZZ	201	7,000	(7,000)	-	T-9	ATTACHMENT R, PAGE 7 AND RESPONSE TO CA-IR-3
191	923	MSA	723	MAU	NE	NMSZZZZZ	550	223		223	T-9	ATTACHMENT R, PAGE 73
192	923	MSA	723	MAU	NE	NMSZZZZZ	550	363		363	T-9	ATTACHMENT R, PAGE 73
193	923	MSA	723	MAU	NE	NMSZZZZZ	550	2,400		2,400	T-9	ATTACHMENT R, PAGE 78
194	923	MSA	745	MAU	NE	NMSZZZZZ	550	16,863		16,863	T-9	ATTACHMENT R, PAGE 73
195	921	MSA	749	MAU	NE	NMSZZZZZ	521	1,500		1,500	T-9	ATTACHMENT R, PAGE 8
196	9302	MSA	749	MAU	NE	NMSZZZZZ	515	2,815		2,815	T-9	ATTACHMENT R, PAGE 9
197	923	MSA	752	MAU	NE	NMSZZZZZ	550	6,244		6,244	T-9	ATTACHMENT R, PAGE 73
198	923	MSA	753	MAU	NE	NMSZZZZZ	550	1,556		1,556	T-9	ATTACHMENT R, PAGE 74
199	9302	MSA	753	MAU	NE	NMSZZZZZ	201	1,300		1,300	T-9	ATTACHMENT R, PAGE 10
200	9302	MSA	753	MAU	NE	NMSZZZZZ	521	2,200		2,200	T-9	ATTACHMENT R, PAGE 11
201	9302	MSA	753	MAU	NE	NMSZZZZZ	501	3,000		3,000	T-9	ATTACHMENT R, PAGE 12

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	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
202	9302	MSA	753	MAU	NE	NMSZZZZZ	301	22,439		22,439	T-9	ATTACHMENT R, PAGE 72
203	9301	MSA	754	MAU	NE	NMSZZZZZ	201	2,500		2,500	T-9	ATTACHMENT R, PAGE 13
204	923	MSA	765	MAU	NE	NMSZZZZZ	502	10,000		10,000	T-9	ATTACHMENT R, PAGE 14 AND MECO-909
205	926	MSA	778	MAU	NE	M0000749	522	750		750	T-9	TO BE PROVIDED BY MECO T-10
206	926	MSA	780	MAU	NE	NMSZZZZZ	521	500		500	T-9	TO BE PROVIDED BY MECO T-10
207	926	MSA	780	MAU	NE	NMSZZZZZ	201	1,000		1,000	T-9	TO BE PROVIDED BY MECO T-10
208	926	MSA	780	MAU	NE	NMSZZZZZ	501	13,650		13,650	T-9	TO BE PROVIDED BY MECO T-10
209	926	MSA	780	MAU	NE	NMSZZZZZ	501	40,000		40,000	T-9	TO BE PROVIDED BY MECO T-10
210	921	MSA	788	MAU	NE	NMSZZZZZ	521	975		975	T-9	ATTACHMENT R, PAGE 15
211	921	MSA	788	MAU	NE	NMSZZZZZ	201	16,380		16,380	T-9	ATTACHMENT R, PAGE 16
212	923	MSA	788	MAU	NE	NMSZZZZZ	550	454		454	T-9	ATTACHMENT R, PAGE 74
213	921	MSA	789	MAU	NE	NMSZZZZZ	522	750		750	T-9	ATTACHMENT R, PAGE 17
214	921	MSA	789	MAU	NE	NMSZZZZZ	501	18,200		18,200	T-9	ATTACHMENT R, PAGE 18
215	921	MSA	805	MAU	NE	NMSZZZZZ	522	7,500	(5,625)	1,875	T-9	ATTACHMENT R, PAGE 19 AND RESPONSE TO CA-IR-3
216	923	MSA	807	MAU	NE	NMSZZZZZ	550	8,644		8,644	T-9	ATTACHMENT R, PAGE 74
217	932	MSA	931	MAU	NE	NMSZZZZZ	501	750		750	T-9	ATTACHMENT R, PAGE 20
218	921	MSA	933	MAU	NE	NMSZZZZZ	501	7,200		7,200	T-9	ATTACHMENT R, PAGE 21
219	921	MSA	934	MAU	NE	NMSZZZZZ	501	384		384	T-9	ATTACHMENT R, PAGE 22
220	921	MSA	965	MAU	NE	NMSZZZZZ	501	1,200		1,200	T-9	ATTACHMENT R, PAGE 23
221	923	MSA	965	MAU	NE	NMSZZZZZ	550	3,997		3,997	T-9	ATTACHMENT R, PAGE 74
222	921	MSA	966	MAU	NE	NMSZZZZZ	501	1,365		1,365	T-9	ATTACHMENT R, PAGE 24
223	921	MSA	966	MAU	NE	NMSZZZZZ	301	5,317		5,317	T-9	ATTACHMENT R, PAGE 72
224	931	MSA	966	MAU	NE	NMSZZZZZ	570	6,000		6,000	T-9	ATTACHMENT R, PAGE 25
225	921	MSA	967	MAU	NE	NMSZZZZZ	205	2,500		2,500	T-9	ATTACHMENT R, PAGE 26
226	921	MSA	967	MAU	NE	NMSZZZZZ	501	2,700		2,700	T-9	ATTACHMENT R, PAGE 27
227	921	MSA	967	MAU	NE	NMSZZZZZ	201	3,300		3,300	T-9	ATTACHMENT R, PAGE 28
228	923	MSP	701	MAU	NE	NMSZZZZZ	550	892		892	T-9	ATTACHMENT R, PAGE 75
229	923	MSP	723	MAU	NE	NMSZZZZZ	550	921		921	T-9	ATTACHMENT R, PAGE 75
230	921	MSP	749	MAU	NE	NMSZZZZZ	516	480		480	T-9	ATTACHMENT R, PAGE 29
231	923	MSP	761	MAU	NE	NMSZZZZZ	550	167		167	T-9	ATTACHMENT R, PAGE 75
232	923	MSP	765	MAU	NE	NMSZZZZZ	550	56		56	T-9	ATTACHMENT R, PAGE 75
233	923	MSP	765	MAU	NE	NMSZZZZZ	550	2,220		2,220	T-9	ATTACHMENT R, PAGE 75
234	923	MSP	765	MAU	NE	NMSZZZZZ	550	2,908		2,908	T-9	ATTACHMENT R, PAGE 75
235	923	MSP	766	MAU	NE	NMSZZZZZ	550	7,032		7,032	T-9	ATTACHMENT R, PAGE 75
236	921	MSP	767	MAU	NE	NMSZZZZZ	522	2,500		2,500	T-9	ATTACHMENT R, PAGE 30
237	921	MSP	767	MAU	NE	NMSZZZZZ	201	14,188		14,188	T-9	ATTACHMENT R, PAGE 31
238	921	MSP	767	MAU	NE	NMSZZZZZ	501	42,050		42,050	T-9	ATTACHMENT R, PAGE 32
239	923	MSP	767	MAU	NE	NMSZZZZZ	550	56		56	T-9	ATTACHMENT R, PAGE 75
240	921	MSP	775	MAU	NE	NMSZZZZZ	451	37		37	T-9	ATTACHMENT R, PAGE 79
241	923	MSP	775	MAU	NE	NMSZZZZZ	550	56		56	T-9	ATTACHMENT R, PAGE 76
242	923	MSP	775	MAU	NE	NMSZZZZZ	550	227		227	T-9	ATTACHMENT R, PAGE 76
243	923	MSP	775	MAU	NE	NMSZZZZZ	550	2,220		2,220	T-9	ATTACHMENT R, PAGE 76
244	923	MSP	775	MAU	NE	NMSZZZZZ	550	2,677		2,677	T-9	ATTACHMENT R, PAGE 76
245	923	MSP	775	MAU	NE	NMSZZZZZ	550	4,800		4,800	T-9	ATTACHMENT R, PAGE 79
246	923	MSP	775	MAU	NE	NMSZZZZZ	550	23,232		23,232	T-9	ATTACHMENT R, PAGE 76
247	926	MSP	776	MAU	NE	NMSZZZZZ	550	56		56	T-9	TO BE PROVIDED BY MECO T-10

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	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
248	926	MSP	776	MAU	NE	NMSZZZZZ	451	2,389		2,389	T-9	TO BE PROVIDED BY MECO T-10
249	926	MSP	776	MAU	NE	NMSZZZZZ	502	5,416		5,416	T-9	TO BE PROVIDED BY MECO T-10
250	926	MSP	776	MAU	NE	NMSZZZZZ	501	79,942	(18,700)	61,242	T-9	TO BE PROVIDED BY MECO T-10
251	926	MSP	778	MAU	NE	NMSZZZZZ	900	(966,979)		(966,979)	T-9	TO BE PROVIDED BY MECO T-10
252	926	MSP	778	MAU	NE	NMSZZZZZ	451	542		542	T-9	TO BE PROVIDED BY MECO T-10
253	926	MSP	778	MAU	NE	NMSZZZZZ	201	1,000		1,000	T-9	TO BE PROVIDED BY MECO T-10
254	926	MSP	778	MAU	NE	NMSZZZZZ	522	1,000		1,000	T-9	TO BE PROVIDED BY MECO T-10
255	926	MSP	778	MAU	NE	M0000749	550	1,015		1,015	T-9	TO BE PROVIDED BY MECO T-10
256	926	MSP	778	MAU	NE	M0000749	522	1,250		1,250	T-9	TO BE PROVIDED BY MECO T-10
257	926	MSP	778	MAU	NE	NMSZZZZZ	550	1,476		1,476	T-9	TO BE PROVIDED BY MECO T-10
258	926	MSP	778	MAU	NE	NMSZZZZZ	501	1,803		1,803	T-9	TO BE PROVIDED BY MECO T-10
259	926	MSP	778	MAU	NE	M0000749	522	2,000		2,000	T-9	TO BE PROVIDED BY MECO T-10
260	926	MSP	778	MAU	NE	NMSZZZZZ	501	3,000		3,000	T-9	TO BE PROVIDED BY MECO T-10
261	926	MSP	778	MAU	NE	M0000749	550	3,578		3,578	T-9	TO BE PROVIDED BY MECO T-10
262	926	MSP	778	MAU	NE	M0000749	550	4,472		4,472	T-9	TO BE PROVIDED BY MECO T-10
263	926	MSP	778	MAU	NE	M0000749	550	4,473		4,473	T-9	TO BE PROVIDED BY MECO T-10
264	926	MSP	778	MAU	NE	M0000749	550	4,916		4,916	T-9	TO BE PROVIDED BY MECO T-10
265	926	MSP	778	MAU	NE	M0000749	550	5,994		5,994	T-9	TO BE PROVIDED BY MECO T-10
266	926	MSP	778	MAU	NE	M0000749	550	13,805		13,805	T-9	TO BE PROVIDED BY MECO T-10
267	926	MSP	778	MAU	NE	NMSZZZZZ	509	14,857		14,857	T-9	TO BE PROVIDED BY MECO T-10
268	926	MSP	778	MAU	NE	M0000749	550	17,155		17,155	T-9	TO BE PROVIDED BY MECO T-10
269	926	MSP	778	MAU	NE	NMSZZZZZ	451	21,472		21,472	T-9	TO BE PROVIDED BY MECO T-10
270	926	MSP	778	MAU	NE	NMSZZZZZ	509	38,408		38,408	T-9	TO BE PROVIDED BY MECO T-10
271	926	MSP	778	MAU	NE	NMSZZZZZ	509	45,204		45,204	T-9	TO BE PROVIDED BY MECO T-10
272	926	MSP	778	MAU	NE	M0000749	550	45,548		45,548	T-9	TO BE PROVIDED BY MECO T-10
273	926	MSP	778	MAU	NE	M0000749	550	56,708		56,708	T-9	TO BE PROVIDED BY MECO T-10
274	926	MSP	778	MAU	NE	NMSZZZZZ	509	91,809		91,809	T-9	TO BE PROVIDED BY MECO T-10

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	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
275	926	MSP	778	MAU	NE	NMSZZZZZ	509	135,624		135,624	T-9	TO BE PROVIDED BY MECO T-10
276	926	MSP	778	MAU	NE	NMSZZZZZ	509	286,032		286,032	T-9	TO BE PROVIDED BY MECO T-10
277	926	MSP	778	MAU	NE	NMSZZZZZ	900	624,317		624,317	T-9	TO BE PROVIDED BY MECO T-10
278	926	MSP	778	MAU	NE	NMSZZZZZ	900	-	3,261	3,261		TO BE PROVIDED BY MECO T-10
279	926	MSP	778	MAU	NE	NMSZZZZZ	509	655,800		655,800	T-9	TO BE PROVIDED BY MECO T-10
280	926	MSP	778	MAU	NE	NMSZZZZZ	509	1,286,304		1,286,304	T-9	TO BE PROVIDED BY MECO T-10
281	926	MSP	779	MAU	NE	NMSZZZZZ	201	300		300	T-9	TO BE PROVIDED BY MECO T-10
282	926	MSP	779	MAU	NE	NMSZZZZZ	521	450		450	T-9	TO BE PROVIDED BY MECO T-10
283	926	MSP	779	MAU	NE	NMSZZZZZ	522	500		500	T-9	TO BE PROVIDED BY MECO T-10
284	926	MSP	779	MAU	NE	NMSZZZZZ	501	984		984	T-9	TO BE PROVIDED BY MECO T-10
285	926	MSP	779	MAU	NE	NMSZZZZZ	550	2,231	(2,231)	-	T-9	TO BE PROVIDED BY MECO T-10
286	926	MSP	779	MAU	NE	NMSZZZZZ	501	2,446		2,446	T-9	TO BE PROVIDED BY MECO T-10
287	926	MSP	779	MAU	NE	NMSZZZZZ	501	2,942	(2,942)	-	T-9	TO BE PROVIDED BY MECO T-10
288	926	MSP	779	MAU	NE	NMSZZZZZ	451	6,228		6,228	T-9	TO BE PROVIDED BY MECO T-10
289	926	MSP	779	MAU	NE	NMSZZZZZ	550	17,304		17,304	T-9	TO BE PROVIDED BY MECO T-10
290	926	MSP	780	MAU	NE	NMSZZZZZ	509	(44,331)	44,331	-	T-9	TO BE PROVIDED BY MECO T-10
291	926	MSP	780	MAU	NE	NMSZZZZZ	900	(24,000)		(24,000)	T-9	TO BE PROVIDED BY MECO T-10
292	926	MSP	780	MAU	NE	NMSZZZZZ	451	720		720	T-9	TO BE PROVIDED BY MECO T-10
293	926	MSP	780	MAU	NE	NMSZZZZZ	522	750		750	T-9	TO BE PROVIDED BY MECO T-10
294	926	MSP	780	MAU	NE	NMSZZZZZ	550	3,319		3,319	T-9	TO BE PROVIDED BY MECO T-10
295	926	MSP	780	MAU	NE	NMSZZZZZ	201	3,720		3,720	T-9	TO BE PROVIDED BY MECO T-10
296	926	MSP	780	MAU	NE	NMSZZZZZ	509	30,000		30,000	T-9	TO BE PROVIDED BY MECO T-10
297	926	MSP	780	MAU	NE	NMSZZZZZ	509	31,668		31,668	T-9	TO BE PROVIDED BY MECO T-10
298	926	MSP	780	MAU	NE	NMSZZZZZ	509	91,032		91,032	T-9	TO BE PROVIDED BY MECO T-10
299	921	MSP	789	MAU	NE	NMSZZZZZ	522	750		750	T-9	ATTACHMENT R, PAGE 33
300	921	MSP	789	MAU	NE	NMSZZZZZ	501	1,200		1,200	T-9	ATTACHMENT R, PAGE 34
301	925	MSP	795	MAU	NE	NMSZZZZZ	550	223		223	T-9	ATTACHMENT R, PAGE 76
302	923	MSP	805	MAU	NE	NMSZZZZZ	550	1,200		1,200	T-9	ATTACHMENT R, PAGE 77
303	923	MSP	805	MAU	NE	NMSZZZZZ	550	4,797	(3,598)	1,199	T-9	ATTACHMENT R, PAGE 76 AND RESPONSE TO CA-IR-3

MAUI ELECTRIC COMPANY, LTD.
DIRECT NONLABOR SUPPORT SUMMARY

	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
304	923	MSP	805	MAU	NE	NMSZZZZZ	550	6,660	(4,995)	1,665	T-9	ATTACHMENT R, PAGE 77 AND RESPONSE TO CA-IR-3
305	923	MSP	805	MAU	NE	NMSZZZZZ	550	6,882		6,882	T-9	ATTACHMENT R, PAGE 76
306	923	MSP	805	MAU	NE	NMSZZZZZ	550	8,123		8,123	T-9	ATTACHMENT R, PAGE 76
307	923	MSP	953	MAU	NE	NMSZZZZZ	550	1,204		1,204	T-9	ATTACHMENT R, PAGE 77
308	923	MSP	953	MAU	NE	NMSZZZZZ	550	2,220		2,220	T-9	ATTACHMENT R, PAGE 77
309	925	MSP	953	MAU	NE	NMSZZZZZ	201	140		140	T-9	ATTACHMENT R, PAGE 35
310	925	MSP	953	MAU	NE	NMSZZZZZ	451	1,440		1,440	T-9	ATTACHMENT R, PAGE 79
311	925	MSP	953	MAU	NE	NMSZZZZZ	503	7,200		7,200	T-9	ATTACHMENT R, PAGE 36
312	925	MSP	953	MAU	NE	NMSZZZZZ	501	10,000		10,000	T-9	ATTACHMENT R, PAGE 37
313	925	MSP	953	MAU	NE	NMSZZZZZ	530	30,000		30,000	T-9	ATTACHMENT Q
314	925	MSP	953	MAU	NE	NMSZZZZZ	530	300,000		300,000	T-9	ATTACHMENT Q
315	921	MSS	749	MAU	NE	NMSZZZZZ	521	180		180	T-9	ATTACHMENT R, PAGE 38
316	921	MSS	749	MAU	NE	NMSZZZZZ	516	500		500	T-9	ATTACHMENT R, PAGE 39
317	921	MSS	749	MAU	NE	NMSZZZZZ	522	2,250		2,250	T-9	ATTACHMENT R, PAGE 40
318	925	MSS	795	MAU	NE	NMSZZZZZ	501	6,100		6,100	T-9	ATTACHMENT R, PAGE 41
319	925	MSS	795	MAU	NE	NMSZZZZZ	522	6,400		6,400	T-9	ATTACHMENT R, PAGE 42
320	925	MSS	795	MAU	NE	NMSZZZZZ	521	13,950		13,950	T-9	ATTACHMENT R, PAGE 43
321	925	MSS	795	MAU	NE	NMSZZZZZ	201	16,475		16,475	T-9	ATTACHMENT R, PAGE 44
322	925	MSS	795	MAU	NE	NMSZZZZZ	201	19,650		19,650	T-9	ATTACHMENT R, PAGE 45
323	925	MSS	795	MAU	NE	NMSZZZZZ	301	45,473		45,473	T-9	ATTACHMENT R, PAGE 72
324	925	MSS	796	MAU	NE	NMSZZZZZ	201	300		300	T-9	ATTACHMENT R, PAGE 46
325	925	MSS	796	MAU	NE	NMSZZZZZ	522	400		400	T-9	ATTACHMENT R, PAGE 47
326	925	MSS	796	MAU	NE	NMSZZZZZ	521	900		900	T-9	ATTACHMENT R, PAGE 48
327	925	MSS	796	MAU	NE	NMSZZZZZ	501	2,000		2,000	T-9	ATTACHMENT R, PAGE 49
328	921	MSS	797	MAU	NE	NMSZZZZZ	522	1,500		1,500	T-9	ATTACHMENT R, PAGE 50
329	921	MSS	797	MAU	NE	NMSZZZZZ	501	3,800		3,800	T-9	ATTACHMENT R, PAGE 51
330	921	MSS	933	MAU	NE	NMSZZZZZ	201	5,000		5,000	T-9	ATTACHMENT R, PAGE 52
331	921	MSS	933	MAU	NE	NMSZZZZZ	201	5,500		5,500	T-9	ATTACHMENT R, PAGE 53
332	921	MSS	933	MAU	NE	NMSZZZZZ	501	15,000		15,000	T-9	ATTACHMENT R, PAGE 54
333	921	MSS	933	MAU	NE	NMSZZZZZ	501	32,633		32,633	T-9	ATTACHMENT R, PAGE 55
334	9302	MWA	731	MAU	NE	NMWZZZZZ	550	2,500		2,500	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13F, Page 3, Line 7)
335	921	MWI	890	MAU	NE	NMDZZZZZ	463	25,000		25,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 2)
336	921	MWI	890	MAU	NE	NMDZZZZZ	501	25,000		25,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D Page 3)
337	921	MWI	891	MAU	NE	NMDZZZZZ	520	2,000		2,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 5-6)
338	921	MWI	891	MAU	NE	NMDZZZZZ	462	10,000		10,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 4)
339	921	MWI	891	MAU	NE	NMDZZZZZ	201	12,000		12,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #339)
340	921	MWI	891	MAU	NE	NMDZZZZZ	501	20,000		20,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Page 12)
341	921	MWI	891	MAU	NE	NMDZZZZZ	501	60,000		60,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Page 12)
342	921	MWI	891	MAU	NE	NMDZZZZZ	501	100,000		100,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Page 12)
343	923	MWI	891	MAU	NE	NMDZZZZZ	550	2,492		2,492	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Page 13)
344	923	MWI	891	MAU	NE	NMDZZZZZ	550	29,556		29,556	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Page 14)
345	923	MWI	891	MAU	NE	NMDZZZZZ	550	70,000	(52,500)	17,500	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13E, Page 15)

MAUI ELECTRIC COMPANY, LTD.
DIRECT NONLABOR SUPPORT SUMMARY

	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
346	921	MWI	896	MAU	NE	NMDZZZZZ	522	950		950	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 7-8)
347	921	MWI	896	MAU	NE	NMDZZZZZ	522	950		950	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 9-10)
348	921	MWI	896	MAU	NE	NMDZZZZZ	521	1,400		1,400	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13F, Page 4, Line 16)
349	921	MWI	896	MAU	NE	NMDZZZZZ	520	1,590		1,590	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 11-12)
350	921	MWI	896	MAU	NE	NMDZZZZZ	520	2,940		2,940	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 13-14)
351	921	MWI	896	MAU	NE	NMDZZZZZ	522	3,000		3,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 15)
352	921	MWI	896	MAU	NE	NMDZZZZZ	501	4,000		4,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 16)
353	921	MWI	896	MAU	NE	NMDZZZZZ	520	5,000		5,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 17)
354	921	MWI	896	MAU	NE	NMDZZZZZ	201	9,900		9,900	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 18)
355	921	MWI	896	MAU	NE	NMDZZZZZ	501	33,400		33,400	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 19-21)
356	921	MWI	897	MAU	NE	NMDZZZZZ	520	1,425		1,425	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 22-23)
357	921	MWI	897	MAU	NE	NMDZZZZZ	520	1,700		1,700	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 24)
358	921	MWI	897	MAU	NE	NMDZZZZZ	520	2,940		2,940	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 25-26)
359	921	MWI	897	MAU	NE	NMDZZZZZ	522	3,600		3,600	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 27)
360	921	MWI	897	MAU	NE	NMDZZZZZ	301	5,317		5,317	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 28)
361	921	MWI	898	MAU	NE	NMDZZZZZ	201	28,000		28,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13C, Item #361)
362	921	MWI	901	MAU	NE	NMDZZZZZ	501	19,833		19,833	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 29-30)
363	921	MWI	901	MAU	NE	NMDZZZZZ	501	19,833		19,833	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Pages 29-30)
364	921	MWI	933	MAU	NE	NMDZZZZZ	201	6,200		6,200	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 31)
365	921	MWL	928	MAU	NE	NMWZZZZZ	201	240		240	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 32)
366	921	MWL	928	MAU	NE	NMWZZZZZ	501	240		240	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 33)
367	921	MWL	928	MAU	NE	NMWZZZZZ	501	2,000		2,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 33)
368	921	MWL	928	MAU	NE	NMWZZZZZ	501	3,000		3,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 33)
369	921	MWL	928	MAU	NE	NMWZZZZZ	501	7,200		7,200	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 33)
370	923	MWL	928	MAU	NE	NMWZZZZZ	550	778		778	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 34)
371	923	MWL	928	MAU	NE	NMWZZZZZ	550	2,389		2,389	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 35)
372	923	MWL	928	MAU	NE	NMWZZZZZ	502	5,004		5,004	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 36)

MAUI ELECTRIC COMPANY, LTD.
DIRECT NONLABOR SUPPORT SUMMARY

	NARUC	RA	Act	Loc	Ind	Proj	EE	2007 Oper Budget	Adjust	2007 TY Estimate	Testimony	Reference
373	923	MWL	960	MAU	NE	NMWZZZZZ	502	4,000		4,000	T-9	TO BE PROVIDED BY MECO T-6 (Attachment 13D, Page 37)
		Nonlabor totals						14,322,027	(33,850)	14,288,177		
		Memo:										
		Nonlabor (above)						14,322,027				
		Labor						2,181,504				
		Overheads AND other						(2,798,026)				
		Total 2007 Operating Budget for A&G						13,705,505				
Other non-A&G O&M for Administration Department:												
374	910	MSA	100	MAU	NE	NMSZZZZZ	550	29,971		29,971	T-8	ATTACHMENT R, PAGE 73
375	910	MSA	750	MAU	NE	NMSZZZZZ	550	2,067		2,067	T-8	ATTACHMENT R, PAGE 74
376	910	MSC	750	MAU	NE	M0000363	201	16,000		16,000	T-8	ATTACHMENT R, PAGE 56
377	910	MSC	750	MAU	NE	M0000363	201	13,800		13,800	T-8	ATTACHMENT R, PAGE 57
378	910	MSC	750	MAU	NE	M0000363	201	6,300		6,300	T-8	ATTACHMENT R, PAGE 58
379	910	MSC	750	MAU	NE	M0000363	201	2,000		2,000	T-8	ATTACHMENT R, PAGE 59
380	910M	MSC	750	MAM	NE	M0000363	201	1,300		1,300	T-8	ATTACHMENT R, PAGE 60
381	910L	MSC	750	MAL	NE	M0000363	201	700		700	T-8	ATTACHMENT R, PAGE 61
382	910	MSC	750	MAU	NE	M0000363	501	2,000		2,000	T-8	ATTACHMENT R, PAGE 62
383	910	MSC	750	MAU	NE	M0000363	501	150		150	T-8	ATTACHMENT R, PAGE 63
384	910	MSC	750	MAU	NE	M0000363	501	50		50	T-8	ATTACHMENT R, PAGE 64
385	910	MSC	750	MAU	NE	M0000363	521	1,100		1,100	T-8	ATTACHMENT R, PAGE 65
386	910	MSC	750	MAU	NE	M0000363	521	100		100	T-8	ATTACHMENT R, PAGE 66
387	910	MSC	750	MAU	NE	M0000363	522	3,500		3,500	T-8	ATTACHMENT R, PAGE 67
388	910M	MSC	750	MAM	NE	M0000363	522	250		250	T-8	ATTACHMENT R, PAGE 68
389	910L	MSC	750	MAL	NE	M0000363	522	200		200	T-8	ATTACHMENT R, PAGE 69
390	910	MSC	750	MAU	NE	M0000363	550	31,762		31,762	T-8	ATTACHMENT R, PAGE 74
391	910	MSC	750	MAU	NE	M0000363	550	11,105		11,105	T-8	ATTACHMENT R, PAGE 74
392	910	MSC	750	MAU	NE	M0000363	550	3,300		3,300	T-8	ATTACHMENT R, PAGE 74
393	911	MSC	751	MAU	NE	M0000364	501	15,000		15,000	T-8	ATTACHMENT R, PAGE 70
394	911	MSC	751	MAU	NE	M0000364	501	15,000		15,000	T-8	ATTACHMENT R, PAGE 71

CA-IR-370

Ref: MECO T-9 response to CA-IR-2 (A&G NonLabor-Vehicles).

Referring to Attachment A, page 6, of the response to CA-IR-2, Item 202 refers to supporting documentation (Attachment R, page 72) which identifies the forecast amount of $22,439 as Medium Vehicle (MSA-753). The forecast amount is based on 1,984 operating hours for one vehicle at an hourly rate of $11.31. Please provide the following:

a. Please identify the make, model and year of this vehicle.

b. Is this vehicle leased or MECO owned?

c. How was the hourly rate of $11.31 determined?

d. Does this hourly rate represent repair and maintenance costs, operating costs or lease/ ownership cost responsibility apportionment? Please explain.

e. Please describe MECO's accounting for such costs.

MECO Response:

a. The subject vehicle is a 1993 Chevrolet Step van.

b. The subject vehicle is owned by Maui Electric Company, Ltd.

c. Attachment 1 to this response provides the methodology used to calculate the vehicles on-cost rates for the 2007 Operating Budget. Please note that while the calculated rates shown on Attachment 1 should have been used in the 2007 Operating Budget that was used for purposes of calculating test year 2007 revenue requirements, incorrect vehicles on-cost rates were inadvertently used in the 2007 Operating Budget. As shown in section D. of Attachment 1, four of the five incorrect vehicles on-cost rates actually used were lower than the calculated rates that should have been used. The differences resulted in understating, by an estimated $202,000 (see column D5), the vehicles on-cost amounts cleared to operation and maintenance, capital, etc. accounts included in the 2007 Operating Budget that was used for purposes of calculating MECO's 2007 test year revenue requirements.

d. The hourly rate represents the hourly vehicles on-cost rate for medium-sized trucks. As indicated in MECO-WP-909, the primary cost items included in the vehicles on-cost are the costs related to the operation and maintenance of vehicles and special equipment, including vehicle related tools.

e. MECO accounts for vehicles on-costs in a manner consistent with the manner in which MECO accounts for all on-costs generally. MECO's accounting for on-costs is discussed in MECO T-9, page 80, beginning on line 13.

MAUI ELECTRIC COMPANY, LTD.
VEHICLES ON-COST RATES
2007 OPERATING BUDGET ($000)

A. Total Cost Pool 2,717

B. Allocation of Total Cost Pool by Vehicle Category
(allocation in proportion to 2005 actual costs):

Category	B1 2005 Actual Costs by Category	B2 2005 Actual Cost %	B3 = A 2007 Costs to be Allocated	B4 = B2 * B3 2007 Operating Budget Costs by Category
Heavy	555	22%	2,717	602
Medium	307	12%	2,717	334
Light	1,499	60%	2,717	1,627
Sedan	112	4%	2,717	122
Miscellaneous	30	1%	2,717	33
Totals	2,503	100%		2,717

C. Calculation of On-Cost Rate by Vehicle Category
(rate calculated as cost per hour):

Category	C1 = B4 2007 Operating Budget Costs by Category	C2 2007 Operating Budget Vehicle Hours (000)	C3 = C1 / C2 Calculated 2007 Operating Budget On-Cost Rate
Heavy	602	46	13.19
Medium	334	28	12.01
Light	1,627	194	8.37
Sedan	122	42	2.92
Miscellaneous	33	198	0.16
	2,717	508	

D. Difference between On-Cost Rate Calculation and On-Cost Rate Actually Used
In 2007 Operating Budget

Category	D1 = C3 Calculated 2007 Operating Budget On-Cost Rate	D2 Actually Used 2007 Operating Budget On-Cost Rate	D3 = D2 - D1 Rate Difference	D4 = C2 2007 Operating Budget Vehicle Hours (000)	D5 = D3 * D4 Estimated $ Impact
Heavy	13.19	12.49	(0.70)	46	(32)
Medium	12.01	11.31	(0.70)	28	(20)
Light	8.37	7.64	(0.73)	194	(142)
Sedan	2.92	2.68	(0.24)	42	(10)
Miscellaneous	0.16	0.17	0.01	198	2
				508	(202)

Note: Calculation/footing differences are due to rounding.

CA-IR-371

Ref: MECO T-9 response to CA-IR-2 (Ellipse/Mincom Amortization).

Referring to Attachment A, page 1, of the response to CA-IR-2, Item 1 refers to supporting documentation (Attachment B) which sets forth MECO's the forecast of Ellipse Maintenance costs in the amount of $61,066. This amount includes nine months of amortization of a Relicensing Fee (buy-down fee) scheduled to expire in September 2007. Please provide the following:

a. Please confirm that above amounts includes MECO's 15% share of a total monthly amortization of $17,187 that will expire in September 2007. If this cannot be confirmed, please explain.

b. Please confirm that this amortization is related to two payments of $550,000 made by HECO in June 2004 and January 2005 to Mincom – HECO's Ellipse software vendor. If this cannot be confirmed, please explain.

c. Please confirm that these payments (buy-down fees) entitled HECO to reduce future software maintenance costs pursuant to Amendment No. 17 to the Mincom software license agreement. If this cannot be confirmed, please explain.

d. Has any portion of this amortization been explicitly considered in determining overall revenue requirement for MECO? Please explain.

e. Please confirm that 100% of MECO's share of the Ellipse maintenance costs (i.e., $61,066) set forth on Attachment B of the response to CA-IR-2 is charged to NARUC Account 923. If this cannot be confirmed, please provide the distribution of this amount by NARUC account.

MECO Response:

a. Yes, MECO confirms that only a portion, about $23,200 of amortization of re-licensing fees, of the $61,066 amount shown on Attachment B of the MECO T-9 response to CA-IR-2 is for monthly amortization that will expire in September 2007. Attachment 1 to this response presents a revised Attachment B to the MECO T-9 response to CA-IR-2, showing calculations (not shown on the original Attachment B) of the allocable portion of each cost component comprising the $61,066 total test year amount. Attachment B was revised only to show more information, and does not alter in any way the Company's test year estimate.

As shown in Attachment 1, the estimated costs for components other than the re-licensing fee amortization do not expire in September 2007.

b. Yes, the amortization amounts shown in Attachment B of the MECO T-9 response to CA-IR-2 relate to the two payments of $550,000 each made by HECO in June 2004 and January 2005 to Mincom.

c. Yes, the buy-down fees were costs the Company incurred in order to secure the benefit of reduced future software maintenance costs. Prior to execution of Amendment 17, annual software maintenance costs for Mincom software for 2004 was about $568,000 per year, with escalation based on the Consumer Price Index. Amendment 17 enabled the Companies (i.e., HECO, HELCO and MECO) to reduce their annual software maintenance costs to about $187,000 per year, with escalation based on the Consumer Price Index. MECO's 15% allocable share of those costs would have been reduced accordingly.

d. The entire $61,066 amount of Ellipse/Mincom amortization, including the $23,200 portion related to re-licensing, was included in MECO's test year estimate calculation of overall revenue requirements.

e. Yes, 100% of MECO's share of the Ellipse maintenance costs (i.e., $61,066) set forth on Attachment B of the MECO T-9 response to CA-IR-2 is charged to NARUC account no. 923.

CA-IR-371
DOCKET NO. 2006-0387
ATTACHMENT 1
PAGE 1 OF 1

CA-IR-2
DOCKET NO. 2006-0387
MECO T-9
ATTACHMENT B
PAGE 1 OF 1
(UPDATED SEPTEMBER 2007)

MAUI ELECTRIC COMPANY, LTD.
Budget for Ellipse Maintenance

	Relicensing Fee Amortization	Webservice Software Amendments: Amend 22	Amend 23	Maintenance Fee Amortization	BSI (Payroll Maint)	Total To be Allocated	MECO 15%	MECO Allocation
200701	17,187.39	1,756.43	1,068.84	16,661.00	1,263.65	37,937.31	15%	5,691
200702	17,187.39	1,756.43	1,068.84	16,661.00	1,263.65	37,937.31	15%	5,691
200703	17,187.39	1,756.43	1,068.84	16,661.00	1,263.65	37,937.31	15%	5,691
200704	17,187.39	1,756.43	1,068.84	16,661.00	1,263.65	37,937.31	15%	5,691
200705	17,187.39	1,756.43	1,095.56	16,661.00	1,263.65	37,964.04	15%	5,695
200706	17,187.39	1,756.43	1,095.56	17,077.52	1,263.65	38,380.56	15%	5,757
200707	17,187.39	1,800.34	1,095.56	17,077.52	1,263.65	38,424.47	15%	5,764
200708	17,187.39	1,800.34	1,095.56	17,077.52	1,263.65	38,424.47	15%	5,764
200709	17,187.39	1,800.34	1,095.56	17,077.52	1,263.65	38,424.47	15%	5,764
200710		1,800.34	1,095.56	17,077.52	1,263.65	21,237.08	15%	3,186
200711		1,800.34	1,095.56	17,077.52	1,263.65	21,237.08	15%	3,186
200712		1,800.34	1,095.56	17,077.52	1,263.65	21,237.08	15%	3,186
	154,686.51	21,340.67	13,039.82	202,847.66	15,163.85			61,066
	15%	15%	15%	15%	15%			
	23,203	3,201	1,956	30,427	2,275			

CA-IR-372

Ref: MECO T-9 response to CA-IR-2 (Ho'omaika'i Costs).

Referring to Attachment A, page 1, of the response to CA-IR-2, Item 2 refers to supporting documentation (Attachment C) which sets forth MECO's the forecast of Ho'omaika'i Costs in the amount of $93,650. This amount includes Ho'okina Awards costs that were eliminated by MECO T-9 in the June 2007 Update because the program was terminated. Please provide the following:

a. Please provide a summary of any written documentation describing the goals, objectives and purpose of the Ho'omaika'i Awards Banquet, including any documentation distributed to employees.

b. Please provide a summary of any written documentation describing the goals, objectives and purpose of the Process Area Team Awards, including any documentation distributed to employees.

c. Please identify and describe any conditions or employee eligibility criteria under which awards or participation may or may not be granted under either of the awards identified in parts (a) and (b) above.

d. Please clarify whether either of the awards identified in parts (a) and (b) above involve any forms of monetary compensation to the individual employee.

e. Please provide the actual costs incurred by MECO in 2004, 2005 and 2006 (by NARUC account) for each of the following:

    1. Ho'omaika'i Awards Banquet
    2. Process Area Team Awards

MECO Response:

a. See Attachment A. Please note that the Attachment A information relates to the 2001 program year but is still applicable.

b. See Attachment A. Please note that the Attachment A information relates to the 2001 program year but is still applicable.

c. See Attachment A. Please note that the Attachment A information relates to the 2001 program year but is still applicable.

d. The Ho'omaika'i Awards Banquet and the Process Area Team Awards do not involve any form of monetary compensation to individual employees.

e. The amounts provided below represent actual costs incurred for the respective program year, as opposed to calendar year, because the cost data by program year more appropriately matches performance with respect to the program objectives with the cost of the program.

	NARUC Account #	NARUC Account Name	Program Costs ($) 2004	2005	2006
Ho'omaika'i Awards Banquet	242	Miscellaneous Current & Accrued Liabilities	0	22,803	0
Process Area Team Awards	242	Miscellaneous Current & Accrued Liabilities	5,381	29,260	0

Please note that during a calendar year, accounting entries are recorded to debit expense account no. 920, A&G Labor, and credit Account no. 242, Miscellaneous Current & Accrued Liabilities, in the amount of the budgeted program cost. In the following year, actual costs are incurred which reduces the amount accrued in Account no. 242.

MECO's Safety Recognition Awards Program 2001

PURPOSE

To recognize all MECO employees with outstanding industrial accident records, and who have significantly contributed to MECO's Safety Programs.

PROGRAM THRESHOLD

Company meets 2001 Safety Goal of 160 hours lost time severity rate. (Lost time hours are measured using OSHA recordable data).

Company is free of a fatality.

ELIGIBILITY

All regular full time or part-time employees employed for 20 or more hours a week.

You worked at least 1000 productive straight time hours as a full-time employee (700 for part-time employees) during the calendar year.

Productive straight-time hours include regular working hours, light duty work, and military leave. It excludes sick leave, workers' compensation, vacation, holidays, family and personal leave, as well as long-term disability.

You were actively employed in an eligible position as of December 31, 2001.

Employees who meet the criteria above and transferred to another HEI company and remained employed through December 31 of the calendar year will remain eligible based on their last position with the former utility company.

AWARD

Invitation to the Ho'omaika'i Awards Banquet.

Process Area Team Awards & Special Recognition Awards, as appropriate

PROCESS AREA TEAM AWARDS

Process areas are grouped by Levels of Exposure:

LEVEL 1- High Exposure

- Transmission & Distribution and Power Supply

LEVEL 2 - Moderate Exposure

- Customer Service (Field Operations & Meter), Engineering.

LEVEL 3 - Low Exposure

CRITERIA

Departments must achieve their corporate safety goal the year in which the award is given.

AWARD

LEVEL 1:	Gift - $100 value
LEVEL 2 -	Gift - $75 value
LEVEL 3 :	Gift - $50 value

If the Company fails to achieve the Corporate Safety Goal of 160 hours lost time severity rate, but Level 1 Departments meet their 2001 Safety Goal, their employees will receive the Level 3 Award.

Special Recognition Awards

A. Individual Safety Achievement Awards
B. Shop Steward Safety Awards
C. Front-Line Supervisor Awards

:se awards are given annually, but only when bonafide ployees meet all the established criteria.

INDIVIDUAL SAFETY ACHIEVEMENT AWARDS

ELIGIBILITY

Energy Delivery and Power Supply.

- 1 person per department

CRITERIA

- The best lost time record, with a minimum of 20 years of lost time and accident-free experience.
- Employees will be eligible only once in a 5-year period.

AWARD

- $500 per person (less all applicable taxes and deductions)

B. SHOP STEWARD SAFETY AWARDS

ELIGIBILITY

Trades & Crafts Employees Only.

Transmission & Distribution

Power Supply

CRITERIA

Work Group's safety record is significantly improved from previous year, or No Lost Time Accidents.
Active participant in Division, Department, or Company Safety Committee
Prepared & submitted a valid safety related program, new tool, new process (procedure) for the Work Group.
Attended 100% of Safety Training programs.
Optimally meets Company's Workforce Excellence Skills
Participated appropriately in HIOSH investigation and/or industrial & preventive vehicle accident investigations.
Individual served as a role model for the Work Group (i.e. no industrial and preventive vehicle accidents)

AWARD

$1000 (less all applicable taxes and deductions)

Limited to one person per Department

C. FRONT-LINE SUPERVISOR AWARDS

ELIGIBILITY

Mgmt Supervisors of Trades & Crafts Employees Only.

Transmission & Distribution

Power Supply

CRITERIA

Work Group's safety record is improved from previous year, or No Lost Time Accidents
Active participant in Division, Department, or Company Safety Committee.
Served on a job or Safety Related Task Force on behalf of the Department, or Division.
Prepared & submitted a valid safety related program, new tool, new process (procedure) for Work Group, Division, Department or Company.
Attended 100% of Safety Training programs.
Optimally meets Company's Workforce Excellence Skills required of all employees.
Participated appropriately in HIOSH investigation and/or industrial, vehicle, public accident investigations.
Individual served as a role model for Division or Department.
(no industrial and preventive vehicle accidents)

AWARD

$1000 (less all applicable taxes and deductions)

Limited to one person per Department

The Company has the exclusive authority to determine policies and procedures, and reserves the right to terminate, amend, or modify the Safety Recognition Program at any time

Revised 9/02.01

CA-IR-373

Ref: MECO T-9, page 21, & MECO-908 (Allocations to Molokai and Lanai).

The referenced documents describe the allocation of certain A&G expenses to Molokai and Lanai based on the number of customers on Maui, Molokai (4.8%) and Lanai (2.45%). Please provide the following:

a. Please identify all NARUC accounts (not limited to A&G accounts) which are allocated, at least in part, to Molokai and Lanai.

b. Regarding the accounts provided in response to part (a) above, are all allocations based on forecasted customer numbers?

   1. If so, are the Molokai (4.8%) and Lanai (2.45%) allocation factors used for all accounts? Please explain.

   2. If not, please identify the allocation basis, provide the allocation factors and show how such factors were calculated for each account.

MECO Response:

a. MECO's understanding of the instant information request is that the Consumer Advocate is seeking to identify NARUC accounts which are allocated, at least in part, to Molokai and Lanai for purposes of rate-making with respect to MECO's 2007 test year estimates. Attachment 1 to this response was prepared on the basis of this understanding.

b. No. Not all allocations identified in Attachment 1 are based on forecasted customer counts. In addition to providing a listing of NARUC accounts which are allocated, at least in part, to Molokai and Lanai, Attachment 1 also provides the basis for allocation, the Lanai and Molokai allocation factors, and the references for where such allocations can be found in the instant rate case proceeding.

MAUI ELECTRIC COMPANY, LTD.
ALLOCATIONS TO LANAI AND MOLOKAI

Item #	NARUC Account No.	Allocation Basis	Reference	Allocation Factors (%): Lanai	Molokai
1	A&G O&M accounts other than account no. 926 and 932	Forecasted # of customers	MECO-908	2.45%	4.80%
2	Account no. 926 employee pensions and benefits	Forecasted # of employees	MECO T-10, page 3, beginning at line 16	2.69%	4.18%
3	Account nos. 901 supervision and 903 customer records and collections	Forecasted # of customers	MECO-WP-701, page 24	2.45%	4.80%
4	Account no. 904 uncollectible accounts	Forecasted revenue	MECO-WP-711, page 4 (allocation factors at right are for calculations at proposed rates)	3.21%	3.70%
5	Pension balances component of rate base	Forecasted # of employees	MECO-928, page 3	2.69%	4.18%
6	OPEB balances component of rate base	Forecasted # of employees	MECO-929, page 5	2.69%	4.18%
7	Account no. 926 employee pensions and benefits - pension tracking mechanism amortization of pension asset balance	Forecasted # of employees	June 2007 Update to MECO T-9, page 3	2.69%	4.18%
8	Account no. 186 other deferred debits - unamortized deferred computer system development costs component of rate base (note: this item was removed from the test year estimate in the June 2007 Update to MECO T-15)	Forecasted # of employees	MECO-925	2.69%	4.18%
9	Account no. 408 taxes other than income taxes - payroll taxes	Forecasted labor costs	MECO-WP-1301, page 2	4.04%	5.00%
10	Account nos. 427 interest on long term debt, 430 interest on debt to associated companies, and 431 other interest expense	Relative 2006 plant in service balances	MECO-WP-1302, page 3	3.80%	4.45%
11	Account no. 412 investment tax credits - state investment tax credit	Relative 2006 plant in service balances	MECO-1304	3.80%	4.45%
12	Account no. 283 accumulated deferred income taxes - deferred federal and state income taxes	Relative 2006 plant in service balances	MECO-1305	3.80%	4.45%
13	Account no. 235 customer deposits	Forecasted # of customers	MECO-WP-713, page 2	2.45%	4.80%

CA-IR-374

Ref: MECO-909 & MECO T-9 response to CA-IR-2 (Outside Services - Legal).

MECO-909 provides a historical comparison of outside service legal fees with the 2006 budget and 2007 rate case test year. Please provide the following:

a. Please provide an update MECO-909 showing 2006 actual amounts in a comparable format.

b. Attachment O, page 4, of the response to CA-IR-2 shows how the legal amounts were determined for the first two items (Activities 618 and 738). However, the basis and method of forecasting the remaining three items (Activities 765, 928 and 960) is unclear, as the forecast support was not located in the response to CA-IR-2. Please provide a copy of additional documentation showing how these amounts were determined.

MECO Response:

a. Please see Attachment 1 to this response.

b. The supporting documentation for Activity 765 was included in the MECO T-9 response to CA-IR-2, Attachment R, page 14. The supporting documentation for Activity 928 was included in the MECO T-6 response to CA-IR-2, Attachment 13D, page 36. The supporting documentation for Activity 960 was included in the MECO T-6 response to CA-IR-2, Attachment 13D, page 37.

MAUI ELECTRIC COMPANY, LIMITED
ACCOUNT 923.01 OUTSIDE SERVICES - LEGAL
TEST YEAR 2007

Activity		Actual 2001	Actual 2002	Actual 2003	Actual 2004	Actual 2005	Operating Budget 2006	Actual 2006	Operating Budget 2007	Adjust.	Test Year 2007
618	Manage Past Due Accounts	-	-	-	-	487	1,200	-	600	-	600
738	Prepare & Support Other PUC Regulatory Filings	256	-	-	-	635	1,200	2,168	500	-	500
765	Develop, Manage & Admin Employ Pol, Prac & Proced	9,601	41,666	391	-	-	10,000	-	10,000	-	10,000
928	Process Easements	5,000	4,583	5,000	5,417	5,000	5,004	7,521	5,004		5,004
960	Manage Service & Process Documentation	3,101	622	648	1,379	1,365	4,000	509	4,000	-	4,000
	Others, net	4,273	-	-	241	-	6,000	894	-	-	-
Total Account 923.01		22,231	46,871	6,039	7,037	7,487	27,404	11,092	20,104	-	20,104

CA-IR-375

Ref: MECO-910 & MECO T-9 response to CA-IR-2 (Outside Services - Other).

A footnote on MECO-910 indicates that certain fees paid to KPMG were erroneously charged to Account 921 during calendar years 2004, 2005 and 2006 and erroneously forecasted to Account 921 for 2006 as well. Please provide the following:

a. Please provide an update to MECO-910 showing 2006 actual amounts in a comparable format.

b. Please confirm that the amounts set forth on MECO-910 are too low because of the erroneous charges to Account 921. If this cannot be confirmed, please explain.

c. Please isolate the amounts that were improperly charged to Account 921 in calendar years 2004, 2005 and 2006 to enable a reasonable comparison to MECO's 2007 test year forecast.

d. Referring to Attachment O, page 3, of the response to CA-IR-2, please explain how these "outside services-other" amounts pertaining to the Accounting Department and forecast to Account 921 do or do not relate to the forecast amounts set forth on MECO-910.

e. Referring to part (d) above, the basis and method of forecasting the 2007 test year amount of $88,080 for KPMG fees is unclear, as additional forecast support was not located in the response to CA-IR-2. Please provide a copy of additional documentation showing how this amount was determined.

MECO Response:

a. Please see Attachment 1 to this response.

b. This confirms that the recorded amounts for the years 2004 and 2005 set forth on the original MECO-910 filed in direct testimony are too low because amounts in these years were erroneously charged to Account no. 921. Please note that the footnote on the original MECO-910 incorrectly indicated that 2006 recorded amounts were also erroneously charged to Account no. 921. The amounts recorded for 2006 to Account no. 923.02, which are shown in Attachment 1 to this response, represent all of the recorded 2006 expenses for KPMG fees.

c. Attachment 1, which is provided in response to part a. above, also presents the amount of KPMG fees that were erroneously charged to Account no. 921 during the years 2004 and

2005 and presents a grand total of KPMG fees charged to Account nos. 921 and 923.02 for each of the years shown.

d. The items identified on Attachment O, page 3 of the MECO T-9 response to CA-IR-2 do not relate in any way to the amounts indicated on MECO-910. The items identified on Attachment O, page 3 of the MECO T-9 response to CA-IR-2 relate to outside services for activities such as managing past due accounts, telephone communication, records management, and purchasing.

e. As indicated on Attachment A, page 2, lines 58 and 59 (the amounts shown on these two lines total the referenced $88,080) of the MECO T-9 response to CA-IR-2, the supporting documentation for the test year 2007 estimate for KPMG fees is found in MECO-WP-902.

MAUI ELECTRIC COMPANY, LIMITED
ACCOUNT 923.02 OUTSIDE SERVICES - OTHER
TEST YEAR 2007

	Actual 2001	Actual 2002	Actual 2003	Actual 2004 *	Actual 2005 *	Actual 2006	Operating Budget 2007	Adjust.	Test Year 2007
Account No. 923.02:									
KPMG	25,200	27,408	24,000	3,567	27,916	83,854	88,080	-	88,080
					-		-		-
Total 923.02	25,200	27,408	24,000	3,567	27,916	83,854	88,080	-	88,080
Account No. 921:									
KPMG	-	-	-	13,124	99,374	-	-	-	-
					-		-		-
Total	-	-	-	13,124	99,374	-	-	-	-
Total KPMG Charges	25,200	27,408	24,000	16,691	127,290	83,854	88,080	-	88,080

* Note: Certain fees paid to KPMG were erroneously recorded to Account 921 during the years 2004 and 2005, and were erroneously forecasted to Account 921 for 2006 as well.

CA-IR-376

Ref: MECO-WP-1502; Responses to CA-IR-180 and CA-IR-260 (Section 199 Deduction).

Please provide the following:

a. Confirm that the response to CA-IR-180, page 2 contains the most current Section 199 deduction value or provide an updated test year calculation of QPAI and related DPAD deduction at 6% 2007 rate.

b. Provide a complete copy of the actual deduction to be taken on the 2006 filed tax return for MECO.

c. Explain each difference in methodology employed in your response to part (a) of this information request, in contrast to part (b), if any.

MECO Response

a. MECO has recalculated its Section 199 deduction based on the latest update to revenue requirements. See the calculation on page 3 of this response.

b. See page 6 of this response.

c. The only difference in methodology employed in the calculation for the 2006 tax return versus the 2007 test year calculation is how MECO's interest deduction was apportioned to generation activity.

In the 2007 test year Section 199 calculation, interest expense was allocated based on relative rate base investment. This methodology was first adopted in the HELCO rate case, Docket No. 05-0315 (see CA-SIR-23 in the HELCO proceeding), and is consistent with the rules under Treasury Regulation 1.861-9T(g), allowing for a fair value of assets allocation of interest. For purposes of MECO's 2006 income tax return, interest expense was allocated to generation based on the ratio of net tax basis of production assets to the net tax basis of all depreciable assets. This allocation method is an elective method under the previously cited Treasury Regulation Section 1.861-9T(g).

Note that the QPAI computation for the 2006 tax return included an additional interest deduction allocation from HEI in the amount of $1,731,566. However, for rate case purposes, HEI interest was not allocated to MECO. The QPAI for the 2006 tax return was $13,008,999 compared to the 2007 test year QPAI of $18,781,000.

MAUI ELECTRIC COMPANY, LTD.
Calculation of Qualified Production Activity Income (QPAI)
Test Year 2007
($ Thousands)

	TY 2007 Proposed Rates (June 2007 Update)		Allocated To Generation		
Electric Sales Revenue	374,584.0	(C)	281,954	(E)	See note (1).
Other Operating Revenue	1,759.0				
	376,343.0		281,954		
Power production expense-Fuel	(180,465.0)		(180,465)		
Power production expense-Purchased Power	(33,982.0)	(A)			
Power production expense-Production	(21,487.0)		(21,487)		
Transmission expense	(2,277.0)		-		
Distribution expense	(6,336.0)		-		
Customer accounts expense	(3,086.0)		(2,580)		Allocation based on note (2) below.
Customer service	(1,743.0)		(1,457)		Allocation based on note (2) below.
A & G expense	(13,882.0)		(11,605)		Allocation based on note (2) below.
Miscellaneous	(225.0)		(188)		Allocation based on note (2) below.
Total O&M expense	(263,483.0)		(217,781)		
Depreciation expense	(28,012.0)		-		
Amort of State ITC	518.0		-		
Taxes other than income taxes	(34,737.0)		(26,173)		CA-IR-376, page 5
Income taxes	(15,784.0)		-		
Interest on customer deposits	(221.0)		(185)		Allocation based on note (2) below.
Other operating expense	(78,236.0)		(26,358)		
Net utility operating income	34,624.0				
Tax Adjustments:					
Interest	(9,895.0)		(5,913)		Allocation based on note (5) below.
Estimated Current State ITC on Production Assets			153		See note (4) below.
Estimated State Tax Depreciation on Production Assets			(12,354)		See note (3) below.
State Pretax Income			19,701		(F)
Less: State Tax Deduction			(1,184)		(F) * 6.0150376% state tax rate
State Taxable Income			18,517		
Add: Federal State Tax Depreciation Difference			264		See note (3) below.
Estimated taxable income for generation activity for 2007			18,781		
Estimated Domestic Production Activities Deduction (6%)			1,127		
Estimated Federal Tax Effect at 35%			394		

NOTES:

(1) Calculation of Revenue Attributable to Purchased Power:

Power Production Expense-Purchased Power	33,982	(A)
Divided by: Revenue Tax Gross Up (1-.08885)	91.1150%	
Purchased Power Revenue Grossed Up	37,296	(B)

Electric Sales Revenue Net of Purchased Power Revenues

Electric Sales Revenue	374,584	(C)
Less: Electric Sales Revenues Related to Purchased Power	(37,296)	(B)
Electric Sales Revenue, Net of Purchased Power Revenue	337,288	(D)

Production Sales Net of Purchased Power Revenues

Total Production Sales	319,250	CA-IR-376, p. 4
Less: Production Sales Revenues Related to Purchased Power	(37,296)	(B)
Production Sales Revenue, Net of Purchased Power Revenue	281,954	(E)

(2) Allocation based on current cost of service workpapers as adjusted for purchased power revenues.

Production Sales / Electric Sales Revenue	281,954 / 337,288	(E) / (D)
Production Cost of Service Percentage Calculated	83.5944%	

(3)

2007 State Tax Depreciation of Production Assets	(12,354)
2007 Federal Tax Depreciation of Production Assets	(12,090)
Federal State Depreciation Adjustment	264

(4)

2007 Production Tax Additions per State Tax Depreciation	3,831.2	
State ITC Rate	4%	
2007 State ITC Related to Production Assets	153.2	

(5)

Rate Base Associated with Production Activities	230,684.8	CA-IR-376, p. 4
Average Rate Base at Present Rates	386,040.0	MECO-1501
Interest Allocation Based on Rate Base %	59.7567%	

MAUI ELECTRIC COMPANY, LTD.
Taxes Other Than Income
Test Year 2007
($ Thousands)

	TY 2007 Proposed Rates	References
Total Production Sales		
Maui Division	297,875.6	MECO-WP-1802, p. 65
Lanai Division	9,658.2	MECO-WP-1802, p. 154
Molokai Division	11,716.0	MECO-WP-1802, p. 243
Total Production Sales	319,249.8	CA-IR-376, p. 3
Rate Base Associated with Production Function		
Maui Division	208,591.1	MECO-WP-1802, p. 49
Lanai Division	10,259.7	MECO-WP-1802, p. 138
Molokai Division	11,834.0	MECO-WP-1802, p. 227
Total Production Sales	230,684.8	CA-IR-376, p. 3

MAUI ELECTRIC COMPANY, LTD.
Taxes Other Than Income
Test Year 2007
($ Thousands)

	TY 2007	References
PSC Tax Calculation		
Electric Sales Revenue	281,954	CA-IR-376, p. 3
Less: Bad Debt Deduction	(188)	See Note 1 below
PSC Tax Base	281,766	
PSC Tax Rate	5.885%	MECO-WP-1301, p. 1
PSC Taxes	16,582	
PUC Fee Calculation		
Electric Sales Revenue	281,954	CA-IR-376, p. 3
Less: Bad Debt Deduction	(188)	See Note 1 below
PUC Fee Base	281,766	
PUC Fees Rate	0.5%	MECO-WP-1301, p. 1
PUC Fees	1,409	
Franchise Royalty Tax Calculation		
Electric Sales Revenue	281,954	CA-IR-376, p. 3
Less: Bad Debt Deduction	(188)	See Note 1 below
Franchise Royalty Tax Base	281,766	
Franchise Royalty Tax Rate	2.5%	MECO-WP-1301, p. 1
Franchise Royalty Taxes	7,044	
Payroll Taxes		
Total Payroll Taxes	1,362	June 2007 Update, MECO-WP-1301, p. 2
Allocation Factor	83.5944%	See Note 2 on CA-IR-376, p. 3
Payroll Taxes allocated to Production	1,139	
Total Taxes Other Than Income	26,173	CA-IR-376, p. 3
NOTE 1: Calculation of Bad Debt Deduction		
Total Allowance for Uncollectible Accounts	225	MECO-2001, p. 1
Production Cost of Service Percentage	83.5944%	See Note 2 on CA-IR-376, p. 3
Bad Debt allocated to Production	188	

MAUI ELECTRIC CO., LTD.
Calculation of Domestic Production Activities Deduction (DPAD)
2006

	2006		Generation		
Electric Sales Revenue	343,915,950.10	(C)	264,035,664.52	(E)	See note (1).
Other Operating Revenue	1,349,214.20				
	345,265,164.30		264,035,664.52		
Power production expense-Fuel	(180,271,987.35)		(180,271,987.35)		
Power production expense-Purchased Power	(26,454,364.69)	(A)			
Power production expense-Production	(19,911,499.03)		(19,911,499.03)		
Transmission expense	(1,861,631.24)		-		
Distribution expense	(5,234,877.36)		-		
Customer accounts expense	(2,775,825.88)		(2,327,593.31)		Allocation based on note (2) below.
Customer service	(3,694,717.71)		(3,098,105.07)		Allocation based on note (2) below.
A & G Operations expense	(10,368,828.27)		(8,694,499.01)		Allocation based on note (2) below.
A&G Maintenance	(211,097.96)		(177,010.45)		Allocation based on note (2) below.
Total O&M expense	(250,784,829.49)		(214,480,694.23)		
Depreciation expense	(25,644,287.95)		-		
Taxes other than income taxes	(32,011,314.14)		(24,568,013.61)		
Income taxes (includes amort of state ITC)	(11,827,170.00)		-		
Miscellaneous			-		
Other operating expense	(69,482,772.09)		(24,568,013.61)		
Net utility operating income	24,997,562.72				
Tax Adjustments:					
Interest	(8,351,260.00)		(3,736,825.93)		Allocation based on note (5) below.
Interest allocated from HEI	(3,869,797.08)		(1,731,566.02)		Allocation based on note (5) below.
Estimated Current State ITC on Production Assets			2,292,425.10		See note (4) below.
Estimated State Tax Depreciation on Production Assets			(8,280,892.28)		See note (3) below.
State Pretax Income			13,530,097.55	(F)	
Less: State Tax Deduction			(813,840.46)	(F) * 6.0150376% state tax rate	
State Taxable Income			12,716,257.10		
Add: Federal State Tax Depreciation Difference			292,742.31		See note (3) below.
Estimated taxable income for generation activity for 2006			13,008,999.41		
Estimated Domestic Production Activities Deduction (3%)			**390,269.98**		
Estimated Federal Tax Effect at 35%			**136,594.49**		

NOTES:

(1) Calculation of Revenue Attributable to Purchased Power:

Power Production Expense-Purchased Power	26,454,364.69	(A)	
Divided by: Revenue Tax Gross Up (1-.08885)	0.91		
Purchased Power Revenue Grossed Up	29,034,039.06	(B)	
Electric Sales Revenue Net of Purchased Power Revenues			
Electric Sales Revenue	343,915,950.10	(C)	
Less: Electric Sales Revenues Related to Purchased Power	(29,034,039.06)	(B)	
Electric Sales Revenue, Net of Purchased Power Revenue	314,881,911.04	(D)	
Production Sales Net of Purchased Power Revenues			
Total Production Sales	320,840,200 / 376,504,500 85%	293,069,703.58	Per latest COS run
Less: Production Sales Revenues Related to Purchased Power		(29,034,039.06)	(B)
Production Sales Revenue, Net of Purchased Power Revenue		264,035,664.52	(E)

(2) Allocation based on current cost of service workpapers as adjusted for purchased power revenues.

Production Sales / Electric Sales Revenue	264,035,664.52 / 314,881,911.04	(E) / (D)
Production Cost of Service Percentage Calculated	83.8523%	

(3)

2006 State Tax Depreciation of Production Assets	8,280,892.28
2006 Federal Tax Depreciation of Production Assets	7,988,149.97
Federal State Depreciation Adjustment	(292,742.31)

(4)

2006 Production Tax Additions	57,310,627.56
State ITC Rate	4%
2006 State ITC Related to Production Assets	2,292,425.10

(5) Compute average assets:

	2006	2005
Tax NBV of Production Assets	142,760,158	92,655,797
Tax NBV of All Depreciable Assets	290,428,967	235,691,296
Average Tax NBV of Production Assets	117,707,977	
Average Tax NBV of All Depreciable Assets	263,060,132	
Interest Allocation Based on Average Tax NBV of Assets%	**44.75%**	

CA-IR-377

Ref: MECO June Update T-13, page 2 (CWIP Related Accumulated Deferred Income Taxes).

According to the response, "Note that in HECO Docket No. 2006-0386, the CA did not agree with the position reflected in items 1) and 2) above, dealing with the revisions to deferred taxes related to AFUDC in CWIP and related to TCI. HECO is in the process of proposing a settlement to these issues and, depending on the outcome, MECO's position may change in concert with HECO's settlement." Please provide the following:

a. State whether MECO's position has changed as a result of HECO's settlement.

b. If your response to part (a) of this information request is negative, please state and explain all reasons why the resolution of this issue for HECO should not also be applied for MECO.

c. If your response to part (a) of this information request is affirmative, please provide the revised amounts for the Attachments to MECO T-13 update that should be applied to reflect MECO's revised position.

MECO Response

a. MECO has changed its position with respect to the deferred taxes related to AFUDC in CWIP and to TCI in light of the settlement position in HECO Docket No. 2006-0386. In that case, HECO agreed to include in rate base all the deferred taxes associated with AFUDC and to similarly include all the deferred taxes associated with TCI. As part of the settlement, the parties agreed to include in rate base the Regulatory Asset for AFUDC equity tax gross up in its entirety, along with the related deferred taxes. In its direct testimony, MECO proposed an adjustment to exclude that portion of the Regulatory Asset for AFUDC Gross Up related to AFUDC equity in CWIP. This adjustment to the Regulatory Asset should not be made to be consistent with the settlement position in HECO Docket No. 2006-0386.

b. Not applicable.

c. See attached schedules for an updated MECO-1305 and supporting workpapers on pages 2 through 5 of this response and an updated MECO-1306 on pages 6 and 7 of this response.

Maui Electric Company, Ltd.
Deferred Income Taxes by Individual
Item and Year-End Balances
For Years 2006 - 2007

(In Thousands)

		Estimated Balance 12/31/2006	Estimated 2007 Net Add/(Amort)	Estimated Balance 12/31/2007
	MAUI			
	Accelerated Depreciation Over Straight-Line			
1	Federal	12,147	(555)	11,592
2	State	1,428	(16)	1,412
3	Subtotal	13,575	(571)	13,004
	All Other Items			
4	Federal	4,727	(3,486)	1,241
5	State	870	(633)	237
6	Subtotal	4,016	(4,119)	(103)
7	Total	17,591	(4,690)	12,901
8	Average Balance			15,246
	Avg Bal per Direct			18,823
	Net Change in Avg Bal			(3,577)
	LANAI			
	Accelerated Depreciation Over Straight-Line			
9	Federal	505	(23)	482
10	State	60	(1)	59
11	Subtotal	565	(24)	541
	All Other Items			
12	Federal	197	(145)	52
13	State	36	(26)	10
14	Subtotal	165	(171)	(6)
15	Total	730	(195)	535
16	Average Balance			633
	Avg Bal per Direct			782
	Net Change in Avg Bal			(149)

Source: MECO-WP-1305

Maui Electric Company, Ltd.
Deferred Income Taxes by Individual
Item and Year-End Balances
For Years 2006 - 2007

(In Thousands)

		Estimated Balance 12/31/2006	Estimated 2007 Net Add/(Amort)	UPDATE Balance 12/31/2007
	MOLOKAI			
	Accelerated Depreciation Over Straight-Line			
17	Federal	589	(27)	562
18	State	70	(1)	69
19	Subtotal	659	(28)	631
	All Other Items			
20	Federal	229	(169)	60
21	State	42	(31)	11
22	Subtotal	194	(200)	(6)
23	Total	853	(228)	625
24	Average Balance			739
	Avg Bal per Direct			913
	Net Change in Avg Bal			(174)
	TOTAL MECO			
	Accelerated Depreciation Over Straight-Line			
25	Federal	13,241	(605)	12,636
26	State	1,558	(18)	1,540
27	Subtotal	14,799	(623)	14,176
	All Other Items			
28	Federal	5,153	(3,800)	1,353
29	State	948	(690)	258
30	Subtotal	6,101	(4,490)	1,611
31	Total	20,900	(5,113)	15,787
32	Average Balance			18,344
	Avg Bal per Direct			20,518
	Net Change in Avg Bal			(2,174)

Source: MECO-WP-1305

MAUI ELECTRIC COMPANY, LTD.
DEFERRED INCOME TAXES - FEDERAL

Dr(Cr) Activity	Description	Actual Balance @ 12/31/06	Estimated 2006 Post YE Exp/(Benefit)	Reclassifications/ Adjustments	Adjusted Balance @ 12/31/06	Estimated 2007 Exp/(Benefit)	Estimated Balance @ 12/31/07
28309	State ITC	3,707,546.00	223,916.00		3,931,462.00	52,108.00	3,983,570.00
28310	Rate Case Costs	0.00	(19,916.00)		(19,916.00)		(19,916.00)
28311	Rev Bond Diff	(349,945.00)			(349,945.00)	(496,064.00)	(846,009.00)
28312	Prepaid Expenses	(184,944.00)	(3,259.00)		(188,203.00)	(35,254.00)	(223,457.00)
28313	Uncoll Accts	49,100.00			49,100.00	0.00	49,100.00
28314	Computer Software Costs	41,074.00			41,074.00	27,086.00	68,160.00
28315	Cost of Removal	(3,851,421.00)			(3,851,421.00)	(436,184.00)	(4,287,605.00)
28316	Disc Wkrs Cmp	238,697.00	(553.00)		238,144.00	0.00	238,144.00
28317	Electric Disc Trust	(210,967.00)	(4,386.00)	215,353.00	0.00	0.00	0.00
28318	Pensn Cst	(1,703,675.00)		(13,775.00)	(1,717,450.00)	1,320,025.00	(397,425.00)
28319	Cap Items Chg	(55,910.00)			(55,910.00)	7,035.00	(48,875.00)
28321	Conn Fee	43,506.00		(43,506.00)	0.00	0.00	0.00
28323	Cap Int	3,274,921.00	(37,019.00)		3,237,902.00	(160,817.00)	3,077,085.00
28324	CIAC	4,967,264.00	1,147.00		4,968,411.00	3,009,620.00	7,978,031.00
28325	Cust Adv	125,513.00			125,513.00	38,197.00	163,710.00
28326	Int IRS Adj	166,572.00	(117,730.00)		48,842.00	0.00	48,842.00
28327	Exec Incen Comp	127,856.00	(50,366.00)		77,490.00	0.00	77,490.00
28328	Vacation Accrual	(27,868.00)			(27,868.00)	0.00	(27,868.00)
28329	Tri-Isle Cable	0.00			0.00		0.00
28330	FMB Red Prem & Exp	0.00			0.00	0.00	0.00
28331	CWIP Debt Transition	(98,479.00)			(98,479.00)	8,774.00	(89,705.00)
28332	CWIP Equity Transition	(290,000.00)			(290,000.00)	25,839.00	(264,161.00)
28333	Plant Trans (AFUDC)	(613,869.00)			(613,869.00)	81,448.00	(532,421.00)
28334	FAS 109 Flow Through	(51,494.00)			(51,494.00)	24,316.00	(27,178.00)
28335	CWIP Equity Net	(4,362,982.00)			(4,362,982.00)	54,507.00	(4,308,475.00)
28336	CWIP Debt	(2,240,850.00)			(2,240,850.00)	41,387.00	(2,199,463.00)
28337	CWIP Equity Gross-Up	(2,778,884.00)			(2,778,884.00)	34,717.00	(2,744,167.00)
28338	Reg Liab Fed ITC	604,509.00			604,509.00	(115,252.00)	489,257.00
28339	OPEB	569,671.00		(215,353.00)	354,318.00	185,210.00	539,528.00
28340	IRP/DSM Costs	(373,233.00)			(373,233.00)	0.00	(373,233.00)
28341	Excess Def Tax	(960.00)			(960.00)	960.00	0.00
28342	Deficit Def Tax	18,560.00			18,560.00	(2,511.00)	16,049.00
28343	Gen Liab Reserve	32,894.00			32,894.00	0.00	32,894.00
28344	G/(L) on ACRS Retirals	(1,469,439.00)			(1,469,439.00)	(16,447.00)	(1,485,886.00)
28400	Customer Information System	64,051.00			64,051.00	1,075.00	65,126.00
28401	Deloitte & Touche Fees	0.00			0.00		0.00
28402	Electric Vehicle Credit	0.00			0.00		0.00
28403	Ellipse Software Costs	6,398.00	(1,052.00)		5,346.00	(5,346.00)	0.00
28404	Emission Fees Accrued	164,664.00			164,664.00	166,812.00	331,476.00
28405	Hawaii R&D Credit	748.00	(748.00)		0.00	0.00	0.00
28406	Legal Fees Deferred for Tax	5,304.00			5,304.00	0.00	5,304.00
28407	Oil Spill Clean-Up	121,381.00			121,381.00	0.00	121,381.00
28408	Percentage Repair Allowance	(123,082.00)			(123,082.00)	9,231.00	(113,851.00)
28409	BPI Costs	(22,013.00)			(22,013.00)	2,097.00	(19,916.00)
28410	QUIPS Amortization	(178,911.00)			(178,911.00)	8,487.00	(170,424.00)
28411	§ 481 Adjustment	-			0.00		0.00
28412	Sun Power for Schools	0.00			0.00	0.00	0.00
28413	Other	3.00			3.00		3.00
28414	Deferred Comp-Restricted Stock	(21,787.00)			(21,787.00)		(21,787.00)
28415	FIN 48 Adjustments	0.00			0.00	517,376.00	517,376.00
28416	Implementation of SFAS 158	7,744,884.00			7,744,884.00	(482,727.00)	7,262,157.00
Total Balance Account 283.01		3,064,403.00	(9,966.00)	(57,281.00)	2,997,156.00	3,865,705.00	6,862,861.00
Total Bal Acct 282.01 Accel Deprn		(13,834,645.00)	550,302.00	43,506.00	(13,240,837.00)	605,140.00	(12,635,697.00)
Total Deferred Tax Balance Before Rate Case Adjustments		(10,770,242.00)	540,336.00	(13,775.00)	(10,243,681.00)	4,470,845.00	(5,772,836.00)
Rate Case Adjustments:							
28326	Int IRS Adj	(166,572.00)	117,730.00		(48,842.00)	0.00	(48,842.00)
28327	Exec Incen Comp	(127,856.00)	50,366.00		(77,490.00)	0.00	(77,490.00)
28328	Vacation Accrual	27,868.00	0.00		27,868.00	0.00	27,868.00
28313	Uncoll Accts Allow	(49,100.00)	0.00		(49,100.00)	0.00	(49,100.00)
28316	Disc Wkrs Cmp	(238,697.00)	553.00		(238,144.00)	0.00	(238,144.00)
28343	Gen Liab Reserve	(32,894.00)	0.00		(32,894.00)	0.00	(32,894.00)
28318	Pensn Cst (nonqual)	(599.00)	0.00		(599.00)	185.00	(414.00)
28310	Rate Case Costs	0.00	19,916.00		19,916.00	0.00	19,916.00
28339	OPEB Exec Life	(279,445.00)	0.00		(279,445.00)	(31,047.00)	(310,492.00)
28340	IRP/DSM Costs	373,233.00	0.00		373,233.00	0.00	373,233.00
28407	Fuel/Oil Spill Liab Reserve	(121,381.00)	0.00		(121,381.00)	0.00	(121,381.00)
28414	Deferred Comp-Restricted Stock	21,787.00			21,787.00	0.00	21,787.00
28415	FIN 48 Adjustments	0.00			0.00	(517,376.00)	(517,376.00)
Total Federal Deferred Tax Balance After Rate Case Adjustments		(11,363,898.00)	728,901.00	(13,775.00)	(10,648,772.00)	3,922,607.00	(6,726,165.00)
Ratemaking Adjustment:							
28416	SFAS 158	(7,744,884.00)	0.00	0.00	(7,744,884.00)	482,727.00	(7,262,157.00)
Total Federal Deferred Tax Bal		(19,108,782.00)	728,901.00	(13,775.00)	(18,393,656.00)	4,405,334.00	(13,988,322.00)

MAUI ELECTRIC COMPANY, LTD.
DEFERRED INCOME TAXES - STATE

Dr(Cr) Activity	Description	Actual Balance @ 12/31/06	Estimated 2006 Post YE Exp/(Benefit)	Reclassifications/ Adjustment	Adjusted Balance @ 12/31/06	Estimated 2007 Exp/(Benefit)	Estimated Balance @ 12/31/07
na	State ITC	677,951.00	40,945.00		718,896.00	9,528.00	728,424.00
28350	Rate Inc Appl	0.00	(3,642.00)		(3,642.00)		(3,642.00)
28351	Rev Bond Diff	(63,990.00)			(63,990.00)	(90,709.00)	(154,699.00)
28352	Prepaid Expenses	(33,818.00)	(596.00)		(34,414.00)	(6,446.00)	(40,860.00)
28353	Uncoll Accts	8,978.00			8,978.00	0.00	8,978.00
28354	Computer Software Costs	8,228.00			8,228.00	3,166.00	11,394.00
28355	Cost of Removal	(702,919.00)			(702,919.00)	(79,759.00)	(782,678.00)
28356	Disc Wkrs Cmp	43,648.00	(101.00)		43,547.00	0.00	43,547.00
28357	Electric Disc Trust	(38,578.00)	(802.00)	39,380.00	0.00	0.00	0.00
28358	Pensn Cst	(311,535.00)		(2,513.00)	(314,048.00)	241,376.00	(72,672.00)
28359	Cap Items Chg	(10,224.00)			(10,224.00)	1,286.00	(8,938.00)
28361	Conn Fee	2,074.00		(2,074.00)	0.00	0.00	0.00
28363	Cap Int	617,424.00	(6,769.00)		610,655.00	(31,181.00)	579,474.00
28364	CIAC	897,498.00	209.00		897,707.00	548,734.00	1,446,441.00
28365	Cust Adv	22,952.00			22,952.00	6,985.00	29,937.00
28366	Int IRS Adj	30,459.00	(21,528.00)		8,931.00	0.00	8,931.00
28367	Exec Incen Comp	39,828.00	(9,209.00)		30,619.00	0.00	30,619.00
28368	Vacation Accrual	(5,096.00)			(5,096.00)	0.00	(5,096.00)
28369	Tri-Isle Cable	0.00			0.00		0.00
28370	FMB Red Prem & Exp	0.00			0.00	0.00	0.00
28371	CWIP Debt Transition	(18,008.00)			(18,008.00)	1,604.00	(16,404.00)
28372	CWIP Equity Transition	(53,029.00)			(53,029.00)	4,724.00	(48,305.00)
28373	Plant Trans (AFUDC)	(112,249.00)			(112,249.00)	14,893.00	(97,356.00)
28374	FAS 109 Flow Through	(9,416.00)			(9,416.00)	4,446.00	(4,970.00)
28375	CWIP Equity Net	(797,803.00)			(797,803.00)	9,967.00	(787,836.00)
28376	CWIP Debt	(409,755.00)			(409,755.00)	7,568.00	(402,187.00)
28377	CWIP Equity Gross-Up	(508,138.00)			(508,138.00)	6,348.00	(501,790.00)
28378	Reg Liab Fed ITC	110,539.00			110,539.00	(21,075.00)	89,464.00
28380	OPEB	104,168.00		(39,380.00)	64,788.00	33,867.00	98,655.00
28381	IRP/DSM Costs	(68,249.00)			(68,249.00)	0.00	(68,249.00)
28382	Excess Def Tax	(175.00)			(175.00)	175.00	0.00
28383	Deficit Def Tax	3,394.00			3,394.00	(459.00)	2,935.00
28384	Gen Liab Reserve	6,016.00			6,016.00	0.00	6,016.00
28385	G/(L) on ACRS Retirals	(270,925.00)			(270,925.00)	(3,008.00)	(273,933.00)
28450	Customer Information System	11,712.00			11,712.00	197.00	11,909.00
28451	Deloitte & Touche Fees	0.00			0.00		0.00
28452	Electric Vehicle Credit	0.00			0.00		0.00
28453	Ellipse Software Costs	2,728.00	(1,292.00)		1,436.00	(1,436.00)	0.00
28454	Emission Fees Accrued	30,109.00			30,109.00	30,503.00	60,612.00
28455	Hawaii R&D Credit	137.00	(137.00)		0.00	0.00	0.00
28456	Legal Fees Deferred for Tax	970.00			970.00	0.00	970.00
28457	Oil Spill Clean-Up	22,196.00			22,196.00	0.00	22,196.00
28458	Percentage Repair Allowance	(36,978.00)			(36,978.00)	2,773.00	(34,205.00)
28459	BPI Costs	(4,025.00)			(4,025.00)	383.00	(3,642.00)
28460	QUIPS Amortization	(32,715.00)			(32,715.00)	1,552.00	(31,163.00)
28461	§ 481 Adjustment	0.00			0.00		0.00
28462	Sun Power for Schools	0.00			0.00		0.00
28463	Other	3.00			3.00		3.00
28464	Deferred Comp-Restricted Stock	(3,984.00)			(3,984.00)		(3,984.00)
28465	FIN 48 Adjustments	0.00			0.00	88,642.00	88,642.00
28466	Implementation of SFAS 158	1,416,206.00			1,416,206.00	(88,271.00)	1,327,935.00
Total Balance Account 283.02		565,609.00	(2,922.00)	(4,587.00)	558,100.00	696,373.00	1,254,473.00
Total Bal Acct 282.02 Accel Deprn		(1,660,658.00)	100,627.00	2,074.00	(1,557,957.00)	18,044.00	(1,539,913.00)
Total Deferred Tax Balance Before Rate Case Adjustments		(1,095,049.00)	97,705.00	(2,513.00)	(999,857.00)	714,417.00	(285,440.00)
Rate Case Adjustments:							
28366	Int IRS Adj	(30,459.00)	21,528.00		(8,931.00)	0.00	(8,931.00)
28367	Exec Incen Comp	(39,828.00)	9,209.00		(30,619.00)	0.00	(30,619.00)
28368	Vacation Accrual	5,096.00	0.00		5,096.00	0.00	5,096.00
28353	Uncoll Accts Allow	(8,978.00)	0.00		(8,978.00)	0.00	(8,978.00)
28356	Disc Wkrs Cmp	(43,648.00)	101.00		(43,547.00)	0.00	(43,547.00)
28384	Gen Liab Reserve	(6,016.00)	0.00		(6,016.00)	0.00	(6,016.00)
28358	Pensn Cst (nonqual)	(110.00)	0.00		(110.00)	34.00	(76.00)
28350	Rate Case Costs	0.00	3,642.00		3,642.00	0.00	3,642.00
28380	OPEB Exec Life	(51,098.00)			(51,098.00)	(5,677.00)	(56,775.00)
28381	IRP/DSM Costs	68,249.00	0.00		68,249.00	0.00	68,249.00
28457	Fuel/Oil Spill Liab Reserve	(22,196.00)	0.00		(22,196.00)	0.00	(22,196.00)
28464	Deferred Comp-Restricted Stock	3,984.00			3,984.00	0.00	3,984.00
28465	FIN 48 Adjustments	0.00			0.00	(88,642.00)	(88,642.00)
Total Deferred Tax Balance After Rate Case Adjustments		(1,220,053.00)	132,185.00	(2,513.00)	(1,090,381.00)	620,132.00	(470,249.00)
Ratemaking Adjustment:							
28466	SFAS 158	(1,416,206.00)	0.00	0.00	(1,416,206.00)	88,271.00	(1,327,935.00)
Total State Deferred Tax Bal		(2,636,259.00)	132,185.00	(2,513.00)	(2,506,587.00)	708,403.00	(1,798,184.00)

Maui Electric Company, Ltd.
Regulatory Assets and Liabilities
For Years 2006-2007

(In Thousands)

	Description	(A) Actual Balance 12/31/2005	(B) Actual 2006 Adds	(C) Actual 2006 Amort	(D) Actual Balance 12/31/2006	(E) Est 2007 Adds	(F) Est 2007 Amort	(G) UPDATE Balance 12/31/2007	
	MAUI								
1	CWIP Equity Transition	334	-	(27)	307	-	(27)	279	
2	SFAS 109 Flow-Through	84	-	(29)	54	-	(26)	29	
3	Plant Transition	784	-	(88)	697	-	(89)	608	**
4	CWIP Equity	6,728	1,193	(366)	7,555	329	(395)	7,489	
5	Federal ITC	(852)	-	142	(710)	-	135	(575)	**
6	Excess AccDep	(132)	-	132	-	-	-	-	
7	Deficit AccDep	241	-	(35)	206	-	(35)	171	
8	Deficit Deferred Tax	(57)	-	7	(50)	-	7	(44)	
9	Excess Deferred Tax	5	-	(3)	3	-	(3)	-	
10	Total	7,136	1,193	(268)	8,061	329	(433)	7,956	
11	Average							8,010	

	Description	(A) Actual Balance 12/31/2005	(B) Actual 2006 Adds	(C) Actual 2006 Amort	(D) Actual Balance 12/31/2006	(E) Est 2007 Adds	(F) Est 2007 Amort	(G) Est Balance 12/31/2007	
	LANAI								
12	CWIP Equity Transition	18	-	(1)	16	-	(1)	15	
13	SFAS 109 Flow-Through	4	-	(2)	3	-	(1)	2	
14	Plant Transition	37	-	(8)	29	-	(8)	21	**
15	CWIP Equity	354	63	(19)	398	6	(21)	383	
16	Federal ITC	(6)	-	1	(5)	-	1	(4)	**
17	Excess AccDep	(7)	-	7	-	-	-	-	
18	Deficit AccDep	13	-	(2)	11	-	(2)	9	
19	Deficit Deferred Tax	(3)	-	0	(3)	-	0	(2)	
20	Excess Deferred Tax	0	-	(0)	0	-	(0)	-	
21	Total	410	63	(24)	449	6	(32)	423	
22	Average							437	

Totals may not add up exactly due to rounding.

** The allocations of prior year balances to Maui, Lanai and Molokai were corrected for actual balance information that became available for the June 07 update.

Maui Electric Company, Ltd.
Regulatory Assets and Liabilities
For Years 2006-2007

(In Thousands)

	Description	(A) Actual Balance 12/31/2005	(B) Actual 2006 Adds	(C) Actual 2006 Amort	(D) Actual Balance 12/31/2006	(E) Est 2007 Adds	(F) Est 2007 Amort	(G) Est Balance 12/31/2007	
	MOLOKAI								
1	CWIP Equity Transition	22	-	(2)	20	-	(2)	18	
2	SFAS 109 Flow-Through	5	-	(2)	4	-	(2)	2	
3	Plant Transition	1	-	0	1	-	0	1	**
4	CWIP Equity	441	78	(24)	495	1	(26)	470	
5	Federal ITC	-	-	-	-	-	-	-	**
6	Excess AccDep	(9)	-	9	-	-	-	-	
7	Deficit AccDep	16	-	(2)	14	-	(2)	11	
8	Deficit Deferred Tax	(4)	-	0	(3)	-	0	(3)	
9	Excess Deferred Tax	0	-	(0)	0	-	(0)	-	
10	Total	473	78	(21)	530	1	(32)	499	
11	Average							515	

	Description	(A) Actual Balance 12/31/2005	(B) Actual 2006 Adds	(C) Actual 2006 Amort	(D) Actual Balance 12/31/2006	(E) Est 2007 Adds	(F) Est 2007 Amort	(G) Est Balance 12/31/2007	
	TOTAL MECO								
12	CWIP Equity Transition	373	-	(30)	343	-	(30)	313	
13	SFAS 109 Flow-Through	94	-	(33)	61	-	(29)	32	
14	Plant Transition	822	-	(96)	727	-	(97)	629	**
15	CWIP Equity	7,523	1,334	(409)	8,448	336	(442)	8,341	
16	Federal ITC	(858)	-	143	(715)	-	136	(579)	**
17	Excess AccDep	(147)	-	147	-	-	-	-	
18	Deficit AccDep	270	-	(39)	230	-	(39)	191	
19	Deficit Deferred Tax	(64)	-	8	(56)	-	7	(50)	
20	Excess Deferred Tax	6	-	(3)	3	-	(3)	-	
21	Total	8,019	1,334	(313)	9,040	336	(497)	8,879	
22	Average							8,960	

Totals may not add up exactly due to rounding.

** The allocations of prior year balances to Maui, Lanai and Molokai were corrected for actual balance information that became available for the June 07 update.

CA-IR-378

Ref: MECO Response to CA-IR-182, part d.6. (IRP/DSM Costs).

Please provide the following information:

a. Explain why the accumulated deferred income tax balance for this item is consistently a large credit, implying that MECO has persistently under-recovered incurred costs through the surcharge tariff.

b. Provide the Company's best estimate of when (or whether) accumulated deferred income taxes for IRP/DSM costs are expected to reverse or become a debit deferred tax balance.

c. Confirm that these deferred tax balances were included in rate base in prior rate cases, but that MECO proposes a different treatment in this Docket.

d. According to the response to CA-IR-182, part d.6., "Interest, based on the current allowed rate of return, is calculated on the balance of any over- or under-recovery. The over- or under-recovery and calculated interest are then included in the IRP Cost Recovery Provision in the following year." Please explain whether this interest provision is calculated based on the pretax book amount of any over- or under-recovery; or whether such amounts are reduced by related accumulated deferred taxes in calculating "Interest, based on the current allowed rate of return...."

MECO Response:

a. MECO recovers its DSM incremental program costs through its DSM Surcharge. In March each year, MECO files its Annual Program Accomplishments and Surcharge Report ("A&S Report") with the Commission. MECO presents the costs incurred in the program year and documents the revenues collected. The A&S Report also provides the surcharge to recover estimated program costs earned in the previous year. After approval by the Commission, MECO amortizes these incremental DSM program costs and recovers the costs via the DSM surcharge mechanism. Generally, the amortization of these costs begins in June and continues to the following May. MECO similarly recovers its IRP incremental program costs through its IRP Clause. Theoretically, since recovery of the DSM and IRP costs lag behind

actual costs expended, and additional DSM/IRP costs for the current year are incurred and "layered on," the general result will be ongoing balances of not yet recovered program costs.

b. Each program year's costs theoretically reverses by May of the following year (if the DSM surcharge is implemented in June).

c. Yes, MECO included deferred taxes related to IRP/DSM program costs in its last (test year 1999) rate case, Docket No. 97-0346. However, MECO is proposing to exclude deferred taxes related to IRP/DSM program costs in the current case. As over- and under-recovered balances of deferred IRP/DSM costs are not included in rate base, consistency dictates that any related deferred taxes should also be excluded from rate base. This is consistent with HELCO's treatment of its DSM and IRP deferred taxes in Docket No. 05-0315, HELCO's test year 2006 rate case.

d. Interest is calculated on a pretax basis.

CA-IR-379

Ref: MECO Response to CA-IR-182, part d.9. (Emission Fees Accrued).

Please provide the following information:

a. Explain why the deferred tax debit balance is expected to nearly double during the 2007 test year and provide calculations supporting this estimate.

b. According to the response to CA-IR-182 d.9., "Emission fees are included in rate base within the production O&M non labor expense component of working cash." Please identify where accrued but unpaid emission fees were specifically included within the lead lag study calculations and further explain how such accruals are considered.

c. How much lower would the O&M non-labor expense payment lag have been if not for the inclusion of accrued emission fees?

d. State whether this deferred tax timing difference existed in prior MECO rate cases and explain whether accumulated deferred tax balances were included in, or excluded from rate base.

MECO Response:

a. In the process of updating MECO's deferred tax balances, the estimated amount of deferred taxes accrued for the 2007 test year emission fees was incorrectly calculated. The correct test year calculation for the change in deferred taxes should have been the tax effect of the difference between the test year estimate of emission fees of $404,998 and the amount actually paid of $518,430. Based on these numbers, federal and state deferred income taxes should have increased by $37,313 and $6,823 respectively. Thus, the estimated federal and state deferred tax balances associated with emission fees at December 31, 2007, should have been debit balances of $127,351 and $23,286, respectively. A correction to the test year estimates for this error will be included when deferred income taxes are updated at the next opportunity.

b. Emission fees are separately identified in the O&M non-labor payment lag day calculation in MECO-WP-1507, page 23. The payment lag for emission fees was determined to be

306 days as shown in MECO-WP-1507, page 24. The emission fees and related payment lag days are then included in determining the total O&M non-labor weighted average payment lag days. MECO separately identified large O&M non-labor payments, such as emission fees, in order to minimize the potential for distortion in the payment lag study, shown in MECO-WP-1507, page 26 that may result if these large payments were picked up in the general sampling.

c. The Company's position is that the emission fees should be included in the O&M non-labor payment lag day calculation. This is consistent with the presentation of emission fees in the O&M non-labor payment lag day calculation presented in the HECO 2007 test year rate case, Docket No. 2006-0386 and the HELCO 2006 test year rate case, Docket No. 05-0315. The illustrative impact of excluding the emission fees from the O&M non-labor payment lag day calculation would result in a decrease in the payment lag days to 28, from 32 days. This calculation is presented for information purposes only on page 3 of this response.

d. This deferred tax item did not exist in prior MECO rate cases and, therefore, was not considered for inclusion in or exclusion from rate base.

FOR INFORMATION PURPOSES ONLY

Maui Electric Company, Ltd.
Working Cash Study
O&M Non-Labor Payment Lag

Source: Per Supporting Worksheets

	Test Year Expense ($000's)	% of Total	Total Payment Lag Days	Weighted Average
	Note A		MECO-WP-1507, p. 24-26	
Pension [1]	$2,777	9%	0	days
OPEB [2]	$938	3%	0	days
Emission Fees [3]		0%		days
EPRI Dues [4]	$229	1%	22	days
Other Non-Labor O&M [5]	$27,273	87%	32	28 days
	$31,217	100%		
O&M Non-Labor Payment Lag				**28 days**

NOTE: Totals may not add exactly due to rounding.

Note A

[1] Pension expense estimate based on 2007 Pension Accrual of $3,804k (per MECO-1001) x 73% (based on 2005 % of Employee Benefits charged to O&M expense).

[2] OPEB expense estimate based on 2007 OPEB expense of $1,285k (per MECO-1001) x 73% (based on 2005 % of Employee Benefits charged to O&M expense).

[3] Emission Fees excluded for illustration purposes only, at the request of the Consumer Advocate.

[4] EPRI Dues per HECO T-9.

[5] Other Non-Labor O&M = Total O&M Non-Labor expense of $31,622k, less other items noted above.

CA-IR-380

Ref: MECO T-13 June Update, page 1 (Income Taxes).

Please provide the following:

a. Updated test year estimated interest expense calculations comparable to the information provided on MECO-WP-1302, page 3.

b. Supporting workpapers for the amounts shown in your response to part (a) of this information request.

c. Confirm that MECO's proposed capital structure (MECO-1701) is not large enough to support MECO's asserted updated rate base (MECO-1501) and explain how this mismatch can produce a reasonable estimate of tax deductible interest for ratemaking purposes.

d. Provide the monthly amounts of short term debt that were projected for the test year in determining the interest deduction for income tax purposes.

e. Provide a comparable monthly statement of actual short term debt balances for all available months of the test year.

f. Provide the monthly amounts of short term debt interest expense that were projected for the test year in determining the interest deduction for income tax purposes.

g. Provide a comparable monthly statement of actual short term debt interest expense for all available months of the test year.

MECO Response:

a. Please see page 3 of this response for an updated MECO-WP-1302.

b. Please see pages 4 to 6 of this response.

c. MECO acknowledges that the capitalization presented in MECO-1701 of $375,101,000 is less than the rate base presented in the updated MECO-1501 of $385,766,000. Overall, this is due to differences in the respective compilation of the average capitalization balances and average rate base balances. To the extent there are differences between the test year activity which roll into the average test year rate base balances and/or working cash, and the test year activity which roll into the average capitalization balances via the Sources and Applications of Funds ("S&A") in MECO-1707, these differences in aggregate contribute to the mismatch described. Further, there are numerous normalizations and adjustments made to test year

estimates which are not reflected in the S&A. The S&A is based on the Company's budget and does not reflect any normalization adjustments made for ratemaking purposes. Therefore, these adjustments are reflected in rate base in the individual rate base component being adjusted or through working cash, but are not reflected in the average capitalization (primarily short-term debt and equity).

The largest components of the calculation of tax deductible interest are long-term debt and hybrid securities, which are not significantly impacted by the rate base and capitalization adjustments discussed above. The calculation of the tax deductible interest and the methodology used to compile the test year capital structure were consistent with that used in previous MECO rate cases including MECO's 1999 test year rate case, Docket No. 97-0346, and also consistent with that used in HECO's 2007 test year rate case, Docket No. 2006-0386 and HELCO's 2006 test year rate case, Docket No. 05-0315.

d. MECO's projected short term debt for the test year was not prepared on a monthly basis. As such, this information is not available.

e. Please refer to page 7 of this response. The Company provides the July and August 2007 financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

f. MECO's projected interest on short term debt for the test year was not prepared on a monthly basis. As such, this information is not available.

g. Please refer to page 7 of this response. The Company provides the July and August 2007 financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

Maui Electric Company, Limited
Allocation of Interest Expense For
Use In Income Tax Expense Calculation
Test Year 2007

	Maui	Lanai	Molokai	Total MECO	Source:
Interest Expense on Long-Term Debt	8,435,495	349,372	409,133	9,194,000	MECO-1703
Interest Expense on Short-Term Debt (A)	217,906	9,025	10,569	237,500	MECO-1702
Interest Expense on Hybrid Securities	629,405	26,068	30,527	686,000	MECO-1704
Less: AFUDC Debt (B)	(226,878)	(9,397)	(11,004)	(247,279)	
NET INTEREST EXPENSE	9,055,928	375,068	439,225	9,870,221	
Net Interest per Direct	9,078,307	375,995	440,311	9,894,613	
Net Change	(22,379)	(927)	(1,086)	(24,392)	

(A) Average Short-Term Debt $4,750,000 x 5.0% = $237,500 (Per MECO-1702)

(B) AFUDC Debt Computation:

AFUDC Expenditures (C)	773,981
Ratio of Debt to Total	31.949%
AFUDC Debt	247,279

Note: Allocation based on relative plant balances @ 12/31/06, as follows:

	Plant Balance	% of Total
Maui	704,983,000	91.75%
Lanai	29,297,000	3.80%
Molokai	34,181,000	4.45%
TOTAL MECO	768,461,000	100.00%

(C) Source: Anna Arase, Revised 2007 AFUDC Forecast consistent with updated plant additions as discussed in Ms. Arase's June 2007 update of MECO T-14. See CA-IR-380, pages 4-6.

Proj	Project	FY07 Act$	Rem Mo 07 Upd VB $	2007 Total	Original 2007 Fcst Less CIS	Difference
M3141001	MPP M18-18 MW Steam Turbine NI	($3,750.48)	0	(3,750)	0	($3,750)
M0000780	Maui Lani Ph7 Incr2	($1,770.57)	0	(1,771)	0	($1,771)
M0000722	M14 CEMS Replacement	($436.06)	0	(436)	0	($436)
M0000723	M16 CEMS Replacement	($435.60)	0	(436)	0	($436)
M0000765	Kihei Kauhale Subdivision	($104.70)	0	(105)	0	($105)
M2603000	MOE MINOR PS ADDITION	0	$20	20	51	($31)
M9080000	T&D RADIO EQUIPMENT	0	$28	28	35	($7)
M3202000	LPP MINOR PP ADDITIONS	0	$46	46	46	$0
M3203000	MOE MINOR PP ADDITIONS	0	$46	46	46	$0
M0000748	SOH Mokulele Hwy PH1B	$56.49	$0	56	0	$56
M0000519	COM-H'Poko Well	$70.36	0	70	0	$70
M9000000	Minor Communication Facilities	0	$71	71	90	($19)
M9083000	Mobile Radio Repl	0	$71	71	94	($23)
M0000880	Repair Order RO008241	$122.47	0	122		$122
DTaka53_	Engr Trailer	0	$127	127		$127
M2601000	KPP MINOR PS ADDITIONS	$63.59	$67	131	89	$42
M3201000	KPP MINOR PP ADDITIONS	$112.14	$35	147	80	$67
M0000839	Kai Makani Condo Offsite	$174.70	0	175		$175
M2602000	LPP MINOR PS ADDITION	$167.09	$9	176	51	$125
M2600000	MPP MINOR PS ADDITIONS	$137.85	$54	192	112	$80
DPark49_	Maalaea Sub 69kV Bkr Add	0	$192	192		$192
M0000882	Phil Christopher	0	$198	198		$198
M7900000	METERS & METERING EQUIP (RB)	$213.47	0	213	0	$213
M0000877	Waiehu Kou Subd Ph 4 Offsite	$0.00	$232	232		$232
M0000747	Trans Syst Eq. Purch-Radiator	0	$245	245	270	($25)
M0000784	KPP Welding Lean to	0	$281	281	283	($2)
M0000788	K3 ID Fan	0	$292	292	411	($119)
DPark48_	Kihei Sub 69kV Bkr Add	0	$293	293		$293
WShim24_	Hoonanea	0	$297	297		$297
M0000741	Clemence Subdivision	0	$300	300	294	$6
M0000861	Kaanapali Sub'd	$310.22	$0	310		$310
M0000102	New Kihei Sub	0	$321	321	363	($42)
M0000783	KPP Tank#4 Roof	0	$364	364	365	($1)
M0000886	Kanepu'u	0	$367	367		$367
BJohns28_	Aina O Kane	0	$373	373		$373
M0000876	Sys Upgrade 7.2 kV Waiko Rd	$150.76	$286	437		$437
M0000019	Damages Caused by External Party	$341.43	$103	444	183	$261
M0000720	Reconductor-Mahalani St-UG	0	$456	456	2658	($2,202)
M0000864	Emergency Communications	$472.02	0	472		$472
M0000873	Kaanapali Dev Corp Pole Relo	$36.33	$490	526		$526
M0000869	Maui Lani Subd Ph7 Incr3	$528.07	0	528		$528
M0000881	Huelo Distr Upgrade	$15.39	$521	536		$536
M0000847	Kilohana Waena Subdivision	$551.73	0	552		$552
M0000794	LL6 Radiator	0	$554	554	556	($2)
M0000819	LCM - Substation Equipment	0	$564	564	605	($41)
M7450000	MINOR OH FDRS & CONV	$387.11	$203	590	170	$420
BJohns26_	Opukea at Lahaina	0	$598	598		$598
M0000883	Flannery Offsite Project	0	$602	602		$602
M0000862	Parcel C Phase 2	$349.79	$263	613		$613
M0000858	Waiolani Pikake Sub'd	$330.50	$332	663		$663
M0000461	T&D/Main Offc Bldg Upgrade	$394.72	$282	677	283	$394
M0000782	KPP Compressor	0	$681	681	1104	($423)
M3200000	MPP MINOR PP ADDITIONS	$623.48	$81	704	97	$607
M0000786	MPP Fuel Oil Transfer Pumps	0	$726	726	729	($3)
M0000824	Haiku Sub Raise Tsf Bank	0	$735	735	826	($91)
M0000845	Land Court 960 Subdivision	$738.55	0	739		$739
M0000874	Maui Oil Ofc Bldg/Car Wash	$765.56	0	766		$766
M0000859	Papali Wailea	$821.36	0	821		$821
M0000725	K2 Static Exciter	$879.28	0	879	2002	($1,123)
M0000865	MPP Security Camera Systems	$882.23	0	882		$882
M0000560	Sub 45 Haleakala Tsf Repl	0	$912	912	1657	($745)
M0000659	Makawao 1200 KVAR Cap Bank	$18.30	$930	948	536	$412
M0000820	Lanai Env Bldg Firesprinkler	$12.05	$939	951	1100	($149)
M0000660	Paia 23kV Breaker Repl	$306.39	$706	1,012	1654	($642)
DOste27_	Lahaina Gateway	0	$1,019	1,019		$1,019
M0000787	KPP Used Oil Berm	0	$1,053	1,053	1131	($78)
M3300000	TRANSMISSION SUB ADDITIONS	0	$1,062	1,062	690	$372
M0000718	Reconductor Ckt.1347-Kanaha	0	$1,066	1,066	4916	($3,850)
M0000863	E Paepae Sub'd	$1,083.46	0	1,083		$1,083

Proj	Project	FY07 Act$	Rem Mo 07 Upd VB $	2007 Total	Original 2007 Fcst Less CIS	Difference
RFukush21_	Kehalani Mauka Irrigation Well 12KV	0	$1,084	1,084		$1,084
M0000871	Trans-Radiator K1	0	$1,095	1,095		$1,095
BJohns27_	Maui Lani Parkway & Kuikahi Ext	0	$1,174	1,174		$1,174
M0000848	The Courts @ Lanai City	$1,195.75	0	1,196		$1,196
M0000846	Highlands Estates Well Pump	$1,197.44	0	1,197		$1,197
M0000885	SOH Mokulele Hwy PH1A/UA	0	$1,208	1,208		$1,208
M0000724	K1 Static Exciter	$32.65	$1,270	1,303	1250	$53
M0000719	Recond-Kaahumanu-Papa/Kane	0	$1,325	1,325	2160	($835)
M3600000	MINOR DISTRIBUTION SS ADD	$1.24	$1,344	1,345	1259	$86
M0000857	St. Francis Onsite	$1,385.10	$0	1,385		$1,385
BJohns30_	Lanikeha Sub'd-PH2	0	$1,435	1,435		$1,435
M0000688	KPP Spare Radiator Replacement	0	$1,450	1,450	1458	($8)
M0000854	Kihei Commercial Condo	$1,479.22	$0	1,479		$1,479
M0000808	Kihei 35 Add-Dist. To Hi Tech	$151.32	$1,344	1,495	2518	($1,023)
M0000884	Honua Kai Ph. 1	0	$1,532	1,532		$1,532
M9200000	Minor Gen Plant Add	0	$1,563	1,563	927	$636
Aldica15_	Kehalani Site 10	0	$1,571	1,571		$1,571
M0000832	Molokai 34kV OH Insulators	0	$1,583	1,583	4184	($2,601)
M0000835	12th Inc. Reconduct Ani St.	$121.95	$1,485	1,607	188	$1,419
M0000800	Puukolii Additional Circuits	0	$1,717	1,717	8927	($7,210)
M0000829	Ke Alii Villas	$1,756.56	0	1,757	650	$1,107
M0000860	Waiehu Kou Sub'd Ph 4	$382.94	$1,389	1,772		$1,772
M0000841	Sys Impvts Kapalua Vg Ph 1	$718.48	$1,067	1,785		$1,785
M0000775	West Maui Breakers	$456.99	$1,360	1,817	1076	$741
MFernan34_	Kualapa Loop	0	$1,846	1,846		$1,846
M0000716	Install Viper-E25 Onehee Ave	$10.12	$1,880	1,890	1551	$339
M0000680	County of Maui-Mkt St Impvts	$1,892.55	$0	1,893	1288	$605
M8900000	Other Underground Additions	($81.71)	$2,000	1,918	1061	$857
M0000875	Kehalani Mauka Parkway Ext.	$2,075.40	$0	2,075		$2,075
M0000668	HANA MBL RADIO UPGRADE	$1,235.54	$905	2,141	0	$2,141
M0000215	Sub 36 - Sub 3 - KBY Fiber Optic Link	0	$2,142	2,142	9867	($7,725)
BJohns25_	Mokulele Hwy Widening PH1A-St Lts	0	$2,166	2,166		$2,166
M0000745	Sys Imp Piiholo Farms III	$1,572.21	$677	2,249	0	$2,249
M0000658	Wailea Cap Bank #3	$99.30	$2,184	2,283	2453	($170)
M0000652	SOH: Molokai Kawaikapu Bridge UA# 1678	$686.07	$1,605	2,291	2469	($178)
M0000661	Kihei Cap Bank #3	$100.61	$2,216	2,317	3072	($755)
MFern37	Consolidated Bseyards Subd	0	$2,361	2,361		$2,361
M0000801	System: Lipoa Parkway	0	$2,430	2,430	7103	($4,673)
M0000792	MPP E-Cell	0	$2,467	2,467	2262	$205
M0000742	Lanikeha Sub'd-PH1	$1,494.42	$1,003	2,497	0	$2,497
M0000842	Waiohuli Hikina Subdivision	$558.55	$1,949	2,508		$2,508
MFern36	Consolidated Baseyards 69/23 kV Reloc	0	$2,575	2,575		$2,575
M0000811	Kihei 35 Dist Add-Eleu Pl	0	$2,591	2,591	3523	($932)
Aldic16	Kehalani South	0	$2,636	2,636		$2,636
M0000806	Kahakuloa Step Down Relocate	$0.64	$2,711	2,712	4553	($1,841)
MFern38	Ritz Carlton Kapalua UG Reloc	0	$2,713	2,713		$2,713
M0000767	System Improvements Hikina Subdivision	$590.88	$2,129	2,720	791	$1,929
DOste26_	Ho'olei	0	$2,759	2,759		$2,759
MFern40	Kehalani Site 23 Subd	0	$2,845	2,845		$2,845
M7990000	STREET LIGHTS	$2,736.78	$169	2,906	275	$2,631
M0000853	Caputo-OH to UG Conversion	$3,248.06	0	3,248		$3,248
WShimizu20_	Ukumehame Ag Offsite	0	$3,550	3,550		$3,550
M0000830	Lahaina Bypass	$653.30	$3,131	3,784	892	$2,892
M0000107	Maui Lani Sub	0	$3,914	3,914	4137	($223)
M7010000	OH SVC & EXTENSIONS	$4,253.24	0	4,253	0	$4,253
M0000790	M12/13 CEMS Replacement	0	$4,294	4,294	4312	($18)
M0000629	M14 CT Controls	$8.56	$4,515	4,524	4195	$329
M0000831	Puukolii Sub Expansion	0	$4,796	4,796	5387	($591)
M0000878	Waikapu Gardens Ph4	$400.55	$4,431	4,832		$4,832
M0000423	K1 Generator Rotor Rewind	$429.83	$4,422	4,852	3175	$1,677
M0000617	Nahiku Subdivision	$4,926.25	$0	4,926	0	$4,926
M0000852	Kai Makani Condo's Onsite	$2,859.91	$2,212	5,072		$5,072
M0000777	KPP K2 Tsf Replacement	$848.58	$4,286	5,135	4297	$838
M0000699	Pomaikai Ph 1	0	$5,439	5,439	5473	($34)
M7300000	MINOR POLE LINE RELOCA	$4,848.39	$637	5,485	346	$5,139
M0000870	Waiehu Well Reclosers	$305.80	$5,387	5,693		$5,693
M3500000	MINOR TRANSM PLANT LINES	$899.46	$4,880	5,779	3122	$2,657
M0000872	Ukumehame Ag Sub'd	$0.00	$6,046	6,046		$6,046
M0000803	Sprecklesville Upgrade	0	$6,648	6,648	0	$6,648

Proj	Project	FY07 Act$	Rem Mo 07 Upd VB $	2007 Total	Original 2007 Fcst Less CIS	Difference
M0000828	St. Francis Offsite	$275.69	$6,557	6,833	2633	$4,200
RNakama25_	Pioneer Farms	0	$6,942	6,942		$6,942
M7920000	MINOR STATE HWY PROJECTS	$19.14	$7,080	7,099	5310	$1,789
M8500000	MINOR OH-UG CONVERSIONS	$3,264.67	$4,027	7,292	2215	$5,077
M0000558	K1 Generator Stator Rewind	$1,641.94	$6,012	7,654	4272	$3,382
M8700000	MINOR CABLE FAILURE REPLACE.	$873.53	$7,273	8,147	4014	$4,133
M0000523	KPP Upgr Fire System	0	$8,637	8,637		$8,637
M0000540	CHP Manele Bay Hotel	0	$9,409	9,409	64693	($55,284)
M0000805	Kauhikoa Sub	0	$9,789	9,789	9698	$91
M0000807	Mahinahina Sub 50 Repl Tsf 2	$35.34	$12,072	12,107	10620	$1,487
M0000810	Napili Sub 29 Tsf. 2 Replace	$30.72	$12,134	12,165	10762	$1,403
BJohns29_	Hokulani Golf Villas	0	$15,579	15,579		$15,579
M0000781	Peahi Farms Offsite	$8,890.95	$6,734	15,625	0	$15,625
M8010000	UG SERVICES & EXTENSIONS	$16,749.38	0	16,749	0	$16,749
M7000000	OVERHEAD SERVICES & EXTENSIONS	$2,085.93	$16,083	18,169	14622	$3,547
M7750000	Other Overhead additions	$11,725.52	$6,883	18,609	5918	$12,691
M0000809	Kihei Sub 35 - Transformer/Switchgear #4	$620.55	$19,007	19,628	20130	($502)
M0000815	Hana DG Parallel Operations	$7,917.96	$14,314	22,232	1893	$20,339
M0000111	Peahi Sub 94	$18,325.56	$4,101	22,427	0	$22,427
M0000687	Kanaha Tsf #B Replacement	$157.96	$24,084	24,242	20290	$3,952
M0000710	COM Lwr HP Road Phase 4	$10,221.53	$15,005	25,227	25545	($318)
M8980000	Makena CKT 1395 Extension	$13,515.06	$16,577	30,092	11326	$18,766
M0000697	69kV Reloc Waikapu	$4,031.27	$51,459	55,490	57878	($2,388)
M8000000	UNDERGROUND SERVICES & EXTNS.	$27,615.79	$66,920	94,536	61702	$32,834
		$178,151	$509,714	687,865	$457,299	$230,566
			Add: CIS	86,116		
			Revised 2007 AFUDC Upd	**773,981**		

SOURCE: Anna Arase
Revised AFUDC Pillar File

(e) Provide a comparable monthly statement of actual short term debt balances for all available months of the test year.

	Month End Short Term Borrowing/(Investment) Balances ($ in thousands)
Jan '07	13,000
Feb	6,000
Mar	(3,500)
Apr	(2,500)
May	(4,000)
Jun	(1,000)
Jul	[redacted]
Aug	

(g) Provide a comparable monthly statement of actual short term debt interest expense for all available months of the test year.

	Interest Expense ($ in thousands)
Jan '07	32
Feb	53
Mar	21
Apr	0
May	0
Jun	5
Jul	[redacted]
Aug	

CA-IR-381

Ref: MECO T-13, pages 23-27 (Simplified Service Cost Method).

Please provide the following:

a. Explain any new or updated information regarding the discussion contained in Mr. Okada's testimony.

b. Provide calculations of any benefits to be realized by MECO as a result of changed circumstances not reflected in the Company's filing.

MECO Response:

a. Since the filing of the referenced testimony, MECO filed an amended 2001 income tax return, as part of the Hawaiian Electric Industries, Inc. consolidated income tax return, in which MECO claimed a deduction of $22.5 million related to the simplified service cost change in accounting method. This protective claim was made as a follow up to the Internal Revenue Service ("IRS") approval for the method change as discussed in T-13. The IRS is now in the process of auditing the details of this amended return. MECO was also notified by the IRS that the IRS Appeals Office had reached agreement on their "test cases," and that settlement guidelines would be circulated internally to their examination teams addressing the hazards of litigating the "routine and repetitive" issue under the simplified service cost method ("SSCM"). These guidelines have not been published, but it appears that the IRS has established settlement percentages for each utility property account. It must be emphasized that these guidelines only address the "routine and repetitive" issue and do not address the "base" to which these percentages would be applied. This "base" is comprised of the pool of qualified allocable overhead costs, which are generally referred to as "mixed service costs." The IRS has not yet determined MECO's qualified mixed service costs and probably will spend most of their audit time determining this base amount. Due to this uncertainty, MECO

cannot yet calculate an estimate of the potential benefit. Note also that any potential deferred tax benefits reverse completely by December 31, 2006, and therefore no related SSCM benefits should impact the 2007 test year.

b. As discussed in part a., the benefits to be realized by MECO cannot be estimated at this time and should not impact the 2007 test year.

CA-IR-382

Ref: MECO T-18, page 80; MECO-1810 (Molokai G Customer Charge).

Please provide the following:

a. Calculations associated with the statement, "The proposed customer charges are designed to recover about 90% of the Schedule G customer cost of service, which is about the same level from the final rate design in MECO's test year 1999 rate case."

b. At MECO-1810, page 3, Schedule G monthly Unit Customer Cost is set forth at $21.92. How does this value relate to the statement in part (a) of this information request and to proposed Schedule G customer charges for Molokai?

c. For what known reasons are Molokai unit customer costs lower than on Maui and Lanai?

MECO Response:

a. The proposed Molokai Schedule G customer charges are $23.00 per month for single phase service and $34.00 per month for three phase service. These charges are about 90% of the Schedule G customer costs shown on MECO-WP-1802, page 188 (single phase $26.03 and three phase $36.85). The existing Molokai Schedule G customer charges are $22.00 per month for single phase service and $33.00 per month for three phase service. These charges were set in the final rate design in MECO's test year 1999 rate case where the Molokai Schedule G customer costs were $25.21 per month for single phase service and $37.00 per month for three phase service (final tariff sheets and supporting workpapers for MECO test year 1999, Docket No. 97-0346, submitted to the Commission on April 12, 1999, Attachment F, page 75).

a. The referenced value refers to the Molokai Schedule G unit customer cost if all rates of return on all MECO rate schedules at all three divisions were equal. That is not the cost basis of the proposed Molokai Schedule G customer charges. The cost basis of the proposed

Molokai Schedule G customer charges is the cost at Molokai proposed rates, which is significantly higher than the cost at equal rates of return, as shown on MECO-WP-1802, page 188.

c. Maui division Schedule G unit customer costs are higher than Molokai division Schedule G unit customer costs in the areas of allocated costs for services and primary lines. Lanai division Schedule G unit customer costs are higher than Molokai division Schedule G unit customer costs in the areas of allocated costs for primary lines and customer accounts. See Schedule G customer-related costs by phase at MECO-WP-1802, page 10 (Maui division), page 99 (Lanai division), and page 188 (Molokai division).

CA-IR-383

Ref: MECO T-18, pages 19, 23, 26, etc. (Supply Voltage Rate Adjustments).

Throughout his testimony, Mr. Young references changes to existing supply voltage rate discount percentages, by reference to, "the system loss analysis prepared by MECO's Transmission Planning Division in this case." Please provide the following:

a. A summary chart of present and proposed voltage discount percentages for each relevant Maui, Lanai and Molokai rate schedule.

b. Copies of, or pinpoint reference to the referenced system loss analysis where the voltage discounts are derived.

c. Intermediate or translation calculations performed to derive the proposed voltage discount percentages for each rate, as necessary.

MECO Response:

a. See the attached page 3.

b. See the attached page 2.

c. See the attached page 3.

Table 1.1
Allocation of MECO System Losses
For the Test Year of 2007

		Energy (MWH)	Energy Percent	Max Demand (MW)	Max Demand Percent	Min Demand (MW)	Min Demand Percent
A.	Total Generation	1,316,401		213.80		86.50	
	IPP Generation	215,427		26.25		22.25	
	MECO Gross Generation	1,100,974		187.55		64.25	
	MECO Auxiliary Loss	20,451		3.91		1.71	
B.	Delivered to MECO Generator Step-Up	1,080,523	83.71%	183.64	87.95%	62.54	74.01%
	IPP Generation	215,427	16.69%	26.25	12.57%	22.25	26.33%
	MECO Generator Step-Up Loss	5,091	0.39%	1.08	0.52%	0.29	0.34%
C.	Delivered to 69/23 kV Transmission	1,290,859	100.00%	208.80	100.00%	84.50	100.00%
	69 kV Transmission Loss	14,954	1.16%	3.18	1.52%	0.43	0.51%
	23 kV Transmission Loss	8,600	0.67%	1.83	0.88%	0.38	0.45%
D.	Delivered to 69/23 kV Distribution Substations	1,267,304	98.18%	203.79	97.60%	83.68	99.04%
	Transformation Loss	6,859	0.53%	1.46	0.70%	0.73	0.86%
E.	Delivered to Distribution Lines	1,260,445	97.64%	202.33	96.90%	82.96	98.18%
	Distribution Line Loss	32,704	2.53%	6.96	3.33%	2.66	3.15%
F.	Delivered to Distribution/Secondary Transformation	1,227,741	95.11%	195.37	93.57%	80.29	95.03%
	Transformation Loss	7,184	0.56%	1.53	0.73%	1.43	1.69%
G.	Delivered to Secondary	1,220,557	94.55%	193.84	92.84%	78.87	93.34%
	Secondary Loss	6,508	0.50%	1.38	0.66%	0.33	0.39%
H.	**Delivered to Meter**	1,214,049	94.05%	192.46	92.17%	78.53	92.94%
	Company Use	1,709	**0.13%**	0.30	0.14%	0.10	0.12%
	Sales	1,212,340	93.92%	192.16	92.03%	78.43	92.83%
	Total Losses	76,810	**5.95%**	16.34	7.83%	5.96	7.06%
	System Net Total	1,290,859		208.80		84.50	

MAUI ELECTRIC COMPANY, LTD.
DOCKET NO. 2006-0387, TEST-YEAR 2007
DETERMINATION OF PROPOSED SERVICE VOLTAGE ADJUSTMENTS

			Energy (MWH)	Loss (MWH)	Loss as % of Level J (%)	Cum % Loss from Level J (%)	Serv Volt Adj at Proposed Rates (G, J, P) (%)	Serv Volt Adj at Present Rates (%)
	A.	MECO Net Generation	1,080,523					
	B.	Delivered to MECO GSU Tsf.	1,080,523					
		MECO GSU Tsf Losses		5,091				
	C.	MECO Gen Delivered To 69/23 kV	1,075,432					
		IPP Gen Injection	215,427					
		Delivered To Transmission	1,290,859					
		Trans Losses		23,555				
(TP)	F.	Delivered To 69/23 kV Dist. Subs	1,267,304					
		Dist Tsf Losses		6,859	0.56%	4.38%	4.4%	4.9%
(TS)	G.	Delivered To Dist Lines	1,260,445					
		Dist Lines Losses		32,704	2.69%	3.82%	3.8%	3.9%
(DP)	H.	Delivered To Dist/Sec Tsf.	1,227,741					
		Sec Tsf Losses		7,184	0.59%	1.13%	1.1%	2.0%
(DS)	I.	Delivered To Sec	1,220,557					
		Sec Losses		6,508	0.54%	0.54%	0.5%	1.0%
(SEC)	J.	Delivered To Meter	1,214,049					

Source:

2007 Estimated Demand & Energy Losses

CA-IR-384

Ref: MECO Response to CA-IR-302 (Schedule P Customer Charge and Cost Differentials).

Please provide the following:

a. Explain all known reasons why Schedule P unit customer costs at Lanai Division and Molokai Division are so much lower, according to MECO-1808 and MECO-1810 than unit customer costs calculated for Maui Division.

b. Are there service territory, quality of service or other issues that explain why calculated unit customer costs for the Maui Division should reasonably be more than 10 times (MECO-1808 page 1 versus page 3) the comparable costs incurred per customer to provide Schedule P service on Molokai?

c. Please provide complete copies of all studies, reports, analyses and other documents associated with your responses to parts (a) and (b) of this information request.

MECO Response:

a. Schedule P unit customer costs at Maui division are significantly higher than Schedule P unit customer costs at Lanai division and Molokai division because customer service costs at Maui division and therefore customer service costs allocated to Maui division Schedule P are significantly higher than at Lanai division and Molokai division. Compare the Maui division customer service cost allocated to Schedule P ($906,600, MECO-WP-1802, page 79) and Maui division Schedule P unit customer service cost ($624.38, MECO-WP-1802, page 67) with the Lanai division customer service cost allocated to Schedule P ($700, MECO-WP-1802, page 168) and Lanai division Schedule P unit customer service cost ($19.29, MECO-WP-1802, page 156), and with the Molokai division customer service cost allocated to Schedule P ($1,400, MECO-WP-1802, page 257) and Molokai division Schedule P unit customer service cost ($8.52, MECO-WP-1802, page 245).

b. See the response to part a. above.

c. See the response to part a. above.

CA-IR-385

Ref: MECO T-18, page 88 (Molokai Schedule N "night" service).

Please provide the following:

a. State and explain the extent to which service under Schedule N is believed to be cost-based, with reference to specific schedules reflecting cost of service results relied upon in explaining your response.

b. For what reasons is Schedule N proposed to be closed to new customers in this Docket?

c. Does MECO separately meter Schedule N service and discontinue such service between the hours of 6 am and 10 pm daily, requiring daytime service to be pursuant to Schedule P or some other rate?

MECO Response:

a. For the purposes of the Molokai division cost of service study and revenues estimates, Schedule N is included within the results for Schedule P. The costs shown for Schedule P in the Molokai division cost of service study are also the costs for Schedule N.

b. Schedule N is proposed to be closed to new customers as part of the Company's effort to standardize the rate offerings across all three MECO divisions. The Schedule N service is a schedule that existed on Molokai prior to MECO's acquisition of the Molokai division, and it has largely been maintained in form since the acquisition. There are also very few customers (3) on this rate schedule. Schedule N service is not currently offered at Maui division or Lanai division.

c. Yes, MECO separately meters Schedule N service and Schedule N customers who require daytime service take that service under a different commercial rate schedule.

CA-IR-386

Ref: MECO T-18, page 40 (TOU Rate Customer Charges).

Please provide the following:

a. Explain the reasons why MECO is proposing no additional customer charge for Schedule R and Schedule G TOU rate customers (relative to the underlying sales rate), but has proposed additional monthly customer charges for Schedule J and Schedule P TOU rate customers.

b. If any cost of service rationale is cited in your response to part (a) of this information request, please provide pinpoint citation into the cost information being relied upon and/or complete copies of same.

MECO Response:

a. MECO is proposing no additional customer charge for Schedule TOU-R and Schedule TOU-G rate customers (relative to the associated proposed Schedule R and Schedule G rates) in order to reduce barriers to customer adoption of the optional TOU rates. MECO is proposing customer charges for Schedule TOU-J and Schedule TOU-P that are $10 per month higher than the customer charges for the associated proposed Schedule J and Schedule P rates. The $10 difference reflects the TOU meter charge on the existing TOU rate option, Rider T, which is currently available to Schedule J and Schedule P customers.

b. See the response to part a. above.

CA-IR-387

Ref: MECO Response to CA-IR-34 Tariffs (Power Factor).

Please provide the following:

a. Explain why different power factor base values (for example 85% Schedule J on Lanai, 90% Schedule J on Molokai) and different power factor rate adjustment values (for example 0.10% for Lanai TOU-P versus 0.15% for Lanai TOU-J) are being employed within present and proposed rates.

b. Has the Company relied upon any cost support for its proposed power factor rate adjustment values?

c. If your response to part (b) of this information request is affirmative, please describe and provide complete copies of all such supporting data.

d. Please explain the status of the pending HECO power factor study (see HECO Response to CA-IR-169 in Docket No. 2006-0386) and describe whether the results of that study suggest any changes that should be made for MECO with regard to power factor correction costs and charges/credits.

MECO Response:

a. The power factor base values at present rates and proposed rates for Maui and Lanai, 85% for Schedules J, P, and U, have been unchanged for many years and are the same as the power factor base values at HECO and HELCO for the same rate schedules. The power factor base values at present and proposed rates for Molokai, 90% for Molokai Schedules J, P, and U, are unchanged from the values that were in place when MECO acquired the Molokai Division. Likewise, the power factor rate adjustment values (0.10% for Maui and Lanai Schedules J, P, and U, and 0.15% for Molokai Schedules J, P, and U) have been unchanged for many years and no changes are proposed. The power factor rate adjustment values for the proposed TOU Schedules should be the same as the power factor rate adjustment values for the associated regular rate schedules. Thus, the power factor rate adjustment values for Maui TOU-J, Maui TOU-P, Lanai TOU-J, and Lanai TOU-P should

all be 0.10%, and the power factor adjustment values for Molokai TOU-J and Molokai TOU-P should both be 0.15%. The Company will make the appropriate corrections to the tariff sheets in rebuttal.

b. The Company's proposed power factor rate adjustment values are the same as the values for the same rate schedules under present rates or the same as the values for the associated non-TOU rate schedules under present and proposed rates. The Company has not developed any additional cost support.

c. Not applicable.

d. The HECO power factor study has yet to be completed. In the Stipulated Settlement Letter in the HECO 2007 test year rate case (filed September 6, 2007 in Docket No. 2006-0386), the Consumer Advocate, the Department of Defense, and HECO agreed to defer consideration of the power factor adjustment provision to HECO's next rate case, and HECO will provide updated estimates regarding completion of its power factor cost study and a plan to recommend appropriate cost-based power factor revisions in the rate design.

CA-IR-388

Ref: MECO T-19, page 19 (Smart Meters).

Please provide the following:

a. Explain the current status of HECO work described by Mr. Hee, including a statement of conclusions reached and deployment planning decisions at HECO with respect to metering and information network infrastructure issues.

b. Given your response to part (a) of this information request, how will MECO be impacted or benefited by HECO efforts and smart metering deployment plans? Provide a detailed statement of the most detailed available TOU metering deployment plans for MECO.

MECO Response:

a. The Advanced Metering Infrastructure ("AMI") program is a gated process of development and demonstration, through field pilots, of the Sensus Metering Systems, Inc., ("Sensus") FlexNet two-way communication advanced metering solutions for automated meter reading, dynamic pricing, and demand response utility applications. The gated process allows for incremental evaluation of hardware technologies and software systems in the context of pilot scale utility applications to identify the trade-offs and operational savings potential of advanced metering.

In August 2006 (not October 2006, as incorrectly stated in MECO T-19, page 19, line 1), HECO executed an R&D Advanced Meter Infrastructure ("AMI") pilot project agreement with Sensus to evaluate the technical feasibility of the FlexNet 900 MHz wireless AMI solution in Hawaii's environment. The key objectives of pilot project were to:

- Deploy (pilot) in a controlled and scalable fashion, 500 (minimum) residential wireless meters across the Oahu service area for a period of 6 to 24 months;

- Pilot/test reliable connectivity to end points through a third party wireless network;
- Pilot data server(s) and related software that will communicate daily with all the devices, through a third party wireless network and collect 15 minute interval data to include kWh, voltage, diagnostics, and outage information at customers' premises; and
- Pilot back-end meter data management software to enable the evaluation of meter data integration efforts with the CIS and OMS.

The deployment of the residential wireless meters was completed in late 2006 and successfully demonstrated the technical feasibility of the Sensus AMI solution.

Because of the success of the initial pilot, HECO executed an expanded pilot project agreement with Sensus, dated January 9, 2007, to deploy AMI over an expanded coverage area, to include the Ocean Pointe subdivision on Oahu with the deployment of a third communication tower. The objective of this pilot project of HECO's AMI program is to test the usability of the Automated Meter Reading ("AMR") technology to bill residential and commercial customers in the Ocean Pointe subdivision. The scope of the project includes installing approximately 3,000 new residential and commercial FlexNet meters to customers within the Ocean Pointe subdivision. The meter installation work was completed in April 2007 and the AMR billing services have begun. Initial results of the billing services are positive.

With the installation of the approximately 3,000 FlexNet-enabled meters, the Company saw an opportunity to evaluate the use of the meters and the FlexNet data collection system as a basis for exploring demand response in the form of peak time rebates ("PTR").

PTR will be a demand-side measure that provides a per kilowatthour rebate for each kilowatthour that is not used during a period in which the utility anticipates difficulty meeting the demand. Under this program, HECO will provide central air conditioning thermostats that are controllable by HECO through paging systems. HECO will remotely increase the temperature set point of the thermostats during a PTR event to assist the customer in reducing load. Since PTR requires load profile information in order to bill (credit) the rebate, and because the periods during which PTR may be initiated are not fixed, a significant amount of information must be available to HECO. The Sensus FlexNet AMI technology that HECO is evaluating can enable a pathway for this kind of dynamic rate program to be initiated because the presence of an operational data collection system facilitates PTR by providing customer profile information necessary to bill under that program.

In preparation for the PTR pilot to be implemented in 2008, HECO recently signed an agreement with Sensus Metering Systems effective July 1, 2007, to increase the geographic area covered by the FlexNet system to include Windward and East Oahu. This involves the deployment of two additional Sensus Tower Gateway Basestations (TGBs). The wider coverage of the FlexNet system to include Windward and East Oahu will enable HECO to gather baseline residential use profile information both within Ocean Pointe and outside the subdivision in advance of the PTR pilot. Furthermore, should the Commission approve the PTR pilot (in an application that HECO intends to file later this year) the wider FlexNet coverage will allow geographic participation in the pilot that more closely represents the population on Oahu. This would facilitate a statistically more robust extrapolation of the

pilot study results to projections of impacts that would result from the possible island-wide implementation of PTR.

A further near-term objective is to evaluate and demonstrate the Meter Data Management System ("MDMS") software integration efforts required to interface with the existing/future Customer Information System ("CIS") first before considering the more complex integration interfaces for the Outage Management System ("OMS"). HECO originally contemplated conducting a pilot back-end MDMS to enable the evaluation of meter data integration efforts with the CIS and OMS. Given the nearer-term objective to demonstrate the automated meter reading, dynamic pricing and demand response utility applications, HECO will be pursuing the AMI pre-deployment planning and MDMS requirements and specifications, MDMS assessment and vendor/contractor evaluations beginning in the latter half of 2007. Preliminary discussions are also underway with MDMS vendors/contractors to determine the feasibility of pursuing a small scale MDMS pilot project in the 2008 time frame as part of the overall AMI RD&D program.

In summary, HECO has concluded that the Sensus AMI solution is technically feasible and that conducting billing services can be implemented. HECO's deployment plans include continuing to evaluate billing services, deploying dynamic pricing in the form of peak time rebates, and conducting an evaluation and demonstration of a meter data management system.

b. HECO's AMI efforts will benefit MECO by reducing costs for AMI deployment at MECO and by demonstrating the feasibility of dynamic pricing programs. MECO AMI costs will be reduced since pilot efforts on Oahu will identify technical and economic issues associated with metering, communications, and data management that may be addressed before similar

issues become apparent with possible deployment at MECO. Efforts by HECO to explore peak time rebates may uncover similar technical and economic issues, but may also reveal customer attitudes towards dynamic pricing programs. These can be addressed on Oahu before possible implementation at MECO.

Detailed deployment plans of AMI and a peak time rebate program at MECO have not been developed. However, MECO does anticipate that an application for AMI projects on Maui may be filed sometime in 2008, subject to the Commission's approval of HECO's proposed Renewable Energy Infrastructure Surcharge proposal.[1] Until the AMI system can be deployed at MECO, metering of TOU customers will continue to be performed using meters with storage capabilities that will need to be downloaded either by hand or remotely by telephone.

[1] See Hawaiian Electric Company, Inc.'s, Maui Electric Company, Limited's, and Hawaii Electric Light Company, Inc.'s Supplemental Preliminary Statement of Position in Docket No. 2007-0008, *Instituting a Proceeding to Examine Hawaii's Renewable Portfolio Standards Law*, filed July 25, 2007.

CA-IR-389

Ref: MECO response to CA-IR-272 (Legislative/Government Relations).

The referenced response provides the test year forecast ($25,194 labor & non-labor) for maintaining relationships with legislators, legislative staffs and other government agencies (DOE, EPA, DOH, SEC, Maritime Administration, PUC and DCCA). Please provide the following information:

a. Please provide a breakdown of the $21,542 of non-labor costs included in the 2007 test year forecast between maintaining relationships with legislators and legislative staffs from other government agencies.

b. If the information requested in part (a) above is not available for the 2007 forecast amount, please provide such breakdown for calendar years 2004, 2005 and 2006.

c. Does MECO record any labor or non-labor costs incurred to maintain relationships with legislators and legislative staffs to below-the-line expense accounts?

    1. If not, why not?
    2. If yes, please provide the amount so allocated in 2004, 2005 and 2006, as well as the 2007 test year forecast.

d. Does MECO consider any of the costs to maintain relationships with legislators and legislative staffs that are included in the 2007 test year forecast as representing efforts to lobby or influence the opinion on legislators or their staffs? Please explain.

MECO Response:

a. The requested breakdown of the $21,542 of non-labor costs included in the Company's test year 2007 estimate for ABM Activity 745, maintain relations with legislators & governmental agencies, as provided in Attachment 2 to the Company's response to CA-IR-272, cannot be provided because the Company did not prepare its 2007 Operating Budget to include such a breakdown.

b. The requested breakdown of the recorded non-labor costs incurred by MECO for the years 2004, 2005 and 2006 for ABM Activity 745, maintain relations with legislators & governmental agencies, as provided in Attachment 2 to the Company's response to

CA-IR-272, cannot be provided because the Company did not record costs in those years with such a breakdown.

c. MECO understands that the Consumer Advocate's reference to "below-the-line expense accounts" in the instant information request is referring to expense accounts that are not included in the calculation of operating income for rate-making purposes.

MECO did not record in 2004, 2005 and 2006 any labor or non-labor costs charged to ABM Activity 745 to below-the-line expense accounts because the costs incurred resulted in benefits to MECO's ratepayers. Please see MECO's response to CA-IR-272, part b., which describes the goals and general purpose of the activities undertaken and some of the key issues addressed in connection with the incurrence of these costs.

d. No. MECO does not consider any of the costs incurred to maintain relationships with legislators and legislative staffs that are included in the test year 2007 forecast as representing efforts to lobby or influence the opinion of legislators or their staffs. As stated in the Company's response to CA-IR-272, part b., the activities related to the costs recorded or forecasted to ABM Activity 745, maintain relations with legislators and governmental agencies, include meetings and communication with federal, state and local legislators, maintaining close working relationships with legislators and legislative staffs and the management of legislative issues. This activity also includes meetings and communications with government agencies in maintaining relationships with government agencies, and the overall management of regulatory issues (DOE, EPA, DOH, SEC, Maritime Administration, PUC and DCCA). Examples of issues addressed include land use, renewable energy, copper theft and revenue bond financing.

CA-IR-390

Ref: Test Year Inter-island Air Fares.

Please provide the following information:

a. Explain MECO's efforts to take advantage of increased competition among inter-island air carriers, indicating any contractual arrangements or bulk purchase processes employed.

b. Test year estimated numbers of inter-island air trips and related expenses by RA and NARUC expense block.

c. Approximate adjustment required to the Company's filing, by RA and NARUC expense block, in order to recognize and account for increased competition among inter-island air carriers and the resulting reduction in market pricing of inter-island transportation.

MECO Response:

a. MECO utilizes the services of inter-island air carriers for travel primarily between the islands of Maui, Lanai, Molokai, Oahu and Hawaii. While there may be increased competition among inter-island air carriers for travel between the islands of Maui, Oahu and Hawaii, the same is not true for travel between the islands of Maui, Lanai and Molokai, which are the three islands in MECO's service territory. In general, MECO's practice is to take advantage, when appropriate, of increased competition for all of the services and goods it purchases, to the extent that such increased competition results in changes to price, quality of service or other aspects of such transactions that would benefit MECO's ratepayers. With respect to the purchase of inter-island air services, the Company makes every effort to make reservations at the lowest available fares for the given dates and times required for travel. The Company must balance, however, all of its business needs, which means that from time to time the Company purchases air fares that may not be the very lowest available fare at the time of purchase. Furthermore, while increased competition among inter-island air carriers may from time to time result in reductions in advertised or published air fares, the number of

seats available at such reduced pricing is often extremely limited, the seats are not always available for the required dates and times, and there are typically restrictions on, and significant penalties for, subsequent changes for travel reserved at discounted rates.

b. The requested information is provided in Attachment 1 to this response. Please note that the test year estimates provided in Attachment 1 include not only the cost for inter-island air fares but may also include the costs for ground transportation (for example, car rental or taxi fees), lodging and parking services at both the departure airport and at the traveler's destination. While increased competition among inter-island air carriers may from time to time favorably impact the pricing for travel between certain islands at certain times (see response to part a. above), such increased competition does not appear to have impacted the costs for ground transportation, lodging or parking services.

c. No adjustment is required to MECO's test year 2007 estimate for the cost of inter-island air travel as a result of increased competition among inter-island air carriers. While increased competition among inter-island air carriers may from time to time result in reductions in market pricing for inter-island transportation, the duration of such periods of reductions in market pricing cannot be easily predicted and the failure of one or more existing inter-island air carriers could have an immediate, significant, unfavorable impact on market conditions including pricing and flight availability. Further, the current market conditions with respect to inter-island air transportation services may be temporary. The Company's test year forecast reasonably estimates the costs that the Company will incur during the period that the rates set by the Commission in this docket are expected to be in effect.

MAUI ELECTRIC COMPANY, LTD.
INTER-ISLAND AIR TRAVEL
NUMBER OF TRIPS AND ESTIMATED EXPENSE
2007 OPERATING BUDGET

		2007 Operating Budget:	
RA	NARUC O&M Expense Block	Number of Trips	Estimated Expense ($) *
M9P	A&G Operations	84	16,620
MAA	A&G Operations	27	5,400
MAB	A&G Operations	6	1,200
MAG	A&G Operations	6	1,200
MAP	A&G Operations	6	1,200
MAX	A&G Operations	6	1,200
MCA	Customer Accounts	34	9,300
MCF	Customer Accounts	31	7,800
MCN	Customer Services	20	5,200
MCR	Customer Accounts	10	2,900
MCT	Customer Accounts	10	1,900
MCZ	Customer Accounts	1	500
MDC	Distribution Operations	6	600
MDC	Transmission Maintenance	6	700
MDE	Distribution Maintenance	100	17,824
MDE	Distribution Operations	8	1,200
MDK	Distribution Maintenance	24	2,004
MDM	Distribution Operations	26	1,880
MDR	Transmission Operations	48	4,800
MGA	Production Maintenance	30	2,254
MGA	Production Operations	98	7,433
MGB	Production Maintenance	6	954
MGC	Production Maintenance	2	300
MGD	Production Maintenance	4	300
MGE	Production Maintenance	12	7,532
MGK	Production Operations	14	1,243
MGL	Production Maintenance	64	4,773
MGL	Production Operations	14	582
MGM	Production Operations	21	4,168
MGT	Production Maintenance	12	1,560
MGT	Production Operations	46	4,937
MSA	A&G Operations	54	13,500
MSC	Customer Services	16	3,950
MSP	A&G Operations	35	8,750
MSS	A&G Operations	43	10,550
MWI	A&G Operations	40	8,500

* Note: In addition to the cost of air transportation, the 2007 Operating Budget estimates may also include costs for ground transportation, parking and lodging.

CA-IR-391

Ref: Responses to CA-IR-40, Attachment 19; CA-IR-202, part c (Hotel Closures/Load Changes).

Please provide the following:

a. Updated CA-IR-40 Attachment 19 pages 1 through 4 Schedule P segment sales data, substituting 2006 actual data for forecasted information and adding a column for year-to-date August 2007 actual data.

b. Explanation of each individually significant fluctuation in August 2007 year-to-date Schedule P actual sales, relative to the rate case forecast sales volumes.

c. Monthly Ritz Carlton sales data for all available months of 2007, indicating current status and plans for renovation.

d. Monthly Renaissance sales data for all available months of 2007, indicating current status and plans for renovation.

MECO Response:

a. Please see Attachment 1.

b. Schedule P sales were 0.9% over the test year forecast as of September 2007. The primary sectors contributing to this variance are the hotel, retail non-food, water pumping and condos. Within these four sectors, the delay in closing the Renaissance, drought conditions causing higher pumping loads and several large Schedule J customers transferring to Schedule P in the retail non-food, water pumping and condos sectors account for most of the variance. Going forward, the variance should decrease once the Renaissance is demolished and rainfall returns to more normal levels. Note that in preparing the test year sales forecast for Schedule P, MECO did not annualize the sales for the Maui Ocean Center Lahaina Tower as it did with the Kaanapali Ocean Resort Phase II. The tower did a soft opening in June 2007.

c. Please see Attachment 2 for September 2007 year-to-date kWh sales data. The Ritz Carlton Kapalua closed the hotel to guests in July 2007 as it prepared to undergo its $125 million renovation. It continues to operate at a reduced staffing level. The Ritz Carlton originally

planned to reopen before the end of the year however, has pushed back the date to January 2008. The 548-room hotel plans to pare down to 363 guest rooms while adding 107 full-ownership residential suites. The spa and fitness center and three restaurants will be expanded or renovated.

d. Please see Attachment 2 for September 2007 year-to-date kWh sales data. The Renaissance Wailea closed its hotel to guests on September 6, 2007. The 345-room hotel will be demolished and rebuilt as the first of a new luxury hotel chain to be called the Baccarat, a nameplate being launched by the Starwood Capital Group. The Baccarat will include 193 units in 13 low-rise buildings, which include suites up to four bedrooms. Construction is expected to take 28 months following demolition. Before demolition can occur, the hotel will undergo decommissioning which includes the selling off of fixtures and furniture and an inspection for asbestos.

Confidential Information
Deleted Pursuant To
Protective Order No. 23379.

CA-IR-391
DOCKET NO. 2006-0387
ATTACHMENTS 1-2

Attachments 1 and 2 contain confidential information and are being provided pursuant to

Protective Order No. 23379, dated April 23, 2007.

CA-IR-392

Ref: Response to CA-IR-200, Confidential Attachment 14, page 9 (Maui Division New Large Load).

Please provide the following:

a. For each of the accounts described as "New Large Load" on slide 17, please provide actual monthly sales to-date.

b. For each account included in your response to part (a) of this information request, please provide the approximate amount of MWH sales included in the test year sales projections.

c. Given your response to parts (a) and (b) of this information request, identify and quantify all adjustments required to update new large load projections for current available information (as appropriate).

MECO Response:

a. Please see Attachment 1.

b. Please refer to the column labeled "Forecast 2007" in Attachment 1.

c. Although there is an expectation that each account listed in Attachment 1 may be higher or lower than the original 2007 projection, in total, the forecast appears to still be reasonable given the September year-to-date actuals. Therefore, MECO is not recommending adjustments be made to the new large load projections.

Confidential Information
Deleted Pursuant To
Protective Order No. 23379.

CA-IR-392
DOCKET NO. 2006-0387
ATTACHMENT 1

The requested information is confidential and will be provided pursuant to

Protective Order No. 23379, dated April 23, 2007.

CA-IR-393

Ref: MECO Response to CA-IR-200, Confidential Attachment 14, page 10 (Load and Rainfall Graph).

Please provide the following:

a. Update slide 19 to incorporate data for all available months of 2007 to-date.

b. Provide copies of the underlying monthly data in support of your response to part (a) of this information request.

c. Explain whether 2007 actual BWH sales are believed to be abnormal and include all studies, reports, analyses workpapers and other data supportive of your response.

MECO Response:

a. Please see Attachment 1, page 1.

b. Please see Attachment 1, pages 2 and 3.

c. MECO believes the County of Maui's Department of Water Supply's ("DWS") 2007 MWh sales, as depicted in the response to part a, has been higher than what it would have been in a "non-drought" year. MECO based this statement on information obtained from conversations with the DWS and other MECO customers with large water requirements. MECO also keeps track of the news on rainfall and water usage on an ongoing basis. See Attachment 2 for a few examples of the drought and increased water usage. The relationship between rainfall and electricity sales are also validated by reviewing recorded rainfall data from NOAA's National Weather Service (www.weather.gov/climate/index.php?wfo=hnl) and electricity sales for water providers such as DWS and Hawaii Water Service Company, as well as large users of water such as golf courses and resorts.

Confidential Information
Deleted Pursuant To
Protective Order No. 23379.

Pages 1 and 2 contain confidential information and are being provided pursuant to

Protective Order No. 23379, dated April 23, 2007.

		January	February	March	April	May	June	July	August	September	October	November	December	Sept YTD	Annual
rainfall	Rain 96	2.47	3.02	6.75	0.50	0.46	0.18	0.52	0.18	0.18	0.00	6.53	10.21	14.26	31.00
(Kahului Airport)	Rain 97	9.23	1.11	3.06	1.34	0.83	0.71	1.22	0.14	0.09	0.50	3.10	1.75	17.73	23.08
	Rain 98	0.36	0.49	0.18	1.27	0.44	0.04	0.18	0.21	0.41	0.08	1.93	1.17	3.58	6.76
	Rain 99	2.01	1.70	1.48	0.34	0.51	0.09	0.01	0.31	0.03	0.41	0.22	2.55	6.48	9.66
	Rain 00	1.00	0.06	0.34	1.26	0.04	0.09	0.78	1.20	0.54	0.79	3.44	0.18	5.31	9.72
(from roger unless highlight	Rain 01	0.02	0.90	0.42	0.20	0.08	0.18	0.19	0.69	0.09	1.24	3.41	3.11	2.77	10.53
from NWS HNL internet site	Rain 02	3.75	0.99	1.80	0.64	1.83	0.01	0.66	0.00	0.00	4.42	0.42	0.55	9.68	15.07
	Rain 03	2.40	5.34	1.02	0.01	0.00	0.02	0.07	0.22	0.17	0.15	1.05	2.72	9.25	13.17
	Rain 04	7.90	3.08	8.55	0.45	2.24	0.04	0.05	0.36	0.02	0.00	0.00	1.45	22.69	24.14
	Rain 05	4.94	2.03	4.37	0.30	0.21	0.19	0.01	0.00	0.00	0.30	1.76	0.12	12.05	14.23
	Rain 06	0.74	0.69	5.34	0.20	0.75	0.03	0.14	0.05	0.23	4.16	3.04	3.25	8.17	18.62
	Rain 07	0.48	0.93	2.13	0.25	0.07	0.04	0.12	0.13	0.03				4.18	4.18
normal (1971-1990)	normal	4.14	2.87	2.72	1.84	0.77	0.27	0.38	0.49	0.35	1.23	2.59	3.27	13.83	20.92
20 yr avg (1987-2006)	20 yr avg	3.24	2.19	2.64	1.57	0.86	0.23	0.54	0.43	0.44	1.11	2.42	3.15	12.14	18.81
10 yr avg (1997-2006)	10 yr avg	3.24	1.64	2.66	0.60	0.69	0.14	0.33	0.32	0.16	1.21	1.84	1.69	9.78	14.51

http://www.mauinews.com/search.aspx?term=Residents%20urged%20to%20conserve%20water

Residents urged to conserve water

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Sunday, May 27, 2007 11:06 AM

WAILUKU – Five months of lower than normal rainfall around Maui County is likely a factor in sharply increased water consumption – prompting Water Director Jeff Eng to caution residents to be more careful with water use.

"Given all the indicators – the level of the Wailoa Ditch, the low inflows into our Upcountry reservoirs and the low rainfall – we'd like to send out a clear message to the community to begin their summertime conservation efforts now," Eng said.

A weekly update on water use around Maui County for the period ending Friday shows consumption is up by 5.7 million gallons a day over the daily average for May 2006, a 14 percent increase in demand.

Higher demand is occurring in all areas except Molokai, with the largest increases occurring in Central Maui, up by 3.3 mgd, and Upcountry, up by 2 mgd.

Based on preliminary rainfall data, May is continuing a trend for 2007 of well-below normal rain across the county. In April, the National Weather Service hydrology section reported just two rain gauges, at Oheo Gulch and Kaupo Gap, had recorded normal rainfall.

Oheo showed 36.73 inches through April, 114 percent of normal, while Kaupo showed 42.91 inches, which matched the normal rainfall for the four-month period. But both gauges also showed below-normal rain for the month of April, 83 percent at Oheo and 54 percent at Kaupo. No area in Maui County recorded normal rainfall in April, and most areas were well below 50 percent.

Puu Kukui, normally the second wettest spot in Hawaii, recorded 13.13 inches in April, 32 percent of normal, and was at just 46 percent of normal for the first four months of 2007.

West Wailua Iki, a high-rainfall area in the East Maui watershed, received 12.92 inches in April, 59 percent of normal, and was at 78 percent of normal for the year.

The West Wailua Iki rainfall total may be more significant to consumers, since the watershed is the primary source for the Upcountry system, providing drinking and agricultural water for the region stretching from Haiku to Ulupalakua/Kanaio.

The Wailoa Ditch that diverts water from East Maui streams is the county's primary source for Upcountry, supplying the Kamole Weir water treatment plant, which can produce up to 7 million gallons a day.

Otherwise, the Upcountry system depends on storage in reservoirs at Waikamoi (30 million gallons), Piiholo (50 million gallons) and Kahakapao (100 million gallons). As of Thursday, Kahakapao held 79 mg, but Piiholo was down to 25 mg and the Waikamoi reservoirs were dry.

Low rainfall during the normally wet winter and spring months is a serious concern for the Upcountry system. The watershed along the northeast slopes of Haleakala encompasses more than 120 square miles of

forest that absorbs rainfall in wet periods to be released through the dry summer months into streams that are tapped by county and East Maui Irrigation Co. diversions.

AVERAGE DAILY WATER USE

District	May 19-25	May 2006	May 2005
Central Maui	28.2 mgd	24.9 mgd	25.2 mgd
Upcountry	9.4 mgd	7.4 mgd	8.5 mgd
Lahaina	6.2 mgd	5.8 mgd	5.6 mgd
Hana	0.4 mgd	0.3 mgd	0.4 mgd
Molokai	1.3 mgd	1.4 mgd	1.4 mgd
Total	45.5 mgd	39.8 mgd	41.1 mgd

http://www.mauinews.com/story.aspx?id=32893

Water use creeping upward

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Sunday, August 05, 2007 8:59 AM

WAILUKU– Water use around Maui crept upward over the past week, although showers over the East Maui watershed increased flows into the Upcountry system, Water Director Jeff Eng reported.

But the scattered showers probably did more to reduce discretionary irrigation than to restore the reservoirs, he said.

The Upcountry system remains under a drought warning requiring consumers to reduce their use of water by 10 percent. Although demand was up slightly from an average 8 million gallons a day to 8.2 mgd, Eng said the water department commends Upcountry customers for cutting water use from highs of 10 mgd.

"The department asks the rest of the county to follow their lead," he said.

Consumption on the Central Maui system was up to 28 mgd during the period of July 26 to Aug. 1, after falling to 27.6 mgd during the previous week. That is an increasing concern to the department, with the latest National Weather Service rainfall report noting that the West Maui watershed has been below normal for more than a year.

The monthly rainfall report for July said most of the windward areas of Maui received near normal rainfall during July as a result of trade wind showers. Cloud bands from an out-of-season shear line July 14-16 and from Tropical Depression Cosme on July 20-21 helped to generate showers on windward slopes. But leeward areas remained mostly dry.

According to the uncertified rainfall data, Kihei recorded 0.05 inches and Lahainaluna had 0.01 inches in July, while West Wailua Iki in the East Maui watershed recorded 17.33 inches and Oheo had 9.91 inches.

A larger concern is the numbers for Puu Kukui on the West Maui summit. It received 17.85 inches in July, but that was half of normal rainfall for the month and Puu Kukui has recorded just 95.5 inches for the year to date – 41 percent of normal.

"Normally regarded as the second wettest spot in the state, Puu Kukui has not recorded a near-normal monthly total since May 2006," senior service hydrologist Kevin Kodama said in the July report.

About a third of the July total also occurred on one day, 5.88 inches on July 21, as Cosme passed and whipped up the trades while pumping moisture into the atmosphere.

In May 2006, Puu Kukui recorded 34.95 inches, 99 percent of normal for the month. But for the year 2006, Puu Kukui recorded 58 percent of its normal 386.5 inches of rainfall. The summit recorded 88 percent of normal rainfall in 2005.

Rainfall on Puu Kukui is a measure of the health of the watershed that supports West Maui, South Maui and Central Maui.

"A big concern of the department is the below-normal rainfall in the West Maui watershed areas, which directly impacts the aquifers that our Central, South and West Maui customers depend on," Eng said. "Less rainfall means less recharge of the aquifers, and combined with an increase in pumping to meet their demands could lead to irreversible damage of the aquifers."

In the East Maui water system, which relies primarily on surface sources, water department reservoirs held 71 million gallons, 40 percent of capacity, while flows in the Wailoa Ditch were running from 55.6 mgd to a high of 129 mgd.

AVERAGE DAILY WATER USE

District	July 26-Aug. 1	July 19-25	July 2006	July 2005
Central Maui	28 mgd	27.6 mgd	27.9 mgd	26.3 mgd
Upcountry	8.2 mgd	8.0 mgd	9.9 mgd	8.6 mgd
Lahaina	6.8 mgd	6.4 mgd	6.5 mgd	6.0 mgd
Hana	0.3 mgd	0.3 mgd	0.3 mgd	0.3 mgd
Molokai	1.5 mgd	1.5 mgd	1.5 mgd	1.3 mgd
Total	44.8 mgd	43.8 mgd	46.1 mgd	42.5 mgd

http://www.mauinews.com/story.aspx?id=34835

Water use down, but some people are not helping

By EDWIN TANJI, City Editor
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Sunday, October 07, 2007 9:11 AM

WAILUKU – Water consumption in the Central Maui system fell to an average of 25.74 million gallons a day last week, nearly meeting a target of 25.5 mgd, but Water Director Jeff Eng said he was concerned that some consumers are actually increasing their use.

"I've been hearing that some Central and South Maui customers are trying to increase their water usage now in hopes to raise their average in case a cutback becomes mandatory," he said.

Any such effort is self-defeating since it could make an order for mandatory restrictions more likely, while any cutback order would be based on what customers were using over the past two years, he said.

"I urge all customers to become stewards of our water resources and use only as much as needed," he said.

Water use in the Central Maui system had topped 28 mgd

in August when Eng issued an appeal for consumers to cut use by 10 percent to 25.5 mgd. He renewed the appeal two weeks ago with consumption at 26.7 mgd – with a warning that it would be made mandatory if demand did not fall.

"If we can achieve the 10 percent reduction now, we will not have to go to a mandatory cutback," Eng said.

Upcountry consumers complied with an order to cut usage by 10 percent earlier in the summer after consumption on the system was averaging 10 mgd. During the past week, average Upcountry use was 7.34 mgd, although demand is regularly spiking on weekends, hitting 9.4 mgd Sept. 29 and 8.1 mgd Sept. 22.

The spike in water demand on Saturdays may be the result of continuing dry conditions through the agricultural districts from Haiku to Ulupalakua, as well as in the urban districts of Central and South Maui.

The National Weather Service monthly rainfall report showed healthy rainfall in the watersheds in September, but other areas of the county remain well below normal, including zero rainfall recorded at the Kihei gauge.

Nearly unabated trade winds through the month helped to provide regular trade showers on windward mauka slopes, according to the monthly report prepared by senior service hydrologist Kevin Kodama.

"The boost in trade wind rainfall helped improve water supply conditions over portions of the state, especially in Upcountry Maui, which depends on water sent from the windward slopes of Haleakala through a series of ditches," he said.

The West Wailua Iki rain gauge in the East Maui watershed recorded 20.58 inches in September, which is 174 percent of normal for the month. The highest rainfall was recorded at Puu Kukui in the West Maui watershed, with 30.83 inches, 133 percent of normal.

But most other areas remained dry. Lahainaluna recorded 0.05 inches, Waikapu had 0.01 inches, Kahului had 0.03 inches and Wailuku showed 0.13 inches. Pukalani collected 1.15 inches, but the prime farming region of Kula recorded just 0.64 inches.

Haiku, with 2.42 inches, was still only at 81 percent of normal for the month.

Possibly more telling is that only Oheo Gulch, with 74.62 inches for the year to date, is above normal for the year. Gauges in the key watersheds showed West Wailua Iki at 85 percent of normal while Puu Kukui – on average the second-wettest spot in Hawaii – was at 49 percent of normal.

The low rainfall levels for the year remain a concern for Eng, who previously cited his fears that three years of lower-than-normal rain could have an impact on recharge of the island's aquifers.

The Central Maui system, which provides water to an area stretching from Kuau-Paia to Wailuku-Kahului to Kihei-Makena, relies on groundwater in the Iao and Waihee aquifers. The capacity of the aquifers is rated at just 24 million gallons a day.

Eng said consumers need to cut back on watering lawns and check for leaks in their systems.

"Make the investment to install a low-flow toilet if you have an old one. You'll make the money back in reduced water bills," he said.

"Check out Maui Nui Botanical Gardens for beautiful drought-tolerant plants. It doesn't make sense to have a tropical rain forest in your yard if you live in a dry area."

Edwin Tanji can be reached at editor@mauinews.com.

Pacific Business News (Honolulu) - June 13, 2007
http://pacific.bizjournals.com/pacific/stories/2007/06/11/daily23.html

PACIFIC BUSINESS NEWS

Wednesday, June 13, 2007

Drought hits Maui, worsens on Big Island

Pacific Business News (Honolulu) - by Howard Dicus

The **Maui Department of Water Supply** has declared a drought in Upcountry Maui, imposing mandatory water restrictions, while dry conditions are getting worse on the Big Island.

Maui officials Tuesday imposed 10 percent water restrictions on nonagricultural users in Haiku, Haliimaile, Kanaio, Keokea, Kula, Makawao, Olinda, Omaopio, Pukalani, Pulehu, Ulupalakua, and Waiohuli, but gave farmers 30 days grace.

"Low inflows to the surface water treatment facilities are earlier than normal and could signal a long, dry summer," the Maui Department of Water Supply said.

On the Big Island, where similar conditions have gone on for a lot longer, farmers aren't so lucky.

"Nonirrigated crops, those dependent on natural rainfall, were in fair to poor condition," said Mark Hudson, director of the **National Agricultural Statistics Service Hawaii Field Office** in his weekly crop report Tuesday. "And livestock operations were being stressed by the low moisture levels."

Hawaii County Mayor Harry Kim declared a state of emergency a week ago due to the continuing dry weather. The declaration entered its second week Tuesday.

Under mandatory 25 percent water use reduction:

- Waimea to Kawaihae.
- Upper Paauilo.
- Ahualoa.

Under voluntary 10 percent water use reduction:

- North and South Kohala districts.
- Hamakua district.
- Kau district.

The **Hawaii Department of Agriculture** also continued its own mandatory 30 percent water conservation notice for users of the Honokaa-Paauilo irrigation system, which was damaged in the earthquake last Oct. 15.

There also continues to be a voluntary 10 percent water conservation notice for users of the Waimea irrigation system, also by order of the state department of agriculture.

Water flow into Waimea reservoirs has slowed or stopped due to the lack of rainfall, NASS said.

Hilo experienced a record high of 88 degrees on two days last week and most Big Island water gages recorded less than half the normal monthly rain in May, which means drier soil in June.

New sweet corn plantings on the Big Island are struggling and there are gaps in rows due to seedlings dying from lack of moisture, farmers report.

Maui has more recently begun to suffer similar conditions. "Leeward sections were dry, and the soil was not able to support any regrowth for pastures," NASS said. Maui onions were faring well, however.

Makawao users have had the use of the Pookela Well since May 24, providing 1.1 million gallons per day to Makawao, Haliimaile, Pukalani, lower Kula, and part of Haiku.

On Oahu, the Waimanalo irrigation system is being turned off on weekends.

Reach Howard Dicus at hdicus@bizjournals.com

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http://www.molokaitimes.com/articles/7723163911.asp

Drought: A major concern for Molokai and Hawaii

By Tyler Montgomery
The Molokai Island Times
7/23/2007 4:39:11 PM

During summers in Hawaii, the fear of severe drought is a bane to everyone's existence. On Molokai the soft tan color of the grass that consumes the island is a constant reminder that drought is a serious issue that causes problems for the agricultural island.

According to the National Oceanic and Atmospheric Administration (NOAA), "most of the gauges in Maui County recorded below normal totals for June. Many had less than 50 percent of normal and several were less than 10 percent of normal."

Even some of the wettest places in Hawaii, according to NOAA, are experiencing a lot less rainfall than years before.

Despite the lack of rainfall, Molokai Irrigation Systems states that the drought conditions on Molokai have not reached a level of immense concern. The current reservoir level sits at an uncomfortable 19 feet, four feet less than where it was at this time last year.

Though the levels of the reservoir may seem low, MIS office manager Byron Alcos states that there isn't a need for water restrictions to be put in place at this time.

"The water level will probably drop about a foot a month for the rest of the summer, down to about 16 feet at its lowest, but then the rain season, hurricanes and the tropical storms will cause the levels to quickly jump back up," Alcos said.

For this year, Molokai has averaged a reservoir level of 22.7 feet. Though the reading is not based on a full year, the average is only a few decimal points higher than last year's average.

Alcos said that there was a restriction issued to the non-homesteaders last year, but it was only in the form of a warning. "We got more rain," said Alcos. "It (tthe reservoir) went down to 17 feet but then went back up to 22 in a month."

With the average amount of feet already calculated to be in the reservoir, Alcos believes that it will be enough to get us through the rest of the summer.

He says that the rain does not usually come until around late September or mid-October, but since it is already July, he is confident that it will be enough for the duration of the summer.

"(We) only issue a conserve water warning to the non-homesteaders," explained Alcos. "I don't think we will be issuing a restriction of water; I don't see that in the picture."

Last month Molokai had 2.03 inches of rainfall, and though this month has not been calculated yet, last year there was only 2.66 inches of rainfall for July.

MIS Water Users Advisory Board chairman, Adolph Helm, said that there are many aspects that the Department of Agriculture takes into consideration before issuing a water conservation warning.

"When we look at drought conditions we take into consideration the national, regional and local rainfall levels as well as the reservoir levels," said Helm.

In the event that MIS issues a water conservation warning, the non-homesteaders will be informed immediately, and if the drought persists then the warning will turn into a water restriction plan.

"Water to be delivered to the homesteaders is our top priority," said Helm. "It is in our interest, also, to provide for everyone on the system.

CA-IR-394

Ref: MECO-406, lines 19, 20 and 21.

MECO-406, lines 19, 20 and 21 indicate sales heat rates of 0.015310 Mbtu/kWh sales, 0.009460 Mbtu/kWh sales and 0.012005 Mbtu/kWh sales for IFO, Diesel and Diesel (Hana), respectively. Please explain how the sales heat rates shown on lines 19, 20 and 21 were calculated and provide copies of supporting workpapers or other sources from which this factor was derived.

MECO Response:

The sales heat rate shown on line 19 was calculated on MECO WP 406-page 1.

The sales heat rate shown on line 20 was calculated on MECO WP 406-page 2 for the island of Maui, on MECO WP 406-page 4 for the island of Lanai, and on MECO WP 406-page 5 for the island of Molokai.

The sales heat rate shown on line 21 was calculated on MECO WP 406-page 3.

CA-IR-395

Ref: MECO-409, page 1, line 1 and line 3.

MECO-409, page 1, line 1 indicates that the industrial fuel oil average inventory for the test year is 53,248 barrels. MECO-409, page 1, line 3 indicates that the industrial fuel oil average number of days of supply for the test year is 37 days.

a. Does the industrial fuel oil average inventory for the test year in line 1 include dead storage?

b. Please explain your answer to part (a) of this information request.

c. Please explain how the industrial fuel oil average number of days of supply for the test year was calculated in line 3.

MECO Response:

a. Yes, the industrial fuel oil average inventory for the test year in line 1 does include dead storage.

b. Please refer to MECO-408 page 2, line 4.

c. The industrial fuel oil average number of days of supply for the test year was calculated dividing the annual average inventory by the average daily burn rate. Please refer to MECO-409 page 1 for the data and calculation (Line 1 divided by Line 2). For further calculation, please refer to MECO-408 page 2.

CA-IR-396

Ref: MECO-WP-404, page 1 and MECO-WP-507a.

MECO-WP-404, page 1 indicates that the annual production simulation results for energy purchased from HC&S for the test year was 90,427 MWh. MECO-WP-507a indicates the annual energy purchased from HC&S for the test year was 90,415,000 KWh. Please explain why the test year energy from the production simulation model is different from the energy levels used to calculate purchase power expense?

MECO Response:

The test year energy from the production simulation model is different from the energy levels used to calculate purchase power expense due to rounding of data performed automatically by the production simulation. However, the difference is negligible with a variance of 12 MWh (0.0133%).

CA-IR-397

Ref: MECO-WP-404, page 13.

MECO-WP-404, page 13, indicates Nitrogen Oxide (NO_x), Sulfur Dioxide (SO_2), Carbon Dioxide (CO_2) and reactive organic gases (ROG) Cost ($/lb) for Kahului and Maalaea.

a. What emission rates (lb/Mbtu) were used for the following?

   1. NO_x
   2. SO_2
   3. CO_2
   4. ROG

b. How were emission rates used in the production simulation model?

MECO Response:

a. Please refer to the response provided for CA-IR-208.

b. Please refer to the response provided for CA-IR-208.

CA-IR-398

Ref: MECO-WP-404, page 1 and MECO-WP-507a.

MECO-WP-404, page 1 indicates that the annual production simulation results for energy purchased from Kaheawa for the test year was 122,912 MWh. MECO-WP-507a indicates the annual energy purchased from Kaheawa for the test year was 122,882,000 KWh. Please explain why the test year energy from the production simulation model is different from the energy levels used to calculate purchase power expense?

MECO Response:

The test year energy from the production simulation model is different from the energy levels used to calculate purchase power expense due to rounding of data performed automatically by the production simulation. However, the difference is negligible with a variance of 30 MWh (0.0244%).

CA-IR-399

Ref: MECO-WP-507a, page 1 and page 2.

MECO-WP-507a, page 1 indicates annual on peak and off peak energy purchased from Kaheawa for the test year was 67,546,000 kWh and 55,336,000 kWh, respectively. MECO-WP-507a, page 2 indicates annual on peak and off peak energy purchased from Kaheawa for the test year was 67,548,000 kWh and 55,335,000 kWh, respectively. Please explain why the Kaheawa annual on peak and off peak energy is different between page 1 and page 2 of MECO-WP-507a, and which source of information should be used to calculate purchase power costs.

MECO Response:

The Kaheawa annual on peak and off peak energy is different between page 1 and page 2 of MECO-WP-507a due to rounding differences in the data provided by Kaheawa in MECO-WP-507a, page 1. The source of information that should be used to calculate the purchase power costs of Kaheawa is the data in MECO-WP-507a, page 2.

CA-IR-400

Ref: Response to CA-IR-327 (Emission Fees).

Please provide the following:

a. Explain the reasons why the KPP plant gallons are so much higher in this response than the gallons used in the previous estimate (provided in response to CA-IR-104, page 2).

b. Confirm that HECO used the year 2006 estimated DoH fee rate of 55.15 $/Ton, increased by a contingency allowance of 5 percent and reduced by a factor of 10/13 to account for historical fee waiver experience.

c. If anything but an unqualified confirmation is provided in your response to part (b) of this information request, please provide copies of documents and citations supportive of any corrections that are needed to the assertion in part (b).

MECO Response:

a. MECO's response to CA-IR-104 provided the calculation that supported the original emission fee calculation completed in June 2006 to meet the 2007-2008 budget cycle deadline. The KPP plant gallons number used in this original calculation was inadvertently taken from a 2007 fuel forecast scenario that included hypothetical CHP/DG impacts, which had the effect of reducing the KPP plant fuel use estimate. The 2007 YTD Aug KPP actual plant fuel burn is 13,137,810 gallons, which is in line with the 20,964,594 gallon 2007 annual estimate provided in MECO's response to CA-IR-327.

b. The Consumer Advocate's understanding of HECO's calculation of the test year emission fee does not include a 3.8% CPI index adjustment factor that was included in the calculation. See Docket No. 2006-0386, CA-IR-2, Attachment 7, page 4 of 7.

MECO has paid emission fees in 2004, 2005, and 2006 and believes this recent history is more representative than the 2003 and prior historical experience. The 2004-2006 period is the first time emission fees have been levied for three consecutive years, supporting MECO's belief that the ever growing number of state and federal environmental initiatives and

regulations (including the state mandate for renewable energy and the federal efforts to reduce green house gases) require a consistent and increasing level of funding, thus minimizing the chances of future emission fee waivers.

c. The requested document is attached on the following page.

- The actual annual fuel consumption for each station (Honolulu, Kahe, and Waiau) is replaced with estimated fuel consumption from Production Simulation runs (refer to HECO-409, page 2 of 6).
- The 2006 $/TON figure is used as a base, and the CPI Index adjustment applied to 2007 is based on August, 2005 and 2006 CPI Index values in accordance with HAR-11-60.1-114. Based on these values the CPI Index Adjustment calculates to: 203.9/196.4 = 1.038, or 3.8%. Pertinent worksheets used to calculate the revised emission fee estimates for Honolulu, Kahe and Waiau are provided on ATTACHMENT 7B pages 5, 7, and 10.
- A 5% contingency factor was applied to the worksheet results to account for fuel consumption uncertainties caused by a number of factors including unit outage schedule changes, system loading, forced outages, etc. The final result is provided on ATTACHMENT 7B, page 13.

Air Compliance

Kahe Air Compliance – The $60,000 for Kahe Air Compliance is comprised of estimates for consulting service expenses to support:

- Kahe Air Compliance - $20,000
- Kahe Blackstart Modification - $10,000
- Kahe Covered Source Permit Renewal Review - $15,000
- Kahe Regional Haze Modeling - $15,000

Waiau Air Compliance – The $60,000 for Waiau Air Compliance is comprised of estimates for consulting service expenses to support:

- Waiau Air Compliance - $20,000
- Waiau Blackstart Review - $10,000
- Waiau Covered Source Permit Review - $15,000
- Waiau Regional Haze Modeling - $15,000

General Air Compliance – The $65,000 for General Air Compliance is comprised of estimates for consulting service expenses and membership dues:

- HECO Miscellaneous Services - $15,000
- Voluntary Green House Gas (GHG) Reporting - $20,000
- Class of '85 Membership - $30,000

CA-IR-401

Ref: MECO Response to CA-IR-83, Attachment 1 (Production O&M Spreadsheet).

Please provide an updated Attachment 1 in Excel electronic format adding monthly 2007 actual data for all available months of 2007 to-date.

MECO Response:

The Excel electronic file labeled as Exhibit 1 of this response has been updated with actual data for 2007. The Company provides the July and August 2007 information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

CA-IR-402

Ref: Response to CA-IR-2; MECO T-5, Attachment A (ICB Basis, EE=550 Line Items).

Please provide the following:

a. A breakdown of projected test year expense line items on a monthly basis.

b. A schedule of recorded actual monthly 2007 ICB expenses charged to MECO Production O&M Accounts, for all available months of 2007, in a format comparable to the response to part (a) of this information request.

c. An explanation of the reasons for each individually significant variance between projected (part a) versus actual (part b) monthly ICB production O&M expenses and actual expenses.

MECO Response:

a. See Attachment 1 for the requested breakdown of projected test year expense line items on a monthly basis for EE=550.

b. See Attachment 2 for the requested schedule of recorded actual monthly 2007 ICB expenses charged to MECO Production O&M Accounts, for all available months of 2007, in a format comparable to the response to part (a) of this information request.

c. For purposes of this response, a variance of more than $20,000 is regarded to be "significant". Therefore, the variance for four items meet this criteria, and are discussed below:

500 MGA201NSTNE 550 (HECO Generation Planning-KPP, variance $33,304) - As indicated in CA-IR-320 Attachment 1, the 2007 actual charges to-date are lower than the proposed test year charges. The Inter-Company Billing ("ICB") forecast for 2007 for the HECO Generation Planning Division ("GPD") was prepared in February 2006. The forecast was based on known tasks that would need to be done in 2007 and on allowance for unexpected work that typically arises every year. The known tasks included such

activities as preparing the annual Adequacy of Supply report, compiling system information for submission to financial rating agencies, updating and maintaining the modeling databases, preparing various internal reports, supporting the preparation of the sales and peak forecast, and supporting power purchase negotiations. The allowance for unexpected work included such activities as supporting new regulatory dockets that are initiated by the Commission and conducting or supporting studies for MECO Power Supply.

Thus far in 2007, HECO GPD has performed the known tasks. In addition HECO GPD has worked a substantial number of hours on the MECO rate case. However, HECO GPD (and all other HECO staff) is required to charge their MECO rate case time to HECO rather than to MECO, pursuant to an earlier PUC decision (D&O No. 13429, dated August 5, 1994, in Docket No. 7000). Thus, while HECO GPD's work effort is actually greater than forecast for test year 2007, HECO GPD's ICBs to MECO have been lower than forecast thru August 2007.

506 MGA738MPONE 550 (HECO Fuel Resources, variance $25,970) - As indicated in CA-IR-320 Attachment 1, the lower than budgeted expenses from HECO Fuel Resource Division are primarily due to lower labor and overheads because of vacancies in the Fuel Resource Division. The 2007 forecast included services for 5 employees, however the average employee count for this year has been 2.33 employees which comes out to a labor factor of 2.33/5 = 0.467. HECO Fuel Resources Division is having difficulty in finding qualified people to fill these vacancies.

546 MGA201MNSNE 550 (HECO Generation Planning-MPP, variance $31,548) - The expenses for this department is split between the two major facilities Kahului Power

Plant and the Maalaea Power Plant. The response to line-item 2 also applies to this same line-item.

546 MGM876MWWNE 550 (HECO Evironmental – Wastewater services for Maalaea Power Plant, variance $21,922). Expenses ($8,779) were inadvertently recorded to MGM876MNSNENMGZZZZZ550 (line-item directly above this entry in Attachment 2, page 1) but should have gone to MGM876MWWNENMGZZZZZ550. A journal entry correction will be made. This line-item variance will fall below the $20,000 significant reporting limit.

PROJECTED TEST YEAR EXPENSES

NARUC	RA	Act	Loc	Ind	EE	Jan 07 RAVB07	Feb 07 RAVB07	Mar 07 RAVB07	Apr 07 RAVB07	May 07 RAVB07	Jun 07 RAVB07	Jul 07 RAVB07	Aug 07 RAVB07	Sep 07 RAVB07	Oct 07 RAVB07	Nov 07 RAVB07	Dec 07 RAVB07	FY07 RAVB07
500	MGA	201	NST	NE	550	$8,535	$8,535	$8,535	$8,535	$8,535	$8,535	$8,535	$8,535	$8,535	$8,535	$8,535	$8,535	$102,420
500	MGA	201	NST	NS	550	0	0	0	0	0	0	0	0	0	0	0	0	0
500	MGA	738	MPO	NS	550	0	0	0	0	0	0	0	0	0	0	0	0	0
500	MGA	877	MAU	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
500	MGK	865	NST	NE	550	$211	$211	$211	$211	$211	$211	$211	$211	$211	$211	$211	$211	$2,528
500	MGK	866	NST	NE	550	$129	$129	$129	$129	$129	$129	$129	$129	$129	$129	$129	$129	$1,549
500	MGK	875	NST	NE	550	$647	$647	$647	$647	$647	$647	$647	$647	$647	$647	$647	$647	$7,759
500	MGK	876	NST	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
500	MGK	877	NST	NE	550	$504	$504	$504	$504	$504	$504	$504	$504	$504	$504	$504	$504	$6,050
500	MGK	878	NST	NE	550	$429	$429	$429	$429	$429	$429	$429	$429	$429	$429	$429	$429	$5,151
500	MGK	879	NST	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
500						$10,455	$10,455	$10,455	$10,455	$10,455	$10,455	$10,455	$10,455	$10,455	$10,455	$10,455	$10,455	$125,457
502	MGK	241	NST	NE	550	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$37,041
502						$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$3,087	$37,041
506	MGA	240	NST	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
506	MGA	738	MPO	NE	550	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$94,057
506	MGB	240	NST	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
506	MGK	788	MPO	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
506	MGK	897	NST	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
506	MGM	788	MPO	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
506						$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$7,838	$94,057
510	MGA	210	NST	NS	550	0	0	0	0	0	0	0	0	0	0	0	0	0
510						0	0	0	0	0	0	0	0	0	0	0	0	0
511	MGB	263	NTF	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
511	MGB	265	NTF	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
511	MGB	269	NTF	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
511	MGB	271	NTF	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
511						0	0	0	0	0	0	0	0	0	0	0	0	0
512	MGB	257	N01	NE	550	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$486	$0	$486
512	MGB	257	N02	NE	550	$0	$0	$486	$0	$0	$0	$0	$0	$0	$0	$0	$0	$486
512	MGB	257	N03	NE	550	$486	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$486
512	MGB	257	N04	NE	550	$0	$0	$0	$0	$0	$0	$486	$0	$0	$0	$0	$0	$486
512	MGB	257	NST	NE	550	$162	$162	$162	$162	$162	$162	$162	$162	$162	$162	$162	$162	$1,943
512	MGB	259	N01	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
512	MGB	259	N03	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
512	MGB	259	N04	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
512	MGC	257	M15	NE	550	$79	$79	$79	$79	$79	$79	$79	$79	$79	$79	$79	$79	$943
512	MGD	257	M14	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
512	MGD	257	M16	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
512						$726	$240	$726	$240	$240	$240	$726	$240	$240	$240	$726	$240	$4,828
514	MGA	255	NST	NE	550	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$8,654
514	MGA	266	NST	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
514	MGB	789	MPM	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
514	MGE	266	NST	NE	550	$0	$0	$0	$12,299	$4,920	$0	$0	$0	$0	$0	$0	$0	$17,219
514	MGE	788	MPM	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
514	MGK	876	NWW	NE	550	$4,273	$4,273	$4,273	$4,273	$4,273	$4,273	$4,273	$4,273	$4,273	$4,273	$4,273	$4,273	$51,278
514						$4,994	$4,994	$4,994	$17,294	$9,914	$4,994	$4,994	$4,994	$4,994	$4,994	$4,994	$4,994	$77,151
546	MGA	201	MNS	NE	550	$8,315	$8,315	$8,315	$8,315	$8,315	$8,315	$8,315	$8,315	$8,315	$8,315	$8,315	$8,315	$99,786
546	MGA	865	MNS	NE	550	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
546	MGA	875	MNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546	MGA	877	MHN	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546	MGD	240	MNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546	MGM	865	MHN	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546	MGM	865	MNS	NE	550	$401	$401	$401	$401	$401	$401	$401	$401	$401	$401	$401	$401	$4,807
546	MGM	866	MNS	NE	550	$145	$145	$145	$145	$145	$145	$145	$145	$145	$145	$145	$145	$1,743
546	MGM	875	MHN	NE	550	$77	$77	$77	$77	$77	$77	$77	$77	$77	$77	$77	$77	$923
546	MGM	875	MNS	NE	550	$3,540	$3,540	$3,540	$3,540	$3,540	$3,540	$3,540	$3,540	$3,540	$3,540	$3,540	$3,540	$42,482

PROJECTED TEST YEAR EXPENSES

NARUC	RA	Act	Loc	Ind	EE	Jan 07 RAVB07	Feb 07 RAVB07	Mar 07 RAVB07	Apr 07 RAVB07	May 07 RAVB07	Jun 07 RAVB07	Jul 07 RAVB07	Aug 07 RAVB07	Sep 07 RAVB07	Oct 07 RAVB07	Nov 07 RAVB07	Dec 07 RAVB07	FY07 RAVB07
546	MGM	876	MNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546	MGM	876	MWW	NE	550	$2,740	$2,740	$2,740	$2,740	$2,740	$2,740	$2,740	$2,740	$2,740	$2,740	$2,740	$2,740	$32,883
546	MGM	877	MHN	NE	550	$56	$56	$56	$56	$56	$56	$56	$56	$56	$56	$56	$56	$671
546	MGM	877	MNS	NE	550	$946	$946	$946	$946	$946	$946	$946	$946	$946	$946	$946	$946	$11,352
546	MGM	878	MNS	NE	550	$688	$688	$688	$688	$688	$688	$688	$688	$688	$688	$688	$688	$8,250
546	MGM	879	MNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546						$16,908	$16,908	$16,908	$16,908	$16,908	$16,908	$16,908	$16,908	$16,908	$16,908	$16,908	$16,908	$202,897
546L	MGL	865	LNS	NE	550	$98	$98	$98	$98	$98	$98	$98	$98	$98	$98	$98	$98	$1,175
546L	MGL	875	LNS	NE	550	$798	$798	$798	$798	$798	$798	$798	$798	$798	$798	$798	$798	$9,573
546L	MGL	876	LNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546L	MGL	877	LNS	NE	550	$169	$169	$169	$169	$169	$169	$169	$169	$169	$169	$169	$169	$2,026
546L	MGL	878	LNS	NE	550	$122	$122	$122	$122	$122	$122	$122	$122	$122	$122	$122	$122	$1,463
546L	MGL	879	LNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546L						$1,186	$1,186	$1,186	$1,186	$1,186	$1,186	$1,186	$1,186	$1,186	$1,186	$1,186	$1,186	$14,237
546M	MGT	865	GNS	NE	550	$101	$101	$101	$101	$101	$101	$101	$101	$101	$101	$101	$101	$1,215
546M	MGT	875	GNS	NE	550	$924	$924	$924	$924	$924	$924	$924	$924	$924	$924	$924	$924	$11,087
546M	MGT	876	GNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546M	MGT	877	GNS	NE	550	$394	$394	$394	$394	$394	$394	$394	$394	$394	$394	$394	$394	$4,722
546M	MGT	878	GNS	NE	550	$165	$165	$165	$165	$165	$165	$165	$165	$165	$165	$165	$165	$1,979
546M	MGT	879	GNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
546M						$1,584	$1,584	$1,584	$1,584	$1,584	$1,584	$1,584	$1,584	$1,584	$1,584	$1,584	$1,584	$19,003
548	MGM	241	MHN	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
548	MGM	241	MNS	NE	550	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$57,751
548						$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$4,813	$57,751
548L	MGL	241	LNS	NE	550	$642	$642	$642	$642	$642	$642	$642	$642	$642	$642	$642	$642	$7,702
548L						$642	$642	$642	$642	$642	$642	$642	$642	$642	$642	$642	$642	$7,702
548M	MGT	241	GNS	NE	550	$555	$555	$555	$555	$555	$555	$555	$555	$555	$555	$555	$555	$6,664
548M						$555	$555	$555	$555	$555	$555	$555	$555	$555	$555	$555	$555	$6,664
549	MGA	747	MNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
549						0	0	0	0	0	0	0	0	0	0	0	0	0
549L	MGL	788	LPO	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
549L						0	0	0	0	0	0	0	0	0	0	0	0	0
549M	MGT	788	GPO	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
549M						0	0	0	0	0	0	0	0	0	0	0	0	0
551	MGA	210	MNS	NS	550	0	0	0	0	0	0	0	0	0	0	0	0	0
551						0	0	0	0	0	0	0	0	0	0	0	0	0
552	MGD	265	MNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
552						0	0	0	0	0	0	0	0	0	0	0	0	0
553	MGA	268	MNS	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
553	MGD	266	MNS	NE	550	$79	$79	$79	$79	$79	$79	$79	$79	$79	$79	$79	$79	$943
553	MGD	277	M13	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0
553	MGE	266	MNS	NE	550	$0	$0	$0	$12,788	$5,115	$0	$0	$0	$0	$0	$0	$0	$17,903
553						$79	$79	$79	$12,866	$5,194	$79	$79	$79	$79	$79	$79	$79	$18,846
553L	MGL	266	LNS	NE	550	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$696	$696
553L						$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$696	$696
553M	MGT	266	GNS	NE	550	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$716	$716
553M						$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$716	$716
554	MGA	255	MNS	NE	550	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$8,654
554						$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$721	$8,654
557	MCN	122	MAU	NE	550	0	0	0	0	0	0	0	0	0	0	0	0	0

PROJECTED TEST YEAR EXPENSES

NARUC	RA	Act	Loc	Ind	EE	Jan 07 RAVB07	Feb 07 RAVB07	Mar 07 RAVB07	Apr 07 RAVB07	May 07 RAVB07	Jun 07 RAVB07	Jul 07 RAVB07	Aug 07 RAVB07	Sep 07 RAVB07	Oct 07 RAVB07	Nov 07 RAVB07	Dec 07 RAVB07	FY07 RAVB07
557	MGA	122	MAU	NE	550	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$67,309
557						$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$5,609	$67,309

Confidential Information
Deleted Pursuant To
Protective Order No. 23379.

Attachment 2 contains confidential information and is being provided subject to

Protective Order No. 23379, dated April 23, 2007.

CA-IR-403

Ref: MECO response to CA-IR-112 (Staffing).

MECO has provided periodic updates to supply actual employee headcounts by month in 2007 for all departments, not just T&D. Referring to the update through August 2007, Note 1 on Attachment A indicates that the employee count "includes Company temps but excludes agency temps." Please provide the following:

a. Please explain the distinction between "Company temps" and "agency temps."
b. In a format similar to Attachment A, please provide the number of "Company temps" by month by RA.
c. Referring to part (b) above, please identify the "Company temp" positions that MECO ultimately plans on filling with full time positions.
d. Please provide the number of "Company temps" included in MECO's employee count forecast by month by RA, if available.

MECO Response:

a. "Company temps" are temporary employees hired by MECO to meet temporary labor demand excesses. "Agency temps" are hired through an arrangement that MECO makes with an employment agency to provide employees for temporary duties.

b. There are only two positions in 2007 utilizing "Company temps".

RA	Month Serving	Position Title
MDR	August 2007- present	Distribution Clerk
MCM	September 2007-present	Meter Reader

c. MECO currently has no intention of converting these temp positions to permanent full time positions.

d. There was no "Company temp" positions included in MECO's 2007 test year employee staffing forecast.

CA-IR-404

Ref: MECO response to CA-IR-338 (T&D Outside Services).

Referring to confidential Attachment 1, it appears that an annual prorate of the actual outside services costs (i.e., through the most recent available month) indicates that actual costs are significantly under-running the 2007 test year forecast for both vegetation and other outside services. Please provide the following:

a. Please confirm the impression that actual 2007 outside services for T&D are significantly under-running the 2007 test year forecast. If this cannot be confirmed, please explain.

b. Please identify and describe the primary factors (and related amounts) contributing to the favorable forecast variance (i.e., 2007 actual less than 2007 test year forecast) for each of the following categories of T&D outside services:
   1. Vegetation.
   2. Outside Services Other.

c. Does MECO have current plans to ramp up expenditures for T&D outside services in the remaining months of 2007 so as to achieve the 2007 forecast levels by year-end? Please explain.

d. During 2007, was MECO under any directive or other conditions that constrained the Company's ability to spend the forecast funds on T&D outside services? Please explain.

MECO Response:

a. The actual outside service expenses for T&D through August 2007 are moderately under-running the 2007 test year forecast. As discussed in the response to part b., the recorded amount for T&D outside services through August 2007 is $1.01 million compared to the test year amount of $1.29 million for the same period.

b. The primary factor for the variance between the 2007 test year forecast and August year-to-date actuals for both of these categories was delays in performing the forecasted activities. Attachment 1 of this response provides a comparison of the 2007 test year monthly forecast to the monthly actuals through August 2007. Attachment 1, line 1 columns B through N, provides the forecasted monthly amounts budgeted for expense element 501 (outside services). Line 2, column I, shows what MECO had forecasted to expend by the end of

August 2007. Line 3, column I, provides the actuals for that same period. The difference between MECO's budget and actuals through August 2007 for expense element 501 is $283,011 (line 4, column I). The primary drivers for this difference are accounted for by four activities; 344, 494, 494L, and 478 for expense element 501.

Activity 344, steel pole corrosion mediation (lines 6-9), was originally anticipated to start in the first quarter of 2007 and an equal expense amount was budgeted for the last month of each quarter. However, due to difficulties the vendor had procuring the necessary coating mix, the work was delayed until the coating mix was received, which finally occurred in August. For this activity, the only expense recorded in August was the cost of the coating mix. As explained in the response to part d., below, MECO has delayed the start of this T&D project until December of 2007 in order to manage its overall Company O&M expenses for 2007.

Activities 494 and 494L (lines 10-17) are for vegetation management on Maui and Lanai, respectively. The delay in completing these activities is the result of manpower shortages experienced by the contractor. While the contractor added additional crews in mid-August to meet its obligation for activity 494, distribution vegetation management on Maui (lines 10-13), as reflected by the increased level of expense in August (line 11, column I), MECO will reduce the activity for the last four months by approximately $100,000 in order to manage the overall Company O&M expenses for 2007, as discussed in part d. below. MECO plans to complete the vegetation management work on Lanai and the contractor has indicated that the work budgeted for Lanai, 494L, will be completed in November of 2007 in conjunction with other work the contractor will be doing on Lanai.

The fourth activity impacting the variance is activity 478, underground direct buried cable fault sidewalk repair (lines 18-22). The 2007 test year forecast for this activity was based on trending arrived at using historic data through 2005 (see MECO-609) that suggested a steeply increasing trend in cable faults. However, as shown in the response to CA-IR-436, 2006 actuals and year-to-date August 2007 actuals show that the expense increase in the 2007 test year for cable fault sidewalk repairs is less than anticipated.

In total, these four activities account for the majority of the difference (line 23, column I) in the August year-to-date variance for expense element 501.

c. The Company does not have plans to ramp up expenditures for T&D outside services in the remaining months of 2007 for the purpose of attempting to achieve the level of spending included in its test year 2007 estimate for T&D O&M expenses. Rather, MECO engages in activities that it believes are required to serve the interests of its ratepayers, shareholder and employees. For example, while MECO delayed its T&D steel pole corrosion mediation project and cut back on distribution vegetation management on Maui in order to manage overall Company O&M expenses, as explained in the response to part d. below, it has also increased spending above its 2007 budget amount for some activities, such as activity 342, maintenance of roads and trails, which costs are now estimated to exceed MECO's 2007 test year estimate by $156,000, to meet operational needs. MECO anticipates that recorded T&D outside services expenses for 2007 will likely be lower than the test year estimate. As explained in the response to part d. below, the lower than budgeted T&D outside services expenses will help to offset higher than budgeted recorded production maintenance expenses that the Company is incurring. However, MECO's position is that the annual test year 2007

estimate for outside services included in T&D O&M expense is reasonable for the period that the rates approved by the Commission in this docket are expected to be in effect.

d. The Company provides the following response subject to Protective Order No. 23379, issued April 23, 2007, because the response includes information with respect to the Company's internal cost management practices and an updated annual O&M outlook which is privileged information that should not be subject to review by the general public as are other parts of the record in this proceeding.

[redacted]

Maui Electric Company, Limited
2007 Test Year Data
Expense Element 501 (Outside Services All) as budgeted in Pillar for the 2007 Test Year with details for activity codes 344, 494, 494L, and 478.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	2007 TY
1	EE 501budget	$128,775	$238,475	$200,200	$110,300	$110,300	$268,280	$122,600	$115,100	$240,000	$110,300	$110,300	$316,830	$2,071,455
2	**Budget through 08/2007 from Pillar monthly budget for EE 501**								**$1,294,027**					
3	**Actuals through 08/2007 for EE 501**								**$1,011,016**					
4	**difference =**								**$283,011**					
5	**Activity**													
6	344 budget	$0	$0	$37,500	$0	$0	$37,500	$0	$0	$37,500	$0	$0	$37,500	$150,000
7	344 actuals	$0	$0	$100	$0	$0	$0	$0	$15,000					
8	344 mo. diff.	$0	$0	$37,400	$0	$0	$37,500	$0	-$15,000					
9	**Activity 344 (steel pole corrosion mediation) cumulative difference =**								**$59,900**					
10	494 budget	$55,000	$55,000	$55,000	$55,000	$55,000	$55,000	$55,000	$55,000	$55,000	$55,000	$55,000	$55,000	$660,000
11	494 actual	$0	$0	$60,647	$39,053	$17,604	$45,878	$12,781	$87,542					
12	494 mo. diff.	$55,000	$55,000	-$5,647	$15,947	$37,396	$9,122	$42,219	-$32,542					
13	**Activity 494 (Vegetation Management - Maui) cumulative difference =**								**$176,495**					
14	494L budget	$0	$0	$7,150	$0	$0	$7,150	$0	$0	$7,150	$0	$0	$7,150	$28,600
14	494L actual	$0	$0	$21	$0	$14	$29	$0	$0					
16	494L mo. diff.	$0	$0	$7,129	$0	-$14	$7,121	$0	$0					
17	**Activity 494L (Vegetation Management - Lanai) cumulative difference =**								**$14,236**					
18	478 budget	$8,750	$8,750	$8,750	$8,750	$8,750	$8,750	$8,750	$8,750	$8,750	$8,750	$8,750	$8,750	$105,000
19	478 actual	$1,231	$1,844	$4,355	$1,297	$3,965	$3,680	$7,047	$12,760					
20	478 mo. diff.	$7,519	$6,906	$4,395	$7,453	$4,785	$5,070	$1,703	-$4,010					
21	**Activity 478 (underground direct buried cable fault sidewalk repair) cumulative difference =**								**$33,821**					
22	**See response to CA-IR-436 for revised cable fault trending (Activity 478).**													
23	**Total cumulative difference for Activities 344, 494, 494L, and 478 =**								**$284,452**					

CA-IR-405

Ref: MECO response to CA-IR-338 (T&D Outside Services).

In response to part (d) of CA-IR-338, MECO provided actual outside services data by month in 2007, but designated the information for the months of July and August as "confidential until it is publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007." Please provide the following clarifications regarding the confidential nature of this information:

a. If the Consumer Advocate desires to include the 2007 monthly outside services information depicted on Attachment 1 in its direct testimony, does the Consumer Advocate need to treat the data for the months of July and August 2007 as confidential? Please clarify.

b. If the Consumer Advocate desires to include in its direct testimony the 2007 year-to-date outside services information depicted on Attachment 1 through August 2007, does? Please clarify.

MECO Response:

a. No, the Consumer Advocate does not need to treat the data for the months of July and August 2007 as confidential in its direct testimony scheduled to be filed on October 25, 2007.

b. No, the Consumer Advocate does not need to treat the cumulative data depicting the sum of all 2007 months as confidential in its direct testimony scheduled to be filed on October 25, 2007.

CA-IR-406

Ref: MECO responses to CA-IR-124 & CA-IR-236 (T&D Labor).

Referring to CA-IR-124, Attachment 1, the response to CA-IR-236 indicated that certain Engineering RAs (MWA, MWL, MWS and part of MWP) included uncompensated overtime hours due to merit overtime. Please provide the following:

a. Please confirm that all overtime hours for Engineering RAs MWA, MWL and MWS in calendar years 2004-2006 also represent uncompensated merit overtime. If this cannot be confirmed, please explain and provide the correct uncompensated overtime hours.

b. With regard to Engineering RA: MWP, please provide the number of non-compensated merit overtime hours in calendar years 2004-2006.

c. With regard to the T&D overtime hours on Attachment 1, please identify each RA for which 100% of the identified overtime hours represent non-compensated merit overtime.

d. Referring to part (c) above, please identify the overtime hours in each remaining T&D RA (for each historical year and the 2007 forecast) that represent non-compensated merit overtime, similar to the 2,202 of non-compensated merit labor overtime for Engineering RA: MWP.

MECO Response:

a. The overtime hours for Engineering RAs MWA, MWL and MWS in calendar years 2004-2006 as shown in the response to CA-IR-124, Attachment 1 **only** includes compensated merit overtime hours. Uncompensated merit overtime hours are not included in any of the actuals and the Company has no earnings code setup process to separately track uncompensated merit overtime hours.

b. The overtime hours for Engineering RA MWP in calendar years 2004-2006 as shown in the response to CA-IR-124, Attachment 1 **only** includes compensated merit overtime hours. Uncompensated merit overtime hours are not included in any of the actuals and the Company has no earnings code setup process to separately track uncompensated merit overtime hours.

c. The overtime hours for all T&D RAs in calendar years 2004-2006 as shown in the response to CA-IR-124, Attachment 1 **only** includes compensated merit overtime hours. The overtime hours for the 2007 test year budget shown in the response to CA-IR-124, Attachment 1, do contain uncompensated merit overtime hours in the amount of 2,943.96 for all T&D. The break down of this uncompensated merit overtime hours by RA is provided in Attachment 1 to this response. The 2007 test year labor expense estimates do not reflect any payment for the uncompensated merit overtime hours.

d. See Attachment 1 to this response.

Maui Electric Company, Limited
Straight Time (ST), Over Time (OT), Non-Compensated Over Time (NOT), Compensated Over Time (COT) Hours
2007 BUDGET

			(A)	(B)	(C)	(D)
			BUDGET			
			2007			
Line	Dept	RA	ST	OT	NOT	COT
1	T&D	MDA	4,176.00	1,243.96	465.96	778.00
2	T&D	MDC	12,528.00	2,477.04	808.00	1,669.04
3	T&D	MDE	20,880.00	3,082.00	68.00	3,014.00
4	T&D	MDK	77,256.00	-717.46	710.00	-1,427.46
5	T&D	MDL	6,264.00	872.00	0.00	872.00
6	T&D	MDM	14,616.00	2,519.00	0.00	2,519.00
7	T&D	MDR	56,376.00	4,040.96	28.00	4,012.96
8	T&D	MDS	12,528.00	1,084.00	0.00	1,084.00
9	T&D	MDT	8,352.00	1,589.00	0.00	1,589.00
10	T&D	MDV	6,264.00	1,296.00	0.00	1,296.00
11	T&D	MWI	12,528.00	864.00	864.00	0.00
12	T&D		231,768.00	18,350.50	2,943.96	15,406.54

SOURCE: Payroll Recap Report

CA-IR-407

Ref: MECO response to CA-IR-288 (T&D Labor Requirements).

Referring to Attachment A of the response to CA-IR-288, MECO employed a coding method to identify the "budgeting method" used to develop the 2007 forecast labor hours by RA and Activity. All but one of the RA/Activities with forecast labor hours of 1,000, or more, are coded "A," which is an "Average" method. Please provide the following:

a. Please clarify how an averaging technique was used in developing these forecast labor hours.

b. For some RAs, the seven year average of historical labor hours is higher than the 2007 forecast hours, while it is lower for other RAs – even though no other forecasting technique is identified. Please explain.

MECO Response:

a. As stated in the response to CA-IR-288, the initial budgeting process for T&D begins with a review of seven year averages to arrive at a starting reference point. In addition, the individual budget preparers may also consider three and five year averages, trending patterns, changes in work force staffing, elimination of tasks, creation of tasks, combining tasks into new activities, and any change in the focus of activities to adjust the starting reference point to determine the forecasted budget expense level for an activity.

b. As stated in the response to part a. above, consideration of the seven year average is only the starting reference point of the budgeting process, and adjustments are made based on many factors to determine the forecasted budget expense level for an activity. Attachment 1 of the response to CA-IR-288 includes additional columns labeled "Trend Code" and "Adjustment Code" that provide additional explanations of other factors that the individual budget preparer considered when they adjusted the starting reference point based on the seven year average to determine the forecasted budget expense level for an activity.

CA-IR-408

Ref: MECO Response to CA-IR-145 Attachments A and B (Customer Service Performance Measures).

Please provide the following:

a. Updated Attachment A and B documents for all available months of 2007.

b. Describe areas of progress and performance deterioration, relative to goals established by MECO, indicating recent actions taken by management to improve performance and address any performance issues of concern.

MECO Response:

a. See Attachments A and B updated for all available months of 2007. The Company provides the July and August 2007 financial information in Attachment B, pages 2, 4, 5 subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

b. As shown in Attachment A of the response to CA-IR-145 and updated by Attachment A of this response, the statistics indicate certain performance deterioration in the phone center measured in terms of service level (percentage of calls answered in 30 seconds) with a goal of 80 percent of the calls answered in 30 seconds. In sum, the service level declined from 76.6 percent in 2005 to 70.4 percent in 2006, and 46.7 percent through September 2007. The decline is attributed to the Company's staff turnover, which was anticipated due to a couple of retirements in 2006. Following the two retirements, over 50 percent of the Customer Assistance Representatives ("CAR") have less than one year of experience in their respective positions. In 2007, the statistics improved when a new CAR was hired in February to replace a vacant position. The statistics then declined temporarily (from June – August 2007), when a CAR was assigned to perform higher duty work ("over classification") as a Senior Billing

and Accounts Clerk due to the high volume of work, and another employee who moved into the CAR position was being trained by a senior CAR, which temporarily reduced the availability of CARs to answer the phones.

In September 2007, the service level improved slightly when all CARs were available to answer calls. Notwithstanding the Company's recruitment efforts, the service level goal of 80 percent will be difficult to achieve until all CARs are acclimated in their positions, which takes approximately two years. Based on the Company's past experiences, the two year acclimation period is needed because, in addition to answering phones, the CARs have other responsibilities. For example, newly hired CARs would need to trained to handle the following responsibilities: customer correspondence, credit and collections, inputting the results of field services work to the customer information system, credit refunds, establishing and maintaining automatic bill payments, processing returned mail and returned payments, and relieving the cashiers during breaks and absences. These additional responsibilities lengthen their training and development time.

To address the turnover and anticipated impact on the phone center's performance levels described above, the Company forecasted additional overtime in the RA=MCR. See the response to CA-IR-148, part (d)(5). However, as mentioned in the response to CA-IR-247, part (c), the coverage of the phone center was needed during normal business hours. Therefore, the Company used the senior level staff to perform over classification work, and hired temporary agency personnel to perform the work of the entry level positions of Clerk Typist I, i.e., Mail Clerk, and Customer Service Clerk, i.e., Switchboard Operator, in lieu of overtime. Since non-labor expenses for temporary services estimated at $58,500, and labor expenses to "over classify the non-exempt employees estimated at $14,200, were not

included in the test year estimate, these additional costs will offset lower overtime expenses for non-exempt employees, which were in the test year estimate under RA=MCR, at approximately $90,400. These funds will be needed to retain the help to attempt to improve and sustain the performance levels of this team, especially with the anticipation of three additional retirements in the near future.

For the Customer Field Services Division, the statistics found in Attachment B of this response and, updated on October 12, 2007, demonstrate that the field work of locks, unlocks, and collections remains manageable, especially given the addition of a Customer Field Representative in January 2007. The area where performance is of a particular concern to the Company is in the Maui Division's meter reading section where the statistics indicate that the error rate for this section has increased significantly in the last year, as shown in Attachment B (page 12). The increasing error rate in this section is due to the inexperience of the current meter reading team. The most senior Meter Reader has been in the position for only two years and seven months, and six of the eight Meter Readers are "in-training" and still learning all of the meter reading routes. Based on past experiences, the Company anticipates that the process to train all Meter Readers on 126 routes on the island of Maui will take approximately two to four years. This differs from the Company's experience in the past when there were usually only two to three new Meter Readers on the team, and the training time was approximately two years. Having more experienced staff to train few new Meter Readers allowed for a faster progression through all the respective routes. To address the meter reading performance, the Company has assigned the new Customer Field Representative to read meters on many occasions, and has also installed approximately 1,300 additional Turtle meters. In the Company's view, the work to install more Turtle meters

(along with those previously installed) and to automatically interface with the billing system (which was completed in June, 2007) has allowed the Meter Readers more time for training, and preparation for the new Customer Information System.

In summary, the Customer Service Department has chosen to budget and incur costs for overtime and/or temporary agency help to manage the daily workloads of the phone center and meter reading sections during recent periods of staff turnover. As an option, the Company could have chosen to incur costs to have heavier staffing during the training period, but has chosen not to in the interest of containing costs to its ratepayers.

CUSTOMER SERVICE - PHONE CENTER STATISTICS
2007 - YTD

	CALLS RECEIVED	CALLS ANSWERED	CALLS LOST	LOST CALL %	% of Calls Answered Within 30 Seconds	Average Daily Calls Per Rep	Quarterly/YTD Lost Call %
*Jan-07	8,055	6,915	1140	14.2%	41.0%	49	
Feb-07	5,915	5,495	420	7.1%	59.0%	43	
Mar-07	5,870	5,292	578	9.8%	56.0%	39	10.78%
*Apr-07	6,600	6,005	595	9.0%	55.0%	41	
May-07	6,814	6,142	672	9.9%	53.0%	38	
Jun-07	7,242	6,277	965	13.3%	45.0%	38	10.81%
*Jul-07	8,133	6,431	1702	20.9%	30.0%	40	
Aug-07	7,694	6,144	1550	20.1%	35.0%	38	
Sep-07	6,853	6,100	753	11.0%	46.0%	37	17.66%
Oct-07	-					0	
Nov-07	-					0	
Dec-07	-					0	
TOTAL	63,176	54,801	8,375	13.3%	46.7%		
YTD AVG	7,020	6,089	931	13.3%	46.7%		

NOTE:

*Jan-07 Stats: 462 Total Trouble Calls
*Apr-07 Stats: 88 Total Trouble Calls
*Jul-07 Stats: 104 Total Trouble Calls

Customer Field Representative Monthly Report
Maui and Lanai Divisions
Year 2005

	Number of Documents							Dollar Values					
	Lock & Unlock			Collections				Collections		Phone Calls			
Month	starts	stops	rereads	worked	collected	cuts	recons	outstanding	collected	called	outstanding	paid	collected
January	557	218	2,156	100	40	28	5	29,741	28,523	191	71,995	143	87,869
February	569	206	859	113	41	49	24	31,701	29,793	302	99,724	258	120,669
March	685	249	877	316	89	115	79	81,704	97,714	228	56,037	192	64,293
April	627	212	840	80	30	25	15	14,425	25,581	331	41,595	132	48,191
May	684	229	726	90	16	34	29	24,988	24,154	421	159,595	371	221,249
June	736	305	1,143	253	62	94	65	91,835	100,087	241	76,027	216	86,737
July	713	298	1,129	67	15	14	6	24,019	17,131	327	138,784	250	152,449
August	829	345	1,112	319	79	85	56	97,844	104,055	199	79,391	167	106,773
September	810	255	1,051	170	48	61	34	52,548	47,830	247	88,680	183	122,286
October	740	242	1,070	400	100	132	67	115,289	120,494	237	91,448	214	114,905
November	665	237	971	159	43	53	40	33,429	48,988	304	107,294	270	125,296
December	654	230	885	36	7	12	8	27,306	28,246	35	15,206	28	17,510
YTD TOTAL	8,269	3,026	12,819	2,103	570	702	428	624,828	672,597	3,063	1,025,776	2,424	1,268,227
AVG	689	252	1,068	175	48	59	36	52,069	56,050	255	85,481	202	105,686

Customer Field Representative Monthly Report
Maui and Lanai Divisions
Year 2006

	Number of Documents							Dollar Values					
	Lock & Unlock			Collections				Collections		Phone Calls			
Month	starts	stops	rereads	worked	collected	cuts	recons	outstanding	collected	called	outstanding	paid	collected
January	582	197	1,065	265	56	96	45	100,375	78,266	238	108,293	189	122,835
February	561	203	750	356	86	113	80	105,265	153,733	232	92,893	157	92,340
March	663	260	877	422	110	126	106	130,345	152,973	235	94,494	194	94,837
April	511	184	647	337	96	91	49	95,718	106,503	91	31,842	61	35,519
May	686	256	927	203	40	52	29	56,875	68,745	262	78,936	226	100,805
June	694	311	1,212	287	67	70	39	110,201	116,238	318	119,111	265	146,401
July	581	235	1,230	369	89	98	69	110,220	125,464	311	75,803	249	97,496
August	658	212	1,568	383	99	97	69	109,592	128,505	207	88,949	161	109,853
September	637	225	904	423	117	122	99	146,014	208,083	180	82,097	140	119,178
October	628	235	900	428	112	134	96	120,252	157,922	145	45,160	125	50,357
November	561	185	485	174	48	63	29	66,212	78,522	298	101,498	244	284,652
December	589	204	956	227	47	62	43	64,960	95,196	243	197,276	193	272,002
YTD TOTAL	7,351	2,707	11,521	3,874	967	1,124	753	1,216,029	1,470,150	2,760	1,116,353	2,204	1,526,275
AVG	613	226	960	323	81	94	63	101,336	122,513	230	93,029	184	127,190

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Customer Field Representative Monthly Report
Maui and Lanai Divisions
Year 2007

	Number of Documents							Dollar Values					
	Lock & Unlock			Collections				Collections		Phone Calls			
Month	starts	stops	rereads	worked	collected	cuts	recons	outstanding	collected	called	outstanding	paid	collected
January	712	247	869	430	110	124	87	206,083	208,275	158	53,571	137	51,930
February	645	199	843	151	34	37	19	48,224	64,233	291	171,441	246	193,771
March	646	186	815	112	22	40	18	39,123	35,588	481	141,917	409	206,946
April	649	226	741	432	129	134	62	114,364	180,544	181	123,460	161	177,224
May	702	262	848	231	68	87	41	66,778	102,752	221	94,886	163	138,421
June	710	241	864	296	62	105	50	81,676	68,683	387	328,965	355	536,501
July													
August													
September													
October													
November													
December													
YTD TOTAL													
AVG													
AVG													
2005	689	252	1,068	175	48	59	36	52,069	56,050	255	85,481	202	105,686
2006	613	226	960	323	81	94	63	101,336	122,513	230	93,029	184	127,190
2007													

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Customer Field Representative Monthly Report
Molokai
Year 2005

	Number of Documents							Dollar Values					
	Locks & Unlocks			Collections				Collections		Phone Calls (Clerks)			
Month	starts	stops	rereads	worked	collected	cuts	recons	outstanding	collected	called	outstanding	paid	collected
January	30	14	76	98	5	4	-	16,066.30	827.85				
February	28	11	49	33	4	9	6	7,069.92	979.03				
March	28	9	117	72	5	8	4	13,453.53	909.61				
April	20	5	82	85	9	6	7	14,695.18	1,676.11				
May	23	11	86	74	6	3	2	8,582.91	1,146.56				
June	36	10	70	105	6	4	4	23,165.17	9,376.75				
July	18	15	80	78	10	9	5	14,314.41	951.54				
August	26	10	74	112	5	5	3	12,476.07	710.00				
September	26	11	111	108	4	6	2	19,705.25	567.03				
October	24	11	92	95	4	4	1	9,711.22	977.39				
November	36	15	66	88	6	4	3	13,248.55	1,035.27				
December	38	11	122	89	7	3	1	14,393.13	1,242.88				
YTD TOTAL	333	133	1,025	1,037	71	65	38	166,881.64	20,400.02	0	0.00	0	0.00
AVG	28	11	85	86	6	5	3	13,907	1,700				

Customer Field Representative Monthly Report
Molokai
Year 2006

	Number of Documents							Dollar Values					
	Locks & Unlocks			Collections				Collections		Phone Calls (Clerks)			
Month	starts	stops	rereads	worked	collected	cuts	recons	outstanding	collected	called	outstanding	paid	collected
January	29	15	101	121	4	4	2	21,687	784	51	18,974	41	19,114
February	28	12	124	90	4	4	2	20,658	517	44	15,703	35	11,845
March	23	16	162	87	4	2	1	20,353	422	44	14,522	23	7,826
April	17	8	123	65	1	-	-	16,167	120	11	2,019	7	2,696
May	21	13	111	94	8	6	4	18,481	1,158	13	2,311	8	981
June	24	13	109	117	1	3	2	18,426	202	29	6,800	23	8,760
July	23	10	130	88	4	4	3	16,876	1,272	18	4,448	12	3,758
August	18	12	126	102	6	1	2	15,911	1,765	38	14,217	21	10,144
September	16	6	102	126	4	7	2	26,396	1,644	31	11,801	20	9,594
October	16	3	146	103	5	4	4	20,503	1,455	38	18,525	25	13,111
November	27	12	104	109	3	2	-	18,492	560	38	16,746	26	13,468
December	24	15	103	93	2	1	-	21,797	402	41	16,881	25	12,186
YTD TOTAL	266	135	1,441	1,195	46	38	22	235,746.83	10,301.73	396	142,945.65	266	113,483.41
AVG	22	11	120	100	4	3	2	19,646	858	33	11,912	22	9,457

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Customer Field Representative Monthly Report
Molokai
Year 2007

	Number of Documents							Dollar Values					
	Locks & Unlocks			Collections				Collections		Phone Calls (Clerks)			
Month	starts	stops	rereads	worked	collected	cuts	recons	outstanding	collected	called	outstanding	paid	collected
January	19	9	116	138	3	5	2	33,335	975	24	10,165	16	9,975
February	12	10	141	84	2	1	1	21,941	300	26	13,512	21	13,835
March	21	6	137	77	1	3	1	19,859	60	23	9,047	16	8,459
April	9	6	115	99	5	4	2	24,215	870	15	8,132	14	8,385
May	19	9	102	116	4	1	-	20,873	1,204	26	10,000	18	9,408
June	23	12	113	110	3	5	1	21,432	624	41	14,176	29	14,840
July													
August													
September													
October													
November													
December													
YTD TOTAL													
AVG													
AVG													
2005	28	11	85	86	6	5	3	13,907	1,700	-	-	-	-
2006	22	11	120	100	4	3	2	19,646	858	33	11,912	22	9,457
2007													

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MECO Billed Revenues to Accounts Receivable

		Billed Revenues					Accts Recv-A & D					Rate AR to BR			
		Maui	Lanai	Molokai	Total		Maui	Lanai	Molokai	Total		Maui	Lanai	Molokai	Total
	2007														
	2006	27,063,237	751,370	995,031	28,809,638	2006	1,402,229	42,189	103,440	1,547,859	2006	0.052	0.057	0.104	0.054
	2005	23,266,690	666,627	888,104	24,821,421	2005	1,198,917	42,504	79,213	1,320,633	2005	0.051	0.062	0.090	0.053
	2004	19,420,717	557,171	746,002	20,723,891	2004	1,806,066	33,251	119,843	1,959,160	2004	0.046	0.030	0.080	0.047
Summary	2003	16,558,897	550,129	679,101	17,788,127	2003	817,718	20,761	64,215	902,694	2003	0.049	0.038	0.095	0.051
of Ave.	2002	14,834,214	507,312	625,223	15,966,749	2002	788,934	22,349	76,423	887,706	2002	0.053	0.044	0.122	0.056
	2001	15,799,607	553,265	695,182	17,048,053	2001	871,769	61,191	85,547	1,018,506	2001	0.055	0.110	0.124	0.060
	2000	14,739,161	491,493	673,548	15,904,203	2000	830,723	19,702	78,015	928,439	2000	0.056	0.040	0.116	0.058
	1999	11,918,913	431,202	563,470	12,913,585	1999	904,444	12,645	70,522	987,610	1999	0.076	0.029	0.125	0.077
	1998	10,517,164	398,846	514,968	11,430,978	1998	924,361	24,157	85,840	1,034,358	1998	0.088	0.060	0.167	0.090
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2007 Summary

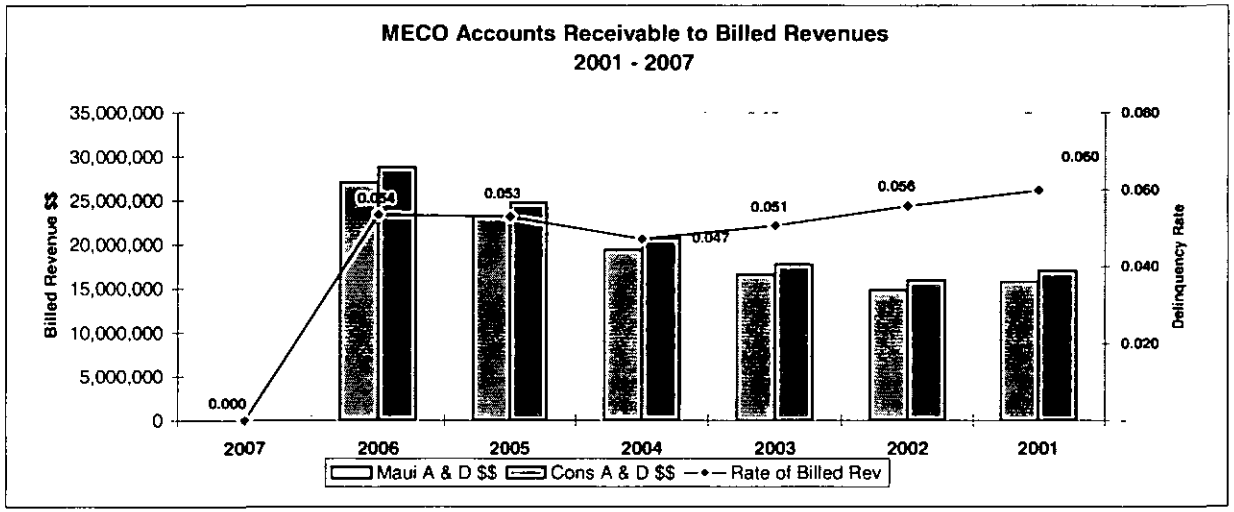
	4	Maui	Lanai	Molokai	Total		Maui	Lanai	Molokai	Total		Maui	Lanai	Molokai	Total
Jan-07		25301558	831743	936416	27069717		1346338	31301	94187	1471826		0.053	0.038	0.101	0.054
Feb-07		24469900	767717	909963	28147580		1204816	45576	83275	1333667		0.049	0.059	0.092	0.051
Mar-07		25215531	777788	937049	26930368		1275888	31812	86259	1393959		0.051	0.041	0.092	0.052
Apr-07		25023130	808882	941598	26773610		1246554	39521	84283	1370358		0.050	0.049	0.090	0.051
May-07		25585637	772704	936079	27294420		1169302	110951	79201	1359454		0.046	0.144	0.085	0.050
Jun-07		27520761	825793	1005506	29352060		1444275	129001	77157	1650433		0.052	0.156	0.077	0.056
Jul-07															
Aug-07															
Sep-07															
Oct-07															
Nov-07															
Dec-07															
	Ave														

2006 Summary

		Maui	Lanai	Molokai	Total		Maui	Lanai	Molokai	Total		Maui	Lanai	Molokai	Total
Jan-06		25997258	836175	969596	27803030		1240034	30815	80751	1351600		0.048	0.037	0.083	0.049
Feb-06		23147201	704910	896200	24748311		1080525	79241	130177	1289943		0.047	0.112	0.145	0.052
Mar-06		23685597	648647	859525	25193769		1059596	33846	71020	1164462		0.045	0.052	0.083	0.046
Apr-06		24419394	738431	903816	26061641		1131272	22253	86688	1240213		0.046	0.030	0.096	0.048
May-06		24713303	710193	919889	26343384		1215334	27454	110617	1353405		0.049	0.039	0.120	0.051
Jun-06		27076841	701289	975635	28753765		1244747	43143	99080	1386970		0.046	0.062	0.102	0.048
Jul-06		30101250	821117	1062382	31984749		1472365	43939	114555	1630859		0.049	0.054	0.108	0.051
Aug-06		30768329	802663	1109837	32680829		1555714	55033	94671	1705418		0.051	0.069	0.085	0.052
Sep-06		29578554	732530	1097651	31408735		1728933	62627	107374	1898934		0.058	0.085	0.098	0.060
Oct-06		29578554	732530	1097651	31408735		1721983	23862	122464	1868309		0.058	0.033	0.112	0.059
Nov-06		29700724	868208	1073184	31642116		1646101	42410	108532	1797042		0.055	0.049	0.101	0.057
Dec-06		25991840	719748	975003	27686590		1730149	41644	115355	1887148		0.067	0.058	0.118	0.068
		324758844	9016441	11940369	345715654		16826752	506267	1241284	18574303		0.619	0.679	1.251	0.642
	Ave	27,063,237	751,370	995,031	28,809,638		1,402,229	42,189	103,440	1,547,859		0.052	0.057	0.104	0.054

2005 Summary

	Maui	Lanai	Molokai	Total	Maui	Lanai	Molokai	Total	Maui	Lanai	Molokai	Total
Jan-05	21301679	552123	822133	22675934	995893	19392	78156	1093441	0.047	0.035	0.095	0.048
Feb-05	19757191	612991	789779	21159961	1065008	16255	92330	1173593	0.054	0.027	0.117	0.055
Mar-05	19567878	540785	787327	20895989	846945	19855	85451	952251	0.043	0.037	0.109	0.046
Apr-05	20223472	661311	791917	21676699	992173	15376	112026	1119575	0.049	0.023	0.141	0.052
May-05	21333830	647200	834010	22815040	1105967	18366	60059	1184392	0.052	0.028	0.072	0.052
Jun-05	24149752	629891	919351	25698994	1083738	18680	67541	1169959	0.045	0.030	0.073	0.046
Jul-05	24323395	712100	926595	25962090	1272087	25049	77158	1374294	0.052	0.035	0.083	0.053
Aug-05	24532393	695115	915936	26143444	1104764	15704	72596	1193064	0.045	0.023	0.079	0.046
Sep-05	25130335	667300	963863	26761497	1875076	127543	73310	2075929	0.075	0.191	0.076	0.078
Oct-05	25813699	789530	943243	27546471	1274646	24765	65570	1364981	0.049	0.031	0.070	0.050
Nov-05	26810132	779389	987185	28576707	1253012	30747	73769	1357528	0.047	0.039	0.075	0.048
Dec-05	26256524	711786	975913	27944223	1517691	178313	92590	1788594	0.058	0.251	0.095	0.064
	279200279	7999521	10657251	297857051	14387000	510045	950556	15847601	0.616	0.750	1.085	0.636
Ave	23,266,690	666,627	888,104	24,821,421	1,198,917	42,504	79,213	1,320,633	0.051	0.062	0.090	0.053



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MECO Meter Reading 2005 Summary

MAUI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	60793	60,793	12	12	0.20	0.20
Feb	60744	121,537	37	49	0.61	0.40
Mar	60765	182,302	49	98	0.81	0.54
Apr	61037	243,339	46	144	0.75	0.59
May	61151	304,490	25	169	0.41	0.56
Jun	61417	365,907	46	215	0.75	0.59
Jul	61439	427,346	32	247	0.52	0.58
Aug	61622	488,968	32	279	0.52	0.57
Sep	61610	550,578	32	311	0.52	0.56
Oct	61851	612,429	23	334	0.37	0.55
Nov	61952	674,381	41	375	0.66	0.56
Dec	62202	736,583	49	424	0.79	0.58
AVG	61382	397,388	35	221	0.58	

MOLOKAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	3199	3,199	5	5	1.56	1.56
Feb	3315	6,514	8	13	2.41	2.00
Mar	3224	9,738	10	23	3.10	2.36
Apr	3196	12,934	5	28	1.56	2.16
May	3224	16,158	10	38	3.10	2.35
Jun	3216	19,374	3	41	0.93	2.12
Jul	3230	22,604	4	45	1.24	1.99
Aug	3228	25,832	7	52	2.17	2.01
Sep	3336	29,168	7	59	2.10	2.02
Oct	3204	32,372	2	61	0.62	1.88
Nov	3347	35,719	3	64	0.90	1.79
Dec	3235	38,954	10	74	3.09	1.90
	3246	21,047	6	42	1.90	

LANAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	1685	1,685	9	9	5.34	5.34
Feb	1664	3,349	8	17	4.81	5.08
Mar	1661	5,010	9	26	5.42	5.19
Apr	1665	6,675	9	35	5.41	5.24
May	1660	8,335	5	40	3.01	4.80
Jun	1656	9,991	10	50	6.04	5.00
Jul	1659	11,650	12	62	7.23	5.32
Aug	1661	13,311	18	80	10.84	6.01
Sep	1664	14,975	21	101	12.62	6.74
Oct	1655	16,630	3	104	1.81	6.25
Nov	1641	18,271	16	120	9.75	6.57
Dec	1666	19,937	9	129	5.40	6.47
AVG	1661	10,818	11	64	6.47	

MECO CONSOLIDATED

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	65677	65677	26	26	0.40	0.40
Feb	65723	131400	53	79	0.81	0.60
Mar	65650	197050	68	147	1.04	0.75
Apr	65898	262948	60	207	0.91	0.79
May	66035	328983	40	247	0.61	0.75
Jun	66289	395272	59	306	0.89	0.77
Jul	66328	461600	48	354	0.72	0.77
Aug	66511	528111	57	411	0.86	0.78
Sep	66610	594721	60	471	0.90	0.79
Oct	66710	661431	28	499	0.42	0.75
Nov	66940	728371	60	559	0.90	0.77
Dec	67103	795474	60	619	0.89	0.78
	66290	429,253	52	327	0.78	

MECO Meter Reading 2006 Summary

MAUI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	62221	62,221	35	35	0.56	0.56
Feb	61352	123,573	38	73	0.62	114,363.73
Mar	63145	186,718	37	110	0.59	0.59
Apr	62385	249,103	36	146	0.58	0.59
May	62491	311,594	47	193	0.75	0.62
Jun	61451	373,045	48	241	0.78	0.65
Jul	62619	435,664	35	276	0.56	0.63
Aug	63141	498,805	42	318	0.67	0.64
Sep	62800	561,605	25	343	0.40	0.61
Oct	62867	624,472	62	405	0.99	0.65
Nov	62830	687,302	87	492	1.38	0.72
Dec	62522	749,824	28	520	0.45	0.69
AVG	62485	405,327	43	263	0.69	

MOLOKAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	3228	3,228	15	15	4.65	4.65
Feb	3219	6,447	5	20	1.55	3.10
Mar	3213	9,660	6	26	1.87	2.69
Apr	3229	12,889	11	37	3.41	2.87
May	2936	15,825	9	46	3.07	2.91
Jun	3103	18,928	10	56	3.22	2.96
Jul	3245	22,173	12	68	3.70	3.07
Aug	3058	25,231	3	71	0.98	2.81
Sep	3249	28,480	6	77	1.85	2.70
Oct	3273	31,753	7	84	2.14	2.65
Nov	3097	34,850	6	90	1.94	2.58
Dec	3306	38,156	10	100	3.02	2.62
	3180	20,635	8	58	2.62	

LANAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	1666	1,666	10	10	6.00	6.00
Feb	1670	3,336	7	17	4.19	5.10
Mar	1651	4,987	11	28	6.66	5.61
Apr	1676	6,663	6	34	3.58	5.10
May	1676	8,339	5	39	2.98	4.68
Jun	1684	10,023	3	42	1.78	4.19
Jul	1249	11,272	1	43	0.80	3.81
Aug	1681	12,953	10	53	5.95	4.09
Sep	1685	14,638	9	62	5.34	4.24
Oct	1524	16,162	33	95	21.65	5.88
Nov	1658	17,820	20	115	12.06	6.45
Dec	1712	19,532	5	120	2.92	6.14
AVG	1628	10,616	10	55	6.16	

MECO CONSOLIDATED

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	67115	67115	60	60	0.89	0.89
Feb	66241	133356	50	110	0.75	0.82
Mar	68009	201365	54	164	0.79	0.81
Apr	67290	268655	53	217	0.79	0.81
May	67103	335758	61	278	0.91	0.83
Jun	66238	401996	61	339	0.92	0.84
Jul	67113	469109	48	387	0.72	0.82
Aug	67880	536989	55	442	0.81	0.82
Sep	67734	604723	40	482	0.59	0.80
Oct	67664	672387	102	584	1.51	0.87
Nov	67585	739972	113	697	1.67	0.94
Dec	68300	808272	106	803	1.55	0.99
	67356	436,641	67	380	0.99	

MECO Meter Reading 2007 Summary

MAUI DIVISION

	Meters read		Reading Errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	63,652	63,652	95	95	1.49	1.49
Feb	63,877	127,529	62	157	0.97	1.23
Mar	63,064	190,593	68	225	1.08	1.18
Apr	63,136	253,729	58	283	0.92	1.12
May	63,244	316,973	57	340	0.90	1.07
Jun	64,465	381,438	53	393	0.82	1.03
Jul	64191	445,629	67	460	1.04	1.03
Aug	64,577	510,206	40	500	0.62	0.98
Sep						
Oct						
Nov						
Dec						
AVG	63776	286,219	63	307	0.98	

MOLOKAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	3,229	3,229	5	5	1.55	1.55
Feb	3,228	6,457	10	15	3.10	2.32
Mar	3,274	9,731	6	21	1.83	2.16
Apr	3,279	13,010	7	28	2.13	2.15
May	3,020	16,030	8	36	2.65	2.25
Jun	3,329	19,359	5	41	1.50	2.12
Jul	3341	22,700	5	46	1.50	2.03
Aug	3,322	26,022	10	56	3.01	2.15
Sep						
Oct						
Nov						
Dec						
	3253	14,567	7	31	2.16	

LANAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	1,681	1,681	15	15	8.92	8.92
Feb	1,685	3,366	7	22	4.15	6.54
Mar	1,694	5,060	7	29	4.13	5.73
Apr	2,007	7,067	16	45	7.97	6.37
May	1,708	8,775	11	56	6.44	6.38
Jun	1,771	10,546	6	62	3.39	5.88
Jul	1770	12,316	8	70	4.52	5.68
Aug	1,795	15,936	3	73	1.67	4.58
Sep						
Oct						
Nov						
Dec						
AVG	1764	8,093	9	47	5.15	

MECO CONSOLIDATED

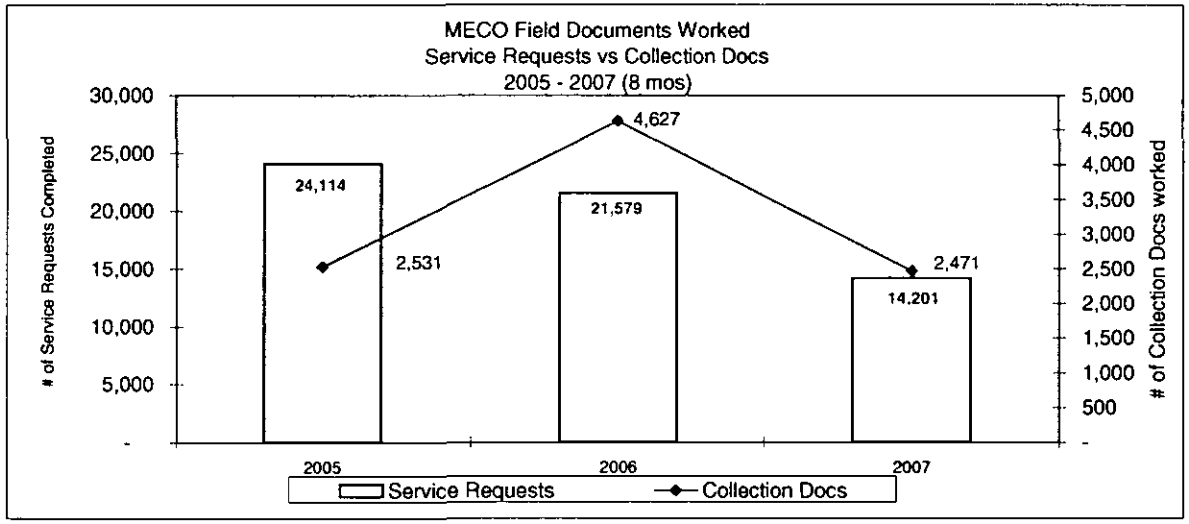
	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
Jan	68562	68562	115	115	1.68	1.68
Feb	68,790	137352	81	196	1.18	1.43
Mar	68,032	205384	81	277	1.19	1.35
Apr	68422	273806	81	358	1.18	1.31
May	67972	341778	76	434	1.12	1.27
Jun	69565	411343	64	498	0.92	1.21
Jul	69302	480645	80	578	1.15	1.20
Aug	69694	550339	53	631	0.76	1.15
Sep						
Oct						
Nov						
Dec						
	68792	308,651	79	386	1.15	

Errors per 1,000 month	Maui	Lanai	Molokai	Consolidated
2005 AVG	0.58	6.47	1.90	0.78
2006 AVG	0.69	6.16	2.62	0.99
2007 YTD	0.98	5.15	2.16	1.15

MECO Field Documents Completed - 2005-2007 (8 mos)

Source: Annual totals of MCF monthly report

	Lock & Unlock [1]			Collections[2]					Summary Totals		
	starts	stops	rereads	recons	worked	collected	cuts	recons	Tot L & U[1]	Tot Worked & Recon[2]	All docs.
2005 YTD	8,269	3,026	12,819	428	2,103	570	702	428	24,114	2,531	26,645
2006 YTD	7,351	2,707	11,521	753	3,874	967	1,124	753	21,579	4,627	26,206
2007 YTD 8 mos.	5,487	1,837	6,877	346	2,125	517	683	346	14,201	2,471	16,672
	21,107	7,570	31,217	1,527	8,102	2,054	2,509	1,527	59,894	9,629	69,523



Maui Electric Company, Limited
Summary of Statistics

Customer Field Representative Field Documents Completed

Maui and Lanai Divisions

	Lock & Unlock [1]			Worked & Reconnections				Summary Totals		
	starts	stops	rereads	worked	collected	cuts	recons	Tot L & U[1]	Tot Worked & Recon[2]	All docs.
2005	8,269	3,026	12,819	2,103	570	702	428	24,114	2,531	26,645
2006	7,351	2,707	11,521	3,874	967	1,124	753	21,579	4,627	26,206
2007 YTD 8 mos.	5,487	1,837	6,877	2,125	517	683	346	14,201	2,471	16,672
	21,107	7,570	31,217	8,102	2,054	2,509	1,527	59,894	9,629	69,523

	Annual Average							Summary Totals		
2005	689	252	1,068	175	48	59	36	2,010	211	2,220
2006	613	226	960	323	81	94	63	1,798	386	2,184
2007 YTD 8 mos.	457	153	573	177	43	57	29	1,183	206	1,390

Molokai Division

	Lock & Unlock [1]			Worked & Reconnections				Summary Totals		
	starts	stops	rereads	worked	collected	cuts	recons	Tot L & U[1]	Tot Worked & Recon[2]	All docs.
2005	333	133	1,025	1,037	71	65	38	24,114	2,531	26,645
2006	266	135	1,441	1,195	46	38	22	21,579	4,627	26,206
2007 YTD 8 mos.	155	65	1,017	885	26	30	12	1,237	897	2,134
	754	333	3,483	3,117	143	133	72	46,930	8,055	54,985

	Annual Average							Summary Totals		
2005	28	11	85	86	6	5	3	124	90	214
2006	22	11	120	100	4	3	2	154	101	255
2007 YTD 8 mos.	19	8	127	111	3	4	2	155	112	267

MECO Consolidated

	Lock & Unlock [1]			Worked & Reconnections				Summary Totals		
	starts	stops	rereads	worked	collected	cuts	recons	Tot L & U[1]	Tot Worked & Recon[2]	All docs.
2005	8,602	3,159	13,844	3,140	641	767	466	24,114	2,531	26,645
2006	7,617	2,842	12,962	5,069	1,013	1,162	775	21,579	4,627	26,206
2007 YTD 8 mos.	5,642	1,902	7,894	3,010	543	713	358	15,438	3,368	18,806
	21,861	7,903	34,700	11,219	2,197	2,642	1,599	61,131	10,526	71,657

	Annual Average							Summary Totals		
2005	717	263	1,154	262	53	64	39	2,134	301	2,434
2006	635	237	1,080	422	84	97	65	1,952	487	2,439
2007 YTD 8 mos.	477	161	700	288	46	61	30	1,338	318	1,656

Maui Electric Company, Limited
Meter Reading Summary
Annual Averages

MAUI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
2005	61382	397388	35	221	0.58	
2006	62485	405327	43	263	0.69	
2007	63776	286219	63	307	0.98	

MOLOKAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
2005	3246	21047	6	42	1.90	
2006	3180	20635	8	58	2.62	
2007	3253	14567	7	31	2.16	

LANAI DIVISION

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
2005	1661	10818	11	64	6.47	
2006	1628	10616	10	55	6.16	
2007	1764	8093	9	47	5.15	

MECO CONSOLIDATED

	Meters read		Reading errors		Errors per 1,000	
	month	ytd	month	ytd	month	ytd
2005	66290	429253	52	327	0.78	
2006	67356	436641	67	380	0.99	
2007	68792	308651	79	386	1.15	

CA-IR-409

Ref: MECO Response to CA-IR-2, Attachment B, Page 51; Response to CA-IR-246 (HECO allocated Postage, Payment Processing, Trouble Mail and Forms – MECO Customer Accounting Support).

Please provide the following:

a. Actual monthly charges from HECO for each line item charge set forth on page 51, for all available months of 2007 to-date.

b. Explain each significant variance between projected test year versus actual costs, based upon your response to part (a) of this information request.

MECO Response:

a. See Attachment A for actual monthly charges from HECO for each line item charge set forth on page 51, for all available months of 2007 to-date. The Company provides the July through August 2007 financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

b. The variance between projected test year versus actual costs to-date for processing payments is due to the continued growth in the customer base and the corresponding increase in labor costs tied to, among other things, the processing the increased volume of payments. These explanations are consistent the statement in MECO T-7, page 26 and with the response to CA-IR-145.

Confidential Information Deleted Pursuant To Protective Order No. 23379.

Maui Electric Company, Limited
2007 Test Year
HECO Intercompany Billings to Customer Service

PROCESS	WORK ORDER		JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	YTD TOTAL
PCP Postage to mail customer bills	CS000162	***Budget***	21,063	21,060	21,060	21,060	21,060	21,060			
		Actual	19,148	20,136	17,946	19,749	20,370	19,359			
		Variance $ (Budget - Actual)	1,915	924	3,114	1,311	690	1,701			
		Variance %	9%	4%	15%	6%	3%	8%			
PCP Processing payments	CS000157	***Budget***	2,511	2,511	2,511	2,511	2,511	2,558			
		Actual	3,355	3,515	1,528	1,733	2,204	3,275			
		Variance $ (Budget - Actual)	-844	-1,004	983	778	307	-717			
		Variance %	-34%	-40%	39%	31%	12%	-28%			
PCP Processing trouble mail	CS000331	***Budget***	3,116	3,116	3,116	3,116	3,116	3,116			
		Actual	2,797	3,996	3,486	2,668	3,391	3,446			
		Variance $ (Budget - Actual)	319	-880	-370	448	-275	-330			
		Variance %	10%	-28%	-12%	14%	-9%	-11%			
PCA Standard register forms	CS000160	***Budget***	1,592	1,592	1,594	1,592	1,592	1,594			
		Actual	1,262	1,940	2,053	1,223	1,276	1,743			
		Variance $ (Budget - Actual)	330	-348	-459	369	316	-149			
		Variance %	21%	-22%	-29%	23%	20%	-9%			

CA-IR-410

Ref: MECO Responses to CA-IR-148, Attachment B; CA-IR-247 (Customer Service Labor Hours – Temporary Services).

Please provide the following:

a. Monthly actual 2007 Productive Hours and Overtime Hours by RA, for all available months of 2007, for comparison to the information provided in CA-IR-148, Attachment B.
b. A monthly breakdown of the test year projected 2007 Productive Hours and Overtime Hours by RA, as shown in CA-IR-148, Attachment B.
c. Explain the reasons for each significant difference between monthly actual versus projected hours in each RA, using the information in your responses to parts (a) and (b) of this information request.
d. Provide a monthly breakdown of temporary service agency charges incurred within RA MCA, MCF, MCM, MCN, MCR and MCZ in 2007 to-date, indicating the work requirements leading to the need for such temporary services.
e. Identify the amounts in your response to part (d) of this information request that were not included within test year projected O&M expenses.

MECO Response:

a. The source for overtime hours data is from the Company's payroll system, which records data on a bi-weekly pay period basis, which is distinguished from a calendar month basis. For that reason, actual monthly data for 2007 "Productive Hours" by RA and "Overtime Hours" by RA cannot be provided. In lieu of that, the Company is providing the YTD recorded payroll data for the pay periods beginning on January 1, 2007 and ending on September 23, 2007, and will compare that information to the YTD budget data through September 30, 2007 in Attachment A.

b. See the response to CA-IR-355, Attachment A, for a monthly breakdown of the test year projected 2007 Productive Hours and Overtime Hours by RA.

c. See the response to CA-IR-355 part c. for the reasons for the significant variances in year-to-date actual productive hours or overtime hours in relation to projected hours in each RA.

d. See the response to CA-IR-354, Attachment B.

e. The recorded amounts in part d. of this information request were not included within the projected O&M expenses. These expenses, however, offset the overtime expenses that were included in the test year labor forecast. See the response to CA-IR-354, parts b. and c.

MAUI ELECTRIC COMPANY, LIMITED

CUSTOMER SERVICE DEPARTMENT OVERTIME COMPARISON
2007 SEPTEMBER YTD ACTUALS VS 2007 SEPTEMBER YTD FORECAST

Line			A	B	C	D	E	F	G	H	I	J
			September YTD Actual			September YTD Forecast			SEPTEMBER YTD Variance			
	RA	RA Description	Productive Hours	Overtime Hours	% OT	Productive Hours	Overtime Hours	% OT	Productive Hours	%	Overtime Hours	%
1	MCA	Administrative	4,224.0	0.0	0.0%	4,698.0	1,576.0	0.0%	(474.0)	-10.1%	(1,576.0)	-100.0%
2	MCF	Field Services	10,560.0	233.2	2.2%	10,962.0	142.0	1.3%	(402.0)	-3.7%	91.2	64.2%
3	MCM	Meter Reading	11,325.3	418.1	3.7%	12,528.0	608.0	4.9%	(1,202.7)	-9.6%	(189.9)	-31.2%
4	MCN	Energy Services	6,990.0	0.0	0.0%	7,830.0	900.0	0.0%	(840.0)	-10.7%	(900.0)	-100.0%
5	MCR	Cust Acct Service	19,357.2	409.3	2.1%	20,358.0	2,192.0	10.8%	(1,000.8)	-4.9%	(1,782.7)	-81.3%
6	MCT	Molokai	4,560.0	94.5	2.1%	4,698.0	132.0	2.8%	(138.0)	-2.9%	(37.5)	-28.4%
7	MCZ	IRP	5,108.0	11.6	0.2%	6,264.0	1,743.0	27.8%	(1,156.0)	-18.5%	(1,731.4)	-99.3%
8	MC0	Total Dept	62,124.5	1,166.7	1.9%	67,338.0	7,293.0	10.8%	(5,213.5)	-7.7%	(6,126.3)	-84.0%

SOURCE:
Recorded Information from Payroll Recap Report
Forecast Information from PILLAR System Files

CA-IR-411

Ref: MECO T-8, page 28 (IRP Non-Labor Normalization).

According to the testimony, "The Company's methodology for deriving the normalization amount is reasonable because it is consistent with Decision and Order No. 18365. In Decision and Order No. 18365, the IRP costs to be included in base rates were derived in that case using an average of three (3) years (1997-1999). This methodology is also consistent with that used in HECO's test year 2005 rate case proposal in Docket No. 04-0113, (See HECO T-10, page 66) and the Commission granted in its Interim Decision and Order No. 22050." Please provide the following:

a. Provide copies of the source documents and calculations used to determine the IRP costs to be included in base rates in Decision and Order No. 18365.
b. Provide copies of the source documents and calculations used to determine the IRP costs to be included in base rates in Decision and Order No. 22050.
c. Provide copies of the source documents and calculations used to determine the IRP costs to be included in base rates in the latest HELCO rate case, Docket No. 05-0315.
d. Provide actual annual incremental IRP costs for 1997 through 2007 to-date, by cost type, as incurred by HECO, MECO and HELCO, in the format of MECO-WP-812, indicating the amounts recovered in base rates versus surcharge recovery in each year by each utility.
e. Explain how the 3-year averaging methodology, if employed by each utility, can be expected to produce reasonable cost recovery levels relative to overall consolidated utility costs incurred under the present scheduling of IRP activity.
f. Provide illustrative calculations supporting your response to part (e) of this information request, using the information provided in response to parts (a) through (d) of this information request.

MECO Response:

a. See Docket No. 99-0207, HELCO 2000 Test Year Rate Case, Decision and Order No. 18365, filed on February 8, 2001, pages 19 - 21, for the source documents, calculations and references related to the determination of the IRP costs to be included in base rates.

b. See Docket No. 04-0113, HECO 2005 Test Year Rate Case – Stipulated Settlement Letter, filed on September 16, 2005, Exhibit II, page 6, and HECO-1029, for the source documents and calculations used to determine the IRP costs to be included in base rates in Interim Decision and Order No. 22050.

c. See Docket No. 05-0315 Interim Decision and Order No. 23342, HELCO 2006 Test Year Rate Case, filed on April 4, 2007, Exhibit A, page 1, Customer Service Expense, and

HELCO T-8, page 16 and 17, and HELCO RT-8, page 6, for the source documents and calculations used to determine the IRP costs to be included in base rates in the latest HELCO rate case, Docket No. 05-0315.

d. The actual annual incremental IRP costs for 1997 through 2007 to-date, by cost type, as incurred by HECO, and HELCO, in the format of MECO-WP-812, would be very burdensome to compile. Therefore, the Company is providing actual incremental IRP cost information in a summarized format by Department/Division with Labor, Overhead and Non-Labor breakdowns. See Attachment A for HECO, Attachment B for HELCO, and Attachment C for MECO. The information provided, as well as detailed information by cost type can be found in the various IRP cost reports on file with the Commission in Docket No. 96-0431 – HECO, HELCO, MECO Recovery of 1997 IRP Planning Costs, Docket No. 97-0358 – HECO, HELCO, MECO Recovery of 1998 IRP Planning Costs, Docket No. 98-0339 – HECO, HELCO, MECO Recovery of 1999 IRP Planning Costs, Docket No. 99-0338 HECO, HELCO, MECO Recovery of 2000 IRP Planning Costs, Docket No. 00-0360 HECO, MECO Recovery of 2001 IRP Planning Costs, Docket No.01-0409 HECO, MECO Recovery 2002 IRP Planning Costs, Docket No. 02-0359 HECO, MECO Recovery of 2003 IRP Planning Costs, Docket No. 03-0276 HECO, MECO Recovery of 2004 IRP Planning Costs, Docket No. 04-0295 HECO, MECO Recovery of 2005 IRP Planning Costs, Docket No. 05-0273 MECO Recovery of 2006 IRP Planning Costs. For HECO, once incremental IRP costs were moved into base rates (in September 2005), information regarding actual equivalent type of IRP costs are recorded with other IRP costs and are time consuming and difficult to determine. Therefore, the Attachment A for HECO, only reflects the incremental IRP costs until such costs went into base rates. For HELCO, once incremental IRP costs were moved into base rates (in February 2001), information regarding actual equivalent type of

IRP costs are recorded to specific service orders, which were extracted and recorded in Attachment B. The Company provides the 2007 to-date financial information for HELCO and MECO in Attachments B and C, respectively, subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007. See the various IRP planning cost dockets referenced above for information on the incremental planning costs recovered for HECO, HELCO and MECO in the surcharge. See HECO rate case Docket Nos. 04-0113 and 2006-0386 and HELCO rate case Docket Nos. 99-0207 and 05-0315 for information regarding IRP costs recovered/proposed to be recovered in base rates for HECO and HELCO, respectively.

e. Using the 3-year averaging methodology is reasonable as it was adopted by the Commission (after being proposed by the Consumer Advocate) in Docket No. 99-0207, HELCO's 2000 Test Year Rate Case. Decision and Order No. 18365 stated on pages 20 to 21 that "[t]he use of a three-year period for purposes of projecting future cost recovery is consistent with the commission's past practice, and the use of the latest three-year period, as adjusted by the Consumer Advocate is reasonable to ascertain a normalized trend." This methodology is also consistent with that used in HECO's test year 2005 rate case proposal in Docket No. 04-0113, and the Commission granted in its Interim Decision and Order No. 22050. For consistency, MECO has proposed and is applying the same methodology in this instant docket.

f. The Company provided an illustrative calculation, in MECO-812, of the 3-year averaging methodology previously proposed by the Consumer Advocate and accepted and approved by the Commission in Decision and Order No. 18365 and consistent with that granted by the Commission in Interim Decision and Order No. 22050.

HECO
ANNUAL, INCREMENTAL IRP COST
SUMMARY BY DEPARTMENT/DIVISION

Department/Division	1997	1998	1999	2000	2001	2002	2003	2004 (1) (2)	2005 (3)
IRP									
Labor	0	0	0	0	0	0	0	20,296	24,997
Overhead	0	0	0	0	0	0	0	11,377	18,804
Non-Labor	0	0	0	0	0	0	10,914	92,352	81,862
	0	0	0	0	0	0	10,914	124,025	125,663
Power Supply Engineering									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	0	0	8,020
	0	0	0	0	0	0	0	0	8,020
Forecasts & Research									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	0	0	213,862
	0	0	0	0	0	0	0	0	213,862
Energy Services									
Labor	0	0	0	0	0	329	0	0	955
Overhead	0	0	0	0	0	86	0	0	489
Non-Labor	268,599	95,583	108,090	64,555	33,127	121,496	127,968	180,956	10,837
	268,599	95,583	108,090	64,555	33,127	121,911	127,968	180,956	12,281
Technology									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	29,120	40,483	451
	0	0	0	0	0	0	29,120	40,483	451
Regulatory Affairs									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	19,171	28,450	11,272	9,999	1,702	7,265	45,485	19,791	22,357
	19,171	28,450	11,272	9,999	1,702	7,265	45,485	19,791	22,357
Corp Comm									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	1,459	0	0	0	0	7,548	31,238	703
	0	1,459	0	0	0	0	7,548	31,238	703
Power Supply Services									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
Education & Cons Affairs									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	894	671	0
	0	0	0	0	0	0	894	671	0
Planning & Engineering									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	563,176	34,520	22,271	22,571	22,763	33,229	159,311	233,813	0
	563,176	34,520	22,271	22,571	22,763	33,229	159,311	233,813	0
Environmental									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	0	1,056	0
	0	0	0	0	0	0	0	1,056	0
Community Relations									
Labor	0	0	0	0	0	0	0	0	0
Overhead	0	0	0	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
TOTAL	**850,946**	**160,012**	**141,633**	**97,125**	**57,592**	**162,405**	**381,240**	**632,033**	**383,337**

NOTES

(1) Effective September 20, 2004, the Generation Planning and Transmission Planning Divisions of the Planning & Engineering Department were transferred to the Power Supply Services Department. The Planning & Engineering Department was renamed Power Supply Engineering Department. Both the Power Supply Services and Power Supply Engineering Departments report to the Power Supply Vice President. For presentation purposes, the 2004 Actuals of the Planning & Engineering Department reflect the full year results of what was the former Planning & Engineering Department.

(2) Effective June 28, 2004, the Research and Evaluation and the Forecasting Division of the Energy Services Department were merged to form the Forecasts & Research Division. Both the Forecasts & Research Division and the Energy Services Department report to the Customer Solutions Vice President. For presentation purposes, the 2004 Actuals of the Energy Services Department reflect the full year results of what was the former Energy Services Department.

(3) HECO's recovery of 2005 IRP planning costs reflect HECO's IRP planning costs incurred from January 5, 2005 through September 27, 2005. In Interim Decision & Order No. 22050, filed September 27, 2005 in Docket No. 04-0113, IRP planning costs that were previously incremental were included in the interim rate increase, effective September 28, 2005.

Docket References:

Docket No. 96-0431	HECO, HELCO, MECO Recovery of 1997 IRP Planning Costs
Docket No. 97-0358	HECO, HELCO, MECO Recovery of 1998 IRP Planning Costs
Docket No. 98-0339	HECO, HELCO, MECO Recovery of 1999 IRP Planning Costs
Docket No. 99-0338	HECO, HELCO, MECO Recovery of 2000 IRP Planning Costs
Docket No. 00-0360	HECO, MECO Recovery of 2001 IRP Planning Costs
Docket No. 01-0409	HECO, MECO Recovery of 2002 IRP Planning Costs
Docket No. 02-0359	HECO, MECO Recovery of 2003 IRP Planning Costs
Docket No. 03-0276	HECO, MECO Recovery of 2004 IRP Planning Costs
Docket No. 04-0295	HECO, MECO Recovery of 2005 IRP Planning Costs

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HELCO
ANNUAL, INCREMENTAL IRP COST
SUMMARY BY DEPARTMENT/DIVISION

Department/Division	1997	1998	1999	2000	2001 (1)	2002 (1)	2003 (1)	2004 (1)	2005 (1)	2006 (1)	YTD Aug 2007 (1)
HECO IRP											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	154,252	159,018	
	0	0	0	0	0	0	0	0	154,252	159,018	
HECO Engineering											
Labor	0	0	15,295	0	0	0	0	0	0	0	
Overhead	0	0	14,362	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	29,657	0	0	0	0	0	0	0	
HECO Power Supply Engineering											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	5,267	980	
	0	0	0	0	0	0	0	0	5,267	980	
HECO Legal											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
HECO Forecasts & Research											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	29,725	
	0	0	0	0	0	0	0	0	0	29,725	
HECO Energy Services											
Labor	81,063	57,358	21,792	36,974	26,595	0	0	0	0	0	
Overhead	97,826	66,370	12,705	17,233	0	0	0	0	0	0	
Non-Labor	61,257	16,509	25,348	38,689	14,235	46,458	64,092	71,690	50,253	39,668	
	240,146	140,237	59,845	92,896	40,830	46,458	64,092	71,690	50,253	39,668	
HECO Technology											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	4,014	
	0	0	0	0	0	0	0	55,389	0	4,014	
HECO Regulatory Affairs											
Labor	1,795	244	6,815	2,496	2,273	0	0	0	0	0	
Overhead	2,166	281	2,546	1,224	0	0	0	0	0	0	
Non-Labor	107	696	42	438	655	0	0	0	1,018	1,339	
	4,068	1,221	9,403	4,158	2,928	2,635	1,460	4,443	1,018	1,339	
HECO Corp Comm											
Labor	0	30	0	0	0	0	0	0	0	0	
Overhead	0	34	0	0	0	0	0	0	0	0	
Non-Labor	58	536	0	0	0	0	0	0	13,214	0	
	58	600	0	0	0	0	0	0	13,214	0	
HECO Power Supply Services											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	162,421	208,506	
	0	0	0	0	0	0	0	0	162,421	208,506	

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HELCO
ANNUAL, INCREMENTAL IRP COST
SUMMARY BY DEPARTMENT/DIVISION

Department/Division	1997	1998	1999	2000	2001 [1]	2002 [1]	2003 [1]	2004 [1]	2005 [1]	2006 [1]	YTD Aug 2007 [1]
HECO Education & Cons Affairs											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
HECO Financial Analysis											
Labor	0	0	9,232	0	0	0	0	0	0	0	
Overhead	0	0	3,961	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	13,193	0	0	0	0	0	0	0	
HECO Planning & Engineering											
Labor	122,552	148,337	45,007	55,717	60,747	0	0	0	0	0	
Overhead	147,906	171,996	18,731	26,560	0	0	0	0	0	0	
Non-Labor	121,173	21,337	1,219	13,023	5,407	33,614	69,443	113,221	0	0	
	391,631	341,670	64,957	95,300	66,154	33,614	69,443	113,221	0	0	
HECO Energy Projects											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
HECO Environmental											
Labor	0	0	0	250	0	0	0	0	0	0	
Overhead	0	0	0	85	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	0	335	0	0	0	0	0	0	
HECO Customer Technology Applications											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	(7,706)	0	
	0	0	0	0	0	0	0	1,071	(7,706)	0	
HECO Community Relations											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	0	0	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	16,873	
	0	0	0	0	0	0	212	8,205	0	16,873	
HELCO Energy Services											
Labor	0	0	0	0	46,091	44,621	67,565	87,332	83,438	73,286	
Overhead	0	0	0	0	14,912	15,072	48,549	46,293	47,832	52,295	
Non-Labor	165,872	106,961	69,297	159,030	12,837	20,819	25,103	491,284	183,635	38,422	
	165,872	106,961	69,297	159,030	73,840	80,511	141,216	624,909	314,905	164,003	
Prior Year Expense 2002	0	0	0	0	0	21,590	0	0	0	0	
TOTAL	**801,775**	**590,689**	**246,352**	**351,719**	**183,752**	**163,218**	**276,422**	**878,928**	**693,624**	**624,126**	

Docket References:

Docket No. 96-0431	HECO, HELCO, MECO Recovery of 1997 IRP Planning Costs
Docket No. 97-0358	HECO, HELCO, MECO Recovery of 1998 IRP Planning Costs
Docket No. 98-0339	HECO, HELCO, MECO Recovery of 1999 IRP Planning Costs
Docket No. 99-0338	HECO, HELCO, MECO Recovery of 2000 IRP Planning Costs

[1] Effective February 2001, IRP Planning costs are recorded to base rates in accordance with Decision and Order No. 18365. Base rate costs are not readily available by cost categories, therefore are provided in total by HECO Department/Division.

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MECO
ANNUAL, INCREMENTAL IRP COST
SUMMARY BY DEPARTMENT/DIVISION

Department/Division	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	YTD Aug 2007
HECO IRP											
Labor	0	0	0	0	0	0	25,790	19,437	36,083	81,348	
Overhead	0	0	0	0	0	0	14,558	8,707	16,426	47,179	
Non-Labor	0	0	0	0	0	0	366	1,227	2,674	12,758	
	0	0	0	0	0	0	40,714	29,371	55,183	141,285	
HECO Engineering											
Labor	0	0	14,186	3,658	0	0	0	0	0	0	
Overhead	0	0	11,864	3,881	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	26,050	7,539	0	0	0	0	0	0	
HECO Power Supply Engineering											
Labor	0	0	0	0	0	0	0	0	4,753	2,520	
Overhead	0	0	0	0	0	0	0	0	3,038	2,090	
Non-Labor	0	0	0	0	0	0	0	0	172	568	
	0	0	0	0	0	0	0	0	7,963	5,178	
HECO Legal											
Labor	0	0	0	0	719	0	0	0	0	0	
Overhead	0	0	0	0	142	0	0	0	0	0	
Non-Labor	0	0	0	0	5	0	0	0	0	0	
	0	0	0	0	866	0	0	0	0	0	
HECO Forecasts & Research											
Labor	0	0	0	0	0	0	0	0	30,212	27,332	
Overhead	0	0	0	0	0	0	0	0	15,467	16,332	
Non-Labor	0	0	0	0	0	0	0	0	24,600	46,630	
	0	0	0	0	0	0	0	0	70,279	90,294	
HECO Energy Services											
Labor	62,837	57,118	17,123	8,342	9,866	13,041	12,152	12,634	1,787	1,260	
Overhead	75,839	66,067	8,359	2,151	1,581	3,205	6,195	5,585	995	811	
Non-Labor	61,503	15,710	23,912	23,571	20,492	33,843	38,733	43,299	0	110	
	200,179	138,895	49,394	34,064	31,939	50,089	57,080	61,518	2,782	2,181	
HECO Technology											
Labor	0	0	0	0	0	0	62	551	3,842	4,982	
Overhead	0	0	0	0	0	0	39	242	1,996	3,181	
Non-Labor	0	0	0	0	0	0	0	768	1,064	2,316	
	0	0	0	0	0	0	101	1,561	6,902	10,479	
HECO Regulatory Affairs											
Labor	1,229	244	1,062	13,211	9,909	1,994	2,208	6,261	3,387	736	
Overhead	1,483	281	373	2,484	2,042	474	885	2,801	1,506	384	
Non-Labor	138	156	28	353	23	15	15	178	0	1,312	
	2,850	681	1,463	16,048	11,974	2,483	3,108	9,240	4,893	2,432	
HECO Corp Comm											
Labor	0	0	0	2,526	58	0	0	0	641	0	
Overhead	0	0	0	947	13	0	0	0	368	0	
Non-Labor	0	0	0	631	0	0	0	0	183	0	
	0	0	0	4,104	71	0	0	0	1,192	0	
HECO Power Supply Services											
Labor	0	0	0	0	0	0	0	0	51,802	117,058	
Overhead	0	0	0	0	0	0	0	0	24,161	76,690	
Non-Labor	0	0	0	0	0	0	0	0	1,940	13,170	
	0	0	0	0	0	0	0	0	77,903	206,918	

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MECO
ANNUAL, INCREMENTAL IRP COST
SUMMARY BY DEPARTMENT/DIVISION

Department/Division	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	YTD Aug 2007
HECO Education & Cons Affairs											
Labor	0	0	0	0	0	0	0	585	3,954	1,370	
Overhead	0	0	0	0	0	0	0	230	1,927	765	
Non-Labor	0	0	0	0	0	0	0	326	1,479	0	
	0	0	0	0	0	0	0	1,141	7,360	2,135	
HECO Financial Analysis											
Labor	0	0	0	0	0	74	0	0	0	0	
Overhead	0	0	0	0	0	19	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	93	0	0	0	0	
HECO Planning & Engineering											
Labor	73,640	144,737	163,051	118,399	69,603	11,956	22,296	26,635	0	0	
Overhead	88,860	166,788	75,710	37,042	14,210	3,432	12,817	12,897	0	0	
Non-Labor	120,774	20,935	6,232	16,997	7,303	12,644	174	339	0	0	
	283,274	332,460	244,993	172,438	91,116	28,032	35,287	39,871	0	0	
HECO Energy Projects											
Labor	0	0	0	0	0	0	0	0	8,959	2,958	
Overhead	0	0	0	0	0	0	0	0	3,919	1,444	
Non-Labor	0	0	0	0	0	0	0	0	0	1,297	
	0	0	0	0	0	0	0	0	12,878	5,699	
HECO Environmental											
Labor	0	0	152	250	0	0	0	0	0	0	
Overhead	0	0	51	85	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	203	335	0	0	0	0	0	0	
HECO Customer Technology Applications											
Labor	0	0	0	0	0	0	0	0	0	2,868	
Overhead	0	0	0	0	0	0	0	0	0	1,616	
Non-Labor	0	0	0	0	0	0	0	0	0	100	
	0	0	0	0	0	0	0	0	0	4,584	
HECO Corporate Admin Billable Overhead											
Labor	0	0	0	0	0	0	0	0	0	0	
Overhead	0	0	25,969	2,646	0	0	0	0	0	0	
Non-Labor	0	0	0	0	0	0	0	0	0	0	
	0	0	25,969	2,646	0	0	0	0	0	0	
MECO Customer Service											
Labor	0	4,689	36,185	45,806	34,056	47,183	49,393	17,528	51,786	33,374	
Overhead	0	5,350	18,769	16,434	13,901	25,313	36,708	11,953	38,557	26,623	
Non-Labor	52,256	281,380	201,492	45,673	26,212	10,527	29,799	43,124	343,478	133,006	
	52,256	291,419	256,446	107,913	74,169	83,023	115,900	72,605	433,821	193,003	
TOTAL	**538,559**	**763,455**	**604,518**	**345,087**	**210,135**	**163,720**	**252,190**	**215,307**	**681,156**	**664,188**	

Docket References:

Docket No. 96-0431	HECO, HELCO, MECO Recovery of 1997 IRP Planning Costs
Docket No. 97-0358	HECO, HELCO, MECO Recovery of 1998 IRP Planning Costs
Docket No. 98-0339	HECO, HELCO, MECO Recovery of 1999 IRP Planning Costs
Docket No. 99-0338	HECO, HELCO, MECO Recovery of 2000 IRP Planning Costs
Docket No. 00-0360	HECO, MECO Recovery of 2001 IRP Planning Costs
Docket No. 01-0409	HECO, MECO Recovery of 2002 IRP Planning Costs
Docket No. 02-0359	HECO, MECO Recovery of 2003 IRP Planning Costs
Docket No. 03-0276	HECO, MECO Recovery of 2004 IRP Planning Costs
Docket No. 04-0295	HECO, MECO Recovery of 2005 IRP Planning Costs
Docket No. 05-0273	MECO Recovery of 2006 IRP Planning Costs

CA-IR-412

Ref: MECO Response to CA-IR-248, Attachment A (Outside Services IRP).

Please provide the following information:

a. A detailed itemization of EE=501 outside services charges incurred in 2005 totaling $314,388, indicating the activities and purpose for work performed by each vendor.

b. A detailed itemization of EE=501 outside services charges incurred in 2006 totaling $110,468, indicating the activities and purpose for work performed by each vendor.

c. Explain each known reason why actual 2006 outside services were less than the budgeted $181,000 amount.

d. Which of the vendor charges listed in your response to parts (a) and (b) of this information request are anticipated to be incurred in each future iteration of IRP planning?

MECO Response:

a. See Attachment A, which was also filed in Docket No. 04-0295, Recovery of 2005 IRP Planning Costs, as Attachment B, page 4. Each vendor and the work they were paid for is as follows:

Vendor	Purpose of Work
Black & Veatch	Develop supply-side resource options
Itron	Develop demand-side resource options
Kahu Rennie Mau	Deliver the blessing at the Advisory Group Orientation meeting
Haiku Design & Analysis	Facilitate DSM committee work
County of Maui	Fees to rent community centers for the public meetings
Earthplan	Facilitate community input meetings
Fergie Ferguson	Rental of tables and chairs for the Lanai public meetings
The Wedgemere Group	Registration fee for demand response webinar

b. See Attachment B, which was also filed as in Docket No. 05-0273, Recovery of 2006 IRP Planning Costs, as Attachment A, page 4. Each vendor and the work they were paid for is as follows:

Vendor	**Purpose of Work**
Black & Veatch	Develop supply-side resource options
The Maui News	Ads to promote the public meetings
Earthplan	Facilitate community input meetings
Itron	Develop demand-side resource options
Molokai Advertiser News	Ads to promote the public meetings
Pacific Radio Group	Ads to promote the public meetings
The Molokai Dispatch	Ads to promote the public meetings
Hawaiian Electric Company	Registration for Efficient Electro-technology Expo & Conference

c. The reason for the lower than budgeted outside service expenses incurred in 2006 was primarily due to the modification of the procedural schedule and lesser work load of the outside consultants as a result of this change. The filing date of MECO's third Integrated Resource Plan Report was extended from October 31, 2006 to no later than April 30, 2007. Therefore, costs for activities that usually follow a filing such as responding to informational requests were not incurred in 2006, resulting in lower outside consultant fees.

d. MECO anticipates it will incur about the same level of charges from outside services in each future iteration of IRP planning. The outside services are expected to include consultants to evaluate supply-side and demand-side resource options, and vendors and/or agencies to help promote and facilitate the public input process though the Company cannot predict which specific vendor or agency will be used in each future iteration of IRP planning.

MECO's Customer Services Department's 2005 Outside Services General

Consultant	Invoice Date	Invoice No.	Total
Black & Veatch	07/12/05	180577	$26,193.69
Black & Veatch	08/11/05	182142	$92,568.37
Black & Veatch	09/16/05	184482	$39,137.35
Black & Veatch	10/06/05	185651	$8,378.54
Black & Veatch	11/09/05	187816	$28,468.98
Black & Veatch	12/13/05	190268	$17,400.10
			$212,147.03
Itron	07/15/05	270779	$24,154.83
Itron	08/12/05	272592	$17,472.00
Itron	08/26/05	273403	$14,481.60
Itron	09/16/05	275909	$18,220.80
			$74,329.23
Kahu Rennie Mau	01/28/05		$100.00
Haiku Design & Analysis	04/26/05	MECO 05	$728.00
County of Maui	06/06/05		$320.00
County of Maui	06/30/05		($175.00)
Fergie Ferguson	07/01/05		$9.00
Earthplan	07/02/05	07022005	$26,784.80
The Wedgemere Group	11/18/05		$145.00
			$27,911.80
	Amount to be recovered in 2005		$314,388.06

MECO's Customer Services Department's 2005 Outside Services Legal

Consultant	Invoice Date	Invoice No.	Total
Goodsill, Anderson, Quinn, Stifel	01/31/05	308644	$108.33
Goodsill, Anderson, Quinn, Stifel	03/23/05	309998	$4,548.88
Goodsill, Anderson, Quinn, Stifel	04/29/05	310790	$7,285.16
Goodsill, Anderson, Quinn, Stifel	05/26/05	311620	$114.58
	Amount to be recovered in 2005		$12,056.95

MECO's Customer Services Department's 2006 Outside Services General

Consultant	Invoice Date	Invoice No.	Total
Black & Veatch	01/10/06	191767	$13,437.32
Black & Veatch	03/16/06	196232	$4,182.00
Black & Veatch	04/19/06	198352	$2,375.32
Black & Veatch	05/16/06	200144	$7,382.02
Black & Veatch	06/16/06	1001377	$8,087.80
Black & Veatch	07/03/06	1002085	$7,113.76
Black & Veatch	09/19/06	1006188	$7,899.47
			$50,477.69
The Maui News	07/30/06	6513-0607B	$1,439.30
The Maui News	08/04/06	6513-0608	$1,245.31
The Maui News	08/06/06	6513-0608A	$1,206.20
The Maui News	08/07/06	6513-0608B	$693.80
The Maui News	08/08/06	6513-0608C	$693.80
The Maui News	08/09/06	6513-0608D	$693.80
The Maui News	08/10/06	6513-0608E	$693.80
The Maui News	08/11/06	6513-0608F	$693.80
The Maui News	08/12/06	6513-0608G	$693.80
The Maui News	08/13/06	6513-0608H	$1,206.20
The Maui News	08/14/06	6513-0608I	$693.80
The Maui News	08/15/06	6513-0608J	$693.80
The Maui News	08/16/06	6513-0608K	$693.80
The Maui News	08/17/06	6513-0608L	$693.80
			$12,035.01
Earthplan	08/04/06	08042006	$3,612.55
Earthplan	09/13/06	09132006	$17,239.40
			$20,851.95
Itron	12/30/05	285946	$23,809.40
Molokai Advertiser News	08/23/06	13-0608	$416.00
Pacific Radio Group	08/30/06	47301	$2,457.11
The Molokai Dispatch	09/09/06	10485A	$326.04
Hawaiian Electric Company			$95.00
			$27,103.55
Amount to be recovered in 2006			$110,468.20

MECO's Customer Services Department's 2006 Outside Services Legal

Consultant	Invoice Date	Invoice No.	Total
Goodsill, Anderson, Quinn, Stifel	08/31/05	313825	$613.96
Goodsill, Anderson, Quinn, Stifel	10/26/05	315233	$172.01
Goodsill, Anderson, Quinn, Stifel	11/25/05	315873	$77.34
Goodsill, Anderson, Quinn, Stifel	12/12/05	316320	$856.82
Goodsill, Anderson, Quinn, Stifel	01/31/06	317417	$40.83
Goodsill, Anderson, Quinn, Stifel	02/24/06	317977	$394.04
Goodsill, Anderson, Quinn, Stifel	03/31/06	318986	$337.74
Goodsill, Anderson, Quinn, Stifel	04/30/06	319737	$846.63
Goodsill, Anderson, Quinn, Stifel	05/31/06	320369	$1,125.55
Goodsill, Anderson, Quinn, Stifel	06/29/06	321002	$2,173.80
Goodsill, Anderson, Quinn, Stifel	06/29/06	321016	$143.22
Goodsill, Anderson, Quinn, Stifel	07/31/06	321877	$576.11
Goodsill, Anderson, Quinn, Stifel	08/31/06	322515	$1,059.83
Goodsill, Anderson, Quinn, Stifel	09/30/06	323182	$401.02
Goodsill, Anderson, Quinn, Stifel	11/27/06	324492	$401.02
Amount to be recovered in 2006			$9,019.72

b. See Attachment B, which was also filed as in Docket No. 05-0273, Recovery of 2006 IRP Planning Costs, as Attachment A, page 4. Each vendor and the work they were paid for is as follows:

Vendor	Purpose of Work
Black & Veatch	Develop supply-side resource options
The Maui News	Ads to promote the public meetings
Earthplan	Facilitate community input meetings
Itron	Develop demand-side resource options
Molokai Advertiser News	Ads to promote the public meetings
Pacific Radio Group	Ads to promote the public meetings
The Molokai Dispatch	Registration fee for demand response webinar
Hawaiian Electric Company	Registration for Efficient Electro-technology Expo & Conference

c. The reason for the lower than budgeted outside service expenses incurred in 2006 was primarily due to the modification of the procedural schedule and lesser work load of the outside consultants as a result of this change. The filing date of MECO's third Integrated Resource Plan Report was extended from October 31, 2006 to no later than April 30, 2007. Therefore, costs for activities that usually follow a filing such as responding to informational requests were not incurred in 2006, resulting in lower outside consultant fees.

d. MECO anticipates it will incur about the same level of charges from outside services in each future iteration of IRP planning. The outside services are expected to include consultants to evaluate supply-side and demand-side resource options, and vendors and/or agencies to help promote and facilitate the public input process though the Company cannot predict which specific vendor or agency will be used in each future iteration of IRP planning.

CA-IR-413

Ref: MECO Response to CA-IR-141 (Intercompany IRP charges).

Please provide the following:

a. A multi-year statement of actual incurred costs for forecasting and IRP related work, for each year 1998 through 2007 to-date, indicating how the total incurred costs by RA at HECO were distributed via intercompany charges among each of the operating companies (MECO, HECO and HELCO) in each year.

b. Budget year 2007 expense data by HECO RA, in a format comparable to your response to part (a) of this information request, illustrating how total projected costs are to be distributed among operating companies for the test year.

MECO Response:

a. See Attachment A for a multi-year statement of actual incurred costs for forecasting and IRP related work, for each year 1998 through 2007 to-date, indicating how the total incurred costs by RA at HECO were distributed via intercompany charges among each of the operating companies (MECO, HECO and HELCO) in each year. The Company provides the August 2007 to-date financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007. Please note that there is no clear pattern in the historical data that indicates there is a consistent allocation done by PSM (HECO Forecasts and Research Division) for work done for the three companies. Except for the standard 50/25/25 HECO/HELCO/MECO split on common projects/expenses (Residential Appliance Saturation Survey, Conditional Demand Analysis, Commercial End Use Survey, Strategist), PSM charges to the activity as work is performed. Since the bulk of their time is spent on HECO (forecasts, updates, etc.), it is reasonable that HECO's share of the PSM charges is in the 74-85% range.

b. See Attachment B for budget year 2007 expense data by HECO RA, in a format comparable to the response to part (a) of this information request, illustrating how total projected costs are to be distributed among operating companies for the test year.

Maui Electric Company, Limited
2007 Test Year
HECO Forecasts & Research Division Charges

	Act.	1998 Actuals (**)	1999 Actuals	% of Total	2000 Actuals	% of Total	2001 Actuals	% of Total	2002 Actuals	% of Total	2003 Actuals	% of Total	2004 Actuals	% of Total	2005 Actuals	% of Total	2006 Actuals	% of Total	2007 YTD August Actuals	% of Total
HECO Sales Forecasts & Unbilled Revenue (non-IRP)	710	N/A	$209,534	91%	$194,950	88%	$221,000	86%	$210,367	88%	$288,175	85%	$144,369	71%	$120,163	66%	$229,781	70%	[redacted]	[redacted]
HECO IRP Related Work	711/712	$95,583	$414,153	83%	$329,375	79%	$245,870	79%	$408,299	85%	$472,570	77%	$518,738	84%	$685,291	82%	$415,129	77%		
		$95,583	$623,687	85%	$524,325	82%	$466,870	83%	$618,666	86%	$760,745	80%	$663,107	80%	$805,454	79%	$644,910	74%		
MECO Sales Forecasts & Unbilled Revenue (non-IRP)	710	N/A	$3,061	1%	$9,485	4%	$8,442	3%	$10,711	4%	$23,420	7%	$28,518	14%	$28,363	16%	$43,656	13%		
MECO IRP Related Work	712	$138,895	$39,940	8%	$43,065	10%	$27,210	9%	$37,162	8%	$67,688	11%	$44,229	7%	$91,036	11%	$68,709	13%		
		$138,895	$43,001	6%	$52,550	8%	$35,652	6%	$47,873	7%	$91,108	10%	$72,747	9%	$119,399	12%	$112,365	13%		
HELCO Sales Forecasts & Unbilled Revenue (non-IRP)	710	N/A	$18,811	8%	$17,246	8%	$26,095	10%	$17,985	8%	$25,903	8%	$31,718	16%	$34,389	19%	$54,263	17%		
HELCO IRP Related Work	711/712	$140,237	$47,215	9%	$45,411	11%	$37,009	12%	$35,821	7%	$70,484	12%	$56,578	9%	$62,155	7%	$58,038	11%		
		$140,237	$66,026	9%	$62,657	10%	$63,104	11%	$53,806	7%	$96,387	10%	$88,296	11%	$96,544	9%	$112,301	13%		
Total Sales Forecasts & Unbilled Revenue (non-IRP)		N/A	$231,406	100%	$221,681	100%	$255,537	100%	$239,063	100%	$337,498	100%	$204,605	100%	$182,915	100%	$327,700	100%		
Total IRP Related Work		$374,715	$501,308	100%	$417,851	100%	$310,089	100%	$481,282	100%	$610,742	100%	$619,545	100%	$838,482	100%	$541,876	100%		
TOTAL		$374,715	$732,714	100%	$639,532	100%	$565,626	100%	$720,345	100%	$948,240	100%	$824,150	100%	$1,021,397	100%	$869,576	100%		

NOTES

(1) ACT. 710 Forecasting includes Sales Forecast - non-IRP and Unbilled Revenue calculation work.

(2) ACT. 711-712 include all IRP related work (general planning, Sales Forecast - IRP) for SM Division.

(3) The table above summarizes HECO's actual costs for 1999 to YTD August 2007 Note that due to a one month lag in the recording of HECO Billable costs for MECO/HELCO to the respective subsidiary records, annual HECO billable costs will not necessarily agree to the subsidiary records.

(4) Expense allocation on common projects for HECO/HELCO/MECO are as follows: HECO 50%, HELCO 25%, and MECO 25%

(5) In years where no forecast is required for an IRP report filing, Forecasts & Research expenses are allocated 50% to Sales Forecasts (non-IRP) and 50% to IRP related work.

(**) The FIS system was in effect during 1998. This FIS system was replaced by the Ellipse system and Activity Based Management (ABM) implemented in 1999. Information accumulation under ABM was substantially different from how costs were accumulated under the FIS system making comparisons difficult. Note that the Sales Forecasts and IRP Base costs information for 1998 under the FIS system were not readily available. The MECO/HELCO IRP information presented above was taken from the 1998 IRP Cost Recovery filing (Docket No. 97-0358: Second Revision) for the Energy Services Department. Energy Services' HECO 1998 Incremental IRP costs were also taken from this filing. For 1998, HECO IRP related work is low since Base IRP costs were not included in the presented amount.

SOURCE: RPTSALLCONSRA-Aug07-ABM.ctl (1999-ytd August 2007)

Maui Electric Company, Limited
2007 Test Year
HECO Forecasts & Research Division

	Act.	2007 Budget	% of Total
HECO Sales Forecasts & Unbilled (non-IRP)	710	$150,170	*56.5%*
HECO IRP Related Work	711	$636,183	*65.5%*
		$786,353	*63.6%*
MECO Sales Forecasts & Unbilled (non-IRP)	710	$50,879	*19.1%*
MECO IRP Related Work	712	$169,333	*17.4%*
		$220,212	*17.8%*
HELCO Sales Forecasts & Unbilled (non-IRP)	710	$64,922	*24.4%*
HELCO IRP Related Work	711	$165,747	*17.1%*
		$230,669	*18.6%*
Total Sales Forecasts & Unbilled (non-IRP)		$265,971	*100.0%*
Total IRP Related Work		$971,263	*100.0%*
TOTAL		**$1,237,234**	*100.0%*

NOTE: ACT. 711-712 include all IRP related work (general planning, Sales Forecast - IRP) for SM Division.

SOURCE: RPTSALLCONSRA-Aug07-ABM.ctl

CA-IR-414

Ref: MECO Response to CA-IR-2 [MECO T-8] Attachment A (Non-labor expense details).

Please provide the following:

a. Monthly actual expenditures for all available months of 2007 to-date, for each of the 56 lines of detail shown in Attachment A.

b. Explain each instance in your response to part (a) of this information request where actual year-to-date expenses are materially different from projected expenses.

MECO Response:

a. See Attachment A for the monthly actual expenditures for all available months of 2007 to-date, for each of the 56 lines of detail shown in the response to CA-IR-2 [MECO T-8] Attachment A. The Company provides the July through August 2007 financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

b. See the Notes in Attachment A, page 5, for the explanations of instances where actual year-to-date expenses are materially different from projected expenses.

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A* Line No.	B NARUC	C RA	D Act	E Loc	F Ind	G Proj	H EE	I Line item	J 2007 Budget	K Jan	L Feb	M Mar	N Apr	O May	P Jun	Q Jul	R Aug	S YTD	T Notes
1	586	MCF	602	MAU	NE	NMCZZZZZ	201	Equipment-starts/stops	1385	116	116	116	116	116	116				
	586	MCF	602	MAU	NE	NMCZZZZZ	401	Equipment-starts/stops	161	13	13	13	13	13	13				
3	586	MCF	602	MAU	NE	NMCZZZZZ	201	Rings & Seals-starts/stops	14115	1177	1177	1177	1177	1177	1177				
	586	MCF	602	MAU	NE	NMCZZZZZ	401	Rings & Seals-starts/stops	1639	137	137	137	137	137	137				
4	586	MCF	602	MAU	NE	NMCZZZZZ	201	supplies - starts/stops	3042	254	254	254	254	254	254				
	586	MCF	602	MAU	NE	NMCZZZZZ	401	supplies - starts/stops	353	29	29	29	29	29	29				
5	586	MCF	602	MAU	NE	NMCZZZZZ	201	Uniforms -starts/stops	1575	0	0	394	0	0	394				
	586	MCF	602	MAU	NE	NMCZZZZZ	401	Uniforms -starts/stops	183	0	0	46	0	0	46				
	Budget Subtotal								**22453**	**1726**	**1726**	**2166**	**1726**	**1726**	**2166**				
	586	MCF	602	MAU	NE	NMCZZZZZ	201	Actual Dollars		0	0	0	0	9	0				
	Variance																		
2	586	MCF	602	MAU	NE	NMCZZZZZ	301	Standard Vehicle Usage - Light	30316	2529	2529	2529	2529	2529	2529				
	586	MCF	602	MAU	NE	NMCZZZZZ	301	Actual Dollars		2142	2340	3099	2524	3049	2639				
	Variance																		
6	586M	MCT	602	MAM	NE	NMCZZZZZ	201	Field service supplies	245	21	21	21	21	21	21				
	586M	MCT	602	MAM	NE	NMCZZZZZ	401	Field service supplies	28	2	2	2	2	2	2				
	Budget Subtotal								**273**	**23**	**23**	**23**	**23**	**23**	**23**				
	586M	MCT	602	MAM	NE	NMCZZZZZ	201	Actual Dollars		0	0	0	0	0	0				
	Variance																		
7	909	MCA	112	MAU	NS	NMCZZZZZ	501	Mainland travel - Mgr registration	1000	0	0	0	0	1000	0				
	909	MCA	112	MAU	NS	NMCZZZZZ	501	Actual Dollars		0	0	0	0	2120	0				
	Variance																		
8	909	MCA	112	MAU	NS	NMCZZZZZ	520	Mainland travel - Mgr airfare car lodging	5000	0	0	0	0	5000	0				
	909	MCA	112	MAU	NS	NMCZZZZZ	520	Actual Dollars		0	0	0	0	0	0				
	Variance																		
9	909	MCA	112	MAU	NS	NMCZZZZZ	521	meals & entertainment -general	1500	84	84	84	84	584	84				
	909	MCA	112	MAU	NS	NMCZZZZZ	521	Actual Dollars		0	0	0	0	0	0				
	Variance																		
10	910	MCA	110	MAU	NE	M0000455	550	PNG Marketing Support only	47531	4086	3859	4086	3904	4086	3723				
	910	MCA	110	MAU	NE	M0000455	550	Actual Dollars		54	96	0	161	106	0				
	Variance																		(1)
11	910	MCA	112	MAU	NE	NMCZZZZZ	501	Mainland travel Admin-registration	1000	0	0	0	0	0	0				
	910	MCA	112	MAU	NE	NMCZZZZZ	501	Actual Dollars		0	0	0	0	0	0				
	Variance																		
12	910	MCA	112	MAU	NE	NMCZZZZZ	520	Mainland travel Admin-travel	5000	0	0	0	0	0	0				
	910	MCA	112	MAU	NE	NMCZZZZZ	520	Actual Dollars		0	0	0	0	0	0				
	Variance																		

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Line No.	NARUC	RA	Act	Loc	Ind	Proj	EE	Line item	2007 Budget	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD	Notes
13	910	MCA	112	MAU	NE	NMCZZZZZ	521	Mainland travel Admin-meals	500	0	0	0	0	0	0				
	910	MCA	112	MAU	NE	NMCZZZZZ	521	Actual Dollars		0	0	0	0	0	0				
	Variance																		
14	910	MCN	112	MAU	NE	NMCZZZZZ	301	Standard Vehicle Usage - Sedan	5317	442	442	442	442	442	442				
	910	MCN	112	MAU	NE	NMCZZZZZ	301	Actual Dollars		647	525	684	538	727	656				
	Variance																		
15	910	MCN	112	MAU	NE	NMCZZZZZ	451	ITS Costing CS000027	38359	3197	3197	3197	3197	3197	3197				
	910	MCN	112	MAU	NE	NMCZZZZZ	451	Actual Dollars		1931	988	5216	3087	1612	3473				
	Variance																		
16	910	MCN	112	MAU	NE	NMCZZZZZ	501	Outside Services General BASE	21000	333	333	334	333	333	334				
	910	MCN	112	MAU	NE	NMCZZZZZ	501	Actual Dollars		380	130	129	131	184	186				
	Variance																		
17	910	MCN	112	MAU	NE	NMCZZZZZ	520	Mainland travel - CAMS airfare car lodginc	10000	0	0	0	0	0	0				
	910	MCN	112	MAU	NE	NMCZZZZZ	520	Actual Dollars		0	0	0	0	0	0				
	Variance																		
18	910	MCN	112	MAU	NE	NMCZZZZZ	521	meals & entertain BASE	7300	525	525	525	525	525	525				
	910	MCN	112	MAU	NE	NMCZZZZZ	521	Actual Dollars		0	76	404	150	208	125				
	Variance																		
19	910	MCN	112	MAU	NE	NMCZZZZZ	522	Interisland Travel BASE	5200	400	400	400	400	400	400				
	910	MCN	112	MAU	NE	NMCZZZZZ	522	Actual Dollars		42	0	0	0	0	0				
	Variance																		
20	910	M8M	713	MAU	NE	NMAZZZZZ	900	DSM Amort	2400000	200000	200000	200000	200000	200000	200000				
	910	M8M	713	MAU	NE	NMAZZZZZ	900	Actual Dollars		234560	123394	146222	134873	272654	276515				
	Variance																		(2)
21	910	MSA	100	MAU	NE	NMSZZZZZ	550	ICB - Residential Surveys	29971	768	768	5821	768	769	5877				
	910	MSA	100	MAU	NE	NMSZZZZZ	550	Actual Dollars		570	283	216	629	3210	272				
	Variance																		
22	910	MSA	750	MAU	NE	NMSZZZZZ	550	ICB - Misc. Customer Communications	2067	206	206	206	206	151	151				
	910	MSA	750	MAU	NE	NMSZZZZZ	550	Actual Dollars		0	0	0	0	0	163				
	Variance																		
23	910	MSC	750	MAU	NE	M0000363	201	School Programs	13800	1150	1150	1150	1150	1150	1150				
24	910	MSC	750	MAU	NE	M0000363	401	School Programs	1602	134	134	134	134	134	134				
23	910	MSC	750	MAU	NE	M0000363	201	MECO In our Community	16000	1333	1333	1333	1333	1333	1333				
24	910	MSC	750	MAU	NE	M0000363	401	MECO In our Community	1858	155	155	155	155	155	155				
23	910	MSC	750	MAU	NE	M0000363	201	General Population Programs	6300	525	525	525	525	525	525				
24	910	MSC	750	MAU	NE	M0000363	401	General Population Programs	731	61	61	61	61	61	61				
23	910	MSC	750	MAU	NE	M0000363	201	Senior Programs	2000	166	167	167	167	167	167				
24	910	MSC	750	MAU	NE	M0000363	401	Senior Programs	232	19	19	19	19	19	19				
	Budget Subtotal								**42523**	**3543**	**3544**	**3544**	**3544**	**3544**	**3544**				
	910	MSC	750	MAU	NE	M0000363	201	Actual Dollars		757	2699	158	494	6695	69				
	Variance																		

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Line No.	NARUC	RA	Act	Loc	Ind	Proj	EE	Line item	2007 Budget	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD	Notes
25	910	MSC	750	MAU	NE	M0000363	501	Science Bowl	2200	0	0	0	0	0	50				
	910	MSC	750	MAU	NE	M0000363	501	Actual Dollars		0	0	0	0	2812	2000				
	Variance																		
26	910	MSC	750	MAU	NE	M0000363	521	General Population Programs - Meals	1200	99	100	101	99	100	101				
	910	MSC	750	MAU	NE	M0000363	521	Actual Dollars		31	0	0	0	0	25				
	Variance																		
27	910	MSC	750	MAU	NE	M0000363	522	School Programs - Travel	3500	291	292	292	291	292	292				
	910	MSC	750	MAU	NE	M0000363	522	Actual Dollars		21	294	110	227	7	58				
	Variance																		
28	910	MSC	750	MAU	NE	M0000363	550	ICB - Consumer Lines, HECO Video	46167	2130	2130	3080	2830	2130	2130				
	910	MSC	750	MAU	NE	M0000363	550	Actual Dollars		1965	610	3542	4135	2008	2085				
	Variance																		
29	910L	MSC	750	MAL	NE	M0000363	201	Pineapple Festival, Booklets	700	58	58	59	58	58	59				
30	910L	MSC	750	MAL	NE	M0000363	401	Pineapple Festival, Booklets	81	7	7	7	7	7	7				
	Budget Subtotal								**781**	**65**	**65**	**66**	**65**	**65**	**66**				
	910L	MSC	750	MAL	NE	M0000363	401	Actual Dollars		0	0	0	0	0	0				
	Variance																		
31	910L	MSC	750	MAL	NE	M0000363	522	School Programs - Lanai Travel	200	0	0	0	200	0	0				
	910L	MSC	750	MAL	NE	M0000363	522	Actual Dollars		0	0	0	0	0	0				
	Variance																		
32	910M	MSC	750	MAM	NE	M0000363	201	Energy/McGruff Booklets	1300	108	108	109	108	108	109				
33	910M	MSC	750	MAM	NE	M0000363	401	Energy/McGruff Booklets	151	13	13	13	13	13	13				
	Budget Subtotal								**1451**	**121**	**121**	**122**	**121**	**121**	**122**				
	910M	MSC	750	MAM	NE	M0000363	201	Actual Dollars		0	0	0	0	0	0				
	Variance																		
34	910M	MSC	750	MAM	NE	M0000363	522	School Programs - Molokai Travel	250	0	0	0	250	0	0				
	910M	MSC	750	MAM	NE	M0000363	522	Actual Dollars		0	0	0	0	0	0				
	Variance																		
35	911	MSC	751	MAU	NE	M0000364	501	Info Advertising	30000	2500	2500	2500	2500	2500	2500				
	911	MSC	751	MAU	NE	M0000364	501	Actual Dollars		200	0	1742	100	871	3566				
	Variance																		
36	921	MCA	736	MAU	NE	NMCZZZZZ	501	Market Research-Regulated	25000	0	0	6250	0	0	6250				
	921	MCA	736	MAU	NE	NMCZZZZZ	501	Actual Dollars		0	0	0	0	0	0				
	Variance																		
37	921M	MCT	934	MAM	NE	NMCZZZZZ	201	Janitorial Supplies	461	39	39	39	39	39	39				
	921M	MCT	934	MAM	NE	NMCZZZZZ	401	Janitorial Supplies	54	5	5	5	5	5	5				
	Budget Subtotal								**515**	**44**	**44**	**44**	**44**	**44**	**44**				
	921M	MCT	934	MAM	NE	NMCZZZZZ	201	Actual Dollars		37	0	29	0	37	19				
	Variance																		

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Line No.	NARUC	RA	Act	Loc	Ind	Proj	EE	Line item	2007 Budget	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD	Notes
38	921M	MCT	934	MAM	NE	NMCZZZZZ	501	Janitorial Service	5646	470	470	471	470	470	472	[redacted]			
	921M	MCT	934	MAM	NE	NMCZZZZZ	501	Actual Dollars		437	2271	437	437	437	437	[redacted]			
	Variance															[redacted]			
39	921M	MCT	936	MAM	NE	NMCZZZZZ	501	Rubbish pickup	730	61	61	61	61	61	61	[redacted]			
	921M	MCT	936	MAM	NE	NMCZZZZZ	501	Actual Dollars		25	75	50	50	75	25	[redacted]			
	Variance															[redacted]			
40	923	MCA	736	MAU	NE	NMCZZZZZ	550	PSP Rate Analysis & tariff maint	16974	1414	1414	1414	1414	1414	1414	[redacted]			
	923	MCA	736	MAU	NE	NMCZZZZZ	550	Actual Dollars		2195	297	547	702	550	969	[redacted]			
	Variance															[redacted]			
41	925	MCA	795	MAU	NE	NMCZZZZZ	205	Safety Items	250	0	0	62	0	0	63	[redacted]			
	925	MCA	795	MAU	NE	NMCZZZZZ	205	Actual Dollars		0	0	0	0	0	0	[redacted]			
	Variance															[redacted]			
42	925	MCF	795	MAU	NE	NMCZZZZZ	205	Safety Items	250	0	0	62	0	0	63	[redacted]			
	925	MCF	795	MAU	NE	NMCZZZZZ	205	Actual Dollars		0	0	0	0	0	0	[redacted]			
	Variance															[redacted]			
43	925	MCN	795	MAU	NE	NMCZZZZZ	205	Safety Items	250	0	0	62	0	0	63	[redacted]			
	925	MCN	795	MAU	NE	NMCZZZZZ	205	Actual Dollars		0	0	0	0	0	0	[redacted]			
	Variance															[redacted]			
44	925	MCR	795	MAU	NE	NMCZZZZZ	205	Safety Items	629	0	0	158	0	0	158	[redacted]			
	925	MCR	795	MAU	NE	NMCZZZZZ	205	Actual Dollars		0	0	0	0	0	0	[redacted]			
	Variance															[redacted]			
45	925	MCZ	795	MAU	NE	NMCZZZZZ	205	Safety Items	250	0	0	62	0	0	63	[redacted]			
	925	MCZ	795	MAU	NE	NMCZZZZZ	205	Actual Dollars		0	0	0	0	0	0	[redacted]			
	Variance															[redacted]			
46	932M	MCT	931	MAM	NE	NMCZZZZZ	501	Water expenses	3600	300	300	300	300	300	300	[redacted]			
47	932M	MCT	931	MAM	NE	NMCZZZZZ	501	Fire Extinguisher Services	1000	0	0	250	0	0	250	[redacted]			
	Budget Subtotal								**4600**	**300**	**300**	**550**	**300**	**300**	**550**	[redacted]			
	932M	MCT	931	MAM	NE	NMCZZZZZ	501	Actual Dollars		2025	0	104	23	79	185	[redacted]			
	Variance															[redacted]			
48	932M	MCT	931	MAM	NE	NMCZZZZZ	201	Materials for Plant Maintenance	363	31	31	31	31	31	31	[redacted]			
	932M	MCT	931	MAM	NE	NMCZZZZZ	401	Materials for Plant Maintenance	42	4	4	4	4	4	4	[redacted]			
	Budget Subtotal								**405**	**35**	**35**	**35**	**35**	**35**	**35**	[redacted]			
	932M	MCT	931	MAM	NE	NMCZZZZZ	201	Actual Dollars		0	0	0	0	0	0	[redacted]			
	Variance															[redacted]			

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Line No.	NARUC	RA	Act	Loc	Ind	Proj	EE	Line item	2007 Budget	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD	Notes
49	9302	MCA	753	MAU	NE	NMCZZZZZ	201	Promos-Comm Relations General	5000	417	417	417	417	417	417				
	9302	MCA	753	MAU	NE	NMCZZZZZ	401	Promos-Comm Relations General	581	48	48	48	48	48	48				
	Budget Subtotal								**5581**	**465**	**465**	**465**	**465**	**465**	**465**				
	9302	MCA	753	MAU	NE	NMCZZZZZ	201	Actual Dollars		0	0	0	0	0	0				
	Variance																		
50	9302	MCN	731	MAU	NE	NMCZZZZZ	501	RD&D Projects-Not TC	109500	0	0	0	0	0	54750				
	9302	MCN	731	MAU	NE	NMCZZZZZ	501	Actual Dollars		0	0	0	0	0	0				
	Variance																		(3)
51	9302	MCN	753	MAU	NE	NMCZZZZZ	201	Promos-Cust/Proj Specific	10000	833	833	833	833	833	833				
	9302	MCN	753	MAU	NE	NMCZZZZZ	401	Promos-Cust/Proj Specific	1161	97	97	97	97	97	97				
	Budget Subtotal								**11161**	**930**	**930**	**930**	**930**	**930**	**930**				
	9302	MCN	753	MAU	NE	NMCZZZZZ	201	Actual Dollars		0	0	0	0	0	0				
	Variance																		
52	9302	MCN	731	MAU	NE	NMCZZZZZ	501	RD&D Projects-EPRI TC	25000	0	0	0	0	0	0				
	9302	MCN	731	MAU	NE	NMCZZZZZ	501	Actual Dollars		0	0	0	0	0	0				
	Variance																		(4)
53	9302	MCZ	731	MAU	NE	NMCZZZZZ	550	PNR SPS Technology Director Labor	5606	515	515	515	452	451	451				
54	9302	MCZ	731	MAU	NE	NMCZZZZZ	550	PNR SPS Planning Engineer Labor	5273	485	485	485	425	424	424				
	Budget Subtotal								**10879**	**1000**	**1000**	**1000**	**877**	**875**	**875**				
	9302	MCZ	731	MAU	NE	NMCZZZZZ	550	Actual Dollars		0	0	0	0	0	0				
	Variance																		
55	9302	MCZ	731	MAU	NE	NMCZZZZZ	501	RD&D Projects-Sun Power for Schools	10000	0	0	0	0	0	10000				
56	9302	MCZ	731	MAU	NE	NMCZZZZZ	501	RD&D Projects-including EPRI	100000	0	0	25000	0	0	25000				
	Budget Subtotal								**110000**	**0**	**0**	**25000**	**0**	**0**	**35000**				
	9302	MCZ	731	MAU	NE	NMCZZZZZ	501	Actual Dollars		0	0	0	0	0	0				
	Variance																		(5)

Notes

A*	Line Number Corresponds to CA-IR-2, Attachment A Line Items
(1)	See the response to CA-IR-415.
(2)	This variance represents actual amortization of deferred incremental DSM costs higher than Budget for the year-to-date. Deferred incremental DSM costs which are recovered through the DSM surcharge component of the IRP clause are addressed in the annual Accomplishments & Surcharge reports filed with Commission in connection with Dockets No. 95-0139, 95-0140, 95-0141 and 95-0142 and have not been included in the Company's test year 2007 forecast.
(3)	See the response to CA-IR-429.
(4)	See the response to CA-IR-429.
(5)	See the response to CA-IR-429.

CA-IR-415

Ref: MECO Response to CA-IR-2 [MECO T-8] Attachment B, page 11 (PNG Marketing Support).

Please provide the following:

a. Explain the services provided by HECO in relation to the projected test year costs of approximately $4,800 per month.

b. Actual monthly charges for PNG marketing support for all available months of 2007 to-date.

c. Explain the causes for any material variances between actual and projected PNG allocated marketing support costs to MECO.

MECO Response:

a. The expense for PNG Marketing Support (estimated at about $4,000 a month versus the $4,800 mentioned above) is forecast for technical support from Hawaiian Electric Company, Inc. ("HECO") to assist with providing information concerning various types of potential electrotechnology projects and programs. More specifically, the Energy Projects Department is expected to further explore the potential of dispatchable standby generation ("DSG") at major commercial customer facilities, and to work with MECO to develop a green pricing tariff.

b. See Attachment A for the actual monthly charges for PNG marketing support for all available months of 2007 to-date. The Company provides the July and August 2007 financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

c. As stated in the response to CA-IR-359 (Updated 9/25/07), Attachment B, the material variance between actual and projected PNG allocated marketing support costs to MECO is due to timing differences between the actual spending and recording of invoices, and the

timing reflected in the budget. Costs related to the DSG and green pricing projects mentioned in part a. above are expected to be charged to the Company later this year. However, the updated estimate for these projects is expected to be approximately $20,000 - $25,000 at year-end.

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Maui Electric Company, Limited
2007 Test Year
PNG Marketing Support from HECO

Line Item	RA	Act	Loc	Ind	Proj	EE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
PNG Marketing Support only - Budget	MCA	110	MAU	NE	M0000455	550	4,086	3,859	4,086	3,904	4,086	3,723	[redacted]	[redacted]	[redacted]
PNG Marketing Support only - Actual	MCA	110	MAU	NE	M0000455	550	54	96		161	106		[redacted]	[redacted]	[redacted]
Variance (Budget minus Actual)	MCA	110	MAU	NE	M0000455	550	4,032	3,763	4,086	3,743	3,980	3,723	[redacted]	[redacted]	[redacted]

CA-IR-416

Ref: MECO Response to CA-IR-2 [MECO T-8] Attachment B, page 16 (IT Support).

Please provide the following:

a. Explain the services provided by HECO in relation to the projected test year costs of $38,359.

b. Actual monthly charges for IT support under WO CS000027 for all available months of 2007 to-date.

c. Explain the causes for any material variances between actual and projected IT support allocated costs to MECO under this work order.

MECO Response:

a. The services provided by HECO relate to mainframe usage, outsourced application support, new CIS application development, and the maintenance of current Customer Information System, ACCESS. The allocation basis is the number of ACCESS system users at MECO versus all ACCESS System users (HECO, MECO and HELCO).

b. See Attachment A for the actual monthly charges for IT support under WO CS000027 for all available months of 2007 to-date. The Company provides the July and August financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

c. The variance between actual and projected IT support allocated costs to MECO are mainly due to timing differences related to the payment of significant invoices at HECO.

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Maui Electric Company, Limited
2007 Test Year
Information Technology Support from HECO

Date	Account Block	Budget	Actual	Variance	% Variance
January	MCN112MAUNENMCZZZZZ451	3,197	1,931	1,266	
February	MCN112MAUNENMCZZZZZ451	3,197	988	2,209	
March	MCN112MAUNENMCZZZZZ451	3,197	5,216	(2,019)	
April	MCN112MAUNENMCZZZZZ451	3,197	3,087	110	
May	MCN112MAUNENMCZZZZZ451	3,197	1,612	1,585	
June	MCN112MAUNENMCZZZZZ451	3,197	3,473	(276)	
July	MCN112MAUNENMCZZZZZ451	3,197	[redacted]		
August	MCN112MAUNENMCZZZZZ451	3,197			
Total		25,576	[redacted]		

CA-IR-417

Ref: MECO Response to CA-IR-2 [MECO T-8] Attachment B, lines 7-9, 11-13 and 16 (Mainland Travel).

Please provide the following:

a. Explain the business purpose and number of travelers associated with each projected mainland travel expenditure reflected in the test year forecast.

b. Provide a descriptive history of mainland travel trips incurred by customer service personnel in each of the past three calendar years 2004 through 2006.

c. Provide a detailed description of the PCEA & Expo event set forth at Attachment B, page 17, including copies of agenda/program materials associated with same.

d. Actual monthly mainland travel expenditures to-date in 2007, compared to projected costs by item.

e. Describe whether or not test year projected mainland travel is believed to be indicative of normal, ongoing levels of such activity and the reasons for such belief.

MECO Response:

a. See the following table for the explanations of the purposes for projected mainland travel expenditures (and number of travelers) in the test year:

RA	Business Purpose	Position and Number of Travelers
MCA	Attend leadership training or customer service management seminars or conferences.	Manager (1)
MCA	Attend workshops or conferences on utility finance, customer information systems, customer service, or leadership training.	Administrator or Customer Information Systems Administrator (1)
MCN	Attend workshops relating to commercial account management, energy services, electrotechnologies, or leadership training.	Commercial Services Supervisor or Commercial Account Manager (2)

b. See Attachment A for a descriptive history of the mainland travel trips incurred by customer service personnel from 2004 through 2006. Further, in lieu of mainland travel, funds were used to send customer service personnel to seminars, workshops, and conferences held in

Hawaii, or hire a consultant to conduct a seminar, workshop or training on Maui. The descriptive history of the training in Hawaii is also found in Attachment A.

c. See Attachment B for the detailed description of the PCEA & Expo event. More details can be found at:

http://www.heco.com/portal/site/heco/menuitem.508576f78baa14340b4c0610c510b1ca/?vgnextoid=8d648936b64e1110VgnVCM1000005c011bacRCRD&vgnextfmt=default&cpsextcurrchannel=1

See also Attachment C for the detailed description of the 2006 Efficient Electro-technology Exposition & Conference that is held every other year on Oahu, and is also co-sponsored by Hawaiian Electric Company, Hawaii Electric Light Company and Maui Electric Company. The Company participates in both conferences by co-sponsoring and attending the events.

d. See Attachment D for the actual monthly mainland travel expenditures to-date in 2007, compared to projected costs by item.

e. The test year projected mainland travel is indicative of normal, ongoing levels of such activity because the funds are used more generally to train and develop the Customer Service Department staff. As shown in Attachment A, the Company has spent an average of approximately $20,000 annually on such activities between 2004 and 2006. This amount excludes any co-sponsorships that are additionally provided to fund the biennial PCEA and/or Efficient Electro-technology Exposition and Conference. Further, as mentioned in part b. above, when practical, in lieu of sending only a few employees to the mainland for training, we will often use the funds to send more employees to local seminars, workshops and conferences that are directly related to their jobs. An example of such practice was stated in the response to CA-IR-250, part (b)(4) regarding the Certified Energy Manager training and certification. In lieu of sending one Commercial Account Manager to the

mainland for such training, the Company is taking advantage of the seminar being held on Oahu, and is using the budgeted funds to send three Commercial Account Managers for the training.

The purpose of this "mainland travel" budgeted line item is to expose our staff to industry programs and practices on the mainland or in Hawaii, so we can adopt the ideas that are applicable to our service territory, into our business practices. Such funds, also allow us to keep our staff apprised on the latest electro-technologies, so they can better service our customers in terms of educating them about energy efficiency, and suggesting innovative technological solutions to address their electrical issues. The funds are also used to train and develop our staff on leadership and management and supervision, which is necessary for the long-term success of the department and Company.

2004 Mainland & Hawaii Training and Travel - Customer Service Department
(costs include airfare, hotel, and car estimates)

Date	Position	Purpose	Location	Cost
3/22/2004	Commercial Account Manager	Peak Load Management Conference	San Diego	1,685.54
7/10/2004	Energy Efficiency Program Manager	National Solar Energy Conference **	Portland	250.00
7/13/2004	Supervisor, Customer Account Services	Training for NICE Voice Recorder	Oahu	202.60
8/4/2004	Supervisor, IRP/CEP Commercial Account Manager (2) Supervisor, Customer Field Services	Teamwork Local Style Workshop #1 of 2	Oahu	696.83
8/9/2004	Energy Efficiency Program Manager Customer Field Technician	Energy Efficiency Training	Oahu	365.80
8/10/2004	Customer Field Technician	Energy Efficiency Training	Oahu	163.20
8/12/2004	Commercial Account Manager	National Renewable Energy Laboratory Training	Big Island	163.20
8/18/2004	Supervisor, IRP/CEP Commercial Account Manager (2) Supervisor, Customer Field Services	Teamwork Local Style Workshop #2 of 2	Oahu	731.95
8/24/2004	Manager, Customer Service Supervisor, IRP/CEP Commercial Account Manager (3)	DBEDT Distributed Generation Workshop	Oahu	163.20 167.59 515.94
9/26/2004	Manager, Customer Service	Competitive Bidding Workshop	Oahu	163.20
10/4/2004	Manager, Customer Service	Broadband over Power Line Workshop	Oahu	163.20
10/6/2004	Commercial Account Manager	MV 90 Training	Oahu	202.60
10/14/2004	Commercial Account Manager	MV 90 Training	Oahu	163.20
10/18/2004	Commercial Account Manager	MV 90 Training	Oahu	202.60
10/14/2004	Supervisor, Customer Field Services	Achieve Global Performance Leaders	Maui	Internal MEC
10/24/2004	Supervisor, Customer Account Services	IVR Training for Molokai Staff	Molokai	198.20
10/26/2004	Supervisor, IRP/CEP	LEED Workshop & Energy Expo	Oahu	451.72
10/27/2004	Manager, Customer Service Commercial Account Manager (2) Energy Efficiency Program Manager Energy Efficiency Program Specialist (3)	Efficient Electro-technology Exposition & Conference	Oahu	1,104.12
10/28/2004	IRP Specialist	Efficient Electro-technology Exposition & Conference; Demographics Workshop	Oahu	407.93
10/28/2004	Energy Efficiency Program Manager	Efficient Electro-technology Exposition & Conference	Oahu	171.98
10/28/2004	Energy Efficiency Program Manager Energy Efficiency Program Specialist (3)	Energy Star Workshop presented by Neil Zobler (consultant)	Maui	316.62
11/8/2004	Energy Efficiency Program Specialist	GreenBuild Conference & Expo	Portland	1,659.00
12/4/2004	Supervisor, IRP/CEP	15th AESP Conference & Florida Solar Energy Center	Florida	1,383.81
12/3/2004	Manager, Customer Service	Center for Creative Leadership: Leadership Development Program	Colorado Springs	8,374.91
		Total		20,068.94

** = Other travel expenses such as airfare and per diem for trip were paid for by the DOE

2005 Mainland & Hawaii Training and Travel - Customer Service Department

(costs include airfare, hotel, and car estimates)

Date	Name	Purpose	Location	Cost
1/24/2005	IRP Specialist	Load Management Training	Oahu	676.68
1/24/2005	Customer Field Technician			
1/27/2005	Customer Assistance Rep-Molokai	Telephone Skills Workshop	Maui	198.20
	All Customer Service Department Staff (43)			1,247.00
2/11/2005	Supervisor, Customer Field Services	Field Manager Orientation	Oahu	212.80
4/5/2005	Commercial Account Manager	Achieve Global Certification Seminar	Oahu	671.63
4/12/2005	Customer Field Representative (2)	Field Service Orientation, High Bill Investigation	Oahu	315.40
4/19/2005	Commercial Account Manager (2)	Energy Economics Financial Training by Energy Industries	Oahu	202.75
4/19/2005	Energy Efficiency Program Manager	Energy Economics Financial Training by Energy Industries	Oahu	354.80
4/15/2005	Supervisor, Customer Field Services	Employment Law Workshop	Maui	200.00
	Supervisor, Customer Account Services			
4/21/2005	Administrator	Leadership Works Seminar - Teamwork Local Style	Oahu	177.40
4/28/2005	IRP Specialist	Rocky Mountain Institute Workshop - DR Eval Methodologies	Oahu	354.80
	Supervisor, IRP/CEP			
5/4/2005	Administrator	Leadership Works Seminar	Oahu	281.00
5/11/2005	Customer Field Representative	HBI Orientation with HECO	Oahu	233.00
5/23/2005	Administrator	Managing Multiple Priorities, Projects and Deadlines workshop	Oahu	377.40
5/24/2005	Manager, Customer Service	RMI Presentation on Reliability Evaluation for Renewables	Oahu	227.86
5/24/2005	IRP Specialist	Rocky Mountain Institute - Eval of Renewables and DR	Oahu	340.84
	Supervisor, IRP/CEP			
6/13-30/2005	Manager, Customer Service	Utility Executive Course	Idaho	10,650.73
6/29/2005	Supervisor, Customer Account Services	Check Free Upgrade Training	Oahu	405.66
	Customer Assistance Representative			
7/14/2005	Supervisor, Customer Account Services	Teamwork Local Style Session 1 of 2	Oahu	558.00
	IRP Specialist			
	Commercial Account Manager			
7/28/2005	Supervisor, Customer Account Services	Teamwork Local Style Session 2 of 2	Oahu	597.40
	IRP Specialist			
	Commercial Account Manager			

2005 Mainland & Hawaii Training and Travel - Customer Service Department

(costs include airfare, hotel, and car estimates)

Date	Name	Purpose	Location	Cost
8/1/2005	Energy Efficiency Program Manager Commercial Account Manager (2) Energy Efficiency Program Specialist	Sales Training	Oahu	771.40
8/8/2005 8/8/2005	Manager, Customer Service Energy Efficiency Program Manager Commercial Account Manager (2) Energy Efficiency Program Specialist	Sales Training	Oahu	895.66
8/16/2005	Energy Efficiency Program Specialist	Training with Honeywell DMC	Oahu	481.20
8/23/2005	HECO Billing & Accounting Analyst	Class Load Study, MV90 Assistance	Oahu	158.00
9/27/2005	HECO, Billing & Accounting Analyst	Net Energy Metering Training	Oahu	158.00
9/29/2005	Supervisor, IRP/CEP Energy Efficiency Program Manager	2005 PCEA Conference	Big Island	1,445.92
9/29/2005	Manager, Customer Service	2005 PCEA Conference	Big Island	499.01
10/6/2005	Energy Efficiency Program Specialist	Teamwork Local Style (session 1)	Oahu	186.00
10/6/2005	Energy Efficiency Program Manager	Teamwork Local Style (session 1)	Oahu	183.00
10/14/2005	Commercial Account Manager	Business Writing Clinic	Maui	100.00
10/20/2005	Energy Efficiency Program Manager	Teamwork Local Style (session 2), DSM Meeting	Oahu	225.40
10/20/2005	Energy Efficiency Program Specialist	Teamwork Local Style (session 2)	Oahu	186.00
10/20/2005	IRP Specialist	Teamwork Local Style (makeup session)	Oahu	186.00
10/27/2005	HECO, Billing & Accounting Analyst	Class Load Study Meeting at MECO	Maui	186.00
11/8/2005	Energy Efficiency Program Specialist	AIA/CSI Expo, Meet with Derrick Sonoda & Pam Chun (HECO)	Oahu	225.40
11/23/2005	HECO, Billing & Accounting Analyst	MV90	Maui	186.00
11/28/2005	Manager, Customer Service Energy Efficiency Program Manager Energy Efficiency Program Specialist (2)	Leadership in Energy & Environmental Design Training presented by Gregory Franta (consultant)	Maui	8,335.00
12/29/2005	Commercial Account Manager	HVAC Training at Energy Industries	Oahu	186.00
		Total		32,877.34

2006 Mainland & Hawaii Training and Travel - Customer Service Department
(costs include airfare, hotel, and car estimates)

Date	Name	Purpose	Location	Cost
1/30/2006	Commercial Account Manager	Mistake-Free Grammar and Proofreading	Maui	100.00
2/2/2006	Commercial Account Manager	Illuminating Engineering Society Training	Oahu	186.20
3/9/2006	HECO Billing & Accounting Analyst	Net Energy Metering Training	Maui	186.20
3/10/2006	Commercial Account Manager	HVAC Training at Energy Industries	Oahu	186.20
5/15/2006	HECO Billing & Accounting Analyst	MV90 Training for MECO's Acct Managers	Maui	186.20
5/16/2006	Supervisor, IRP/CEP	Build & Buy Green Conference & Expo	Oahu	237.00
5/16/2006	HECO Billing & Accounting Analyst	MV90 Training for MECO Acct Managers	Maui	186.20
5/17/2006	HECO Billing & Accounting Analyst	MV90 Training for MECO Acct Managers	Maui	186.20
5/18/2006	HECO Billing & Accounting Analyst	MV90 Training for MECO Acct Managers	Maui	186.20
5/19/2006	HECO Billing & Accounting Analyst	MV90 Training for MECO Acct Managers	Maui	186.20
6/20/2006	Supervisor, Customer Account Services Customer Assistance Representative	Training for changes to HECO.com	Oahu	225.72
7/6/2006	Supervisor, IRP/CEP	DBEOT Hawaii Energy Strategy Mtg	Oahu	207.12
7/19/2006	Supervisor, IRP/CEP	Curtailment Workshop	Oahu	168.63
8/4/2006	Energy Efficiency Program Manager	Inspector Training by Ron Richmond	Oahu	168.12
8/9/2006	Manager, Customer Service	Competitive Bidding Workshop	Oahu	225.72
8/25/2006	Supervisor, Customer Account Services Customer Assistance Representative	Customer Service Training for HECO.com	Oahu	218.72
9/19/2006	Energy Efficiency Program Specialist	HVAC Training at Energy Industries	Oahu	69.60
9/29/2006	Supervisor, Customer Account Services	HECO.com Training for Molokai Staff	Molokai	180.16
10/25/2006	Supervisor, Customer Account Services	HEC Basic Supervision	Maui	25.00
11/16/2006	Energy Efficiency Program Specialist	HVAC Training at Energy Industries	Oahu	139.60
11/29/2006	Supervisor, IRP/CEP IRP Specialist Commercial Account Manager (3) Manager, Customer Service	Efficient Electro-technology Exposition & Conference	Oahu	1,096.35
12/6/2006	Supervisor, Commercial Services Commercial Account Manager (2) Energy Efficiency Program Manager Energy Efficiency Program Specialist (2) Customer Field Technician	Efficient Lighting Training Stan Walerczyk (consultant)	Maui	2,351.00
12/8/2006	HECO, Director of Information Security	ID Theft Presentation	Maui	157.90
		Total		7,060.24

2007 PACIFIC COAST ELECTRICAL ASSOCIATION HAWAII CONFERENCE & EXPO

GRAND WAILEA RESORT HOTEL & SPA, MAUI
SEPTEMBER 6 – 8, 2007

"Today's Innovation...
...Tomorrow's Independence"

PCEA HAWAII CONFERENCE & EXPO

Aloha!

With oil prices and concerns about global climate change both at an all time high, we know that finding new ways to become more independent and remain environmentally sensitive in meeting our energy needs is more important than ever before. We all must face that challenge and do our part if we want to preserve our way of life.

As an isolated island community, we are often at the mercy of global events and decisions made far away. Our future, the way we do business, the way we live and play, and our natural environment, all depend on finding and implementing innovative solutions amid this reality.

At Hawaiian Electric, Hawaii Electric Light, and Maui Electric, our goal is to limit our dependence on imported fossil fuel, thereby enhancing our energy independence and protecting the environment. We've made the commitment to run our new power plant on Oahu and some existing generators on Maui entirely on biofuels. In addition, we remain committed to expanding our use of other forms of renewable, sustainable energy including wind, solar, geothermal, waste-to-energy, pumped-storage hydro, wave and ocean power. As important as each of these are, we're also increasing our efforts towards energy efficiency and conservation, both of which must be part of our energy portfolio as well.

We know that many others share our concern and commitment. In putting together this year's conference, "Today's Innovation... Tomorrow's Independence", we found an overwhelming response of interest in taking part, whether as a speaker, exhibitor, or participant.

In addition to our keynote panel and Saturday morning speaker, our 28 workshops and 50 exhibitors cover a wide variety of topics and issues we hope will interest and stimulate you to a future action. Whether you're looking at energy efficiency, renewable/sustainable technologies, or products that enhance facility performance, all contribute in helping our state move towards energy independence.

Thanks to all our speakers and exhibitors for sharing your knowledge and time with us. Without you, the conference would not be possible. Special thanks go to our major sponsors: the U.S. Department of Energy, State of Hawaii's Department of Business, Economic Development, and Tourism; Rebuild Hawaii, Bank of Hawaii, The Gas Company, Sensus Metering, ThyssenKrupp Safway, Inc.; and the Dowling Company. All of our event sponsors and conference supporters deserve our thanks as well.

Most of all, thanks to you for taking time to be here with us to learn, listen, and network. We must all do our part. Our future depends on it.

Aloha!

Karl Stahlkopf

Karl Stahlkopf
Senior Vice President
Energy Solutions and Chief Technology Officer

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PCEA HAWAII CONFERENCE & EXPO

The Pacific Coast Electrical Association (PCEA) Hawaii was established in 1955 to combine the expertise and resources of the electric companies, allied industries, and professional design consultants. A biennial conference is convened to address industry challenges and solutions, and to explore technical and economic trends.

Hosted by:

Hawaiian Electric Company, Inc.
Maui Electric Company, Ltd.
Hawaii Electric Light Company, Inc.

CONFERENCE HIGHLIGHTS

Thursday, September 6

9:00 am	Maui Ocean Center – Behind the Scenes Tour*
12:00 pm	Registration Opens
1:45 pm – 4:00 pm	Workshops
4:00 pm – 7:30 pm	Welcome Reception & Exhibition Area Open

Friday, September 7

7:00 am – 3:45 pm	Exhibition Area Open
7:30 am	Breakfast Buffet Begins
8:00 am – 10:00 am	General Session
10:30 am – 4:45 pm	Workshops
11:45 am – 1:00 pm	Lunch
6:00 pm – 8:30 pm	Dinner & An Evening Under the Stars with Hapa** *Sponsored by AGT Services and American Electric*

Saturday, September 8

7:30 am – 8:45 am	Breakfast Buffet & Guest Speaker
9:00 am – 11:15 am	Workshops
11:30 am	Conference Ends
12:00 pm	Golf Tournament* and
5:30 pm	Reception at the clubhouse**

*Optional Activities at additional cost.
**Guest tickets can be purchased for an additional fee

Friday Keynote Speakers
Biofuels: Homegrown Energy for Hawaii's Energy Independence
Panelists:
G. Stephen Holaday, President of Agribusiness, Alexander & Baldwin, Inc.
Bob Shleser, Chief Technology Officer, ClearFuels Technology, Inc.
Landis Maez, President, BlueEarth Biofuels

Saturday Speaker
Goats to Windmills: The Future of Cattle Ranching in Hawaii
Sumner Erdman, President, Ulupalakua Ranch

Major Sponsors:

DBEDT STATE OF HAWAII
Rebuild Hawaii
THEGASCOMPANY
DOWLING COMPANY, INC. BUILDING IN BALANCE
ThyssenKrupp Safway, Inc.
Bank of Hawaii
SENSUS

GENERAL SESSION

As part of the strategy to transform utilities into a model of diverse, sustainable supply and efficient use, biofuels represent a large step forward on the path to increasing self-reliance and sustainability. The panel discussion will focus on how the developing biofuels industry could impact Hawaii. The panel representatives offer their perspectives from growing the product, to processing, to a new technology that could revolutionize the production process.

G. Stephen Holaday
President of Agribusiness
Alexander & Baldwin, Inc.

Mr. Holaday oversees the operations of Alexander & Baldwin's (A&B) food product subsidiaries including Hawaiian Commercial & Sugar Company, and is also responsible for Kauai Coffee Company, Inc. and Kahului Trucking & Storage, Inc. He joined A&B in January 1983 as Controller, and was named a Vice President and assigned the additional duties of treasurer in June 1984. In January 1987 he was appointed Chief Financial Officer, and was named Senior Vice President in October 1987. Mr. Holaday was appointed Plantation General Manager in January 1997. Before coming to A&B, he was the Chief Financial Officer of Aloha Airlines, Inc. for six years. He holds a Master's degree in Business Administration from the University of Hawaii and earned his Public Accountant's Certification in 1972.

Landis Maez
President
BlueEarth Biofuels

Mr. Maez has over 27 years experience in the power generation, petroleum and industrial markets, including 15 years with General Electric Company, leading key global energy related business and project development efforts. His past endeavors include Director, Energy Project and Business Development, for Vector Power Systems (a Daimler-Chrysler/Honeywell joint venture), Chevron Energy Solutions Company (Chevron Texas subsidiary), and APS Energy Services Company (a Pinnacle West Capital Corporation subsidiary). He was also the President of Desert Skies Energy Corporation, a privately held energy project development and consulting firm. Mr. Maez has authored several articles on the economics of power generation and industrial processes

Bob Shleser
Chief Technology Officer
ClearFuels Technology Inc.

Dr. Shleser is the Chief Technical Officer of ClearFuels Technology Inc. He has a BS in Agriculture and a Ph.D. in Biophysics from Purdue University. He is the author of the 1993 DBEDT report "Ethanol Production in Hawaii". During the period 1994-96, he managed the Sustainable Biomass Energy Program at the Pacific International Center for High Technology Research evaluating technologies that might use waste biomass to produce ethanol as a means of improving the economic performance of sugar production in Hawaii.

SATURDAY'S BREAKFAST SPEAKER

Goats to Windmills: The Future of Cattle Ranching in Hawaii

The face of ranching in Hawaii has changed drastically over the past 20 years and will continue to do so over the next several decades. Economic challenges are forcing Hawaii's ranchers to become diversified land managers looking for new opportunities. Many of these opportunities involve finding new ways to manage natural resources in ways that can reduce expenses and increase revenues. This can range from planting native trees to installing wind turbines. Some new concepts are finding ranchers raising goats to control weed growth instead of importing herbicides or planting native trees to positively influence the water cycle, and looking to natural/sustainable energy resources for internal use and revenue production.

Sumner Erdman
President
Ulupalakua Ranch

Born in Hawaii and raised in Ulupalakua, Mr. Sumner is the second generation of the Erdman family to lead Ulupalakua Ranch, becoming President in 1995. He is the past President of the Maui Cattlemen's Council, and a Founding Director of the North American Elk Breeders Association.

Workshops

ENERGY EFFICIENCY

"Deal or No Deal" on Myths of Lighting

Join Mr. Smith from GE Lighting and Ms. Borg from Acuity Brands as they discuss some of the myths of lighting in a "Deal or No Deal" game format. Topics include Energy Saving Calculations, Dimming vs. Switching, Temperature Effects, System Performance, Retrofit vs. New Fixture, S/P Ratio, and applications. You will be a real winner with this interactive, group participation review of the most frequently asked and controversial issues of lighting.

Electronic Ballasts: Moving from Fluorescent to HID

Electronic ballasts have changed dramatically in the past few years. Specifying the right ballast means more than stating "electronic". Learn the benefits of Instant Start vs. Program Start, Series vs. Parallel, and the new NEMA Premium ballast specifications. The electronic revolution moves from fluorescent to HID ballast, and discusses the options that are available for high wattage and low wattage HID lamps.

Michael Smith
Lighting Ballast Manager
GE Consumer & Industrial

Mr. Smith has been with GE since 1994. Prior to that, he spent 14 years with General Motors as a Facilities Engineer, where he worked on new building designs and retrofits of existing electrical and lighting systems. He also teaches part-time at Sinclair College and sits on the Advisory Board for Adams Wealth Group as well as the University of Dayton Industrial Board for Engineering.

Renee Borg
Regional Sales Manager
Acuity Brands Lighting

Ms. Borg has been with Acuity Brands Lighting since 2002. Prior to that, she held various positions that include Lighting Product Marketing Specialist and Specification Sales Manager.

The Business Case for Energy Efficiency: Case Studies of Hotels in Hawaii

Hotels and hospitality facilities face special challenges in managing energy cost because of their "24/7" operations, their diverse power needs, and the fact that hotel guests expect cooled guest-rooms and heated swimming pools at all times. For many hotels, the greater challenge might be how to justify investments in energy efficiency when capital improvement budgets are limited.

This workshop will examine energy conservation programs through case studies and cost-benefit analyses of properties in Hawaii. Mr. Lembo will share his unique perspective on energy efficiency in marquee properties and Mr. Kubo will provide the financial perspective on how to get it done.

John Lembo
Senior Director of Energy
North American Hotel Operations
Starwood Hotels & Resorts Worldwide Inc

Mr. Lembo is responsible for the development and on-going operations of Starwood's comprehensive energy management initiative, recognized by the Environmental Protection Agency's ENERGY STAR® program with the Partner of the Year Award for Excellence in Energy Management for 2002 and 2003. Mr. Lembo holds a Bachelor's degree in Mechanical Engineering from the Pratt Institute, Brooklyn, NY. He has published articles in HPAC Engineering magazines on subjects such as comprehensive energy management; combined heat & power; energy information systems; sustainability and supply side energy procurement.

Miles Kubo
President & COO
Energy Industries

Mr. Kubo is President & COO of Energy Industries, an energy project developer specializing in energy conservation and renewable energy management, the recipient of Hawaiian Electric Company's (HECO) "Trade Ally of the Year" Award. Mr. Kubo is a specialist in energy project financing and holds an MBA in Finance from The Wharton School of the University of Pennsylvania.

Industry Trends in Demand Side and Peak Load Management

Many electric utilities are expanding demand side programs to manage peak electric consumption, specifically with Demand Response, Permanent Load Shifting, and Energy Efficiency programs. One challenge they face is the integration of these strategies to maximize effort. This workshop will focus on various program designs and strategies available to maximize Demand Side Management programs with commercial customers.

Paul Notti
West Sales Leader
Honeywell Utility Solutions

Mr. Notti began his career in the Demand Side Management industry in 1991 as an Energy Efficiency Program Manager and has implemented programs ranging from in-home audits to commercial lighting. He currently leads the west sales and business development efforts in demand response, energy efficiency, and water conservation.

Lighting Recipes with Halogen & Ceramic Metal Halide Accent Lamps, CFLs, LEDs, and Fiber Optic Systems

This workshop will discuss various lighting technologies and "cook" up answers to common questions such as "What is the best accent lighting? What are the limitations of compact fluorescents in various applications? Are the new task light, low-bay, reach-in refrigerator, exterior pole and other LED products really the best thing since sliced bread? What about the new fiber-optic systems for accent lighting and reach-in coolers and freezers?"

Stan Walerczyk
Principal
Lighting Wizards

Mr. Walerczyk has eighteen years of experience in the industry including distribution, maintenance, retrofit contracting, 3rd party review, design, new product development assistance, consulting, and research for the Department of Energy and California Lighting Technology Center. He has written over 30 articles, presented over 300 seminars, and has won several awards.

Workshops *Continued*

Pursuing Sustainability at the University of Hawaii-Manoa and Beyond

This workshop will address issues, benefits, and processes of developing energy, water and carbon reduction commitments at the University of Hawaii-Manoa campus. The presentation will highlight connections through the curricula and research but will focus primarily on the actual initiatives and programs that are aimed at energy, water, and dollar savings in the campus' physical plant.

Stephen Meder, Arch.D.
Associate Professor and Director of Center for Smart Building and Community Design
University of Hawaii School of Architecture and Sea Grant College Program

In addition to his joint appointments, Mr. Meder also serves on the Hawaii Energy Policy Forum, the Chancellor's Commission for Climate Change, and the UH Council for Sustainability. He has been active in assisting the UH Administration in reducing energy and water consumption and increasing renewable energy applications.

Advanced Metering Infrastructure: Smart Meters, Smart World

This workshop will present a high-level overview and benefits of wireless technologies available. The workshop will also discuss how Advanced Metering Infrastructure (AMI) impacts utility business models of the future.

Derl Rhoades
Principal
Alabama Power

Mr. Rhoades has been employed with Alabama Power Company for 29 years. He has a Bachelor of Science Degree in Computer Sciences from the University of Alabama at Birmingham. Over the last 19 years, Mr. Rhoades has been involved with the installation of various AMI pilots and with multiple technologies.

Earle Ifuku
Manager, Customer Installations
Hawaiian Electric Company

Mr. Ifuku oversees the Customer Installations Department, whose mission is to provide high-quality, cost-effective and timely planning, design and management of the installation of distribution systems, service connections and meter services. Previously, he was Manager of Customer Service at Maui Electric Co. Mr. Ifuku has also worked in various other areas at Hawaiian Electric Company including Regulatory, IT, and Integrated Resource Planning.

How Macy's Reduced its Energy Usage by 40%!

Have you ever wondered how retail stores manage their energy bills when lighting and air conditioning are so critical to their success? This workshop will highlight the steps taken to reduce the energy profile of Macy's stores in Hawaii, while improving the lighting and mechanical systems. The presentation will discuss the stores' energy management systems, as well as operational changes and capital improvements implemented in recent years, including lighting retrofits, variable frequency drives, outside air dampers (with CO2 sensors), and Turbocor chillers HP. In this workshop you will hear about the creative ideas that helped accomplish 40% energy reduction and how it can be applied to your facility.

Carl Burns
Corporate Energy Manager
Macy's West

Mr. Burns has been in the maintenance and energy department for 30 years. As Corporate Energy Manager, he is responsible for an energy budget of $60 million, energy management systems, developing and implementing energy standards and capital projects for 192 buildings.

FACILITIES & PLANT ENGINEERING

Emerging Power Quality Standards and How They Will Improve Your Process and Facility Uptime

This workshop will review some of the existing and emerging power quality standards that can be used to specify equipment and processes that are more immune to power quality variations. The workshop will also include real case studies showing some simple methods for improving power quality of performance chillers, HVAC systems, pumps, elevators, and more.

Doug Dorr
Project Manager
Electric Power Research Institute (EPRI)

Mr. Dorr develops and manages research projects in electric distribution and end-use areas including power quality, lighting protection, stray voltage, and energy efficiency. He also chairs the IEEE Emerald Book Working Group, as well as the IEEE Surge Protective Devices Committee.

Generator Basics and Preventive Maintenance

This workshop will present an overview of generator basics including a review of various applications, fuel types, and a summary of current EPA regulations affecting engine generators. The presentation will also cover recommended preventative maintenance practices for standby generators.

Clifford Yuen, P.E.
Sales Manager
Hawthorne Power Systems

Mr. Yuen has over 10 years of experience in sales, design, and project management of standby and prime power plants including distributed generation, and co-generation facilities. He also holds a Master's degree in Mechanical Engineering.

Financing Renewable Energy Projects

Implementation of a photovoltaic system for your business can be both maintenance free and green for the environment and your pocketbook. See how different financing models can help you take advantage of alternate energy with no money out of your pocket.

Jae Kwak
Vice President of Equipment Leasing Bank of Hawaii

Mr. Kwak is a 14 year veteran of Bank of Hawaii (BOH) and has worked as a Business Banker, Branch Manager, and 7 years with BOH's Equipment Leasing as a Lease Officer. During his tenure, he has structured financing for alternate energy and equipment related to conservation measures in both the direct finance and Power Purchase Agreement formats

Marco Mangelsdorf
President
ProVision Technologies, Inc

Mr. Mangelsdorf has been with ProVision Technologies, Inc. since they opened their doors in 2000. He has been involved in the renewable energy field since 1978 and has designed and installed systems across Hawaii, California, and Asia.

Automatic Fault Diagnostics from DDC Data

If your facility wastes energy, can your Energy Management System (EMS) tell you why? And how much it's costing you? Many facilities will have an EMS that collects an extensive amount of data and yet, may not warn you of possible errors. Mr. Santos will explain the types of software that will analyze your facility's data, provide helpful messages and can also aid in the retro-commissioning process.

Commissioning: An Overview

This session will cover the basic elements of the commissioning process including typical scopes of work, relative costs for projects, and issues that influence commissioning for owners and contractors. Hawaii-based projects will be used as examples in the discussion. Fundamental Commissioning required for LEED and the additional scope items required for the Enhanced Commissioning Credit will also be reviewed.

Jay Santos
Principal
Facility Dynamics

Mr. Santos is co-founder and Principal of Facility Dynamics, a commissioning-focused engineering firm founded in 1989. With over 28 years of experience, Mr. Santos is involved in DDC Master Planning, Controls and Commissioning Training, and Controls Design and Commissioning projects. He has overseen controls master plans at various commercial and government facilities including UC-Davis, the NSA, Marine Corps Base Hawaii, and others.

Power Quality and Renewables

This workshop will review various large inverter systems for addressing power quality issues that sometimes accompany renewable systems on an electric grid. We'll look at the electronic shock absorber for island wind farm applications, a distributed energy storage system for utility peak shaving, and inverters for photovoltaic applications. The workshop will also review distributed static compensators for wind, voltage support, and voltage sag applications.

Jan Visser, P.E.
Western Regional Applications Director of Power Quality Systems
S&C Electric

Mr. Visser has over 20 years experience in the field of Power Engineering. He is a graduate of the University of Guelph.

Distributed Generation and Demand Response: Benefiting Companies and Communities

Distributed Generation (DG) – smaller power generating systems located at or near the end user – can benefit consumers and the electric utility. Certain DG can help meet utility needs for generating capacity or can defer system upgrades. For the non-utility DG user, potential benefits include lower energy costs and improved power reliability. This workshop discusses technologies and applications, and provides practical tips on considering DG for your operation. Hawaiian Electric Company (HECO) also describes its current DG activities and its demand response program.

Scott Seu
Manager, Energy Projects
Hawaiian Electric Company

Mr. Seu oversees HECO's DG initiatives and previously managed the Customer Installation and Environmental Departments. Prior to HECO, Mr. Seu was an engineer at Westinghouse and at an environmental company. He holds a BS and an MS degrees in Mechanical Engineering from Stanford University.

Kevin Chock
Program Manager, EnergyScout for Business
Hawaiian Electric Company

Mr. Chock is responsible for overseeing HECO's Commercial & Industrial Direct Load Control Program. Mr. Chock has also worked in HECO's Energy Services Department where he assisted customers in identifying and implementing cost effective energy efficiency projects. Prior to HECO, he spent over 5 years in the pulp and paper manufacturing industry. He holds a BS degree in Natural Science from the University of Puget Sound and a BS degree in Mechanical Engineering from Columbia University.

THURSDAY, SEPTEMBER 6

9:00am Maui Ocean Center – Behind the Scenes Tour (optional activity)
12:00pm Conference Registration Opens

	ILIMA	PIKAKE	MAILE
1:45pm - 2:45pm	**How Macy's Reduced its Energy Usage by 40%!** Carl Burns, Macy's West	**Lighting and Sustainability: Ideas for a Brighter Future,** Patricia Becker, Philips Lighting Co.	**Power Quality and Renewables,** Jan Visser, S&C Electric
3:00pm - 4:00pm	**Industry Trends in Demand Side and Peak Load Management,** Paul Notti, Honeywell Utility Solutions	**Energy Modeling for LEED® Projects,** Tom Lunneberg, Innovative Energy Solutions	**Selecting an Efficient Cooling Tower: Owning and Operating Cost Analysis,** David Wylie, ASW Engineering
4:00pm - 7:30pm	**Welcome Reception & Exhibitions Open - Haleakala Ballroom 1**		

FRIDAY, SEPTEMBER 7

7:00am Exhibition Booths Open/Coffee Service - Haleakala Ballroom 1
7:30am Breakfast Buffet Begins - Haleakala 2 & 3
8:00am - 10:00am General Session - Haleakala 2 & 3
Blessing
Aloha from The Honorable Maui Mayor Charmaine Tavares
Opening Remarks, T. Michael May, President & CEO, Hawaiian Electric Company, Inc.
Video "Today's Innovation.. Tomorrow's Independence"

Introduction to Panel Discussion, Karl Stahlkopf, Senior Vice President, Energy Solutions and Chief Technology Officer, Hawaiian Electric Company, Inc.
Keynote Panel Discussion: Biofuels in Hawaii
Moderator, Edward L. Reinhardt, President, Maui Electric Company, Ltd.
Panelists: **Stephen Holaday**, President of Agribusiness, Alexander & Baldwin, Inc.
Landis Maez, *President, BlueEarth Biofuels*
Bob Shleser, Chief Technology Officer, ClearFuels Technology, Inc.

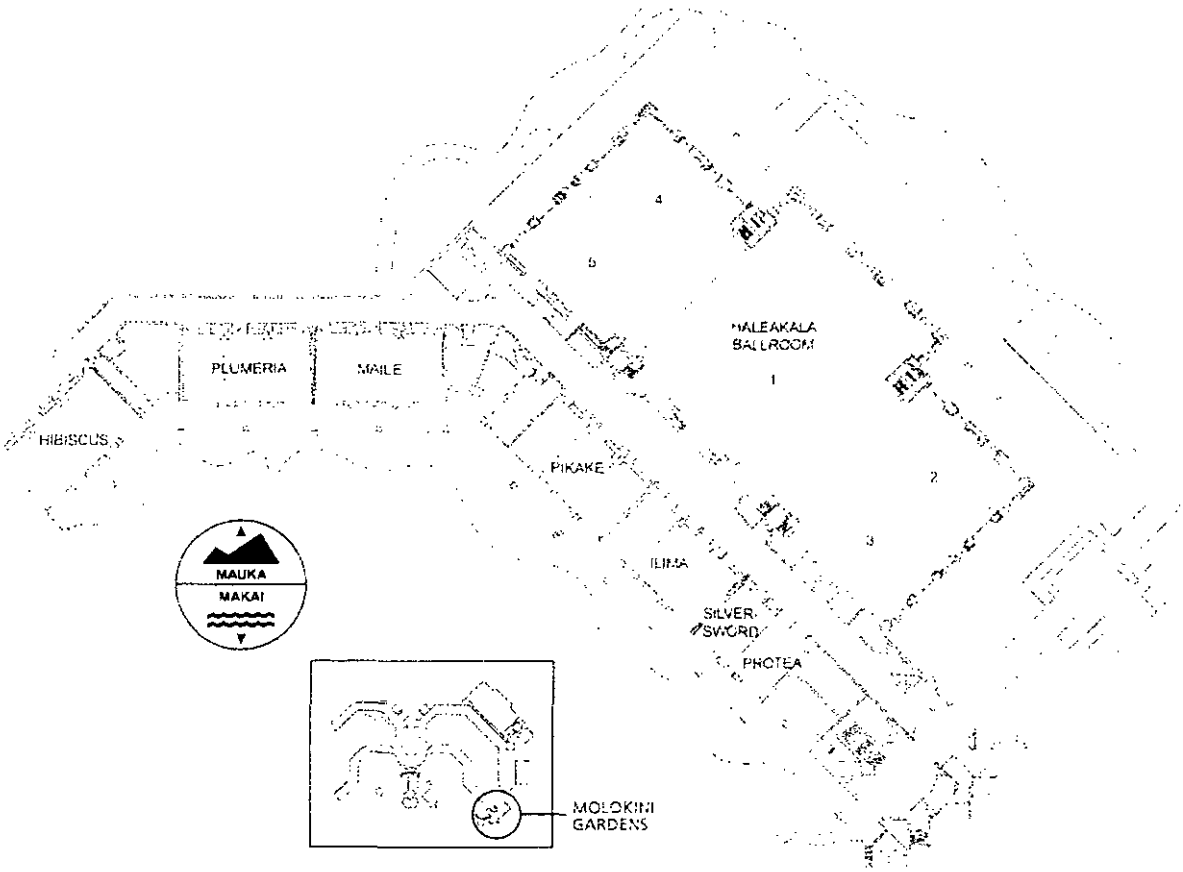
	ILIMA	PIKAKE	MAILE	HIBISCUS
10:00am - 10:30am	**Break - Visit Exhibits**			
10:30am - 11:30am	**Electronic Ballasts: Moving from Fluorescent to HID,** Michael Smith, GE	**Sustainable Development on Maui and Building Insights: Realizing Zero Impacts,** Everett Dowling, Dowling Company; Elaine Aye, Green Building Services, Inc.	**Automatic Fault Diagnostics from DDC Data,** Jay Santos, Facility Dynamics	**Generator Basics and Preventive Maintenance,** Clifford Yuen, Hawthorne Power Systems
11:45am - 1:00pm	**Lunch in the Exhibition Area – Haleakala Ballroom 1**			
1:00pm - 2:00pm	**Lighting Recipes with Halogen & Ceramic Metal Halide Accent Lamps, CFLs, LEDs, and Fiber Optics,** Stan Waterczyk, Lighting Wizards	**An Introduction to Photovoltaics in Hawaii,** Brad Albert, Rising Sun Solar, Inc. and Hawaii PV Coalition	**Commissioning: An Overview,** Jay Santos, Facility Dynamics	**Automatic Transfer Switches,** Clay Anderson, West Pacific Power Products
2:15pm - 3:15pm	**The Business Case for Energy Efficiency: Case Studies of Hotels in Hawaii,** John Lembo, Starwood Hotels & Resorts & Miles Kubo, Energy Industries	**Concentrated Solar Power: A New Look at an Old Technology,** Jim Maskrey, Sopogy, Inc.	**How To Keep Variable Frequency Drives from Driving You Crazy,** David Wylie, ASW Engineering	**Distributed Generation and Demand Response: Benefiting Companies and Communities,** Scott Seu & Kevin Chock, HECO
3:15pm - 3:45pm	**Refreshments in the Exhibition Area – Haleakala Ballroom 1**			
3:45pm - 4:45pm	**Advanced Metering Infrastructure: Smart Meters, Small World,** Dell Rhoades, Alabama Power & Earle Ifuku, HECO	**Getting to 50,** Mark Frankel, New Buildings Institute	**Financing Renewable Energy Projects,** Jae Kwak, Bank of Hawaii & Marco Mangelsdorf, ProVision Technologies, Inc.	**Emerging Power Quality Standards and How They Will Improve Your Process and Facility Uptime,** Doug Dorr, EPRI
6:00pm - 8:30pm	**Dinner Buffet - An Evening Under the Stars with HAPA in the Molokini Gardens**			

SATURDAY, SEPTEMBER 8

7:30am - 8:45am Breakfast Buffet and Speaker - Haleakala 2 & 3

	ILIMA	PIKAKE	MAILE
9:00am - 10:00am	**Pursuing Sustainability at the University of Hawaii-Manoa and Beyond,** Stephen Meder, University of Hawaii	**Architectural Wind and Other Innovative Energy Solutions,** Jeffry Wright, AeroVironment	**Ultraviolet Water Treatment Fundamentals and Applications,** Eric Peterson, Aquafine Corp.
10:15am - 11:15am	**"Deal or No Deal" on Myths of Lighting,** Michael Smith, GE & Renee Borg, Acuity Brands Lighting	**Benefits of 100,000 Tons of Sea Water Air Conditioning,** David Rezachek, Honolulu Sea Water Air Conditioning	**Climate Protection Pays - A Case Study of Sonoma County's Climate Protection Plan,** Tim Holmes, Kenwood Energy

11:30am Conference Ends
12:00pm Check in for Golf Tournament (optional activity)
5:30pm Reception at Makena Clubhouse (optional activity)



Workshops *Continued*

Selecting an Efficient Cooling Tower: Owning and Operating Cost Analysis

In this session, we will look at several aspects of cooling tower efficiencies and as a group exercise, compare the economics of several towers that range from cheap and inefficient to efficiently oversized.

How to Keep Variable Frequency Drives from Driving You Crazy

As wonderful as variable frequency drives (VFD) are, there are still some problems for the motor and other upstream equipment. In this session, the electromagnetic disturbances that emanate from a VFD will be discussed as well as associated mitigation techniques.

David Wylie, P.E.
Principal
ASW Engineering

Mr. Wylie is a mechanical engineer who specializes in commercial and industrial energy efficiency designs, improvements, and training seminars. He also conducts training for various utilities and universities in California.

Automatic Transfer Switches

This workshop will conduct a general discussion of automatic transfer switches, applicable codes, available modes of switching, benefits of bypass isolation types of automatic transfer switches, and recommended maintenance practices.

Clay Anderson
Vice President
West Pacific Power Products

Mr. Anderson has been involved in the electrical wholesale distribution as well as the agency business in Hawaii since 1979. He has extensive experience in the electrical apparatus for low voltage distribution through transmission level voltage classifications, as well as years of experience with automatic transfer switches, UPS systems, and engine ancillary equipment.

RENEWABLE & SUSTAINABLE

An Introduction to Photovoltaics in Hawaii

Considering a Photovoltaic (PV) system installation? What should you know before going solar? This workshop is geared towards those who are considering a PV system and includes information about system design, cost, and performance. The workshop will also cover grid tie basics.

Brad Albert
President
Rising Sun Solar Electric & Hawaii PV Coalition

Mr. Albert is a Sharp certified PV system designer and installer and owner of Rising Sun Solar Electric. Mr. Albert is also the President of the Hawaii PV Coalition, a non-profit organization working to promote solar electricity and energy independence for the State of Hawaii.

Lighting and Sustainability: Ideas for a Brighter Future

In this workshop, attendees will learn the fundamentals of sustainable lighting, hear options in the area of energy efficiency, environmental impact, and lighting pollution, obtain an overview of the benefits of sustainable lighting, and get a better understanding of the role of lighting in LEED®.

Patricia Becker LC
Technical Support Representative, Western Zone
Philips Lighting Company

Ms. Becker has been in the lighting industry for 25 years and has been active in IES throughout her career. She has worked for Shamrock Lighting and Hubbell Lighting in sales, All-Phase Electric Supply as the Lighting Specialist and has been with Philips Lighting for 10 years. In her current position, Ms. Becker provides technical expertise to engineers, municipalities, utilities, and school districts in the western zone.

Architectural Wind and Other Innovative Energy Solutions

This workshop will present an overview of AeroVironment's company history, along with how the company has commercialized its first building integrated wind solution.

Jeffry Wright
Director of Strategic & Global Accounts
AeroVironment

Mr. Wright leads the global sales for AeroVironment's Energy Technology Center and his current mission which focuses squarely on Architectural Wind. Over his career, Mr. Wright has had the fortune of taking several innovative start-ups from their initial concept stage through commercialization. He holds degrees in Marketing and Communications along with an Executive MBA.

Sustainable Development on Maui and Building Insights: Realizing Zero Impacts

Dowling Company is taking the lead in green development in the State of Hawaii. The firm is deeply committed to green building and is currently developing 40% of Hawaii's LEED projects. The firm's office building in Wailuku was Maui's first building to be LEED certified. Dowling Company has been very active in promoting public awareness of global climate change and intends to develop the Makena Resort into the most sustainable resort in the United States.

The leadership in energy and environmental design LEED green building rating system is the nationally accepted benchmark for the design, construction, and operation of high performance buildings. This presentation will cover strategies, opportunities, and lessons learned from the Makena Resort project. We will review approaches used by design and construction teams and discuss key strategies that were successfully integrated.

Everett Dowling
President
Dowling Company Inc.

Mr. Dowling has been active in the real estate development business for over 25 years. He is the President of Dowling Company, Inc., a Maui-based real estate development company

Elaine Aye
Senior Design Consultant
Green Building Services, Inc

Ms. Aye is a member of the USGBC LED-CI Core Committee, and co-developed the training module for LEED for Product Manufacturers. As a member of the USGBC Training Faculty, she is a frequent speaker at national building conferences and trainings. Currently, Ms. Aye is consulting on a range of LEED-EB, LEED for Commercial Interiors (LEED-CI), and LEED-NC projects.

Concentrated Solar Power: A New Look at an Old Technology

This workshop surveys industry developments in Concentrated Solar Power (CSP), a form of solar energy that is anticipated to contribute gigawatts of power worldwide over the next decade. While traditional CSP has played a role in providing central power plants on the utility scale, advances in technology are attracting customers to CSP in commercial air conditioning, process heating, and power generating markets.

Jim Maskrey
Vice President of Sales & Business Development
Sopogy, Inc

Mr. Maskrey began his solar career in the late 70's with the Solar Energy Research Institute (now known as National Renewable Energy Laboratory). He has over 25 years in the energy efficiency and renewable energy fields and most recently spent over 10 years with Hawaiian Electric Company where he served as the Commercial & Industrial DSM Program Manager and Commercial & Industrial Account Manager.

Energy Modeling for LEED® Projects

This workshop will address how an energy model can be used to document the level of efficiency achieved by a project pursuing a LEED rating. We will cover the LEED documentation requirements, as well as pitfalls to avoid whether you are a building owner or an actual occupant. We'll also address ways that energy modeling can be used to make good design decisions throughout the design process. Several case studies will be presented to support the learning objectives of this session.

Tom Lunneberg
Principal
Innovative Energy Solutions

Mr. Lunneberg has over 15 years of experience in the fields of energy efficiency and building optimization. He is a licensed Mechanical Engineer, a Certified Energy Manager, and a LEED-Accredited Professional. He also holds a BS in Mechanical Engineering and an MBA from San Diego State University.

Getting to 50

This workshop will provide an overview of successful design strategies and technologies that can be used to achieve significant energy-use reductions in the commercial sector. The session focuses on specific case studies and discusses the technologies and design features used in these projects. The session will also discuss the relationship between modeled and actual energy use; and put these issues in the context of national efforts to achieve significant energy use reductions.

Mark Frankel
Technical Director
New Building Institute

A licensed architect and LEED Accredited Professional, Mr. Frankel is the Technical Director of the New Buildings Institute, a non-profit corporation that works with national, regional, state, and utility groups to research, educate, and develop programs for improved energy performance in commercial new construction. Mr. Frankel has been consulting on sustainable design and energy efficiency for 15 years, and his career has encompassed a broad range of technical topics, including energy efficiency and alternative energy technologies, building and site design, indoor air quality, daylighting, high performance mechanical systems, and integrated design.

Benefits of 100,000 Tons of Sea Water Air Conditioning

Sea Water Air Conditioning (SWAC) systems provide numerous benefits to stakeholders. More than 100,000 tons of cooling load have been identified as technically feasible SWAC developments on Oahu. This presentation will: (1) briefly describe the SWAC process, (2) summarize the benefits of 100,000 tons of SWAC, and (3) provide an overview of SWAC projects currently under development for downtown Honolulu, as well as proposed projects for West Waikiki/University of Hawaii, East Waikiki, and Pearl Harbor/Hickam/Airport.

David Rezachek
Associate Development Director
Honolulu Sea Water Air Conditioning, LLC

Dr. Rezachek is a registered professional Mechanical Engineer in the State of Hawaii and holds a Ph.D. in Ocean Engineering. He has over 30 years of experience in energy and environmental systems research, design, demonstration, analysis and engineering and project management.

Workshops *Continued*

NEW TECHNOLOGIES

Climate Protection Pays – A Case Study of Sonoma County's Climate Protection Plan

Sonoma County implemented a unique approach to evaluating options to meet their goal of reducing greenhouse gas (GHG) emissions by 20% by the year 2010. Comprehensive life cycle cost analyses were completed for more than 40 GHG reduction options resulting in two alternative action plans. This presentation will provide an overview of the goals and objectives, approach to developing the Action Plan, implementation methodology, Action Plan options, and the current status of the Action Plan

Tim Holmes P.E.
Principal
Kenwood Energy

Mr. Holmes has expertise in energy efficiency, distributed generation, greenhouse gas management, and project implementation. He has worked with utilities, government, schools, hospitals, wineries, hotels, industrial complexes, and agricultural facilities. He has completed hundreds of energy audits and implemented dozens of utility programs

Ultraviolet Water Treatment Fundamentals and Applications

Today's process, utility and wastewater treatment systems are being challenged at an accelerating rate due to tighter specifications and increasing regulations. This workshop will demonstrate how UV water treatment, a non-chemical form of water treatment that does not alter the color, odor, taste, pH, should be incorporated into every water treatment system. By doing so one can decrease operating and maintenance costs, and reduce chemical demand. Applications include disinfection, ozone destruction, Total Oxidizable Carbon (TOC) reduction, and chlorine reduction.

Eric Peterson
Director
Aquafine Corporation

Mr. Peterson has 21 years of global experience in the water treatment industry including 19 years in the UV industry and two years in system integration. He has a Masters in Business Administration and has held multiple positions in sales and marketing management.

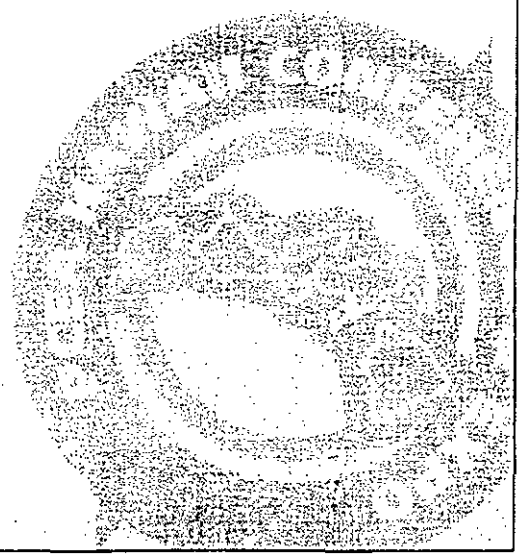
Workshops and Speakers are subject to change.

An Evening Under the Stars with HAPA

Friday, September 7 6:00 pm – 8:30 pm
Molokini Gardens

Enjoy a scrumptious buffet dinner followed by the captivating music of HAPA. Often encapsulated as the "Sound of Maui," HAPA's music evokes a place that many people at different times have referred to as "heavenly". The overriding quality of their music is one of beauty and serenity, found in the majestic tones of the oli (chant), mele (song), the elegant movements of the sacred dance known as hula, and the exhilarating innovative sounds of virtuoso slack key guitar. HAPA's self entitled debut CD released in 1993, swept the 1994 Na Hoku Hanohano Awards (Hawaii's equivalent of the Grammy's), becoming the biggest selling CD by a group or duo in the history of recorded Hawaiian music. The group's ground breaking music has established them as the most recognized name in Hawaiian music internationally since their debut release, with sold-out shows from Tokyo to New York.

Written by Barry Rivers, President, Maui Film Festival
June, 2003



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ENERGY INDUSTRIES

Hawaii Carpenters Union
Local 745

Honeywell

Exhibitors

Booth number indicated in ( )

Acuity Brands Lighting (22)
Energy efficient lighting fixtures
(949) 350-0104

ADMOR HVAC Products, Inc. (39, 40)
Air conditioning, insulation, heat pumps, Honeywell Controls AERS, E-Tech or engineered systems
(808) 841-7400

AGTServices, Inc. (43)
Turbine/Generator testing, inspection, and repair services
(518) 843-1112

American Electric Co., LLC (47, 48)
Electrical Services
(808) 848-0751

Bank of Hawaii (2)
Equipment Finance
(808) 537-8810

Central Pacific Bank (9)
Home of Fiercely Loyal Banking and experts in commercial leasing equipment
(808) 544-0740

Dowling Company, Inc. (49)
A Maui-based real estate development company committed to sustainable development
(808) 270-0530

Electric Power Research Institute (EPRI) (46)
Research related to energy efficiency, smart communications
(650) 799-0480

Energy Eye, Inc. (16)
Wireless sensor based HVAC energy management control systems
(808) 222-8706

Energy Industries (23)
Energy efficient lighting and Energy Services
(808) 839-7300

Energy Management Consulting & Construction (14)
VRTX non-chemical water treatment for cooling towers/condensers
(808) 205-2705

Falcon Waterfree Technologies (27)
Patented waterfree urinal systems that are environmental, hygienic, and cost-effective
(616) 954-3570

Feit Electric (13)
Compact fluorescent light bulbs, LED light bulbs and fluorescent light fixtures
(562) 463-2852

GE Power Quality (21)
ATS, UPS, TVSS, PSG and Service
(800) 637-1738

GE Lumination (20)
Manufacturer and distributor of LED Traffic Signal Lamps
(216) 606-6555

GEXPRO (4)
Electrical distribution equipment and energy efficient lighting
(808) 295-3679

Grainger (12)
Industrial Supplies
Nation's leading Business-to-Business supplier for maintenance and repair parts
(808) 423-0028

GreenPath Technologies, Inc. (34, 35)
Provider of turn-key solutions for state-of-the-art photovoltaic technology
(808) 748-8406

HSI Electric (48)
Electrical products and services
(808) 845-5555

Hawthorne Power Systems (36)
Caterpiller dealer offering generators, ATS, switchgear, and UPS systems
(808) 676-0322

HECO/MECO/HELCO EnergySolutions℠ for Business (42)
Utility energy efficiency incentive programs
(808) 543-4790

Hoku Solar (11)
Turnkey photovoltaic solar solutions for residential and commercial applications
(808) 682-7200

Island Controls, Inc. (26)
Energy management system contractor
(808) 421-1600

Kone, Inc. (19)
Elevator installation, maintenance, repairs, and upgrades
(808) 845-3291

Lenox Metals, LLC (38)
Metal recycling services. Recycling of used remnant cable, power equipment, and hardware
(808) 682-5539

Mr. Sandman, Inc. (41)
Energy efficient compressed air systems
(808) 833-2500

MULTISTACK (32)
Modular water chillers
(608) 317-3347

Norman S. Wright (5, 6, 7, 8)
Daikin Products, McQuay chillers with Turbocor compressors, and William Dehumidifiers
(808) 294-4202

Pacific Energy Service & Facilities, Inc. (28)
Energy management and hotel renovations
(619) 224-1735

Philips Lighting Company (17)
Energy efficient lighting
(808) 220-5513

ProVision Technologies, Inc. (10)
Solar electric/photovoltaic specialists
(808) 969-3281

Rising Sun Solar (18)
Design/install renewable energy systems and electrical contracting services
(808) 579-8287

S&C Electric Company (31)
Inverter systems for power quality and renewables
(503) 697-4305

Safety Systems Hawaii, Inc. (3)
Safety equipment, supplies, services and training
(808) 847-4017

Sensus Metering Systems (37)
Provider of Flexnet AMI Systems, gas, water, and electric meters
(805)-562-5372

Siemens Energy & Automation (15)
Provider of a wide array of products, systems and engineering services
(808) 833-6687

Solar Integrated (45)
Manufacture and install photovoltaic power systems for commercial and industrial applications.
(323) 231-0411

Sopogy, Inc. (30)
Manufacturer and distributor of concentrated solar power products
(808) 457-5703

Sunburst Designs (33)
Ballasts, lighting, motion sensors
(808) 847-1960

TCP, Inc. (24)
Energy efficient lighting
(330) 995-1338

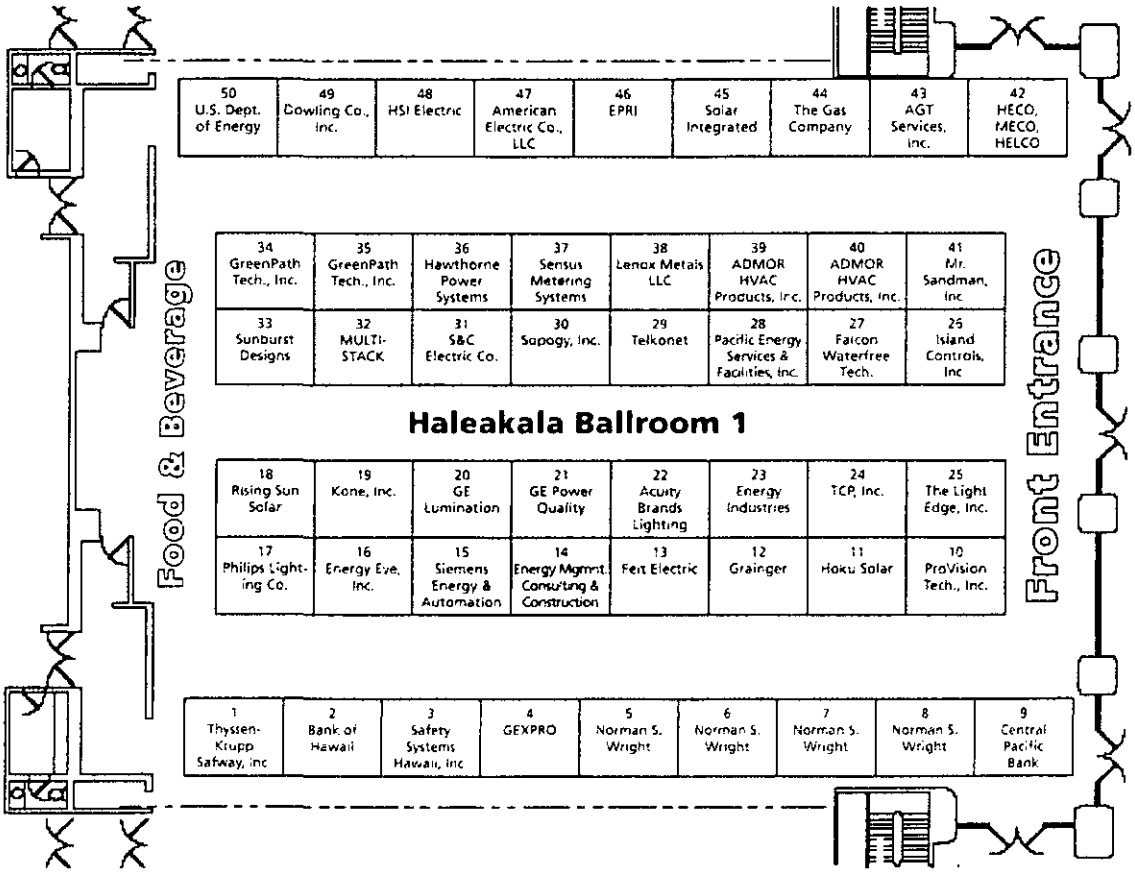
TELKONET (29)
Telkonet SmartEnergy reduces energy management by up to 30% and more
(240) 912-1800

The Gas Company (44)
Provider of gas energy service to homes and businesses throughout Hawaii
(808) 594-5513

The Light Edge, Inc. (25)
Energy saving commercial/industrial lighting
(503) 968-9968

ThyssenKrupp Safway, Inc. (1)
Scaffold rental and building services
(808) 682-0304

U.S. Dept. of Energy (50)
(303) 275-4828



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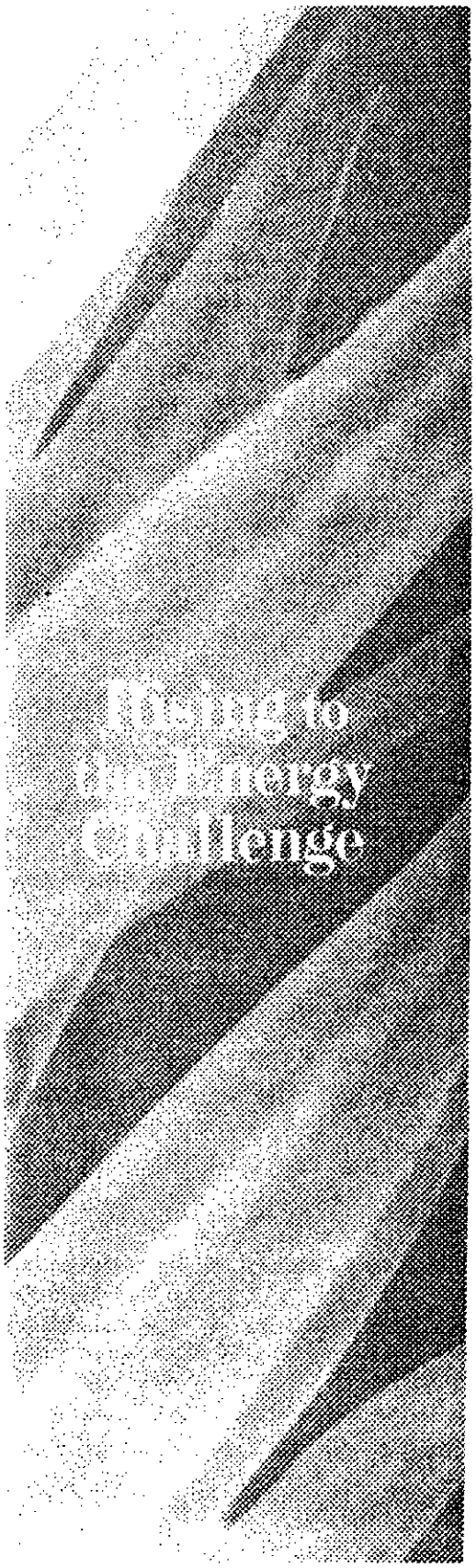

EFFICIENT ELECTRO-TECHNOLOGY EXPO & CONFERENCE
HAWAIIAN ELECTRIC CO.

HAWAII CONVENTION CENTER
NOVEMBER 29, 2006

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Aloha

WELCOME TO THE SEVENTH BIENNIAL EFFICIENT ELECTRO-TECHNOLOGY EXPOSITION AND CONFERENCE (ENERGY EXPO).

Energy efficiency is an ongoing focus for Hawaiian Electric Company. To ensure continued system reliability and to save money for our customers, we need to continue to reduce demand through energy efficiency. We've worked with many companies and organizations to help lower energy costs and boost their profits by using energy more productively. At this year's Energy Expo, we provide tools and insights on how we can apply advanced technologies and strategies to Rise up to our Energy Challenges.

Our Energy Expo has been consolidated into a one day event featuring 23 workshops and over 60 exhibitors. Workshop topics include demand load control programs, doubled utility incentive rebate programs, green building, renewable technologies and other energy related technologies. In addition to the workshops and exhibits, the Energy Expo features a breakfast buffet, luncheon and pupu reception. The 2006 Energy Efficiency Awards and the Trade Ally of the Year will be announced at the Expo luncheon. This full day event offers great opportunities for peer networking, exchanging information, and learning about the latest technologies, products and industry trends.

This year's Energy Expo would not have been possible without all of our sponsors, speakers and exhibitors. I would like to extend my sincere "mahalo" to the State of Hawaii's Department of Business, Economic Development, and Tourism; the U.S. Department of Energy; Rebuild Hawaii; Hawaii Electric Light Company; and Maui Electric Company for their assistance and support. My deep appreciation goes to all of our speakers who share with us their expertise, knowledge and experience. Our gratitude also extends to Hawaii's remarkably supportive trade ally community exhibiting with us this year. Through their efforts and resources, we can see, touch and feel for ourselves the latest state-of-the-art technologies.

Thank you for joining us at the Energy Expo. We hope you have a rewarding and productive day with us!

Me Ke Aloha Pumehana
(With warmest Aloha),

Karl Stahlkopf

Karl E. Stahlkopf, Ph.D.
Senior Vice President
Energy Solutions & Chief Technology Officer

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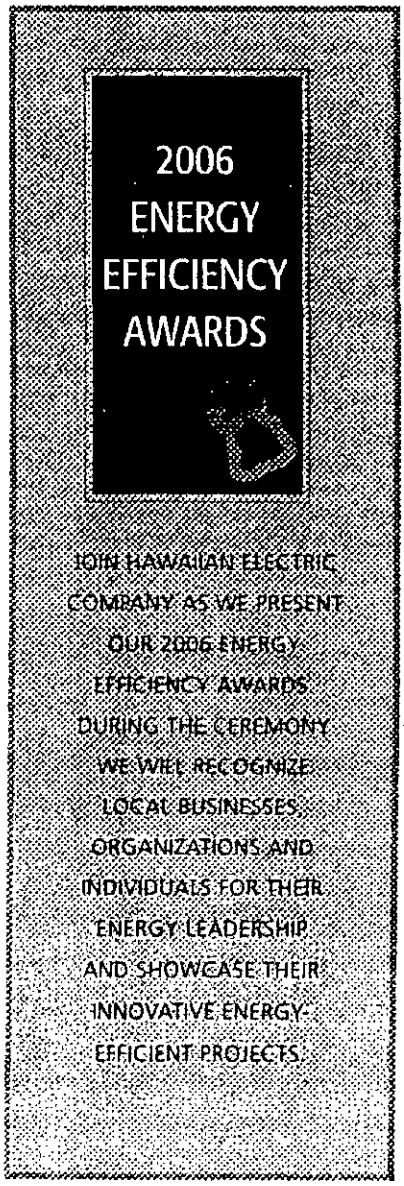

Rising to the Energy Challenge

Expanded energy workshop topics including green building, renewable technologies and advancement in energy related technology applications.

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Workshops

ADVANCES IN LIGHTING SYSTEMS

Super T8 to the Rescue?

Heard the hype? Learn how to do T8 to T8 retrofits cost effectively and how to use the best T8 systems in new construction. High lumen 32W F32T8s and extra efficient ballasts also make T12 to T8 retrofits a slam dunk. Also see if 25 – 30W F32T8s are really that great, and how do T5s and T5HOs compare with T8s? During the session you'll also find out if dimming ballasts really save energy cost effectively, and more...

Stan Walerczyk
Principal
Lighting Wizards
Walnut Creek, CA

Mr. Walerczyk is principal of Lighting Wizards, a California lighting consulting firm with 17 years of experience including distribution, maintenance, retrofit contracting, 3rd party review, design and new product development assistance. He is also a research consultant for the DOE & California Energy Commission. Seventy-five percent of his retrofit projects are T8 to T8. More details available at www.lightingwizards.com.

Electronics in HID Lighting — A Viable Economic Solution

Introduce yourself to some of the latest energy efficiency advancements in Electronic High Intensity Discharge (EHID) products. Workshop will cover EHID's ability to extend lamp life, increase efficiency and dim to 35-50% to create on average about 40% energy savings over baseline.

Ken Patterson
Consulting Director
Advanced Energy Innovations
Menifee, CA

Mr. Patterson is an energy efficiency consultant who works as an owner advocate for clients. In his role with Advanced Energy Innovations, Mr. Patterson provides expert analysis, auditing, consulting, and equipment specifications for his clients. Mr. Patterson has 23 years of experience in the lighting /energy efficiency field.

Solving Today's Energy Problems with LED Lighting

LED technology can dramatically reduce power consumption by up to five times (5X) and can decrease maintenance and construction costs as well. See how LED lighting can be applied to residential and commercial lighting applications.

Manuel Lynch
President & CEO
XOBOG
Tustin, CA

Mr. Lynch is the President & CEO of XOBOG, a company focused on educating the public on energy efficient technologies ranging from electric drive systems to energy efficient lighting for homes and businesses using advanced LED technology. Prior to that, he served as President and CEO of Permlight Products for 4 years and VP of Marketing for a military semiconductor company. Mr. Lynch's degree is in theater lighting and set design.

Innovations in Specialty Lighting

Advances in lighting technologies have increased energy efficiency, lengthened lamp lives, and improved color quality during this highly-informative session. Learn about these and other innovations in lighting, presented by one of the field's foremost lighting experts.

Michael Smith
Lighting - Ballast Manager
GE Consumer & Industrial
Huber Heights, OH

Mike Smith has been with GE since 1994. Before GE, he spent 14 years with General Motors as a Facilities Engineer, providing building designs and retrofitting electrical and lighting systems. Mr. Smith is a frequent guest speaker at the Institute, and teaches part-time at Sinclair College. He is on the Advisory Board for Adams Wealth Group and the University of Dayton Industrial Board for Engineering.

AIR CONDITIONING EFFICIENCY

Best Practices: Energy Efficiency and Acceptable Indoor Air Quality

Find out how energy efficiency and acceptable indoor air quality (IAQ) can be achieved simultaneously. In Hawaii integrating building materials, natural ventilation, and cooling requirements can produce positive results. Through a series of examples and case studies, this workshop will explore how thoughtful and sometimes innovative design can produce efficient operations and acceptable IAQ.

George Benda
Chairman & CEO
Chelsea Group Ltd.
Maunaloa, HI

Mr. Benda brings over 25 years of experience in energy and IAQ issues to his consulting practice. He has led major projects in Hawaii, including assisting UH Manoa in its recovery from the 2004 flood. His company has conducted energy audits and assisted clients in receiving US EPA Energy Star and USGBC LEED certification. Prior to starting Chelsea Group, Mr. Benda was CEO of HEC Energy Corporation. He also served as Director of Energy Programs for the State of Illinois during a previous energy crisis.

Efficient Dehumidification of Outside Air

This workshop will zero-in on Hawaii's unique climate conditions and will address issues related to dew point selection, dehumidification enhancement and system selection.

Evert Osterman
Western Regional Manager
Desert Aire
Carlsbad, CA

As West Coast Regional Manager for Desert Aire, Mr. Osterman has over 15 years of experience in indoor pool and outside air dehumidification. Covering a territory from Alaska to Texas and Hawaii to Louisiana, he is familiar with both dry and humid climate conditions. Mr. Osterman previously addressed at the Honolulu ASHRAE meeting on this subject.

Variable Refrigerant Flow Air Conditioning Systems

Discover the new state-of-the-art Variable Refrigerant Flow (VRF) technology which provides a new way to cool large homes to small commercial buildings. VRF technologies allow consumers to take advantage of load diversity in a building by cooling multiple zones from the same system, resulting in energy savings.

Roy Kuczera
Vice President of Sales
Fujitsu General America
Seattle, WA

Mr. Kuczera, Vice President of Sales, HVAC Products, for Fujitsu General America, Inc., has over 20 years experience in the HVAC industry and is responsible for the continued growth and development of the Fujitsu brand. Fujitsu is Hawaii's largest provider of ductless mini-split air conditioners and heat pumps.

LOAD MANAGEMENT & CONTROL

Generator Basics and New Emissions Regulations

During this grass-roots workshop, Mr. Yuen will present an overview of generator basics and a summary of new emissions regulations affecting diesel generators. The overview of generator basics includes a review of applications, fuel types, transfer switches, and maintenance. The presentation will also highlight the EPA's recently finalized New Source Performance Standard (NSPS) for stationary diesel engines and impacts on manufacturers and owners of diesel engines.

Clifford Yuen
Engine Sales Manager
Hawthorne Power Systems
Honolulu, HI

Mr. Clifford Yuen is the Engine Sales Manager for Hawthorne Power Systems and a registered professional engineer with a MS in mechanical engineering. Mr. Yuen has over 10 years of experience in sales, design, and project management of standby and prime power plants including distributed generation and co-generation facilities.

EnergyScout: Commercial and Residential Direct Load Control Programs

EnergyScout for Business is a new program from Hawaiian Electric Company that provides monthly financial incentives to qualified businesses for participating in load control events. A similar EnergyScout program also offers incentives to individual residents. This workshop will show attendees how they can benefit from energy cost reduction and incentives. Customer participation in the program helps ensure a more stable electrical grid during the peak demand periods, and emergencies.

Paul Brencick
Residential Program Manager
Hawaiian Electric Co.
Honolulu, HI

Mr. Brencick will discuss EnergyScout Residential Program which has helped make the Oahu electrical system more reliable by using the stored thermal energies in water heaters to supplement the system and possibly eliminating more serious emergencies. Prior to joining HECO, he served as a Sr. Staff Writer in Hawaii Governor Linda Lingle's Communications Office.

Kevin Chock
CIDLC Program Manager
Hawaiian Electric Co.
Honolulu, HI

Mr. Chock is a former Account Manager for Hawaiian Electric Co., working with HECO's large commercial customers assisting them with energy solutions for their business. Mr. Chock also worked in HECO's Energy Efficiency department as a Program engineer, where he assisted customers in identifying and implementing cost-effective energy efficiency projects. He now coordinates the marketing and administration of CIDLC communicating program benefits to large companies throughout Oahu. He holds a BS in Natural Science from the University of Puget Sound and a BS in Mechanical Enegineering from Columbia University.

OTHER ENERGY EFFICIENCY TOPICS

A Financing Alternative for Governmental Agencies

Identifying the energy saving initiatives that are appropriate for your facility is only half the equation. Now, how will you pay for it? The process of identifying your project should go hand-in-hand with establishing a sound financing plan. As a governmental agency, have you considered a lease/purchase approach? This workshop will allow you to explore what this option offers and determine if the benefits of this financing alternative will be appropriate for your organization.

Rebecca Lowe
Vice President
GE Capital Public Finance
Honolulu, HI

Prior to joining GE Capital Public Finance, Inc. in 1994, Ms. Lowe was a principal in a California corporation, providing financial advisory and lease placement service for State and local governments. She earned her BA in finance & accounting from the University of Oregon. Ms. Lowe currently is responsible for the West Coast Region Business Development for GE Capital Public Finance, Inc., bringing to this role more than twenty years experience in the public finance marketplace.

Trini Abaya-Wright
President & Principal
Auto & Equipment Leasing
Honolulu, HI

Ms. Abaya-Wright is the President and Principal of Hawaii based Auto and Equipment Leasing Company. She attended The University of San Francisco majoring in business administration. She has 16 years of leasing experience, 11 of them as an Assistant Vice President and Senior Lease Officer at GE Capital Hawaii until 2001, then 5 as a lease broker with Auto and Equipment Leasing Company.

Continued

Workshops

Government ESCO Case Studies

Energy service companies (ESCOs) apply their expertise in design, operation and maintenance of lighting, air conditioning, water heating and other energy related systems to improve system performance and control energy costs. Three national ESCOs will discuss successful projects they have done and answer questions regarding best practices of energy project contracting.

Michael Chang
Branch Manager
Johnson Controls
Honolulu, HI

From initial concept presentations to final systems optimization, Mr. Chang has over a decade of experience in the implementation of successful Energy Savings Performance Contracts in Hawaii. Mr. Chang earned both MBA and BS in mechanical engineering from the University of Hawaii at Manoa.

William Johnston
Federal Program Manager
Honeywell International
Bellevue, Washington

Responsible for energy services and solutions account management strategy and project development process in the Western Region, Mr. Johnston oversees project development teams by utilizing his 20 years of leadership and experience in the energy industry. Through these teams, a collaborative partnership is developed with clients to build projects that are rooted in financially guaranteed energy and operation cost savings, and measurable performance.

Tracy Taoka
Construction Manager
Noresco
Honolulu, HI

Mr. Taoka is the construction manager for Energy Savings Performance Contractor, Noresco. He has more than 16 years of experience in general, mechanical and energy applications. Prior to Noresco, he spent 5-years with Honeywell. Mr. Taoka has a BS in mechanical engineering from the University of Hawaii.

Energy for Tomorrow's Communities

With a focus on creating sustainable value, Actus Lend Lease communities are unrivaled in their attention to design, technology and environmental sensitivity in the nation's public and private community developments. Learn about the overview of Actus' synergy program, its commitment to reduce energy consumption, its efforts on renewable energy, and its vision of having the first ZEH community in Hawaii.

Tabitha A. Crawford
Senior Vice President
Sustainability & Innovation,
Actus Lend Lease

Ms. Crawford currently lead the Innovation Team at Actus Lend Lease reshaping the residential utilities billing policies and defined energy modeling methods, through collaboration with the Department of Energy, for the U.S Army Residential Communities Initiative. Ms. Crawford created "SYNERGY" (Saving Your Nation's Energy) – a program focused on resource conservation, long-term business sustainability and improved quality of life for military communities. Ms. Crawford has a BS in Business Administration from the University of Louisville, a MBA from the Dolan School of Business at Fairfield University, and a Masters in Bank Management from the University of Virginia.

GREEN BUILDING

Daylighting and LEED®

Daylighting has become a hot topic in the lighting field today as LEED and sustainable design make its use critically important to successful projects. Mr. James will discuss the latest daylighting technologies, how to effectively design with optical daylighting systems, and how daylighting contributes to the LEED certification process.

Tom James
Manager, Commercial Market Development
Solatube International
Vista, CA

Mr. James is the Manager of Commercial Market Development for Solatube International. With 20 years of experience in the manufacturing of energy efficient lighting fixtures, he draws upon his lighting efficiency expertise to help develop commercial sales and marketing strategies for optical daylighting products.

Building Design with Window Film

Window films provide multiple benefits to buildings including energy savings. Learn about the different characteristics of various window film types and how occupants and building management can enjoy improved comfort and savings.

Kelly Kelley
Sales Representative
CP Films, Inc.
Martinsville, VA

Ms. Kelley is the senior commercial representative for CP Films, the world's largest manufacturer of solar control window films. She has over 19 years of experience in the industry.

Optimizing Facilities with LEED EB

Challenges and opportunities exist in certifying a building through the LEED for Existing Buildings Rating System. An overview of how the LEED EB program works will set the stage for the lessons learned from an actual project. Team member's roles and facility requirements will be discussed, as well as the low-hanging fruit that a facility can easily achieve. Tips for maneuvering through the LEED EB framework will also be given.

Elaine Aye
Senior Design Consultant
Green Building Services
Portland, OR

Ms. Aye is a member of the USGBC LEED CI Core Committee, and co-developed the training module for LEED for Products Manufacturers. Ms. Aye is a frequent speaker at national building conferences including GreenBuild, NeoCon, and IFMA World Workplace. Her projects include: the Oregon Convention Center the first LEED-EB certified project, 200 Market Street, the first certified LEED-EB v2.0 Gold building in the US; the Portland Center Stage Armory that is pursuing LEED-NC Platinum certification.

Workshops

Building Commissioning for LEED Projects

The building commissioning process is a highly effective method to improve the performance of building systems. The U.S. Green Building Council's LEED rating system has given life to the commissioning industry. This workshop will cover the process of building commissioning, the costs and benefits, and the requirements of the LEED prerequisite and credit.

Erik Dyrr
Senior Engineer
KEMA
Oakland, CA

Mr. Dyrr has over 12 years of technical experience in energy-efficient design, measurement and verification (M&V), commissioning, and retro-commissioning. Mr. Dyrr has been the lead Commissioning Agent for numerous new construction projects pursuing LEED certification. In addition, he has managed large-scale projects involving coordination of M&V and engineering analysis for KEMA's clients throughout the country.

LEED Lessons Learned

Hear lessons learned from a variety of projects that have achieved or are in the process of achieving LEED certification. This will include LEED NC, CS, EB & CI projects. Review the approaches used by design and construction teams and discuss key strategies that were successfully integrated. The case studies will provide a platform for the in-depth discussion of processes and practices that get results when creating LEED-certified green buildings.

Ralph DiNola
Principal, Associate AIA, CSI
Green Building Services
Portland, OR

Mr. DiNola is a nationally recognized facilitator who leads eco-charrettes and workshops on sustainability and green building strategies. As a member of the USGBC LEED faculty, he conducts workshops on the LEED Green Building Rating System tailored to owners, design firms, contractors, government agencies and facility managers. He is a featured speaker at national building conferences like GreenBuild, EnvironDesign, and PCBC. Mr. DiNola's project focus includes historic renovations, higher education facilities, libraries as well as international green building consulting.

Elaine Aye
Senior Design Consultant
Green Building Services
Portland, OR

Ms. Aye is a member of the USGBC LEED CI Core Committee, and co-developed the training module for LEED for Products Manufacturers. Ms. Aye is a frequent speaker at national building conferences including GreenBuild, NeoCon, and IFMA World Workplace. Her projects include: the Oregon Convention Center the first LEED-EB certified project, 200 Market Street, the first certified LEED-EB v2.0 Gold building in the US; the Portland Center Stage Armory that is pursuing LEED-NC Platinum certification.

Investment Grade Electric Motors Rising to the Energy Challenge

Proponents within the energy conservation movement are faced with a critical issue... How do we effectively communicate savings to the financial side of our businesses? Success or failure of our motor efficiency goals ultimately rests with prioritizing the capital necessary to implement an efficient motor driven system program. Motor Decisions Matter is a program conceived through the Department of Energy. This approach can calculate energy cost and potential energy savings, compare the financial impact of repairing or replacing motors, determine payback periods and calculate ROI.

Chris Mellas Sr.
Territory Manager
Emerson Motor Co.
Yorba Linda, CA

Mr. Mellas is a Senior Territory Manager in Southern California for Emerson Motor Company – U.S. Motors. He has coordinated Emerson's involvement with local utilities motor rebate programs and is leading a cross divisional effort by Emerson providing energy solutions in California. Mr. Mellas has a bachelor degree from the Sacred Heart University of Bridgeport Connecticut.

Power Quality and Voltage Regulation

This informative workshop will present fundamental concepts on electronic equipment in terms of power quality, voltage regulation and energy usage considerations. Topics that will be covered include: Overview of steady state voltage regulation; Electronic equipment and typical voltage regulation withstand capabilities; Conservation Voltage Reduction – How does it affect electronic equipment? Voltage Dimming and Voltage Reduction Devices – Do they really save energy? How does the new energy efficient equipment respond to power variations.

Doug Dorr
Director, EPRI Solutions Inc.
PEAC Laboratory
Knoxville, TN

Mr. Dorr is a Director with EPRI Solutions Inc. He develops research projects in electric distribution and end use areas including: Power Quality, Lightning Protection, Energy Efficiency, Demand Response, and Distributed Generation. Mr. Dorr chairs IEEE Surge Protective Devices Committee and chairs the IEEE Emerald Book "Recommended Practice on Power and Grounding Electronic Equipment".

RENEWABLE ENERGY

Photovoltaics in Buildings

Building Integration of Photovoltaics (BIPV), where the PV elements actually become an integral part of the building, often serving as the exterior weathering skin, is growing world-wide. PV specialists and innovative architects in Europe, Japan and the US are now beginning to explore creative ways of incorporating solar electricity into their designs. Find out how you can explore design opportunities for your next project with renewable technology.

Steven Strong
President
Solar Design Associates
Harvard, MA

Over the last 25 years, Mr. Strong has designed dozens of homes and buildings powered by solar electricity, including the world's first PV-powered neighborhood in central Massachusetts, the natatorium complex at the 1996 Olympic Summer Games using the world's largest roof-top PV power system, and 3 solar energy systems at the White House in Washington, D.C. He recently designed a new "solar skin" for the US Mission to the United Nations in Geneva. He is a highly published author of books and articles on photovoltaics in buildings.

Innovative Solar Solutions: Funding Solar Thermal Systems for Hot Water

A unique model for funding commercial solar thermal water heating has been developed in Canada that can work for systems in Hawaii.

Continued

Workshops

A third party pays for the complete installation, then sells the heat to the building under a long term contract. Buildings can enjoy predictable operating costs, no capital costs and an environmental benefit to market as management sees fit. Customer segments include hotels, non-profit housing and car/truck washes.

Alex Winch
President
Mondial Energy, Inc.
Toronto, Ontario, Canada

Alex Winch is the president of Mondial Energy which funds renewable energy installations and sells the generated energy. He has served as Chairman and Director of Investor Relations of a San Diego-based publicly-traded casino operator with operations throughout Central America. In 1990 Mr. Winch set up one of the first hedge funds in Canada, in 1993 he set up a hedge fund in New York, retiring on performance fees in 1995. His university degree is in engineering physics from Queen's University and he is a Chartered Financial Analyst.

Sea Water Air Conditioning in Honolulu

Cold, deep sea water can now be pumped through a distribution pipeline to a cooling station on the shore. The intake pipe is located at a depth where the water temperature is 39° F- 45°F year round. The cooling station transfers the seawater's coldness to water circulating in a closed loop pipe system that provides air conditioning service to customer buildings. Learn about how this proven technology works so well internationally and in the U.S. and how it achieves impressive economic and environmental benefits.

David Rezachek
Associate Development Director/ Consultant for Honolulu Sea Water Air Conditioning

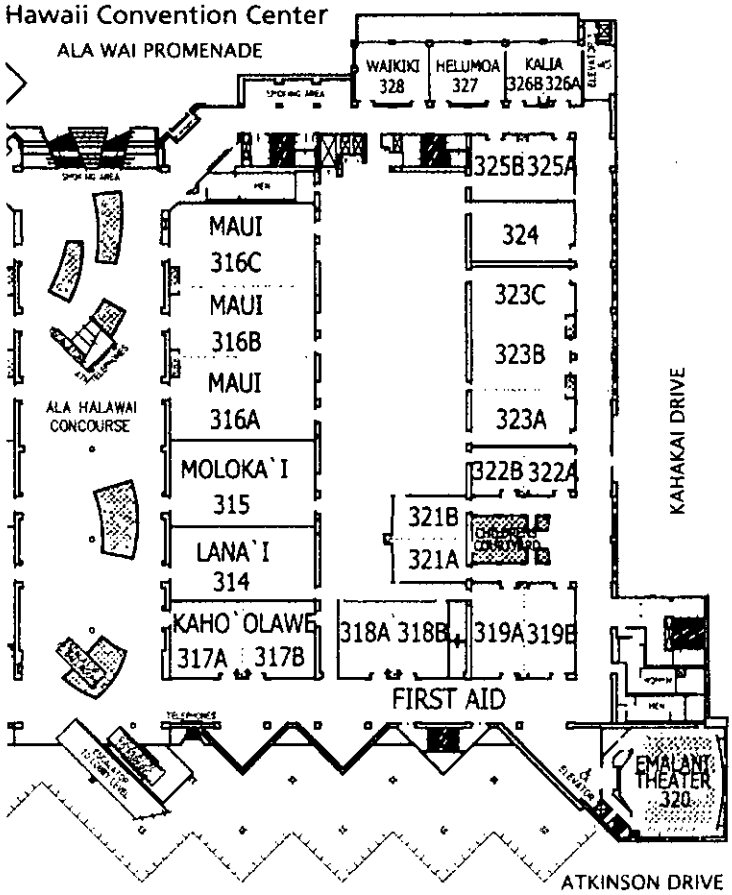
Mr. Rezachek has more than 30 years of experience in energy and environmental systems research, design, demonstration, analysis and engineering and project management.

He has been a project manager for dozens of projects in the areas of renewable and conventional energy, energy efficiency conservation, electric and hybrid vehicles, alternative fuels, energy and engineering education and environmental engineering.

He has a BS in chemistry from the University of Minnesota, a BS in environmental technology and urban systems from Florida International University, a MS in mechanical engineering from the University of Hawaii and a PhD in ocean engineering form the University of Hawaii.

Meeting Rooms

Third Floor
Hawaii Convention Center



OTHER TOPICS

Hawaii Energy Alliance (HEA): Part I and Part II
Orientation and DSM Rebate Training

"The cat is out of the bag!" In this 2 part session, attendees will learn why the Hawaii Energy Alliance is a win-win-win for businesses, trade allies, and the utility. The HEA is a joint initiative between Hawaiian Electric Company and its trade allies to take the delivery of energy efficient products and services to a new level. During the session you will also learn how to take advantage of HECO rebates through its Energy$olutions for Business Program.

James Brown
Program Specialist
Hawaiian Electric Company
Honolulu, HI

Mr. Brown is a Hawaiian Electric Company program specialist for the Energy$olutions for Business Rebate Program. He has more than a decade of experience in business development and community outreach programs. The Howard University graduate also has extensive experience and expertise helping both public and private sector entities maximize their sales, marketing, and corporate communications programs using low-cost and no-cost methods. Mr. Brown received an official commendation from the White House for helping develop and coordinate a national patriotic public service and awareness campaign in 2001.

Schedule

WEDNESDAY, NOVEMBER 29

6:45	Registration
7:00 - 8:00	Breakfast in Exhibit Area, 4th Floor
8:00 - 9:00	Workshop Sessions 1, 3rd Floor
9:15 - 10:15	Workshop Sessions 2, 3rd Floor
10:00 - 11:30	Visit Exhibits, 4th Floor
11:30 - 1:00	Energy Awards Luncheon in Kalakaua Ballroom, 4th Floor
1:00 - 2:30	Visit Exhibits, 4th Floor
2:30 - 3:30	Workshop Sessions 3, 3rd Floor
3:45 - 4:45	Workshop Sessions 4, 3rd Floor
4:30 - 6:00	Reception in Exhibit Area
6:00	Pau Hana! (End of Conference)
	MAHALO!

Wednesday Workshop Session Schedule

	ENERGY TECHNOLOGIES 317-A	PROJECTS AND INFRASTRUCTURE SUPPORT 317-B	LEED 318-A&B	LIGHTING 319-A	AC 319-B	OTHER 323-A
8:00 am-9:00 am	Honolulu Sea Water Air Conditioning *David Rezachek*	A Financing Alternative for Governmental Agencies *Rebecca Lowe & Trini Abaya-Wright*	Daylighting and LEED *Tom James*	Electronics in HID Lighting: A Viable Economic Solution *Keri Patterson*	Investment Grade Electric Motors Rising to the Energy Challenge *Chris Mellas*	Generator Basics and New Emissions Regulations *Clifford Yuen*
9:15 am-10:15 am	Innovative Solar Solutions: Funding Solar Thermal Systems for Hot Water *Alex Winch*	Government ESCO Case Studies *Michael Chang & William Johnston & Tracy Taoka*	Optimizing Facilities with LEED EB *Elaine Aye*	Innovations in Specialty Lighting *Michael Smith*	Variable Refrigerant Flow Air Conditioning Systems *Roy Kuczera*	Energy Scout: Commercial and Residential Direct Load Control Programs *Paul Brendick & Kevin Chock*
2:30 pm-3:30 pm	Photovoltaics in Buildings *Steven Strong*	Power Quality and Voltage Regulation *Doug Dorr*	LEED Lessons Learned *Ralph DiNola & Elaine Aye*	Super T8 to the Rescue? *Stan Walerczyk*	Best Practices: Energy Efficiency and Acceptable Indoor Air Quality *George Benda*	Hawaii Energy Alliance (HEA): Orientation & DSM Rebate Training: Part 1 *James Brown*
3:45 pm-4:45 pm	Building Design with Window Film *Kelly Kelley*	Energy for Tomorrow's Communities *Tabitah Crawford Perry Brown*	Building Commissioning for LEED Projects *Erik Dyrr*	Solving Today's Energy Problems with LED Lighting *Manuel Lynch*	Efficient Dehumidification of Outside Air *Evert Osterman*	Hawaii Energy Alliance (HEA): Orientation & DSM Rebate Training: Part 2 *James Brown*

Exhibitors

21st Century Lighting Enterprises
Energy efficient lighting products **Booth #304**

Acuity Brands
Energy efficient lighting solutions **Booth #113**

Admor HVAC Products
HVAC equipment, heat pumps and koolduct **Booth #302**

Advanced Roofing Technology
Manufacturing and distribution of spray foam insulation **Booth #301**

Applied Energy Recovery Systems
Heat pump water heaters, air source and water source **Booth #214**

Air Reps Hawaii
Turbocor compressor, portable air conditioning, UVC lighting for HVAC **Booth #315**

American Electric
Electric maintenance and training **Booth #308**

Aurora Electronic Ballast
Energy efficient electronic HID ballast **Booth #405**

Carrier Corporation
HVAC sales service and installation **Booth #303, 305**

Central Pacific Bank
Banking and expertise in commercial leasing equipment **Booth #103**

Cummins West
Co-generation, transfer switches and paralleling switchgear **Booth #116**

Diatomic Systems
Water treatment services **Booth #410**

Earth Protection Services
Electronic product recycling **Booth #403**

Eaton Electric-Power Quality Division
Power chain management products and services **Booth #404**

Eco-Lite
Energy conservation lighting products, wholesale and retail **Booth #202**

Energy Eye
Wireless EMS controlling guestroom HVAC **Booth #107**

Energy Industries
Lighting, mechanical, controls, engineering and advisory **Booth #318**

Energy Management Group
Vertical axis wind turbines and Pyron's solar power plant **Booth #406**

Fluke Corporation
Portable power quality analyzers, loggers, thermal images, multimeters and electrical testers **Booth #213**

Fujitsu General America
Airstage variable refrigerant flow ductless mini-split air conditioners **Booth #407**

GE Lighting
Lamps and ballasts **Booth #316**

Grainger
Repair, maintenance and operation supplies **Booth #105**

Graybar Hawaii
Electrical and telecommunications service solutions and products **Booth #111**

Feit Electric Company
Manufacturer of light bulbs and energy efficient lighting products **Booth #417**

Hawaii Energy Systems
Alerton air conditioning controls utilizing bacnet protocol technology **Booth #118**

Hawaiian Electric Company
Energy$olutions for Business - utility energy efficiency incentive program **Booth #218, 317**

Hawthorne Power Systems
Flywheel UPS, generators, ATS, switchgear, cogeneration, and rentals **Booth #215**

Henkels & McCoy
Communications infrastructure and telecommunication **Booth #106**

Holophane
Lighting products and solutions **Booth #217**

Honolulu Seawater Air Conditioning
Seawater air conditioning systems using renewable energy. **Booth #314**

Hybrid Solutions
Integrated PV solar roofing systems, lead acid battery regenerative technologies **Booth #411**

INNCOM International
Energy management and guestroom control systems **Booth #211**

Inter Island Solar Supply
Solar electric and energy efficiency products **Booth #412, 414**

Island Controls
Automated logic webcontrol system **Booth #201**

Johnson Controls
Energy management systems, mechanical services, fire alarms, card access, and CCTV **Booth #313**

Kone
Elevator services, modernization and installation **Booth #115**

Lenox Metals
Metal recycling, transformer recycling, power distribution systems decommissioning **Booth #413**

MaxLite
Energy efficient lighting products **Booth #415**

MBA Services
Roofing/waterproofing systems **Booth #104**

Mitsubishi Electric
Manufacturing of electrical and electronic equipment used in communications, technology, energy, transportation, and construction. **Booth #401**

Mondial Energy
Sells solar thermal energy for domestic hot water **Booth #418**

Mr. Sandman
Sullair energy efficient air compressor systems **Booth #208, 307**

Norman S. Wright
Daikin VRV systems and Acutherm VAV systems **Booth #117**

Onity
Occupancy-detecting, programmable setback thermostats and controls for hotel guestrooms **Booth #102**

Pacific Biodiesel
Biodiesel: Environmentally friendly, renewable alternative to petroleum diesel **Booth #312**

Pacific Lighting Service
Sylvania lighting products-energy savings and lighting consultants **Booth #416**

Permlight Products
LED Light Fixtures **Booth #205**

Rising Sun Solar
Solar electric systems, grid-tie net meter PV systems **Booth #204**

Sensor Switch
Occupancy sensor products, and technology for lighting controls **Booth #212**

Servco Home & Appliance Distribution
Sanyo split air-conditioning system (HVAC) **Booth #311**

Siemens Energy & Automation
Industrial electrical services **Booth #216**

Skylights of Hawaii
Natural lighting and solar ventilation solutions **Booth #203**

Exhibition Area

Solar Integrated
Building integrated photovoltaics **Booth #306**

Solar Outdoor Lighting
Solar powered lighting systems **Booth #207**

Square D Lighting Controls
Powerlink lighting control systems **Booth #109**

Sunburst Designs
Energy efficient lighting and electrical products **Booth #112**

T&T Tinting Specialists
Llumar and Vista window films that reduce heat **Booth #101**

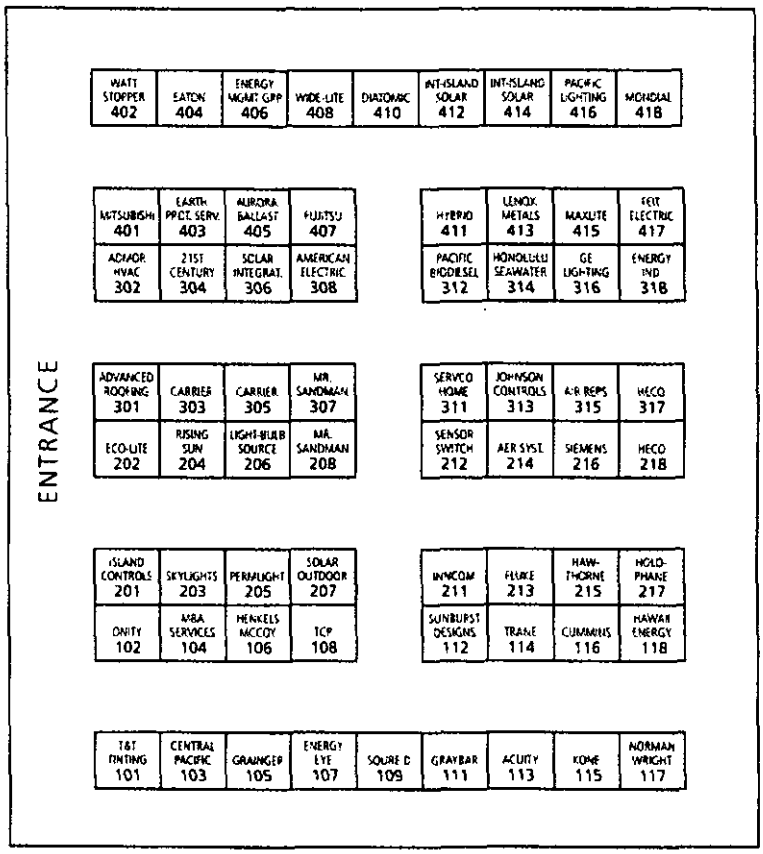
TCP
Energy efficient light bulbs **Booth #108**

The Light Bulb Source
Light bulbs and fixtures **Booth #206**

Trane
HVAC & BAS **Booth #114**

Watt Stopper/Legrand
Lighting controls solutions for energy efficiency **Booth #402**

Wide-Lite Corporation, Division Genlyte
Energy efficient lighting products for indoor and outdoor applications. **Booth #408**



Exhibitors by Booth Numbers

304	21st Century Lighting Enterprises
113	Acuity Brands Lighting
302	Admor HVAC Products
301	Advanced Roofing Technology
214	Applied Engineering Recovery Systems
315	Air Reps Hawaii
308	American Electric
405	Aurora Electronic Ballast
303/305	Carrier Corporation
103	Central Pacific Bank
116	Cummins West
410	Diatomic Systems
403	Earth Protection Services
404	Eaton Electric-Power Quality Division
202	Eco-Lite
107	Energy Eye
318	Energy Industries
406	Energy Management Group
213	Fluke Corporation
407	Fujitsu General America
316	GE Lighting
105	Grainger
111	Graybar Hawaii
417	Feit Eelectric Company
118	Hawaii Energy Systems
218/317	Hawaiian Electric Company
215	Hawthorne Power Systems
106	Henkels & McCoy
217	Holophane
314	Honolulu Seawater Air Conditioning
411	Hybrid Solutions
211	INNCOM International
412/414	Inter Island Solar Supply
201	Island Controls
313	Johnson Controls
115	Kone
413	Lenox Metals
415	MaxLite
104	MBA Services
401	Mitsubishi Electric
418	Mondial Energy
208/307	Mr. Sandman
117	Norman S. Wright
102	Onity
312	Pacific Biodiesel
416	Pacific Lighting Service
205	Permlight Products
204	Rising Sun Solar
212	Sensor Switch
311	Servco Home & Appliance Distribution
216	Siemens Energy & Automation
203	Skylights of Hawaii
306	Solar Integrated
207	Solar Outdoor Lighting
112	Sunburst Designs
109	Square D Lighting Controls
101	T&T Tinting Specialists
108	TCP
206	The Light Bulb Source
114	Trane
402	Watt Stopper/Legrand
408	Wide-Lite Corporation, Division Genlyte

Maui Electric Company, Limited
2007 Test Year
Training and Travel Expenses

Line No.	NARUC	RA	Act	Loc	Ind	Proj	EE	Line Item	FY 2007	2007 Budgeted Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD
7	909	MCA	112	MAU	NS	NMCZZZZZ	501	Mainland Travel-Mgr registration	1000	0	0	0	0	1000	0	0	0	1000
8	909	MCA	112	MAU	NS	NMCZZZZZ	520	Mainland Travel-Mgr airfare car lodging	5000	0	0	0	0	5000	0	0	0	5000
9	909	MCA	112	MAU	NS	NMCZZZZZ	521	meals & entertainment-general	1500	0	0	0	0	584	0	0	0	584
11	910	MCA	112	MAU	NE	NMCZZZZZ	501	Mainland Travel Admin-Registration	1000	0	0	0	0	0	0	0	0	0
12	910	MCA	112	MAU	NE	NMCZZZZZ	520	Mainland Travel Admin-Travel	5000	0	0	0	0	0	0	0	0	0
13	910	MCA	112	MAU	NE	NMCZZZZZ	521	Mainland Travel Admin-Meals	500	0	0	0	0	0	0	0	0	0
16	910	MCN	112	MAU	NE	NMCZZZZZ	501	Outside Services General BASE	21000	333	333	334	333	333	334	2333	1333	5666

Line No.	NARUC	RA	Act	Loc	Ind	Proj	EE	Line Item	YTD Variance	2007 Actuals Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD
7	909	MCA	112	MAU	NS	NMCZZZZZ	501	Mainland Travel-Mgr registration	-1120	0	0	0	0	2120	0	0	0	2120
8	909	MCA	112	MAU	NS	NMCZZZZZ	520	Mainland Travel-Mgr airfare car lodging	5000	0	0	0	0	0	0	0	0	0
9	909	MCA	112	MAU	NS	NMCZZZZZ	521	meals & entertainment-general	584	0	0	0	0	0	0	0	0	0
11	910	MCA	112	MAU	NE	NMCZZZZZ	501	Mainland Travel Admin-Registration	0	0	0	0	0	0	0	0	0	0
12	910	MCA	112	MAU	NE	NMCZZZZZ	520	Mainland Travel Admin-Travel	0	0	0	0	0	0	0	0	0	0
13	910	MCA	112	MAU	NE	NMCZZZZZ	521	Mainland Travel Admin-Meals	0	0	0	0	0	0	0	0	0	0
16	910	MCN	112	MAU	NE	NMCZZZZZ	501	Outside Services General BASE	-7936	380	130	129	131	184	186	2301	10161	13602

Total Variance (Budget less Actual) -3472

CA-IR-417
DOCKET NO. 2006-0387
ATTACHMENT D
PAGE 1 OF 1

CA-IR-418

Ref: MECO response to CA-IR-369 & MECO T-8 response to CA-IR-2 (Research & Development).

In response to CA-IR-365, the Company provided revisions to the MECO T-9 response to CA-IR-2 by supplying corrected references to forecast support from MECO witnesses other than T-9. At page 6 of the response to CA-IR-369, the revisions include references to the response of MECO T-8 to CA-IR-2 for additional documentation supporting the 2007 T&D forecast. Please provide the following:

a. Referring to the response of MECO T-8 to CA-IR-2, page 39 of Attachment B provides a monthly distribution of $109,500, but does not show how that amount was determined nor contain references to additional supporting documentation. Please provide the following:
    1. Are there additional forecast workpapers supporting this amount? Please explain.
    2. If so, please provide a copy of such information.
    3. If not, please explain how this amount was determined to be appropriate.

b. The "Details/Remarks" section of the referenced document indicates that this estimate represents MECO's direct costs associated with the study of one technical customer power related issue and possible installation. Please identify and describe the specific "issue" being referenced.

c. The "2006 budget cycle" section of the referenced document indicates that the R&D project expenses include: HECO labor; EPRI overhead; non-TC R&D projects; and other miscellaneous in-kind expenses. Please provide a breakdown of the $109,500 R&D forecast amount between each of these cost categories.

d. Referring to part c. above, please explain why "HECO labor (ICBs)" costs are included in the $109,500.

e. Referring to part (c) above, please explain why "EPRI overhead" costs are included in the $109,500.

MECO Response:

a. There are no additional forecast workpapers for this amount, however, the amount for R&D projects was determined to be appropriate based on the actual cost of the CHP phase 1 project, at the Grand Wailea Resort (totaling about $227,000), normalized over two years. The recorded information for this project was provided in MECO-918, and the June 2007 Update of MECO T-9, Attachment 1, page 44.

b. There were no specific issues known when preparing the budget, but rather funds were budgeted to be able to address customers' electrical power related issues with innovative electrotechnology solutions. Projects previously addressed with R&D funds by MECO, HECO and HELCO included: power quality problems, energy efficient air conditioning systems, and renewable energy technologies that are generally consistent with MECO's IRP-3 action plan. The solar air conditioning project was identified subsequent to the preparation of the 2007 budget to evaluate the feasibility of installing a solar thermal absorption cooling system at a customer site. The estimated cost of the feasibility study was between $65,000 and $80,000. The remainder of the budgeted funds was designated to address power quality issues, as has been done previously by HECO.

c. Based on previous projects, the breakdown of the $109,500 was assumed to be:

HECO Labor (ICBs):	5%
EPRI Overhead:	25%
Non-TC R&D projects:	50%
Other Misc in-kind Expenses:	5%

The remainder of the funds is expected to be used for project expenses that may occur beyond the EPRI Tailored Collaboration (TC) budget, shown on MECO T-8 to CA-IR-2, page 41 of Attachment B, or are applied to non-TC R&D projects that may be identified later in the year.

d. Due to limited resources and expertise, MECO often uses HECO personnel to assist with R&D projects on project management and technical matters.

e. Based on the past experiences of MECO, HECO and HELCO, EPRI applies an overhead amount that ranges from 15% to 35% on projects that they fund, to cover their administrative costs.

CA-IR-419

Ref: MECO response to CA-IR-369 & MECO T-8 response to CA-IR-2 (Research & Development).

In response to CA-IR-365, the Company provided revisions to the MECO T-9 response to CA-IR-2 by supplying corrected references to forecast support from MECO witnesses other than T-9. At page 6 of the response to CA-IR-369, the revisions include references to the response of MECO T-8 to CA-IR-2 for additional documentation supporting the 2007 T&D forecast. Please provide the following information:

a. Referring to the response of MECO T-8 to CA-IR-2, page 41 of Attachment B provides a monthly distribution of $25,000, but does not show how that amount was determined nor contain references to additional supporting documentation. Please provide the following:
    1. Are there additional forecast workpapers supporting this amount? Please explain.
    2. If yes, please provide a copy of such information.
    3. If no, please explain how this amount was determined to be appropriate.

b. The "2006 budget cycle" section of the referenced document indicates that the R&D project expenses includes MECO's portion of EPRI Tailored Collaboration projects.
    1. Please identify and describe the specific "projects" being referenced.
    2. Please provide a breakdown of the $25,000 R&D forecast amount between each "project."

MECO Response:

a. There are no additional forecast workpapers for this amount, however, the amount for R&D projects was determined to be appropriate based on the actual cost of the Lanai pumped storage project (totaling about $20,000). The recorded information for this project was provided in MECO-918, and the June 2007 Update of MECO T-9, Attachment 1, page 44.

b. There were no specific issues known when preparing the budget, but rather funds were budgeted to be able to 1) pursue potential energy efficiency and renewable energy projects, 2) facilitate emerging technologies or 3) evaluate programs designed for promoting customer-sited photovoltaics ("PV"), consistent with MECO's IRP-3 action plan. MECO also attempts to leverage its research and development funds by working with third parties such as EPRI to qualify for matching funds.

CA-IR-420

Ref: MECO response to CA-IR-369 & MECO T-8 response to CA-IR-2 (Research & Development).

In response to CA-IR-365, the Company provided revisions to the MECO T-9 response to CA-IR-2 by supplying corrected references to forecast support from MECO witnesses other than T-9. At page 6 of the response to CA-IR-369, the revisions include references to the response of MECO T-8 to CA-IR-2 for additional documentation supporting the 2007 T&D forecast. Please provide the following:

a. Referring to the response of MECO T-8 to CA-IR-2, page 49 of Attachment B provides a monthly distribution of $100,000, but does not show how that amount was determined nor contain references to additional supporting documentation. Please provide the following:
    1. Are there additional forecast workpapers supporting this amount? Please explain.
    2. If so, please provide a copy of such information.
    3. If not, please explain how this amount was determined to be appropriate.
b. The "2006 budget cycle" section of the referenced document indicates that the R&D project expenses includes MECO's portion of EPRI Tailored Collaboration projects.
    1. Please identify and describe the specific "projects" being referenced.
    2. Please provide a breakdown of the $100,000 R&D forecast amount between each "project."
c. The "2006 budget cycle" section of the referenced document indicates that the R&D project expense includes intercompany billings (ICBs).
    1. Please provide a breakdown of the $100,000 R&D forecast showing the amount of each of type of cost, including the ICB allocation.
    2. Please explain why ICB costs are included in the $100,000.
d. Unlike the discussion of the $25,000 EPRI Tailored Collaboration projects discussed at Attachment B, page 41, the $100,000 EPRI Tailored Collaboration projects at page 49 does not appear to recognize any EPRI matching funds. Are EPRI matching funds available? Please explain.

MECO Response:

a. There are no additional forecast workpapers for this amount, however, the amount for R&D projects was determined to be appropriate based on the actual cost of the Hawaii Energy Test Laboratory ("HETL") project (totaling about $105,000), and the Lanai High School photovoltaic project (totaling about $92,000). The recorded information for the HETL project was provided in MECO-918, and the June 2007 Update of MECO T-9, Attachment 1, page 44. The recorded information for the Lanai High School project was provided as the BIPV demonstration project in the response to CA-IR-435, Attachment 1, page 3.

b. The workpaper filed in response to CA-IR-2 [MECO T-8], Attachment B, page 49 was mislabeled as EPRI TC and should have referenced both EPRI Tailored Collaborative and Non-EPRI items. See Attachment A to this response for a revised page reflecting the corrections. MECO did not identify a specific EPRI Tailored Collaborative project as it developed its 2007 budget, but rather budgeted funds in order to be able to 1) pursue potential renewable energy projects, 2) facilitate emerging technologies or 3) evaluate programs designed for promoting customer-sited photovoltaics ("PV"), consistent with MECO's IRP-3 action plan. Subsequent to the budget preparation, MECO identified two possible projects to undertake related to customer-sited PV: the Photovoltaic County Grant and the Sun Power for Schools projects, and a project to facilitate emerging technologies, the Hawaii Ocean Current Resource and Technology Assessment (EPRI TC).

c. Based on previous projects, the breakdown of the $100,000 was assumed to be:

HECO Labor (ICBs):	5%
EPRI Overhead:	25%
Non-TC R&D projects:	50%
Other Misc in-kind Expenses:	5%

The remainder of the funds is expected to be used for project expenses that may occur beyond the EPRI Tailored Collaboration (TC) budget, or are applied to non-TC R&D projects that may be identified later in the year.

Due to limited resources and expertise, MECO often uses HECO personnel to assist with R&D projects on project management and technical matters.

d. As mentioned in part b. above, MECO did not identify a specific EPRI Tailored Collaborative project, and therefore, did not assume any matching EPRI funds.

Maui Electric Company, Ltd. Customer Service Department
O&M BUDGET FORECAST WORKPAPER
NON-PROJECT NON-LABOR
2006 BUDGET CYCLE

Prepared by: J. Ide
Date:
Forecast years: **2007**
Rates linked to: X No Escalation
Escalation (2006 base)

Description: RD&D Projects-EPRI TC & Non-EPRI

NARUC	Work Order	RA	Activity	Location	Indicator	Project	Exp Element
9302		MCZ	731	MAU	NE	NMCZZZZZ	501

FORECAST DATA ENTRY

	2007
Jan	$ -
Feb	$ -
Mar	$ 25,000
Apr	$ -
May	$ -
Jun	$ 25,000
Jul	$ -
Aug	$ -
Sep	$ 25,000
Oct	$ -
Nov	$ -
Dec	$ 25,000
TOTAL	$ 100,000

Details / Remarks:

2006 budget cycle:
Amount includes MECO portion of EPRI Tailored Collaboration (TC) projects or Non-EPRI projects
Specific RD&D projects to be determined. Projects will be accounted for under "Projects" not "non-projects",
However, budget will come out of this "non-project" forecast amount.
Internal labor for engineering and design are not to be included in TC project budgets and must be
budgeted for separately; this includes intercomany billings
Note actual expenditures will not be limited to exp element 501

CA-IR-421

Ref: MECO-913 & MECO T-9 response to CA-IR-2 (Workers' Comp).

Footnote N in the MECO T-9 June 2007 Update refers to a $17,100 reduction in workers' compensation special fund assessments, which MECO T-9, page 46, describes as correcting a double counting error. The response to MECO T-9 to CA-IR-2, Attachment Q, provides support for the 2007 Workers' Compensation forecast ($300,000 work comp fees and $30,000 legal fees). Please provide the following:

a. Please explain how MECO determined that the $17,100 was included in the Workers' Compensation forecast and provide a copy of any supporting material.

b. Please update the response to CA-IR-2, Attachment Q, to include 2006 actual information.

MECO Response:

a. In preparing the direct testimony for MECO T-9, it was determined that the estimated costs for State of Hawaii workers' compensation special fund assessments were erroneously included in the 2007 Operating Budget two times. The 2007 Operating Budget included cost estimates for state workers' compensation special fund assessments both as a separate budget line item (in the amount of $15,230) and also incorrectly combined (in the amount of $17,100) with the test year estimate for excess workers' compensation insurance premiums. Please see the MECO T-9 response to CA-IR-2, Attachment H, for further details. Also, please note that neither the $300,000 estimate for workers' compensation fees nor the $30,000 estimate for legal fees, the detail for both of which are provided in the MECO T-9 response to CA-IR-2, Attachment Q, relate in any way to the test year estimates for either excess workers' compensation insurance premiums or state workers' compensation special fund assessments.

b. See Attachment 1 for the requested information. Please note that although the 2006 actual expenses were lower than in previous years, the test year estimate is reasonable. While workers' compensation expenses are difficult to predict, the relatively lower costs in 2006 may reflect MECO's exceptionally low lost time severity rate (i.e., the number of hours away from work due to workplace injury or illness per 100 full-time employees (FTEs) per year) of 38 in 2005 that resulted in decreased medical costs and fewer disability award payments in 2006 as compared to prior years. In contrast, the test year 2007 estimate was based on the previous five-year average (2001 to 2005) and an assessment of outstanding open claims that included medical evaluations, projected disability awards, and anticipated medical costs. Please also see MECO's response to CA-IR-422 for further discussion of how the Company developed the 2007 test year estimate for these specific items.

MAUI ELECTRIC CO., LTD. - ADMINISTRATION
WORKERS COMPENSATION EXPENSE
TREND ANALYSIS

RA	Act	Loc	Ind	Proj	EE	Actual 2001	Actual 2002	Actual 2003	Actual 2004	Actual 2005	Actual 2006	Avg
MSP	953	MAU	NE	NMSZZZZZ	502	49,455	78,199	26,228	15,692	22,479	15,819	34,645
MSP	953	MAU	NE	NMSZZZZZ	530	242,474	326,702	253,959	201,414	204,775	160,027	231,559
Total Workers Comp						291,929	404,901	280,187	217,106	227,254	175,846	266,204
						104,026	112,972	(124,714)	(63,081)	10,148	(51,408)	
						55.4%	38.7%	-30.8%	-22.5%	4.7%	-22.6%	

Take into consideration current cases which include probable PPD awards, medical waiver settlement, anticipated legal fees and ongoing substantial medical expenses due to nature of injuries.

2007 BUDGET: Say $300,000 work comp fees; $30,000 legal fees

CA-IR-422

Ref: MECO-913 & MECO T-9 response to CA-IR-2 (Workers' Comp).

After calculating a five-year average of workers' compensation costs and related outside legal services (i.e., $245,865 and $38,411, respectively) on Attachment Q of MECO T-9 response to CA-IR-2, MECO determined that the 2007 forecast for these items should be $300,000 and $30,000 based on the following statement: "Take into consideration current cases which include probable PPD awards, medical waiver settlement, anticipated legal fees and ongoing substantial medical expenses due to nature of injuries." The $300,000 for workers' compensation is significantly higher than the $201,414 and $204,775 experienced in 2004 and 2005. Please provide the following:

a. Please explain how the quoted items were considered in developing the 2007 test year forecast amount.

b. Referring to the response to part (a) above, please provide all documentation supporting the higher 2007 test year forecast amount.

c. Please explain how and whether the 2007 cases, settlements and injury expenses are materially different than historical levels.

d. Referring to part c. above, please explain and describe whether and to what extent MECO anticipates that the 2007 activity is more representative of ongoing conditions than prior year actual activity.

MECO Response:

a. Workers' compensation expenses are difficult to predict, in part because the number, type and severity of claims for which expenses will be incurred can vary significantly from year-to-year. Future cost estimates are based not solely on averages of historical costs but also take into consideration the specific aspects of each open claim such as the probability of permanent partial disability (PPD) awards, medical waiver settlements, anticipated legal fees and the possible need for substantial on-going medical expenses due to the nature of the injury for the particular claim.

The calculation of a five-year historical average was used as a starting point in the forecasting process for the 2007 Operating Budget. Beyond that, however, the 2007 Operating Budget process also involved making an assessment of the status of the then

outstanding claims based on the budget preparers' knowledge and experience, taking into account the current year-to-date lost time severity rate (i.e., the number of hours away from work due to workplace injury or illness per 100 full-time employees (FTEs) per year), number of outstanding claims, and the type and severity of injuries involved. For example, at the time the 2007 Operating Budget was prepared in the fall of 2006, the Company's lost time severity rate for the year-to-date October 2006 was considerably higher, at 171, than the exceptionally low rate of 38 recorded for 2005. In assessing the then outstanding claims, the budget preparers considered the outlook for future medical expenses, independent medical evaluations, legal fees, and potential settlements and disability awards.

b. Attachment A to this response includes the information provided in the MECO T-9 response to CA-IR-2, Attachment Q, updated to include a listing of the major claims outstanding in the fall of 2006. Attachment A is provided subject to Protective Order No. 23379 because the information provided in Attachment A includes confidential information about MECO workers' compensation injuries. In addition, employee names have been deleted from the information provided in Attachment A to maintain confidentiality of employee medical information. While the Company is unable to provide detailed medical information for individual claims, the information provided in Attachment A summarizes the information that was considered in the preparation of the 2007 Operating Budget for workers' compensation costs. As noted in the response to part a. above, the budget preparers took into account for each open claim the specific aspects of the claim such as the probability of permanent partial disability (PPD) awards, medical waiver settlements, anticipated legal fees and the possible need for substantial on-going medical expenses due to the nature of the injury for the particular claim in arriving at the estimate included in the 2007 Operating Budget.

c. The Company's response to part c. of this information request is provided subject to Protective Order No. 23379 because the response includes confidential information about a specific ongoing medical claim.

d. MECO anticipates that the 2007 activity is more representative of ongoing conditions than prior year actual activity due to the reasons stated in part c. above.

Confidential Information Deleted Pursuant To Protective Order No. 23379.

Attachment A contains confidential information and is being provided subject to

Protective Order No. 23379, dated April 23, 2007.

CA-IR-423

Ref: MECO-913 & MECO T-9 response to CA-IR-2 (Workers' Comp).

Referring to the response of MECO T-9 to CA-IR-2, Attachment R (pages 36 and 37) provide forecast support for additional outside services associated with Workers' Compensation. Please provide the following:

a. Please provide actual 2006 recorded amounts for both pages 36 and 37 of Attachment R.

b. Referring to Attachment R, page 36, please explain how the $7,200 was determined to be a reasonable ongoing forecast level, when limited actual expenditures have historically been incurred for this item other than calendar year 2003.

c. Referring to Attachment R, page 37, please explain how the $10,000 was determined to be a reasonable ongoing forecast level, when limited actual expenditures have historically been incurred for this item other than calendar year 2004.

d. Referring to the response to parts (b) and (c) above, please provide a copy of any additional documentation or calculations supporting these forecast amounts.

MECO Response:

a. The requested information is provided as follows:

T-9 CA-IR-2, Attachment R Page No.	RA	Act	EE	Line Item	2006 Actual
36	MSP	953	503	Work Comp Consultant Fees	$ 4,856
37	MSP	953	501	Outside Services	$ -

Please note that during 2006, MECO's workers' compensation consultant advised Maui Electric Company, Ltd. of further limitations on her availability due to personal reasons. This resulted in lower than expected costs for 2006.

b. Maui Electric Company, Ltd. is a self-insured employer and is fully responsible for the administration and case management of all workers' compensation claims that its employees experience. Assistance from outside workers' compensation adjusters is periodically needed to manage claims of greater complexity that require in-depth knowledge and experience. Similar to medical and other costs related to workers' compensation claims, fees for

consultants and outside adjusters are difficult to predict and estimates of future expenses are not based solely on historical costs. The test year estimate of $7,200 was based on an average of historical costs for such services as well as an assessment of open claims using budget preparers' knowledge and experience.

c. The test year estimate for investigative, nurse case management, and other services was determined in a manner similar to the manner in which the test year estimate for consultant and outside adjuster fees was determined as discussed in the response to part b. above.

d. The Company's response to part d. of this information request is provided subject to Protective Order No. 23379 because the response includes confidential information about specific ongoing medical claims.

CA-IR-424

Ref: MECO T-9 response to CA-IR-2 (Charitable Donations).

Referring to the response of MECO T-9 to CA-IR-2, it appears that Attachment R (pages 10 through 12) provide forecast support for various elements related to charitable activities (e.g., United Way, ACS Relay for Life, Adopt-a-Highway, March of Dimes, Hawaii Nature Center, Keola Awards Banquet, etc.). Please provide the following:

a. According to the referenced budget workpapers, the forecast amounts for these items were to be charged to Account 426. Please explain the basis for MECO's inclusion of these costs in Account 930.2 (see CA-IR-2, Attachment A, page 6, rows 199-201) instead of Account 426 for the 2007 test year.

b. Please confirm that MECO has not proposed to remove the $6,500 related to these items from the test year forecast. If this cannot be confirmed, please explain.

c. Other than these items, has MECO proposed to include any other dues, donations or other support for charitable organizations, events or community groups in test year expense? If so, please provide a detailed listing of such amounts by NARUC account with specific references to the supporting workpaper documentation.

d. Please explain and describe the basis relied upon by MECO to seek recovery of such amounts from ratepayers.

MECO Response:

a. The account number referenced in the budget work-papers provided in pages 10 through 12 of Attachment R in the MECO T-9 response to CA-IR-2 is incorrect. These work-papers should have referenced Account no. 930.21, community service activities, a sub-account under Account no. 930.2, miscellaneous general expenses. The inclusion of the costs for these items in the test year estimate under Account no. 930.2, for which MECO is seeking recovery from rate-payers in this instant proceeding, is appropriate because these costs are expected to be incurred by MECO in support of community services and activities. These costs are not donations for charitable, social or community welfare purposes, which would typically be accounted for as non-utility activities in Account no. 426, miscellaneous income

deductions. Please see MECO T-9, page 64, beginning at line 15 for further discussion of the Company's test year estimate for Account no. 930.21, community service activities.

b. This confirms that MECO has not proposed to remove the $6,500 related to these items from its test year 2007 estimate. The $6,500 for these items is appropriately included in MECO's test year 2007 estimate for the reasons discussed in the response to part a. above.

c. As discussed in the response to part a. above, the items identified in pages 10 through 12 of Attachment R in the MECO T-9 response to CA-IR-2 are included in the Company's test year estimate for Account no. 930.21, community service activities. The Company's test year 2007 estimate for Account no. 930.21 totals $56,200, as discussed in MECO T-9, page 64, beginning at line 15. Attachment 1 provides a list of the items that comprise the $56,200 total test year estimate.

d. As explained in the discussion of Account no. 930.21 in MECO T-9, page 64, beginning at line 15, the types of costs included in this account are incurred by MECO in support of community services and activities. Specifically, MECO participates in activities such as assistance to various non-profit community clubs, organizations and associations, and providing information to the community through articles in print media and communications via radio spots. The Commission has allowed the inclusion of community service activities expenses in determining rates in MECO's last rate proceeding; see Amended Decision and Order No. 16922 dated April 6, 1999 in Docket No. 97-0346. Furthermore, the test year estimate does not include business contributions which have been disallowed by the Commission in prior rate case proceedings and which are accounted for as non-utility expenses for ratemaking purposes.

MAUI ELECTRIC COMPANY, LTD.
ACCOUNT NO. 930.21 COMMUNITY SERVICE ACTIVITIES
2007 OPERATING BUDGET ($)

Description	2007 Operating Budget	Reference
Community relations promotional expenses (materials and supplies)	5,000	MECO T-8 response to CA-IR-2, Attachment B, page 38
Promotional - customer/project specific (materials and supplies)	10,000	MECO T-8 response to CA-IR-2, Attachment B, page 40
Arbor Day (materials and supplies)	2,000	MECO T-6 response to CA-IR-2, Attachment 13C, item #173
Community service activities (materials and supplies)	1,300	MECO T-9 response to CA-IR-2, Attachment R, page 10
Community service activiites (meals and entertainment)	2,200	MECO T-9 response to CA-IR-2, Attachment R, page 11
Community service activities (outside services)	3,000	MECO T-9 response to CA-IR-2, Attachment R, page 12
Community service activities (vehicles charges)	22,439	MECO T-9 response to CA-IR-2, Attachment R, page 72
Others (primarily labor and on cost charges)	10,261	
Total	$56,200	

CA-IR-425

Ref: MECO-909, CA-IR-374 & MECO T-9 response to CA-IR-2 (Outside Services - Legal).

Referring to the response of MECO T-9 to CA-IR-2, it appears that Attachment R (page 14) provides forecast support for Activity 765 on MECO-909. However, page 14 of Attachment R shows relatively no expenses for this activity in prior years and refers to the $10,000 as an "unpredictable expense item." Please provide the following:

a. Please explain how the $10,000 was determined to be a reasonable ongoing forecast level, when virtually no actual expenditures have historically been incurred for this item.

b. Please identify the specific legal activities associated with this cost estimate.

MECO Response:

a. The timing and amount of legal expenses with respect to employee claims against the company are difficult to predict, but the costs could be significant and are incurred when a claim is made that requires MECO to seek outside counsel. In 2006, the union (International Brotherhood of Electrical Workers, Local 1260) filed written demands for arbitration with respect to five grievances, one of which was settled without arbitration in late September 2007. MECO's test year 2007 estimate of $10,000 is reasonable because the amount of legal fees incurred by the Company would easily exceed the $10,000 estimate in the event any one of the remaining four grievances progresses through the arbitration process.

b. The $10,000 test year estimate includes costs with respect to activities such as services provided by attorneys, court reporters, or arbitrators.

CA-IR-426

Ref: MECO T-9 response to CA-IR-2 (Training).

Referring to the response of MECO T-9 to CA-IR-2, Attachment R (pages 15 and 16) provides forecast support for certain training activity but shows relatively no expenses for this activity in prior years, except for 2005. Please provide the following:

a. Please update the response to CA-IR-2, Attachment R (pages 15 and 16), to include 2006 actual information.

b. Please explain the basis for determining that $17,355 represents a reasonable ongoing forecast level, when virtually no actual expenditures have historically been incurred for similar training.

MECO Response:

a. Please see Attachment 1 for the requested information.

b. MECO has a commitment to employee development and the courses listed on pages 15 and 16 of the MECO T-9 response to CA-IR-2, Attachment R, are designed to address current and future business issues faced by the Company. MECO's approach to conducting the training courses identified on pages 15 and 16 of the MECO response to CA-IR-2, Attachment R, and which are described in detail below, is to train selected Company employees to become certified as in-house facilitators able to conduct the training. By taking this kind of approach, the employees who become certified as in-house facilitators are able to provide superior quality training by virtue of their knowledge of Company operations and the individuals who they train. On the other hand, this kind of approach to training has necessarily put MECO in the position of being dependent on the availability of those selected employees who have other primary responsibilities. MECO's training efforts are sometimes delayed when other priorities related to company operations take precedence, which has been the case here.

Although MECO has not been as successful in conducting the above referenced training courses due to the unavailability of in-house facilitators, this type of training is still necessary for the development of supervisors for MECO's continued success. In recognition of this, MECO plans to secure and engage outside facilitators to ensure that leadership training will occur. Thus the $17,355 test year 2007 estimate represents a reasonable and ongoing level of costs expected to be incurred. Following are descriptions for some of the courses listed on pages 15 and 16 of Attachment R, in MECO's T-9 response to CA-IR-2.

The Essential Workplace Skills course provides lessons in communication as it relates to leadership, listening, speaking to influence others, resolving conflict and dealing with workplace emotions.

The Foundations of Leadership course targeted towards supervisors provides the necessary tools to get results through people. In addition to meeting today's challenges, this course helps supervisors to realize their roles as catalyst leaders who inspire others to act.

The Civil Treatment for supervisors course is a comprehensive approach to fair employee practices. It translates legal issues into simple guidelines for professional behavior to create a climate of increased productivity and decreased risk of lawsuits and other employee claims.

All of the classes described above are interactive and provide participants with the opportunity to learn and practice skills on the job that will lead to increased job effectiveness.

BUDGET WORKPAPER

Maui Electric Company, Ltd.
Administration Department

O&M Budget - Non Labor

RA: MSA
Account No. 921
Description: Conduct EE Training
Meals & Entertainment

Prepared by:	K. Awai-Dickson
Date:	10/9/2007
Work Order #	AD000133
Activity Code:	788
Indicator Code:	NE
Project #:	NMSZZZZZ
Expense Element:	521

Budget years: **2007** **2008**

BUDGET DATA ENTRY

	2006		2007	2008
	Budget	YTD		
Jan	$ 81	$ -	$ 81	$ 105
Feb	$ 81	$ -	$ 81	$ 105
Mar	$ 81	$ -	$ 81	$ 105
Apr	$ 81	$ -	$ 81	$ 105
May	$ 81	$ -	$ 81	$ 105
Jun	$ 81	$ -	$ 81	$ 105
Jul	$ 81	$ -	$ 81	$ 105
Aug	$ 81	$ -	$ 81	$ 105
Sep	$ 81	$ -	$ 81	$ 105
Oct	$ 82	$ -	$ 81	$ 105
Nov	$ 82	$ -	$ 81	$ 105
Dec	$ 82	$ -	$ 84	$ 105
TOTAL	$ 975	$ -	$ 975	$ 1,260

ANNUAL HISTORY:

	RECORDED			CURRENT	BUDGET	
	2003	2004	2005	2006	2007	2008
Dollars	$ 192	$ 193	$ 435	$ -	$ 975	$ 1,260
% Change		0.5%	125.4%	-100.0%	#DIV/0!	29.2%

Details / Remarks:

FY2007:
Essential Workplace Skills
8 classes x $75 = $600
Foundations of Leadership
4 classes x $75 = $300
Civil Treatment - $75

Total = $975

FY2008:
Accelerating Team Productivity
4 classes x $75 = $300
Coaching Others/Managing Performance
8 classes x $75 = $600
graduation lunch: 18 people x $20 = $360

Total = $1,260

BUDGET WORKPAPER

Maui Electric Company, Ltd.
Administration Department

O&M Budget - Non Labor

RA: MSA
Account No. 921
Description: Conduct EE Training
Material Purchases

Prepared by:	K. Awai-Dickson
Date:	10/9/2007
Work Order #	AD000133
Activity Code:	788
Indicator Code:	NE
Project #:	NMSZZZZZ
Expense Element:	201 / 205

Budget years: **2007** **2008**

BUDGET DATA ENTRY

	2006		2007	2008
	Budget	YTD		
Jan	$ 1,365	$ -	$ 1,365	$ 975
Feb	$ 1,365	$ -	$ 1,365	$ 975
Mar	$ 1,365	$ -	$ 1,365	$ 975
Apr	$ 1,365	$ -	$ 1,365	$ 975
May	$ 1,365	$ -	$ 1,365	$ 975
Jun	$ 1,365	$ -	$ 1,365	$ 975
Jul	$ 1,365	$ -	$ 1,365	$ 975
Aug	$ 1,365	$ -	$ 1,365	$ 975
Sep	$ 1,365	$ 17	$ 1,365	$ 975
Oct	$ 1,365	$ 8	$ 1,365	$ 975
Nov	$ 1,365	$ -	$ 1,365	$ 975
Dec	$ 1,365	$ -	$ 1,365	$ 975
TOTAL	$ 16,380	$ 25	$ 16,380	$ 11,700

ANNUAL HISTORY:

	RECORDED			CURRENT	BUDGET	
	2003	2004	2005	2006	2007	2008
Dollars	$ 141	$ 5,723	$ 6,884	$ 25	$ 16,380	$ 11,700
% Change		3958.9%	20.3%	-99.6%	65420.0%	-28.6%

Details / Remarks:

FY2007:

Essential Workplace Skills
- Communication; Workload Management
18 people x 8 classes x $45 book = $6,480
2 facilitator kits x $450 = $900

Foundations of Leadership
18 people x 4 classes x $50 book = $3,600
2 facilitator kits x $450 = $900

Civil Treatment - 15 people x $300 = $4,500

FY2008:

Accelerating Team Productivity
18 people x 4 classes x $50 book = $3,600
2 facilitator kits x $450 = $900

Coaching Others for Top Performance
18 people x 4 classes x $50 = $3,600

Managing Performance of Others
18 people x 4 classes x $50 = $3,600

CA-IR-427

Ref: MECO T-9 response to CA-IR-2 (Security).

Referring to the response of MECO T-9 to CA-IR-2, Attachment R (pages 52 and 54) provides forecast support for certain security related costs (i.e., continuation of core and lock change out) in the amounts of $5,000 and $15,000 respectively. Please provide the following:

a. Please describe the core and lock change out project, indicating start and completion dates.

b. Please update the response to CA-IR-2, Attachment R (pages 52 and 54), to include 2006 actual information.

c. Please explain the basis for determining that these amounts represent reasonable ongoing forecast levels.

MECO Response:

a. As part of the critical infrastructure for both the County of Maui and State of Hawaii, Maui Electric Company, Ltd. heightened its security following the tragic events of September 11, 2001. MECO took precautionary measures to increase the security of its facilities and will continue to take precautionary measures to ensure the continued security of its facilities. The core and lock change out program identified on pages 52 and 54 of the MECO T-9 response to CA-IR-2, Attachment R, is one such precautionary measure implemented to upgrade infrastructure security and to improve the key control system that monitors and controls access to secured areas. The core and lock change out program consists of changing out gate locks at substations on Maui, and also gate locks at the Kahului Power Plant, Maalaea Power Plant, Molokai's Palaau Power Plant and Lanai's Miki Basin Power Plant. Due to insurance requirements, the program was broadened to include securing all electrical cabinets and transformers within each substation. The core and lock change out program started in early 2006 and although the initial change out of the cores and locks is

scheduled to be completed by the end of 2008, the program will continue to be maintained and updated regularly thereafter.

b. Please see Attachment 1, pages 1 and 2, for the requested updates.

c. As noted in the response to part a., the core and lock change out program identified on pages 52 and 54 of the MECO T-9 response to CA-IR-2, Attachment R, is just one of the additional security measures taken or to be taken, to increase the security of the Company's facilities and infrastructure. The Company plans to continue this program and eventually change out the locks of all buildings and other secured areas within its facilities. MECO did not normalize the estimated cost for its core and lock change out program because the Company will incur such costs in 2007 and while this particular cost would not necessarily be incurred at the same levels in future years, there will be other costs that are not included in the test year that will be incurred in future years. The Company plans to continually initiate, improve or update other programs or projects that will help to ensure the security of its facilities and MECO does not foresee any decrease in the heightened security requirements at any time in the near future. Examples of other security programs or projects considered for future years are security access software upgrades for the employee security badge system and the replacement of locks on the thousands of pad-mounted distribution transformers on the islands of Maui, Lanai and Molokai, which is expected to take several years to complete.

BUDGET WORKPAPER

Maui Electric Company, Ltd.
Administration Department

O&M Budget - Non Labor

RA: MSS
Account No. 921
Description: Provide & Mge Security
Material Purchases
Key Change Out

Prepared by:	J. Blackburn
Date:	10/9/2007
Work Order #	SF000087
Activity Code:	933
Indicator Code:	NE
Project #:	NMSZZZZZ
Expense Element:	201

Budget years: **2007** **2008**

BUDGET DATA ENTRY

	2006 Budget	2006 YTD	2007	2008
Jan	$ 1,041	$ -	$ 416	$ 250
Feb	$ 1,041	$ 1,406	$ 417	$ 250
Mar	$ 1,041	$ 4,519	$ 417	$ 250
Apr	$ 1,041	$ 2,012	$ 416	$ 250
May	$ 1,042	$ 679	$ 417	$ 250
Jun	$ 1,042	$ 2,765	$ 417	$ 250
Jul	$ 1,042	$ 16	$ 416	$ 250
Aug	$ 1,042	$ 340	$ 417	$ 250
Sep	$ 1,042	$ 2,993	$ 417	$ 250
Oct	$ 1,042	$ 7,048	$ 416	$ 250
Nov	$ 1,042	$ -	$ 417	$ 250
Dec	$ 1,042	$ 1,106	$ 417	$ 250
TOTAL	$ 12,500	$ 22,884	$ 5,000	$ 3,000

ANNUAL HISTORY:

	RECORDED 2003	RECORDED 2004	RECORDED 2005	CURRENT 2006	BUDGET 2007	BUDGET 2008
Dollars	$ -	$ -	$ 8,635	$ 22,884	$ 5,000	$ 3,000
% Change		n/a	n/a	165.0%	-78.2%	-40.0%

Details / Remarks:

2007:

Continuation of core and lock change out = $5,000

2008:

Continuation of core and lock change out = $3,000

BUDGET WORKPAPER

Maui Electric Company, Ltd.
Administration Department

O&M Budget - Non Labor

RA: MSS
Account No. 921
Description: Provide & Mge Security
O/S Services - General
Key Change Out

Prepared by:	J. Blackburn
Date:	10/9/2007
Work Order #	SF000087
Activity Code:	933
Indicator Code:	NE
Project #:	NMSZZZZZ
Expense Element:	501

Budget years: **2007** **2008**

BUDGET DATA ENTRY

	2006 Budget	2006 YTD		2007		2008
Jan	$ 3,125	$ 234	Jan	$ 1,250	Jan	$ 166
Feb	$ 3,125	$ -	Feb	$ 1,250	Feb	$ 167
Mar	$ 3,125	$ -	Mar	$ 1,250	Mar	$ 167
Apr	$ 3,125	$ -	Apr	$ 1,250	Apr	$ 166
May	$ 3,125	$ -	May	$ 1,250	May	$ 167
Jun	$ 3,125	$ 66	Jun	$ 1,250	Jun	$ 167
Jul	$ 3,125	$ -	Jul	$ 1,250	Jul	$ 166
Aug	$ 3,125	$ -	Aug	$ 1,250	Aug	$ 167
Sep	$ 3,125	$ -	Sep	$ 1,250	Sep	$ 167
Oct	$ 3,125	$ -	Oct	$ 1,250	Oct	$ 166
Nov	$ 3,125	$ -	Nov	$ 1,250	Nov	$ 167
Dec	$ 3,125	$ -	Dec	$ 1,250	Dec	$ 167
TOTAL	$ 37,500	$ 300	TOTAL	$ 15,000	TOTAL	$ 2,000

ANNUAL HISTORY:

	RECORDED 2003	2004	2005	CURRENT 2006	BUDGET 2007	2008
Dollars	$ -	$ -	$ -	$ 300	$ 15,000	$ 2,000
% Change		n/a	n/a	n/a	4895.7%	-86.7%

Details / Remarks:

2007:

Continuation of core and lock change out = $15,000

2008:

Continuation of core and lock change out = $2,000

CA-IR-428

Ref: MECO-918 & response to CA-IR-156 (Research & Development).

The MECO-918 identifies the $42,635 in 2005 as a coding error that should have been in Account 923030. Please confirm that this amount was actually charged to Account 9302, but does not represent R&D costs includable in Account 9302. If this cannot be confirmed, please explain.

MECO Response:

Yes. MECO confirms that the $42,635 amount in 2005 identified on MECO-918 as a coding error was actually charged to Account no. 9302 but does not represent research and development costs includable in Account no. 9302. The $42,635 amount represents inter-company charges for services rendered by HECO's Purchasing Division that should have been charged to Account no. 923.03, services from associated companies.

CA-IR-429

Ref: MECO response to CA-IR-365 (Research & Development).

In response to CA-IR-365, MECO provided actual 2007 R&D expenditures by month. Compared to MECO's 2007 test year forecast of $255,379 for non-EPRI R&D, the Company had incurred only $431 through July, 2007. Please provide the following:

a. Does MECO still plan on spending the entire $255,379 (less $481) during the remainder of 2007? Please explain.

b. If the response to part (a) above is affirmative, please describe MECO's plans to achieve that expenditure level during the last five months of 2007.

c. During 2007, was MECO under any directive or other conditions that constrained the Company's ability to spend the committed funds on non-EPRI R&D projects? Please explain.

d. If the response to part (c) above is negative, please explain the absence of any material non-EPRI R&D expenditures through July 2007.

MECO Response:

a. Probably not, for the reasons explained in the response to part c. below. However, as explained in the following discussion, the test year estimate is reasonable. Spending for non-EPRI research and development depends on the availability of viable projects or programs which have the potential to benefit MECO's ratepayers. In 2007 the Company has continued to try to identify and pursue such projects or programs, examples of which are described in Attachment B of the Company's response to CA-IR-365. The projects identified in Attachment B generally require the cooperation and/or participation of external parties (i.e., customers such as the Maui High Performance Computing Center in the case of the Solar Air Conditioning project, or other third parties such as the County of Maui in the case of the Photovoltaic County Grant, or EPRI) and the availability of viable projects, which can decrease the predictability of timing of research and development expenditures. Although MECO continues to work toward initiating and making progress on the research

and development projects and programs identified in its response to CA-IR-365, Attachment B, MECO cannot predict when viable projects might be identified and agreement might be reached with the external parties to those projects such that work can begin.

An example of the unpredictable nature of research and development projects is the Solar Air Conditioning project which the Company identified in its response to CA-IR-365, Attachment B. The Company worked with a solar vendor to do a preliminary assessment for the Maui High Performance Computing Center ("MHPCC") and to evaluate the possibility of installing a solar absorption cooling system. After the vendor conducted the preliminary assessment for MHPCC, and evaluated the preliminary economics of the project, MHPCC decided not to do the project. Instead, MHPCC is pursuing an alternative renewable project that does not qualify for research and development funding. Please see Attachment A for information regarding the Company's specific plans for research and development projects, including a discussion of the Solar Air Conditioning project.

Notwithstanding the unpredictable nature of non-EPRI research and development projects, the test year estimate is reasonable because management currently intends to generally fund future year research and development activities at the test year level of expenditures. However, as the Company stated in its response to CA-IR-366, part c., future conditions may result in actual expenditure levels in each year being more or less than the test year estimate of research and development program costs included in the test year revenue requirement approved in the Commission's Decision and Order in this docket.

b. Not applicable.

c. The Company provides the following response subject to Protective Order No. 23379,

issued April 23, 2007, because the response includes information with respect to the Company's internal cost management practices and an updated annual O&M outlook which is privileged information that should not be subject to review by the general public as are other parts of the record in this proceeding. [redacted]

[redacted]

d. A response to this part d. is not applicable in that the response to part c. above is affirmative. However, MECO provides the following response with respect to the Consumer Advocate's reference to expenditures through July 2007. The non-EPRI research and development projects and programs included in the test year, as identified in MECO-918, generally require the cooperation and/or participation of external parties (either customers or other third parties) and the availability of viable projects, which increases the difficulty of forecasting the timing of when viable projects might be identified and commitments or agreements would be executed with such external parties and therefore, when such projects will commence and the related costs incurred (see also the response to part a. above). The absence of any significant non-EPRI research and development spending in the first seven months of 2007 was due to delays in the identification of viable projects and execution of firm commitments with the kind of external parties required to proceed with the projects and programs included in MECO's test year. However, it is reasonable to expect that once such commitments or agreements are executed, work will commence and research and development expenditures will be incurred for the projects and programs included in the test year and identified in Attachment A in amounts at levels adjusted for the spending constraints described in the response to part c. above.

The Company's specific plans for research and development projects for 2007 included pursuit of the projects listed on Attachment A of the response to CA-IR-365, with descriptions of the projects in Attachment B of the same response. As of the filing of this information request, the Company provides updates on the following projects:

Sun Power for Schools

The Company anticipates installing three 1-2 kW photovoltaic ("PV") systems within the next few months to a year. Customer contributions accumulated through the Sun Power for Schools ("SPS") Program allow for the purchase of materials for full PV systems rather than outdoor PV lighting. The State of Hawaii Department of Education has given its approval for MECO to approach the next three schools identified on the SPS list, and the Company expects to issue request for proposals for turn-key installations by the end of October. MECO estimates costs of approximately $20,000-$25,000 per project for a total of $60,000-$75,000.

Solar Air Conditioning

The Company worked with a solar vendor to do a preliminary assessment for the Maui High Performance Computing Center ("MHPCC") and to evaluate the possibility of installing a solar absorption cooling system. The project was to include installing enough solar panels on land adjacent to MHPCC to provide power to a 30 ton single-stage absorption chiller to supplement cooling for the customer's new building. After the vendor conducted the preliminary assessment for MHPCC, and evaluated the preliminary economics of the project, MHPCC decided not to do the project. Instead, they are pursuing an alternative renewable project that does not qualify for research and development funds.

Photovoltaic County Grant

The Company, in collaboration with the County of Maui and several community-based organizations, is encouraging the development and growth in the solar electric industry by providing PV systems to seniors and low-income residential consumers. In October 2006, MECO applied for a grant from the County of Maui's Office of Economic Development. The grant funds in the amount of $150,000 would cover the cost of the PV hardware and installation. MECO's contribution of $35,000 was for project management and marketing/educational material. Given the change in County administration, MECO was asked to resubmit its application, a copy of which is included on pages 4 through 16 of this Attachment A, which it did in April 2007. MECO continues to work with the County to obtain the funding.

Scotopically Enhanced Lighting (EPRI Tailored Collaborative)

The Company is working with the Electric Power Research Institute ("EPRI") and the Sheraton Maui Resort to test the concept of scotopically enhanced lighting for the Sheraton's parking garage. The project has qualified for EPRI Tailored Collaborative funding, and is scheduled to be completed in December 2007. A copy of the Supplemental Project Agreement, although not signed by EPRI as of the date of the filing of this response, is included on pages 17 through 23 of this Attachment A. The total cost estimate for this project is approximately $30,000 of which MECO's cost share would be approximately $15,000. MECO will be initially billed for the $30,000 in the next couple months, and refunded the EPRI share less administrative costs, upon completion of the project.

Hawaii Ocean Current Resource and Technology Assessment (EPRI Tailored Collaborative)

HECO is currently evaluating ocean resources and monitoring the associated conversion

technologies. HECO is negotiating and expects to execute by the end of October a collaborative funding agreement with EPRI to undertake an ocean resource and technology assessment study. MECO and HELCO are part of this collaboration. The total project cost is estimated to be $71,500 of which MECO's cost share would be approximately $10,000. To date, the consultant selected by HECO has completed about 40% of the work, and MECO expects to be billed for its share in the next two months.

Small-Scale Wind Power

The Company has made a letter commitment, a copy of which is included on page 24 of this Attachment A, to fund $10,000 towards a 6 kW wind turbine project at the Maui Ocean Center. The Customer is working on acquiring the required permits and approvals to begin the project based on an agreement with Aerovironment, who will manufacture and supply the turbines.

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

April 2, 2007

Ms. Deidre Tegarden
Office of Economic Development
County of Maui
200 S. High Street
Wailuku, HI 96793

Re: Grant Request for FY2007, Energy = CM^4

Dear Ms. Tegarden,

Please find attached a request for grant assistance of $150,000, for a new program called "Energy = CM^4". This program is a collaborative effort between the County of Maui ("C"), Maui Electric Company, Maui Economic Opportunity, Maui Community College, and Maui Economic Development Board (M^4) to increase economic opportunities through the installation of a renewable resource. The funds from this grant will be used to spur development and growth in the solar electric industry by providing photovoltaic systems to seniors and low-income residential customers.

Please contact me at (808) 871-2397 if you have any questions regarding this grant request.

Sincerely,

Joanne Ide
Supervisor, Integrated Resource Planning

cc: Sharon Suzuki – MECO
Lyle Matsunaga – MECO

COUNTY OF MAUI OFFICE OF ECONOMIC DEVELOPMENT
REQUEST FOR GRANT ASSISTANCE

GRANT APPLICATION FOR:

Energy = CM[4]
Project Title

FISCAL YEAR ENDING: 06-30-2007

DATE OF APPLICATION: ~~10.23.06~~ 4/3/06

GRANTING AGENCY: County of Maui Office of Economic Development
200 South High Street, Wailuku, Hawai'i 96793
Telephone: (808) 270-7710 Facsimile: (808) 270-7995

APPLICANT

1. LEGAL NAME OF ~~NON-PROFIT~~ ORGANIZATION:
Maui Electric Company, Limited

2. MAILING & STREET ADDRESS: 210 W. Kamehameha Avenue

CITY Kahului STATE HI Zip 96733-6898

3. CONTACT PERSON: Joanne Ide

4. PHONE NO.: (808) 871-2397 FAX NO.: (808) 872-3235

5. EMAIL ADDRESS: joanne.ide@mauielectric.com

6. FEDERAL I.D. NUMBER: 99 - 0047800

7. AMOUNT OF REQUEST OF COUNTY FUNDS: $ 150,000

8. HAS THE APPLICANT APPLIED FOR/RECEIVED ANY OTHER FUNDS FROM THE COUNTY OF MAUI THIS FISCAL YEAR?

Yes ☐ Sources:
No ☒ Amounts:

Complete the following questions and statements (numerals I to III). Please indicate response with numeral and letter corresponding to question. Please utilize this format and do not bind or put your application in booklet form. Using this format will enhance the Grant Review Committee's understanding of your project. If you wish to include items outside of this format, please place them at the end of the application in the Additional Attachments section (III).

Indicate how funds will be used in one sentence: Funds from this grant will be used to set up a revolving fund, to make zero interest loans available to seniors and low-income residents to install photovoltaic systems on their homes.

I. GENERAL INFORMATION

A. **Project Summary:** Your summary of the project should include the public purpose(s) to be achieved, what is to be provided, how it is to be provided and the results.

B. **Introduction:** Tell us about your organization and its members, if any.

C. **Problem/Need and Target Groups:** Provide justification for the request. Define and quantify the economic problems and needs to be addressed and the geographic areas and population to be served. Explain how the request will maintain or expand an existing program or establish a new one. Please be very specific.

D. **Goals and Objectives:** State the goals of the proposed project and economic impact to Maui County to be achieved. List the specific project development objectives to be achieved. Goals should number at least two, and each should have a set of specific objectives. Each objective must have a date for accomplishment and must be measurable and verifiable. For example, "we plan to increase tourism by 30% in 3 months".

E. **Schedule of Action Steps to Achieve Objectives:** For each objective listed above, describe the action steps to be taken to achieve the objectives. Include a time line for the execution of specific activities. For first time events, programs, or projects, include a plan/timeline for future economic self-sufficiency, developing other revenue sources, etc.

F. **Use of Community Resources:** Provide a brief analysis of existing community resources available to assist in meeting identified needs and problems. Explain how the proposed program will interface and coordinate with these and other pertinent resources. Explain how your program will utilize Maui County labor sources, products, and materials.

G. **Methods:** Explain in detail how you will accomplish your program: what activities will take place, who will be involved, and how results will be evaluated. Please explain why you are using this methodology and substantiate why you feel this is the best method for accomplishing the goal.

H. **Focus Maui Nui:** In summer 2003, Focus Maui Nui brought together a diverse cross-section of over 1,700 residents to define a vision, guiding values and priorities for Maui Nui. Over three months, 167 small group discussions took place in homes, churches, classrooms and workplaces.

IV. APPLICANT SUBMITTAL

Maui Electric Company, Limited submits this
(Applicant)
application as required to receive Maui County Economic Development grant funds for

Energy = CM^4
(Project Name)
and hereby agrees to administer the project in accordance with the contract prescribed by the County of Maui Office of Economic Development. Distribution of grant funds is limited to those applicants who are in compliance with regulations, policies and procedures. The Office of Economic Development reserves the right to withhold such distributions at any time the applicant/grantee is not in compliance.

It is the policy of the County of Maui, a political subdivision of the State of Hawaii, whose principal place of business is 200 South High Street, Wailuku, Maui, Hawaii 96793, hereinafter called the "COUNTY", and for those who do business with the County to provide equal employment opportunities to all persons regardless of race, physical disabilities, color, religion, sex, age or national origin as mandated by the Federal Civil Rights Acts, as amended, and any other federal and state laws relating to equal employment opportunities.

V. AUTHORITY AND CAPACITY

The applicant assures that it has the authority and capacity to develop and submit the application, and to carry out a project pursuant to the application.

VI. CONTRACTS

Contract for a grant shall not be disbursed unless and until a fully executed grant agreement is entered into between the COUNTY and the recipient. The terms of this application shall be incorporated between the COUNTY and the recipient. Each grant agreement shall expressly state that the GRANTEE is an independent contractor and not an employee of the County and provide that the recipient or provider shall indemnify and hold harmless the County, the appropriate contracting agency, and the involved officers, employees, and agents from and against all claims, damages, or costs arising out of or in connection with the acts or omissions of the recipient or provider.

VII. CONTINUED ELIGIBILITY

Any GRANTEE who withholds or omits any material facts to the County of Maui shall be in violation of the terms of this Agreement and may be liable to reimburse a portion of any funds received herein. Such GRANTEE shall be prohibited from receiving any grant, subsidy or purchase of service Agreement from the County of Maui for a period of five years.

CERTIFICATION

(Unsigned proposals will not be accepted.)

The applicant certifies that the data in this application are true and correct and that the Applicant shall comply with the assurances set forth in this application.

Name, title and address of official(s) authorized to sign for applicant organization:

APPLICANT: Maui Electric Company, Limited

PROJECT TITLE: Energy = CM²

NAME OF AUTHORIZED REPRESENTATIVE: Joanne Ide

Its: Supervisor IRP / Customer Efficiency Programs

(Signature of authorized representative) 4/3/07 (Date)

I. General Information

A. Project Summary:

The County of Maui and Maui Electric Company, Ltd. (MECO) have been working together to increase the use of renewable energy in Maui County by increasing the number of solar water heating systems ("SWH Systems") installed on residences in Maui County. This has been a very successful effort and has increased the number of solar water heater providers and technicians in the county as the demand for solar water heaters increased with rebates provided by MECO and the zero interest loans provided through money from the county. Extending the effort to increase economic opportunities through renewables, Maui Electric Company, Ltd. proposes to now focus on photovoltaic (PV) systems (or solar electric systems). The idea is to spur development and growth in the solar electric industry by providing PV systems to seniors and low-income residential consumers. This program will assist those who are having the hardest time keeping up with increased electrical bills, as well as seed this fledgling industry on Maui. This will be a partnership between the County of Maui, MECO, Maui Economic Opportunity (MEO), Maui Community College (MCC) and Maui Economic Development Board (MEDB); dubbed Energy = CM^4 (Energy = County x MECO x MEO x MCC x MEDB).

MECO anticipates that it can install 10-15 solar electric systems in one year, while providing training through internships of students in MCC's Sustainable Technologies and Building Trades and Maintenance programs. These students are the future employees of this industry, needed in order for it to become self-sustaining. Additionally, MEO will identify and refer candidates to MECO, as well as help provide education on solar electric systems and energy efficiency to families struggling to pay their electric bills. These systems cost between $10,000 and $30,000 a piece depending on size, but can reduce and nearly eliminate the electric costs for these customers for at least 20 years. Residential customers who participate in our net metering program can effectively zero out their energy use on their electric meter if energy efficiency is applied in conjunction with the solar electric installation.

B. Introduction:

MECO is the electric utility serving Maui County. MECO's energy efficiency group has implemented a solar water heat program for 10 years and has facilitated installation and approval of nearly 8,000 solar water heaters. MECO has pursued and obtained grants from The County of Maui, the US Department of Agriculture, and the US Department of Energy's Million Solar Roofs Initiative in order to encourage solar thermal use on Maui. The installation of PV systems (solar electric) increases the use of renewable energy in Maui County moving us toward sustainability, a stated goal of the Focus Maui Nui process that was co-funded by the County. As part of its Integrated Resource Planning-3 process MECO conducted public meetings and took to heart the expressed community interest to move away from our dependence on fossil fuels and toward energy security/sustainability with more renewables, developing the idea for this program as an extension of the foundation already laid through its solar water heating program.

C. **Problem/Need Target Groups:**

The average electric bill for a residential consumer using 600kWh in September 2006 on Maui was $176. Although the average usage for a resident on Lanai and Molokai is lower, the price of electricity is approximately 20% higher than Maui. Average household use of all MECO residential customers is actually up from the 600kWh to about 700kWh per month over the course of a year. Seniors, often living on fixed incomes, and low-income families cannot keep up with the increase in their electric bills. Fuel oil prices increased roughly 20% in 2005 and are forecast to remain high. Further, the consumer price index has seen a steady rise as prices across the board have increased (see Table 1). This is putting pressure on all consumers, but more so on those with fixed incomes or who are living near or below the poverty level.

Table 1 Consumer Price Index January 2003 to January 2006

CPI Year over year comparison	Percent Increase
Jan 2003 - Jan 2004	1.93
Jan 2004 - Jan 2005	2.97
Jan 2006 - Jan 2005	3.99

With an increasing elder population and continued high fuel costs to produce electricity, senior and low-income residences are struggling to keep up with their bills. This program targets these disadvantaged groups to receive a solar electric system that will help to set a fixed amount for the electricity over the course of five years. With help from MEO and MCC's Sustainable Technologies Program, candidate households will be identified, educated about energy use and solar electric solutions, and assessed for feasibility to install a system at their residence. MEO will assist the candidates with the necessary paperwork to apply for a system and MECO will determine final approval. MECO will choose from a pool of designated contractors to install the system. The contractors in the pool will all agree to provide educational opportunities to the students of the MCC's Sustainable Technologies and Building Trades and Maintenance programs, thereby aiding this fledgling industry to get a good start, by training technicians who can install and repair the systems. It provides another career opportunity for Maui students who often leave the island to search for employment. MCC will provide scholastic credit for the students who complete internships with the solar contractors.

The timing is ideal to encourage growth in this industry in large part due to the new Federal Tax credits for solar electric systems for residential customers in 2006 and 2007. Maui County is a very suitable location for solar as we have some of the highest solar insolation rates in the country. We have the largest solar water heater program in the nation and we believe that this new program is a perfect match to assist and encourage growth in the solar electric industry in Maui County, thus further diversifying Maui County's work force.

D. **Goals and Objectives:**

Goal 1: Help to support and spur on a fledgling PV industry.

Objective: Contract for a minimum of 10 systems to be installed and up to 20 systems (depending on funding) by local PV installers.

Goal 2: Establish internships for students to participate in MCC's Sustainable Technologies and Building Trades and Maintenance programs. MCC has its challenges with enrollment in its Sustainable Technologies program, so it also helps to encourage students to choose this course of training, thereby keeping the program running.

Objective: Recruit and assist students to intern with the PV installers.

Goal 3: Assist senior and low-income households to stabilize their electric payments in the near term and nearly eliminate them in the long term. This eliminates the uncertainty with regard to price volatility, allows them to use the electricity they need without fear of not being able to pay the bill, and may generate a bit of disposable income for these households.

Objective: Install PV systems on 10-15 senior or low-income households and enroll them in MECO's net metering program.

E. **Schedule of Action Steps to Achieve Objective:**

Upon notification of award of grant from the County, MECO will begin promoting the E=CM[4] program among solar installers and developing a pool of qualified contractors to participate in the program. (Goal 1)

Once the contract for the grant has been executed, MECO will work with MCC to promote the internship opportunities and to select interns. (Goal 2)

MEO will identify candidate households and assist with education of how to reduce electric bills and the benefits of going solar. MCC interns will conduct energy audits for all potential candidates to assist with the identification of options for making homes more energy efficient. Once candidates have been identified, MECO will assess the residence for suitability of placement of a system. (Goal 3)

MECO will then choose a contractor (or a pool of contractors) to install system(s). Each chosen contractor must agree to provide classroom instruction at MCC on the technology as well as allow the interns to attend the installation of each system. MECO will follow-up with an inspection of the installation and compliance with the requirements of net energy metering. MECO anticipates being able to install at least 10 systems in the first year of the program, subject to availability of materials and contractors. (Goal 1)

MECO will work with the recipient households to enroll them in our net metering program. (Goal 1)

F. **Use of Community Resources:**

There are 16 solar contractors in Maui County that are participating in the MECO Residential Solar Water Heating (REWH) program. Many contractors also currently install PV systems. This program will provide one or more contractors with a solid business base in this next year.

MEO currently serves Maui County seniors and low-income households through their Weatherization Assistance LIHEAP programs. This program will allow MEO to extend their reach.

MCC offers a Sustainable Technologies program and a Building Trades and Maintenance program. MECO presently works with MCC on the Hawaii Energy Test Laboratory (HETL) and has staff that teaches classes in the Sustainable Technologies program.

These organizations have established community networks with the people we are seeking to help with this program, as well as with the students who will be candidates for internships. By working together, we strengthen the outreach and the potential for success of this program.

G. **Methods:**

MECO believes that this program should be run similar to the current Maui Solar Roofs Initiative program, which is a zero interest revolving loan program. Approved applicants will own the system after paying a down payment equal to or less than the State Energy Tax Credit for Photovoltaic systems the applicant can expect to receive, and a monthly payment equal to the amount the electricity produced by this solar electric system multiplied by the previous twelve months average cost per kWh, estimated to be between $50 and $75/month. The monthly payments will be fixed over 10 years. Should the home be sold prior to the end of the loan period, the amount due to MECO will be equal to the remaining payments (as set by monthly payment equal to the average utility bill and multiplied by the remaining months in the loan period). Note that the cost to the applicant will be less than the total cost of the system. The amount for the down payment and the term of the loan has been determined with input from MEO.

To be eligible, applicant must first be a resident homeowner or a homeowner renting to the target group (seniors or low-income residents), and satisfy MECO's customer credit criteria, which, among other things, require that they have an acceptable MECO payment record (MECO credit rating of 2 or 3) and that the applicant's account with MECO is current. MEO will provide a list of suitable candidates and assist with the screening. The list will consist of candidates who just missed the cut for qualifying for a free solar water heating system through the U.S. Department of Energy's Weatherization Assistance Program. The Weatherization Assistance Program is a federal program designed to help lower utility costs by reducing energy use. MEO's funding typically allows only 10 systems to be installed each year. By joining these two programs together, more low-income and seniors can receive assistance to reduce their energy use and therefore utility costs.

Approved applicants shall repay the loans by regular monthly payments reflecting the expected electrical usage savings from the system. The payments shall be deposited into the revolving loan fund to be loaned out again.

H. **Focus Maui Nui:**

The program is designed to address four of the five Focus Maui Nui's key strategies. It is meant to spur development and growth in the budding solar electric

industry by providing a mechanism to install a renewable energy resource to seniors and low-income residents. PV systems can help address the high cost of energy, which creates a challenge to affordable housing. A major component of this program is to provide educational opportunities to interns in MCC's Sustainable Technologies Program and the Building Trades and Maintenance Program specializing in the alternative energy area.

I. **Evaluation:**

All candidates will be tracked to assist in the evaluation and reporting process. Information to be tracked on the loan program participants include income level, location, number of people in home, the size of the system as well as loan payment performance and remaining balance. This information allows the continuous evaluation of a variety of program performance issues as well as applicant default rate.

J. **Alternatives:**

There are no other sources at this time for this level of funding for the revolving fund however, MECO will continue to look for other sources of funds that can supplement the purpose of the Program.

II. Required Documentation

A. **Budget:**

All of the costs for administration and operation of the Program are provided by MECO. The grant funds are used only for the PV systems and their installation by trained contractors. No other expenses are charged to or taken from the grant funds. All loan payments as described in Section G. are to be deposited back into the revolving fund to be loaned out again. (See Attachment A)

B. **Recent Audited Financial Statement:**

Maui Electric Company, Ltd., is a wholly owned subsidiary of Hawaiian Electric Company, Inc. The financial statements of Maui Electric Company, Ltd. are audited annually as a part of the annual audit of the consolidated financial statements of Hawaiian Electric Company, Inc., which is Maui Electric Company, Ltd.'s parent company. Copies of audited financial statements, together with the Independent Auditor's Report can be found in the Form 10K filed annually with the U.S. Securities and Exchange Commission for both Hawaiian Electric Company, Inc. and its parent company, Hawaiian Electric Industries, Inc.

C. **Indication of Non-profit Status:**

N/A

D. **Roster of Advisory Board:**

T. Michael May, Chairman
B. Martin Luna

Boyd P. Mossman
Edward L. Reinhardt
Anne M. Takabuki

E. **Bylaws of Organization:**

Please refer to Corporate Governance Documents at www.hei.com.

F. **Existing Agreements with the County of Maui:**

MECO has a Memorandum of Agreement with Maui County establishing the Maui Solar Roofs Initiative (MSRI) Program in fiscal year 2003. County funding, in the amount of $250,000, were provided to MECO to establish a revolving loan fund to assist with the installation of solar water heaters (Contract No. C2033). Subsequently, the County of Maui awarded three additional grants to MECO during fiscal years 2004, 2005, and 2006, which added a total of $300,000 to the revolving loan fund (Grant Agreements G1723, G1879, and G2069). The MSRI Program has been hugely successful and a waiting list for the loan funds exists.

G. **Policy Statements:**

Please refer to Corporate Governance Documents at www.hei.com.

H. **Written Policies and Procedures:**

Please refer to Corporate Governance Documents at www.hei.com.

Attachments:

A. Budget

Attachment A

COUNTY GRANT BUDGET			
ITEMS	REQUESTED FROM COUNTY	OTHER SOURCES	TOTAL
PERSONNEL			
'MECO staff time	$0	$30,000	$30,000
MEO staff time	$0	TBD	TBD
'MCC staff time	$0	TBD	TBD
'MEDB staff time	$0	TBD	TBD
TOTAL PERSONNEL	$0	$30,000	$30,000
OPERATIONS			
'PV Systems & Installation	$150,000		$150,000
Marketing materials (MECO)		$2,000	$2,000
Educational materials (MECO)		$3,000	$3,000
TOTAL OPERATIONS	$150,000	$5,000	$155,000
TOTAL EXPENDITURES	$160,000	$35,000	$185,000
ESTIMATED REVENUE			
from participants payments		TBD	TBD
goes back into loan fund			

EPRI | ELECTRIC POWER RESEARCH INSTITUTE

Supplemental Project Agreement

1. **Project Title; Agreement, Funder and Project Numbers:** This Supplemental Project Agreement applies to the Project entitled: ***"Selecting, Testing, and Demonstrating Controllable Energy-Efficiency Lighting Systems for Commercial Parking Garages".*** The Parties will reference Supplemental Project Agreement number **TC 012297-16309 (Project ID No. 066416)** in all correspondence. The terms and conditions of the Master Agreement between the Parties dated January 3, 2007 are incorporated herein and govern all Work hereunder. Any Purchase Order issued by Member pursuant to this Agreement is solely for Member's internal accounting requirements and, as such, the terms and conditions of such Purchase Order are superseded by the terms and conditions set forth in this Agreement.

2. **Contact Information:**

Contact	Name	Phone/Fax	Email
EPRI Project Manager:	Philip Keebler	865-218-8015	pkeebler@epri.com
EPRI Contracts:	Josephine Erickson	650-855-2003 / 1032	jerickson@epri.com
EPRI Sector Account Executive:	Ivo Hug	650-855-8518	ihug@epri.com
Member Contracts	Arthur Seki	808-543-7987	arthur.seki@heco.com
Member Project Manager:	Rick Clemons	808-872-3291	richard.clemons@mauielectric.com

3. **Project Funding in U.S. Dollars:**

Funding Year	-2007-	-2008-	-2009-	-2010-	TOTAL
Funder TC Funds	$15,000				$15,000
EPRI TC Match	$15,000				$15,000
Total U.S. Dollars	$30,000				$30,000

4. **Project Objectives, Tasks and Deliverables:** See Attached Exhibit 1, incorporated herein by reference.

Equipment purchased by EPRI under this agreement may have little or no residual value at the end of the project. At the end of the period of performance, Funder may, at its option, elect to purchase the equipment from EPRI by payment to EPRI of the fair market or salvage value of the equipment. Alternatively, EPRI may, at EPRI's option, abandon the equipment in place, as-is and where-is. In the event the equipment acquired or purchased under this agreement is purchased by Funder or abandoned by EPRI, EPRI, its subsidiaries, suppliers and subcontractors shall have no liability to Funder or any third party for any claims of any kind related to the use or non-use of the equipment including claims related to strict liability, negligence or otherwise or have any liability for indirect, special, incidental or consequential damages of any kind.

5. **Invoicing:**

☐ Current year payment enclosed (This form is the invoice for the current year).

☑ Address invoices to: Rick Clemons
Maui Electric Company
210 West Kamehameha Ave
Kahului, HI 96733
Phone/Fax: 808-543-7814
E-mail: richard.clemons@mauielectric.com

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Project Agreement to be executed by their duly authorized representatives.

Approval / MAUI ELECTRIC COMPANY	Approval / ELECTRIC POWER RESEARCH INSTITUTE, INC.
210 West Kamehameha Ave Kahului, HI 96733 Phone/Fax: 808-871-2332	Post Office Box 10412 3420 Hillview Avenue Palo Alto, Ca 94303 Phone/Fax: 650-855-2003 / 1032
Signature: Sharon Suzuki Name: Sharon Suzuki Title: Manager, Customer Service Date: October 9, 2007	Signature: Name: Josephine Erickson, Title: Revenue Contract Negotiator Date:

ENDORSEMENT: EPRI is hereby authorized to release Tailored Collaboration Matching Funds from the account of the Maui Electric Company as set forth in this Agreement.

By: Arthur Seki
Arthur Seki, Director of Technology

10/11/07
Date

Exhibit 1
To
Supplemental Project Agreement
TC 012297-16309 (Project ID No. 066416)

"Selecting, Testing, and Demonstrating Controllable Energy-Efficiency Lighting Systems for Commercial Parking Garages"

A. Background, Objectives and New Learnings:

Many variables are associated with the quality of light delivered by any lighting system and the energy efficiency provided to the utility and end-use customer. These variables include the photometric-, vision-, and energy-related variables among others. End-use customers seek lighting systems that are more closely matched to the needs of their facilities. In layman's terms, these needs include minimal or optimal lighting levels, appropriate color performance and color rendering, and more so, today, maximum energy efficiency, and for the future, the ability to control lighting levels and lighting load.

Many lighting installations have been installed without proper focus on these needs, resulting in both poor lighting conditions and efficiency. Through research aimed at more closely matching the performance of lighting systems to the customer's needs, end-use customers can benefit and learn how to more closely match lighting requirements with lighting performance. This has not been demonstrated before. Moreover, conducting laboratory tests to verify the lighting and energy performance of new and modern lighting technologies and demonstrating these technologies in facility environments where lighting system performance can be improved, utilities, other end-use customers, facility designers, energy efficiency engineers, and the general public can optimize lighting system performance and energy efficiency while not compromising the lighting requirements in their facilities. Having conducted this research will allow owners and operators of other commercial parking garages to learn how to match lighting system performance with parking garage lighting requirements. Making the results of this research available to utilities and parking garage owners and operators will empower them to improve lighting conditions, lighting performance, and energy usage in the thousands of parking garages that exist in the United States.

The types of end-use facilities that suffer from these problems include indoor and outdoor applications. Both types of applications may have the benefit of utilizing day-lighting to offset light level requirements. This offset may be in the form of 'on'/'off' control of lighting systems and dimming of lighting systems. Control of lighting systems may be used to reduce lighting load, increase energy efficiency, and/or improving the quality of light. Control maybe accomplished through timing devices, occupancy and photocell sensors, energy management systems, and/or demand response systems.

Maui Electric Company (MECO), an EPRI member, has identified a commercial customer with lighting system performance problems characteristic of the above issues. This customer, a hotel chain, has a parking garage presently utilizing an inefficient, 150-watt, magnetically-ballasted high-pressure sodium (HPS) lighting system. This system does not provide for the optimal lighting levels and optical performance and does not use any lighting control system. In addition, the parking garage provides for day-lighting which can be used to offset energy usage and improve the

quality of light in the garage. MECO has requested that EPRI conduct research through a tailored collaboration project to 1) identify high-efficiency lighting controllable systems with improved color performance over present-day manually operated systems for use in parking garage settings (including parking space floor areas where illuminance and color performance is poor and stairwells in parking garages where illuminance and color performance is also poor; 2) verify the photometric, scotopic, and energy performance of the selected new and modern lighting technology in both parking garage areas, 3) install this technology to demonstrate (photopically and scotopically) the improvement in illuminance and color performance in parking garage areas, and 4) monitor and verify the photometric, scotopic, and energy performance of the new lighting system after installation in both areas.

Additionally, EPRI will share the results of this research with other utilities on the Hawaiian islands and in other United States geographical areas where power generation is limited, power demand is high, and opportunities for utilizing energy efficient technologies with improved performance is real. For example, the thermal performance of the lamps in enclosed fixtures used in the improved application is better (lamp and ballast temperatures are lower with fluorescent lamps as compared to HPS lamps) reducing the heat load on the parking garage (Although there is no air-conditioning in the garage, the average garage temperature will be lower when fluorescent lamps are used versus HPS lamps.). In addition, the thermal performance of lamps could be monitored inside the fixtures after several hours of operation. Regarding light level measurements, photopic and scotopic measurements will be carried out with a calibrated dual function light meter before the HPS system is removed and then again after the advanced fluorescent system is installed. This data may be used to further understand the relationship between photopic and scotopic performance.

B. Tasks: The following tasks necessary to carryout the objectives of this EPRI research are listed and discussed below.

Task 1: Lighting and Energy Audit in a Hotel Parking Garage

In Task 1, a photometric and energy performance audit of the lighting system in the hotel parking garage shall be carried out. This audit shall measure and report illuminance (in foot-candles) and the color temperature of the present HPS lighting system in the parking garage area and of the present fluorescent in the stairwells. The results of this task will be used to illustrate through comparison the improvement in the photometric and energy performance of the new and modern lighting system selected for laboratory testing and demonstration. MECO and their lighting consultant will assist EPRI in conducting this audit. An energy monitor will be provided by EPRI for use during this project to monitor energy usage of the existing HPS lighting system and the new lighting system.

Task 2: Selection and Analysis of New Modern Lighting System

In Task 2, EPRI will seek input from MECO to select the lighting system components for testing and EPRI will analyze (i.e., by conducting laboratory tests) various lighting systems for selection by EPRI of one commercially-available system that can be demonstrated in the hotel parking garage. Energy-efficiency tests under various line voltage conditions and selected system compatibility (power quality) tests will be carried out. The lighting systems that may be considered include various high-efficiency fluorescent lamp-ballast systems at various wattages, color temperatures, and lamp configurations. Up to six different fluorescent technologies *may be analyzed* for use in this demonstration project. The ballasts, lamps, and fixtures included in the analysis will be candidates for the hardware for the demonstration in the parking garage and stairwell areas. Selection will be based upon laboratory test results, a possible pre-demonstration of the technology in the hotel parking garage, the initial cost of the lighting system hardware, and the payback period of the system.

Task 3: Installation and Demonstration Planning
In Task 3, EPRI will work with MECO, the lighting consultant, and the lighting installation contractor (selected by MECO and the customer) to plan the installation and demonstration of the lighting system hardware selected in Task 2. Planning will address hardware availability, shipping of materials to the customer's site, storage of the materials prior to installation, proper installation procedures, and installation schedule. The results of this planning activity will be documented. EPRi will review the results with MECO. A total number of 88 HPS fixtures will be replaced in the parking garage area and a total of 10 fixtures will be replaced in the two stairwells with a one-for-one replacement.

Task 4: Installation and Operation of the Energy Monitor
In Task 4, EPRI will work with the lighting installation contractor to select, install, and operate a low-cost energy monitor. This monitor will be located at the customer's site (i.e., the parking garage). The purpose of the energy monitor will be to measure and document the power and energy usage associated with operating the existing lighting system and the new lighting system in both the parking garage and stairwell areas. A means of communication must be provided to download the data from the monitor. This can be in the form of an analog telephone line, an Ethernet connection, or a mobile cellular device. Data from the energy monitor will be downloaded on a daily or weekly basis. The monitoring period will begin upon the installation of the energy monitor prior to the installation of the new lighting system and be left in place after the installation of the new lighting system is complete. Upon approval of the type of monitor to be used, where it is to be installed, and how it is to be connected to the lighting panel, the monitor will be installed by the lighting installation contractor at the lighting panel providing power to the existing HPS and fluorescent lighting systems.

Task 5: On-Site Visit to Hotel Parking Garage during Installation
In Task 5, the EPRI Project Manager will visit the customer (i.e., hotel parking garage) one day prior to and during the installation. The purpose of this visit is to oversee and document the installation process to ensure the installation is completed without a problem. During the visit, digital photographs of the site and installation will be made for use in the EPRI technical report and case study. The travel costs associated with this visit will be funded from the MECO funds to EPRI for this project.

Task 6: Downloading and Management of Energy and Power Data
In Task 6, EPRI will conduct the downloading and management of the energy and power data captured from the energy monitor located at the customer's site (i.e., hotel parking garage). The data will be downloaded to the EPRI Remote Monitoring Center located in Knoxville, Tennessee. Through a web-site based graphical user interface developed in this project, the data will be available to MECO.

Task 7: Preparation of an EPRI Technical Report and Case Study
In Task 7, EPRI will write and complete an EPRI Technical Report describing the results of this project. These results will include the analysis of the lighting and energy audit at the hotel parking garage, the laboratory results of the six (or fewer than six if less than six are selected for analysis) advanced lighting technologies selected, a discussion of the planning process to prepare for installation of these technologies, documentation of the characteristics of the parking garage site including the existing HPS lighting system and the new lighting system, and technical graphs and charts associated with the power and energy usage data captured from the energy monitor. Also in Task 7, EPRI will write, complete, and print 250 copies of a four-color EPRI case study describing the customer's original lighting conditions the candidate technologies, and the results of this project. A soft and hard copies of both the EPRI Technical Report and EPRI Case Study will be provided to MECO. A .pdf file of both the report and the case study will also be provided to MECO.

C. Deliverables: The deliverables of this project include:

1. For Task 1: Analysis of the lighting and energy audit conducted at the hotel parking garage and the stairwell;
2. For Task 2: Laboratory results of the photometric, scotopic, and energy performance testing of the candidate advanced lighting technologies selected in the parking garage and stairwell for this project;
3. For Task 3: A brief document describing the planning for the installation and demonstration of the advanced lighting technology;
4. For Task 4: Purchase and installation of the energy monitor at the hotel parking garage;
5. For Task 5: Visit to the hotel parking garage one day prior to and during the installation;
6. For Task 6: Development of the web-based GUI and downloading and management of the power and energy usage data from the site, and availability of the site to MECO and their customers;
7. For Task 7: Development of an EPRI Technical Report and Case Study describing the customer's existing lighting conditions and the improved lighting design

The non-proprietary results of this work will be incorporated into EPRI R&D program, Program 170 – Energy Efficiency, and made available to funding members of that program and to the public, for purchase or otherwise.

D. Estimated Period of Performance / Estimated Schedule: Because of the scheduling requirements for this project, the following period of performance and schedule are estimated and included here:

Schedule

Task	*Completion Date*
Task 1[1]:: Lighting and Energy Audit in a Hotel Parking Garage	October 12, 2007
Task 2: Selection and Analysis of New Modern Lighting System	October 12, 2007
Task 3: Installation and Demonstration Planning	October 19, 2007
Task 4: Installation and Operation of the Energy Monitor	October 9, 2007
Task 5: On-Site Visit to Hotel Parking Garage during Installation	November 2, 2007
Task 6: Downloading and Management of Energy and Power Data	November 30, 2007
Task 7: Preparation of an EPRI Technical Report and Case Study	December 7, 2007

Period of Performance: September 28th through December 31st, 2007

[1] Pending approval of lighting auditor as an EPRI contractor.

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

October 5, 2007

Kate Zolezzi
Maui Ocean Center
192 Maalaea Road
Wailuku, HI 96793

Dear Ms. Zolezzi,

On behalf of Maui Electric Company (MECO), I would like to congratulate you on your recent decision to install architectural wind turbines on your facility. With Maalaea being one of the windiest locations on Maui, we hope to see your 6 kW system providing your company green power for years to come.

After reviewing the signed Proposal and Agreement dated July 27, 2007 between AeroVironment and the Maui Ocean Center, MECO is pleased to commit to a contribution of $10,000 toward the cost of the wind project. MECO is dedicated to researching and developing renewable power and hopes this project provides MECO and its customers the knowledge to lead us all to a greener future.

We look forward to working closely with the Maui Ocean Center as this project moves along becomes Maui's first architectural wind project. Please feel free to contact your Commercial Account Manager, Rick Clemons at (808) 872-3291, if you have any questions along the way.

Sincerely,

Sharon Suzuki
Customer Service, Manager

CA-IR-430

Ref: MECO T-9, page 104, & response to CA-IR-162 (Pension Asset).

Part (b) of CA-IR-162 referred to the testimony of MECO T-9, page 104, and asked whether the Company prepared or caused to be prepared any calculations of overall revenue requirement in calendar years 2000 through 2006. In response, the Company indicated that the cited testimony was not based on any specific calculations of overall revenue requirements. Please provide the following:

a. Did MECO prepare or cause to be prepared any calculations of overall revenue requirement in calendar years 2000 through 2006?

b. If the response to part (a) above is affirmative, please provide a copy thereof.

MECO Response:

a. During the calendar years 2000 through 2006, there was one instance in which MECO initiated the calculation of overall revenue requirements. The calculation of overall revenue requirements in that instance was initiated for the purpose of preparing the application for rate increases and revised rate schedules in this instant rate case proceeding (i.e., Docket No. 2006-0387). The calculation of overall revenue requirements was initiated in August 2006 but was not completed until February 2007.

b. A copy of the calculation of overall revenue requirements was provided in MECO-2001, pages 1 through 4, in this instant rate case proceeding.

CA-IR-431

Ref: MECO responses to CA-IR-171 & CA-IR-259 (Pension Asset).

In response to part (a) of CA-IR-259, MECO indicated that the intent of its response to part (c) of CA-IR-171 was not to indicate improper Commission action: "Rather, the intent of MECO's response to part c of CA-IR-171 is to indicate that there may be instances where certain revenues, expenses and/or rate base items are excluded from the test year and thus are not considered in the establishment of the utility's rates in a rate case proceeding, and the recovery of such costs are considered outside of a rate case proceeding. The Commission also establishes certain utility rates outside of rate case proceedings." Please provide the following:

a. Please identify all "instances" known to MECO where the Commission has specifically excluded certain revenues, expenses and/or rate base items from a MECO rate proceeding such that recovery of such costs were considered outside of a rate proceeding.
   1. Please describe each item identified.
   2. Please identify the docket number and decision number associated with each identified item.
b. Please identify all "instances" known to MECO where the Commission has specifically established utility rates for MECO outside a rate case proceeding.
   1. Please describe each item identified.
   2. Please identify the docket number and decision number associated with each identified item.

MECO Response:

MECO respectfully objects to this information request on the grounds that it would be unduly burdensome to research and compile the information requested, which is already in the public record. The identification of "all" instances known to MECO where the Commission has specifically (1) excluded certain revenues, expenses and/or rate base items from a MECO rate case proceeding such that recovery of such costs were considered outside a rate case proceeding, and (2) established utility rates for MECO outside a rate case proceeding would require the Company to review the record for all of MECO's prior rate cases and other potentially applicable proceedings in order to provide a complete response to this information request. This information is already in the public record but it would be unduly burdensome for the Company to conduct an exhaustive review to compile the information necessary to respond to this information request.

a. Without waiving its objection, MECO provides the following example. In MECO's last (test year 1999) rate case, Docket No. 97-0346, the Company identified in MECO T-1, pages 1 and 2, the basis for MECO's then current rates. On page 2, lines 8 and 9, the Company further stated that "[i]n addition, MECO applies a Firm Capacity Surcharge and an Integrated Resource Planning Surcharge." The Commission, in issuing its amended Decision & Order No. 16922 on April 6, 1999 in Docket No. 97-0346, approved increases to MECO's rates which specifically excluded the revenue, expenses and rate base impacts related to the Integrated Resource Planning Clause. This example should provide sufficient illustration as to the Company's intent in its responses to CA-IR-171 and CA-IR-259.

b. Without waiving its objection, MECO provides the following examples of the requested information:

The Commission approved the recovery of incremental Demand Side Management (DSM) costs through the DSM surcharge component (DSM surcharge) of the Integrated Resource Planning Cost Recovery Provision (IRP Clause) in Decision and Order Nos. 14806, 15009, 15008, and 15007, dated July 26, 1996, September 23, 1996, September 23, 1996 and September 23, 1996, in Dockets No. 95-0139, 95-0140, 95-0141, and 95-0142, respectively.

The Commission approved the recovery of incremental IRP planning costs by inclusion of the costs in the IRP clause in Decision and Order No. 14707, dated May 29, 1996, in Docket No. 7258.

The Commission approved reductions in utility rates for a specific customer in its Decision and Order No. 20811, dated February 24, 2004, in Docket No. 03-0261 regarding MECO's application for approval of Service Contract with Castle & Cooke Resorts, LLC.

CA-IR-432

Ref: MECO Response to CA-IR-2, MECO T-9, Attachment R, RA=MSC (Customer Relations Expenditures).

Please provide the following:

a. At page 56, Attachment R references t-shirts, giveaways, games, gifts and a Lahaina event. Explain whether and why these materials are believed to be necessary in the provision of public utility services and describe why increased spending for such items is proposed for the test year.

b. At pages 57, 60, 61, 62, and 66-69, Attachment R references science fair prizes, pencils, giveaways, cooking class supplies, festival fees and various other school program materials. Explain whether and why these materials and expenditures are believed to be necessary in the provision of public utility services and describe why increased spending for such items is proposed for the test year.

c. At pages 58, 64 and 65, Attachment R references t-shirts, fairs, rodeo, kid's day and other event sponsorships. Explain whether and why these expenditures are believed to be necessary in the provision of public utility services and describe why increased spending for such items is proposed for the test year, relative to prior years.

d. At pages 59 and 63, Attachment R references senior citizen fair giveaways and bags. Explain whether and why these materials are believed to be necessary in the provision of public utility services and describe why increased spending for such items is proposed for the test year.

e. For each of the expense categories set forth in Attachment R at pages 56 through 69, please provide actual monthly expense amounts for 2006 and 2007 to-date.

MECO Response:

The responses to parts a. through d. each reference the monthly 2006 and year-to-date August 2007 recorded data provided in Attachment A. The Company provides the July 2007 and August 2007 financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

a. The inclusion of the costs for these items in the test year estimate is appropriate because these costs are incurred by MECO in its commitment to educate its customers about the safe, efficient, and economical use of electricity. These costs include organizing the

Company's annual MECO in our Community event, which is held at the Queen Kaahumanu Center, Maui's largest shopping mall. The MECO in our Community event is used to reach out into the community and educate the public through various exhibits on topics such as energy conservation, electrical safety, renewable energy and various electrical services. Furthermore, the costs for the MECO in our Community event was included in MECO's last rate case proceeding and accepted by the Commission in Amended Decision and Order No. 16922 issued April 6, 1999 (Docket No. 97-0346).

The test year 2007 estimate of $16,000 for MECO in our Community represents a $1,300 increase over the $14,715 recorded for 2006. The $1,300 increase is due to an expected rise in the cost of supplies.

b. School programs provide MECO with an opportunity to educate students from a young age about such topics as energy conservation, electrical safety and renewable energy. In addition to the future benefit of putting into practice these principles when these students become young adults, the students may also immediately influence their parents and other household members to apply what they learned from MECO's education program. Different approaches such as lectures, small group discussions, demonstrations and hands-on learning experience are utilized to accommodate different learning styles and to reach as many students as possible. Including these costs in test year expenses is reasonable because educating the youth is vital and beneficial for Maui's energy future. Furthermore, costs for school programs such as the annual science fair and science bowl events were included in MECO's last rate case proceeding and accepted by the Commission in Amended Decision and Order No. 16922 issued April 6, 1999 (Docket No. 97-0346).

The test year estimate is reasonable because it reflects an expected rise in the cost of

supplies and the Company's decision to include additional educational outreach events on topics such as the dangers of tampering with electrical equipment.

c. As stated in the responses to parts a. and b., MECO participates in various community events and provides opportunities in support of its outreach program to promote the safe, efficient, and economical use of electricity by educating the community about energy conservation, electrical safety, and renewable energy. In addition to sole sponsorship of some programs, MECO looks for opportunities to partner with other organizations to reach other segments of the community. This is a cost effective way to stay connected with the community throughout the year. Due to various circumstances, MECO was unable to participate in all of the community events and programs that were planned for 2007, which has resulted in lower than budgeted year-to-date expenses. However, MECO plans to participate in several other events during the remainder of the year such as the South Maui Children's Day, which will bring actual expenses for the year closer to the test year estimate. MECO's outreach program is important and the Company will continue to organize community events and partner with other organizations to provide opportunities to educate the public and promote electrical safety and energy conservation.

d. Targeting the promotion of electrical safety and energy conservation programs to senior citizens serves an important need in the community. Oftentimes, seniors are on a limited budget and education about conserving energy helps them to stretch their dollars. In addition, educating seniors about electrical safety helps to prevent electrical accidents. Giveaways such as light switch stickers with messages to prompt seniors to turn off the lights when they leave the room, or rubber jar grippers with an imprinted electrical safety message, serve to remind senior citizens about energy conservation and the dangers of

electricity. Furthermore, the costs for seniors fairs or similar activities were included in MECO's last rate case proceeding and accepted by the Commission in Amended Decision and Order No. 16922 issued April 6, 1999 (Docket No. 97-0346).

The annual expenses for these giveaways have fluctuated in previous years because the Company makes purchases in bulk quantities when appropriate in order to achieve favorable pricing. MECO has recently purchased items such as magnifier cards and plastic bags which should cause 2007 actual expenses to exceed the test year estimate.

e. See Attachment A for the requested information.

Confidential Information Deleted Pursuant To Protective Order No. 23379.

MAUI ELECTRIC COMPANY, LTD.
RECORDED MONTHLY CUSTOMER RELATIONS EXPENDITURES
2006

CA-IR-2 Attach. R Page #	RA	Act	Loc	EE	Line Item	2006 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
56	MSC	750	MAU	201	MECO in our Community	2,051	1,835	(1,426)	1,483	4,176	967	64	739	1,599	205	2,978	44	14,715
57	MSC	750	MAU	201	Maui School Programs	(63)	727	298	341	1,051	150	1,403	641	179	737	747	762	6,973
58	MSC	750	MAU	201	General Population Programs	-	-	715	52	63	-	38	-	-	-	-	-	868
59	MSC	750	MAU	201	Senior Programs	-	-	-	-	-	109	-	-	-	-	-	-	109
60	MSC	750	MAM	201	Molokai School Programs	-	-	-	-	-	-	-	-	-	-	-	-	-
61	MSC	750	MAL	201	Lanai School Programs	-	-	-	-	-	-	-	-	-	-	-	-	-
62	MSC	750	MAU	501	School Programs	-	-	-	-	-	2,000	21	-	-	-	-	-	2,021
63	MSC	750	MAU	501	Senior Programs	-	-	-	-	-	-	-	175	-	-	-	-	175
64	MSC	750	MAU	501	General Population Programs	-	-	-	-	-	20	-	-	176	(150)	-	-	46
65	MSC	750	MAU	521	General Population Programs	-	-	-	-	-	-	-	-	72	-	-	-	72
66	MSC	750	MAU	521	School Programs	16	-	32	43	-	177	-	-	50	-	-	-	318
67	MSC	750	MAU	522	School Programs	898	646	297	464	193	7	193	228	47	235	219	97	3,524
68	MSC	750	MAM	522	Molokai School Programs	-	-	-	-	-	-	-	-	-	-	-	-	-
69	MSC	750	MAL	522	Lanai School Programs	-	-	-	-	-	-	-	-	-	-	-	-	-

MAUI ELECTRIC COMPANY, LTD.
RECORDED MONTHLY CUSTOMER RELATIONS EXPENDITURES
YTD AUGUST 2007

CA-IR-2 Attach. R Page #	RA	Act	Loc	EE	Line Item	2007 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD
56	MSC	750	MAU	201	MECO in our Community	685	2,229	-	(282)	4,710	(8)	[redacted]		
57	MSC	750	MAU	201	Maui School Programs	94	673	318	1,064	448	331			
58	MSC	750	MAU	201	General Population Programs	-	-	-	-	1,796	(12)			
59	MSC	750	MAU	201	Senior Programs	-	-	-	55	-	-			
60	MSC	750	MAM	201	Molokai School Programs	-	-	-	-	-	-			
61	MSC	750	MAL	201	Lanai School Programs	-	-	-	-	-	-			
62	MSC	750	MAU	501	School Programs	-	-	-	-	-	2,000			
63	MSC	750	MAU	501	Senior Programs	-	-	-	-	-	-			
64	MSC	750	MAU	501	General Population Programs	-	-	-	-	2,812	-			
65	MSC	750	MAU	521	General Population Programs	-	-	-	-	-	25			
66	MSC	750	MAU	521	School Programs	31	-	-	-	-	-			
67	MSC	750	MAU	522	School Programs	21	294	110	227	7	58			
68	MSC	750	MAM	522	Molokai School Programs	-	-	-	-	-	-			
69	MSC	750	MAL	522	Lanai School Programs	-	-	-	-	-	-			

CA-IR-433

Ref: MECO Response to CA-IR-2, MECO T-9, Attachment R, RA=MSC, pages 70 and 71 (Print and Radio Advertising).

Please provide the following:

a. Copies and scripts of the print and radio advertisements actually published/aired by MECO to-date in 2007.

b. Explain why increased spending on advertising was projected for the test year, relative to prior years' actual spending.

c. Provide a monthly breakdown of actual monthly 2006 and 2007 advertising expenditures by message and media.

d. Explain and reconcile any significant differences between projected and actual 2007 to-date advertising spending levels.

MECO Response:

a. See Attachment A, pages 1 – 6 for copies of print advertisements published to date by MECO in 2007. Radio advertisement rotation spots are provided in Attachment A, pages 7 – 9.

b. In addition to advertisements in electrical safety and energy conservation, other factors contributing to the increase in advertising in 2007 include the recent rise in copper theft and equipment tampering on the island of Maui. MECO's communication efforts are focused on creating awareness within the community and educating the public on the dangers of tampering with electrical equipment.

The Company's communication efforts have also evolved to focus on renewable energy, specifically biofuels on the island of Maui. Community education on the importance of renewable energy sources and the role of biofuels in this process is critical to the overall success and acceptance of the use of biofuels and energy from renewable sources within the County of Maui. Renewable energy and the use of biofuels is in the future for

not only Maui County but statewide and even globally. MECO will continue to put forth communication efforts to educate the public on this important topic.

c. See Attachment B for monthly 2006 and year-to-date August 2007 recorded data. The Company provides the July and August financial information subject to Protective Order No. 23379 because it is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

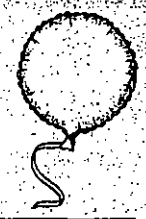
d. As shown in pages 70 and 71 to the MECO T-9 response to CA-IR-2, Attachment R, the monthly budget for radio and print advertising combined totaled $2,500 ($1,250 per month for print advertising on page 70 and $1,250 per month for radio advertising on page 71), which would result in a year-to-date August 2007 Budget of $20,000 ($2,500 per month times 8 months). In comparison, as shown in Attachment B, year-to-date August 2007 recorded expenditures totaled $12,585, which is $7,400 lower than the year-to-date August 2007 Budget. The $7,400 year-to-date August variance is a timing difference because the Company has plans in place which are expected to result in higher than budgeted spending in the remaining months of 2007 such that estimated annual 2007 spending for radio and print advertising will total approximately $30,000.

The $7,400 year-to-date August variance was primarily the result of a decision MECO made to utilize lower cost public access media in an effort to educate the public on the dangers of copper theft and to create awareness of this problem in its community. The Company decided that a television broadcast safety and awareness campaign would be the most effective approach with respect to the copper theft problem. As a result, MECO put together a public relations plan to secure Maui television exposure on Maui TV News and

AKAKU Public Television, supplemented by radio advertisement. Although using public access media resulted in cost savings for this particular campaign, the use of public access media for future advertising may not always be the best method to communicate the message effectively and the decision to use this method depends on the content of the message and the targeted audience.

With respect to the remainder of 2007, MECO expects the year-to-date August 2007 variance to reverse as a result of higher than Budget expenditures estimated to be recorded in the remaining months for the graffiti and equipment tampering awareness program, a renewable energy campaign planned for the end of October which will include extensive print advertising, as well as MECO's holiday safety advertisement scheduled for December.

Hold on to your balloons ...
And keep everyone's day bright!



DID YOU KNOW?

Metallic balloons on the loose can tangle in power lines and cause outages. Don't be left in the dark. Hold on to those shiny balloons!

Keep the lights on by remembering a few tips:

- Always attach a weight to the ribbon to keep balloons from escaping.
- Never release metallic balloons into the sky.
- Puncture balloons before disposal.
- Consider giving lei, cards, and gift certificates to your graduate.

See a balloon caught in a power line? Call Maui Electric at 871-7777.

A public service message brought to you by

Maui Electric Company
"Giving You The Power"

MECO in our Community

"Working towards a renewable energy future for Maui County"

Saturday, August 25, 2007
Queen Ka'ahumanu Center
10:00 a.m. - 2:00 p.m.

Join us for a day of fun, entertainment and education!

Exhibits

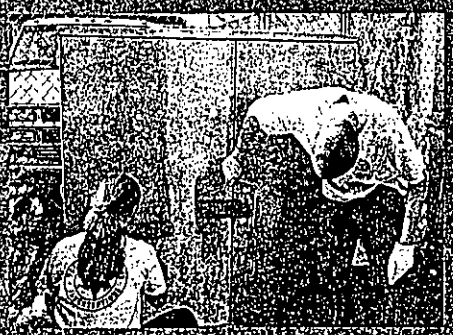
- Making the Power
- Keeping the Power On
- MECO's Employment Opportunities
- Cleaner Water through Conservation - Department of Water Supply
- Emergency Preparedness
- UH Cooperative Extension Service
- MECO's Technology Services
- Aloha Customer Service
- MECO's Engineering
- Feel the Wind, Think Clean – Kaheawa Wind Power

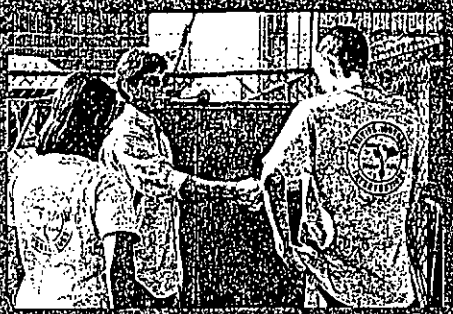
Entertainment

- Halau Hula Kauluokala, Uluwehi Guerrero
- Puppets in Paradise, Richard Tawney
- Visit with McGruff & Captain Electron

As a community-based intervention program, Project P.O.I. (Positive Outreach Interventions) has helped dozens of Maui's youths get back on the right-track. A pet project of the Maui Police Department, P.O.I. is a voluntary intervention program designed to hold juveniles accountable for their actions.

To reinforce positive behavior, these youth are required to complete a checklist of action items designed to encourage good choices and make a positive impact in the community.





P.O.I. participants have assisted with numerous community projects including the clean-up at Kanaha Beach Park and Kealia Pond, yard work for senior citizens, and kokua with marathon aid stations and the Maui Food Bank.

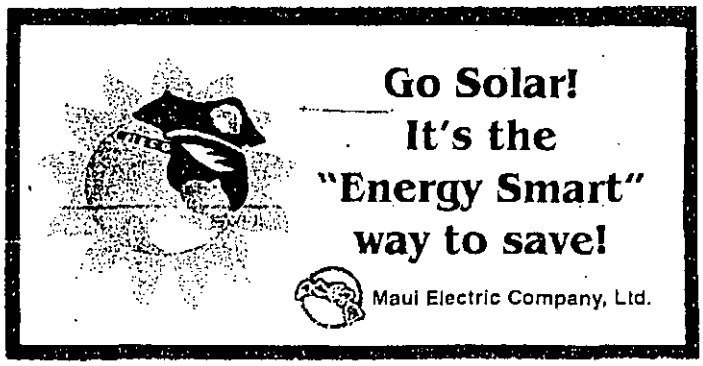
Recently, youths of the project helped to "clean-up the act" of others by partnering with Maui Electric Company (MECO) to re-paint graffiti-stricken equipment. Armed with scrub brushes and rollers, participants worked alongside MECO maintenance crews to rid the streets of unsightly graffiti.

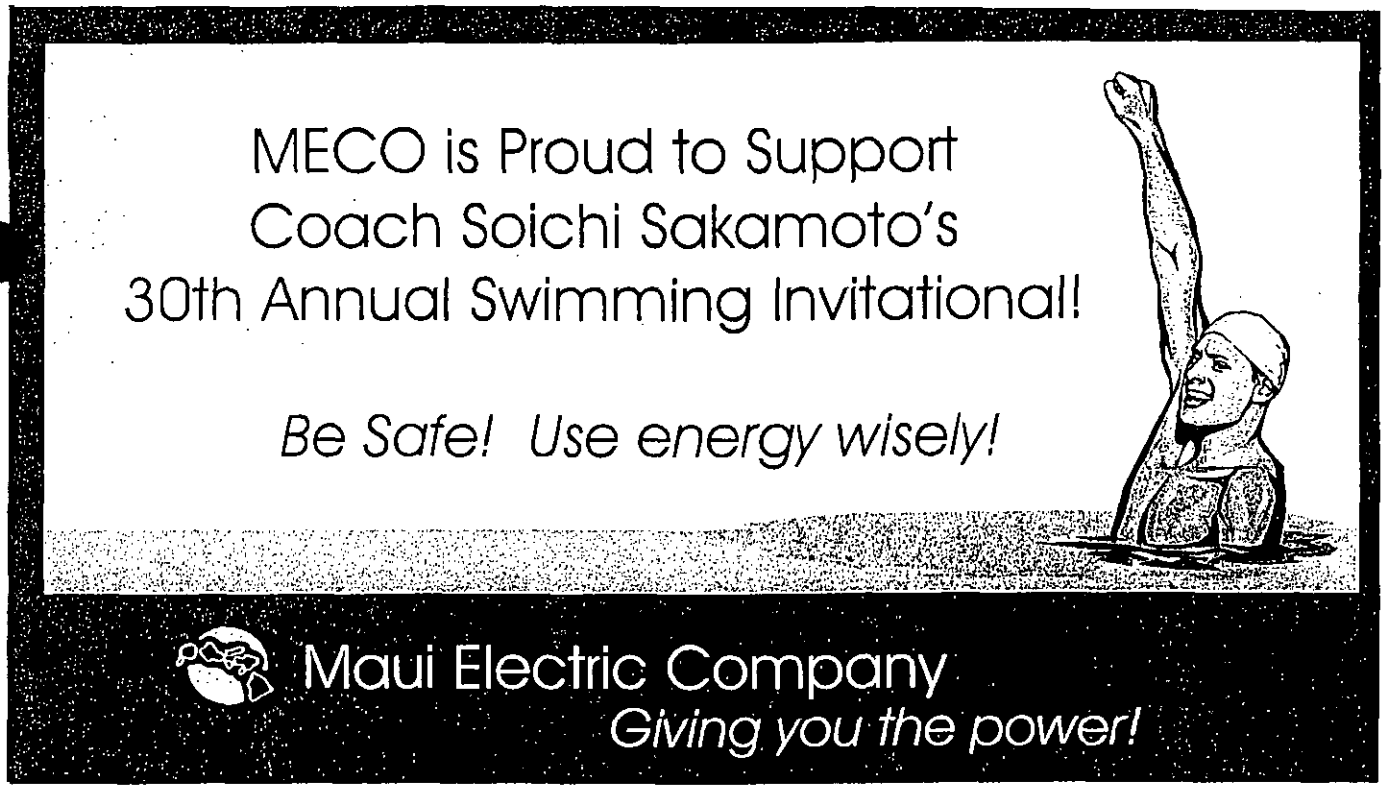
MECO would like to recognize the efforts of Project P.O.I. and say *mahalo* to the keiki of this valuable program. You have the *power* to make a difference!

Project P.O.I.

Should you witness vandals in the act, please call 911 immediately.

Maui Electric Company, Ltd.


Go Solar!
It's the
"Energy Smart"
way to save!
Maui Electric Company, Ltd.


MECO is Proud to Support
Coach Soichi Sakamoto's
30th Annual Swimming Invitational!
Be Safe! Use energy wisely!
Maui Electric Company
Giving you the power!

On behalf of the entire MECO 'ohana,
best wishes for a successful

Hula O Nā Keiki

Maui Electric Company, Ltd.

MECO reminds you to be "akamai" with energy.

2007 Rotation Spots

1) Litter on Poles
Utility poles may seem like the perfect place to tack up notices about garage sales, special events, or lost pets, but they're not. Littering utility poles is not only against the law, it is a risk to the safety of utility employees. Nails, staples, and tacks used to attach signs to utility poles can puncture insulated safety gloves and expose linemen to serious injury. Help us to keep utility poles litter free.

2) Outlets & Cords
MECO reminds you to be safe rather than sorry. Here are some tips on electrical outlets and cords: Never insert anything other than an electrical plug or safety cap into an outlet. Use safety caps in outlets when small children are in the home. Limit the number of appliances plugged into each outlet. When removing plugs from an outlet, hold the plug not the cord. Check your appliances and cords and replace them if you notice signs of wear and tear. Place and secure cords properly to avoid tripping hazards.

3) Lights & Appliances
MECO reminds you to be safe rather than sorry. Only use lights and appliances approved by a nationally recognized testing laboratory such as Underwriters Laboratory (UL). Keep flammable material away from light bulbs, toasters, and portable heaters. Never touch appliances or wires with wet hands or feet. And, be sure heating and cooling appliances are turned off when not in use and when you leave the home.

4) Overhead Power Lines
MECO reminds you to be safe. Overhead power lines are not insulated, so avoid coming in contact with them directly or indirectly. Use the 10-foot rule, stay at least 10 feet away from overhead power lines. Keep TV antennas, ladders, fruit pickers, and poles away from power lines and make sure tree branches are not growing too close. If any part of a tree touches a power line, call MECO at 871-7777 to trim the tree.

5) Water Heating Tips
Tub baths use more hot water than showers, so choose showering whenever possible. Use cold water cycles in your laundry and cold wash cycles whenever practical. Repair leaking hot water faucets. A drop a second will waste over 2,000 gallons of hot water in a year.

6) Refrigerator/Freezer Hints
Clean the condenser coils periodically. Be sure doors close tightly and replace worn or badly fitting gaskets. Be sure your refrigerator/freezer is

in a cool location. Avoid placing in direct sunlight or near your range. Defrost non frost-free models frequently when frost is ¼ inch thick.

7) Stovetop Cooking
Use flat-bottom pans that fit the size of the heating element. Turn off burner five minutes before food is done and cook on stored heat. Use smaller amounts of water and cover pans when cooking vegetables. Begin cooking on high heat, when food begins to boil, lower heat to just maintain cooking temperature.

8) Clothes Washer/Dryer
Wash only full loads whenever possible. Don't over dry clothes. It wastes energy and makes clothes wrinkle and more difficult to iron. Select proper drying temperature for fabric type. Use lower heat on delicate fabrics. Clean the lint trap in the dryer after each load. Dry clothes outdoors if and when you can.

9) Lighting Energy Saving Tips
Keep light bulbs and fixtures clean. Turn off light in rooms you are not using. Switching an incandescent light on and off does use more energy. Use fluorescent lights whenever possible. Use lower wattage lamps in areas where bright light is not necessary but don't sacrifice safety or health measures.

10) When Buying Appliances
Consider the energy efficiency of the item along with the sale price. Look for the Energy Star label and the yellow and black Energy Guide label on most major new appliances. An efficient appliance reduces the amount of energy consumed. The higher purchase price on newer, more efficient models will often be recovered by lower monthly bills.

11) Choosing the Right Surge Protector
Here are a couple of hints in choosing a surge protector: Check the product package for UL1449 or revised 1449A that shows the model is certified by the Underwriters Laboratory (UL) and meets minimum safety and effectiveness standards. Good protection comes with a price, look for suppressors that cost $15 or more. You want to buy surge and spike protection, not just a device that acts like an extension cord.

12) Tips on Buying Electronic Equipment
Look for the Energy Star label on all electronic equipment. Earning an Energy Star means a product meets strict energy efficiency guidelines set by the Environmental Protection Agency and the U.S. Department of Energy. Those that have earned the Energy Star use as much as 50%

less energy while providing the same performance at the same price as less-efficient models.

13) Call Before You Dig
The "CALL BEFORE YOU DIG" program insures the safety of contractors and homeowners conducting excavation work near underground utility lines. To locate and mark utility lines including electric, gas, water, sewer, telecommunications and cable, call the Hawaii One Call Center at 1-866-423-7287 **before** work begins. This simple call will only take a few minutes and assure safe digging from start to finish. For additional information, visit www.callbeforeyoudig.org.

14) Tampering
Tampering with MECO property is not only a safety hazard, it is a criminal violation. Access to MECO substations is strictly prohibited. For your well-being, do not tamper with MECO equipment including electric meters, handholes, transformers, manholes, electric poles or lines. Should you need assistance in an area near MECO property or equipment, call our trouble dispatch center at 871-7777.

Mylar: Weeks of May 21 & May 28
Graduation season is upon us and as you celebrate with family and friends, please remember to hang on to your balloons. Mylar balloons can cause outages when they get caught in power lines. Be sure to attach a small weight to the end of the ribbon that holds the balloon to keep it from flying away. Together, we can insure a BRIGHT celebration for the entire 'ohana. Be safe and best wishes graduates from the Maui Electric Company.

Confidential Information Deleted Pursuant To Protective Order No. 23379.

MAUI ELECTRIC COMPANY, LTD.
MONTHLY INFORMATIONAL ADVERTISING EXPENSES
2006 AND AUGUST YTD 2007

		2006												
MEDIA	MESSAGE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Print	Electrical Safety and Energy Conservation	505	130	-	450	-	1,195	-	-	253	360	-	-	2,893
	Other Community Issues	-	-	-	-	573	-	-	606	-	480	-	1,084	2,743
TOTAL PRINT		505	130	-	450	573	1,195	-	606	253	840	-	1,084	5,636
Radio	Electrical Safety and Energy Conservation	1,025	1,025	1,896	-	1,896	1,743	-	871	871	871	871	1,743	12,812
TOTAL RADIO		1,025	1,025	1,896	-	1,896	1,743	-	871	871	871	871	1,743	12,812
TOTAL INFORMATIONAL ADVERTISING		1,530	1,155	1,896	450	2,469	2,938	-	1,477	1,124	1,711	871	2,827	18,448

		2007								
MEDIA	MESSAGE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	TOTAL
Print	Electrical Safety and Energy Conservation	200	-	-	100	-	953	[redacted]		
	Equipment Tampering	-	-	-	-	-	-			
	Other Community Issues	-	-	-	-	-	-			
TOTAL PRINT		200	-	-	100	-	953			
Radio	Electrical Safety and Energy Conservation	-	-	1,742	-	871	2,614			
TOTAL RADIO		-	-	1,742	-	871	2,614			
TOTAL INFORMATIONAL ADVERTISING		200	-	1,742	100	871	3,567			

CA-IR-434

Ref: MECO Response to CA-IR-2, MECO T-9, Attachment R, RA=PSM, page 73 (RSAT Survey Billables).

Please provide the following:

a. Explain the purpose of the referenced RSAT Survey and provide specimen work product resulting from such efforts.

b. Monthly actual expenditures in 2006 and 2007 to-date for RSAT Survey Billables.

c. Explain any significant differences between actual and planned test year levels of activity regarding RSAT Survey work.

MECO Response:

a. The RSAT Survey is the Residential Customer Survey used to track and measure customer satisfaction with respect to MECO's various attributes. The scope of the survey is to track and measure consumer attitudes with respect to attributes such as MECO's management of responses to power outages and restoration efforts, community contributions, advertising awareness, customer loyalty, company honesty and integrity, and consumer awareness of various energy efficiency programs.

The requested copy of the work product is voluminous and is available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the requested information.

b. The requested information is provided in Attachment A, subject to Protective Order No. 23379 because the financial information is confidential until publicly disclosed in HECO's Form 10-Q financial statements or when the Consumer Advocate submits its testimony in this proceeding, which is scheduled for October 25, 2007.

c. There are no significant differences between actual and estimated test year levels of activity related to RSAT survey work. The Company's test year 2007 expense estimate assumed that the Residential Customer Satisfaction survey would be performed twice in the test year and MECO has already conducted the survey twice in 2007. However, because the year-end detailed survey and report for MECO was completed in late September 2007, the year-to-date August 2007 expenditures for this work provided in the response to part b. above does not fully reflect all of the expenses expected to be recorded in the test year.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

MAUI ELECTRIC COMPANY, LTD.
RSAT SURVEY BILLABLES
ACTUAL EXPENSES BY MONTH

	2006	YTD 2007
JANUARY	0	0
FEBRUARY	0	0
MARCH	0	0
APRIL	0	0
MAY	0	2,372
JUNE	0	0
JULY	4,583	
AUGUST	5,547	
SEPTEMBER	0	
OCTOBER	5,547	
NOVEMBER	0	
DECEMBER	0	
TOTAL	$ 15,677	

CA-IR-435

Ref: MECO-918 and responses to CA-IR-368, CA-IR-365 & CA-IR-369 (Research & Development).

CA-IR-368 specifically related to the Green Pricing Program and Sun Power for Schools R&D projects, rather than R&D in general. In response to part (d) of CA-IR-368, the Company referenced $81,000 incurred (after EPRI reimbursements) during 2004 and 2005 for the Lanai High and Elementary School BIPV project. Then, the response states: "The costs for this project were charged to Account No. 9302L and were not included in MECO-918, which presents Research and Development expense for Maui Division only." Please provide the following:

a. Please provide a pinpoint reference to each and every designation on MECO-918 or any disclosure by MECO T-9 stating or indicating that MECO-918 does not depict total MECO R&D information, instead representing only R&D for the Maui Division.

b. Please update MECO-918 (as corrected by the response to CA-IR-265) to separately provide comparable R&D cost information for each division and total MECO, by project.

c. In response to CA-IR-365, Attachment A provided a comparison of actual monthly expenditures in 2007 with the 2007 test year forecast, by NARUC account. Please update Attachment A to separately provide comparable R&D cost information for each division and total MECO, by project.

d. In response to CA-IR-365, Attachment B provided a description of each program identified on Attachment A, as well as two additional programs. Please update Attachment B to include a description for any new or additional R&D programs identified in response to part (c) above.

e. In response to CA-IR-369, MECO revised Attachment A of CA-IR-2 as originally provided by MECO T-9 to correct certain references to supporting forecast documentation of other witnesses. Referring to page 6 of CA-IR-369, the six line items for Activity 731 (R&D) total $255,379, which ties to the total non-EPRI R&D forecast set forth on MECO-918. Please provide the following:

    1. If MECO-918 only represents the Maui Division, does the response to CA-IR-369 also only pertain to the Maui Division, not total MECO as implied by the NARUC accounts with "L" and "M" designations? Please explain.

    2. If the response to part (e)1. above is affirmative, please revise the response to CA-IR-369 to reflect all divisions included in the total MECO forecast.

MECO Response:

a. MECO's response to CA-IR-368, part d., included the following statement: "The costs for this project were charged to Account No. 9302L and were not included in MECO-918,

which represents Research and Development expense for Maui Division only." That statement is incorrect. The exhibit MECO-918 filed with direct testimony and updated in the Company's response to CA-IR-156 and updated further in the June 2007 Update to T-9 provided Research and Development expenses for total MECO, and not for the Maui Division alone.

b. Please see Attachment 1, pages 1 through 4, for an updated MECO-918 which provides Research and Development expenses for total MECO (page 1), Maui Division (page 2), Lanai Division (page 3) and Molokai Division (page 4), as corrected for the item identified in the Company's response to CA-IR-265.

c. For the requested update to the Attachment A provided in the Company's response to CA-IR-365, please see Attachment 2, pages 1 through 4, which provides actual monthly 2007 year-to-date (July) Research and Development expenses by project or program for total MECO (page 1), Maui Division (page 2), Lanai Division (page 3) and Molokai Division (page 4).

d. No new or additional Research and Development projects or programs were identified in the response to part c. above.

e. Please see the response to part a. above. MECO-918 provides Research and Development expenses for all MECO divisions.

MAUI ELECTRIC COMPANY, LIMITED
Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
TOTAL MECO

	Recorded						Operating Budget	Budget	Test Year	June 2007	Revised Test Year	CA-IR-265	Revised Test Year
	2001	2002	2003	2004	2005	2006	2007	Adjustment	2007	Adjustment	2007	Adjustment	2007
EPRI Dues	202,800	200,400	197,418	237,718	198,708	527	222,132	7,268	229,400	(7,200)	222,200	-	222,200
Local Research & Development:													
Sun Power for Schools	7,171	15,712	9,802	(49,847)	(7,688)	(8,252)	95,879		95,879		95,879	(8,000)	87,879
Photovoltaic/Solar Park	11,681	4,350	3,745	7,151	1,781	477	-		-		-		-
BIPV demonstration	2,180	2,365	83,440	20,737	(17,125)	(12,389)	-		-		-		-
Biodiesel feasibility assessment	14,425	-	-	-	-	-	-		-		-		-
Hawaii Energy Test Lab	-	-	-	-	95,354	9,756	-		-		-		-
Electronic shock absorber	-	-	-	75,725	78,748	28,542	-		-		-		-
Lanai pumped storage	-	-	-	45,911	2,041	(28,119)	-		-		-		-
CHP phase 1	-	202,110	39,665	267	(15,490)	-	-		-		-		-
Solar air conditioning	-	-	-	-	-	-	80,000		80,000		80,000		80,000
Photovoltaic County grant	-	-	-	-	-	-	25,000		25,000		25,000		25,000
Power Quality Technology						-	29,500		29,500		29,500		29,500
Advanced HVAC Systems						-	25,000		25,000		25,000		25,000
Other projects to be determined	-	-	-	-	-	-			-		-		-
Sub-total local R&D	35,457	224,537	136,652	99,944	137,621	(9,985)	255,379	-	255,379	-	255,379	(8,000)	247,379
Other:													
Others (primarily labor & on costs)	2,154	7,302	4,850	20,610	9,845	4,073	12,958		12,958		12,958		12,958
Coding error - should have have been account 923030	-	-	-	-	42,635		-						
Sub-total other	2,154	7,302	4,850	20,610	52,480	4,073	12,958	-	12,958	-	12,958	-	12,958
Total	240,411	432,239	338,920	358,272	388,809	(5,385)	490,469	7,268	497,737	(7,200)	490,537	(8,000)	482,537

CA-IR-435
DOCKET NO. 2006-0387
ATTACHMENT 1
PAGE 1 OF 4

MECO-918
DOCKET NO. 2006-0387
PAGE 1 OF 1
(Updated 10/3/2007)

MAUI ELECTRIC COMPANY, LIMITED
Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
MAUI DIVISION

	Recorded						Operating Budget	Budget	Test Year	June 2007	Revised Test Year	CA-IR-265	Revised Test Year
	2001	2002	2003	2004	2005	2006	2007	Adjustment	2007	Adjustment	2007	Adjustment	2007
EPRI Dues	202,800	200,400	197,418	237,718	198,708	527	222,132	7,268	229,400	(7,200)	222,200	-	222,200
Local Research & Development:													
Sun Power for Schools	7,171	15,712	9,802	(56,370)	(8,584)	(8,252)	95,879		95,879		95,879	(8,000)	87,879
Photovoltaic/Solar Park	11,681	4,350	3,745	7,151	1,781	477	-		-		-		-
BIPV demonstration	2,180	2,365	83,440	(82,156)	-	(7,564)	-		-		-		-
Biodiesel feasibility assessment	14,425	-	-	-	-	-	-		-		-		-
Hawaii Energy Test Lab	-	-	-	-	95,354	9,756	-		-		-		-
Electronic shock absorber	-	-	-	75,725	78,748	28,542	-		-		-		-
Lanai pumped storage	-	-	-	45,911	2,041	(28,119)	-		-		-		-
CHP phase 1	-	202,110	39,665	267	(15,490)	-	-		-		-		-
Solar air conditioning	-	-	-	-	-	-	80,000		80,000		80,000		80,000
Photovoltaic County grant	-	-	-	-	-	-	25,000		25,000		25,000		25,000
Power Quality Technology						-	29,500		29,500		29,500		29,500
Advanced HVAC Systems						-	25,000		25,000		25,000		25,000
Other projects to be determined	-	-	-	-	-	-			-		-		-
Sub-total local R&D	35,457	224,537	136,652	(9,472)	153,850	(5,160)	255,379	-	255,379	-	255,379	(8,000)	247,379
Other:													
Others (primarily labor & on costs)	2,154	7,302	4,850	20,610	9,845	4,073	12,958		12,958		12,958		12,958
Coding error - should have have been account 923030	-	-	-	-	42,635		-						
Sub-total other	2,154	7,302	4,850	20,610	52,480	4,073	12,958	-	12,958	-	12,958	-	12,958
Total	240,411	432,239	338,920	248,856	405,038	(560)	490,469	7,268	497,737	(7,200)	490,537	(8,000)	482,537

MAUI ELECTRIC COMPANY, LIMITED
Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
LANAI DIVISION

	Recorded						Operating Budget	Budget	Test Year	June 2007	Revised Test Year	CA-IR-265	Revised Test Year
	2001	2002	2003	2004	2005	2006	2007	Adjustment	2007	Adjustment	2007	Adjustment	2007
EPRI Dues	-	-	-	-	-	-	-	-	-	-	-	-	-
Local Research & Development:													
Sun Power for Schools	-	-	-	-	-	-	-		-		-		-
Photovoltaic/Solar Park	-	-	-	-	-	-	-		-		-		-
BIPV demonstration	-	-	-	102,893	(17,125)	(4,825)	-		-		-		-
Biodiesel feasibility assessment	-	-	-	-	-	-	-		-		-		-
Hawaii Energy Test Lab	-	-	-	-	-	-	-		-		-		-
Electronic shock absorber	-	-	-	-	-	-	-		-		-		-
Lanai pumped storage	-	-	-	-	-	-	-		-		-		-
CHP phase 1	-	-	-	-	-	-	-		-		-		-
Solar air conditioning	-	-	-	-	-	-	-		-		-		-
Photovoltaic County grant	-	-	-	-	-	-	-		-		-		-
Power Quality Technology	-	-	-	-	-	-	-		-		-		-
Advanced HVAC Systems	-	-	-	-	-	-	-		-		-		-
Other projects to be determined	-	-	-	-	-	-	-		-		-		-
Sub-total local R&D	-	-	-	102,893	(17,125)	(4,825)	-	-	-	-	-	-	-
Other:													
Others (primarily labor & on costs)	-	-	-	-	-	-	-		-		-		-
Coding error - should have have been account 923030	-	-	-	-	-	-	-						
Sub-total other	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	102,893	(17,125)	(4,825)	-	-	-	-	-	-	-

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MAUI ELECTRIC COMPANY, LIMITED
Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
MOLOKAI DIVISION

	Recorded						Operating Budget	Budget	Test Year	June 2007	Revised Test Year	CA-IR-265	Revised Test Year
	2001	2002	2003	2004	2005	2006	2007	Adjustment	2007	Adjustment	2007	Adjustment	2007
EPRI Dues	-	-	-	-	-	-	-	-	-	-	-	-	-
Local Research & Development:													
Sun Power for Schools	-	-	-	6,523	896	-	-		-		-		-
Photovoltaic/Solar Park	-	-	-	-	-	-	-		-		-		-
BIPV demonstration	-	-	-	-	-	-	-		-		-		-
Biodiesel feasibility assessment	-	-	-	-	-	-	-		-		-		-
Hawaii Energy Test Lab	-	-	-	-	-	-	-		-		-		-
Electronic shock absorber	-	-	-	-	-	-	-		-		-		-
Lanai pumped storage	-	-	-	-	-	-	-		-		-		-
CHP phase 1	-	-	-	-	-	-	-		-		-		-
Solar air conditioning	-	-	-	-	-	-	-		-		-		-
Photovoltaic County grant	-	-	-	-	-	-	-		-		-		-
Power Quality Technology	-	-	-	-	-	-	-		-		-		-
Advanced HVAC Systems	-	-	-	-	-	-	-		-		-		-
Other projects to be determined	-	-	-	-	-	-	-		-		-		-
Sub-total local R&D	-	-	-	6,523	896	-	-	-	-	-	-	-	-
Other:													
Others (primarily labor & on costs)	-	-	-	-	-	-	-		-		-		-
Coding error - should have have been account 923030	-	-	-	-	-	-	-						
Sub-total other	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	6,523	896	-	-	-	-	-	-	-	-

MAUI ELECTRIC COMPANY, LIMITED
Total Monthly Recorded Charges to Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
TOTAL MECO

	Actuals							YTD July	Test Year 2007 Updated
	Jan	Feb	Mar	Apr	May	Jun	Jul	2007	June 2007
EPRI Dues	18,511	18,511	18,511	18,511	19,420	19,419	19,420	132,303	222,200
Local Research & Development:									
Sun Power for Schools								-	95,879
Photovoltaic/Solar Park								-	-
BIPV demonstration								-	-
Biodiesel feasibility assessment								-	-
Hawaii Energy Test Lab	481							481	-
Electronic shock absorber								-	-
Lanai pumped storage								-	-
CHP phase 1								-	-
Solar air conditioning								-	80,000
Photovoltaic County grant								-	25,000
Power Quality Technologies								-	29,500
Advanced HVAC Systems								-	25,000
Other projects to be determined								-	-
Sub-total local R&D	481	-	-	-	-	-	-	481	255,379
Other:									
Others (primarily labor & on costs)			109	(724)	116	682		183	12,958
Coding error - should be charged to account 902							77	- 77	
Sub-total other	-	-	109	(724)	116	682	77	260	12,958
Total	18,992	18,511	18,620	17,787	19,536	20,101	19,497	133,044	490,537

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MAUI ELECTRIC COMPANY, LIMITED
Total Monthly Recorded Charges to Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
MAUI DIVISION

	Actuals							YTD July	Test Year 2007 Updated
	Jan	Feb	Mar	Apr	May	Jun	Jul	2007	June 2007
EPRI Dues	18,511	18,511	18,511	18,511	19,420	19,419	19,420	132,303	222,200
Local Research & Development:									
Sun Power for Schools								-	95,879
Photovoltaic/Solar Park								-	-
BIPV demonstration								-	-
Biodiesel feasibility assessment								-	-
Hawaii Energy Test Lab	481							481	-
Electronic shock absorber								-	-
Lanai pumped storage								-	-
CHP phase 1								-	-
Solar air conditioning								-	80,000
Photovoltaic County grant								-	25,000
Power Quality Technologies								-	29,500
Advanced HVAC Systems								-	25,000
Other projects to be determined								-	-
Sub-total local R&D	481	-	-	-	-	-	-	481	255,379
Other:									
Others (primarily labor & on costs)			109	(724)	116	682		183	12,958
Coding error - should be charged to account 902							77	- 77	
Sub-total other	-	-	109	(724)	116	682	77	260	12,958
Total	18,992	18,511	18,620	17,787	19,536	20,101	19,497	133,044	490,537

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MAUI ELECTRIC COMPANY, LIMITED
Total Monthly Recorded Charges to Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
LANAI DIVISION

	Actuals							YTD July	Test Year 2007 Updated
	Jan	Feb	Mar	Apr	May	Jun	Jul	2007	June 2007
EPRI Dues								-	-
Local Research & Development:									
Sun Power for Schools								-	-
Photovoltaic/Solar Park								-	-
BIPV demonstration								-	-
Biodiesel feasibility assessment								-	-
Hawaii Energy Test Lab	-							-	-
Electronic shock absorber								-	-
Lanai pumped storage								-	-
CHP phase 1								-	-
Solar air conditioning								-	-
Photovoltaic County grant								-	-
Power Quality Technologies								-	-
Advanced HVAC Systems								-	-
Other projects to be determined								-	-
Sub-total local R&D	-	-	-	-	-	-	-	-	-
Other:									
Others (primarily labor & on costs)			-	-	-	-		-	-
Coding error - should be charged to account 902							-	-	
Sub-total other	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-

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MAUI ELECTRIC COMPANY, LIMITED
Total Monthly Recorded Charges to Account 9302 - Miscellaneous General Expenses
RESEARCH & DEVELOPMENT EXPENSE
MOLOKAI DIVISION

	Actuals							YTD July	Test Year 2007 Updated
	Jan	Feb	Mar	Apr	May	Jun	Jul	2007	June 2007
EPRI Dues								-	-
Local Research & Development:									
Sun Power for Schools								-	-
Photovoltaic/Solar Park								-	-
BIPV demonstration								-	-
Biodiesel feasibility assessment								-	-
Hawaii Energy Test Lab	-							-	-
Electronic shock absorber								-	-
Lanai pumped storage								-	-
CHP phase 1								-	-
Solar air conditioning								-	-
Photovoltaic County grant								-	-
Power Quality Technologies								-	-
Advanced HVAC Systems								-	-
Other projects to be determined								-	-
Sub-total local R&D	-	-	-	-	-	-	-	-	-
Other:									
Others (primarily labor & on costs)			-	-	-	-		-	-
Coding error - should be charged to account 902							-	-	
Sub-total other	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-

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CA-IR-436

Ref: MECO response CA-IR-351 (T&D Non Labor Outside Services).

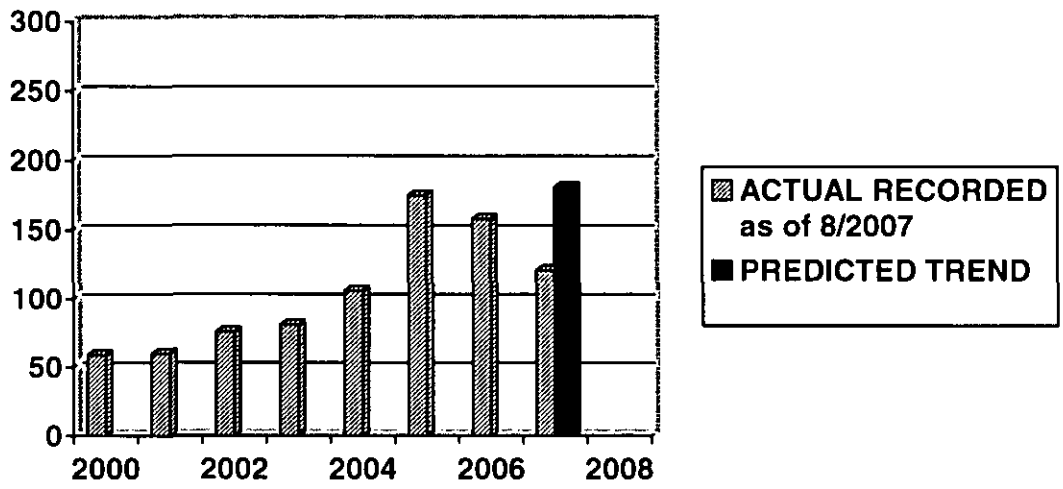
CA-IR-351 referred to Item 112 (CA-IR-2, Attachment 5, page 3) identified as DK RO Maui Dist Line UG Corrective Exp O/S in the amount of $105,000. In response to CA-IR-351, the Company referred to the trend of cable fault occurrences shown on MECO-609 and indicated that the Company had determined that it was cost effective to use outside contractors for sidewalk repairs. Please provide the following:

a. Please update MECO-609 to reflect actual cable faults through August 2007, or September 2007 if the data is readily available.

b. Referring to part (a) above, please provide the actual number of cable faults that required sidewalk repairs.

MECO Response:

a. Provided below is MECO-609 Maui Distribution Cable Fault Trending Chart updated with actuals for 2006 and actuals from 01/01/2007 through 8/31/2007. MECO estimates that the number of cable faults for 2007 to be 182 based on annualizing the YTD August 2007 amount.



b. There were a 158 cable faults in 2006 of which 69 required sidewalk repairs, and there were 121 cable faults between 1/01/2007 and 08/31/2007 of which 62 have required sidewalk repairs.

CA-IR-437

Ref: MECO response to CA-IR-372 (Ho' omaika' i Costs).

In response to part (d) of CA-IR-372, the Company indicated that the Ho'omaika'i Awards Banquet and the Process Area Team Awards "do not involve any form of monetary compensation to individual employees." However, the information contained in Attachment A specifies gifts ranging from $50-$100 or cash awards from $500-$1,000. Further, Attachment C of the MECO T-9 response to CA-IR-2 indicates that about half of the forecast amount is comprised of such awards. Please provide the following:

a. Please explain how MECO reached the conclusion that these awards to not represent a form of monetary compensation.

b. Referring to Attachment C of the MECO T-9 response to CA-IR-2, please state whether the following forecast awards represent cash, gifts or some other award (specify type of award) presented to individual employees:

   1. Process Team Awards - $29,450.
   2. Special Recognition Awards - $5,000.

MECO Response:

a. CA-IR-372 part (d) asked if either of the awards identified in parts (a) and (b) involve any form of monetary compensation. Part (a) inquired about the Ho'omaika'i banquet and part (b) inquired about the Process Area Team Awards. These two awards do not involve monetary compensation. Should MECO meet its safety lost time severity goal and is free of a fatality, then all eligible employees are invited to a dinner banquet hosted by the Company. All eligible employees who earn a Process Area Team Award receive a gift valued at either $50, $75, or $100, depending on what level award they are eligible for. Under MECO's Safety Recognition Awards Program, which was not addressed in the Consumer Advocate's questions with respect to CA-IR-372, the only cash awards given out are Special Recognition Awards (please also see the response to part b.2. of this information request).

b. Referring to Attachment C of the MECO T-9 response to CA-IR-2, the following specifies the type of awards presented to individual employees:

1. Process Team Awards - $29,450. Eligible employees are awarded gifts valued at $50, $75 or $100, depending on their exposure level or the department they work in.

2. Special Recognition Awards - $5,000. Eligible employees are presented with cash awards of either $500 or $1,000, depending on the award earned.

CA-IR-438

Ref: MECO response to CA-IR-372 (Ho' omaika' i Costs).

In response to part (e) of CA-IR-372, the Company provided the amount of Ho'omaika'i Awards Banquet and the Process Area Team Awards incurred in program years 2004 ($5,381), 2005 ($52,063) and 2006 ($0). Excluding the Ho'okina Awards, which were eliminated by MECO T-9 in the June 2007 Update (due to termination of the program), MECO has proposed to include $56,800 in the 2007 test year forecast for the Ho'omaika'i Awards Banquet and the Process Area Team Awards. Please provide the following:

a. Please explain the distinction between program year and calendar year as applied in the response to CA-IR-372, part (e).

b. The $56,800 forecast amount appears excessive in the context of the three years of actual data identified above. Please provide the following:

   1. Did MECO suspend the Ho'omaika'i Awards Banquet in both 2004 and 2006, as no costs were identified for these years? Please explain.

   2. If the response to part (b)1. above is affirmative, why was the awards banquet suspended in 2004 and 2006? Please explain.

   3. In 2004 and 2006, the Company identified only $5,381 and $0, respectively, for Process Area Team Awards. Why were the Process Team Awards of such limited amounts in 2004 and 2006? Please explain.

MECO Response:

a. In its response to CA-IR-372, part e., MECO made the distinction between actual costs incurred for program years and costs incurred for calendar years. For purposes of the Company's response to CA-IR-372, calendar year cost was intended to mean the costs recorded in MECO's general ledger for a calendar year for financial reporting purposes. As further explained below, calendar year costs generally reflect estimated current year program costs plus a "true up" to actual of the prior year's estimated program costs. In comparison, program year cost was intended to mean the actual costs incurred for a specific program year regardless of which calendar year the program related costs were recorded for

financial reporting purposes, which MECO assumed would be a more meaningful response to the Consumer Advocate's instant information request.

As explained in the Company's response to CA-IR-372, during a calendar year accounting entries are recorded to accrue the costs for the program year. The amounts accrued are necessarily estimates and actual costs can be higher or lower depending on factors such as actual performance with respect to program goals, number of eligible employees and, in the case of the Ho'omaika'i Awards Banquet, the cost to hold the banquet. Any differences between amounts accrued in a calendar year and actual costs incurred are recorded for financial reporting purposes in the calendar year that the amount of actual costs become known, which is generally in the next succeeding year. For that reason, in its response to CA-IR-372, the Company provided actual costs incurred for program years as opposed to calendar years because the cost data by program year more appropriately matches Company and process area performance against program goals with the costs incurred for the respective program year.

b. 1. MECO did not suspend the Ho'omaika'i Awards Banquet in 2004 or 2006. No costs were incurred for either the 2004 or 2006 program years because MECO did not meet its safety goal in those years and, therefore, was not eligible for an Awards Banquet based on the established criteria (see Program Threshold on page 1 of Attachment A of the Company's response to CA-IR-372).

2. Not applicable.

3. The Ho'omaika'i program is designed to reward performance with respect to safety goals. In 2004 and 2006, the amount of awards were limited because the goals established

for the program were either not met for the Company as a whole or not met for certain individual process areas, as discussed below.

In 2004, the Company did not meet the program's overall company safety goal. However, as stated in MECO's Safety Recognition Awards Program brochure under Process Area Team Awards (see page 1 of Attachment A of MECO's response to CA-IR-372), if the Company fails to achieve the corporate safety goal but Level 1 High Exposure departments meet their safety goal, then the employees of those departments will receive the Level 3 award which is a gift valued at $50. MECO's Transmission and Distribution department, considered a Level 1 High Exposure department for purposes of the Ho'omaika'i program, met the program's safety goal for 2004 and, accordingly, the eligible Transmission and Distribution department employees were awarded Level 3 Process Area Team awards.

In 2006, neither the Company nor any of the departments identified as Level 1 High Exposure departments for purposes of the Ho'omaika'i program met their safety goal for the year. Accordingly, no Process Area Team awards were distributed for that program year.

The 2007 test year estimate of $56,800 for the Ho'omaika'i program is reasonable because the Company expects to achieve the goals identified for this program in the test year as well as in subsequent years in which the rates approved by the Commission in this docket are expected to be in effect. As of September 30, 2007, the Company's lost time severity rate was 121, well below the targeted goal of 150. Company safety programs, training and procedures are continually reviewed and, if necessary, improved. The Company's goal each year is not simply to meet the stated corporate safety goal but rather to strive to attain MECO's best safety goal ever.

CA-IR-439

Ref: MECO responses to CA-IR-370 & CA-IR-346 (Vehicles).

Attachment 1 to the response to CA-IR-370 provided a calculation of vehicle on-cost rates. Part (c) of the referenced response indicated that use of incorrect vehicle on-cost rates understated the Company's 2007 test year forecast by $202,000. Please provide the following:

a. Please provide the following cost pool information:
   1. Additional forecast detail showing the types of costs and underlying calculations supporting the $2,717,000 amount for the vehicle cost pool.
   2. Comparable actual cost pool amounts for 2006.

b. Please identify the number and type of vehicles associated with each vehicle category (heavy, medium, etc.) in 2006 (actual) and 2007 (forecast).

c. For each vehicle category, please provide the actual vehicle operating hours for 2006.

d. For each vehicle category, please confirm that the vehicle on-costs are distributed between expense, capital and billable work in the normal course of business based on the relative vehicle use. If this cannot be confirmed, please explain.

e. Referring to part (d) above, please provide the allocation to O&M accounts for each vehicle category in the following periods:
   1. 2006 actual.
   2. 2007 test year forecast.

f. Does MECO intend to include the additional $202,000 of vehicle costs in the test year forecast? Please explain. l

MECO Response:

a. Please see Attachment 1 for the requested information. Please note the footnote at the bottom of Attachment 1, which explains why the amount of vehicle depreciation included in the 2007 Operating Budget vehicles cost pool was overstated by approximately $30,000 compared to the estimate for vehicles depreciation included in the June 2007 Update to MECO T-12.

b. Please see Attachment 2 for the requested information.

c. Please see Attachment 3 for the requested information.

d. Although MECO's process for recording and forecasting vehicle charges does not utilize a

time-keeping system except with respect to "pool" cars, the process utilized by MECO achieves results which approximate a time-keeping system while minimizing the record-keeping burden that would otherwise be required with a time-keeping system.

MECO's process for both recording and forecasting vehicle charges is to charge directly to O&M expense accounts the vehicles on-costs for administrative areas such as the Accounting, Administration, and Customer Service (except for three vehicles[1]) departments, the President's Office and the Information Services Division of the Transmission & Distribution (T&D) department. For operational areas such as the T&D (except for one vehicle[2]), Engineering and Power Supply departments, vehicles on-costs are allocated to O&M expense, capital and billable accounts through the on-cost loading associated with the respective clearing accounts for these operational areas. The loading of on-costs for these operational areas, which include vehicles charges, is based on productive labor hours and results in the distribution of vehicles on-costs which approximate the results that would otherwise have been achieved through the use of a vehicle time-keeping system. This is because vehicles generally accompany the work crews on their daily assignments. On-costs are discussed in further detail in MECO T-9, beginning on page 80.

e. Attachment 4 provides the amounts of 2006 recorded and 2007 test year vehicle on-costs allocated directly to O&M accounts, by vehicle category, for the Accounting, Administration, and Customer Service (except for three vehicles[3]) departments, the President's Office and the Information Services Division of the T&D department.

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[1] Vehicles on-costs for three Customer Service vehicles are charged to deferred expense accounts and recovered through the IRP Clause.

[2] Vehicles on-costs for one T&D vehicle assigned to the Information Services Division are charged directly to O&M expense.

[3] Vehicles on-costs for three Customer Service vehicles are charged to deferred expense accounts and recovered through the IRP Clause.

As explained in the response to part d. above, for operational areas such as the T&D (except for one vehicle[4]), Engineering and Power Supply departments, vehicles on-costs are allocated to O&M expense, capital and billable accounts through the on-cost loading associated with the respective clearing accounts for these operational areas. The amount of vehicles on-costs distributed through the Energy Delivery, Customer Engineering and Power Supply on-cost clearing process to O&M expense accounts cannot be easily determined.

f. To date, MECO has not filed any June 2007 updates, or revisions to June 2007 updates that were filed, which reflect correction for all or portions of the $202,000 of vehicles costs that were identified in MECO's response to CA-IR-370. In addition, to date MECO has not filed any June 2007 updates, or revisions to the June 2007 updates that were filed, which reflect correction for all or portions of the approximately $30,000 overstatement of vehicle depreciation included in the vehicle cost pool as described in the response to part a. above. MECO does not, however, waive its right to make corrections for all or portions of either the $202,000 of vehicles costs which were inadvertently excluded from its test year estimate, as further discussed in its response to CA-IR-370, or the $30,000 overstatement of vehicle depreciation included in the vehicle cost pool. Please note that if MECO were to make correction for either or both of these items, such correction would be allocable to O&M expense, capital and billable accounts, as indicated in the response to part d. above.

[4] Vehicles on-costs for one T&D vehicle assigned to the Information Services Division are charged directly to O&M expense.

MAUI ELECTRIC COMPANY, LTD.
VEHICLES COSTS
2006 RECORDED AND 2007 OPERATING BUDGET ($000)

	2006 Recorded	2007 Operating Budget
Labor	261	299
Materials, including gas and oil	776	854
Outside services	527	563
Depreciation	758	766 *
Overheads	372	235
Totals	2,694	2,717

* Note: The 2007 Operating Budget estimate for vehicle depreciation included in the calculation of the vehicle on costs, $766,000 as shown above, was based on a preliminary estimate. As shown in the June 2007 Update to MECO T-12, MECO's updated test year 2007 estimate for vehicle depreciation is $736,000, as shown in the updated MECO-1201.

MAUI ELECTRIC COMPANY, LTD.
NUMBER AND TYPE OF VEHICLES
2006 RECORDED AND 2007 OPERATING BUDGET

Category	Type	2006 Recorded		2007 Operating Budget
Heavy	Vehicles with greater than 26,000 pound gross vehicle weight (GVW)	22		23
Medium	Vehicles with greater than 11,000 pound but less than or equal to 26,000 pound GVW	14		14
Light	Vehicles with less than or equal to 11,000 pound gross vehicle weight (GVW)	101		98
Sedan	Sedans	25		21
Miscellaneous	All others that do not fall into one of the categories above	103		100
Totals		265		256

MAUI ELECTRIC COMPANY, LTD.
VEHICLE OPERATING HOURS
2006 ACTUAL

Category	2006 Actual Vehicle Operating Hours
Heavy	45,768
Medium	195,760
Light	27,552
Sedan	42,592
Miscellaneous	198,544
Totals	510,216

MAUI ELECTRIC COMPANY, LTD.
VEHICLES ON COSTS CHARGES TO O&M EXPENSE ACCOUNTS
2006 RECORDED AND 2007 OPERATING BUDGET ($000)

	2006 Recorded *	2007 Operating Budget *
Heavy	-	-
Medium	19	22
Light	230	258
Sedans	62	48
Miscellaneous	-	-
Totals	311	328

* Note: The amounts above do not include vehicle on-costs which are initially allocated to operating department clearing accounts and which eventually are allocated to O&M accounts through the on-cost loading process associated with the operating department clearing accounts, because the amounts cannot be easily determined. Please see the response to part e. for further explanation.

CA-IR-440

Ref: MECO responses to CA-IR-370 & CA-IR-346 (Vehicles).

In response to part (a) of CA-IR-346, the Company indicated that the light vehicle category was comprised of two 2000 GMC pick-up trucks. Referring to Attachment 1 to the response to CA-IR-370, section C2 indicates that the 2007 budget operating hours for the light vehicle category was 194,000 hours. Please provide the following:

a. Based on this information, each of the pick-up trucks would operate an average of 97,000 hours (194,000 hours divided by 2) per year, or over 4,000 calendar days (97,000 hours divided by 24) in a year. Please explain and reconcile this discrepancy, providing any revised calculations.

b. Referring to part (a) above, please review the operating hours per vehicle in each of the other vehicle categories, indicating whether any revisions are necessary.

MECO Response:

a. The two 2000 GMC pick-up trucks identified in the Company's response to CA-IR-346 are only two of the total estimated ninety-eight (98) light trucks included in the Company's test year 2007 forecast. The estimated 194,000 hours for light trucks indicated on Attachment 1 of the Company's response to CA-IR-370 represents the estimated vehicle hours for all of the 98 light trucks included in the test year forecast. The test year 2007 forecast includes 3,968 hours for the two 2000 GMC pick-up trucks identified in the Company's response to CA-IR-346.

b. No revisions are required to the Company's test year 2007 estimate for vehicle operating hours. As shown in Attachment 1 to this response, the Company's test year 2007 forecast assumed an estimated 1,984 operating hours for each vehicle included in the forecast.

MAUI ELECTRIC COMPANY, LTD.
NUMBER AND TYPE OF VEHICLES
2006 RECORDED AND 2007 OPERATING BUDGET

	A	B	A * B
Category	# of Vehicles	Average Hours Per Vehicle	Total Vehicle Hours (000)
Heavy	23	1,984	46
Medium	14	1,984	28
Light	98	1,984	194
Sedan	21	1,984	42
Miscellaneous	100	1,984	198
Totals	256	1,984	508

CA-IR-441

Ref: MECO T-10 June Update, Exhibit 3, page 2 (Life Credits).

The spreadsheet file ("MECO2007_335 RC May07_082107.xls") supporting the $90,229 life credit estimate is based on unit rates of $14.69 (Merit), $9.78 (BU) and $5.13 (Exec) for each of the 24 pay periods. According to Section 10 of the bargaining agreement (MECO-WP-1053, page 18), the flex credits for group life is based on an amount equal to the premium for coverage of 1½ times annual base pay for each employee. Please provide the following:

a. Does the bargaining unit group life flex credit valuation (i.e., equal to the premium for coverage of 1½ times annual base pay for each employee) also apply to Merit and Exec employees? Please explain.

b. The flex credits noted above are input values into the referenced spreadsheet file. Does the Company's workpapers or exhibits show how these flex prices were determined?
   1. If yes, please provide a pinpoint reference to documentation showing such calculations.
   2. If no, please provide additional documentation showing how these flex credits were quantified.

c. Using BU as an example (MECO T-10 June 2007 Update, Exhibit 3, page 6), it would seem that the group life flex credit would be about $9.50 per employee per pay period ($4,356 annual premium for 1-1/2 annual comp divided by 24 pay periods divided by 19.1 projected participation), not $9.78. Please explain why the BU flex credit would be something other than $9.50 and show all calculations.

d. Referring to the response to part (c) above, please provide a similar explanation regarding the group life flex credits for both Merit and Exec employees.

MECO Response:

a. No. Group life flex credits are equal to the premium to provide coverage as follows:

- 1½ x annual base pay for bargaining unit employees,
- 2 x annual base pay for merit employees, and
- $50,000 for executives.

b. No.

1. Not applicable.

2. The "Average Life CR" (group life credits) of $14.69 (Merit), $9.78 (BU) and $5.13 (Exec) for each of the 24 pay periods included in the input sheet of the spreadsheet file

("MECO2007_335 RC May07_08217.xls") was determined using the actual average credit per employee resulting from the open enrollment process with respect to 2007 benefits. See Exhibit 1 for a summary of the calculation. A detailed electronic data file (labeled as Exhibit 3 of this response) including information used to calculate the average life credits, and which contains confidential information, is being provided pursuant to Protective Order No. 23379, dated April 23, 2007.

c. As will be explained in more detail below, the $9.78 is based on an estimated insurance premium rate of $0.205 per $1000 of coverage, which was used to calculate flex credits for the open enrollment process with respect to 2007 benefits. Subsequent to the completion of the open enrollment process, the insurer reduced its premium rate to $0.200 per $1000 of coverage, which premium rate was used to estimate the test year premium (approximately $9.50 per BU employee as referenced above by the Consumer Advocate) as reflected in the Company's June 2007 Update for MECO T-10.

As shown in Exhibit 3, page 6 of the MECO T-10 June 2007 Update, the $4,356 is the annual test year premium amount for coverage of 1½ x annual compensation for BU employees based on a monthly premium rate of $0.200 per $1000 of coverage. The $9.78 for credits for BU employees (for each of the 24 pay periods) underlying the June 2007 Update was calculated using a monthly premium rate of $0.205 per $1000 of coverage and is the average credit per BU employee resulting from the open enrollment process for 2007 benefits. (See the electronic file provided pursuant to part b. of this instant response.) Group life credits and premiums for basic life are usually calculated using the same rate. However, the premium rate for 2007 was reduced by the insurer in January 2007, after the open enrollment process was concluded in late 2006 (for 2007 benefits). For the open

enrollment, credits based on the $0.205 per $1000 of coverage were given to employees. The subsequent premium reduction by the insurer from $0.205 to $0.200 per $1000 of coverage resulted in MECO employees receiving credits that were approximately $2,200 (aggregate total for the test year) more than the actual premium to be paid by MECO. Attached as Exhibit 2 is a comparison of group life credits calculated using the $0.205 per $1000 of coverage (page 1) versus the $0.200 per $1000 of coverage (page 2). The difference between the two calculations is approximately $2,200 per year ($90,229 - $88,016).

d. See response to part c. above.

2007 Life Credit Statistics

	Co	Data				
	MECO			Total Count of Life Class	Total Sum of Life Credit	Total Average of Life Credit
Life Class	Count of Life Class	Life Credit	Average of Life Credit			
BU	197	$1,926.80	$9.78	197	$1,926.80	$9.78
EXEC	7	$35.88	$5.13	7	$35.88	$5.13
MERIT	95	$1,395.74	$14.69	95	$1,395.74	$14.69
Grand Total	299	$3,358.41	$11.23	299	$3,358.41	$11.23

C:\Documents and Settings\jprice\Local Settings\Temporary Internet Files\OLK1\20070301_542employee3a_MECO.xls[LifeCredit]
03.05.2007

Maui Electric Company, Ltd.

Life Credits

2007

				Merit		Exec		BU	Total
January	2007 Average Life Credit (based on $0.205 per $1,000)			$352.56		$123.12		$234.72	
2007	Projected Premium Increase	0%	X	1	X	1	X	1	
	Salary/Wage Increase		X	1.0000	X	1.0000	X	1.0000	
2007	Projected Average Life Credit			$352.56		$123.12		$234.72	
Projected Number of Employees			X	106	X	8	X	221	
	2007 Life Credits			$37,371.36		$984.96		$51,873.12	**$90,229**

Maui Electric Company, Ltd.

Life Credits

2007

				Merit		Exec		BU	Total
January	2007 Average Life Credit (based on $0.20 per $1,000)			$343.92		$120.00		$228.96	
2007	Projected Premium Increase	0%	X	1	X	1	X	1	
	Salary/Wage Increase		X	1.0000	X	1.0000	X	1.0000	
2007	Projected Average Life Credit			$343.92		$120.00		$228.96	
Projected Number of Employees			X	106	X	8	X	221	
	2007 Life Credits			$36,455.52		$960.00		$50,600.16	**$88,016**

CA-IR-442

Ref: MECO Response to CA-IR-376, page 2 (HEI Interest Allocation).

Please provide the following:

a. Explain why HEI interest is allocated to MECO for calculation of DPAD, but not for determination of the MECO revenue requirement.

b. Provide an updated calculation of Interest Expense for use in Income Tax Calculation in the format of MECO-WP-1302 using the Company's asserted cost of capital assumptions and updated capital expenditures, AFUDC and capital structure projections, as applicable.

c. Provide an updated calculation of Interest Expense for use in Income Tax Calculation if HEI interest were allocated for ratemaking purposes using the same methods as for calculation of DPAD on the company's 2006 tax return.

MECO Response

a. HEI interest was allocated to MECO only for the calculation of DPAD for the 2006 income tax return filed in September 2007 because this allocation is required by the regulations governing the allocation of costs for purposes of determining DPAD. On the other hand, revenue requirements in this rate case proceeding should be determined on a stand alone basis, and HEI interest should not impact the income tax calculation for MECO.

b. See MECO's response to CA-IR-380, part a.

c. As discussed in the response to part a. above, the HEI interest is allocated to determine the deductible limits of DPAD for income tax return purposes only, as required under Section 199 of the Internal Revenue Code. This Section 199 allocation of interest is not used in determining the entity's deductible interest for income tax return purposes and has no applicability to the calculation of MECO's interest expense deduction for income tax calculation purposes in this instant docket. The Company has consistently applied the "stand alone" concept in determining revenue requirements in previous rate cases, and tax expense

or benefit related to non-utility income or expenses has never been attributed to MECO. The results of calculating tax benefits on a stand alone basis has never been rejected by the Commission in its Decision and Orders. The calculation requested herein would be inconsistent with accepted regulatory practice and a misapplication of the Section 199 allocation methodology.

CA-IR-443

Ref: MECO Schedule F Tariff Terms (Unmetered Lighting Service).

Please provide the following:

a. Explain why standard service for Maui and Lanai after May 1976 (but not Molokai as to-date) is un-metered service and describe where and to what extent metered service remains in effect.

b. What are the perceived advantages and disadvantages of converting all lighting to unmetered service, so as to avoid meter reading and billing complexity and expense and to simplify tariffs?

c. Describe the procedures used to track and install fixtures on each account and provide a summary of such data for the test year.

d. Are fixture counts maintained and applied to all customer accounts, including metered and unmetered service?

e. Provide a proof of revenues for the test year proposed "Fixture Charge" amounts, indicating the source data for quantities employed.

f. State where fixture revenue is recorded on the books (by NARUC Account) and in the rate case filing.

g. Explain the basis for each of the unit "fixture charge" amounts in the tariff and provide copies of cost studies relied upon for same.

h. State all reasons why no changes are proposed in the fixture charge amounts and provide copies of all information relied upon to conclude that current pricing is reasonable.

i. Explain the basis for the 340 hours per month dusk to dawn usage assumption.

j. Please explain the rationale for Schedule F energy charges that decline at higher load factors relevant to a lighting rate where unmetered energy is billed based upon a fixed 340 hour/month load factor assumption?

MECO Response:

a. Standard service for Schedule F customers is unmetered in order to streamline the Company's metering and meter reading requirements. Since the energy usage of a street light is fairly predictable, it offers an opportunity for the Company to provide service at a lower cost. Metered service remains in effect at Maui division and Lanai division. The extent of metered service is shown in MECO-WP-302, pages 147-148 (Maui division) and in MECO-WP-303, pages 38-39 (Lanai division).

b. Converting existing metered service to unmetered service would save on meter reading expense. Such a conversion may have certain costs, including meter removal costs, billing administrative costs to set up unmetered bills and computer programming costs.

c. When a new request for street light service is received in the Engineering department, billing information is sent to Customer Service (service location, type and number of fixtures) for tracking and billing set up. The Company did not estimate fixture counts for the test year. See also the response to part e. below.

d. Yes, they are maintained in the Customer Service area as described in the response to part c. above.

e. Please refer to MECO T-7, page 58 for a description of the test year estimate.

f. Fixture revenue goes to Account 454.

g. See the attached sheets for the derivation of the current fixture charges.

h. Due to time constraints in completing the cost of service studies for the three MECO divisions, we did not re-examine the cost basis of street lighting fixtures.

i. The 340 hours per month represents on average the number of hours of streetlight operation per month (approximately 11 hours per day) times the number of days per month, rounded to the nearest 10 hours.

j. Even though an unmetered Schedule F customer's energy charge is based upon a 340 hours per month load factor, the unmetered customer still pays for the first 150 kWh per kW at the higher energy rate and all other kWh at the lower rate, which is the same as a metered service customer per the Schedule F tariff.

Docket No. 7000
MAUI ELECTRIC COMPANY, LIMITED
Test-year 1993
Street Lighting Costs

	1993 Revenue Reqr per Month	Present Rates Maui/Lanai	Present Rates Molokai	Proposed Rates Maui/Lanai + Molokai
	← $/Fixture/Month →			
100 W - HPS	19.24	9.50	10.50	11.00
150 W - HPS	19.27	9.50	10.50	11.00
250 W - HPS	19.92	9.50	10.50	11.00
250 W - MV	12.03	9.50	10.50	11.00
400 W - MV	12.40	9.50	10.50	11.00
150/300 W - I	7.19	5.75	10.50	6.00

Proposed charge set at 20% of cost/charge difference, rounded to whole dollars for simplicity

ES 9-10-91

Street Lighting Fixture Costs

at MECO Forecasted No. of Fixtures (1993)	Fixture Type	TYPICAL FIXTURE INSTALLED COST Maui	Lanai	Molokai	Total MECO	
	150/300 W. Incand.				317 +	
	Mercury - 250 Watt				594 +	
	400 "				615 +	
	HIGH Pressure Sodium					
	100 Watt				1396.45	
	150 "				1398.85	
	250 "				1450.40	

	1993 Annual Rev Reqr ($/Fixture) CAPITAL *	O+M **	TOTAL	Monthly Rev. Reqr	Present Fixture Chg $/unit Maui Lanai	Molokai
HPS Fixtures						
100 Watt	211.00	19.89	230.89	19.24	9.50	10.5
150 Watt	211.37	19.89	231.26	19.27	9.50	10.5
250 Watt	219.16	19.89	239.05	19.92	9.50	10.5
Mercury						
250 Watt	124.50 +	19.89	144.39	12.03	9.50	10.50
400 Watt	128.90 +	19.89	148.79	12.40	9.50	10.50
Incandescent						
150 Watt	66.44 +	19.89	86.33	7.19	5.75	10.5
300 Watt	66.44 +	19.89	86.33	7.19	5.75	

+ From Docket No. 4691 TY 1984. Note: these fixture types (mercury vapor + incandescent lamps are being phased out. New installations + replacements are HPS)

* Installed cost x Annual levelized rev. reqr factor (15.11%)

** Test year O+M for street lights ÷ No. of fixtures x 1.095

ES 9-9-91

CA-IR-444

Ref: MECO-WP-302, page 1 (Schedule R Base Energy Rate).

MECO rate Schedule R has a separate pricing element for "Base Fuel", while the other rate schedules roll this cost into the basic energy rate. Please provide the following:

a. Explain why Schedule R contains this separately stated base fuel element that is not set forth in other rates, indicating each of the administrative or other purposes served by this element.

b. For what reasons should Schedule R not be simplified by rolling in the base fuel cost as part of the tiered energy rates?

c. State whether the proposed rate for Maui Schedule R is 4.5937 shown in the Proposed Rates Unit Price column or the 17.9992 rate shown in the proposed tariff.

MECO Response:

a. The separate "Base Fuel Energy Charge" for Schedule R was proposed by the Consumer Advocate and approved by the Commission in Decision and Order No. 6275 in HECO's rate case Docket No. 3705.

b. See the response to part a. above.

c. The proposed base fuel energy rate for Maui Division shown in MECO-WP-302, page 1 should be 17.9992 cents per kWh. If we multiply 17.9992 cents per kWh times the test year forecast of 430,167 mWh, we obtain the $77,426,600 estimated base fuel energy revenue at proposed rates.

CA-IR-445

Ref: MECO Response to CA-IR-384 (Customer Service Cost Differentials by Island).

Please provide the following:

a. The response provided to CA-IR-384, part (a) cites the results of cost allocations by island, but does not explain "all known reasons why" such costs are vastly different by island. Please supplement your response as necessary to fully explain these differentials.

b. Should any revisions be made to inter-island allocations of customer service expenses in order to more accurately determine unit customer costs by rate class on each island?

c. If your response to part (b) of this information request is affirmative, please identify and quantify each adjustment that should be made.

MECO Response:

a. The response to CA-IR-384 identified higher customer service costs at Maui division than at Lanai division and Molokai division as a reason for higher Schedule P unit customer costs at Maui division than at Lanai division and Molokai division. The MECO cost of service studies do not explain why total customer service costs are different by island. There is a separate cost of service study for each MECO division. The cost of service study allocates the division's demand, energy, and customer costs among rate classes. The cost of service study does not determine the amount of cost assigned to each division; cost estimates for each division are provided by the MECO witnesses in this case. The level of customer service expense for each MECO division for the 2007 test year is discussed in MECO T-8.

b. See the response to part a. above.

c. See the response to part a. above.

CA-IR-446

Ref: MECO Response to CA-IR-193, part c (Schedule R LIHEAP).

According to the response, MECO intends to bill LIHEAP participants at only the initial block of proposed Schedule R. Please provide the following:

a. Calculations of the anticipated revenue impact of this proposal.

b. State whether the revenue effects set forth in your response to part (a) of this information request have been included in test year revenues at proposed rates or cost of service exhibits filed by MECO and, if so, identify where such amounts are included.

MECO Response:

a. The Company has not made any estimates of the revenue impacts of this proposal for the three MECO divisions. The Company is unable to access data on which to base any estimates. The Company has included zero revenue impact for this LIHEAP proposal in test year revenues at proposed rates and in the cost of service exhibits. If the LIHEAP proposal is approved in this rate case, MECO will be able to track actual participation in order to estimate revenue impacts in the next MECO general rate case.

b. See the response to part a. above.

CA-IR-447

Ref: MECO Response to CA-IR-263, part d (Master Metering Conservation Effects).

Please provide the following:

a. State and explain whether Mr. Young or MECO believe that residential customers' ability to realize economic benefits from conservation efforts would be enhanced by discontinuation of master metering within residential developments.

b. Does MECO object to precluding the establishment of new master metered residential service on rate Schedules G, J and P to ensure that residential customers can control their energy costs through conservation and utilization of inclining block rates under Schedule R?

c. Please provide complete copies of all studies, reports, analyses, workpapers and other information relied upon in your response to part (b) of this information request.

MECO Response:

a. The ability of residential customers to realize economic benefits from conservation efforts is not necessarily enhanced by the discontinuation of master metering if the residential customers do not control a substantial amount of their energy use, such as for water heating or for air conditioning. In fact, per Hawaii Administrative Rules 6-60-5, service to residential units in new buildings must be supplied through individual meters for each unit. Master metering is a permitted exception for apartments, condominiums and multi-unit buildings when the individual occupant does not control a substantial portion of the energy such as for water heating or air conditioning or if such service will tend to encourage conservation or the efficient use of energy.

b. Yes. See the response to part a. above.

c. See the response to part a. above.

CA-IR-448

Ref: MECO Responses to CA-IR-263, part a; CA-IR-262, part c (Master Versus Individual Metering).

Please provide the following:

a. CA-IR-263, part (a) indicates that only 37 master metered multi-family MECO accounts are believed to exist on Schedules J, H and P. Does MECO have any information regarding the number of Schedule R accounts that exist within multi-family structures at a single street address?

b. If your response to part (a) is affirmative, please provide the most detailed available statistical data indicative of the numbers of individual Schedule R meters that are aggregated within single street addresses.

MECO Response:

a. MECO does not have information regarding the number of Schedule R accounts that exist within multi-family structures at a single street address.

b. Not applicable.

CA-IR-449

Ref: MECO Response to CA-IR-268, Load Study Attachments (Derivation of NCCD).
Please provide the following:

a. For Rate Schedules J, H, P and F, explain whether the kwh/kw input values used to derive NCCD factors were determined by voltage level from information in the load study documentation for each island, as input into cost of service calculations.

b. If the Schedules J, H, P and F kwh/kw input values were derived from "Recorded" data, as indicated in CA-IR-270 at pages 2, 5 and 8, please provide reference into T-3 workpapers where such data can be observed from test year billing determinants.

c. Complete copies of all additional documentation and calculations, beyond the provided load study reports and T-3 workpapers that are required to develop Load Factor kwh/kw inputs (MECO-WP-1802, pages 6, 95 and 184; column B) used to develop Non-coincident Customer Demand by customer class and voltage.

d. If any adjustments or corrections are required to the kwh/kw input values, please provide supporting calculations for all such corrected values.

MECO Response:

a. The data for the kWh/kW input values for Schedules J, H, P, and F come from a series of "rate run" reports drawn from a dataset of recorded billing information for calendar year 2005 for each island, not from information contained in Load Study documentation. The recorded data used for the derivation of the NCCD factors for Schedules J, H, P, and F are based on reports of measured demand (kWm). The recorded data used in the T-3 workpapers are based on reports of billing demand (kWb). The "rate run" reports utilized for Schedule J, Schedule H, Schedule P, and Schedule F billing demands and measured demands are voluminous (contained within 14 three-inch binders) and available for inspection at HECO's Regulatory Affairs Division office, Suite 1301, Central Pacific Plaza, 220 South King Street, Honolulu, Hawaii. Please contact Dean Matsuura at 543-4622 to make arrangements to inspect the documents.

b. See the response to part a. above.

c. See the response to part a. above.

d. No adjustments or corrections are required.

CA-IR-450

Ref: MECO-1813 (Marginal Energy Cost Trends).
Please provide the following:

a. Explain each of the reasons why the projected marginal energy costs for all periods are projected to decline significantly after 2007 and continue to decline more gradually after 2008.

b. What are the input fuel price assumptions used in each period shown?

c. Are any of the Company's rate proposals based upon the marginal energy costs shown in MECO-1813?

d. If your response to part (c) of this information request is affirmative, please explain how such rate proposals would be impacted by an alternative assumption of increasing future marginal energy costs.

MECO Response:

a. The marginal energy cost declines following 2007 due to the reduction in fuel prices in the fuel price forecast. The fuel price used in the Test Year 2007 is based on actual fuel prices from September 2006 (see MECO T-4, page 9, lines 16 and 17). This fuel price was used for the marginal energy cost calculation for 2007. The fuel prices used in the marginal energy cost for years 2008 and beyond were based on the MECO February 2006 fuel price forecast. The same fuel price forecast was used in the MECO IRP-3 Report (Docket No. 04-0077).

b. The input fuel price assumptions for each period are as follows:

Year	Kahului PP Industrial Fuel ($/bbl)	Maalaea PP Diesel Fuel ($/bbl)
2007	59.6359	104.8621
2008	49.31	75.38
2009	47.91	73.48
2010	46.44	71.48
2011	47.33	72.87

c. No. However, the marginal energy costs are considered a lower boundary in setting the off-peak energy rates for the proposed time-of-use rate options (Schedules TOU-R, TOU-G, TOU-J, and TOU-P).

d. See the response to part c. above.

CA-IR-451

Ref: MECO Response to CA-IR-270, pages 89-91; MECO-WP-1802, pages 19-20, 107-108, 197-198 (Customer Accounts/Customer Service Weighting Ratios).

Please provide the following:

a. Explain the studies that were conducted to derive the weighting factors applied to customer count statistics in development of MECO's proposed class allocation factors C6 (Cust Acct) and C8 (Cust Servc) for each island.

b. To what extent did the Company rely upon study results from the 1999 test year rate case for the C6 and C8 factor customer weighting values?

c. Provide copies of documentation associated with your response to part (a) of this information request for each island.

MECO Response:

a. No studies were conducted to determine the weighting factors for class allocation factors C6 (Cust Acct) and C8 (Cust Servc) for the instant rate case. The C6 and C8 class allocation factors are the same as those used in the 1999 test year MECO rate case. See the attached pages from MECO-1707 in Docket No. 97-0346.

b. See the response to part a. above.

c. Not applicable.

MAUI ELECTRIC COMPANY, LTD. - Maui DIVISION
SUMMARY OF COST ALLOCATION FACTORS
TEST YEAR 1999, DOCKET NO. 97-0346

		UNITS	RESIDENTIAL SERVICE R	GEN SRV NON-DMD G	GEN SRV DEMAND J	COMMERCIAL SERVICE H	LARGE POWER P	STREET LIGHTING F	TOTAL SYSTEM
CUSTOMER ALLOCATION FACTORS									
AVERAGE CUSTOMERS		NUMBER	44,334	5,642	1,075	281	108	132	51,572
AVERAGE CUSTOMERS	C10	%	85.965	10.940	2.084	.545	.209	.256	100.000
PRIM LINE WGT FACTOR		RATIO	1.00	1.38	1.90	1.80	2.00	1.00	1.07
PRIM LINE WTD CUSTOMERS		NUMBER	44,334	7,786	2,043	506	216	132	55,016
PRIM LINE ALLOC FACTOR	C1	%	80.583	14.152	3.713	.919	.393	.240	100.000
SEC LINE WGT FACTOR		RATIO	1.00	1.12	1.30	1.26	1.33	1.00	1.02
SEC LINE WTD CUSTOMERS		NUMBER	44,334	6,319	1,398	354	144	132	52,680
SEC LINE ALLOC FACTOR	C2	%	84.157	11.995	2.653	.672	.273	.251	100.000
TRANSF WGT FACTOR		RATIO	1.00	1.83	3.22	2.76	8.09	1.00	1.16
TRANSF WTD CUSTOMERS		NUMBER	44,334	10,325	3,462	776	874	132	59,902
TRANSF ALLOC FACTOR	C3	%	74.011	17.236	5.779	1.295	1.459	.220	100.000
SERVICE WGT FACTOR		RATIO	1.00	1.23	1.59	1.48	4.78	1.00	1.05
SERVICE WTD CUSTOMERS		NUMBER	44,334	6,940	1,709	416	516	132	54,047
SERVICE ALLOC FACTOR	C4	%	82.029	12.840	3.163	.769	.955	.244	100.000
METER WGT FACTOR		RATIO	1.00	2.07	3.58	2.79	24.52	1.00	1.23
METER WTD CUSTOMERS		NUMBER	44,334	11,679	3,849	784	2,648	132	63,426
METER ALLOC FACTOR	C5	%	69.899	18.414	6.068	1.236	4.175	.208	100.000
CUSTOMER ACCT WGT FACTOR		RATIO	1.00	1.36	2.64	1.49	3.30	1.00	1.08
CUST ACCT WTD CUSTOMERS		NUMBER	44,334	7,673	2,838	419	356	132	55,752
CUST ACCT ALLOC FACTOR	C6	%	79.520	13.763	5.090	.751	.639	.237	100.000
BAD DEBT ALLOC FACTOR	C7	%	62.660	17.320	12.690	7.130	.000	.000	100.000
CUSTOMER SERV ALLOC FCT	C8	%	21.410	6.200	24.330	16.070	31.940	.050	100.000
STREET LIGHTING AL FCT	C9	%	.000	.000	.000	.000	.000	100.000	100.000

MAUI ELECTRIC COMPANY, LTD. - LANAI DIVISION
SUMMARY OF COST ALLOCATION FACTORS
TEST YEAR 1999, DOCKET NO. 97-0346

		UNITS	RESIDENTIAL SERVICE R	GEN SRV NON-DMD G	GEN SRV DEMAND J	COMMERCIAL SERVICE H	LARGE POWER P	STREET LIGHTING F	TOTAL SYSTEM
CUSTOMER ALLOCATION FACTORS									
AVERAGE CUSTOMERS		NUMBER	1,241	139	27	5	3	4	1,419
AVERAGE CUSTOMERS	C10	%	87.456	9.796	1.903	.352	.211	.282	100.000
PRIM LINE WGT FACTOR		RATIO	1.00	1.17	1.95	1.23	2.00	1.00	1.04
PRIM LINE WTD CUSTOMERS		NUMBER	1,241	163	53	6	6	4	1,472
PRIM LINE ALLOC FACTOR	C1	%	84.282	11.045	3.576	.418	.407	.272	100.000
SEC LINE WGT FACTOR		RATIO	1.00	1.06	1.31	1.08	1.33	1.00	1.01
SEC LINE WTD CUSTOMERS		NUMBER	1,241	147	35	5	4	4	1,437
SEC LINE ALLOC FACTOR	C2	%	86.354	10.253	2.461	.376	.278	.278	100.000
TRANSF WGT FACTOR		RATIO	1.00	1.38	2.89	1.57	6.09	1.00	1.09
TRANSF WTD CUSTOMERS		NUMBER	1,241	192	78	8	18	4	1,541
TRANSF ALLOC FACTOR	C3	%	80.534	12.448	5.064	.509	1.186	.260	100.000
SERVICE WGT FACTOR		RATIO	1.00	1.10	1.58	1.14	5.14	1.00	1.03
SERVICE WTD CUSTOMERS		NUMBER	1,241	153	43	6	15	4	1,462
SERVICE ALLOC FACTOR	C4	%	84.902	10.461	2.919	.390	1.055	.274	100.000
METER WGT FACTOR		RATIO	1.00	2.09	4.70	2.35	25.34	1.00	1.23
METER WTD CUSTOMERS		NUMBER	1,241	291	127	12	76	4	1,750
METER ALLOC FACTOR	C5	%	70.907	16.599	7.251	.671	4.344	.229	100.000
CUSTOMER ACCT WGT FACTOR		RATIO	1.00	1.28	2.51	1.39	3.25	1.11	1.06
CUST ACCT WTD CUSTOMERS		NUMBER	1,241	178	68	7	10	4	1,508
CUST ACCT ALLOC FACTOR	C6	%	82.304	11.800	4.495	.461	.647	.294	100.000
BAD DEBT ALLOC FACTOR	C7	%	88.350	11.650	.000	.000	.000	.000	100.000
CUSTOMER SERV ALLOC FCT	C8	%	5.000	5.000	30.000	20.000	40.000	.000	100.000
STREET LIGHTING AL FCT	C9	%	.000	.000	.000	.000	.000	100.000	100.000

MAUI ELECTRIC COMPANY, LTD. - MOLOKAI DIVISION
SUMMARY OF COST ALLOCATION FACTORS
TEST YEAR 1999, DOCKET NO. 97-0346

		UNITS	RESIDENTIAL SERVICE R	GEN SRV NON-DMD G	GEN SRV DEMAND J	COMMERCIAL SERVICE H	LARGE POWER P	STREET LIGHTING F	TOTAL SYSTEM
CUSTOMER ALLOCATION FACTORS									
AVERAGE CUSTOMERS		NUMBER	2,363	396	61	31	12	13	2,876
AVERAGE CUSTOMERS	C10	%	82.163	13.769	2.121	1.078	.417	.452	100.000
PRIM LINE WGT FACTOR		RATIO	1.00	1.18	1.80	1.77	2.00	1.00	1.05
PRIM LINE WTD CUSTOMERS		NUMBER	2,363	467	110	55	24	13	3,032
PRIM LINE ALLOC FACTOR	C1	%	77.937	15.412	3.621	1.810	.792	.429	100.000
SEC LINE WGT FACTOR		RATIO	1.00	1.06	1.26	1.26	1.33	1.00	1.02
SEC LINE WTD CUSTOMERS		NUMBER	2,363	420	77	39	16	13	2,928
SEC LINE ALLOC FACTOR	C2	%	80.713	14.338	2.625	1.334	.545	.444	100.000
TRANSF WGT FACTOR		RATIO	1.00	1.49	3.05	2.53	10.19	1.00	1.17
TRANSF WTD CUSTOMERS		NUMBER	2,363	590	186	78	122	13	3,353
TRANSF ALLOC FACTOR	C3	%	70.478	17.598	5.549	2.339	3.647	.388	100.000
SERVICE WGT FACTOR		RATIO	1.00	1.11	1.51	1.47	4.37	1.00	1.05
SERVICE WTD CUSTOMERS		NUMBER	2,363	440	92	46	52	13	3,006
SERVICE ALLOC FACTOR	C4	%	78.618	14.624	3.065	1.516	1.745	.433	100.000
METER WGT FACTOR		RATIO	1.00	2.11	4.31	3.32	17.25	1.00	1.32
METER WTD CUSTOMERS		NUMBER	2,363	836	263	103	207	13	3,784
METER ALLOC FACTOR	C5	%	62.441	22.079	6.947	2.720	5.470	.344	100.000
CUSTOMER ACCT WGT FACTOR		RATIO	1.00	1.64	2.72	1.64	2.81	1.00	1.14
CUST ACCT WTD CUSTOMERS		NUMBER	2,363	649	166	51	34	13	3,276
CUST ACCT ALLOC FACTOR	C6	%	72.132	19.825	5.065	1.552	1.029	.397	100.000
BAD DEBT ALLOC FACTOR	C7	%	71.460	12.680	.000	15.860	.000	.000	100.000
CUSTOMER SERV ALLOC FCT	C8	%	5.000	5.000	30.000	20.000	40.000	.000	100.000
STREET LIGHTING AL FCT	C9	%	.000	.000	.000	.000	.000	100.000	100.000

CA-IR-452

Ref: MECO Response to CA-IR-198 (Manele Bay CHP).

Please provide the following:

a. Amounts of any non-fuel expenses or rate base investment amounts included in test year projections for Manele Bay CHP.

b. State whether adjustments are required to remove the amounts stated in your response to part (a) of this information request, given current expectations regarding earliest likely commercial operation of the unit if approved by the Commission.

MECO Response:

a. None. The Manele Bay CHP project was not included in the 2007 test year.

b. No adjustments are required.

CA-IR-453

Ref: MECO-1908, line 18.

MECO-1908, line 18, indicates an Efficiency Factor of 0.010648. Please explain how the Efficiency Factor shown on line 18 was calculated and provide supporting workpapers or other sources from which this factor was derived.

MECO Response:

For supporting documentation of Maui's efficiency factor of 0.010648 mbtu/kwh at proposed rates as shown on MECO-1908, Illustration of a Month with the Proposed Weighted Generation Efficiency Factor & DG Component as well as on MECO-1906, Energy Cost Adjustment (ECA) Filing at Proposed Rates, please refer to MECO-WP-1907, lines 1 through 5.