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 5 of 6

October 30, 2007

CA-IR-285

Ref: MECO response to CA-IR-233 (T&D Labor Requirements).

Attachment 2 of the referenced response provides a summary of labor hour demands by RA for "Other Non O&M Productive Hours." Attachment 1 provides a further detail breakdown for RA: MDR. Please provide the following:

a. The response to part (a) of CA-IR-233 states that the Accounting Department provides the Engineering Department with a 5-year capital expenditure forecast ($) by blanket project category from which Engineering estimates labor hours. Please provide the following:
   1. Please provide the capital expenditure forecast ($) provided to Engineering from which the Preliminary Budget Labor Hours were derived.
   2. Please provide the capital expenditure forecast ($) provided to Engineering from which the Preliminary 2007 Test Year Labor Hours were derived.
   3. Please identify and describe the key factors or considerations contributing to the 2,963 hour increase in MDR labor demands, as set forth on Attachment 1.

b. Referring to Attachment 1, the 2007 test year labor hours for capital blanket project labor demand (14,375 hours) are significantly higher than the labor hours included in the preliminary budget (11,412 hours). Please provide the following:
   1. Does the difference of 2,963 hours represent a need for one or more additional T&D employee positions that were added in deriving the 2007 test year forecast? Please explain.
   2. Does the difference of 2,963 hours represent hours that were reclassified from other T&D work requirements to support blanket projects? Please explain.

c. The 14,375 hours in the "2007 test year labor hours" column of Attachment 1 ties to the 14,375 labor hours for RA: MDR on Attachment 2. Can a schedule similar to Attachment 1 (i.e., the original budget amount could be excluded if burdensome to compile) be provided in support of the other T&D RA labor hours set forth on Attachment 2? Please explain.

d. Referring to part (c) above, please provide a comparable schedule to Attachment 1 for the other T&D RA labor hours set forth on Attachment 2.

MECO Response:

a.1. As stated in response to CA-IR-233, the Accounting Department provides a preliminary

5-year capital expenditure forecast by blanket project category in dollars which the

respective department reviews and makes the appropriate adjustments to the preliminary estimated labor hours associated with the projects in that blanket category in order to manage within these forecasted amounts for the 5-year period. As such, the preliminary labor hours is the starting point of the budgeting process and will not reconcile to the preliminary 5-year capital expenditures dollar forecast. Further, in the course of the budgeting process, the preliminary 5-year capital expenditure forecast may be adjusted, if needed to reflect current trends that may impact the respective blanket category. Attachment 1 of this response provides the preliminary capital expenditures budget for 2007 and the 2007 test year capital expenditures forecast.

a.2. Refer to the response to part a.1. above.

a.3. Attachment 1 of the original response to CA-IR-233 did not contained all the preliminary budget labor hours. The revised Attachment 1 of the response to CA-IR-233, filed on August 28, 2007, which provides the correct labor hours, shows a difference of 952 hours. This difference is partially the results of specific projects labor demands being refined as the scope of projects were developed, which accounts for an additional 570 hours spread across six projects. Also adding to the difference is the increase in demands not originally included in the preliminary forecast, such as the 650 hours for the 2007 MECO rate case. As explained in Ms. Arase's testimony (MECO T-14), pages 7 through 9, the test year plant additions estimates are an outcome of the process that develops the Company's capital expenditure estimate. In the preliminary stages of the budgeting process, individual projects are identified and their scope, and cost estimates are developed. The respective department will review and rank the proposed project for

inclusion in the upcoming 5-year capital project and subject to further review by the Capital Budget Committee "CBC". During the detailed budgeting process, the proposed projects are refined/built/updated and resource leveling reports are generated to allow those providing the resources an opportunity to review the demands, in terms of labor hours, placed on their respective resources and adjusted, if necessary to level the labor demands on a specific resource class in arriving at a realistic capital expenditures budget. The staffing requirements is based on the total labor demands including capital, O&M, etc. and is discussed further in the testimony of Mr. Herrera (MECO T-6) starting on page 35.

b.1. No, the increase is not the result of any staffing additions and is solely the result of the addition and refinement of tasks associated with the project that were not originally identified and included.

b.2. The 952 additional hours will be supplied by the aggregate MDR RA labor hour supply. However, no other project or demand will be reduced as a result. MDR labor hour demand in excess of supply for projects will be met through the utilization of overtime.

c. Yes, except the schedules will exclude preliminary budget amounts.

d. Refer to Attachment 2 of this response.

Maui Electric Company, Limited
2007 Test Year Rate Case Data
Capital Expenditures Forecast ($) for Blanket Projects

Project	Type	Description	Preliminary Capital Expenditures Budget (5/23/06)	2007 Test Year Capital Expenditures Forecast (10/5/06)	Difference
M0000747	Blanket	Trans Syst Eq. Purch-Radiator	97,885	78,150	(19,735)
M0000819	Blanket	LCM - Substation Equipment	236,645	175,362	(61,283)
M3500000	Blanket	MINOR TRANSM PLANT LINES	384,337	176,795	(207,542)
M7000000	Blanket	OVERHEAD SERVICES & EXTENSIONS	963,632	829,441	(134,191)
M7300000	Blanket	MINOR POLE LINE RELOCA	279,068	19,586	(259,482)
M7750000	Blanket	Other Overhead additions	1,179,211	336,302	(842,909)
M7900000	Blanket	METERS & METERING EQUIP (RB)	510,139	503,807	(6,332)
M7920000	Blanket	MINOR STATE HWY PROJECTS	128,786	303,537	174,751
M7990000	Blanket	STREET LIGHTS	82,018	79,990	(2,028)
M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	3,967,705	3,501,637	(466,068)
M8500000	Blanket	MINOR OH-UG CONVERSIONS	114,755	125,149	10,394
M8700000	Blanket	MINOR CABLE FAILURE REPLACE.	232,067	227,809	(4,258)
M8900000	Blanket	Other Underground Additions	428,497	60,821	(367,676)
			8,604,745	6,418,386	(2,186,359)

Maui Electric Co., Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA)

RA	Capital Blanket Projects (Including Removals)	Capital Non-Blanket (Specific) Projects (Including Removals)	Other	Total
MDC	1,132	3,034	298	4,464
MDE	1,760	4,078	2,757	8,595
MDK	25,488	21,759	5,420	52,667
MDL	2,032		812	2,844
MDM	2,311	336	174	2,821
MDR	6,006	2,461	5,908	14,375
MDS			7,332	7,332
MDT	2,370	1,991	850	5,211
MWI	120	60		180
TOTAL	41,219	33,719	23,551	98,489

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDE)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDC	NI	M0000690	Blanket	T&D SCADA EQUIPMENT	960
MDC	NI	M3500000	Blanket	MINOR TRANSM PLANT LINES	12
MDC	NI	M9083000	Blanket	Mobile Radio Repl	160
				Sub-Total Blanket Projects	**1,132**
MDC	NC	NMDZZZZZ	Clearing	Distribution	298
				Sub- Total Clearing	**298**
MDC	NI	M0000215	Specific	Sub 36 - Sub 3 - KBY Fiber Optic Link	800
MDC	NI	M0000301	Specific	Makawao SCADA Installation	200
MDC	NI	M0000302	Specific	Keanae SCADA Installation	200
MDC	NI	M0000387	Specific	Lanai SCADA Upgrade	200
MDC	NI	M0000658	Specific	Wailea Cap Bank #3	112
MDC	NI	M0000659	Specific	Makawao 1200 KVAR Cap Bank	30
MDC	NI	M0000660	Specific	Paia 23kV Breaker Repl	300
MDC	NI	M0000661	Specific	Kihei Cap Bank #3	112
MDC	NI	M0000720	Specific	Reconductor-Mahalani St-UG	80
MDC	NI	M0000796	Specific	SCADA Control Enhancements	160
MDC	NI	M0000805	Specific	Relocate Camp Maui	80
MDC	NI	M0000807	Specific	Mahinahina Sub 50 Repl Tsf 2	80
MDC	NI	M0000809	Specific	Kihei Unit Sub #4 Addition	160
MDC	NI	M0000810	Specific	Napili Sub 29 Tsf. 2 Replace	80
MDC	NI	M0000826	Specific	Onehee SCADA Inst	200
MDC	NI	M0000827	Specific	Wailuku Heights SCADA Inst	200
MDC	NI	M8980000	Specific	Makena CKT 1395 Extension	40
				Sub-Total Specific Projects	**3,034**
				Total	**4,464**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDE)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDE	NI	M0000316	Blanket	Life Cycle Mgt-Batteries&Chargers	80
MDE	NI	M0000461	Blanket	T&D/Main Offc Bldg Upgrade	384
MDE	NI	M0000747	Blanket	Trans Syst Eq. Purch-Radiator	40
MDE	NI	M0000819	Blanket	LCM - Substation Equipment	232
MDE	NI	M3600000	Blanket	MINOR DISTRIBUTION SS ADD	144
MDE	NI	M7000000	Blanket	OVERHEAD SERVICES & EXTENSIONS	12
MDE	NI	M7750000	Blanket	Other Overhead additions	144
MDE	NI	M7910000	Blanket	TRANSFORMERS & REL. EQ. (RB)	48
MDE	NI	M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	228
MDE	NI	M0000747	Blanket	Trans Syst Eq. Purch-Radiator	16
MDE	NI	M0000819	Blanket	LCM - Substation Equipment	80
				Sub-Total Blanket Projects	**1,408**
MDE	NR	M0000316	Blanket-Removal	Life Cycle Mgt-Batteries&Chargers	40
MDE	NR	M0000747	Blanket-Removal	Trans Syst Eq. Purch-Radiator	80
MDE	NR	M0000819	Blanket-Removal	LCM - Substation Equipment	232
				Sub-Total Blanket Removal Projects	**352**
MDE	NC	NMDZZZZZ	Clearing	Distribution	2,717
				Sub- Total Clearing	**2,717**
MDE	NA	M0000773	Other	Lahaina Office Fence-Utility	40
				Sub- Total Other	**40**
MDE	NI	M0000387	Specific	Lanai SCADA Upgrade	200
MDE	NI	M0000658	Specific	Wailea Cap Bank #3	128
MDE	NI	M0000659	Specific	Makawao 1200 KVAR Cap Bank	30
MDE	NI	M0000660	Specific	Paia 23kV Breaker Repl	20
MDE	NI	M0000661	Specific	Kihei Cap Bank #3	128
MDE	NI	M0000687	Specific	Kanaha Tsf #B Replacement	184
MDE	NI	M0000688	Specific	KPP Spare Tsf Replacement	72
MDE	NI	M0000716	Specific	Install Viper-E25 Onehee Ave	90
MDE	NI	M0000720	Specific	Reconductor-Mahalani St-UG	80
MDE	NI	M0000773	Specific	Lahaina Office Fence-Utility	40
MDE	NI	M0000777	Specific	KPP K2 Tsf Replacement	184
MDE	NI	M0000796	Specific	SCADA Control Enhancements	240
MDE	NI	M0000805	Specific	Relocate Camp Maui	80
MDE	NI	M0000807	Specific	Mahinahina Sub 50 Repl Tsf 2	320
MDE	NI	M0000808	Specific	Kihei 35 Add-Dist. To Hi Tech	64
MDE	NI	M0000809	Specific	Kihei Unit Sub #4 Addition	640
MDE	NI	M0000810	Specific	Napili Sub 29 Tsf. 2 Replace	320
MDE	NI	M0000811	Specific	Kihei 35 Dist Add-Eleu Pl	64
MDE	NI	M0000820	Specific	Lanai Env Bldg Firesprinkler	80

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDE)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDE	NI	M0000821	Specific	MPP Security Cameras	48
MDE	NI	M0000824	Specific	Haiku Sub Raise Tsf Bank	140
MDE	NI	M8980000	Specific	Makena CKT 1395 Extension	40
MDE	NI	M0000658	Specific	Wailea Cap Bank #3	16
MDE	NI	M0000659	Specific	Makawao 1200 KVAR Cap Bank	6
MDE	NI	M0000661	Specific	Kihei Cap Bank #3	16
MDE	NI	M0000687	Specific	Kanaha Tsf #B Replacement	28
MDE	NI	M0000688	Specific	KPP Spare Tsf Replacement	20
MDE	NI	M0000716	Specific	Install Viper-E25 Onehee Ave	6
MDE	NI	M0000720	Specific	Reconductor-Mahalani St-UG	8
MDE	NI	M0000777	Specific	KPP K2 Tsf Replacement	28
MDE	NI	M0000805	Specific	Relocate Camp Maui	9
MDE	NI	M0000807	Specific	Mahinahina Sub 50 Repl Tsf 2	32
MDE	NI	M0000808	Specific	Kihei 35 Add-Dist. To Hi Tech	8
MDE	NI	M0000809	Specific	Kihei Unit Sub #4 Addition	64
MDE	NI	M0000810	Specific	Napili Sub 29 Tsf. 2 Replace	32
MDE	NI	M0000811	Specific	Kihei 35 Dist Add-Eleu Pl	8
MDE	NI	M0000820	Specific	Lanai Env Bldg Firesprinkler	40
MDE	NI	M0000824	Specific	Haiku Sub Raise Tsf Bank	56
MDE	NI	M8980000	Specific	Makena CKT 1395 Extension	4
				Sub-Total Specific Projects	**3,573**
MDE	NR	M0000660	Specific-Removal	Paia 23kV Breaker Repl	180
MDE	NR	M0000805	Specific-Removal	Relocate Camp Maui	160
MDE	NR	M0000807	Specific-Removal	Mahinahina Sub 50 Repl Tsf 2	80
MDE	NR	M0000810	Specific-Removal	Napili Sub 29 Tsf. 2 Replace	80
MDE	NR	M0000805	Specific-Removal	Relocate Camp Maui	5
				Specific-Removal Total	**505**
				Total	**8,595**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDK)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDK	BE	M0000043	Billable	Miscellaneous Billable	396
					396
MDK	NI	M0000019	Blanket	Damages Caused by External Party	600
MDK	NI	M0000819	Blanket	LCM - Substation Equipment	106
MDK	NI	M3500000	Blanket	MINOR TRANSM PLANT LINES	264
MDK	NI	M7000000	Blanket	OVERHEAD SERVICES & EXTENSIONS	1,032
MDK	NI	M7300000	Blanket	MINOR POLE LINE RELOCA	24
MDK	NI	M7750000	Blanket	Other Overhead additions	480
MDK	NI	M7910000	Blanket	TRANSFORMERS & REL. EQ. (RB)	360
MDK	NI	M7920000	Blanket	MINOR STATE HWY PROJECTS	300
MDK	NI	M7990000	Blanket	STREET LIGHTS	288
MDK	NI	M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	12,120
MDK	NI	M8700000	Blanket	MINOR CABLE FAILURE REPLACE.	720
MDK	NI	M8900000	Blanket	Other Underground Additions	80
MDK	NI	M0000819	Blanket	LCM - Substation Equipment	16
MDK	NI	M3500000	Blanket	MINOR TRANSM PLANT LINES	36
MDK	NI	M7000000	Blanket	OVERHEAD SERVICES & EXTENSIONS	264
MDK	NI	M7300000	Blanket	MINOR POLE LINE RELOCA	4
MDK	NI	M7750000	Blanket	Other Overhead additions	120
MDK	NI	M7920000	Blanket	MINOR STATE HWY PROJECTS	48
MDK	NI	M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	432
MDK	NI	M8700000	Blanket	MINOR CABLE FAILURE REPLACE.	100
MDK	NI	M8900000	Blanket	Other Underground Additions	40
				Sub-Total Blanket Projects	**17,434**
MDK	NR	M3500000	Blanket-Removal	MINOR TRANSM PLANT LINES	144
MDK	NR	M7000000	Blanket-Removal	OVERHEAD SERVICES & EXTENSIONS	992
MDK	NR	M7300000	Blanket-Removal	MINOR POLE LINE RELOCA	360
MDK	NR	M7750000	Blanket-Removal	Other Overhead additions	3,636
MDK	NR	M7900000	Blanket-Removal	METERS & METERING EQUIP (RB)	48
MDK	NR	M7920000	Blanket-Removal	MINOR STATE HWY PROJECTS	96
MDK	NR	M8000000	Blanket-Removal	UNDERGROUND SERVICES & EXTNS.	1,452
MDK	NR	M8700000	Blanket-Removal	MINOR CABLE FAILURE REPLACE.	480
MDK	NR	M8900000	Blanket-Removal	Other Underground Additions	720
MDK	NR	M3500000	Blanket-Removal	MINOR TRANSM PLANT LINES	42
MDK	NR	M7750000	Blanket-Removal	Other Overhead additions	72
MDK	NR	M7920000	Blanket-Removal	MINOR STATE HWY PROJECTS	12
				Sub-Total Blanket Removal Projects	**8,054**
MDK	NC	NMDZZZZZ	Clearing	Distribution	4,724
				Sub- Total Clearing	**4,724**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDK)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDK	NI	M0000215	Specific	Sub 36 - Sub 3 - KBY Fiber Optic Link	80
MDK	NI	M0000658	Specific	Wailea Cap Bank #3	256
MDK	NI	M0000659	Specific	Makawao 1200 KVAR Cap Bank	32
MDK	NI	M0000660	Specific	Paia 23kV Breaker Repl	180
MDK	NI	M0000661	Specific	Kihei Cap Bank #3	256
MDK	NI	M0000680	Specific	County of Maui-Mkt St Impvts	70
MDK	NI	M0000687	Specific	Kanaha Tsf #B Replacement	160
MDK	NI	M0000697	Specific	69kV Reloc Waikapu	4,200
MDK	NI	M0000699	Specific	Pomaikai Ph 1	420
MDK	NI	M0000710	Specific	COM Lwr HP Road Phase 4	456
MDK	NI	M0000716	Specific	Install Viper-E25 Onehee Ave	70
MDK	NI	M0000718	Specific	Reconductor Ckt.1347-Kanaha	1,280
MDK	NI	M0000719	Specific	Recond-Kaahumanu-Papa/Kane	360
MDK	NI	M0000720	Specific	Reconductor-Mahalani St-UG	320
MDK	NI	M0000741	Specific	Clemence Subdivision	88
MDK	NI	M0000761	Specific	Kai Malu @ Wailea	207
MDK	NI	M0000767	Specific	System Improvements Hikini Subdivision	39
MDK	NI	M0000770	Specific	Kamali'i Alayna Subd	775
MDK	NI	M0000775	Specific	West Maui Breakers	112
MDK	NI	M0000777	Specific	KPP K2 Tsf Replacement	160
MDK	NI	M0000800	Specific	Puukolii Additional Circuits	700
MDK	NI	M0000801	Specific	System: Lipoa Parkway	438
MDK	NI	M0000802	Specific	Hana 23KV Maliko-Sub 16	1,100
MDK	NI	M0000805	Specific	Relocate Camp Maui	380
MDK	NI	M0000806	Specific	Kahakuloa Step Down Relocate	1,105
MDK	NI	M0000807	Specific	Mahinahina Sub 50 Repl Tsf 2	96
MDK	NI	M0000808	Specific	Kihei 35 Add-Dist. To Hi Tech	720
MDK	NI	M0000809	Specific	Kihei Unit Sub #4 Addition	380
MDK	NI	M0000810	Specific	Napili Sub 29 Tsf. 2 Replace	96
MDK	NI	M0000811	Specific	Kihei 35 Dist Add-Eleu Pl	1,240
MDK	NI	M0000812	Specific	UG Sys Impvts Kualono Sub'd	80
MDK	NI	M0000824	Specific	Haiku Sub Raise Tsf Bank	120
MDK	NI	M0000828	Specific	St. Francis Offsite	442
MDK	NI	M0000829	Specific	Ke Alii Villas	152
MDK	NI	M0000830	Specific	Lahaina Bypass	478
MDK	NI	M0000834	Specific	Kah Airport Cable Upgrade	540
MDK	NI	M0000835	Specific	12th Inc. Reconduct Ani St.	240
MDK	NI	M8980000	Specific	Makena CKT 1395 Extension	940
MDK	NI	M0000658	Specific	Wailea Cap Bank #3	16
MDK	NI	M0000659	Specific	Makawao 1200 KVAR Cap Bank	2

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDK)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDK	NI	M0000661	Specific	Kihei Cap Bank #3	16
MDK	NI	M0000687	Specific	Kanaha Tsf #B Replacement	8
MDK	NI	M0000697	Specific	69kV Reloc Waikapu	267
MDK	NI	M0000710	Specific	COM Lwr HP Road Phase 4	12
MDK	NI	M0000716	Specific	Install Viper-E25 Onehee Ave	8
MDK	NI	M0000718	Specific	Reconductor Ckt.1347-Kanaha	4
MDK	NI	M0000719	Specific	Recond-Kaahumanu-Papa/Kane	12
MDK	NI	M0000720	Specific	Reconductor-Mahalani St-UG	8
MDK	NI	M0000761	Specific	Kai Malu @ Wailea	12
MDK	NI	M0000770	Specific	Kamali'i Alayna Subd	63
MDK	NI	M0000801	Specific	System: Lipoa Parkway	31
MDK	NI	M0000805	Specific	Relocate Camp Maui	20
MDK	NI	M0000806	Specific	Kahakuloa Step Down Relocate	40
MDK	NI	M0000807	Specific	Mahinahina Sub 50 Repl Tsf 2	12
MDK	NI	M0000808	Specific	Kihei 35 Add-Dist. To Hi Tech	40
MDK	NI	M0000809	Specific	Kihei Unit Sub #4 Addition	40
MDK	NI	M0000810	Specific	Napili Sub 29 Tsf. 2 Replace	12
MDK	NI	M0000811	Specific	Kihei 35 Dist Add-Eleu Pl	120
MDK	NI	M0000824	Specific	Haiku Sub Raise Tsf Bank	20
MDK	NI	M0000828	Specific	St. Francis Offsite	44
MDK	NI	M0000829	Specific	Ke Alii Villas	16
MDK	NI	M0000830	Specific	Lahaina Bypass	48
MDK	NI	M0000834	Specific	Kah Airport Cable Upgrade	54
MDK	NI	M8980000	Specific	Makena CKT 1395 Extension	45
				Sub-Total Specific Projects	**19,738**
MDK	NR	M0000680	Specific-Removal	County of Maui-Mkt St Impvts	22
MDK	NR	M0000697	Specific-Removal	69kV Reloc Waikapu	479
MDK	NR	M0000699	Specific-Removal	Pomaikai Ph 1	60
MDK	NR	M0000710	Specific-Removal	COM Lwr HP Road Phase 4	330
MDK	NR	M0000767	Specific-Removal	System Improvements Hikini Subdivision	8
MDK	NR	M0000802	Specific-Removal	Hana 23KV Maliko-Sub 16	250
MDK	NR	M0000805	Specific-Removal	Relocate Camp Maui	160
MDK	NR	M0000806	Specific-Removal	Kahakuloa Step Down Relocate	464
MDK	NR	M0000834	Specific-Removal	Kah Airport Cable Upgrade	130
MDK	NR	M0000697	Specific-Removal	69kV Reloc Waikapu	48
MDK	NR	M0000710	Specific-Removal	COM Lwr HP Road Phase 4	18
MDK	NR	M0000805	Specific-Removal	Relocate Camp Maui	10
MDK	NR	M0000806	Specific-Removal	Kahakuloa Step Down Relocate	43
				Specific-Removal Total	**2,021**
MDK	BT	M0000042	Temporary Servic	Temporary Services-Meco	300
			Temporary Service Total		**300**
				Total	**52,667**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDL)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDL	NI	M7000000	Blanket	OVERHEAD SERVICES & EXTENSIONS	240
MDL	NI	M7750000	Blanket	Other Overhead additions	120
MDL	NI	M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	1,172
				Sub-Total Blanket Projects	**1,532**
MDL	NR	M7000000	Blanket-Removal	OVERHEAD SERVICES & EXTENSIONS	248
MDL	NR	M7750000	Blanket-Removal	Other Overhead additions	240
MDL	NR	M8000000	Blanket-Removal	UNDERGROUND SERVICES & EXTNS.	12
				Sub-Total Blanket Removal Projects	**500**
MDL	NC	NMDZZZZZ	Clearing	Distribution	812
				Sub- Total Clearing	**812**
				Total	**2,844**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDM)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDM	NI	M0000531	Blanket	PowerTrax Customer Web Info	79
MDM	NI	M7900000	Blanket	METERS & METERING EQUIP (RB)	1,368
MDM	NI	M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	816
				Sub-Total Blanket Projects	**2,263**
MDM	NR	M7900000	Blanket-Removal	METERS & METERING EQUIP (RB)	48
				Sub-Total Blanket Removal Projects	**48**
MDM	NC	NMDZZZZZ	Clearing	Distribution	174
				Sub- Total Clearing	**174**
MDM	NI	M0000126	Specific	Sub4 Revenue Metering Upgr	240
MDM	NI	M0000805	Specific	Relocate Camp Maui	48
MDM	NI	M0000809	Specific	Kihei Unit Sub #4 Addition	48
				Sub-Total Specific Projects	**336**
				Total	**2,821**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDR)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDR	NI	M0000747	Blanket	Trans Syst Eq. Purch-Radiator	16
MDR	NI	M0000819	Blanket	LCM - Substation Equipment	8
MDR	NI	M3500000	Blanket	MINOR TRANSM PLANT LINES	96
MDR	NI	M7000000	Blanket	OVERHEAD SERVICES & EXTENSIONS	576
MDR	NI	M7300000	Blanket	MINOR POLE LINE RELOCA	16
MDR	NI	M7750000	Blanket	Other Overhead additions	516
MDR	NI	M7900000	Blanket	METERS & METERING EQUIP (RB)	120
MDR	NI	M7920000	Blanket	MINOR STATE HWY PROJECTS	40
MDR	NI	M7990000	Blanket	STREET LIGHTS	48
MDR	NI	M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	3,444
MDR	NI	M8500000	Blanket	MINOR OH-UG CONVERSIONS	80
MDR	NI	M8700000	Blanket	MINOR CABLE FAILURE REPLACE.	428
MDR	NI	M8900000	Blanket	Other Underground Additions	30
				Sub-Total Blanket Projects	**5,418**
MDR	NR	M3500000	Blanket-Removal	MINOR TRANSM PLANT LINES	36
MDR	NR	M7000000	Blanket-Removal	OVERHEAD SERVICES & EXTENSIONS	288
MDR	NR	M7750000	Blanket-Removal	Other Overhead additions	72
MDR	NR	M7900000	Blanket-Removal	METERS & METERING EQUIP (RB)	48
MDR	NR	M7920000	Blanket-Removal	MINOR STATE HWY PROJECTS	12
MDR	NR	M8000000	Blanket-Removal	UNDERGROUND SERVICES & EXTNS.	96
MDR	NR	M8700000	Blanket-Removal	MINOR CABLE FAILURE REPLACE.	24
MDR	NR	M8900000	Blanket-Removal	Other Underground Additions	12
				Sub-Total Blanket Removal Projects	**588**
MDR	NC	M0000798	Clearing	MECO 2007 TY Rate Case	650
MDR	NC	NMDZZZZZ	Clearing	Distribution	4,202
				Sub- Total Clearing	**4,852**
MDR	BT	M0000042	Temporary	**Temporary Services-Meco**	**1,056**
MDR	NI	M0000301	Specific	Makawao SCADA Installation	120
MDR	NI	M0000302	Specific	Keanae SCADA Installation	120
MDR	NI	M0000387	Specific	Lanai SCADA Upgrade	140
MDR	NI	M0000658	Specific	Wailea Cap Bank #3	112
MDR	NI	M0000659	Specific	Makawao 1200 KVAR Cap Bank	6
MDR	NI	M0000660	Specific	Paia 23kV Breaker Repl	40
MDR	NI	M0000661	Specific	Kihei Cap Bank #3	112
MDR	NI	M0000687	Specific	Kanaha Tsf #B Replacement	48
MDR	NI	M0000697	Specific	69kV Reloc Waikapu	231
MDR	NI	M0000710	Specific	COM Lwr HP Road Phase 4	42
MDR	NI	M0000716	Specific	Install Viper-E25 Onehee Ave	12
MDR	NI	M0000718	Specific	Reconductor Ckt.1347-Kanaha	10

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDR)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDR	NI	M0000719	Specific	Recond-Kaahumanu-Papa/Kane	14
MDR	NI	M0000720	Specific	Reconductor-Mahalani St-UG	18
MDR	NI	M0000777	Specific	KPP K2 Tsf Replacement	48
MDR	NI	M0000796	Specific	SCADA Control Enhancements	160
MDR	NI	M0000805	Specific	Relocate Camp Maui	132
MDR	NI	M0000807	Specific	Mahinahina Sub 50 Repl Tsf 2	300
MDR	NI	M0000808	Specific	Kihei 35 Add-Dist. To Hi Tech	32
MDR	NI	M0000809	Specific	Kihei Unit Sub #4 Addition	172
MDR	NI	M0000810	Specific	Napili Sub 29 Tsf. 2 Replace	196
MDR	NI	M0000811	Specific	Kihei 35 Dist Add-Eleu Pl	32
MDR	NI	M0000824	Specific	Haiku Sub Raise Tsf Bank	8
MDR	NI	M0000826	Specific	Onehee SCADA Inst	120
MDR	NI	M0000827	Specific	Wailuku Heights SCADA Inst	120
MDR	NI	M0000834	Specific	Kah Airport Cable Upgrade	28
MDR	NI	M8980000	Specific	Makena CKT 1395 Extension	88
				Sub-Total Specific Projects	**2,461**
				Total	**14,375**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDS)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDS	NC	NMDZZZZZ	Clearing	Distribution	7,332
				Sub- Total Clearing	**7,332**
				Total	**7,332**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA MDT)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MDT	NI	M0000019	Blanket	Damages Caused by External Party	6
MDT	NI	M3500000	Blanket	MINOR TRANSM PLANT LINES	48
MDT	NI	M7000000	Blanket	OVERHEAD SERVICES & EXTENSIONS	732
MDT	NI	M7750000	Blanket	Other Overhead additions	480
MDT	NI	M7990000	Blanket	STREET LIGHTS	24
MDT	NI	M8000000	Blanket	UNDERGROUND SERVICES & EXTNS.	348
MDT	NI	M8500000	Blanket	MINOR OH-UG CONVERSIONS	12
MDT	NI	M8700000	Blanket	MINOR CABLE FAILURE REPLACE.	100
MDT	NI	M8900000	Blanket	Other Underground Additions	20
				Sub-Total Blanket Projects	**1,770**
MDT	NR	M3500000	Blanket-Removal	MINOR TRANSM PLANT LINES	24
MDT	NR	M7000000	Blanket-Removal	OVERHEAD SERVICES & EXTENSIONS	336
MDT	NR	M7750000	Blanket-Removal	Other Overhead additions	180
MDT	NR	M8000000	Blanket-Removal	UNDERGROUND SERVICES & EXTNS.	48
MDT	NR	M8700000	Blanket-Removal	MINOR CABLE FAILURE REPLACE.	12
				Sub-Total Blanket Removal Projects	**600**
MDT	NC	NMDZZZZZ	Clearing	Distribution	850
				Sub- Total Clearing	**850**
MDT	NI	M0000637	Specific	Kaluakoi UG Main Fdr Repl Ph3	1,200
MDT	NI	M0000652	Specific	SOH: Molokai Kawaikapu Bridge UA# 1678	39
MDT	NI	M0000832	Specific	Molokai 34kV OH Insulators	480
				Sub-Total Specific Projects	**1,719**
MDT	NR	M0000652	Specific-Removal	SOH: Molokai Kawaikapu Bridge UA# 1678	32
MDT	NR	M0000832	Specific-Removal	Molokai 34kV OH Insulators	240
				Specific-Removal Total	**272**
				Total	**5,211**

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsible Area (RA-MWI)

RA	Ind	Project	Type	Description	2007 Test Year Amount
MWI	NI	M0000229	Blanket	Lifecycle Maintenance 02-03	120
				Sub-Total Blanket Projects	**120**
MWI	NI	M0000821	Specific	MPP Security Cameras	60
				Sub-Total Specific Projects	**60**
				Total	**180**

CA-IR-286

Ref: MECO response to CA-IR-233 (T&D Labor Requirements).

Attachment 1 provides a detail breakdown of RA: MDR labor hours associated with capital project labor demands. Please provide the following:

a. Please confirm that Attachment 1 more accurately depicts "Other Non O&M Productive Hours" as that category appears on the labor input sheets. If this cannot be confirmed, please explain.
b. Attachment 1 shows 650 hours for "MECO 2007 TY Rate Case" which is identified as Project M0000798 – clearing.
    1. Is Project M0000798 used by all Departments and RA's to accumulate rate case labor hours included in the 2007 test year forecast? Please explain.
    2. Please provide the labor hours for all departments (not just T&D) and by RA associated with the 2007 rate case.
    3. Please provide the test year NARUC account distribution of the "clearing" associated with Project M0000798.

MECO Response:

a. Attachment 1 of the response to CA-IR-233 provides a detailed breakdown of "Other Non-O&M Productive Hours" for the "MDR" RA by project type while the labor input sheets provided in the response to CA-IR-1 show "Other Non-O&M Productive Hours" for the "MDR" RA by each labor class.

b. Project M0000798 was created to capture labor and non-labor rate case costs. This project was available for use by any department or RA that would appropriately need to charge labor hours for work on the 2007 test year rate case. As shown in Attachment 1 of this response, the test year 2007 estimate includes labor hour forecasts for those departments and RAs that were projected to incur rate case related costs. Depending on the department/RA involved, charges to this project end up in a number of different accounts including O&M expense accounts (e.g., Customer Service Department charges) and clearing accounts (e.g., Distribution Department charges).

MAUI ELECTRIC COMPANY, LTD.
LABOR HOURS FOR PROJECT M0000798 MECO 2007 TY RATE CASE
2007 TEST YEAR ESTIMATE

NARUC Account No.	Department	RA	2007 Test Year Labor Hour Estimate
920	Administration	MSA	1,300
	Administration Department Total		1,300
901	Customer Service	MCA	1,300
903	Customer Service	MCZ	1,300
	Customer Service Department Total		2,600
184	Distribution	MDA	650
184	Distribution	MDC	650
184	Distribution	MDK	650
184	Distribution	MDR	650
	Distribution Department Total		2,600
184	Engineering	MWA	650
	Engineering Department Total		650
920	General Accounting	MAA	1,300
920	General Accounting	MAB	1,950
920	General Accounting	MAG	325
920	General Accounting	MAX	650
	General Accounting Department Total		4,225
184	Production	MGA	2,600
	Production Department Total		2,600
	Total Company		13,975

CA-IR-287

Ref: MECO response to CA-IR-234 (T&D Labor Requirements).

Attachment 1 represents two examples of the labor hour demands for Projects M0000807 and M0000810. According to this response, the respective project manager prepares the estimated project cost, including labor hours for each activity and labor class. Please provide the capital project forecast documentation from which the labor hours were extracted for the following projects:

a. Project M0000807, Mahinahina Sub 50 Replacement Transformer 2, $738,815; and
b. Project M0000810, Napili Sub 29 Transformer 2 Replacement, $741,654.

MECO Response:

a. In forecasting Projects M0000807, the project manager based the MECO labor estimates on previous experiences and feedback from supervisors and crew. Some of the items considered included, transit time to the substation, transportation and set up of the mobile substation, grading work to provide proper access, site preparation and modification, relay protection wiring/programming, and communication wiring/programming. Attachment 1 of this response provides the Project Identification Form (PIF) – Initialize Project for the Mahinahina Project M0000807 that provides the justification and the estimated expenses (including labor hours) for the project. Note that subsequent to the development of the PIF – Initialize Project, additional labor requirements were identified. These included work required by Operations, Construction, T&D Staff Engineering, Staff Engineering, Maintenance personnel, and Communications personnel. The response to CA-IR-297, pages 60-68, 196, and 199-200, provides the most current PIF for this project.

The PIF – Initialize Project is a high-level budget and used primarily as a placeholder. The project budget estimates are created during the planning and preparation stage where all

the projects are presented and evaluated through a prioritization process. Once the project is approved to be included in the 5-year budget, the project budget estimates are then further reviewed and revised during the detail budgeting process. During the detail budgeting process, the project manager refines the scope of the project and labor hours as well as the other budget estimates (based on the information available during this time) and adjustments are subsequently made to the preliminary project budget. This process was used to determine the test year budget for the project.

b. Similarly, in forecasting Projects M0000810, the project manager based the MECO labor estimates on previous experiences and feedback from supervisors and crew. Attachment 2 of this response provides the PIF Form for Initialization for the Napili Project M0000810 that provides the justification and the estimated expenses (including labor hours) for the project. Note that subsequent to the development of the PIF – Initialize Project, additional labor hours of removal time and SCADA transmission time were identified. The response to CA-IR-297, pages 69-77, 196-198, provides the most current PIF for this project.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Mahinahina Sub 50 Repl Tsf 2

Project Number: DTAKA52
(Temporary)

Stategic Plan Linkage: 1E - Reliability
(Primary)

Plant Addition Date: 2008-08

Commitment Date: 2008-01

Primary Corporate Goal: Cap Exp

Impact on Goal: Medium

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	$0	$0	$0	$459	$0	$0	$459

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	0	0	33	0	78

Purpose/Objectives:

Replace the existing transformer no.2 at the existing Mahinahina Sub 50.

Temporary Project number is DTaka52.

Scope Description:

Purchase and install a new 10/12.5 MVA, 69-12.47kV transformer to replace the existing 7.5/9.375MVA, 69-12.47kV transformer no. 2 at Mahinahina Sub 50.

This project is currently estimated at $459,057.65 for 2008.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

2006 Resources:
MDC Communication = 16 hours
MDC Communication Supv = 3 hours
MDE Substation = 80 hours
MDE Substation Supv = 8 hours
MWI SCADA Engr = 8 hours
MWS Staff Engr = 20 hours
Materials = $394,570.
HECO Protection = $1000;Outside Construction = $10,000

See attached pillar estimate.

Justification:

The replacement of transformer no. 2 at the existing Mahinahina Sub 50 will provide additional capacity in the Mahinahina/Napili area to address future loads.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not 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 - INITIALIZE PROJECT

The Project identified below has not 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: Initialize project

Submitted by: _____ **Phone/Ext #:** 2385

Originator's Name: Dan Takahata

Responsible Estimator: DTakahat
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Dan Takahata

Date: 05/27/2005

Required Approvals to Initialize a Project:

Fred Ostrino for Neal Shinyama 5/27/05
Responsible Manager **Date**

Edward J. Reinhart 6/13/05
MECO President **Date**

Required Approvals to Authorize a Project:

4/7/05

Responsible Manager **Date**

6/7/05

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

MECO Accounting Manager **Date**

MECO President **Date**

5/27/2005 *PIA VIEW: Total Proj $>DT52 Mahi T2 8:01AM

*Project #	Project	*RA #	*Act #	*Loc #	*Ind #	*EE #	*Labor Cla...	Line Item	FY08
DTaka52_	Temp Proj DTaka52_	*	*	*	*	401		Stores OHDTaka52_	214,200.00 $0.16630 $35,621.46
a52_	Temp Proj DTaka52_	*	*	*	*	404		En Def OHDTaka52_	116.00 $29.08 $3,373.28
DTaka52_	Temp Proj DTaka52_	*	*	*	*	406		Corp Adm OH DTaka52_	135.00 $4.31 $581.85
DTaka52_	Temp Proj DTaka52_	*	*	*	*	421		NPW OH DTaka52_	135.00 $4.70 $634.50
DTaka52_	Temp Proj DTaka52_	*	*	*	*	422		Empl Benefits OHDTaka52_	135.00 $9.63 $1,300.05
DTaka52_	Temp Proj DTaka52_	*	*	*	*	423		PR Tax OH DTaka52_	5,028.44 $0.08800 $442.50
DTaka52_	Temp Proj DTaka52_	*	*	*	*	430		AFUDC nonblkt by Component ProjectDTaka52_	8.00 $813.20 $6,505.57
DTaka52_	Temp Proj DTaka52_	MDC	417	MAU	NI	150	DCCREW	Mahinanina Sub 50 Repl Tsf 2 - DC Labor	16.00 $37.18 $594.88
DTaka52_	Temp Proj DTaka52_	MDC	417	MAU	NI	150	DCSUPV	Mahinahina Sub 50 Repl Tsf 2 - DC Supv Labor	3.00 $45.00 $135.00
DTaka52_	Temp Proj DTaka52_	MDE	417	MAU	NI	150	DECREW	Mahinahina Sub 50 Repl Tsf 2 - DE Labor	80.00 $35.97 $2,877.60
ka52_	Temp Proj DTaka52_	MDE	417	MAU	NI	150	DESUPV	Mahinanina Sub 50 Repl Tsf 2 - DE Supv Labor	8.00 $44.69 $357.52
DTaka52_	Temp Proj DTaka52_	MDE	417	MAU	NI	201		Mahinahina Sub 50 Repl Tsf 2 - O/M Misc	2,000.00 $1 $2,000.00
DTaka52_	Temp Proj DTaka52_	MDE	417	MAU	NI	201		Mahinahina Sub 50 Repl Tsf 2 - O/M Transformer	200,000.00 $1.061 $212,200.00
DTaka52_	Temp Proj DTaka52_	MDE	417	MAU	NI	201M		Mahinanina Sub 50 Repl Tsf 2 - O/M Transformer	170,000.00 $1.061 $180,370.00
DTaka52_	Temp Proj DTaka52_	MDE	417	MAU	NI	505		Mahinahina Sub 50 Repl Tsf 1 - O/C - Crane	10,000.00 $1 $10,000.00
DTaka52_	Temp Proj DTaka52_	MWI	419	MAU	NI	150	WINFOR	Mahinanina Sub 50 Repl Tsf 2 - SCADA Engr	8.00 $33.08 $264.64
DTaka52_	Temp Proj DTaka52_	MWS	405	MAU	NI	150	WSSENG	Mahinahina Sub 50 Repl Tsf 2 - WS Labor	20.00 $39.94 $798.80
DTaka52_	Temp Proj DTaka52_	MWS	405	MAU	NI	550		Mahinahina Sub 50 Repl Tsf 2 - HECO	1,000.00 $1 $1,000.00
DTaka52_									$459,057.65
									$459,057.65

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Project Title: Napili Sub 29 Tsf. 2 Replace
Project Number: FOSHIRO42
(Temporary)
Stategic Plan Linkage: 1E - Reliability
(Primary)

Plant Addition Date: 2007-09
Commitment Date: 2007-01
Primary Corporate Goal: CAID
Impact on Goal: High

Project Forecast (Thousand $)

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

Prior Years	2006	2007	2008	2009	2010	Future Years	Total
$0	$0	$655	$0	$0	$0	$0	$655

Assessment Factors

Compliance	Competitive Advantage	Financial Impact	Reliability	Corporate Image	Total Score
45	15	0	66	12	138

Purpose/Objectives:

Distribution Load Forecast and Distribution Contingency Switching Model has identified this project as necessary to satisfy MECO's Distribution Planning Criteria.

Temporary Project number is FOshiro42.

Include major loads identified in the load forecast.

Maui Preparatory Academy (301 kVA)
Honolua Ridge Ph. 2 (989 kVa)

Scope Description:

Replace 7.5M/9.375 MVA Tsf with 10/12.5MVA Tsf.

This project is currently estimated at a total cost of $655,423.48 for 2007.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Resource Needs:

DASENG=76 hrs; DCCREW=80 hrs; DC SUPV=16 hrs; DECREW=320; DE SUPV=32 hrs; DK CREW=96 hrs; DK SUPV=12 hrs; DRDISP=16 hrs; DRDSUP=16 hrs; DR CREW=20 hrs; DR SUPV=16hrs; DRSENG=64 hrs; WLTC=16 hrs; WSSENG=180 hrs; WSSUPV=80;

Outside Materials=$420,000; Stock Materials= $1,000; Outside Service/Constr=$35,000; Outside Engr=$50,000; Land Cost=$1,000; HECO Services$16,000;

See attached pillar estimate file.

Justification:

Distribution Load Forecast and Distribution Contingency Switching Model has identified this project as necessary to satisfy MECO's Distribution Planning Criteria

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not been established in MIMS

Relation to overall management operational objectives and consistency with IRP:

Issues, Impacts, Considerations:

Estimated Completion Date: September 2007.

PROJECT IDENTIFICATION FORM - INITIALIZE PROJECT

The Project identified below has not 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 - INITIALIZE PROJECT

The Project identified below has not 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: Initialize project

Submitted by: Fred Oshiro **Phone/Ext #:** 3202

Originator's Name: FOshiro

Responsible Estimator: Fred Oshiro
(Pillar UserID)

Resp. Estimator Dept: Engineering
(Pillar Department Folder)

Project Manager: Fred Oshiro

Date: 05/20/2006

Required Approvals to Initialize a Project:

Neal Sly 5/22/06
Responsible Manager **Date**

Edward F. Reilandt 5/23/06
MECO President **Date**

5/23/06

Required Approvals to Authorize a Project:

Responsible Manager **Date** 5/22/06

VP, Government and Community Affairs **Date** 5/23/06
(not required if PUC approval is obtained)

MECO Accounting Manager **Date**

MECO President **Date**

*Project #	Project	*R...	*Ac...	*Lo...	*In...	*E...	*Labor Class #	Line Item	FY07
FOshiro42_	Temp Proj FOshiro42_	*	*	*	*	401		Stores OHFOshiro...	221,000.00 $0.13520 $29,879.20
FOshiro42_	Temp Proj FOshiro42_	*	*	*	*	404		En Del OHFOshiro...	792.00 $25.87 $20,489.04
FOshiro42_	Temp Proj FOshiro42_	*	*	*	*	406		Corp Adm OH FOs...	1,040.00 $3.80 $3,952.00
FOshiro42_	Temp Proj FOshiro42_	*	*	*	*	421		NPW OH FOshiro...	1,040.00 $4.58 $4,763.20
FOshiro42_	Temp Proj FOshiro42_	*	*	*	*	422		Empl Benefits OHF...	1,040.00 $12.71 $13,218.40
FOshiro42_	Temp Proj FOshiro42_	*	*	*	*	423		PR Tax OH FOshir...	39,412.88 $0.08590 $3,385.57
FOshiro42_	Temp Proj FOshiro42_	*	*	*	*	430		AFUDC nonblkt by ...	7.00 $2,154.74 $15,083.20
FOshiro42_	Temp Proj FOshiro42_	MDA	405	MAU	NI	150	DASENG	T&D Staff Engineer	76.00 $39.11 $2,972.36
FOshiro42_	Temp Proj FOshiro42_	MDC	419	MAU	NI	150	DCCREW	DC CREW	80.00 $33.80 $2,704.00
FOshiro42_	Temp Proj FOshiro42_	MDC	419	MAU	NI	150	DCSUPV	DC SUPV	16.00 $42.98 $687.68
FOshiro42_	Temp Proj FOshiro42_	MDE	417	MAU	NI	150	DECREW	Maint	320.00 $37.41 $11,971.20
FOshiro42_	Temp Proj FOshiro42_	MDE	417	MAU	NI	150	DESUPV	Maint. Supv.	32.00 $41.98 $1,343.36
FOshiro42_	Temp Proj FOshiro42_	MDK	417	MAU	NI	150	DKCREW	Construction Crew	96.00 $34.63 $3,324.48
FOshiro42_	Temp Proj FOshiro42_	MDK	417	MAU	NI	150	DKSUPV	Const. Supv.	12.00 $43.32 $519.84
FOshiro42_	Temp Proj FOshiro42_	MDK	417	MAU	NI	201		Outside Materials-...	20,000.00 $1 $20,000.00
FOshiro42_	Temp Proj FOshiro42_	MDK	417	MAU	NI	201		Outside Materials-T...	200,000.00 $1 $200,000.00
FOshiro42_	Temp Proj FOshiro42_	MDK	417	MAU	NI	201		Stock Material	1,000.00 $1 $1,000.00
FOshiro42_	Temp Proj FOshiro42_	MDK	417	MAU	NI	2...		Outside Materials-T...	200,000.00 $1 $200,000.00

*Project #	Project	*R...	*Ac...	*Lo...	*In...	*E...	*Labor Class #	Line Item	FY07
FOshiro42_	Temp Proj FOshiro42_	MDK	417	MAU	NI	501		Outside Services - ...	35,000.00 $1.064 $37,240.00
FOshiro42_	Temp Proj FOshiro42_	MDR	417	MAU	NI	150	DRCREW	Troubleman Labor	20.00 $37.95 $759.00
FOshiro42_	Temp Proj FOshiro42_	MDR	417	MAU	NI	150	DRDISP	Dispatcher	16.00 $37.99 $607.84
FOshiro42_	Temp Proj FOshiro42_	MDR	417	MAU	NI	150	DRDSUP	Dispatcher Supv.	16.00 $44.00 $704.00
FOshiro42_	Temp Proj FOshiro42_	MDR	417	MAU	NI	150	DRFSUP	Troubleman Supv.	16.00 $40.81 $652.96
FOshiro42_	Temp Proj FOshiro42_	MWI	407	MAU	NI	150	DRSENG	SCADA Engineer	64.00 $34.68 $2,219.52
FOshiro42_	Temp Proj FOshiro42_	MWL	928	MAU	NI	150	WLTC	Land Labor	16.00 $33.54 $536.64
FOshiro42_	Temp Proj FOshiro42_	MWL	928	MAU	NI	501		Land Cost	1,000.00 $1 $1,000.00
FOshiro42_	Temp Proj FOshiro42_	MWS	405	MAU	NI	150	WSSENG	Staff Engineer	180.00 $38.14 $6,865.20
FOshiro42_	Temp Proj FOshiro42_	MWS	405	MAU	NI	150	WSSUPV	Supv Staff Engineer	80.00 $44.31 $3,544.80
FOshiro42_	Temp Proj FOshiro42_	MWS	405	MAU	NI	506		Outside Engineering	50,000.00 $1 $50,000.00
FOshiro42_	Temp Proj FOshiro42_	MWS	405	MAU	NI	550		HECO Engineering	16,000.00 $1 $16,000.00
									$655,423.48

PRODUCTION CHANGE REQUEST (PCR) FORM

District:	M-MECO
Temporary Project Number:	FOSHIRO42
Project Number:	
Project Title: (28 characters)	Napili Sub 29 Tsf. 2 Replace
Short Project Title: (10 characters)	Napili2rep
Originator Employee's Number:	32459
Person Assigned To:	Fred Oshiro
Person Assigned to Employee Number:	32459
Responsibility Area:	MDE
Activity:	417
Location:	MAU
Indicator:	NI
Apply AFUDC (yes or no):	Yes
Existing Grandparent Project Number: or **New Grandparent Project Description:**	
Pillar Temporary Projects or 5th Segment Projects to link to Grandparent Project above:	
Plant Addition Date:	2007-09
Plant Functional Category:	Distribution
Project or Program:	None

For Admin use only:
Date updated MIMS Prod files: _____
Copy given to Pillar Admin: _____

Date: 05/20/2006

CA-IR-288

Ref: MECO response to CA-IR-235 (T&D Labor Requirements).

The referenced response indicates that T&D budgets for individual activity codes by RA in the aggregate, based on historical precedence (trending, distribution and averages). Part (a) also describes how this methodology was applied for MDK and Activity 478 – direct cable fault repairs. Please provide the following:

a. Was a spreadsheet developed that examined historical data averages and trend rates for each T&D RA and activity? Please explain.

b. Please list each T&D RA and activity and provide the following information:
   1. The 2007 test year forecast labor hours.
   2. Whether the 2007 test year forecast labor hours were based solely on historical averages and/or trending techniques.
   3. Whether the 2007 test year forecast labor hours, initially quantified using historical averages and/or trending techniques, were then further adjusted to consider specific program or project changes (e.g., new cable testing program).
   4. Whether the 2007 test year forecast labor hours were based on forecasting techniques other than historical averages and/or trending.

c. Please provide the spreadsheet file, with intact cell formulae, on which the historical average and trending techniques were quantified in support of the 2007 test year labor forecast for each T&D RA and activity.

MECO Response:

a. In forecasting the budgets for each T&D RA by O&M activity, the individual budget preparers do utilize spreadsheets that are either provided by the Department budget analyst or developed by the individual budget preparers. These spreadsheets however are not kept on file once the budgeting process is completed and the labor demands have been entered into the Pillar System. The Pillar System then becomes the tool where labor demands are adjusted through the budgeted year.

b. A consolidated spreadsheet with the requested information was not utilized when the test year budget was prepared. To assist the Consumer Advocate in understanding MECO's test year budgeting process, MECO has prepared a representative spreadsheet providing the

requested information based on discussions with the available individuals that prepared the test year budget. This information is provided as Attachment 1 of this response. Attachment 1 includes the 2007 test year forecasted labor hours, the actual labor hours for years 2000 through 2006, the average of the 7 years of labor hours, the initial budgeting methodology (which are shown in the column labeled "budgeting method"), the identification of any adjustments made to the budget number (which are shown in the column labeled "Adjusted"), and the recent and long term trends for all T&D RA O&M activities (which are shown in the column labeled "Trend").

The estimated labor hours for individual RA's are initially budgeted by either the RA's supervisor and/or the RA's superintendent, and subsequently reviewed by the department manager. The initial process begins with a review of the seven year averages to arrive at a starting reference point. Adjustments, both up and down, are then made based on information such as, 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 maintenance expense as defined by individual supervisors. The T&D O&M labor hours are then also balanced against other labor demands, such as capital work, to keep within a reasonable level of annual expenses. While Attachment 1 provides a macro level view of the development of the labor hours associated with each T&D RA O&M activity, individual budgeters would have also utilized data specific to their RA (e.g., field reports such as inspection results, non-emergency repair orders, detailed work order reports that provided the individual tasks that rolled-up to an individual activity code). Each budget preparer relies on his experience, job knowledge, and input from his work group to arrive at an estimate of what the individual job task are likely to require in any year. The work group's feedback is

gathered through monthly crew meetings, weekly direct report meetings, and through informed discussions. For this response, Attachment 1 was reviewed by the original budgeter (where available) for each RA and represents their best recollection of how the 2007 test year budget numbers were developed.

c. See the response to part b., above.

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsibility Area and Activity for T&D O&M Activities

RA	Act	2007 TY	Budgeting Method	Trend Code	Adjustment Code	ACTUAL 2006	ACTUAL 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	7yr AVG.
MDA	333	0.00	E			8.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14
MDA	344	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	38.00	5.43
MDA	348	0.00	E			49.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00
MDA	350	0.00	E			50.50	0.00	0.00	0.00	0.00	0.00	0.00	7.21
MDA	364	0.00	E			5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
MDA	463	0.00	E			16.00	0.00	0.00	0.00	0.00	0.00	0.00	2.29
MDA	475	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	137.00	19.57
MDA	485	0.00	E			81.00	0.00	0.00	0.00	0.00	0.00	6.00	12.43
MDA	487	0.00	E			37.00	0.00	0.00	0.00	0.00	0.00	0.00	5.29
MDA	494	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.29
MDA	507	0.00	E			5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
MDA	620	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	17.00	2.43
MDA	700	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	62.00	8.86
MDA	701	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	98.00	14.00
MDA	720	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	8.00	1.14
MDA	797	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.71
MDC	331	0.00	E			0.00	15.00	0.00	0.00	0.00	0.00	0.00	2.14
MDC	348	0.00	E			0.00	0.00	0.00	22.00	0.00	0.00	19.50	5.93
MDC	354	144.00	A	D	RT	117.50	27.25	181.25	40.50	131.00	172.00	746.58	202.30
MDC	355	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.29
MDC	364	0.00	E			13.50	0.00	0.00	0.00	0.00	0.00	0.00	1.93
MDC	465	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.29
MDC	475	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	14.00	2.00
MDC	485	0.00	E			0.00	0.00	0.00	0.00	0.00	1.00	27.50	4.07
MDC	491	1,220.04	A	NDP	RT	1,420.00	1,342.50	1,784.83	1,193.75	929.83	1,832.75	625.92	1,304.23
MDC	492	356.04	A	D	RT,C	149.50	260.25	594.25	568.50	843.75	480.75	656.83	507.69
MDC	495	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	62.00	8.86
MDC	507	0.00	E			0.00	0.00	24.00	0.00	0.00	0.00	0.00	3.43
MDC	601	0.00	E			0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.71
MDC	797	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	53.75	7.68
MDC	891	0.00	E			0.00	0.00	0.00	18.50	9.00	0.00	0.00	3.93
MDC	916	0.00	E			47.50	114.75	188.08	46.50	1.00	32.00	816.50	178.05
MDC	917	2,295.00	A	U	RT	2,474.92	1,896.00	2,143.84	1,519.92	1,946.25	1,142.75	2,897.94	2,003.09
MDE	315	0.00	E			0.00	2.50	0.00	0.00	0.00	0.00	0.00	0.36
MDE	327	4.00	E			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MDE	330	300.00	A	D	RT	232.00	444.50	579.50	578.50	623.25	696.50	600.50	536.39
MDE	333	30.00	A	D	RT	13.50	67.50	120.00	41.50	43.50	126.50	0.00	58.93
MDE	348	1,416.00	A	D	RT	1,099.00	2,157.16	1,572.25	1,981.09	1,878.25	2,267.75	963.00	1,702.64
MDE	349	2.00	ST	U		32.50	39.00	31.00	36.00	12.50	26.00	0.00	25.29
MDE	350	1,712.00	A, D, N	U	RT,	1,242.00	2,214.50	633.00	1,010.00	1,063.75	754.75	0.00	988.29
MDE	351	16.00	A, E	D	RT, N	58.00	129.50	149.50	47.50	73.85	108.50	0.00	80.98
MDE	354	0.00	E			0.00	11.00	7.50	1.00	20.00	13.00	282.00	47.79
MDE	355	16.00	E	D	RT, N	0.50	13.00	82.50	77.75	128.00	87.00	101.00	69.96
MDE	364	0.00	E			0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.29
MDE	366	0.00	E			13.50	0.00	0.00	0.00	0.00	0.00	0.00	1.93
MDE	445	0.00	E			0.00	2.00	6.00	0.00	1.50	1.00	0.00	1.50
MDE	446	300.00	A	U	RT	316.00	434.00	206.50	181.00	305.50	215.00	0.00	236.86
MDE	448	150.00	A	D	RT	95.00	161.00	185.50	106.50	104.50	199.00	0.00	121.64
MDE	455	0.00	E			0.00	1.00	0.00	0.00	1.50	0.00	0.00	0.36
MDE	457	4.00	A	D	D	0.00	0.00	0.00	0.00	1.00	27.50	0.00	4.07
MDE	460	300.00	A	D	RT, N	359.50	574.50	636.50	582.50	682.00	684.00	633.00	593.14
MDE	463	100.00	A	D	RT	195.00	155.50	85.50	24.50	32.50	85.50	0.00	82.64
MDE	465	0.00	E			0.00	0.00	4.50	17.00	13.00	0.00	0.00	4.93
MDE	473	0.00	E			0.00	0.00	0.00	4.00	0.00	8.00	0.00	1.71
MDE	475	77.00	A	U	RT	102.50	129.75	70.25	48.25	43.00	149.00	0.00	77.54
MDE	478	0.00	E			7.00	2.00	0.00	0.00	0.00	6.00	180.50	27.93
MDE	479	50.00	A	D	RT,D	35.00	18.50	47.00	27.50	77.00	64.00	590.50	122.79
MDE	481	0.00	E			2.00	7.50	11.50	2.00	2.22	46.50	0.00	10.25
MDE	482	374.00	A	NDP	RT	382.00	127.50	233.50	365.00	271.00	289.00	855.00	360.43
MDE	483	60.00	A	D	RT	59.00	65.50	96.00	70.75	105.00	149.00	0.00	77.89
MDE	484	4.00	E, N		N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MDE	485	2,779.00	A	D	RT, C	2,998.00	3,692.32	3,427.00	1,946.16	2,562.28	2,587.00	6,243.00	3,350.82
MDE	486	50.00	A	NDP	RT	50.00	59.50	52.00	53.50	71.00	63.00	0.00	49.86

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsibility Area and Activity for T&D O&M Activities

RA	Act	2007 TY	Budgeting Method	Trend Code	Adjustment Code	ACTUAL 2006	ACTUAL 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	7yr AVG.
MDE	487	404.00	A	U	RT	408.00	396.50	311.25	217.50	304.33	315.00	0.00	278.94
MDE	488	200.00	A	U	RT	273.50	195.50	200.00	64.50	216.90	0.00	0.00	135.77
MDE	490	16.00	A	D	RT	14.00	80.50	56.00	30.50	102.50	0.00	0.00	40.50
MDE	491	12.00	A	D	RT, D, C	4.50	0.00	0.00	83.00	0.00	29.50	92.50	29.93
MDE	492	75.00	A	D	RT, D, C	19.00	13.50	158.00	141.50	152.50	118.00	136.00	105.50
MDE	494	250.00	A	U	RT	356.50	308.50	229.00	223.50	135.50	129.00	195.25	225.32
MDE	500	0.00	E			12.00	0.00	0.00	19.50	0.00	5.00	6.00	6.07
MDE	501	0.00	E			0.00	0.00	0.00	87.00	26.00	0.00	0.00	16.14
MDE	505	0.00	E			0.00	0.00	0.00	18.00	0.00	10.50	0.00	4.07
MDE	507	0.00	E			0.00	0.00	141.50	0.00	0.00	0.00	0.00	20.21
MDE	509	0.00	E			13.50	0.00	0.00	0.00	0.00	0.00	0.00	1.93
MDE	602	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	3.50	0.50
MDE	620	0.00	E			0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.29
MDE	788	0.00	E			0.00	0.00	0.00	0.00	8.00	0.00	0.00	1.14
MDE	789	0.00	E			159.50	47.00	174.50	231.00	99.50	502.50	0.00	173.43
MDE	797	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	176.00	25.14
MDE	876	48.00	N	NA	N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MDE	877	3,320.00	A, AP, N	U	N, C	2,210.00	3,075.50	2,993.50	2,439.25	722.50	643.00	6.50	1,727.18
MDE	878	338.00	A	D	D, N	21.00	28.00	254.50	459.75	457.00	536.50	0.00	250.96
MDE	891	0.00	E			0.00	0.00	0.00	16.00	0.00	0.00	0.00	2.29
MDE	916	0.00	E			0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.29
MDE	917	0.00	E			0.00	3.00	150.50	0.00	0.00	0.00	0.00	21.93
MDE	931	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.71
MDK	315	0.00	E			0.00	0.00	0.00	0.00	19.00	0.00	0.00	2.71
MDK	325	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	10.00	1.43
MDK	328	0.00	E			8.00	2.00	0.00	16.00	0.00	0.00	1,522.50	221.21
MDK	330	0.00	E			0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.57
MDK	331	0.00	E			0.00	0.00	63.50	0.00	0.00	53.00	291.00	58.21
MDK	332	0.00	E			0.00	0.00	12.00	0.00	0.00	0.00	87.00	14.14
MDK	333	0.00	E			215.00	14.00	1.00	0.00	2.00	2.00	102.00	48.00
MDK	342	213.00	A	U	RT	203.00	138.50	55.00	154.00	30.00	192.00	273.50	149.43
MDK	343	0.00	E			0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.57
MDK	344	2,692.00	A	D	N	232.10	552.00	490.70	93.00	143.50	83.50	124.50	245.61
MDK	348	201.00	N	NDP		0.00	147.75	0.00	18.00	23.50	50.00	10.00	35.61
MDK	349	0.00	E			0.00	0.00	0.00	4.00	2.00	0.00	0.00	0.86
MDK	350	0.00	E			42.50	13.50	0.00	0.00	116.50	22.00	0.00	27.79
MDK	351	0.00	E			0.00	17.50	0.00	0.00	0.00	0.00	0.00	2.50
MDK	354	0.00	E			0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.71
MDK	355	12.00	A	NDP	RT	32.00	0.00	0.00	0.00	5.00	35.91	40.00	16.13
MDK	360	0.00	E			12.00	0.00	0.00	12.00	0.00	4.00	4.00	4.57
MDK	364	0.00	E			9.00	0.00	193.00	0.00	0.00	44.00	0.00	35.14
MDK	402	0.00	E			0.00	10.00	0.00	0.00	0.00	0.00	0.00	1.43
MDK	403	0.00	E			0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.86
MDK	404	0.00	E			0.00	31.00	0.00	0.00	0.00	0.00	0.00	4.43
MDK	415	0.00	E			0.00	42.00	0.00	14.00	0.00	0.00	0.00	8.00
MDK	416	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	-11.00	-1.57
MDK	417	0.00	E			0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.14
MDK	425	0.00	E			0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.29
MDK	440	0.00	E			0.00	6.25	0.00	0.00	0.00	0.00	0.00	0.89
MDK	441	0.00	E			0.00	4.75	0.00	0.00	0.00	0.00	0.00	0.68
MDK	442	0.00	E			0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.71
MDK	445	0.00	E			60.50	73.00	67.50	14.00	14.25	68.92	228.58	75.25
MDK	446	0.00	E			0.00	0.00	11.50	22.00	1.00	22.25	85.34	20.30
MDK	447	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.29
MDK	448	0.00	E			0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.07
MDK	455	0.00	E			8.00	8.00	0.00	0.00	0.00	0.00	11.00	3.86
MDK	458	0.00	E			15.00	66.50	35.00	0.00	0.00	768.50	0.00	126.43
MDK	459	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MDK	460	0.00	E			0.00	5.00	6.00	4.00	1.00	0.00	0.00	2.29
MDK	461	0.00	E			0.00	0.00	38.00	9.00	6.00	124.50	644.00	117.36
MDK	462	0.00	E			0.00	0.00	23.00	120.00	0.00	90.00	405.00	91.14
MDK	463	0.00	E			0.00	4.00	0.50	14.50	2.00	0.00	53.00	10.57
MDK	464	0.00	E			28.00	24.50	0.00	0.00	0.00	0.00	0.00	7.50

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RA	Act	2007 TY	Budgeting Method	Trend Code	Adjustment Code	ACTUAL 2006	ACTUAL 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	7yr AVG.
MDK	465	0.00	E			21.50	5.00	0.00	0.00	3.50	0.00	32.50	8.93
MDK	473	396.00	A	NDP	D	304.50	528.58	181.50	205.75	411.00	364.25	513.08	358.38
MDK	474	24.00	A	D	D	0.00	0.00	0.00	0.00	0.00	24.00	32.00	8.00
MDK	475	240.00	A	U	N	720.42	908.28	391.33	296.00	273.00	581.50	677.33	549.69
MDK	476	0.00	E			0.00	6.00	0.00	0.00	0.00	0.00	270.00	39.43
MDK	478	3,060.00	A	U	RT, N	2,556.75	1,470.00	727.42	1,231.25	991.00	1,596.66	1,728.67	1,471.68
MDK	479	380.04	N			0.00	1.50	0.00	0.00	14.00	26.00	13.00	7.79
MDK	481	48.00	A	NDP	RT	38.00	9.50	0.00	11.00	81.00	4.00	18.00	23.07
MDK	482	60.00	A, N	NDP		30.00	7.50	46.00	0.00	19.00	8.00	20.00	18.64
MDK	483	0.00	E			0.00	0.00	0.00	0.00	4.00	3.00	0.00	1.00
MDK	484	24.00	A,N	NDP	D	9.00	0.00	0.00	1.50	20.00	0.00	44.00	10.64
MDK	485	0.00	E			0.00	109.25	32.00	14.00	49.00	107.50	0.00	44.54
MDK	486	0.00	E			0.00	0.00	0.00	4.00	4.00	0.00	0.00	1.14
MDK	487	0.00	E			0.00	16.00	52.00	4.00	18.00	7.50	0.00	13.93
MDK	488	0.00	E			0.00	9.50	0.00	0.00	2.00	0.00	0.00	1.64
MDK	492	0.00	E			0.00	8.00	0.00	0.00	12.00	0.00	0.00	2.86
MDK	493	0.00	E			88.50	10.00	56.50	12.00	5.50	48.50	136.00	51.00
MDK	494	12.00	E	NDP		0.00	4.00	12.50	2.00	1.50	4.00	29.75	7.68
MDK	500	0.00	E			28.00	37.00	26.75	2.50	21.00	24.50	109.28	35.58
MDK	501	0.00	E			79.33	54.00	14.00	0.00	8.00	55.50	14.00	32.12
MDK	505	0.00	E			0.00	0.00	0.00	21.00	20.00	0.00	9.00	7.14
MDK	507	0.00	E			9.00	0.00	474.50	16.00	0.00	4.00	0.00	71.93
MDK	508	0.00	E			16.00	0.00	68.00	0.00	0.00	0.00	0.00	12.00
MDK	601	0.00	E			6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
MDK	602	0.00	E			15.00	16.50	10.00	0.00	0.00	15.83	24.66	11.71
MDK	620	0.00	E			0.00	0.00	0.00	0.00	0.00	8.00	40.00	6.86
MDK	701	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	55.00	7.86
MDK	720	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	24.00	3.43
MDK	788	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	117.50	16.79
MDK	789	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MDK	797	0.00	E			0.00	0.00	0.00	0.00	0.00	3.75	27.00	4.39
MDK	806	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	30.00	4.29
MDK	877	84.00	E	NDP	D	0.00	28.00	0.00	40.00	184.75	0.00	0.00	36.11
MDK	878	0.00	E			0.00	0.00	0.00	0.00	0.00	26.50	0.00	3.79
MDK	891	0.00	E			0.00	0.00	0.00	191.75	12.00	22.00	0.00	32.25
MDK	917	0.00	E			0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.43
MDK	931	0.00	E			0.00	32.00	0.00	0.00	0.00	11.00	0.00	6.14
MDL	331	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.43
MDL	342	0.00	E			0.00	1.00	0.00	9.00	0.00	0.00	0.00	1.43
MDL	445	288.00	A	D	RT,D	260.00	265.67	442.50	471.83	409.00	266.25	106.00	317.32
MDL	446	48.00	A	NDP	RT	42.00	15.50	64.00	74.50	48.50	84.50	36.00	52.14
MDL	455	0.00	E			0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.14
MDL	458	120.00	A	D	RT	62.00	119.00	194.50	196.00	395.00	0.00	0.00	138.07
MDL	460	48.00	A	D		25.00	84.00	89.00	44.00	106.50	0.00	0.00	49.79
MDL	461	0.00	E			0.00	0.00	0.00	0.00	14.00	84.50	165.75	37.75
MDL	473	60.00	E, A	D	RT	77.00	45.50	89.00	56.00	382.00	555.50	441.50	235.21
MDL	475	48.00	E, A	NDP		6.00	16.00	0.00	0.00	4.00	312.00	81.50	59.93
MDL	478	0.00	E			0.00	5.50	0.00	30.50	0.00	5.50	5.00	6.64
MDL	485	0.00	E			0.00	0.00	0.00	0.00	18.00	0.00	0.00	2.57
MDL	491	0.00	E			0.00	0.00	0.00	23.00	0.00	0.00	0.00	3.29
MDL	492	48.00	A	D	D	28.00	7.00	65.50	60.50	61.50	0.00	0.00	31.79
MDL	493	60.00	A	U	RT	50.50	10.00	43.00	43.50	51.00	40.00	31.00	38.43
MDL	494	48.00	A	D	RT	31.00	30.00	35.50	34.50	155.50	91.00	53.00	61.50
MDL	500	0.00	E			0.00	0.00	0.00	0.00	0.00	14.00	12.00	3.71
MDL	501	0.00	E			0.00	0.00	12.00	0.00	0.00	0.00	0.00	1.71
MDL	508	0.00	E			8.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14
MDL	601	0.00	E			6.00	7.00	2.00	0.00	10.00	0.00	0.00	3.57
MDL	602	192.00	A, E	NDP		414.50	159.50	172.00	198.00	227.00	254.00	219.50	234.93
MDL	620	0.00	E			0.00	0.00	0.00	2.00	9.00	0.00	0.00	1.57
MDL	767	0.00	E			0.00	0.00	0.00	0.00	0.00	8.00	0.00	1.14
MDL	891	0.00	E			0.00	0.00	0.00	8.00	0.00	0.00	0.00	1.14
MDL	917	0.00	E			0.00	0.00	16.00	0.00	0.00	0.00	0.00	2.29
MDL	931	156.00	N	NA		0.00	0.00	0.00	0.00	11.00	282.50	245.00	76.93

Maui Electric Company, Limited
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RA	Act	2007 TY	Budgeting Method	Trend Code	Adjustment Code	ACTUAL 2006	ACTUAL 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	7yr AVG.
MDM	364	0.00	E			0.00	0.00	8.00	0.00	0.00	0.00	8.00	2.29
MDM	425	0.00	E			0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.14
MDM	442	0.00	E			0.00	17.00	0.00	0.00	0.00	0.00	0.00	2.43
MDM	455	0.00	E			0.00	0.50	0.00	18.50	0.00	0.00	0.00	2.71
MDM	461	0.00	E			0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.36
MDM	462	0.00	E			0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.36
MDM	463	1,300.00	A			1,502.50	1,322.00	1,518.50	1,415.50	1,400.50	1,203.00	1,443.25	1,400.75
MDM	465	10,122.00	A, AP	U	C	7,467.00	6,952.00	4,072.00	4,490.75	4,646.75	5,953.25	5,601.00	5,597.54
MDM	473	0.00	E			0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.43
MDM	475	0.00	E			0.00	0.00	0.00	33.00	0.00	0.00	0.00	4.71
MDM	478	0.00	E			0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.14
MDM	485	0.00	E			2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
MDM	495	70.00	A	NDP		67.00	29.00	21.00	84.50	45.50	80.00	158.50	69.36
MDM	501	0.00	E			0.00	0.00	0.00	0.00	0.00	3.00	0.50	0.50
MDM	507	0.00	E			0.00	0.00	19.50	0.00	0.00	0.00	0.00	2.79
MDM	601	704.00	A	D	RT	579.00	785.50	794.50	977.50	1,104.50	1,117.25	1,040.75	914.14
MDM	602	36.00	A	NDP	D, N	6.00	0.00	1.00	12.50	43.00	51.00	383.50	71.00
MDM	603	0.00	E			16.00	327.00	123.00	0.00	0.00	0.00	0.00	66.57
MDM	620	30.00	A	D	RT, D, N	0.00	1.00	0.00	1,517.50	1,808.50	181.75	88.00	513.82
MDR*	325	0.00	E			0.00	0.00	0.00	0.00	0.00	40.00	354.00	56.29
MDR*	328	671.00	A	D	RT	658.75	1,342.75	922.33	48.83	14.50	15.50	14.50	431.02
MDR*	330	0.00	E			0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.07
MDR*	331	3,960.00	A	NDP	AE	2,304.00	3,211.20	4,059.76	4,121.91	3,829.34	3,496.02	2,962.25	3,426.35
MDR*	332	58.00	A, E	NDP		150.50	221.00	387.50	368.00	123.00	46.50	209.00	215.07
MDR*	333	1,168.00	A, AP, E	NDP		1,044.00	1,121.00	1,276.50	1,283.50	1,218.00	1,004.50	780.50	1,104.00
MDR*	342	48.00	A	NDP		85.50	41.50	67.33	302.25	7.00	15.50	0.00	74.15
MDR*	344	1,364.00	A, AP	U		720.84	665.22	329.78	190.67	246.17	408.62	269.83	404.45
MDR*	348	0.00	E			226.72	157.75	140.17	160.33	38.00	1.00	0.00	103.42
MDR*	350	0.00	E			87.25	69.17	18.00	58.50	41.00	13.50	0.00	41.06
MDR*	351	0.00	E			0.00	24.50	0.00	0.00	0.00	0.00	0.00	3.50
MDR*	354	680.00	NP	NDP	RT	676.00	0.00	0.00	0.00	0.00	0.00	0.00	96.57
MDR*	355	0.00	E			72.16	142.01	246.60	635.87	768.39	735.66	1,365.80	566.64
MDR*	360	0.00	E			4.00	0.00	12.67	21.00	14.50	51.25	6.42	15.69
MDR*	361	0.00	E			0.00	0.00	0.00	8.50	9.50	0.00	0.00	2.57
MDR*	364	0.00	E			65.00	0.00	339.83	0.00	0.00	32.75	0.00	62.51
MDR*	365	0.00	E			2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.39
MDR*	376	0.00	E			85.00	0.00	0.00	0.00	0.00	0.00	0.00	12.14
MDR*	402	0.00	E			0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.25
MDR*	403	0.00	E			0.00	2.67	0.00	0.00	0.00	0.00	0.00	0.38
MDR*	415	0.00	E			0.00	34.50	0.00	0.00	0.00	0.00	0.00	4.93
MDR*	416	0.00	E			9.00	0.00	0.00	0.00	0.00	0.00	2.00	1.57
MDR*	425	0.00	E			0.00	27.33	0.00	0.00	0.00	0.00	0.00	3.90
MDR*	426	0.00	E			0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.64
MDR*	440	0.00	E			0.00	123.58	0.00	0.00	0.00	0.00	0.00	17.65
MDR*	441	0.00	E			0.00	91.50	0.00	0.00	0.00	0.00	0.00	13.07
MDR*	442	0.00	E			0.00	9.25	0.00	0.00	0.00	0.00	0.00	1.32
MDR*	443	0.00	E			0.00	11.50	0.00	0.00	0.00	0.00	0.00	1.64
MDR*	444	0.00	E			0.00	18.50	0.00	0.00	0.00	0.00	0.00	2.64
MDR*	445	1,560.00	A	D		1,850.58	1,947.77	1,841.70	1,728.74	1,364.30	1,096.62	844.00	1,524.82
MDR*	446	0.00	E			8.00	923.39	1,173.67	992.07	942.28	812.97	626.41	782.68
MDR*	455	0.00	E			0.00	10.67	0.00	1,636.00	1,754.75	1,689.00	798.00	841.20
MDR*	456	290.00	E, N	NDP		53.00	159.00	0.00	0.00	0.00	0.00	0.00	30.29
MDR*	461	7,594.00	A, RT	D	AP	3,820.58	5,146.00	6,800.88	5,364.02	6,219.16	8,861.50	9,654.47	6,552.37
MDR*	462	4,160.00	A, NP	D		3,257.50	4,399.83	4,489.00	3,718.08	4,828.50	5,545.50	5,808.00	4,578.06
MDR*	463	1,284.00	NP	U	RT	1,079.50	1,151.75	911.50	866.50	821.00	722.00	589.08	877.33
MDR*	464	1,456.00	A	U	RT	1,821.94	594.93	0.00	0.00	0.00	0.00	0.00	345.27
MDR*	465	900.00	E, N	NDP		472.00	953.25	329.00	188.50	215.25	207.00	326.50	384.50
MDR*	473	3,267.96	A, AE,	NDP		3,302.65	2,573.87	2,417.47	2,576.07	3,496.24	3,977.47	2,019.12	2,908.98
MDR*	474	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MDR*	475	1,944.00	A	D	RT	1,400.82	2,719.94	2,333.43	1,620.79	1,814.91	2,118.41	1,312.47	1,902.97
MDR*	476	0.00	E			0.00	3.00	0.00	0.00	0.00	11.50	460.00	67.79
MDR*	478	2,896.00	A	NDP		2,314.34	2,157.62	2,136.42	2,328.43	2,449.88	2,835.45	2,651.26	2,410.49
MDR*	479	0.00	E			0.00	0.00	0.00	0.00	4.00	2.00	4.00	1.43

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MDR*	481	0.00	E			1.00	5.00	0.00	1.00	3.00	0.00	0.00	1.43
MDR*	482	0.00	E			0.00	0.00	0.00	1.00	5.50	0.00	0.00	0.93
MDR*	483	0.00	E			0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.43
MDR*	484	0.00	E			0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.21
MDR*	485	0.00	E			25.50	134.00	120.37	49.90	50.00	8.75	18.50	58.15
MDR*	486	0.00	E			2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
MDR*	487	0.00	E			3.00	32.50	12.00	5.50	17.50	0.00	0.00	10.07
MDR*	488	0.00	E			39.50	0.00	1.00	0.00	0.00	0.00	0.00	5.79
MDR*	490	0.00	E			0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.86
MDR*	491	240.00	N	NDP		0.00	0.00	7.00	0.00	0.00	0.00	0.00	1.00
MDR*	492	0.00	E			7.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
MDR*	493	1,120.00	A	D	RT	1,125.55	1,245.58	1,707.48	1,444.87	1,585.92	1,452.15	1,587.62	1,449.88
MDR*	494	0.00	E			9.00	268.08	550.41	424.50	508.41	389.85	1,001.42	450.24
MDR*	500	0.00	E			58.28	10.00	109.20	176.42	165.21	286.07	215.72	145.84
MDR*	501	0.00	E			1.00	13.00	87.00	61.75	113.28	113.70	15.50	57.89
MDR*	505	0.00	E			0.00	0.00	0.00	7.25	14.50	5.25	0.00	3.86
MDR*	507	0.00	E			24.00	0.00	1,037.85	38.25	0.00	20.15	0.00	160.04
MDR*	508	0.00	E			0.00	0.00	78.00	0.00	0.00	0.00	0.00	11.14
MDR*	509	0.00	E			2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
MDR*	510	0.00	E			3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43
MDR*	511	0.00	E			4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
MDR*	601	0.00	E			0.00	0.00	0.00	0.00	1.00	4.00	2.00	1.00
MDR*	602	1,780.00	A,N	NDP		1,581.37	1,438.37	1,534.62	1,694.36	1,659.55	1,526.86	1,507.97	1,563.30
MDR*	620	300.00	E			59.50	164.00	147.58	0.00	8.25	27.67	12.50	59.93
MDR*	700	0.00	E			0.00	0.00	0.00	0.00	0.00	6.50	434.50	63.00
MDR*	701	0.00	E			0.00	0.00	0.00	29.00	103.00	70.00	0.00	28.86
MDR*	789	0.00	E			6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.93
MDR*	797	0.00	E			0.00	0.00	0.00	0.00	54.50	360.00	675.08	155.65
MDR*	877	0.00	E			0.00	10.75	13.50	52.00	100.00	0.00	0.00	25.18
MDR*	891	0.00	E			0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.86
MDR*	916	0.00	E			0.00	0.00	0.00	0.00	0.00	10.00	0.00	1.43
MDR*	917	0.00	E			0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.71
MDR*	931	0.00	E			0.00	102.00	116.50	84.25	80.67	54.75	69.50	72.52
MDS	344	0.00	E			0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.57
MDS	350	0.00	E			3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43
MDS	360	0.00	E			0.00	0.00	0.00	0.00	0.00	3.33	2.00	0.76
MDS	402	0.00	E			0.00	0.00	0.00	0.00	0.00	6.00	8.00	2.00
MDS	445	0.00	E			0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.29
MDS	446	0.00	E			0.00	3.00	4.00	0.00	0.00	0.00	0.00	1.00
MDS	461	0.00	E			0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.29
MDS	473	0.00	E			0.00	0.00	4.00	0.00	0.00	0.00	2.00	0.86
MDS	475	0.00	E			0.00	6.00	4.00	2.00	2.50	6.00	6.00	3.79
MDS	478	0.00	E			8.00	0.00	6.00	4.00	2.00	4.00	8.00	4.57
MDS	485	0.00	E			0.00	0.00	0.00	0.00	0.00	4.00	31.50	5.07
MDS	492	380.00	E	D	RT	657.08	805.83	913.00	705.92	201.00	141.00	1,456.50	697.19
MDS	494	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.57
MDS	500	0.00	E			0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.29
MDS	620	0.00	E			0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.29
MDS	891	0.00	E			0.00	0.00	0.00	100.25	9.50	0.00	0.00	15.68
MDT	344	0.00	E			2.00	0.00	0.00	4.00	26.00	0.00	0.00	4.57
MDT	364	0.00	E			160.00	0.00	0.00	0.00	0.00	0.00	0.00	22.86
MDT	365	0.00	E			3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43
MDT	366	0.00	E			25.50	0.00	0.00	0.00	0.00	0.00	0.00	3.64
MDT	443	0.00	E			0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.86
MDT	445	760.00	A	U	RT	879.00	409.50	274.00	683.75	603.00	647.00	225.95	531.74
MDT	446	600.00	E	U	RT	428.00	191.50	140.75	66.50	75.00	0.00	0.00	128.82
MDT	458	180.00	E	D	RT	135.50	449.00	883.67	897.75	402.50	669.25	164.40	514.58
MDT	460	118.00	E	D	RT	80.00	71.50	278.50	237.25	12.00	0.00	0.00	97.04
MDT	464	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.71
MDT	473	144.00	A	NDP		86.50	113.00	16.00	96.50	541.50	9.00	0.00	123.21
MDT	475	0.00	E			34.50	39.50	0.00	4.00	27.25	34.05	30.00	24.19
MDT	478	0.00	E			0.00	80.00	0.00	15.00	41.50	79.50	0.00	30.86
MDT	482	0.00	E			0.00	0.00	0.00	0.00	9.00	0.00	192.50	28.79

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands by Responsibility Area and Activity for T&D O&M Activities

RA	Act	2007 TY	Budgeting Method	Trend Code	Adjustment Code	ACTUAL 2006	ACTUAL 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	7yr AVG.
MDT	485	0.00	E			0.00	0.00	0.00	0.00	18.00	0.00	104.50	17.50
MDT	492	0.00	E			0.00	6.00	16.00	43.00	0.00	0.00	0.00	9.29
MDT	493	280.00	E, A	U		249.50	196.00	297.25	165.00	198.00	157.00	101.75	194.93
MDT	494	1,152.00	A	D	RT,D	532.33	506.50	315.50	1,869.25	1,464.50	2,327.00	2,212.50	1,318.23
MDT	500	0.00	E			0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.29
MDT	507	0.00	E			65.00	0.00	0.00	21.75	0.00	20.00	0.00	15.25
MDT	601	0.00	E			0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.36
MDT	602	18.00	A	NDP		4.75	15.00	21.00	12.00	29.50	13.00	30.00	17.89
MDT	620	0.00	E			0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.43
MDT	877	24.00	E	NDP	D	0.00	0.00	0.00	0.00	53.50	0.00	0.00	7.64
MDV	342	0.00	E			10.00	0.00	0.00	0.00	0.00	0.00	0.00	1.43
MDV	348	0.00	E			0.00	6.00	0.00	2.00	0.00	0.00	0.00	1.14
MDV	350	0.00	E			0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.29
MDV	473	0.00	E			0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.14
MDV	475	0.00	E			0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.29
MDV	478	0.00	E			9.50	0.00	0.00	0.00	0.00	0.00	0.00	1.36
MDV	490	0.00	E			0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.43
MDV	492	0.00	E			1.00	22.00	0.00	0.00	0.00	0.00	0.00	3.29
MDV	877	0.00	E			6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.93
MWI	354	48.00	ST	D	N	802.25	1,639.25	1,223.00	1,769.50	1,797.50	1,727.66	143.00	1,300.31
MWI	491	0.00	E			6.75	0.00	0.00	0.00	0.00	0.00	119.50	18.04
		77,691.08				63,409.26	71,024.82	68,862.42	65,993.53	67,895.87	73,629.03	76,784.73	

Budgeting Method Codes

E	Based on experience and, in some instances, an understanding of what is expected to be going on in the test year
A	Average
T	Trend
D	*Distribution (Historical highs)*
N	New task or focus
ST	Shifted task to other work group or activity

RA Column

*	Responsible budgeter left the company, so the budgeting method explanation is based on MECO's understanding of how those estimates were developed after examining the information that was available to the responsible budgeter at the time the budget was developed.

Adjustment Codes

N	New task or focus
C	Refining and combining of Activities
AP	Additional position
RT	Recent Trend

Trend Codes

D	Down	:Trend (seven year or three year) compared to average
U	Up	:Trend (seven year or three year) compared to average
NDP	No discernable pattern	:Insufficient data or no clear trend.

Note: Activities without a 2007 budget entry and with no previous actuals were omitted.

CA-IR-289

Ref: MECO response to CA-IR-237 (Once Call).

Please provide the following:

a. It is unclear when MECO began collecting infrastructure location service ("locates") requests. Please clarify whether this data collection effort commenced with the implementation of the One Call program on January 1, 2006, or some later date.

b. For each month since locates requests data has been collected, please provide the following:
   1. Number of requests received.
   2. Number of requests processed or worked.
   3. Direct labor hours expended.

MECO Response:

a. The collection of infrastructure location requests started with the implementation of the One Call program on January 1, 2006.

b. See Attachment 1 attached hereto.

Maui Electric Company, Limited
Infrastructure Location Service Request
January 2006 - June 2007

Date	Number of requests received	Number of requests processed	Direct labor hours expended
January 2006 Total	42	42	170.50
February 2006 Total	45	45	127.33
March 2006 Total	48	48	148.50
April 2006 Total	41	41	133.00
May 2006 Total	45	45	218.02
June 2006 Total	53	53	142.67
July 2006 Total	55	55	158.42
August 2006 Total	79	79	157.75
September 2006 Total	83	83	157.50
October 2006 Total	48	48	148.67
November 2006 Total	56	56	120.75
December 2006 Total	48	48	138.83
January 2007 Total	75	75	141.42
February 2007 Total	52	52	176.17
March 2007 Total	51	51	121.25
April 2007 Total	39	39	146.67
May 2007 Total	56	56	208.42
June 2007 Total	66	66	200.25
	982	982	2,816.12

CA-IR-290

Ref: MECO responses to CA-IR-237 & CA-IR-238 (Once Call).

The response to part (c) of CA-IR-238 indicates that MECO did not adjust any expense element in the 2007 test year forecast for a possible reduction in "dig ins" due to the fact that MECO is reimbursed by the responsible contractor for the cost of repairing the "dig ins." Further, CA-IR-237(f) estimates that the Company has underestimated the labor hours included in the 2007 test year forecast for infrastructure location services. Please provide the following:

a. Since the Company did not reduce the 2007 labor forecast to recognize a possible reduction in the number of "dig ins," did the Company also not reduce the amount of contractor reimbursements? Please explain.

b. How many labor hours have Company personnel historically spent repairing damage caused by "dig ins" over the past five years?

c. In determining work requirements and personnel needs for inclusion in the 2007 test year forecast, did the Company consider the increased availability of its existing work force due to a possible reduction in "dig ins"? Please explain.

MECO Response:

a. MECO did not reduce the amount of contractor reimbursements from dig ins.

b. MECO does not track expenses for dig ins as a separate item. Dig ins are expensed to the larger category of "Billable". MDK billable (MDK600OUTBEM0000043150) labor total, which includes the expense associated with dig ins, for the previous five years, was 600.75 hours, or 120 hours a year on average.

c. MECO did not take into consideration any increase in availability of its work force due to possible reduction in dig ins due to the relative low frequency of dig-ins, and the newness of the One Call program and its results. Through June 30, 2007, MECO has had four dig ins resulting in 46 billable hours charged to this account.

CA-IR-291

Ref: MECO response to CA-IR-240 (EMS Project).

The response to part (b) provides a detailed description of how the data supplied in response to CA-IR-2, Attachment 6E (pages 38-47) was used to derive the amounts set forth on CA-IR-2, Attachment 5 (page 3, items 135-137). Please provide the following:

a. Referring to Item 135 (Attachment 5, page 3), is any portion of the on-site Areva support of $102,800 considered to be nonrecurring in that these specific services will not be required beyond 2007? Please explain.

b. Referring to Item 136 (Attachment 5, page 3), is any portion of the estimated cost of purchasing and installing an Oracle 9i Parallel Server data base either capital (i.e., non-O&M) in nature or otherwise considered to be nonrecurring in that such costs will not be required in 2008? Please explain.

c. Referring to Item 137 (Attachment 5, page 3), is any portion of the estimated Areva consulting services considered to be nonrecurring in that such costs will not be required in 2008? Please explain.

MECO Response:

a. All of the on-site Areva support expense of $102,500 is considered to be a recurring annual expense. Currently, MECO does not plan on hiring additional personnel to support the Areva EMS and the support for the EMS will be done through annual consulting service contracts with Areva.

b. The estimated cost of purchasing and installing an Oracle 9i Parallel Server database is an O&M expense (Item 136, Attachment 5, page3). The costs for this line item are for an Oracle database license and consultant services for installation and data migration. There are no costs for this line item that are classified as capital expenditures. This line item for $15,375 is a nonrecurring O&M expense. The purchase of the Oracle database license and the consultant services for installation and data migration will be completed in 2007 and will not be required in 2008.

c. The $5,125 expense for Areva consulting services for SCADA Software Apps - SOX/Security (Item 137, Attachment 5, page3), which is a necessary expense to facilitate the upgrading of the Webserver and Firewall, is considered to be nonrecurring. The consultant services for the EMS SOX/Security work will be completed in 2007 and will not be required in 2008.

CA-IR-292

Ref: MECO Response to CA-IR-139 (Temporary Facilities).

Please provide the following:

a. Explain each reason why the negative values in certain years were reasonably included within the "historical five-year average" that served as the basis for test year estimates.

b. Provide actual monthly 2005, 2006 and 2007, to date, recorded Temporary Facilities revenues by Division.

MECO Response:

a. Generally, the amount of revenue derived from temporary facilities recorded each month is calculated based on the difference between the amount billed and the amount of costs incurred during that particular month. Billings for temporary facilities are processed prior to when the Company performs the work and incurs the associated costs for temporary services. In some cases, because the associated work necessary for temporary services may not be performed for more than a month following the actual billing, this can result in timing differences such that the billings and costs are not recorded in the same month. As such, in months in which the billings exceed the costs incurred, the amount of revenue derived from temporary facilities recorded will be positive. In contrast, in months in which the billings are less than the costs incurred, the amount of revenue derived from temporary facilities recorded will be negative.

As a result of the above, the negative values in certain years were included within the historical five-year average that served as the basis for the test year estimates because, in the absence of the timing differences discussed above, the amount of revenue derived from temporary facilities would be expected to net to zero. If the negative values in certain years were not included in the historical five-year average that served as the basis for the test year

estimate, the calculation of the test year estimate would not have properly accounted for timing differences and, as a result, would have overstated the test year estimate for revenue derived from temporary facilities.

b. See Attachment A for the actual monthly 2005, 2006 and 2007, to date, recorded Temporary Facilities revenues by Division.

MAUI ELECTRIC COMPANY, LIMITED
TEMPORARY FACILITIES REVENUE INCLUDED IN ACCOUNT NO. 451
JANUARY 2005 - JUNE 2007 MONTHLY RECORDED DATA

		Maui	Lanai	Molokai	MECO Consolidated
2005	JAN	1,760	-	281	2,041
	FEB	(310)	281	(777)	(806)
	MAR	(1,413)	-	(22)	(1,435)
	APR	(7,007)	-	(834)	(7,841)
	MAY	6,381	(80)	(284)	6,017
	JUN	5,256	-	(2,106)	3,150
	JUL	(2,377)	(491)	1,126	(1,742)
	AUG	(6,646)	562	3,988	(2,096)
	SEP	(1,551)	281	(1,193)	(2,463)
	OCT	(863)	-	1,245	382
	NOV	(2,153)	215	(1,587)	(3,525)
	DEC	(32,400)	(350)	(2,184)	(34,934)
		(41,323)	418	(2,347)	(43,252)
2006	JAN	9,453	-	(496)	8,957
	FEB	(14,233)	498	(2,487)	(16,222)
	MAR	(15,703)	(150)	(1,639)	(17,492)
	APR	(5,739)	540	(2,019)	(7,218)
	MAY	(686)	(281)	(1,298)	(2,265)
	JUN	(700)	992	(500)	(208)
	JUL	24,703	(2,437)	(566)	21,700
	AUG	(15,627)	803	(2,742)	(17,566)
	SEP	(7,871)	(2,853)	447	(10,277)
	OCT	3,681	(451)	(1,868)	1,362
	NOV	(9,392)	(532)	(491)	(10,415)
	DEC	(43,996)	191	(687)	(44,492)
		(76,110)	(3,680)	(14,346)	(94,136)
2007	JAN	(23,260)	(775)	(581)	(24,616)
	FEB	(16,576)	442	(1,173)	(17,307)
	MAR	(17,897)	1,422	1,575	(14,900)
	APR	(21,256)	14	(3,596)	(24,838)
	MAY	(13,497)	25	(3,065)	(16,537)
	JUN	(14,061)	197	(1,293)	(15,157)
		(106,547)	1,325	(8,133)	(113,355)

CA-IR-293

Ref: MECO Response to CA-IR-140, part a (Postage Costs).

Please provide the following:

a. Actual monthly ICB postage billings from HECO for 2006 and each month of 2007, to date.

b. Explain any significant variances in the data provided in response to part (a) of this information request, versus the $21,060 monthly estimate for the test year at CA-IR-2, MECO T-7, Attachment B, page 47.

MECO Response:

a. See Attachment A for actual monthly ICB postage billings from HECO for 2006 and each month of 2007, to date.

b. Increases of 7.7% for First Class Postage costs and 6.48% for Presorted First Class Postage costs were budgeted from January 2007 to December 2007. However, the above-referenced postal cost increases did not take place until approximately mid-May 2007. The ICBs for MECO generally post one month following the booking at HECO, except for the February and November 2006 costs that were posted in March and December 2006, respectively.

MAUI ELECTRIC COMPANY, LIMITED
RECORDED INTERCOMPANY BILLINGS FOR POSTAGE
JANUARY 2006 - JUNE 2007

2006 ICB Postage Billings		
Month		Postage
January	$	15,740
February	$	-
March[1]	$	36,055
April	$	22,033
May	$	17,399
June	$	19,070
July	$	20,534
August	$	16,577
September	$	21,198
October	$	18,215
November	$	-
December[2]	$	36,358

2007 ICB Postage Billings					
Month		Test Year Estimate		Postage	(Above) or Below Budget
January	$	21,060	$ 19,148	$	1,912
February	$	21,060	$ 20,136	$	924
March	$	21,060	$ 17,946	$	3,114
April	$	21,060	$ 19,749	$	1,311
May	$	21,060	$ 20,370	$	690
June	$	21,060	$ 19,359	$	1,701

Notes

1) The balance for March 2006 includes ICBs for February and March:

2/06	$19,317
3/06	$16,739
Total	$36,055

2) The balance for December 2006 includes ICBs for November and December:

11/06	$16,715
12/06	$19,643
Total	$36,358

CA-IR-294

Ref: MECO Response to CA-IR-248, Attachment A (IRP Expenses).

Please provide the following:

a. Monthly 2007 actual incremental IRP cost type detail in the format of Attachment A, for all available months of 2007 to date.

b. Projected monthly 2007 incremental IRP cost type detail for each remaining month of 2007, subsequent to the actual data provided in your response to part (a) of this information request.

c. Explain any individually large remaining projected cost items or activities contained in your response to part (b) of this information request.

MECO Response:

a. Please see Attachment A columns A-F for the monthly 2007 actual incremental IRP cost type detail for all available months of 2007 to date.

b. Please see Attachment A columns H-M for the projected monthly 2007 incremental IRP cost type detail for each remaining month of 2007.

c. The remaining projected cost items are due to the timing of the work relating to the MECO IRP-3 filing, Docket No. 04-0077. The IRP-3 Report was filed on April 30, 2007 and MECO, with support from Hawaiian Electric Company, Inc., will be working towards resolving the issues outlined, and following the schedule established in Prehearing Order No. 23453 in Docket No. 04-0077, dated May 22, 2007. The remaining projected costs are expected to be incurred to accomplish such work. More of the costs are anticipated to be spent in the second half of 2007 (versus the first half of the year) than originally expected due to the schedule of the proceedings.

MAUI ELECTRIC COMPANY, LIMITED

ANNUAL, INCREMENTAL IRP ACTUALS AND BUDGET
2007 COST TYPE DETAIL

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
		2007 Actual							2007 Remaining								
Line		Jan	Feb	Mar	Apr	May	Jun	YTD	Jul	Aug	Sep	Oct	Nov	Dec	Remaining Months	YTD + Remaining	Budget 2007
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
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
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
	Non-Labor																
	MATERIALS																
4	(201) Materials-Purchases	18	467	5	221	149	161	1,021	-	-	-	-	-	-	-	1,021	859
	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CONTRACTS/SERVICES																
9	(501) Outside Services-General	-	-	25,516	-	-	393	25,909	84	84	12,584	17,017	84	76	29,929	55,838	56,000
10	(550) Intercompany Billings:																
11	Planning & Engineering	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Energy Services	-	-	741	978	2,032	-	3,751	-	-	-	-	-	-	-	3,751	3,751
13	Energy Projects	-	-		234	412	-	647	1,478	1,478	1,478	1,478	1,478	8,118	15,508	16,155	16,155
14	Corporate Communications	-	-	994	(81)	-	-	913	-	-	-	-	-	184	184	1,097	1,097
15	Engineering	-	-	-	-	-	-	-	2,012	2,012	1,936	1,936	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
17	Environmental	-	-	-	-	-	-	-	411	411	411	411	411	411	2,464	2,464	2,464
18	IRP	-	15,519	25,065	-	19,444	9,266	69,294	32,432	29,168	29,122	32,447	29,058	29,058	181,285	250,579	250,579
19	Technology	-	-	687	-	282	-	968	4,330	5,155	4,206	4,206	4,831	4,206	26,935	27,903	27,903
20	Education & Consumer Affairs	-	-	252	-	336	-	588	289	289	289	289	289	289	1,731	2,319	2,319
21	Forecast & Research	-	-	-	-	5,123	-	5,123	31,399	27,389	27,009	23,363	25,636	28,786	163,581	168,704	168,704
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	116,047	133,137	133,137
23	Customer Technology Applic	-	-	-	-	-	-	-	2,408	1,974	2,408	1,974	1,974	2,407	13,144	13,144	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	13,278	1,287	1,287	1,287	1,287	1,287	1,287	7,722	21,000	21,000
29	(503) Outside Services - Temp Hire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	(520) Mainland Travel	-	-	-	-	-	-	-	2,500	-	-	-	-	-	2,500	2,500	2,500
31	(521) Meals & Entertainment	-	-	-	47	-	297	344	-	500	-	-	-	406	906	1,250	1,250
32	(522) Interisland Travel	265	-	-	281	457	378	1,381	-	500	1,750	3,869	-	500	6,619	8,000	8,000
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
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

CA-IR-295

Ref: MECO Response to CA-IR-25, Attachment A (MECO Staffing Levels).

Please provide the following:

a. Update the tables showing actual versus budget staffing by RA as of 6/30/2007.

b. Explain any differences between the "Budget" column values in your response to part (a) of this information request and the staffing levels actually contained in the Company's rate case filing.

MECO Response:

a. See Attachment A attached hereto.

b. There are no differences between the "Budget" column values shown on Attachment A of the response to this information request and the staffing levels contained in the Company's rate case filing.

Maui Electric Company, Ltd.
Actual vs Budget Employee Count - TOTAL COMPANY

		AS OF 6/30/07				
		ACTUAL				
DEPARTMENT	RA	FULL TIME	TEMP	TOTAL	BUDGET	DIFF
Administration	MSA	4		4	4	0
Administration	MSC	1		1	1	0
Administration	MSP	3		3	2	1
Administration	MSS	4		4	4	0
Administration		12	0	12	11	1
Customer Service	MCA	3		3	3	0
Customer Service	MCF	7		7	7	0
Customer Service	MCM	8		8	8	0
Customer Service	MCN	5		5	5	0
Customer Service	MCR	13		13	13	0
Customer Service	MCT	3		3	3	0
Customer Service	MCZ	4		4	4	0
Customer Service		43	0	43	43	0
T&D	MDA	3		3	2	1
T&D	MDC	5		5	6	(1)
T&D	MDE	10		10	10	0
T&D	MDK	33		33	37	(4)
T&D	MDL	3		3	3	0
T&D	MDM	5		5	7	(2)
T&D	MDR	25		25	27	(2)
T&D	MDS	6		6	6	0
T&D	MDT	5		5	4	1
T&D	MDV	3		3	3	0
T&D	MWI	6		6	6	0
T&D		104	0	104	111	(7)
Engineering	MWA	2		2	3	(1)
Engineering	MWC	2		2	2	0
Engineering	MWL	2		2	2	0
Engineering	MWM	1		1	1	0
Engineering	MWP	18		18	18	0
Engineering	MWS	5		5	5	0
Engineering		30	0	30	31	(1)
General Accounting	MAA	3		3	3	0
General Accounting	MAB	4		4	4	0
General Accounting	MAG	3		3	3	0
General Accounting	MAP	1		1	1	0
General Accounting	MAX	4		4	4	0
General Accounting		15	0	15	15	0
Power Supply	MGA	12		12	12	0
Power Supply	MGB	10		10	11	(1)
Power Supply	MGC	3		3	3	0
Power Supply	MGD	21		21	21	0
Power Supply	MGE	11		11	12	(1)
Power Supply	MGK	22		22	21	1
Power Supply	MGL	5		5	6	(1)
Power Supply	MGM	28		28	30	(2)
Power Supply	MGT	7		7	7	0
Power Supply		119	0	119	123	(4)
President's Office	M9P	1		1	1	0
President's Office		1	0	1	1	0
Totals		324	0	324	335	(11)

Notes:
1. Above includes Company temps but excludes agency temps.

CA-IR-296

Ref: MECO response to CA-IR-185 & MECO T-14 June 2007 Update (Plant Additions).

CA-IR-185 referred to MECO-WP-1401B and sought the Company's best estimate of 2007 plant additions, with project number, completion date and expenditures. MECO T-14's June 2007 Update, specifically Attachment 1, pages 2-4, appears to be an update of MECO-WP-1401B. Please provide the following information:

a. All of the project amounts supplied in response to CA-IR-185 appear on the updated MECO-WP-1401B, but not all project amounts on updated MECO-WP-1401B appear in the response to CA-IR-185. Why do the two documents not contain identical project information? Please explain.

b. Referring to part (a) above, please explain why each of the following projects, for example, appear on updated MECO-WP-1401B but not the response to CA-IR-185:
   1. M3141001, MPP M18-18 MW Steam Turbine NI, $3,887,239;
   2. M0000690, T&D SCADA Equipment, $115,669;
   3. M0000819, LCM-Substation Equipment, $163,948;
   4. M7000000, Overhead Services & Extensions, $837,998; and
   5. M9800000, Vehicle Purchases, $364,400.

MECO Response:

a. The MECO T-14 June 2007 update and MECO's revised response to CA-IR-185 were both filed with the Commission on July 6, 2007. The list of projects on the updated MECO-WP-1401B (MECO T-14 June 2007 update) includes specific projects, programs, and straggling costs expected to be completed and placed in service in the 2007 test year. The project list supplied in response to CA-IR-185 (Revised on July 6, 2007) consists of only specific projects that are expected to be completed and placed in service in the 2007 test year. Updated estimates for straggling costs and programs were excluded from the revised response to CA-IR-185 but were provided in MECO-WP-1401D (MECO T-14 June 2007 update) and MECO-WP-1401E (MECO T-14 June 2007 update), respectively. For example, project M3141001 (as shown in MECO-WP-1401B, line 1 of MECO T-14 June 2007 update), MPP M18-18 MW Steam Turbine NI, was excluded from the project list supplied in response to

CA-IR-185 (Revised on July 6, 2007) since this project was completed in October 2006 and the costs anticipated to be added to plant in the 2007 Test Year were treated as straggling costs accordingly, as shown on MECO-WP-1401D, line 41 of MECO T-14 June 2007 update.

b. As explained in the response to part a. of this IR, the project list supplied in response to CA-IR-185 (Revised on July 6, 2007) excluded the costs for straggling and program projects. As such, the list of projects identified are either straggling or program costs as noted below.

1. M3141001, MPP M18-18 MW Steam Turbine NI, $3,887,239; (Straggling Costs)
2. M0000690, T&D SCADA Equipment, $115,669; (Program Costs)
3. M0000819, LCM-Substation Equipment, $163,948; (Program Costs)
4. M7000000, Overhead Services & Extensions, $837,998; and (Program Costs)
5. M9800000, Vehicle Purchases, $364,400. (Program Costs)

CA-IR-297

Ref: MECO-WP-1401B & MECO T-14 June 2007 Update (2007 Plant Additions).

MECO T-14's June 2007 Update, specifically Attachment 1, pages 2-4, appears to be an update of MECO-WP-1401B. These updates to the Company original workpapers identify fifteen (15) construction projects expected to be completed during 2007 that exceed $500,000. Please provide the following information:

a. Please provide the most current and complete Project Initiation Authorization ("PIA") or Project Identification Form ("PIF") packet for each project.

b. If the 15 projects include blanket projects, which require different authorization or documentation formats, please provide such information in lieu of the PIF/PIA documentation requested in part (a) above.

c. If the responses to parts (a) and (b) above do not contain project feasibility studies, cost savings estimates, estimated construction and project completion dates, identification of retirements or related costs of removal, please provide the following:

   1. Does MECO routinely prepare such information associated with each of the 15 projects in addition to the information requested in parts (a) and (b) above?

   2. If so, please provide such information for each of these projects in addition to the information requested in parts (a) and (b) above.

   3. If not, please explain why such information is not routinely prepared and considered in conjunction with the construction planning and project management process.

MECO Response:

The information described in the response below (pages 5 to 235) 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. An electronic version of the document is being provided.

a. Attached are the Project Identification Forms (PIF) for 14 of the 15 construction projects forecasted to be completed in the 2007 test year that exceed $500,000, per MECO-WP-1401B (MECO T-14 June 2007 update). In the course of reviewing the list of projects that exceed $500,000, it was noted that a PIF was not submitted for project

BJohns29_, Hokulani Golf Villas and M3141001, MPP M18-18 MW Steam Turbine NI. Subsequently, the project manager was required to submit a PIF which is attached as noted below. For project M8020000, In-Kind CIAC, the Company does not require the preparation of a PIF because the amounts budgeted under this project are non-cash and the in-kind contribution amounts for specific projects are identified in the PIF prepared for the specific project. For example, the attached PIF for project BJohns29_, Hokulani Golf Villas identifies forecasted in-kind contribution amount for this project of $700,000. For specific projects, there are differences between the current plant additions update forecast in MECO-WP-1401B (MECO T-14 June 2007 Update) and the PIF amounts indicated on the attached PIF's because cost estimates for individual projects may change between the time the PIF was prepared and the preparation of the current plant additions forecast in the updated MECO-WP-1401B.

Project	Project Description	Type	PIF
BJohns29_	Hokulani Golf Villas	Specific	Pages 5-13
M7750000	Other Overhead additions	Blanket (Program)	Pages 14-22
M0000111	Peahi Sub 94	Specific	Pages 23-30
M0000629	M14 CT Controls	Specific	Pages 31-59
M0000807	Mahinahina Sub 50 Repl Tsf 2	Specific	Pages 60-68
M0000810	Napili Sub 29 Tsf. 2 Replace	Specific	Pages 69-77
M7900000	Meters & Metering Equip. (RB)	Blanket (Program)	Pages 78-84
M7000000	Overhead Services & Extensions	Blanket (Program)	Pages 85-93
M0000687	Kanaha Tsf #B Replacement	Specific	Pages 94-104
M0000809	Kihei Substation 35 - Transformer/Switchgear #4 Addition	Specific	Pages 105-112
M0000697	69kV Reloc Waikapu	Specific	Pages 113-138
M8000000	Underground Extensions & Services	Blanket (Program)	Pages 139-150
M7910000	Transformer & Related Equip (RB)	Blanket (Program)	Pages 151-156
M3141001	MPP M18-18 MW Steam Turbine NI	Specific	Pages 157-177

b. As noted in the response to part a. above, 5 of the 15 projects are program projects (blankets). Copies of PIF forms for these 5 program projects are included in the response to part a. above.

c. 1. For program projects, the copies of the PIF forms included in response to part a. above do not contain project feasibility studies, cost savings estimates, estimated construction and project completion dates, and identification of retirements or related costs of removal. As stated in Ms. Arase's direct testimony (MECO T-14, page 4), program projects can be comprised of hundreds of service/work orders which are generally low in cost and of short duration. Project feasibility studies, cost savings estimates, estimated construction and project completion dates and identification of retirements or related costs of removal, if applicable, would be prepared at the individual service/work order level and are not included with the PIF for the associated blanket project. For specific projects, the copies of the PIF forms included in the response to part a. above contain the listed information with the exception of project feasibility studies and cost savings estimates. The need for project feasibility studies and identification of cost savings estimates is evaluated on a project by project basis.

2. The following is a listing of documentation related to project feasibility studies or cost savings estimates.

Project	Project Description	Documentation
M0000111	Peahi Sub 94	Peahi Substation Report (Pages 178-195)
M0000807	Mahinahina Sub 50 Repl Tsf 2	Project Justification Report based on 2006 Substation Load Forecasting spreadsheet (Pages 196,199-200)
M0000810	Napili Sub 29 Tsf. 2 Replace	Project Justification Report based on 2006 Substation Load Forecasting spreadsheet (Pages 196-198)
M0000687	Kanaha Tsf #B Replacement	Project Justification Report based on 2006 Substation Load Forecasting spreadsheet (Pages 201-202)
M0000809	Kihei Substation 35 - Transformer/Switchgear #4 Addition	South Maui Distribution Update, Fall 2006 Report (Pages 203-227)
M0000697	69kV Reloc Waikapu	Because this project was customer driven, no project feasibility study was conducted. For related cost savings estimates, refer to PUC Application, Docket No. 2006-0157, Exhibits (VII - XI) (Pages 228-235)
M3141001	MPP M18-18 MW Steam Turbine NI	For project feasibility studies, please refer to PUC Application, Docket No. 7744 Annual Review Reports as required by Decision & Order No. 13730 (dated January 11, 1995)

3. See response to part c.1. above.

The requested information is voluminous 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 requested information. An electronic version of the document is being provided.

CA-IR-298

Ref: MECO response to CA-IR-185 & MECO T-14 June 2007 Update (In-Kind CIAC).

The referenced documents show 2007 plant additions in the amount of $6,931,456 for Project M8020000, In-Kind CIAC Maui. Please provide the following:

a. Please describe the general conditions and types of projects for which MECO receives "in-kind CIAC."

b. Please provide a detailed listing of the individual projects that are associated with the $6,931,456 of In-Kind CIAC.

c. Referring to part (b) above, please confirm that the In-Kind CIAC has not been double counted in the 2007 plant additions – first in the originating project number and also in M8020000. If this cannot be confirmed, please explain.

MECO Response:

a. As noted in my testimony (MECO T-14, page 20), in-kind contributions (aka, in-kind CIAC) are non-cash contributions such as duct line infrastructure built by a subdivision developer or similar customer who later dedicates or turns over ownership of the facilities to the Company. In general, the condition and types of projects for which the Company receives in-kind CIAC are newly built underground subdivision infrastructures such as ducts, handholes, manholes, padmount transformers, etc.

b. As explained in my testimony (MECO T-14, pages 22 to 23), the in-kind CIAC estimate of $6,931,496 for the 2007 test year was obtained by applying the growth rate to the 2006 in-kind CIAC estimate. As of July 31, 2007, the Company had recorded approximately $2,047,368 of in-kind CIAC for the year-to-date and anticipated recording the remaining balance of the forecasted in-kind CIAC amount prior to year-end. See Attachment 1 for a listing of projects that have been recorded through July 31, 2007, as well as a list of projects that are anticipated to be recorded in the remaining months of the 2007 test year. Based on

the year-to-date recorded and remaining month estimated amounts for the projects identified in Attachment 1, the in-kind CIAC estimate of $6,931,496 remains a reasonable estimate for the 2007 test year.

c. The Company confirms that the in-kind CIAC has not been double counted in the 2007 test year plant additions forecast. The forecasted amount is included only in Project M8020000 and is excluded from the originating project number.

Maui Electric Company, Limited
2007 Test Year In-kind CIAC Project List

Project #	Description	Recorded In-Kind CIAC July 31, 2007	In-kind CIAC Estimated to be Recorded in 2007
M0000845	Land Court 960 Subdivision	121,620	
M0000847	Kilohana Waena Subdivision	165,243	
M0000863	E Paepae Sub'd	146,235	
M0000869	Maui Lani Subd Ph7 Incr3	650,533	
M0000875	Kehalani Mauka Parkway Ext	207,876	
M0000878	Waikapu Gardens Ph4	493,156	
M0000781	Peahi Farms Offsite	262,705	
BJohns25_	Mokulele Hwy Widening PH1A-St Lts		237,224
BJohns29_	Hokulani Golf Villas		700,000
M0000742	Lanikeha Subd Ph. 1		640,955
M0000858	Waiolani Pikake Sub'd		132,961
M0000872	Ukumehame Ag Sub'd		1,099,873
M0000883	Flannery Offsite Project		37,144
M0000884	Honua Kai Ph.1		138,470
M0000887	Pioneer Farms		1,043,521
MFern37	Consolidated Bseyards Subd		463,230
MFern40	Kehalani Site 23		497,864
RFukush21_	Kehalani Mauka Irrigation Well 12kV		187,037
	Totals	2,047,368	5,178,279

CA-IR-299

Ref: MECO response to CA-IR-190 (2007 Plant Additions, CIAC & Customer Advances).

The referenced response provided CIAC and customer advance information for specific projects, but not "programs" because of the burden of reviewing hundreds of service/work orders associated with said programs. Please provide the following:

a. Please define the reference to "programs" as used in this context.

b. Please identify the specific "programs" included in the 2007 plant addition forecast, as included in the June 2007 Update.

c. Is it possible for the Company to provide the information requested by CA-IR-190 for a specific category or group of common programs or would the required review still entail hundreds of service/work orders? Please explain.

d. Please explain how MECO administers the hundreds of service/work orders on a day to day basis to ensure that customers, or third parties, are billed appropriately for any applicable CIAC or customer advance amounts.

MECO Response:

a. Programs are defined and discussed in MECO T-14, page 4, beginning on line 19. The specific programs for which MECO may receive associated CIAC and/or customer advance amounts are M7000000 Overhead Services & Extensions, M7300000 Minor Pole Line Relocations, M7920000 Minor State Hwy Projects, M7990000 Street Lights, M8000000 Underground Extensions & Services, and M8500000 Minor OH-UG Conversions.

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

c. Please refer to Attachment 1 to this response, which is an update to the schedule that was included in the Company's response to CA-IR-190 (and was referred to as Attachment 1 to CA-IR-190). As noted in the Company's response to CA-IR-190, providing CIAC and Customer Advance amounts associated with programs would require review of hundreds of service/work orders which would be extremely burdensome. That review has been performed and Attachment 1 provides the requested information for the specific programs

identified in the response to part a above, with separate groupings for overhead additions (programs M7000000 and M7300000) and underground additions (programs M8000000 and M8500000), based on the current year's recorded receipts through July 31, 2007 for CIAC and Customer Advances, and trended for the remainder of the year. Since the Company invoices the customer or third party for applicable CIAC and Customer Advance amounts prior to the start of construction, with the exception for Utility Agreements, Attachment 1 also identifies estimated CIAC and customer advance amounts for specific projects as a group which are estimated to be completed after the 2007 Test Year for which the Company has collected and/or anticipates collecting CIAC and customer advances in 2007.

d. The Company's policy is to invoice and collect payment for applicable CIAC and customer advances from customers or third parties prior to the start of construction of the related facilities.

Maui Electric Company, Limited
2007 Test Year
CIAC and Customer Advances for Completed Projects

		CIAC					CUSTOMER ADVANCES				
Project	Description	Actual Receipts	Amount Collected as of 12/31/06	Amount Collected in 2007 (as of July 2007)	Amount Yet To Be Collected in 2007	Amount Expected To Be Collected and Recorded in 2008	Actual Receipts	Amount Collected as of 12/31/06	Amount Collected in 2007 (as of July 2007)	Amount Yet To Be Collected in 2007	Amount Expected To Be Collected and Recorded in 2008
Aldic16	Kehalani South	161,105	122,465	38,639	-	-	75,613	58,105	17,507		-
Aldica15_	Kehalani Site 10	66,928	66,559	370	-	-	120,079	106,360	13,719	-	-
BJohns25_	Mokulele Hwy Widening PH1A-St Lts	83,412	-	83,412	-	-	4,297	-	4,297	-	-
DOsta26_	Ho'olei	106,694	102,904	3,790	-	-	72,414	60,047	12,367	-	-
M0000617	Nahiku Subdivision	2,808	2,808	-	-	-	97,827	97,827	-	-	-
M0000652	SOH: Molokai Kawaikapu Bridge UA# 1678	9,369	9,369	-	-	-	-	-	-	-	-
M0000680	County of Maui-Mkt St Impvts	26,100	-	-	26,100	-	-	-	-	-	-
M0000741	Clemence Subdivision	16,564	15,824	740	-	-	-	-	-	-	-
M0000775	West Maui Breakers	5,810	-	5,810			52,551	5,009	47,542		
M0000829	Ke Alii Villas	14,297	14,297	-	-	-	72,247	72,247	-	-	-
M0000842	Waiohuli Hikina Subdivision	-	-	-	-	-	146,782	130,111	16,671	-	-
M0000847	Kilohana Waena Subdivision	5,041	5,041	-	-	-	34,212	34,212	-	-	-
M0000848	The Courts @ Lanai City	3,889	3,889	-	-	-	15,272	15,272	-	-	-
M0000858	Waiolani Pikake Sub'd	18,793	1,880	16,913			43,222	4,322	38,900		
M0000859	Papali Wailea	21,175	5,465	15,710	-	-	47,162	44,917	2,246	-	-
M0000860	Waiehu Kou Sub'd Ph 4	-	-	-	-	-	206,110	19,391	186,719		
M0000862	Parcel C Phase 2	27,420	27,420	-	-		27,683	27,683	-	-	-
M0000869	Maui Lani Subd Ph7 Incr3	25,371	25,371	-	-	-	-	-	-	-	-
M0000872	Ukumehame Ag Sub'd	127,216	-	127,216	-	-	213,178	-	213,178	-	-
M0000873	Kaanapali Dev Corp Pole Relo	31,180	-	31,180			-	-	-		
M0000874	Maui Oil Ofc Bldg/Car Wash	11,441	11,441	-	-	-	3,259	3,259	-	-	-
M0000875	Kehalani Mauka Parkway Ext	87,871	-	87,871	-	-	76,459	-	76,459	-	-
M0000877	Waiehu Kou Subd Ph 4 Offsite	32,032	-	32,032	-	-	-	-	-	-	-
M0000878	Waikapu Gardens Ph4	53,327	-	53,327	-	-	-	-	-	-	-
M0000882	Phil Christopher	20,855	3,243	17,612	-	-	3,772	1,901	1,870	-	-
M0000885	SOH Mokulele Hwy PH1A/UA	33,110	-	-	-	33,110	-	-	-	-	-
M0000886	Kanepu'u	60,445	43,953	16,492	-	-	-	-	-	-	-
MFern36	Consolidated Baseyards 69/23 kV Reloc	80,775	-	80,775			-	-	-		
MFern37	Consolidated Bseyards Subd	122,902	-	12,290	110,612	-	11,167	-	11,167	-	-
WShimizu20_	Ukumehame Ag Offsite	228,173	-	228,173	-	-	-	-	-	-	-
	Specific Projects for which CIAC and Customer Advances were collected, but not completed in the 2007 Test Year	1,483,748	188,910	670,729	624,110		1,045,404	191,259	339,406	514,739	
	Blanket Projects (Programs)										
M7000000/M7300000	Overhead Additions	340,942	-	52,834	288,108		112,296	-	5,000	107,296	
M7920000	Minor State Highway Projects	-	-	-	-		-	-	-	-	
M7900000	Street Lights	17,419	-	2,699	14,720		-	-	-	-	
M8000000/M8500000	Underground Additions	1,410,738	-	218,615	1,192,123		478,916	-	21,324	457,592	
	Total	4,736,950	650,840	1,797,227	2,255,773	33,110	2,959,922	871,921	1,008,373	1,079,627	-

Note: Totals may not foot due to rounding

CA-IR-299
DOCKET NO. 2006-0387
ATTACHMENT 1
PAGE 1 OF 1

CA-IR-190
DOCKET NO. 2006-0387
ATTACHMENT 1
PAGE 1 OF 1
UPDATED 08/15/07

CA-IR-300

Ref: MECO response to CA-IR-190 (2007 Plant Additions, CIAC & Customer Advances).

The referenced response provided CIAC and customer advance information for specific projects. Please provide the following:

a. Do the listed CIAC amounts represent In-Kind or Cash contributions? Please explain.
   1. Regarding any amounts that are associated with In-Kind CIAC, please identify which projects are also encompassed by Project M8020000, In-Kind CIAC Maui.

b. Please confirm that the CIAC and Customer Advances in the column "Amount Collected as of 12/31/06" are included in the beginning balance of the average test year rate base offset. If this cannot be confirmed, please explain.

c. Please confirm that the CIAC and Customer Advances amounts set forth in the columns "Amount Collected in 2007" and "Amount Yet to Be Collected in 2007" are included in the ending balance of the average test year rate base offset. If this cannot be confirmed, please explain.

d. Please confirm that the CIAC and Customer Advances in the column "Amount Expected to be Collected and Recorded in 2008" have been excluded from the ending balance of the average test year rate base offset. If this cannot be confirmed, please explain.

MECO Response:

a. The CIAC amounts listed in Attachment 1 of MECO's response to CA-IR-190 (Revised on July 6, 2007) represent only Cash CIAC and do not include In-Kind CIAC amounts. For a list of In-Kind CIAC amounts for projects for the 2007 test year, please refer to Attachment 1 of MECO's response to CA-IR-298.

b. The CIAC and Customer Advances amounts in the column "Amount Collected as of 12/31/06" of Attachment 1 MECO's response to CA-IR-190 (Revised on July 6, 2007) will be included in the beginning balance of the average test year rate base offset which will be provided by MECO T-15, Ms. Gayle T. Ohashi's Rate Base Update amounts.

c. The CIAC and Customer Advances amounts set forth in the columns "Amount Collected in 2007" and "Amount Yet to Be Collected in 2007" of Attachment 1 MECO's response to

CA-IR-190 (Revised on July 6, 2007) will be included in the ending balance of the average test year rate base offset, which will be provided by MECO T-15, Ms. Gayle T. Ohashi's Rate Base Update amounts.

d. The CIAC and Customer Advances amounts in the column "Amount Expected to be Collected and Recorded in 2008" of Attachment 1 MECO's response to CA-IR-190 (Revised on July 6, 2007) are excluded from the ending balance of the average test year rate base offset.

CA-IR-301

Ref: MECO T-18 (Revenue Increase Distribution).

Please provide the following:

a. Explain all reasons for the proposed equal percentage increase, in light of Cost of Service results that appear to support relatively higher Schedule R, H and F increases and relatively smaller G, J and P increases for Maui.

b. Describe whether the MECO proposed revenue distribution is influenced by the approximately 5.3 percent overall increase and how the proposal would differ at higher or lower revenue levels.

MECO Response:

a. The proposed equal percentage increase to all rate classes for MECO's Maui Division is consistent with the overall proposal to assign an equal percentage increase to each of the MECO divisions and the same equal percentage increase to all rate classes within each division. See MECO T-1, pages 21-22 and MECO T-18, page 5. While the Company agrees that the cost of service results shown in MECO-1802 appear to support relatively higher Schedule R, H, and F increases at Maui Division, they also appear to support relatively higher Schedule R and F increases at Lanai Division and relatively higher Schedule R, H, and P increases at Molokai Division. Allocation of the revenue increase according to cost of service would result in relatively large increases for these customer classes. To mitigate the hardship on these customers, the Company decided to propose an equal percentage increase for each division and the same equal percentage increase to all rate classes in each division.

b. The reasoning for the proposed revenue distribution is discussed in part a. above. The Company is not able to discuss how the proposal would differ at different revenue levels without a review of the allocation of the associated costs. Generally speaking, the concepts discussed in the response to part a. above would continue to apply.

CA-IR-302

Ref: MECO Schedule P Rate Design.

Please provide the following:

a. Explain the reasons for very dissimilar Schedule P customer charges at present rate levels and explain MECO's philosophy in terms of moving such charges in proposed rates closer to cost of service or to parity among islands.

b. Explain the reasons for very dissimilar Schedule P customer charges at present rate levels and explain MECO's philosophy in terms of moving such charges in proposed rates closer to cost of service or to parity among islands.

c. Explain whether MECO is concerned with the relative size or percentage change for the Company's proposed demand charge increases, with respect to customer impacts or existing disparity in such charges between islands at present rate levels.

MECO Response:

a. Historically, Maui Division and Lanai Division Schedule P customer charges have been the same; the Schedule P customer charge was $200 per month at both divisions until 1999. The Molokai Division Schedule P customer charge has historically been lower than the level at Maui and Lanai Division, even prior to the division's acquisition by MECO, and has remained at $75 per month since August 1994. It is MECO's desire to advance customer and demand charges closer to the cost of service at each division. Because the Schedule P customer costs at Lanai Division and at Molokai Division, as shown in MECO-1808, are lower than their respective present Schedule P customer charge levels, no change in Schedule P customer charges are proposed.

b. This appears to be the same question as in part a. above. Please reference the response to part a. above.

c. As indicated in the response to part a. above, MECO would like to advance demand charges closer to the respective cost of service at each division. Proposed demand charges at each division are based on the division's own cost of service, without consideration to the

existing or proposed demand charge levels at another MECO division. However, MECO is concerned with the impact of the proposed change in demand charges on customers, so it has limited the proposed increase in demand charges rather than propose an increase to the level of the full demand cost per kW.

CA-IR-303

Ref: MECO T-18, page 30 (Rider T Terms).

A provision is proposed to allow customers to do emergency maintenance without impacting on-peak billing demands. Please provide the following:

a. Explain why this change is believed to be needed, with reference to specific circumstances where customer impacts have been experienced due to emergency maintenance.

b. What is the expected annual revenue impact, if any, associated with the proposed change?

MECO Response:

a. The proposed change to Rider T allows customers who operate equipment primarily or exclusively during off-peak hours to undertake emergency repairs under certain conditions without long-term impact to the customer's bill. The Company proposes to offer some relief to a customer who otherwise helps the Company to manage on-peak demand by operating primarily or exclusively during off-peak hours. Without this proposed provision, a Rider T customer who undertakes emergency maintenance and operates his equipment during an on-peak period could set a billing demand peak that would remain in place for the succeeding 11 months under the terms of the underlying Schedule J or Schedule P. While the Company is not aware of Rider T customers who have experienced such a billing impact due to emergency maintenance, the Company believes adoption of this provision enhances and supports this off-peak load management rate option.

b. The Company has not forecast any annual revenue impact in test year 2007 from this proposed change to Rider T.

CA-IR-304

Ref: June 2007 Update (All Witnesses).

During the first two weeks of July 2007, MECO provided a series of revisions to the Company's original filing generally characterized as the June 2007 Update. Please provide the following information:

a. Has the Company updated the various schedules comprising rate base, operating income and revenue requirement to incorporate the June 2007 Update as well as any subsequent revisions? Please explain.

b. If the response to part (a) above is affirmative, please provide the revised rate base, operating income and revenue requirement schedules in both hard copy and spreadsheet file format.

c. If the response to part (a) above is negative, please revise MECO's original rate base, operating income and revenue requirement schedules to incorporate the June 2007 Updates and provide such schedules in both hard copy and spreadsheet file format.

MECO Response:

a. Yes. See the response to b. below.

b. Attachment A to this response provides the results of operations, rate base, revenue requirement and other supporting materials that incorporate the June 2007 Updates. The June 2007 Update for MECO T-15, filed on September 19, 2007, provides updates to the test year rate base amounts and working cash.

c. Not applicable.

Maui Electric Company, Ltd.
June Update
Total Company
Results of Operations
2007
($ Thousands)

	Present Rates	Additional Amount	Revenue Requirements to Produce 8.98% Return on Average Rate Base
Electric Sales Revenue	355,773	18,102	373,875
Other Operating Revenue	1,535	224	1,759
TOTAL OPERATING REVENUES	357,308	18,326	375,634
Fuel	180,465		180,465
Purchased Power	33,982		33,982
Production	21,487		21,487
Transmission	2,277		2,277
Distribution	6,336		6,336
Customer Accounts	3,086		3,086
Allowance for Uncoll. Accounts	214	11	225
Customer Service	1,743		1,743
Administration & General	13,882		13,882
Operation and Maintenance	263,472	11	263,483
Depreciation & Amortization	28,012		28,012
Amortization of State ITC	(518)		(518)
Taxes Other Than Income	33,052	1,622	34,674
Interest on Customer Deposits	221		221
Income Taxes	8,645	6,496	15,141
TOTAL OPERATING EXPENSES	332,884	8,129	341,013
OPERATING INCOME	24,424	10,197	34,621
AVERAGE RATE BASE	385,763	(213)	385,550
RATE OF RETURN ON AVERAGE RATE BASE	6.33%		8.98%

Maui Electric Company, Ltd.
June Update
Total Company
COMPOSITE EMBEDDED COST OF CAPITAL
Estimated 2007 Average

	A	B	C	D
	Capitalization			
	Amount in Thousands	Percent of Total	Earnings Reqmts	Weighted Earnings Reqmts (B) x (C)
Short-Term Debt	4,750	1.27	5.00%	0.063%
Long-Term Debt	150,585	40.15	6.11%	2.451%
Hybrid Securities	9,192	2.45	7.47%	0.183%
Preferred Stock	4,693	1.25	8.34%	0.104%
Common Equity	205,882	54.89	11.25%	6.175%
Total	375,102	100.00		
Estimated Composite Cost of Capital				8.976%
			or	8.98%

Maui Electric Company, Ltd.
June Update
Total Company
2007 AVERAGE RATE BASE
($ Thousands)

	Beginning Balance	End of Year Balance	Average Balance
Investments in Assets Serving Customers			
Net Cost of Plant in Service	428,495	436,323	432,410
Property Held for Future Use	2,633	2,633	2,633
Fuel Inventory	15,811	15,811	15,811
Materials & Supplies Inventories	10,755	10,755	10,755
Unamort. Net SFAS 109 Reg. Asset	7,688	7,817	7,753
Pension Asset	5,223	1,209	3,216
OPEB Amount	0	0	0
Unamort Sys Dev Costs	0	0	0
Total Investments in Assets	470,605	474,548	472,578
Funds From Non-Investors			
Unamortized CIAC	52,701	61,560	57,131
Customer Advances	4,845	5,746	5,296
Customer Deposits	3,381	3,979	3,681
Accumulated Def. Income Taxes	19,174	14,425	16,801
Unamortized ITC	11,167	12,109	11,638
Total Deductions	91,268	97,819	94,547
Difference			378,031
Working Cash at Present Rates			7,732
Rate Base at Present Rates			385,763
Change in Rate Base - Working Cash			(213)
Rate Base at Proposed Rates			385,550

Maui Electric Company, Ltd.
June Update
Total Company
COMPUTATION OF INCOME TAX EXPENSE
2007
($ Thousands)

	Present Rates	Adjustment	At Proposed Rates
Operating Revenues	357,308	18,326	375,634
Operating Expenses:			
Fuel Oil and Purchased Power	214,447		214,447
Other Operation & Maintenance Expense	49,025	11	49,036
Depreciation	28,012		28,012
Amortization of State ITC	(518)		(518)
Taxes Other than Income	33,052	1,622	34,674
Interest on Customer Deposits	221		221
Total Operating Expenses	324,239	1,633	325,872
Operating Income Before Income Taxes	33,069	16,693	49,762
Tax Adjustments:			
Interest Expense	(9,871)		(9,871)
Meals and Entertainment	31		31
	(9,840)	0	(9,840)
Taxable Income at Ordinary Rates	23,229	16,693	39,922
Income Tax Exp at Ordinary Rates	9,038	6,495	15,533
Tax Benefit of Domestic Production Activities Deduction (DPAD)	394		394
TOTAL INCOME TAX EXPENSE	8,645	6,495	15,139

Maui Electric Company, Ltd.
June Update
Total Company
COMPUTATION OF TAXES OTHER THAN INCOME TAX
2007
($ Thousands)

	Rate	At Present Rates	Adjustment	At Proposed Rates
Electric Sales Revenue		355,773	18,102	373,875
Other Operating Revenue		1,535	224	1,759
Operating Revenues		357,308	18,326	375,634
Public Service Tax	5.885%	21,015	1,078	22,093
PUC Fees	0.500%	1,785	92	1,877
Franchise Tax	2.500%	8,890	452	9,342
Payroll Tax		1,362		1,362
TOTAL TAXES OTHER THAN INCOME TAX		33,052	1,622	34,674

Maui Electric Company, Ltd.
June Update
Total Company
SUPPORT WORKSHEET
2007

OPERATING REVENUES:	
Electric Sales Revenues	355,773
Other Operating Revenues	1,535
TOTAL OPERATING REVENUES	357,308
FUEL OIL AND PURCHASE POWER EXPENSES:	
Fuel Oil Expense	179,945
Fuel Related Non-labor Exp	508
Fuel Handling Labor Expense	12
Fuel Oil Expense	180,465
Purchased Power Expense	33,982
TOTAL FUEL OIL AND PURCHASE POWER EXPENSES	214,447
OTHER OPERATION & MAINTENANCE EXPENSES:	
Production	21,487
Transmission	2,277
Distribution	6,336
Customer Account	3,086
Allowance for Uncollectible Accounts	214
Customer Service	1,743
Administration & General	13,882
TOTAL OTHER OPERATION & MAINTENANCE EXPENSES	49,025

Maui Electric Company, Ltd.
June Update
Total Company
SUPPORT WORKSHEET
2007

TOTAL FUEL OIL & PP AND OTH O&M EXPENSES (LABOR/NONLABOR)		
Fuel Oil Expense		179,945
Purchase Power Expense		33,982
Total Labor Expense		
Labor Expense		18,293
Total Labor Expense		18,293
Total Nonlabor Expense		
Nonlabor Expense		30,744
Fuel Related Expense		508
Payroll Taxes		1,362
Bad Debt Expense		(214)
Pension Asset Amortization		(242)
		32,158
TOTAL FUEL OIL & PP, OTH O&M AND PR TAX EXPENSES		264,378
REVENUE TAX		
Public Service Tax		
Electric Sales Revenues		355,773
Other Operating Revenues		1,535
Less: Bad Debt Expense		(213)
Operating Revenues subject to PSC Tax		357,095
Public Service Tax Rate	x	5.885%
Total PSC Tax		21,015
PUC Fees		
Electric Sales Revenues		355,773
Other Operating Revenues		1,535
Less: Bad Debt Expense		(213)
Operating Revenues subject to PSC Tax		357,095
PUC Tax Rate	x	0.500%
Total PUC Tax		1,785

Maui Electric Company, Ltd.
June Update
Total Company
SUPPORT WORKSHEET
2007

Franchise Tax		
Electric Sales Revenues		355,773
Less: Bad Debt Expense		(213)
		355,560
Franchise Tax Rate	x	2.500%
Total Franchise Tax		8,889
TOTAL REVENUE TAX		31,689
INTEREST EXPENSE:		
Interest Charged to Operations		10,118
AFUDC Debt		(247)
TOTAL INTEREST EXPENSE		9,871
INCOME TAX EXPENSE SUMMARY		
Current		12,421
Deferred		(4,749)
State ITC		1,460
Pension Asset Amortization		(94)
TOTAL INCOME TAX EXPENSE		9,038
CALCULATIONS OF REVENUE TAX RATE:		
Franchise Tax Rate adjusted for Change in Oth Oper Revenues and Bad Debt		0.02468
PSC Tax Rate adjusted for Bad Debt		0.05881
PUC Tax Rate adjusted for Bad Debt		0.00500
REVENUE TAX RATE		0.08849
CALCULATIONS OF COMPOSITE INCOME TAX RATE:		
State Tax Rate		0.06015
Federal Tax Rate		0.35000
State Tax Rate		0.06015
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Tax		(0.02105)
COMPOSITE INCOME TAX RATE		0.38910

Maui Electric Company, Ltd.
June Update
Total Company
SUPPORT WORKSHEET
2007

CALCULATIONS OF COMPOSITE CAPITAL GAINS TAX RATE:		
State Capital Gains Tax Rate		0.03759
Federal Tax Rate		0.35000
State Capital Gains Tax Rate		0.03759
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Capital Gains Tax Rate		(0.01316)
COMPOSITE CAPITAL GAINS TAX RATE		0.37444
CALCULATIONS OF EFFECTIVE INCOME TAX RATE:		
PSC Tax & PUC Fees Rates adjusted for Bad Debt		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev and Bad Debt		0.02468
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00059
Revenue Tax and Bad Debt rate		0.08908
Rev Tax & Bad Debt Reciprocal (1 - 0.08908)		0.91092
Composite Income Tax Rate	x	0.38910
EFFECTIVE INCOME TAX RATE AFTER CONSIDERING REVENUE TAX & BAD DEBT		0.35444
CALCULATIONS OF OPERATING INCOME DIVISOR:		
PSC Tax & PUC Fees Rates		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev		0.02468
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00059
Effective Income Tax Rate after considering revenue tax & bad debt		0.35444
		0.44352
OPERATING INCOME DIVISOR (1 - 0.44352)		0.55648

Maui Electric Company, Ltd.
June Update
Maui Division
Results of Operations
2007
($ Thousands)

	Present Rates	Additional Amount	Revenue Requirements to Produce 8.98% Return on Average Rate Base
Electric Sales Revenue	333,075	14,776	347,851
Other Operating Revenue	1,390	200	1,590
TOTAL OPERATING REVENUES	334,465	14,976	349,441
Fuel	167,036		167,036
Purchased Power	33,982		33,982
Production	19,214		19,214
Transmission	2,244		2,244
Distribution	5,644		5,644
Customer Accounts	2,778		2,778
Allowance for Uncoll. Accounts	200	9	209
Customer Service	1,740		1,740
Administration & General	12,856		12,856
Operation and Maintenance	245,694	9	245,703
Depreciation & Amortization	25,622		25,622
Amortization of State ITC	(475)		(475)
Taxes Other Than Income	30,902	1,325	32,227
Interest on Customer Deposits	205		205
Income Taxes	8,779	5,308	14,087
TOTAL OPERATING EXPENSES	310,727	6,642	317,369
OPERATING INCOME	23,738	8,334	32,072
AVERAGE RATE BASE	357,328	(174)	357,154
RATE OF RETURN ON AVERAGE RATE BASE	6.64%		8.98%

Maui Electric Company, Ltd.
June Update
Maui Division
COMPOSITE EMBEDDED COST OF CAPITAL
Estimated 2007 Average

	A	B	C	D
	Capitalization			
	Amount in Thousands	Percent of Total	Earnings Reqmts	Weighted Earnings Reqmts (B) x (C)
Short-Term Debt	4,750	1.27	5.00%	0.063%
Long-Term Debt	150,585	40.15	6.11%	2.451%
Hybrid Securities	9,192	2.45	7.47%	0.183%
Preferred Stock	4,693	1.25	8.34%	0.104%
Common Equity	205,882	54.89	11.25%	6.175%
Total	375,102	100.00		
Estimated Composite Cost of Capital				8.976%
			or	8.98%

Maui Electric Company, Ltd.
June Update
Maui Division
2007 AVERAGE RATE BASE
($ Thousands)

	Beginning Balance	End of Year Balance	Average Balance
Investments in Assets Serving Customers			
Net Cost of Plant in Service	393,842	403,832	398,837
Property Held for Future Use	2,633	2,633	2,633
Fuel Inventory	14,629	14,629	14,629
Materials & Supplies Inventories	10,436	10,436	10,436
Unamort. Net SFAS 109 Reg. Asset	6,852	7,007	6,930
Pension Asset	4,852	1,126	2,989
OPEB Amount	0	0	0
Unamort Sys Dev Costs	0	0	0
Total Investments in Assets	433,244	439,663	436,454
Funds From Non-Investors			
Unamortized CIAC	47,659	55,904	51,782
Customer Advances	4,499	5,427	4,963
Customer Deposits	3,136	3,690	3,413
Accumulated Def. Income Taxes	17,591	13,234	15,413
Unamortized ITC	10,244	11,108	10,676
Total Deductions	83,129	89,363	86,247
Difference			350,207
Working Cash at Present Rates			7,121
Rate Base at Present Rates			357,328
Change in Rate Base - Working Cash			(174)
Rate Base at Proposed Rates			357,154

Maui Electric Company, Ltd.
June Update
Maui Division
WORKING CASH ITEMS
2007
($ Thousands)

	A COLLECTION LAG (DAYS)	B PAYMENT LAG (DAYS)	C NET COLLECTION LAG (DAYS) (A - B)	D ANNUAL AMOUNT
ITEMS REQUIRING WORKING CASH				
Fuel Oil Purchases	36	16	20	166,525
O&M Labor	36	12	24	16,653
Purchased Power	36	41	(5)	33,982
ITEMS THAT PROVIDE WORKING CASH				
O&M Nonlabor	36	35	1	29,346
Pension Asset Amortization	36	0	36	225
Revenue Taxes	36	68	(32)	29,665
Income Taxes-Present Rates	36	40	(4)	12,245
Income Taxes-Proposed Rates	36	40	(4)	17,553

	E AVERAGE DAILY AMOUNT (D/365)	F WORKING CASH (PRESENT RATES) (C X E)	G AVERAGE DAILY AMOUNT (PROPOSED)	H WORKING CASH (PROPOSED RATES) (C X G)
ITEMS REQUIRING WORKING CASH				
Fuel Oil Purchases	456	9,125	456	9,125
O&M Labor	46	1,095	46	1,095
Purchased Power	93	(466)	93	(466)
ITEMS THAT PROVIDE WORKING CASH				
O&M Nonlabor	80	80	80	80
Pension Asset Amortization	1	22	1	22
Revenue Taxes	81	(2,601)	85	(2,717)
Income Taxes-Present Rates	34	(134)		
Income Taxes-Proposed Rates	48	-	48	(192)
Total		7,121		6,947
Change in Working Cash				(174)

Maui Electric Company, Ltd.
June Update
Maui Division
COMPUTATION OF INCOME TAX EXPENSE
2007
($ Thousands)

	Present Rates	Adjustment	At Proposed Rates
Operating Revenues	334,465	14,976	349,441
Operating Expenses:			
Fuel Oil and Purchased Power	201,018		201,018
Other Operation & Maintenance Expense	44,676	9	44,685
Depreciation	25,622		25,622
Amortization of State ITC	(475)		(475)
Taxes Other than Income	30,902	1,325	32,227
Interest on Customer Deposits	205		205
Total Operating Expenses	301,948	1,334	303,282
Operating Income Before Income Taxes	32,517	13,642	46,159
Tax Adjustments:			
Interest Expense	(9,056)		(9,056)
Meals and Entertainment	29		29
	(9,027)	0	(9,027)
Taxable Income at Ordinary Rates	23,490	13,642	37,132
Income Tax Exp at Ordinary Rates	9,140	5,308	14,448
Tax Benefit of Domestic Production Activities Deduction (DPAD)	361		361
TOTAL INCOME TAX EXPENSE	8,779	5,308	14,087

Maui Electric Company, Ltd.
June Update
Maui Division
COMPUTATION OF TAXES OTHER THAN INCOME TAX
2007
($ Thousands)

	Rate	At Present Rates	Adjustment	At Proposed Rates
Electric Sales Revenue		333,075	14,776	347,851
Other Operating Revenue		1,390	200	1,590
Operating Revenues		334,465	14,976	349,441
Public Service Tax	5.885%	19,672	881	20,553
PUC Fees	0.500%	1,671	75	1,746
Franchise Tax	2.500%	8,322	369	8,691
Payroll Tax		1,237		1,237
TOTAL TAXES OTHER THAN INCOME TAX		30,902	1,325	32,227

Maui Electric Company, Ltd.
June Update
Maui Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

OPERATING INCOME AT PRESENT RATES:		
Operating Revenues		334,465
Fuel and Purchased Power Expenses		201,018
Other O&M Expenses		44,676
Depreciation & Amortization Expense		25,622
Amortization of State ITC		(475)
Taxes Other than Income		30,902
Interest on Customer Deposits		205
Income Taxes		8,779
Total Operating Expenses		310,727
OPERATING INCOME AT PRESENT RATES		23,738
CALCULATIONS OF REVENUE REQUIREMENTS:		
OPERATING INCOME		
Rate Base at Proposed Rates		357,154
Proposed Rate of Return on Rate Base	x	8.98%
Operating Income		32,072
Less: Operating Income at Present Rates		23,738
INCREASE IN OPERATING INCOME		8,334
OPERATING REVENUES:		
Increase in Operating Income		8,334
Operating Income Divisor (divided by)		0.55650
INCREASE IN OPERATING REVENUES		14,976
Increase in Electric Sales Revenue		14,776
Other Operating Revenue Rate	x	1.354%
Increase in Other Operating Revenues		200
		14,976

Maui Electric Company, Ltd.
June Update
Maui Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

BAD DEBT:		
Increase in Electric Revenues		14,776
Bad Debt Rate	x	0.0006
INCREASE IN BAD DEBT EXPENSE		9
REVENUE TAX:		
Increase in Operating Revenues		14,976
Less: Increase in Bad Debt Expense		(9)
		14,967
PSC Tax & PUC Fees Rate	x	6.385%
		956
Increase in Electric Revenues		14,776
Less: Increase in Bad Debt Expense		(9)
		14,767
Franchise Tax Rate	x	2.500%
		369
INCREASE IN REVENUE TAX		1,325
INCOME TAX:		
Increase in Operating Revenues		14,976
Effective Income Tax Rate after considering revenue tax & bad debt	x	35.445%
INCREASE IN INCOME TAX		5,308
INCREASE IN OPERATING INCOME (check)		8,334

Maui Electric Company, Ltd.
June Update
Maui Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

CHANGE IN RATE BASE:

	A EXPENSE AMOUNT	B AVERAGE DAILY AMOUNT (A/365)	C NET COLLECTION LAG (DAYS)	D WORKING CASH REQMT (B)x(C)
Increase in Revenue Tax	1,325	4	(32)	(116)
Income Tax at present rates	12,245	34	(4)	134
Income Tax at proposed rate	17,553	48	(4)	(192)
CHANGE IN RATE BASE - WORKING CASH				(174)
Rate Base at Present Rates				357,328
PROPOSED RATE BASE				357,154
Operating Income at Present Rates				23,738
Increase in Operating Income				8,334
OPERATING INCOME AT PROPOSED RATES				32,072
PROPOSED RATE OF RETURN ON RATE BASE (check)				8.98%

Maui Electric Company, Ltd.
June Update
Maui Division
SUPPORT WORKSHEET
2007

OPERATING REVENUES:	
Electric Sales Revenues	333,075
Other Operating Revenues	1,390
TOTAL OPERATING REVENUES	334,465
FUEL OIL AND PURCHASE POWER EXPENSES:	
Fuel Oil Expense	166,525
Fuel Related Non-labor Exp	499
Fuel Handling Labor Expense	12
Fuel Oil Expense	167,036
Purchased Power Expense	33,982
TOTAL FUEL OIL AND PURCHASE POWER EXPENSES	201,018
OTHER OPERATION & MAINTENANCE EXPENSES:	
Production	19,214
Transmission	2,244
Distribution	5,644
Customer Account	2,778
Allowance for Uncollectible Accounts	200
Customer Service	1,740
Administration & General	12,856
TOTAL OTHER OPERATION & MAINTENANCE EXPENSES	44,676

Maui Electric Company, Ltd.
June Update
Maui Division
SUPPORT WORKSHEET
2007

TOTAL FUEL OIL & PP AND OTH O&M EXPENSES (LABOR/NONLABOR)		
Fuel Oil Expense		166,525
Purchase Power Expense		33,982
Total Labor Expense		
Labor Expense		16,653
Total Labor Expense		16,653
Total Nonlabor Expense		
Nonlabor Expense		28,035
Fuel Related Expense		499
Payroll Taxes		1,237
Bad Debt Expense		(200)
Pension Asset Amortization		(225)
		29,346
TOTAL FUEL OIL & PP, OTH O&M AND PR TAX EXPENSES		246,506
REVENUE TAX		
Public Service Tax		
Electric Sales Revenues		333,075
Other Operating Revenues		1,390
Less: Bad Debt Expense		(200)
Operating Revenues subject to PSC Tax		334,265
Public Service Tax Rate	x	5.885%
Total PSC Tax		19,672
PUC Fees		
Electric Sales Revenues		333,075
Other Operating Revenues		1,390
Less: Bad Debt Expense		(200)
Operating Revenues subject to PSC Tax		334,265
PUC Tax Rate	x	0.500%
Total PUC Tax		1,671

Maui Electric Company, Ltd.
June Update
Maui Division
SUPPORT WORKSHEET
2007

Franchise Tax		
Electric Sales Revenues		333,075
Less: Bad Debt Expense		(200)
		332,875
Franchise Tax Rate	x	2.500%
Total Franchise Tax		8,322
TOTAL REVENUE TAX		29,665
INTEREST EXPENSE:		
Interest Charged to Operations		9,283
AFUDC Debt		(227)
TOTAL INTEREST EXPENSE		9,056
INCOME TAX EXPENSE SUMMARY		
Current		12,245
Deferred		(4,357)
State ITC		1,339
Pension Asset Amortization		(87)
TOTAL INCOME TAX EXPENSE		9,140
CALCULATIONS OF REVENUE TAX RATE:		
Franchise Tax Rate adjusted for Change in Oth Oper Revenues and Bad Debt		0.02465
PSC Tax Rate adjusted for Bad Debt		0.05881
PUC Tax Rate adjusted for Bad Debt		0.00500
REVENUE TAX RATE		0.08846
CALCULATIONS OF COMPOSITE INCOME TAX RATE:		
State Tax Rate		0.06015
Federal Tax Rate		0.35000
State Tax Rate		0.06015
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Tax		(0.02105)
COMPOSITE INCOME TAX RATE		0.38910

Maui Electric Company, Ltd.
June Update
Maui Division
SUPPORT WORKSHEET
2007

CALCULATIONS OF COMPOSITE CAPITAL GAINS TAX RATE:		
State Capital Gains Tax Rate		0.03759
Federal Tax Rate		0.35000
State Capital Gains Tax Rate		0.03759
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Capital Gains Tax Rate		(0.01316)
COMPOSITE CAPITAL GAINS TAX RATE		0.37444
CALCULATIONS OF EFFECTIVE INCOME TAX RATE:		
PSC Tax & PUC Fees Rates adjusted for Bad Debt		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev and Bad Debt		0.02465
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00059
Revenue Tax and Bad Debt rate		0.08905
Rev Tax & Bad Debt Reciprocal (1 - 0.08905)		0.91095
Composite Income Tax Rate	x	0.38910
EFFECTIVE INCOME TAX RATE AFTER CONSIDERING REVENUE TAX & BAD DEBT		0.35445
CALCULATIONS OF OPERATING INCOME DIVISOR:		
PSC Tax & PUC Fees Rates		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev		0.02465
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00059
Effective Income Tax Rate after considering revenue tax & bad debt		0.35445
		0.44350
OPERATING INCOME DIVISOR (1 - 0.44350)		0.55650

Maui Electric Company, Ltd.
June Update
Lanai Division
Results of Operations
2007
($ Thousands)

	Present Rates	Additional Amount	Revenue Requirements to Produce 8.98% Return on Average Rate Base
Electric Sales Revenue	10,067	1,999	12,066
Other Operating Revenue	38	9	47
TOTAL OPERATING REVENUES	10,105	2,008	12,113
Fuel	6,176		6,176
Purchased Power	0		0
Production	1,095		1,095
Transmission	0		0
Distribution	238		238
Customer Accounts	139		139
Allowance for Uncoll. Accounts	6	1	7
Customer Service	1		1
Administration & General	350		350
Operation and Maintenance	8,005	1	8,006
Depreciation & Amortization	1,267		1,267
Amortization of State ITC	(20)		(20)
Taxes Other Than Income	952	178	1,130
Interest on Customer Deposits	5		5
Income Taxes	(201)	712	511
TOTAL OPERATING EXPENSES	10,008	891	10,899
OPERATING INCOME	97	1,117	1,214
AVERAGE RATE BASE	13,545	(24)	13,521
RATE OF RETURN ON AVERAGE RATE BASE	0.72%		8.98%

Maui Electric Company, Ltd.
June Update
Lanai Division
COMPOSITE EMBEDDED COST OF CAPITAL
Estimated 2007 Average

	A	B	C	D
	Capitalization			
	Amount in Thousands	Percent of Total	Earnings Reqmts	Weighted Earnings Reqmts (B) x (C)
Short-Term Debt	4,750	1.27	5.00%	0.063%
Long-Term Debt	150,585	40.15	6.11%	2.451%
Hybrid Securities	9,192	2.45	7.47%	0.183%
Preferred Stock	4,693	1.25	8.34%	0.104%
Common Equity	205,882	54.89	11.25%	6.175%
Total	375,102	100.00		
Estimated Composite Cost of Capital				8.976%
			or	8.98%

Maui Electric Company, Ltd.
June Update
Lanai Division
2007 AVERAGE RATE BASE
($ Thousands)

	Beginning Balance	End of Year Balance	Average Balance
Investments in Assets Serving Customers			
Net Cost of Plant in Service	15,950	14,949	15,450
Property Held for Future Use	0	0	0
Fuel Inventory	550	550	550
Materials & Supplies Inventories	141	141	141
Unamort. Net SFAS 109 Reg. Asset	385	373	379
Pension Asset	135	33	84
OPEB Amount	0	0	0
Unamort Sys Dev Costs	0	0	0
Total Investments in Assets	17,161	16,046	16,604
Funds From Non-Investors			
Unamortized CIAC	2,004	2,008	2,006
Customer Advances	186	227	207
Customer Deposits	83	98	91
Accumulated Def. Income Taxes	730	549	640
Unamortized ITC	426	462	444
Total Deductions	3,429	3,344	3,388
Difference			13,216
Working Cash at Present Rates			329
Rate Base at Present Rates			13,545
Change in Rate Base - Working Cash			(24)
Rate Base at Proposed Rates			13,521

Maui Electric Company, Ltd.
June Update
Lanai Division
WORKING CASH ITEMS
2007
($ Thousands)

	A COLLECTION LAG (DAYS)	B PAYMENT LAG (DAYS)	C NET COLLECTION LAG (DAYS) (A - B)	D ANNUAL AMOUNT
ITEMS REQUIRING WORKING CASH				
Fuel Oil Purchases	36	15	21	6,173
O&M Labor	36	12	24	724
Purchased Power	36	0	36	-
ITEMS THAT PROVIDE WORKING CASH				
O&M Nonlabor	36	35	1	1,151
Pension Asset Amortization	36	0	36	7
Revenue Taxes	36	68	(32)	896
Income Taxes-Present Rates	36	40	(4)	(58)
Income Taxes-Proposed Rates	36	40	(4)	654

	E AVERAGE DAILY AMOUNT (D/365)	F WORKING CASH (PRESENT RATES) (C X E)	G AVERAGE DAILY AMOUNT (PROPOSED)	H WORKING CASH (PROPOSED RATES) (C X G)
ITEMS REQUIRING WORKING CASH				
Fuel Oil Purchases	17	355	17	355
O&M Labor	2	48	2	48
Purchased Power	0	0	0	0
ITEMS THAT PROVIDE WORKING CASH				
O&M Nonlabor	3	3	3	3
Pension Asset Amortization	0	1	0	1
Revenue Taxes	2	(79)	3	(94)
Income Taxes-Present Rates	(0)	1		
Income Taxes-Proposed Rates	2	-	2	(7)
Total		329		306
Change in Working Cash				(23)

Maui Electric Company, Ltd.
June Update
Lanai Division
COMPUTATION OF INCOME TAX EXPENSE
2007
($ Thousands)

	Present Rates	Adjustment	At Proposed Rates
Operating Revenues	10,105	2,008	12,113
Operating Expenses:			
Fuel Oil and Purchased Power	6,176		6,176
Other Operation & Maintenance Expense	1,829	1	1,830
Depreciation	1,267		1,267
Amortization of State ITC	(20)		(20)
Taxes Other than Income	952	178	1,130
Interest on Customer Deposits	5		5
Total Operating Expenses	10,209	179	10,388
Operating Income Before Income Taxes	(104)	1,829	1,725
Tax Adjustments:			
Interest Expense	(376)		(376)
Meals and Entertainment	1		1
	(375)	0	(375)
Taxable Income at Ordinary Rates	(479)	1,829	1,350
Income Tax Exp at Ordinary Rates	(186)	712	526
INCOME TAX EXPENSE	(186)	712	526
Tax Benefit of Domestic Production Activities Deduction (DPAD)	15		15
TOTAL INCOME TAX EXPENSE	(201)	712	511

DPAD is not applicable to present rates; however, it is shown here to facilitate the proper calculation of revenue requirements.

Maui Electric Company, Ltd.
June Update
Lanai Division
COMPUTATION OF TAXES OTHER THAN INCOME TAX
2007
($ Thousands)

	Rate	At Present Rates	Adjustment	At Proposed Rates
Electric Sales Revenue		10,067	1,999	12,066
Other Operating Revenue		38	9	47
Operating Revenues		10,105	2,008	12,113
Public Service Tax	5.885%	594	118	712
PUC Fees	0.500%	50	10	60
Franchise Tax	2.500%	252	50	302
Payroll Tax		56		56
TOTAL TAXES OTHER THAN INCOME TAX		952	178	1,130

Maui Electric Company, Ltd.
June Update
Lanai Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

OPERATING INCOME AT PRESENT RATES:		
Operating Revenues		10,105
Fuel and Purchased Power Expenses		6,176
Other O&M Expenses		1,829
Depreciation & Amortization Expense		1,267
Amortization of State ITC		(20)
Taxes Other than Income		952
Interest on Customer Deposits		5
Income Taxes		(201)
Total Operating Expenses		10,008
OPERATING INCOME AT PRESENT RATES		97
CALCULATIONS OF REVENUE REQUIREMENTS:		
OPERATING INCOME		
Rate Base at Proposed Rates		13,521
Proposed Rate of Return on Rate Base	x	8.98%
Operating Income		1,214
Less: Operating Income at Present Rates		97
INCREASE IN OPERATING INCOME		1,117
OPERATING REVENUES:		
Increase in Operating Income		1,117
Operating Income Divisor (divided by)		0.55636
INCREASE IN OPERATING REVENUES		2,008
Increase in Electric Sales Revenue		1,999
Other Operating Revenue Rate	x	0.450%
Increase in Other Operating Revenues		9
		2,008

Maui Electric Company, Ltd.
June Update
Lanai Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

BAD DEBT:		
Increase in Electric Revenues		1,999
Bad Debt Rate	x	0.0006
INCREASE IN BAD DEBT EXPENSE		1
REVENUE TAX:		
Increase in Operating Revenues		2,008
Less: Increase in Bad Debt Expense		(1)
		2,007
PSC Tax & PUC Fees Rate	x	6.385%
		128
Increase in Electric Revenues		1,999
Less: Increase in Bad Debt Expense		(1)
		1,998
Franchise Tax Rate	x	2.500%
		50
INCREASE IN REVENUE TAX		178
INCOME TAX:		
Increase in Operating Revenues		2,008
Effective Income Tax Rate after considering revenue tax & bad debt	x	35.436%
INCREASE IN INCOME TAX		712
INCREASE IN OPERATING INCOME (check)		1,117

Maui Electric Company, Ltd.
June Update
Lanai Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

CHANGE IN RATE BASE:

	A EXPENSE AMOUNT	B AVERAGE DAILY AMOUNT (A/365)	C NET COLLECTION LAG (DAYS)	D WORKING CASH REQMT (B)x(C)
Increase in Revenue Tax	178	0	(32)	(16)
Income Tax at present rates	(58)	(0)	(4)	(1)
Income Tax at proposed rate	654	2	(4)	(7)
CHANGE IN RATE BASE - WORKING CASH				(24)
Rate Base at Present Rates				13,545
PROPOSED RATE BASE				13,521
Operating Income at Present Rates				97
Increase in Operating Income				1,117
OPERATING INCOME AT PROPOSED RATES				1,214
PROPOSED RATE OF RETURN ON RATE BASE (check)				8.98%

Maui Electric Company, Ltd.
June Update
Lanai Division
SUPPORT WORKSHEET
2007

OPERATING REVENUES:	
Electric Sales Revenues	10,067
Other Operating Revenues	38
TOTAL OPERATING REVENUES	10,105
FUEL OIL AND PURCHASE POWER EXPENSES:	
Fuel Oil Expense	6,173
Fuel Related Non-labor Exp	3
Fuel Handling Labor Expense	0
Fuel Oil Expense	6,176
Purchased Power Expense	0
TOTAL FUEL OIL AND PURCHASE POWER EXPENSES	6,176
OTHER OPERATION & MAINTENANCE EXPENSES:	
Production	1,095
Transmission	0
Distribution	238
Customer Account	139
Allowance for Uncollectible Accounts	6
Customer Service	1
Administration & General	350
TOTAL OTHER OPERATION & MAINTENANCE EXPENSES	1,829

Maui Electric Company, Ltd.
June Update
Lanai Division
SUPPORT WORKSHEET
2007

TOTAL FUEL OIL & PP AND OTH O&M EXPENSES (LABOR/NONLABOR)		
Fuel Oil Expense		6,173
Purchase Power Expense		0
Total Labor Expense		
Labor Expense		724
Total Labor Expense		724
Total Nonlabor Expense		
Nonlabor Expense		1,105
Fuel Related Expense		3
Payroll Taxes		56
Bad Debt Expense		(6)
Pension Asset Amortization		(7)
		1,151
TOTAL FUEL OIL & PP, OTH O&M AND PR TAX EXPENSES		8,048
REVENUE TAX		
Public Service Tax		
Electric Sales Revenues		10,067
Other Operating Revenues		38
Less: Bad Debt Expense		(6)
Operating Revenues subject to PSC Tax		10,099
Public Service Tax Rate	x	5.885%
Total PSC Tax		594
PUC Fees		
Electric Sales Revenues		10,067
Other Operating Revenues		38
Less: Bad Debt Expense		(6)
Operating Revenues subject to PSC Tax		10,099
PUC Tax Rate	x	0.500%
Total PUC Tax		50

Maui Electric Company, Ltd.
June Update
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SUPPORT WORKSHEET
2007

Franchise Tax		
Electric Sales Revenues		10,067
Less: Bad Debt Expense		(6)
		10,061
Franchise Tax Rate	x	2.500%
Total Franchise Tax		252
TOTAL REVENUE TAX		896
INTEREST EXPENSE:		
Interest Charged to Operations		385
AFUDC Debt		(9)
TOTAL INTEREST EXPENSE		376
INCOME TAX EXPENSE SUMMARY		
Current		(58)
Deferred		(181)
State ITC		56
Pension Asset Amortization		(3)
TOTAL INCOME TAX EXPENSE		(186)
CALCULATIONS OF REVENUE TAX RATE:		
Franchise Tax Rate adjusted for Change in Oth Oper Revenues and Bad Debt		0.02487
PSC Tax Rate adjusted for Bad Debt		0.05881
PUC Tax Rate adjusted for Bad Debt		0.00500
REVENUE TAX RATE		0.08868
CALCULATIONS OF COMPOSITE INCOME TAX RATE:		
State Tax Rate		0.06015
Federal Tax Rate		0.35000
State Tax Rate		0.06015
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Tax		(0.02105)
COMPOSITE INCOME TAX RATE		0.38910

Maui Electric Company, Ltd.
June Update
Lanai Division
SUPPORT WORKSHEET
2007

CALCULATIONS OF COMPOSITE CAPITAL GAINS TAX RATE:		
State Capital Gains Tax Rate		0.03759
Federal Tax Rate		0.35000
State Capital Gains Tax Rate		0.03759
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Capital Gains Tax Rate		(0.01316)
COMPOSITE CAPITAL GAINS TAX RATE		0.37444
CALCULATIONS OF EFFECTIVE INCOME TAX RATE:		
PSC Tax & PUC Fees Rates adjusted for Bad Debt		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev and Bad Debt		0.02487
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00060
Revenue Tax and Bad Debt rate		0.08928
Rev Tax & Bad Debt Reciprocal (1 - 0.08928)		0.91072
Composite Income Tax Rate	x	0.38910
EFFECTIVE INCOME TAX RATE AFTER CONSIDERING REVENUE TAX & BAD DEBT		0.35436
CALCULATIONS OF OPERATING INCOME DIVISOR:		
PSC Tax & PUC Fees Rates		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev		0.02487
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00060
Effective Income Tax Rate after considering revenue tax & bad debt		0.35436
		0.44364
OPERATING INCOME DIVISOR (1 - 0.44364)		0.55636

Maui Electric Company, Ltd.
June Update
Molokai Division
Results of Operations
2007
($ Thousands)

	Present Rates	Additional Amount	Revenue Requirements to Produce 8.98% Return on Average Rate Base
Electric Sales Revenue	12,631	1,327	13,958
Other Operating Revenue	107	15	122
TOTAL OPERATING REVENUES	12,738	1,342	14,080
Fuel	7,253		7,253
Purchased Power	0		0
Production	1,178		1,178
Transmission	33		33
Distribution	454		454
Customer Accounts	169		169
Allowance for Uncoll. Accounts	8	1	9
Customer Service	2		2
Administration & General	676		676
Operation and Maintenance	9,773	1	9,774
Depreciation & Amortization	1,123		1,123
Amortization of State ITC	(23)		(23)
Taxes Other Than Income	1,198	119	1,317
Interest on Customer Deposits	11		11
Income Taxes	67	476	543
TOTAL OPERATING EXPENSES	12,149	596	12,745
OPERATING INCOME	589	746	1,335
AVERAGE RATE BASE	14,890	(15)	14,875
RATE OF RETURN ON AVERAGE RATE BASE	3.96%		8.98%

Maui Electric Company, Ltd.
June Update
Molokai Division
COMPOSITE EMBEDDED COST OF CAPITAL
Estimated 2007 Average

	A	B	C	D
	Capitalization			
	Amount in Thousands	Percent of Total	Earnings Reqmts	Weighted Earnings Reqmts (B) x (C)
Short-Term Debt	4,750	1.27	5.00%	0.063%
Long-Term Debt	150,585	40.15	6.11%	2.451%
Hybrid Securities	9,192	2.45	7.47%	0.183%
Preferred Stock	4,693	1.25	8.34%	0.104%
Common Equity	205,882	54.89	11.25%	6.175%
Total	375,102	100.00		
Estimated Composite Cost of Capital				8.976%
			or	8.98%

Maui Electric Company, Ltd.
June Update
Molokai Division
2007 AVERAGE RATE BASE
($ Thousands)

	Beginning Balance	End of Year Balance	Average Balance
Investments in Assets Serving Customers			
Net Cost of Plant in Service	18,703	17,542	18,123
Property Held for Future Use	0	0	0
Fuel Inventory	632	632	632
Materials & Supplies Inventories	178	178	178
Unamort. Net SFAS 109 Reg. Asset	451	437	444
Pension Asset	236	50	143
OPEB Amount	0	0	0
Unamort Sys Dev Costs	0	0	0
Total Investments in Assets	20,200	18,839	19,520
Funds From Non-Investors			
Unamortized CIAC	3,038	3,648	3,343
Customer Advances	160	92	126
Customer Deposits	162	191	177
Accumulated Def. Income Taxes	853	642	748
Unamortized ITC	497	539	518
Total Deductions	4,710	5,112	4,912
Difference			14,608
Working Cash at Present Rates			282
Rate Base at Present Rates			14,890
Change in Rate Base - Working Cash			(15)
Rate Base at Proposed Rates			14,875

Maui Electric Company, Ltd.
June Update
Molokai Division
WORKING CASH ITEMS
2007
($ Thousands)

	A COLLECTION LAG (DAYS)	B PAYMENT LAG (DAYS)	C NET COLLECTION LAG (DAYS) (A - B)	D ANNUAL AMOUNT
ITEMS REQUIRING WORKING CASH				
Fuel Oil Purchases	36	20	16	7,247
O&M Labor	36	12	24	916
Purchased Power	36	0	36	-
ITEMS THAT PROVIDE WORKING CASH				
O&M Nonlabor	36	35	1	1,661
Pension Asset Amortization	36	0	36	10
Revenue Taxes	36	68	(32)	1,128
Income Taxes-Present Rates	36	40	(4)	235
Income Taxes-Proposed Rates	36	40	(4)	711

	E AVERAGE DAILY AMOUNT (D/365)	F WORKING CASH (PRESENT RATES) (C X E)	G AVERAGE DAILY AMOUNT (PROPOSED)	H WORKING CASH (PROPOSED RATES) (C X G)
ITEMS REQUIRING WORKING CASH				
Fuel Oil Purchases	20	318	20	318
O&M Labor	3	60	3	60
Purchased Power	0	0	0	0
ITEMS THAT PROVIDE WORKING CASH				
O&M Nonlabor	5	5	5	5
Pension Asset Amortization	0	1	0	1
Revenue Taxes	3	(99)	3	(109)
Income Taxes-Present Rates	1	(3)		
Income Taxes-Proposed Rates	2	-	2	(8)
Total		282		267
Change in Working Cash				(15)

Maui Electric Company, Ltd.
June Update
Molokai Division
COMPUTATION OF INCOME TAX EXPENSE
2007
($ Thousands)

	Present Rates	Adjustment	At Proposed Rates
Operating Revenues	12,738	1,342	14,080
Operating Expenses:			
Fuel Oil and Purchased Power	7,253		7,253
Other Operation & Maintenance Expense	2,520	1	2,521
Depreciation	1,123		1,123
Amortization of State ITC	(23)		(23)
Taxes Other than Income	1,198	119	1,317
Interest on Customer Deposits	11		11
Total Operating Expenses	12,082	120	12,202
Operating Income Before Income Taxes	656	1,222	1,878
Tax Adjustments:			
Interest Expense	(439)		(439)
Meals and Entertainment	1		1
	(438)	0	(438)
Taxable Income at Ordinary Rates	218	1,222	1,440
Income Tax Exp at Ordinary Rates	85	475	560
Tax Benefit of Domestic Production Activities Deduction (DPAD)	18		18
TOTAL INCOME TAX EXPENSE	67	475	542

Maui Electric Company, Ltd.

Molokai Division
COMPUTATION OF TAXES OTHER THAN INCOME TAX
2007
($ Thousands)

	Rate	At Present Rates	Adjustment	At Proposed Rates
Electric Sales Revenue		12,631	1,327	13,958
Other Operating Revenue		107	15	122
Operating Revenues		12,738	1,342	14,080
Public Service Tax	5.885%	749	79	828
PUC Fees	0.500%	64	7	71
Franchise Tax	2.500%	316	33	349
Payroll Tax		69		69
TOTAL TAXES OTHER THAN INCOME TAX		1,198	119	1,317

Maui Electric Company, Ltd.
June Update
Molokai Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

OPERATING INCOME AT PRESENT RATES:		
Operating Revenues		12,738
Fuel and Purchased Power Expenses		7,253
Other O&M Expenses		2,520
Depreciation & Amortization Expense		1,123
Amortization of State ITC		(23)
Taxes Other than Income		1,198
Interest on Customer Deposits		11
Income Taxes		67
Total Operating Expenses		12,149
OPERATING INCOME AT PRESENT RATES		589
CALCULATIONS OF REVENUE REQUIREMENTS:		
OPERATING INCOME		
Rate Base at Proposed Rates		14,875
Proposed Rate of Return on Rate Base	x	8.98%
Operating Income		1,336
Less: Operating Income at Present Rates		589
INCREASE IN OPERATING INCOME		747
OPERATING REVENUES:		
Increase in Operating Income		747
Operating Income Divisor (divided by)		0.55647
INCREASE IN OPERATING REVENUES		1,342
Increase in Electric Sales Revenue		1,327
Other Operating Revenue Rate	x	1.130%
Increase in Other Operating Revenues		15
		1,342

Maui Electric Company, Ltd.
June Update
Molokai Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

BAD DEBT:		
Increase in Electric Revenues		1,327
Bad Debt Rate	x	0.0006
INCREASE IN BAD DEBT EXPENSE		1
REVENUE TAX:		
Increase in Operating Revenues		1,342
Less: Increase in Bad Debt Expense		(1)
		1,341
PSC Tax & PUC Fees Rate	x	6.385%
		86
Increase in Electric Revenues		1,327
Less: Increase in Bad Debt Expense		(1)
		1,326
Franchise Tax Rate	x	2.500%
		33
INCREASE IN REVENUE TAX		119
INCOME TAX:		
Increase in Operating Revenues		1,342
Effective Income Tax Rate after considering revenue tax & bad debt	x	35.443%
INCREASE IN INCOME TAX		476
INCREASE IN OPERATING INCOME (check)		746

Maui Electric Company, Ltd.
June Update
Molokai Division
CALCULATIONS OF REVENUE REQUIREMENTS
2007
($ Thousands)

CHANGE IN RATE BASE:

	A EXPENSE AMOUNT	B AVERAGE DAILY AMOUNT (A/365)	C NET COLLECTION LAG (DAYS)	D WORKING CASH REQMT (B)x(C)
Increase in Revenue Tax	119	0	(32)	(10)
Income Tax at present rates	235	1	(4)	3
Income Tax at proposed rate	711	2	(4)	(8)
CHANGE IN RATE BASE - WORKING CASH				(15)
Rate Base at Present Rates				14,890
PROPOSED RATE BASE				14,875
Operating Income at Present Rates				589
Increase in Operating Income				747
OPERATING INCOME AT PROPOSED RATES				1,336
PROPOSED RATE OF RETURN ON RATE BASE (check)				8.98%

Maui Electric Company, Ltd.
June Update
Molokai Division
SUPPORT WORKSHEET
2007

OPERATING REVENUES:	
Electric Sales Revenues	12,631
Other Operating Revenues	107
TOTAL OPERATING REVENUES	12,738
FUEL OIL AND PURCHASE POWER EXPENSES:	
Fuel Oil Expense	7,247
Fuel Related Non-labor Exp	6
Fuel Handling Labor Expense	0
Fuel Oil Expense	7,253
Purchased Power Expense	0
TOTAL FUEL OIL AND PURCHASE POWER EXPENSES	7,253
OTHER OPERATION & MAINTENANCE EXPENSES:	
Production	1,178
Transmission	33
Distribution	454
Customer Account	169
Allowance for Uncollectible Accounts	8
Customer Service	2
Administration & General	676
TOTAL OTHER OPERATION & MAINTENANCE EXPENSES	2,520

Maui Electric Company, Ltd.
June Update
Molokai Division
SUPPORT WORKSHEET
2007

TOTAL FUEL OIL & PP AND OTH O&M EXPENSES (LABOR/NONLABOR)		
Fuel Oil Expense		7,247
Purchase Power Expense		0
Total Labor Expense		
Labor Expense		916
Total Labor Expense		916
Total Nonlabor Expense		
Nonlabor Expense		1,604
Fuel Related Expense		6
Payroll Taxes		69
Bad Debt Expense		(8)
Pension Asset Amortization		(10)
		1,661
TOTAL FUEL OIL & PP, OTH O&M AND PR TAX EXPENSES		9,824
REVENUE TAX		
Public Service Tax		
Electric Sales Revenues		12,631
Other Operating Revenues		107
Less: Bad Debt Expense		(8)
Operating Revenues subject to PSC Tax		12,730
Public Service Tax Rate	x	5.885%
Total PSC Tax		749
PUC Fees		
Electric Sales Revenues		12,631
Other Operating Revenues		107
Less: Bad Debt Expense		(8)
Operating Revenues subject to PSC Tax		12,730
PUC Tax Rate	x	0.500%
Total PUC Tax		64

Maui Electric Company, Ltd.
June Update
Molokai Division
SUPPORT WORKSHEET
2007

Franchise Tax		
Electric Sales Revenues		12,631
Less: Bad Debt Expense		(8)
		12,623
Franchise Tax Rate	x	2.500%
Total Franchise Tax		316
TOTAL REVENUE TAX		1,128
INTEREST EXPENSE:		
Interest Charged to Operations		450
AFUDC Debt		(11)
TOTAL INTEREST EXPENSE		439
INCOME TAX EXPENSE SUMMARY		
Current		235
Deferred		(211)
State ITC		65
Pension Asset Amortization		(4)
TOTAL INCOME TAX EXPENSE		85
CALCULATIONS OF REVENUE TAX RATE:		
Franchise Tax Rate adjusted for Change in Oth Oper Revenues and Bad Debt		0.02470
PSC Tax Rate adjusted for Bad Debt		0.05881
PUC Tax Rate adjusted for Bad Debt		0.00500
REVENUE TAX RATE		0.08851
CALCULATIONS OF COMPOSITE INCOME TAX RATE:		
State Tax Rate		0.06015
Federal Tax Rate		0.35000
State Tax Rate		0.06015
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Tax		(0.02105)
COMPOSITE INCOME TAX RATE		0.38910

Maui Electric Company, Ltd.
June Update
Molokai Division
SUPPORT WORKSHEET
2007

CALCULATIONS OF COMPOSITE CAPITAL GAINS TAX RATE:		
State Capital Gains Tax Rate		0.03759
Federal Tax Rate		0.35000
State Capital Gains Tax Rate		0.03759
Federal Tax Rate	x	0.35000
Federal Tax Effect on State Capital Gains Tax Rate		(0.01316)
COMPOSITE CAPITAL GAINS TAX RATE		0.37444
CALCULATIONS OF EFFECTIVE INCOME TAX RATE:		
PSC Tax & PUC Fees Rates adjusted for Bad Debt		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev and Bad Debt		0.02470
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00059
Revenue Tax and Bad Debt rate		0.08911
Rev Tax & Bad Debt Reciprocal (1 - 0.08911)		0.91089
Composite Income Tax Rate	x	0.38910
EFFECTIVE INCOME TAX RATE AFTER CONSIDERING REVENUE TAX & BAD DEBT		0.35443
CALCULATIONS OF OPERATING INCOME DIVISOR:		
PSC Tax & PUC Fees Rates		0.06381
Franchise Tax adjusted for Change in Oth Oper Rev		0.02470
Bad Debt Rate adjusted for Change in Oth Oper Rev		0.00059
Effective Income Tax Rate after considering revenue tax & bad debt		0.35443
		0.44353
OPERATING INCOME DIVISOR (1 - 0.44353)		0.55647

CA-IR-305

Ref: HECO Response to CA-IR-320 in Docket No. 2006-0386, Confidential Attachments 1, 2 and 3 (Test Year versus Operating Budget and Variances).

Please provide the following information:

a. A MECO equivalent to the response to CA-IR-320, Attachment 1 that was provided by HECO in Docket No. 2006-0386 to reconcile differences between the Company's rate case versus internal O&M budget for 2007.

b. A MECO equivalent to response to CA-IR-320, Attachment 2 that was provided by HECO in Docket No. 2006-0386 to summarize year-to-date actual versus budget variances relative to the internal O&M budget for 2007 (Provide latest available year to date report for MECO).

c. A MECO equivalent to the response to CA-IR-320, Attachment 3 that was provided by HECO in Docket No. 2006-0386 to explain year-to-date actual versus budget variances (Provide latest available year to date report for MECO).

MECO Response:

MECO understands this information request to be asking MECO to provide information equivalent to the information provided in Attachments 1 through 3 in HECO's response to CA-IR-320 (in Docket No. 2006-0386). MECO objects to providing the requested information for the reasons discussed in HECO's response to CA-IR-320 (in Docket No. 2006-0386). Without waiving its objections, MECO provides the following information in response to this Consumer Advocate request.

a. As explained in MECO's response to CA-IR-32, the Operating Budget for 2007 presented by MECO management to HECO's officers was based on Pillar files finalized in July 2006. The 2007 Operating Budget that was filed with the Commission for rate case purposes was based on the 2007 Operating Budget presented by MECO management to HECO's officers, but included adjustments intended to provide the most updated estimates then available for rate

case purposes. The adjustments resulted in a 2007 O&M Expense Budget filed with the Commission for rate case purposes that was $789,000 lower than the O&M Expense Budget portion of the 2007 Operating Budget presented by MECO management to HECO's officers.

MECO is providing, under Protective Order No. 23379 issued April 23, 2007, Attachment 1, which shows the differences, by NARUC O&M blocks of accounts, between the rate case 2007 test year O&M Expense estimate and the 2007 Operating Budget being used by the Company for internal cost management purposes.

b. MECO is providing, under Protective Order No. 23379 issued April 23, 2007, Attachment 2, which presents year-to-date August 2007 O&M variance explanations. The report provided in Attachment 2 is prepared as part of the internal O&M expense management process and is the most recently prepared explanation of year-to-date O&M expense variances.

c. MECO is providing, under Protective Order No. 23379 issued April 23, 2007, Attachment 3, which presents year-to-date August 2007 O&M variance explanations. The report provided in Attachment 3 is prepared as part of the internal O&M expense management process and is the most recently prepared explanation of year-to-date O&M expense variances.

Confidential Information
Deleted Pursuant To
Protective Order No. 23379

CA-IR-305
DOCKET NO. 2006-0387
ATTACHMENTS 1-3

Attachments 1-3 contain confidential information and are being provided subject to

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

CA-IR-306

Ref: Maui Electric Limited Advisory Board (Meeting Minutes).

Please provide the following information:

a. Copies of all minutes associated with meetings of the MECO Limited Advisory Board during 2006 and 2007, to-date.

b. Copies of presentations, reports and other documents prepared for use of the MECO Limited Advisory Board in connection with its meetings held during 2006 and 2007, to-date.

MECO Response:

a. MECO objects to providing confidential "minutes associated with meetings of the MECO Limited Advisory Board during 2006 and 2007, to-date" and "presentations, reports and other documents prepared for use of the MECO Limited Advisory Board in connection with its meetings held during 2006 and 2007". The minutes of MECO's board and "presentations, reports and other documents prepared for use of the MECO Limited Advisory Board" are solely intended to be tools to communicate information internally. Were these documents subject to review by the Consumer Advocate in a regulatory proceeding, their candid nature and, therefore, their value could diminish significantly in the future, and MECO's internal communications process could be seriously hampered. This information request fails to balance the Consumer Advocate's need for this information against MECO's need to manage. MECO objects to disclosure of such minutes and "presentations, reports and other documents" even under a protective order. The value of such documents will be diminished if MECO is required to provide such documents to the Consumer Advocate, even if such documents are provided pursuant to a protective order.

b. Please see part a. above.

CA-IR-307

Ref: MECO Requests for Conservation of Electricity.

Please provide the following:

a. State and describe whether MECO has issued public statements seeking conservation of energy by the public as a result of resource constraints at any times in 2006 or 2007, to-date.

b. Provide the dates and circumstances associated with any affirmative answer provided to part (a) of this information request.

c. To the extent possible, provide an estimate of the energy sales that did not occur as a result of public response to MECO requests for conservation of energy.

MECO Response:

a. Yes. MECO has issued public statements seeking energy conservation due to the circumstances specified in the table below.

b. Please refer to the table below.

c. Please refer to the table below.

MECO PUBLIC REQUESTS for ENERGY CONSERVATION (2006-2007 YTD)			
Date	Circumstances	Approx. Duration of Conservation Period (HRs)	Approx. Energy Saved (MWHRs)
4/3/06	M14 engine change-out due to #3 bearing failure	2	10
8/28/06	M10 and M11 tripped off line because of crankcase mist detection.	2	10
6/11/07	M17 fuel manifold leak with M11 out on exhaust manifold repairs.	2 ¼	11.25
7/3/07	M19 fuel manifold leak.	1 ¼	6.25
8/24/07	K1, M3, M12 in overhaul. M14 change-out engine due to damaged compressor.	4	20

CA-IR-308

Ref: MECO Bank Fees.

Please provide the following:

a. Provide an itemization of test year bank transaction fees that are included in the Company's filing, with references into the Exhibits, Workpapers and CA-IR-2 response documents where such amounts are documented.

b. Provide comparable actual monthly bank fees paid by MECO to-date in 2007 and explain any significant differences between projected versus actual bank fees paid.

MECO Response:

a. The Company's test year 2007 estimate includes bank fees in two different accounts:

(i) $2,000 included in Account No. 923.03, Outside Services – Associated Companies; and

(ii) $5,455 included in Account No. 903, Customer Records and Collections.

The $2,000 estimate included in Account No. 923.03 represents reimbursements to Hawaiian Electric Company, Inc. for bank fees forecast to be paid to Bank of America. The 2007 test year estimate was based on the 2005 actual bank fees of $1,452, which MECO incurred and paid to Bank of America. The total test year estimate for Account No. 923.03 is shown in MECO-911. Supporting documentation for this specific item was included in the MECO T-9 response to CA-IR-2, Attachment A, page 3, line 82, and Attachment G.

The $5,455 estimate included in Account No. 903 represents the cost of fees to be paid to the Bank of Hawaii and First Hawaiian Bank. The test year estimate was based on 2005 actual fees paid, which totaled $5,322. Supporting documentation for the test year estimate was included in the MECO T-7 response to CA-IR-2, Attachment B, page 26.

b. Please see Attachment 1 for actual monthly bank fees paid to-date in 2007.

The actual bank fees shown in Attachment 1 are the fees resulting from the "account

analysis" performed by the bank. An account analysis allows a bank's customer with multiple accounts (e.g., the collective accounts of HECO, HELCO, and MECO) to offset its bank service fees with credits earned for having available deposit balances or investable balances. It should be noted that the account analysis for MECO's accounts usually result in deficits, whereby the fees exceed the earnings credits. However, the excess credits from the other accounts included in the account analysis were used to offset MECO's fees, thus there were some months in which MECO did not incur fees in 2007.

No significant differences were identified between actual bank fees paid and the estimates included in the test year.

MAUI ELECTRIC COMPANY, LTD.
BANK FEES
MONTHLY RECORDED DATA FOR JANUARY THROUGH AUGUST 2007 ($)

	Account No. 903	Account No. 923.03
January	335	-
February	324	238
March	444	-
April	1,085	-
May	286	-
June	379	-
July	410	265
August	677	-
	3,940	503

CA-IR-309

Ref: Response to CA-IR-47 (Forecast Accuracy).

Please provide the following:

a. Update the narrative general trend discussion explaining actual versus forecast sales and customer levels for 2007, year-to-date.

b. Update the information provided in Attachments 1 and 2 for KWH sales and customer data through August 2007.

c. Explain any updates or revisions that are believed to be appropriate for the test year sales and revenue forecasts.

d. Provide calculations supporting revenue adjustments associated with your response to part (c) of this information request.

MECO Response:

a. See Attachment 1.

b. See Attachments 2 and 3.

c. MECO is not recommending any updates or revisions be made to its test year sales, customer forecast or revenue forecast related to the test year sales and customer forecast.

d. Not applicable.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

CA-IR-309
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.

MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
FORECASTED AND ACTUAL RECORDED SALES FOR 2007
August YEAR TO DATE

(MWH)

RATE	2007 FORECASTED 8/07	2007 ACTUAL 8/07	MWH 2007 VARIANCE	% 2007 VARIANCE
Maui Division				
R	285,775	285,629	-146	-0.1%
G/J	240,912	243,603	2,691	1.1%
H	13,939	13,931	-8	-0.1%
P	260,434	263,441	3,007	1.2%
F	3,568	3,474	-94	-2.6%
TOTAL	804,627	810,078	5,451	0.7%
Lanai Division				
R	5,459	5,627	168	3.1%
G/J	5,366	5,762	395	7.4%
H	361	380	20	5.4%
P	8,510	8,521	11	0.1%
F	77	84	7	9.4%
TOTAL	19,773	20,374	601	3.0%
Molokai Division				
R	8,671	8,437	-233	-2.7%
G/J	7,932	7,918	-13	-0.2%
H	1,319	1,270	-49	-3.7%
P	5,914	5,852	-62	-1.0%
F	319	321	2	0.6%
TOTAL	24,154	23,798	-355	-1.5%
MECO Consolidated				
R	299,904	299,694	-210	-0.1%
G/J	254,209	257,283	3,074	1.2%
H	15,618	15,581	-37	-0.2%
P	274,858	277,813	2,956	1.1%
F	3,964	3,879	-85	-2.1%
TOTAL	848,553	854,250	5,697	0.7%

*Uses July 2006 Sales Forecast

MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
FORECASTED AND ACTUAL RECORDED SALES FOR 2007
MONTH OF August

(MWH)

RATE	2007 FORECASTED 8/07	2007 ACTUAL 8/07	MWH 2007 VARIANCE	% 2007 VARIANCE
Maui Division				
R	38,984	38,732	-253	-0.6%
G/J	32,826	33,702	876	2.7%
H	2,013	1,963	-50	-2.5%
P	35,603	35,194	-409	-1.1%
F	442	419	-23	-5.1%
TOTAL	109,868	110,010	142	0.1%
Lanai Division				
R	691	703	13	1.8%
G/J	756	787	31	4.1%
H	49	49	0	0.4%
P	1,170	1,169	-1	-0.1%
F	10	10	0	0.4%
TOTAL	2,676	2,719	43	1.6%
Molokai Division				
R	1,130	1,124	-6	-0.5%
G/J	1,073	1,056	-17	-1.6%
H	190	173	-17	-9.1%
P	865	800	-65	-7.5%
F	40	39	-2	-3.9%
TOTAL	3,299	3,191	-107	-3.3%
MECO Consolidated				
R	40,805	40,559	-246	-0.6%
G/J	34,655	35,545	890	2.6%
H	2,252	2,185	-67	-3.0%
P	37,638	37,163	-475	-1.3%
F	492	468	-24	-4.9%
TOTAL	115,842	115,920	77	0.1%

*Uses July 2006 Sales Forecast

MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
FORECASTED AND ACTUAL CUSTOMER COUNT FOR 2007
AUGUST YEAR TO DATE

(AVERAGE CUSTOMER COUNT)

RATE	2007 FORECASTED 8/07	2007 ACTUAL 8/07	2007 VARIANCE	% 2007 VARIANCE
Maui Division				
R	51,215	51,363	148	0.3%
G/J	8,733	8,835	102	1.2%
H	233	218	-15	-6.3%
P	121	123	3	2.2%
F	168	175	7	3.9%
TOTAL	60,470	60,714	244	0.4%
Lanai Division				
R	1,370	1,376	6	0.4%
G/J	224	257	33	14.9%
H	4	4	0	0.0%
P	3	3	0	0.0%
F	3	4	1	33.3%
TOTAL	1,604	1,644	40	2.5%
Molokai Division				
R	2,541	2,550	10	0.4%
G/J	539	519	-20	-3.7%
H	32	32	0	-0.4%
P	14	14	0	0.0%
F	9	8	-1	-11.1%
TOTAL	3,135	3,123	-12	-0.4%
MECO Consolidated				
R	55,126	55,289	163	0.3%
G/J	9,496	9,611	116	1.2%
H	269	254	-15	-5.5%
P	138	140	3	1.9%
F	180	187	7	3.6%
TOTAL	65,208	65,481	273	0.4%

*Uses July 2006 Sales Forecast

MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
FORECASTED AND ACTUAL CUSTOMER COUNT FOR 2007
MONTH OF AUGUST

(AVERAGE CUSTOMER COUNT)

RATE	2007 FORECASTED 8/07	2007 ACTUAL 8/07	2007 VARIANCE	% 2007 VARIANCE
Maui Division				
R	51,439	51,770	331	0.6%
G/J	8,791	8,872	81	0.9%
H	231	218	-13	-5.6%
P	121	124	3	2.5%
F	170	176	6	3.5%
TOTAL	60,752	61,160	408	0.7%
Lanai Division				
R	1,370	1,373	3	0.2%
G/J	225	315	90	40.0%
H	4	4	0	0.0%
P	3	3	0	0.0%
F	3	4	1	33.3%
TOTAL	1,605	1,699	94	5.9%
Molokai Division				
R	2,554	2,569	15	0.6%
G/J	537	514	-23	-4.3%
H	32	31	-1	-3.1%
P	14	14	0	0.0%
F	9	8	-1	-11.1%
TOTAL	3,146	3,136	-10	-0.3%
MECO Consolidated				
R	55,363	55,712	349	0.6%
G/J	9,553	9,701	148	1.5%
H	267	253	-14	-5.2%
P	138	141	3	2.2%
F	182	188	6	3.3%
TOTAL	65,503	65,995	492	0.8%

*Uses July 2006 Sales Forecast

CA-IR-309

Ref: Response to CA-IR-47 (Forecast Accuracy).

Please provide the following:

a. Update the narrative general trend discussion explaining actual versus forecast sales and customer levels for 2007, year-to-date.

b. Update the information provided in Attachments 1 and 2 for KWH sales and customer data through August 2007.

c. Explain any updates or revisions that are believed to be appropriate for the test year sales and revenue forecasts.

d. Provide calculations supporting revenue adjustments associated with your response to part (c) of this information request.

MECO Response:

Year-to-date August 2007 data are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information on, or before, September 21.

CA-IR-310

Ref: MECO Response to CA-IR-42 (Updated Sales Forecast).

Please provide the following:

a. Complete copies of detailed updated forecast documentation resulting from the annual forecasting process that was expected to be completed "In July."

b. Updated Attachments 1, 2, 3 and 4 for the latest available periods in 2007.

MECO Response:

a. Requested information was provided in the response to CA-IR-200.

b. See attached tables.

MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
FORECASTED AND ACTUAL RECORDED SALES FOR 2007
August YEAR TO DATE

(MWH)

RATE	2007 FORECASTED 8/07	2007 ACTUAL 8/07	MWH 2007 VARIANCE	% 2007 VARIANCE
Maui Division				
R	285,775	285,629	-146	-0.1%
G/J	240,912	243,603	2,691	1.1%
H	13,939	13,931	-8	-0.1%
P	260,434	263,441	3,007	1.2%
F	3,568	3,474	-94	-2.6%
TOTAL	804,627	810,078	5,451	0.7%
Lanai Division				
R	5,459	5,627	168	3.1%
G/J	5,366	5,762	395	7.4%
H	361	380	20	5.4%
P	8,510	8,521	11	0.1%
F	77	84	7	9.4%
TOTAL	19,773	20,374	601	3.0%
Molokai Division				
R	8,671	8,437	-233	-2.7%
G/J	7,932	7,918	-13	-0.2%
H	1,319	1,270	-49	-3.7%
P	5,914	5,852	-62	-1.0%
F	319	321	2	0.6%
TOTAL	24,154	23,798	-355	-1.5%
MECO Consolidated				
R	299,904	299,694	-210	-0.1%
G/J	254,209	257,283	3,074	1.2%
H	15,618	15,581	-37	-0.2%
P	274,858	277,813	2,956	1.1%
F	3,964	3,879	-85	-2.1%
TOTAL	848,553	854,250	5,697	0.7%

*Uses July 2006 Sales Forecast

MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
FORECASTED AND ACTUAL RECORDED SALES FOR 2007
MONTH OF August

(MWH)

RATE	2007 FORECASTED 8/07	2007 ACTUAL 8/07	MWH 2007 VARIANCE	% 2007 VARIANCE
Maui Division				
R	38,984	38,732	-253	-0.6%
G/J	32,826	33,702	876	2.7%
H	2,013	1,963	-50	-2.5%
P	35,603	35,194	-409	-1.1%
F	442	419	-23	-5.1%
TOTAL	109,868	110,010	142	0.1%
Lanai Division				
R	691	703	13	1.8%
G/J	756	787	31	4.1%
H	49	49	0	0.4%
P	1,170	1,169	-1	-0.1%
F	10	10	0	0.4%
TOTAL	2,676	2,719	43	1.6%
Molokai Division				
R	1,130	1,124	-6	-0.5%
G/J	1,073	1,056	-17	-1.6%
H	190	173	-17	-9.1%
P	865	800	-65	-7.5%
F	40	39	-2	-3.9%
TOTAL	3,299	3,191	-107	-3.3%
MECO Consolidated				
R	40,805	40,559	-246	-0.6%
G/J	34,655	35,545	890	2.6%
H	2,252	2,185	-67	-3.0%
P	37,638	37,163	-475	-1.3%
F	492	468	-24	-4.9%
TOTAL	115,842	115,920	77	0.1%

*Uses July 2006 Sales Forecast

MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
2006 AND 2007 YEAR-TO-DATE RECORDED SALES
August YEAR TO DATE

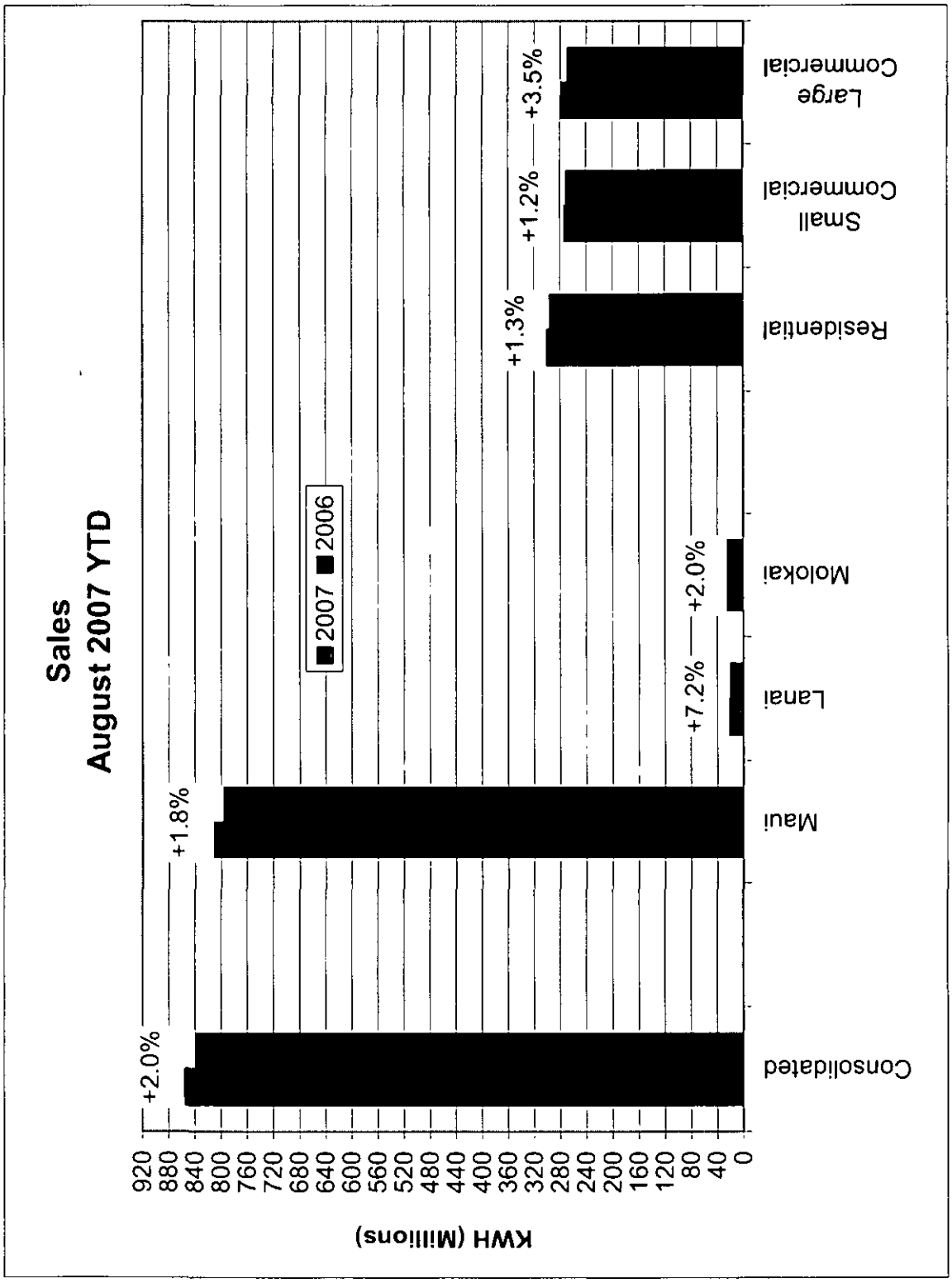
(MWH)

RATE	2006 RECORDED 8/06	2007 RECORDED 8/07	MWH 2007 CHANGE	% 2007 CHANGE
Maui Division				
R	281,909	285,629	3,720	1.3%
G/J	240,647	243,603	2,956	1.2%
H	14,200	13,931	-270	-1.9%
P	255,095	263,441	8,345	3.3%
F	3,542	3,474	-68	-1.9%
TOTAL	795,394	810,078	14,683	1.8%
Lanai Division				
R	5,360	5,627	268	5.0%
G/J	5,381	5,762	381	7.1%
H	364	380	17	4.7%
P	7,823	8,521	698	8.9%
F	78	84	5	6.9%
TOTAL	19,005	20,374	1,369	7.2%
Molokai Division				
R	8,488	8,437	-51	-0.6%
G/J	7,741	7,918	178	2.3%
H	1,238	1,270	31	2.5%
P	5,550	5,852	302	5.4%
F	322	321	-1	-0.4%
TOTAL	23,339	23,798	459	2.0%
MECO Consolidated				
R	295,757	299,694	3,937	1.3%
G/J	253,768	257,283	3,515	1.4%
H	15,802	15,581	-221	-1.4%
P	268,468	277,813	9,345	3.5%
F	3,943	3,879	-64	-1.6%
TOTAL	837,739	854,250	16,511	2.0%

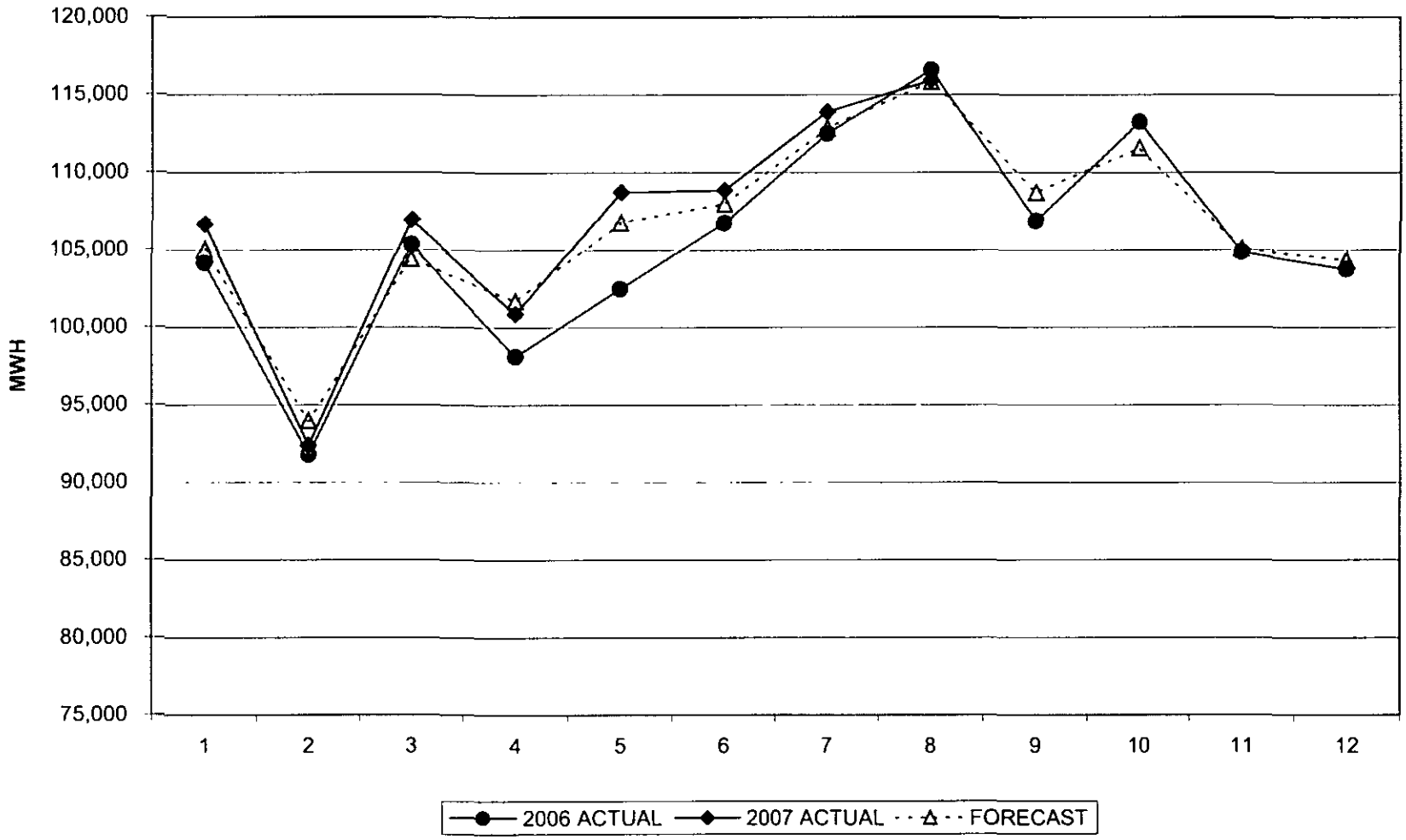
MAUI ELECTRIC COMPANY, LIMITED
COMPARISON OF
2006 AND 2007 RECORDED SALES
MONTH OF August

(MWH)

RATE	2006 RECORDED 8/06	2007 RECORDED 8/07	MWH 2007 CHANGE	% 2007 CHANGE
Maui Division				
R	39,037	38,732	-305	-0.8%
G/J	33,710	33,702	-8	0.0%
H	2,071	1,963	-108	-5.2%
P	35,555	35,194	-362	-1.0%
F	421	419	-2	-0.5%
TOTAL	110,795	110,010	-785	-0.7%
Lanai Division				
R	753	703	-50	-6.6%
G/J	797	787	-11	-1.4%
H	53	49	-3	-6.3%
P	1,019	1,169	151	14.8%
F	12	10	-2	-15.2%
TOTAL	2,634	2,719	85	3.2%
Molokai Division				
R	1,099	1,124	25	2.3%
G/J	1,067	1,056	-11	-1.0%
H	180	173	-8	-4.3%
P	777	800	23	3.0%
F	40	39	-1	-3.6%
TOTAL	3,163	3,191	29	0.9%
MECO Consolidated				
R	40,889	40,559	-330	-0.8%
G/J	35,574	35,545	-30	-0.1%
H	2,304	2,185	-119	-5.2%
P	37,351	37,163	-188	-0.5%
F	473	468	-5	-1.1%
TOTAL	116,591	115,920	-672	-0.6%


Sales
August 2007 YTD
2007
2006
KWH (Millions)
920
880
840
800
760
720
680
640
600
560
520
480
440
400
360
320
280
240
200
160
120
80
40
0
+2.0%
+1.8%
+7.2%
+2.0%
+1.3%
+1.2%
+3.5%
Consolidated
Maui
Lanai
Molokai
Residential
Small Commercial
Large Commercial

MECO CONSOLIDATED MWH SALES
COMPARISON OF ACTUALS TO FORECAST



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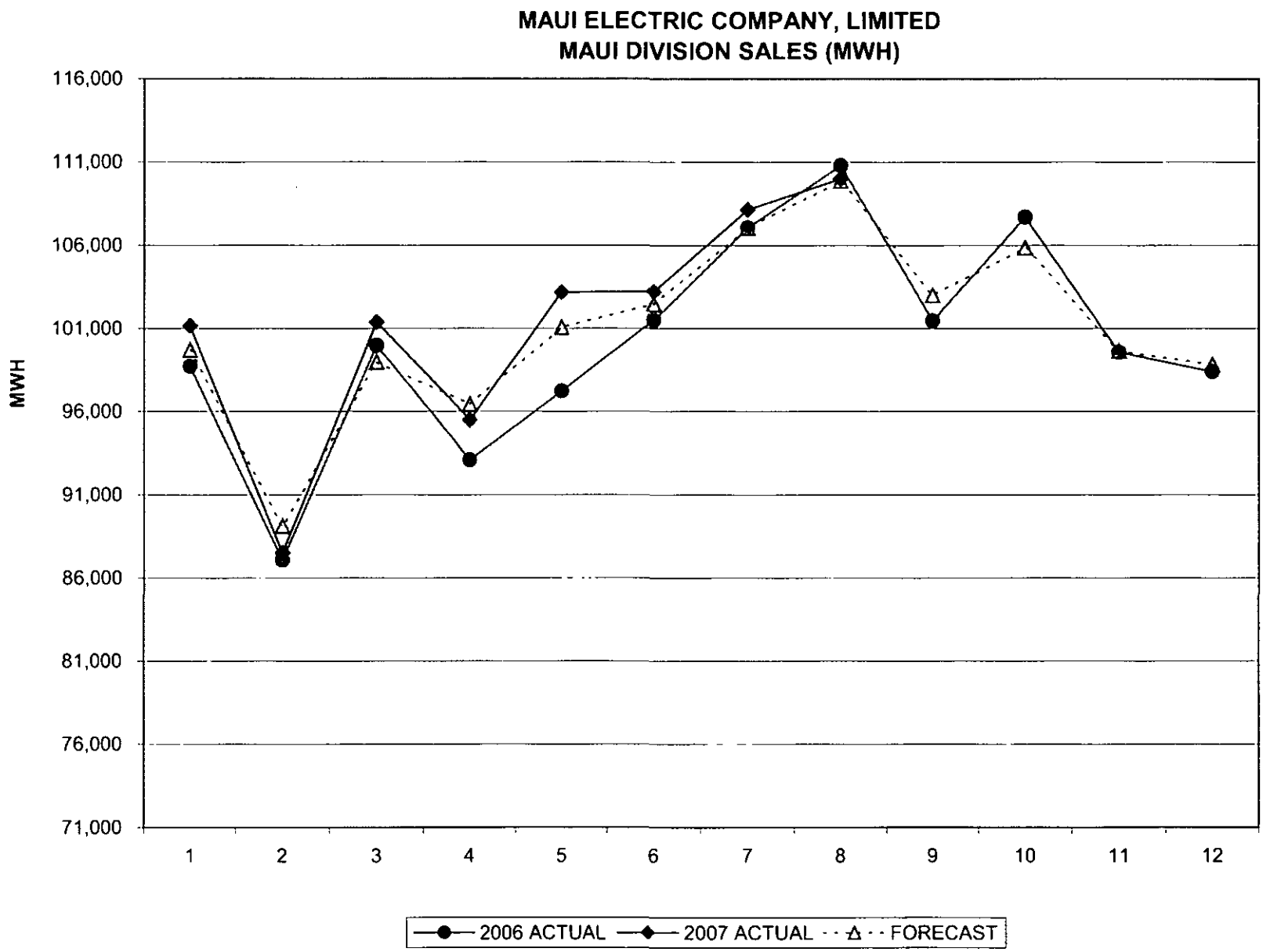
CONSOLIDATED SALES 9/16/2007



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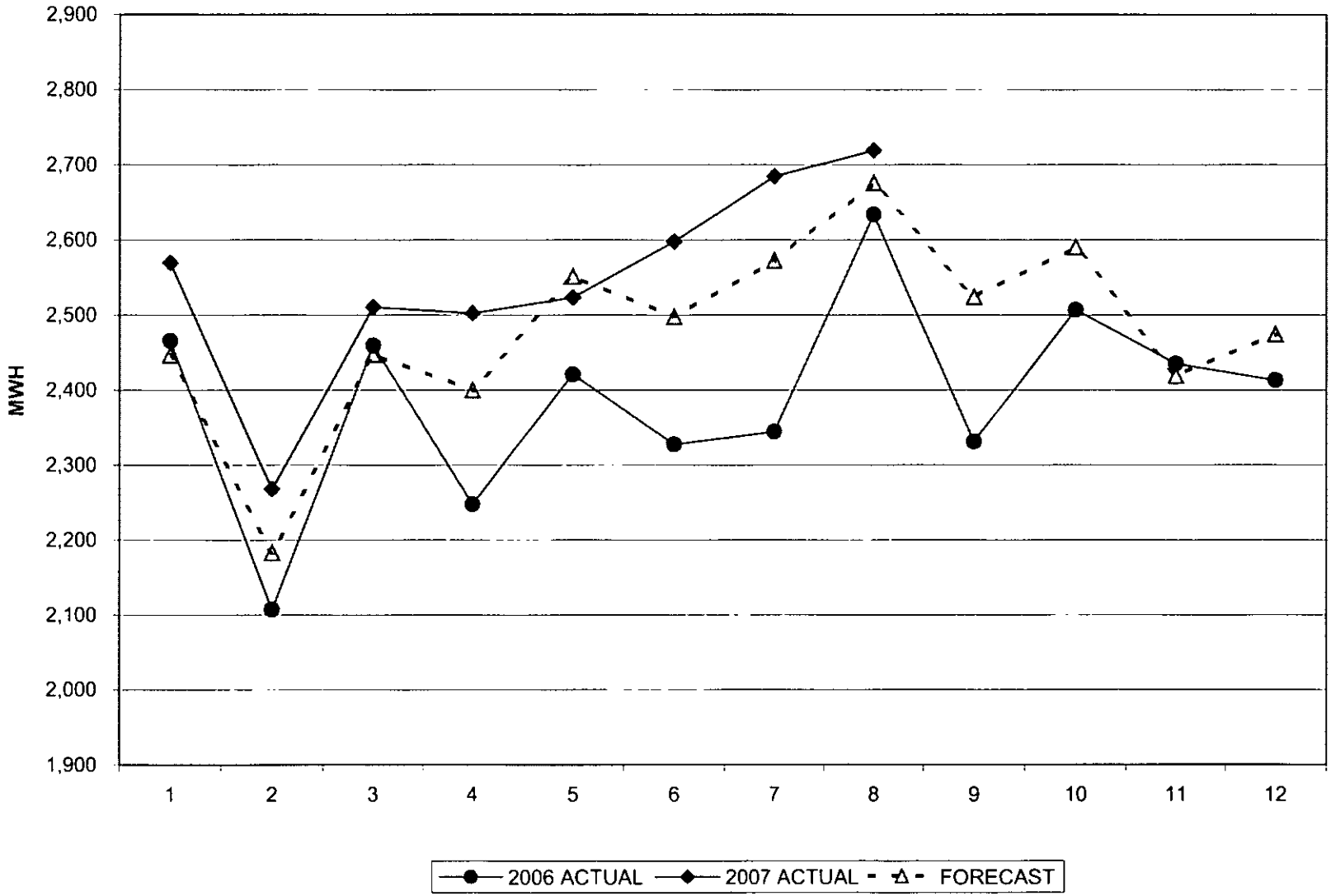
MAUI SALES 9/16/2007

LANAI DIVISION MWH SALES



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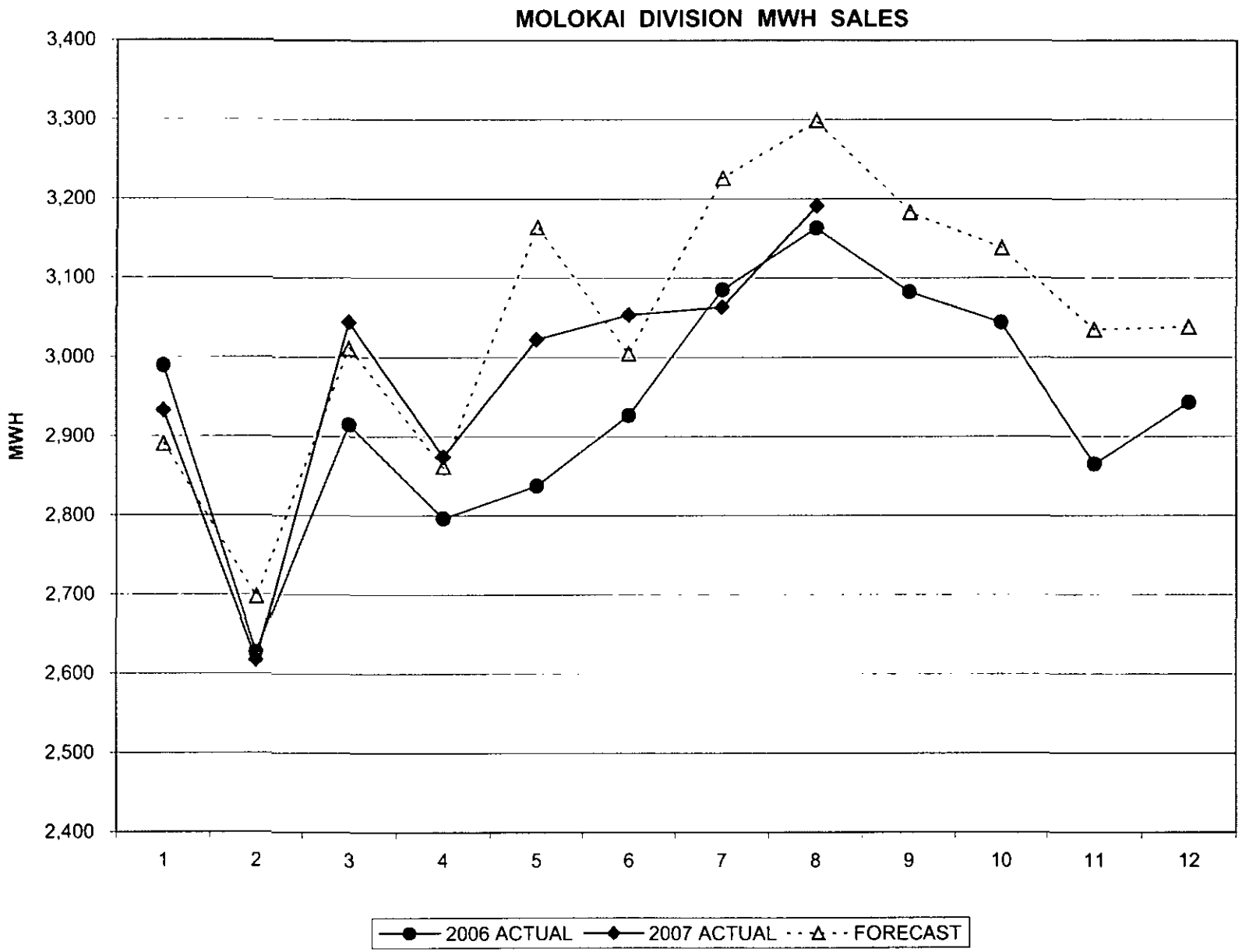
LANAI SALES 9/16/2007



\\CustSrv3\\Monthly Report\YTD\2006\CA-IR-310_Attachment 2_2007 recorded sales graphs.xls
MOLOKAI SALES 9/16/2007

Maui Electric Company, Ltd.
MWH SALES

Consolidated

	2002 ACTUAL	2003 ACTUAL	2004 ACTUAL	2005 ACTUAL	2006 ACTUAL	2007 ACTUAL	July 2006 FORECAST
Jan	93,956	97,541	100,320	102,889	104,180	106,665	105,042
Feb	83,367	84,731	95,975	90,393	91,794	92,376	93,974
Mar	94,307	100,554	99,357	100,099	105,347	106,936	104,424
Apr	93,004	94,589	99,037	99,059	98,116	100,870	101,687
May	97,222	99,584	103,520	106,522	102,484	108,724	106,771
Jun	98,270	101,472	105,073	107,075	106,739	108,870	107,962
Jul	101,882	105,685	110,658	110,642	112,487	113,888	112,851
Aug	106,261	109,906	114,173	112,549	116,591	115,920	115,842
Sep	97,716	104,784	106,182	107,231	106,873		108,704
Oct	101,991	107,544	110,192	109,426	113,246		111,585
Nov	94,888	100,524	103,573	102,172	104,857		105,079
Dec	95,854	99,805	99,628	104,056	103,752		104,335
	1,158,717	1,206,719	1,247,689	1,252,112	1,266,467	854,251	1,278,257

Maui Division

	2002 ACTUAL	2003 ACTUAL	2004 ACTUAL	2005 ACTUAL	2006 ACTUAL	2007 ACTUAL	July 2006 FORECAST
Jan	88874	92291	95290	97804	98,725	101,163	99,705
Feb	78979	80177	91059	85696	87,060	87,492	89,094
Mar	89203	95143	94261	94954	99,973	101,382	98,966
Apr	88118	89486	93943	93922	93,073	95,493	96,425
May	91869	94051	98228	100976	97,226	103,179	101,056
Jun	93083	96155	99881	101694	101,485	103,219	102,460
Jul	96612	100022	105225	105065	107,058	108,140	107,053
Aug	100441	104152	108500	106955	110,795	110,010	109,868
Sep	92376	99376	100754	101664	101,460		102,997
Oct	96731	101905	104721	103960	107,696		105,857
Nov	89771	95326	98398	96953	99,557		99,626
Dec	90684	94603	94283	98609	98,396		98,823
	1096739	1142689	1184544	1188253	1202503	810078	1,211,929

Lanai Division

	2002 ACTUAL	2003 ACTUAL	2004 ACTUAL	2005 ACTUAL	2006 ACTUAL	2007 ACTUAL	July 2006 FORECAST
Jan	2210	2402	2249	2259	2,466	2,569	2446
Feb	1900	1955	2150	2046	2,107	2,268	2183
Mar	2211	2396	2230	2214	2,459	2,510	2447
Apr	2154	2212	2321	2260	2,248	2,502	2400
May	2369	2442	2353	2405	2,421	2,523	2551
Jun	2264	2383	2320	2378	2,327	2,598	2498
Jul	2265	2498	2346	2423	2,344	2,685	2572
Aug	2569	2515	2520	2374	2,634	2,719	2676
Sep	2261	2360	2358	2448	2,331		2524
Oct	2346	2497	2397	2416	2,507		2590
Nov	2244	2233	2245	2255	2,435		2419
Dec	2244	2245	2312	2463	2,413		2474
	27036	28136	27802	27942	28691	20375	29,780

Molokai Division

	2002 ACTUAL	2003 ACTUAL	2004 ACTUAL	2005 ACTUAL	2006 ACTUAL	2007 ACTUAL	July 2006 FORECAST
Jan	2872	2848	2781	2826	2,989	2,932	2890
Feb	2488	2600	2765	2651	2,627	2,617	2698
Mar	2893	3015	2865	2931	2,915	3,044	3011
Apr	2732	2892	2774	2877	2,796	2,874	2862
May	2984	3091	2939	3141	2,837	3,022	3164
Jun	2924	2934	2872	3003	2,927	3,053	3005
Jul	3005	3165	3088	3154	3,085	3,063	3226
Aug	3251	3239	3153	3220	3,163	3,191	3299
Sep	3078	3048	3070	3118	3,082		3183
Oct	2914	3141	3073	3049	3,044		3138
Nov	2873	2964	2930	2964	2,865		3035
Dec	2927	2957	3033	2983	2,943		3039
	34942	35894	35344	35918	35273	23798	36,548

Confidential Information Deleted
Pursuant to Protective Order No. 23379

CA-IR-310
DOCKET NO. 2006-0387
ATTACHMENTS 3-4

Attachments 3 and 4 contain confidential information and will be provided pursuant to Protective Order No. 23379, dated April 23, 2007.

CA-IR-311

Ref: MECO-WP-302, 303, and 304 (Schedule E).

Please provide the following:

a. Calculations supporting the Schedule E revenue impacts at proposed rates for each Division.

b. Explain and provide the calculations showing how the Schedule E revenue impacts (part (a) of this information request) were allocated among rate schedules under proposed rates.

MECO Response:

a. The calculations supporting the Schedule E revenue impacts at proposed rates are provided in MECO-WP-302, page 7 for Maui Division, MECO-WP-303, page 7 for Lanai Division, and MECO-WP-304, page 7 for Molokai Division, and are also attached as pages 2-4 of this response. An electronic copy of these calculations is also provided.

b. Schedule E revenue impacts identified in part a. above were allocated among rate schedules at proposed rates based on their respective percentage share of test year Operations & Maintenance Labor Expense as shown in the cost of service study at MECO-WP-1802, pages 45, 134 and 223. This method of allocating Schedule E revenue impacts has been used in past and current HECO, HELCO, and MECO rate cases. A summary of the Schedule E allocations are attached as pages 5-7 of this response. An electronic copy of these allocations is also provided.

MAUI ELECTRIC COMPANY, LTD. - MAUI DIVISION
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUE ADJUSTMENT
FOR EMPLOYEE DISCOUNT ADJUSTMENT

EMPLOYEE DISCOUNT	UNITS BILLED (MWH)	PRESENT RATES UNIT PRICE $/KWH	PRESENT RATES REVENUES $1000s	PROPOSED RATES UNIT PRICE $/KWH	PROPOSED RATES REVENUES $1000s
ENERGY CHARGE					
0 - 350 kWh	130			28.3221	36.8
350 - 825 KWH					
First 350 kWh	884.0			28.3221	250.4
Remaining kWh	611.0			29.1367	178.0
350 - 825 KWH Total	1,495.0				428.4
Total	1,625.0	13.4231	218.1		465.2
FOA	1,625.0	13.9540	226.8	0.0000	0.0
SUBTOTAL			444.9		465.2
	BILLS				
CUSTOMER CHARGE	3,022	7.50	22.7	7.50	22.7
TOTAL			467.6		487.9
-1/3% EMP. ADJ.			(155.9)		(162.6)

EMPLOYEE DISCOUNT LIMITED to 825 KWH	UNITS BILLED (MWH)	PRESENT RATES UNIT PRICE $/KWH	PRESENT RATES REVENUES $1000s	PROPOSED RATES UNIT PRICE $/KWH	PROPOSED RATES REVENUES $1000s
ENERGY CHARGE					
825 - 1200 kWh					
First 350 kWh	429			28.3221	121.5
kWh above 350	582			29.1367	169.6
Over 825 kWh Total	1,011				291.1
Over 1200 kWh					
First 350 kWh	154			28.3221	43.6
kWh above 350	209			29.1367	60.9
Over 1200 kWh Total	363				104.5
Total	1,374	13.4231	184.4		395.6
FOA	1,374	13.9540	191.7	0.0000	0.0
SUBTOTAL			376.1		395.6
	BILLS				
CUSTOMER CHARGE	1665	7.50	12.5	7.50	12.5
TOTAL			388.6		408.1
-1/3% EMP. ADJ.			(129.5)		(136.0)
TOTAL EMPLOYEE ADJ:			(285.4)		(298.6)

MAUI ELECTRIC COMPANY, LTD. - LANAI DIVISION
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUE ADJUSTMENT
FOR EMPLOYEE DISCOUNT ADJUSTMENT

EMPLOYEE DISCOUNT	UNITS BILLED (MWH)	PRESENT RATES UNIT PRICE $/KWH	PRESENT RATES REVENUES $1000s	PROPOSED RATES UNIT PRICE $/KWH	PROPOSED RATES REVENUES $1000s
ENERGY CHARGE					
0 - 250 kWh	22.0			10.4932	2.3
250 - 750 kWh	31.4			10.9998	3.5
750 - 825 kWh	0.4			11.7853	0.0
Total	53.8				5.8
Total	53.8	18.0648	9.7		5.8
Base Fuel Energy	53.8		0.0	22.7573	12.2
FOA	53.8	13.9130	7.5	0.0000	0.0
SUBTOTAL			17.2		18.0
	BILLS				
CUSTOMER CHARGE	88	7.50	0.7	7.50	0.7
TOTAL			17.9		18.7
-1/3% EMP. ADJ.			(6.0)		(6.2)

EMPLOYEE DISCOUNT LIMITED to 825 KWH	UNITS BILLED (MWH)	PRESENT RATES UNIT PRICE $/KWH	PRESENT RATES REVENUES $1000s	PROPOSED RATES UNIT PRICE $/KWH	PROPOSED RATES REVENUES $1000s
ENERGY CHARGE					
Over 825					
First 250 kWh	11.0			10.4932	1.2
250 - 750 kWh	22.0			10.9998	2.4
kWh above 750	3.3			11.7853	0.4
Over 825 kWh Total	36.3				4.0
Total	36.3	18.0648	6.6		4.0
Base Fuel Energy	36.3		0.0	22.7573	8.3
FOA	36.3	13.9130	5.1	0.0000	0.0
SUBTOTAL			11.7		12.3
	BILLS				
CUSTOMER CHARGE	44	7.50	0.3	7.50	0.3
TOTAL			12.0		12.6
-1/3% EMP. ADJ.			(4.0)		(4.2)
TOTAL EMPLOYEE ADJ:			(10.0)		(10.4)

MAUI ELECTRIC COMPANY, LTD. - MOLOKAI DIVISION
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUE ADJUSTMENT
FOR EMPLOYEE DISCOUNT ADJUSTMENT

		PRESENT RATES		PROPOSED RATES	
EMPLOYEE DISCOUNT	UNITS BILLED (MWH)	UNIT PRICE $/KWH	REVENUES $1000s	UNIT PRICE $/KWH	REVENUES $1000s
ENERGY CHARGE					
<825 KWH					
0-250 KWH	3			12.5944	0.4
250-750 KWH	77			13.7500	10.6
750-825 KWH	16			14.0055	2.2
Total	96				13.2
Total	96	17.4383	16.7		13.2
Base Fuel Energy	96			21.7788	20.9
FOA	96	15.7740	15.1	0.0000	0.0
SUBTOTAL			31.8		34.1
	BILLS				
CUSTOMER CHARGE	196	7.50	1.5	7.50	1.5
TOTAL			33.3		35.6
-1/3% EMP. ADJ.			(11.1)		(11.9)

		PRESENT RATES		PROPOSED RATES	
EMPLOYEE DISCOUNT LIMITED to 825 KWH	UNITS BILLED (MWH)	UNIT PRICE $/KWH	REVENUES $1000s	UNIT PRICE $/KWH	REVENUES $1000s
ENERGY CHARGE					
Over 825					
0-250 KWH	24.3			12.5944	3.1
250-750 KWH	48.5			13.7500	6.7
More than 750 KWH	7.2			14.0055	1.0
Over 825 kWh Total	80.0				10.8
Total	80.0	17.4383	14.0		10.8
Base Fuel Energy	80.0			21.7788	17.4
FOA	80.0	15.7740	12.6	0.0000	0.0
SUBTOTAL			26.6		28.2
	BILLS				
CUSTOMER CHARGE	97	7.50	0.7	7.50	0.7
TOTAL			27.3		28.9
-1/3% EMP. ADJ.			(9.1)		(9.6)
TOTAL EMPLOYEE ADJ:			(20.2)		(21.5)

MAUI ELECTRIC COMPANY, LTD
MAUI DIVISION

sched E ($000) -298.60

Operations & Maintenance Labor Expense percents[2]

Sched R	Sched G	Sched J	Sched H	Sched P	Sched F	Total
48.2%	10.1%	17.1%	2.1%	21.2%	1.3%	100%

allocations ($000)

Sched R	Sched G	Sched J	Sched H	Sched P	Sched F	Total
-143.9	-30.2	-51.0	-6.3	-63.3	-3.9	-298.6

Source:

[1]See CA-IR-311, Docket No. 2006-0387, page 2.
[2]Operations & Maintenance Labor Expenses, MECO-WP-1802, Docket No. 2006-0387, page 45.

MAUI ELECTRIC COMPANY, LTD
LANAI DIVISION

sched E ($000) -10.40

Operations & Maintenance Labor Expense percents[2]

Sched R	Sched G	Sched J	Sched H	Sched P	Sched F	Total
41.4%	7.3%	19.4%	1.3%	29.6%	0.9%	100%

allocations ($000)

Sched R	Sched G	Sched J	Sched H	Sched P	Sched F	Total
-4.3	-0.8	-2.0	-0.1	-3.1	-0.1	-10.4

Source:

[1]See CA-IR-311, Docket No. 2006-0387, page 3.
[2]Operations & Maintenance Labor Expenses, MECO-WP-1802, Docket No. 2006-0387, page 134.

MAUI ELECTRIC COMPANY, LTD
MOLOKAI DIVISION

sched E ($000) -21.50

Operations & Maintenance Labor Expense percents[2]

Sched R	Sched G	Sched J	Sched H	Sched P	Sched F	Total
45.1%	13.8%	16.3%	4.7%	18.3%	1.8%	100%

allocations ($000)

Sched R	Sched G	Sched J	Sched H	Sched P	Sched F	Total
-9.7	-3.0	-3.5	-1.0	-4.0	-0.4	-21.6

Source:

[1]See CA-IR-311, Docket No. 2006-0387, page 4.

[1]Operations & Maintenance Labor Expenses, MECO-WP-1802, Docket No. 2006-0387, page 223.

CA-IR-312

Ref: MECO-305 (Firm Capacity Surcharge).

Please provide the following:

a. Describe which rate elements are included in the "Base Electric Revenues @ Present Rates" totaling $163,949.

b. Provide a calculation of the "Base Electric Revenues" showing the summation of rate elements by rate schedule for the test year.

MECO Response:

a. The "Base Electric Revenues @ Present Rates" include the Customer Charge, Demand Charge, Energy Charge, Minimum bill adjustment, Power Factor adjustment, Voltage discounts, Rider adjustments, Schedule E adjustment under Schedule R and the Apartment House Discount.

b. The calculations of the "Base Electric Revenues" by rate schedule for the test year are shown in MECO-1816, and are also presented in pages 2-8 of this response. An electronic copy of pages 2-8 of this response is also provided.

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION

Summary of Base Electric Revenues @ Present Rates[1]

Rate Schedule	Total Base Revenues
R	$61,938.50
G	$16,402.70
J	$37,634.90
H	$2,971.10
P	$44,325.60
F	$676.60
Total	$163,949.40

[1] See CA-IR 312, pages 3-8 for calculations.

MAUI ELECTRIC COMPANY, LTD. - MAUI DIVISION
SCHEDULE R - RESIDENTIAL SERVICE
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUES

		PRESENT RATES	
	UNITS BILLED (MWH)	UNIT PRICE $/KWH	REVENUES $1000s
ENERGY CHARGE:			
NON-FUEL ENERGY CHG.	430167	8.8294	37,981.2
BASE FUEL CHG.	430167	4.5937	19,760.6
SUBTOTAL			57,741.8
CUSTOMER CHARGE:	BILLS	$/MONTH	
1 Phase	616590	7.50	4,624.4
3 Phase	185	12.00	2.2
SUBTOTAL			4,626.6
ADJUSTMENTS:			
SCHEDULE E ADJ.			(285.4)
10% APT-HSE.			(204.2)
MINIMUM			59.7
SUBTOTAL			(429.9)
UNADJUSTED BASE REV.:			61,938.5

MAUI ELECTRIC COMPANY, LTD. - MAUI DIVISION
SCHEDULE G - GENERAL SERVICE NON-DEMAND
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUES

	BILLING UNITS (MWH)	PRESENT RATES UNIT PRICE ¢/KWH	PRESENT RATES REVENUES $1000S
ENERGY CHARGE:			
G: NON-DEMAND	96,192.9	14.5656	14,011.1
	BILLS	$/BILL	
CUSTOMER CHARGE:			
1 PHASE	55,404	21.00	1,163.5
3 PHASE	33,168	36.00	1,194.0
SUBTOTAL	88572		2,357.5
ADJUSTMENTS:			
PRIMARY SERVICE			0.0
SECONDARY SERVICE			0.0
MINIMUM BILL ADJ.			34.1
SUBTOTAL			34.1
UNADJUSTED BASE REV.			16,402.7

MAUI ELECTRIC COMPANY, LTD. - MAUI DIVISION
SCHEDULE J - GENERAL SERVICE DEMAND
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUES

	BILLING UNITS (MWH)	PRESENT RATES UNIT PRICE ¢/KWH	PRESENT RATES REVENUES $1000S
ENERGY CHARGE			
0 - 200 KWH/KW	163,741.2	12.4165	20330.9
201 - 400 KWH/KW	87,396.2	11.4024	9965.3
> 400 KWH/KW	17,055.5	8.4403	1,439.5
TOTAL	268,192.9		31,735.7
DEMAND CHARGE		$/KW	
ALL BILLING KW	916366	5.75	5,269.1
CUSTOMER CHARGE		$/BILL	
1 PHASE	1590	35.00	55.7
3 PHASE	15114	50.00	755.7
SUBTOTAL	16,704		811.4
ADJUSTMENTS		¢/KWH	
POWER FACTOR ADJUSTMENT			7.6
PRIMARY ADJUSTMENT (DP)			(9.1)
SECONDARY ADJUSTMENT (DS)			(1.4)
RIDER T ADJ			(176.3)
RIDER M ADJ			(2.1)
SUBTOTAL			(181.3)
UNADJUSTED BASE REVENUE			37,634.9

MAUI ELECTRIC COMPANY, LTD. - MAUI DIVISION
SCHEDULE H - COMMERCIAL COOKING, HEATING, AIR CONDITIONING, AND REFRIGERATION SERVICE
DOCKET NO. 2006-0387 TEST-YEAR 2007

SUMMARY OF TEST-YEAR REVENUE ESTIMATES

		PRESENT RATES	
	BILLING UNITS	UNIT PRICE	REVENUES $1000s
	MWH	$/KWH	
ENERGY CHARGE:	21075	11.9675	2,522.2
	KW	$/KW	
CAPACITY CHARGE:	74,581	4.50	335.6
	BILLS	$/BILL	
CUSTOMER CHARGE:			
1 PHASE	430	27.00	11.6
3 PHASE	2,366	43.00	101.7
SUBTOTAL	2796		113.3
UNADJ BASE REVENUES			2,971.1

MAUI ELECTRIC COMPANY, LTD. - MAUI DIVISION
SCHEDULE P - LARGE POWER SERVICE
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUES FOR TOTAL CLASS

		PRESENT RATES	
	BILLING UNITS	UNIT PRICE	REVENUES $1000S
ENERGY CHARGE:	(MWH)	¢/KWH	
0 - 200 KWH/KW	162,977	10.9997	17,927.0
201 - 400 KWH/KW	145,104	9.4576	13,723.4
> 400 KWH/KW	83,880	7.7456	6,497.0
SUBTOTAL	391961		38,147.4
DEMAND CHARGE:	(KW)	$/KW	
0 - 500 KW	535,091	8.50	4,548.3
> 500 KW	287,746	8.00	2,302.0
SUBTOTAL	822,837		6,850.3
CUSTOMER CHARGE:	BILLS	$/BILL	
	1452	225.00	326.7
ADJUSTMENTS:			
PF			(360.0)
TP			
DP			(312.9)
TS			(12.1)
DS			(49.4)
SUBTOTAL			(734.4)
RIDER T			-115.1
RIDER I			0
RIDER M			-149.3
SUBTOTAL			-264.4
UNADJUSTED BASE REV.			44,325.6

MAUI ELECTRIC COMPANY, LTD. - MAUI DIVISION
SCHEDULE F - PUBLIC STREET LIGHTING SERVICE
DOCKET NO. 2006-0387 TEST-YEAR 2007

ESTIMATE OF TEST-YEAR REVENUES

	BILLING UNITS (MWH)	PRESENT RATES UNIT PRICE CENTS/KWH	PRESENT RATES REVENUES $1000S
ENERGY CHARGE:			
0 - 150 KWH/KW	2,350.8	15.1733	356.7
> 150 KWH/KW	2,989.2	10.6753	319.1
SUBTOTAL	5,340.0		675.8
FUEL OIL ADJ.:	5,340.0	13.9540	0.0
TEMP RATE DECR.:	5,340.0	0	0.0
SUBTOTAL			0
UNADJUSTED REV.:			675.8
MINIMUM CHARGE ADJ.			0.8
UNADJUSTED BASE REV.:			676.6

CA-IR-313

Ref: MECO-T-4

a. Does the Company plan to update the MECO production simulation model during this proceeding?

b. If so, please describe the information that will be updated and provide a copy of the information and update in response to this information request.

MECO Response:

a. No, MECO does not plan to update the production simulation in this proceeding.

b. Not applicable.

CA-IR-314

Ref: MECO-1908, MECO-1909, MECO-1910, MECO-1911 and MECO-1912.

Please provide copies of the supporting documentation for the Loss Factor found on the following:

a. MECO-1908, page 2, line 30 and page 3, line 63;

b. MECO-1909, page 1, line 30;

c. MECO-1910, page 1, line 30 and page 2, line 49;

d. MECO-1911, page 1, line 30; and

e. MECO-1912, page 1, line 30 and page 2, line 49.

MECO Response:

a. For supporting documentation of Maui's loss factor 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-1906 page 10.

b. The requested documentation is provided on pages 2 and 3.

c. Refer to MECO-WP-1909 page 3.

d. The requested documentation is provided on pages 4 and 5.

e. Refer to MECO-WP-1909 page 3.

L99ECAFDrebuttal.XLS
6/12/98

Maui Electric Company, Ltd.
(Lanai Division)

ENERGY COST ADJUSTMENT FACTOR

Rebuttal Testimony
Proposed Rates

Line		
1	Effective Date Test Year 1999	
	Supersedes Factor of	
	OIL-FIRED GENERATION COMPONENT	
	OIL PRICES, ¢ / MMBTU	
2	Industrial	0.00
3	Diesel	773.27
	OIL BTU MIX, %	
4	Industrial	0.00%
5	Diesel	100.00%
6	COMPOSITE GENERATION COST, ¢ / MMBTU {Line (2 X 4) + Line (3 X 5)}	773.27
7	% INPUT TO SYSTEM KWH MIX	100.00%
8	EFFICIENCY FCTR, MMBTU / KWH	0.010678
9	WEIGHTED COMPOSITE GEN. COST, ¢ / KWH {Lines (6 X 7 X 8)}	8.25698
10	BASE GENERATION COST, ¢/MMBTU	773.27
11	BASE % INPUT TO SYSTEM KWH MIX	100.00%
12	EFFICIENCY FCTR, MMBTU/KWH	0.010678
13	WEIGHTED BASE GEN. COST ¢ / KWH {Lines (10 X 11 X 12)}	8.25698
14	Cost Less Base {Line 9-13}	0.00000
15	Multiplier to Include Rev. Tax Requirement	1.0975
16	GENERATION FACTOR, ¢ / KWH Lines (14 X 15)	0.00000

Line		
	PURCHASED POWER COMPONENT	
	PURCHASED POWER PRICES, ¢ / KWH AVOIDED COST	
17	- Off Peak	0.000
18	- On Peak	0.000
19	SCHEDULE Q	0.000
	PURCHASED POWER KWH MIX, % AVOIDED COST	
20	- Off Peak	0.00%
21	- On Peak	0.00%
22	SCHEDULE Q	0.00%
23	COMPOSITE COST OF PURCHASED POWER, ¢ / KWH	0.000
24	% INPUT TO SYSTEM KWH MIX	0.00%
25	WEIGHTED COMP. PURCH. ENERGY COST, ¢/KWH {Lines (23x24)}	0.00000
26	BASE PURCHASED POWER COMPOSITE COST, ¢/KWH	7.695
27	BASE % INPUT TO SYSTEM KWH MIX	0.00%
28	WEIGHTED COMP. PURCH. ENERGY COST, ¢/KWH {Lines (26x27)}	0.00000
29	COST LESS BASE {LINE (25-28)}	0.00000
30	Loss Factor	1.073 (1)
31	Multiplier to Include Rev. Tax Requirement	1.0975
32	PURCHASED ENERGY FCTR, ¢/KWH {Lines (29x30x31)}	0.00000

Line	SYSTEM COMPOSITE CALCULATIONS	
33	FUEL AND PURCHASED ENERGY FACTOR, ¢/KWH {Lines 16+32}	0.000
34	ADJUSTMENT, ¢/KWH	0.000
35	ECA RECONCILIATION ADJUSTMENT, ¢/KWH	0.000
36	ENERGY COST ADJUSTMENT FACTOR, ¢/KWH	0.000

(1) Net-To-System 28,334.2 mwh ÷ Test Year Sales 26,414.0 mwh = 1.073

L99FCST.xls sheet "grs gen"
8/17/98

Maui Electric Company, Ltd.
(Lanai Division)

1999 TEST YEAR GENERATION AND PURCHASED POWER

Rebuttal Testimony

Line		1999 Test Year (mwh)
1	Unadjusted Sales	26,414.0
2	- Future DSM Impact	0.0
3	Test Year Sales	26,414.0
4	+ No Charge (0.112% of sales)	29.5
5	Sales - DSM + No Charge	26,443.5
6	+ Losses (6.67%)	1,890.7
7	Net-To-System	28,334.2
8	- Purchased Energy	0.0
9	Net Company Generation	28,334.2
10	+ Station Power (Gross/Net Ratio = 1.0279)	790.6
11	Gross Company Generation	29,124.8

Reference:
MECO-RWP-406, page 203

NOTE: TOTALS MAY NOT ADD EXACTLY DUE TO ROUNDING.

MO99ECFDrebuttal.xls
6/12/98

Maui Electric Company, Ltd.
(Molokai Division)

ENERGY COST ADJUSTMENT FACTOR

Rebuttal Testimony
Proposed Rates

Line		
1	Effective Date Test Year 1999	
	Supersedes Factor of	
	OIL-FIRED GENERATION COMPONENT	
	OIL PRICES, ¢ / MMBTU	
2	Industrial	0.00
3	Diesel	467.54
	OIL BTU MIX, %	
4	Industrial	0.00%
5	Diesel	100.00%
6	COMPOSITE GENERATION COST, ¢ / MMBTU {Line (2 X 4) + Line (3 X 5)}	467.54
7	% INPUT TO SYSTEM KWH MIX	100.00%
8	EFFICIENCY FCTR, MMBTU / KWH	0.010522
9	WEIGHTED COMPOSITE GEN. COST, ¢ / KWH {Lines (6 X 7 X 8)}	4.91946
10	BASE GENERATION COST, ¢/MMBTU	467.54
11	BASE % INPUT TO SYSTEM KWH MIX	100.00%
12	EFFICIENCY FCTR, MMBTU/KWH	0.010522
13	WEIGHTED BASE GEN. COST ¢ / KWH {Lines (10 X 11 X 12)}	4.91946
14	Cost Less Base {Line 9-13}	0.00000
15	Multiplier to Include Rev. Tax Requirement	1.0975
16	GENERATION FACTOR, ¢ / KWH Lines (14 X 15)	0.00000

Line		
	PURCHASED POWER COMPONENT	
	PURCHASED POWER PRICES, ¢ / KWH AVOIDED COST	
17	- Off Peak	0.000
18	- On Peak	0.000
19	SCHEDULE Q	0.000
	PURCHASED POWER KWH MIX, % AVOIDED COST	
20	- Off Peak	0.00%
21	- On Peak	0.00%
22	SCHEDULE Q	0.00%
23	COMPOSITE COST OF PURCHASED POWER, ¢ / KWH	0.000
24	% INPUT TO SYSTEM KWH MIX	0.00%
25	WEIGHTED COMP. PURCH. ENERGY COST, ¢/KWH {Lines (23x24)}	0.00000
	BASE PURCHASED POWER	
26	COMPOSITE COST, ¢/KWH	4.448
27	BASE % INPUT TO SYSTEM KWH MIX	0.00%
28	WEIGHTED COMP. PURCH. ENERGY COST, ¢/KWH {Lines (26x27)}	0.00000
29	COST LESS BASE {LINE (25-28)}	0.00000
30	Loss Factor	1.106 (1)
31	Multiplier to Include Rev. Tax Requirement	1.0975
32	PURCHASED ENERGY FCTR, ¢/KWH {Lines (29x30x31)}	0.00000

Line	SYSTEM COMPOSITE CALCULATIONS	
33	FUEL AND PURCHASED ENERGY FACTOR, ¢/KWH (Lines 16+32)	0.000
34	ADJUSTMENT, ¢/KWH	0.000
35	ECA RECONCILIATION ADJUSTMENT, ¢/KWH	0.000
36	ENERGY COST ADJUSTMENT FACTOR, ¢/KWH	0.000

(1) Net-To-System 38,606.0 mwh ÷ Test Year Sales 34,915.0 mwh = 1.106

MO99FCST.xls sheet "grs gen"
1/24/95

Maui Electric Company, Ltd.
(Molokai Division)

1999 TEST YEAR GENERATION AND PURCHASED POWER

Rebuttal Testimony

Line		1999 Test Year (mwh)
1	Unadjusted Sales	34,915.0
2	- Future DSM Impact	0.0
3	Test Year Sales	34,915.0
4	+ No Charge (0.404% of sales)	141.3
5	Sales + No Charge	35,056.3
6	+ Losses (9.20%)	3,549.7
7	Net-To-System	38,606.0
8	- Purchased Energy	0.0
9	Net Company Generation	38,606.0
10	+ Station Power (Gross/Net Ratio = 1.0359)	1,386.0
11	Gross Company Generation	39,992.0

Reference:
MECO-RWP-406, page 205

NOTE: TOTALS MAY NOT ADD EXACTLY DUE TO ROUNDING.

CA-IR-315

Ref: MECO-1908, MECO-1909, MECO-1910, MECO-1911 and MECO-1912.

Please provide copies of the supporting documentation for the Revenue Tax Req Multiplier found on the following:

a. MECO-1908, page 2, line 21 and Line 31 and page 3, line 64;
b. MECO-1909, page 1, line 15 and Line 31;
c. MECO-1910, page 1, line 21 and line 31 and page 2, line 50;
d. MECO-1911, page 1, line 15 and line 31; and
e. MECO-1912, page 1, line 21, line 31 and page 2, line 50.

MECO Response:

The "Revenue Tax Req Multiplier" is based on the following revenue tax rates:

Public Service Company	5.885%
Public Utility Commission Fee	0.5%
Franchise Royalty Tax	2.5%
Total Revenue Taxes	8.885%

The Multiplier is calculated as: 1/(1-8.885%). Mr. Okada discusses the revenue tax rates in MECO T-13.

CA-IR-316

Ref: MECO WP-505, page 1; MECO Response to CA-IR-2, Attachments 158 and 160 (Mitsubishi Overhaul Parts/Services).

Please provide the following:

a. Explain and reconcile the values shown in the response to CA-IR-2, Attachments 158 and 160 workpapers into the M12 and M13 overhaul costs in the 2007 budget of $640,754 and $334,920 (at WP-505, page 1), respectively.

b. Explain why it is more reasonable to use the 'Historical Overhaul Costs' at column D of WP-505, rather than current cost estimates for overhauls as set forth in your response to part (a) of this information request for the Mitsubishi units.

MECO Response:

a. The Attachments shown in CA-IR-2 represent the minimum amount of materials and services expected on a typical Mitsubishi overhaul which MECO uses as a basis for forecasting overhaul expenses. These would be parts that would be expected to be changed at every overhaul and services expected. Depending on the amount of wear on the engine's components between overhauls the amount of parts needing replacement could change. The amount reflected in the budget is an estimate from the maintenance supervisor of the amount of materials and services that would be needed for a particular unit's overhaul. This is based on the standard work reflected in CA-IR-2 and any additional overhaul work he foresees on the engine. The $640,754 forecast for the unit M12 overhaul reflects this additional cost. The amount of $334,920 forecast for unit M13 reflects estimated costs for foundation repair work and not for the engine overhaul.

b. It is prudent to use historical costs to develop the normalized average overhaul cost for ratemaking purposes. because the overhaul costs for each unit are not exactly the same. Utilizing an average overhaul cost for each type of unit, accounts for the fluctuation of overhal costs between similar types of generating units. Accordingly, in MECO-WP-505, the normalization of historical costs reflects average overhaul costs.

CA-IR-317

Ref: MECO T-5 June Update, Attachment 1 (Competitive Bidding Expenses).

Please provide the following:

a. Copies of the detailed workpapers supporting all HECO estimated Competitive Bidding Cost increases, with detailed calculations supporting MECO allocations of same.

b. Explain why MECO (unlike HECO at $175,000) appears to have forecasted no charges for this work in its 2007 non-labor expense budget.

c. Provide monthly details of actual spending by contractor to date in 2007, as well as an update of contractually committed spending through the balance of the year.

d. Explain why MECO-WP-510, page 1 (Updated April 2007) explains higher costs in 2007 at lines 1 and 5 as due in part to more labor hours and support from HECO due to "more Integrated Resource Planning ("IRP") work and competitive bidding work", given your responses to parts (a) through (c) of this information request.

e. Copies of documents associated with your responses to parts (c) and (d) of this information request.

MECO Response:

a. Copies of the detailed workpapers supporting the estimated competitive bidding costs for MECO are provided in Attachment A included herein.

b. At the time MECO's 2007 budget was being prepared the Competitive Bidding Docket (Docket No. 03-0372) was still in progress. The Commission was still evaluating the evidentiary record and had not yet issued a Decision and Order ("D&O") in the docket. MECO did not know when the Commission would issue a D&O nor did it know the nature of what might be contained in the D&O. Therefore, the original 2007 forecast for MECO covered only the work anticipated to complete the regulatory steps in the docket.

c. MECO's contractor expense to date has been through HECO and the law office of Goodsill Anderson Quinn & Stifel (Goodsill). 2007 monthly spending to date is as shown in Attachment B. MECO does not have direct contractually committed spending for

competitive bidding work. On September 5, 2007 HECO Generation Bidding Division (HGBD) authorized Merrimack to assist with the development of the MECO RFP. The commitment is for $150,000 in 2007 but due to timing and limited resources, a good portion of the actual expenditures will likely carry over into 2008. HGBD is also working on retaining an Independent Observer to assist with issues related to the competitive bidding and parallel plan work we are about to engage in. It will likely take another month before an agreement can be reached and a contract signed.

d. In MECO-WP-510, page 1 (updated April 2007) MECO was asked to provide explanations for variances between 2006 actuals and the original 2007 budget. The previous version of MECO-WP-510 explained variances between 2005 actuals and the original 2007 budget. The "higher costs" in 2007 at lines 1 and 5 (for competitive bidding work) were solely for the work anticipated to complete the final regulatory steps of the docket, as described in the response to part b. above.

e. The contract with Merrimack (referenced in the response to part c. above) is included herein as Attachment C.

		Ct	FTE	Dir Cost	MECO Billable
Generation Bidding-					
Labor-					
	Director	1	2088	97698	39079
	Staff Engin	2	2088	166497	66599
	Annualizec	3		264195	105678
	1/2 Year			132098	52839
Non-Labor- (Normalized)				840500	413834
	*LESS: Non-Labor 2007 Budget			-175000	0
				665500	413834
	Total Generation Bidding-			797598	466673
Fuel Infrastructure-					
	Director	1	2088	97698	9770
	1/2 Year			48849	4885
PSOM Administrator		1	2088	75168	0
	1/2 Year			37584	0
		5		884031	471558

* Refer to CA-IR-2, HECO T-6, Attachment 12B, page 2.

** Standard labor rates are per the standard rates applied in Rate Case Test Year 2007.

Generation Bidding Division
TY 2007 Rate Case (Annualized)
Labor Hours / Cost - *DETAILS*

	[A] Std Labor Rate	Alloc by Entity	Labor Hrs	Direct Cost	Act #	Activity	Loc #	Ind #	Acct Grp Descr	EE #	Exp Element	Acct Blk	Acct Blk Descr	NARUC	NARUC Descr
SUPPLY:															
1 Director (FS-1 Facilitator Supv)	$46.79														
Labor Hours Available:			2,088												
2 Staff (Y_GENPLN)	$39.87														
Labor Hours Available:			4,176												
DEMAND:															
MECO:															
1 Director		40%	835	$39,079	210	Plan & Approve Projects	MAU	BE	Billable O&M	150	Labor Cost	B60	Intercompany	1861	CHGS BILL ASSOC COS
2 Staff		40%	1,670	$66,599	210	Plan & Approve Projects	MAU	BE	Billable O&M	150	Labor Cost	B60	Intercompany	1861	CHGS BILL ASSOC COS
Total			2,506	$105,678											
CONSOLIDATED DEMAND			**6,264**												

[A] - Standard labor rates obtained from department Pillar "UPD" files distributed on 5/11/07 (with April 2007 actuals).

Generation Bidding Division

Non-Labor Cost - TY 2007 RATE CASE (Normalized Full Year)

Normalized FY07-FY09 over THREE years.

	FY07 Update	FY08 Forecast	FY09 Forecast	TY 2007 RATE CASE Total	TY 2007 RATE CASE Normalized	Act #	Activity	Loc #	Ind #	Acct Grp Descr	EE #	Exp Element	Acct Blk	Acct Blk Descr	NARUC	NARUC Descr
MECO:																
Outside Consultant - code of conduct (start up 1/3 share)	$15,000			$15,000	$5,000	210	Plan & Approve Projects	MAU	BE	Billable O&M	501	Outside Services-General	B60	Intercompany	1861	CHGS BILL ASSOC COS
Outside Legal (start up 1/3 share)	$10,000			$10,000	$3,333	210	Plan & Approve Projects	MAU	BE	Billable O&M	502	Outside Services-Legal	B60	Intercompany	1861	CHGS BILL ASSOC COS
Outside Consultant - RFP for MECO	$150,000	$150,000	$150,000	$450,000	$150,000	210	Plan & Approve Projects	MAU	BE	Billable O&M	501	Outside Services-General	B60	Intercompany	1861	CHGS BILL ASSOC COS
Outside Legal - RFP for MECO	$50,000	$150,000	$150,000	$350,000	$116,667	210	Plan & Approve Projects	MAU	BE	Billable O&M	502	Outside Services-Legal	B60	Intercompany	1861	CHGS BILL ASSOC COS
Independent Observer - RFP for MECO	$50,000	$180,000	$180,000	$410,000	$136,667	210	Plan & Approve Projects	MAU	BE	Billable O&M	501	Outside Services-General	B60	Intercompany	1861	CHGS BILL ASSOC COS
Interisland Travel - $175 airfare + $50 car rental per trip	$900	$1,800	$1,800	$4,500	$1,500	210	Plan & Approve Projects	MAU	BE	Billable O&M	522	Interisland Travel	B60	Intercompany	1861	CHGS BILL ASSOC COS
Meals/Entertainment - $100 lunch & dinner per person	$400	$800	$800	$2,000	$667	210	Plan & Approve Projects	MAU	BE	Billable O&M	521	Meals & Entertainment	B60	Intercompany	1861	CHGS BILL ASSOC COS
	$276,300	**$482,600**	**$482,600**	**$1,241,500**	**$413,834**											
				$2,521,500	$840,500											

Fuels Infrastructure Division
TY 2007 Rate Case (Annualized)
Labor Hours / Cost - *DETAILS*

	[A] Std Labor Rate	Alloc by Entity	Labor Hrs	Direct Cost	Act #	Activity	Loc #	Ind #	Acct Grp Descr	EE #	Exp Element	Acct Blk	Acct Blk Descr	NARUC	NARUC Descr
SUPPLY:															
1 Director (FS-1 Facilitator Supv)	$46.79														
Labor Hours Available:			2,088												
DEMAND:															
MECO:															
1 Director		10%	209	$9,770	269	Maint Fuel System	MAU	BE	Billable O&M	150	Labor Cost	B60	Intercompany	1861	CHGS BILL ASSOC COS
CONSOLIDATED DEMAND			2,088												
TOTAL COST				$97,698											

[A] - Standard labor rates obtained from department Pillar "UPD" files distributed on 5/11/07 (with April 2007 actuals).
Used Generation Planning labor class for Staff; currently there's none for Generation Bidding.

2007 Monthly Competitive Bidding Expense

(By Contractors)

	HECO	Goodsill
Jan	$0	$552
Feb	$0	$420
Mar	$0	$1,182
Apr	$0	$1,986
May	$1,148	$95
Jun	$4,722	$2,457
Jul	$4,547	NI
Aug	$2,210	NI
Sep[1]	$7,795	NI

[1] Thru Sept 25
NI = Not Invoiced yet

WORK AUTHORIZATION NO. PXA-07-003-01-01-01
Under Master Services Agreement No. MSTR-PYA-06-020
HECO Work Order No. HP002586

I. Request for Quote

Under the terms and conditions of the Consultant Services Master Agreement, dated December 14, 2006, by and between MERRIMACK ENERGY GROUP, INC. ("Consultant") and Hawaiian Electric Company, Inc. ("Company"), Company hereby requests a proposal from Consultant to perform the following Work:

SCOPE OF WORK

At the request of Company, Consultant's services may be needed to assist in designing the solicitation process for the next two large blocks of firm capacity generation needed in the 2011 and 2013 timeframe consistent with the MECO Integrated Resource Planning Report No. 3 (MECO IRP-3), which may consist of providing guidance and assistance to the Company on the development of the RFP and associated documents (Phase II) as well as the evaluation of the bids received (Phase III). The anticipated services of the Consultant will include the following, but may not limited to:

Phase II: RFP Design and Preparation

- Addressing Code of Conduct application to the solicitation process, developing the Procedures Manual for the RFP and/or addressing procedural issues for the HECO solicitation and bidding process;
- Determining competitive bidding process timelines;
- Developing a website or similar communications means for bidders;
- Developing the RFP(s) and associated documents (e.g. form power purchase agreements and contracts);
- Presenting the draft and final RFP to the Commission and other process stakeholders (including a technical conference conducted by the Company to discuss the draft RFP with interested parties);
- Establishing bid evaluation and selection criteria;
- Conducting the solicitation process (including communications with bidders and other process stakeholders) by drawing on available industry sources of information and experiences of similarly-situated utilities that have conducted competitive bidding processes for generation resources;
- Other assistance as requested by the Company.

Phase III: Bid Evaluation Process

- Reviewing the bids received to ensure conformance with RFP requirements;

- Evaluating the bids received from a price and non-price perspective;
- Communicating with bidders and other process stakeholders;
- Documenting bid evaluation results and presenting the results to the Commission and other process stakeholders;
- Other assistance as requested by the Company.

Phase IV: Contract Negotiations

- Negotiating power purchase agreement terms and conditions with winning bidder(s);
- Communicating with process stakeholders such as the Independent Observer and the Commission;
- Documenting status of negotiations;
- Other assistance as requested by the Company

The minimum insurance limits specified in the Consultant Services Master Agreement shall be modified for this Work Authorization only (blanks indicate that no change is intended for this Work):

Commercial General Liability
Section 8.2 - $_____ per occurrence
$_____ general aggregate

Automobile Liability
Section 8.3 - $_____ per accident

Professional Errors and Omissions
Section 8.4 - $_____ per each claim
$_____ per aggregate

Pollution Liability and/or Asbestos Abatement Liability and/or Lead Abatement Liability
Section 8.5 - $_____ per occurrence

Marine
Section 8.6 - $_____ per occurrence

II. Consultant's Proposal

Consultant hereby proposes to perform the Work described above in Section I, under said terms and conditions, for the following not-to-exceed amounts on a time and expense basis:

Phase II - 2007: $150,000
Phase II - 2008: $50,000
Phase III - 2008: $100,000
Phase IV - 2009: $50,000

Total not-to-exceed cost for the Phase II – 2007 services is $150,000. Work on the Phase II – 2007 services will begin no later than August 1, 2007 and be completed on or before deadlines to be set by Company with the concurrence of Consultant for specific tasks and deliverables to be identified by Company as the Work progresses.

Consultant's services for Phase II – 2008, Phase III - 2008, and Phase IV – 2009 services may be awarded at a later date.

Wayne Oliver will act as Consultant's Designated Representative during the performance of this Work.

Dated: August 21, 2007 Wayne Oliver
Consultant

III. Work Authorization

Consultant's foregoing Proposal is accepted. Consultant is authorized to perform the Work as proposed. Company's Designated Representative for this Work Authorization shall be Barry Nakamoto, Director Generation Bidding Division, System Planning Department.

Dated: 9-5-2007 Thomas C. Simon
Company

CA-IR-318

Ref: MECO Responses to CA-IR-222, Exhibit 1 and Exhibit 3; CA-IR-283, Attachment 1 (Maalaea Maintenance Hours).

Please provide the following information for Test Year 2007:

a. Information needed to reconcile the 40,944 of "Total Overhaul Labor Hours" provided in response to CA-IR-222, Exhibit 1 to the "Overhaul" hours by RA shown in the response to CA-IR-283, Attachment 1.

b. Information needed to reconcile the 48,279 of "Other Maintenance Labor Hours" provided in response to CA-IR-222, Exhibit 1 to the "General Maintenance" hours by RA shown in the response to CA-IR-283, Attachment 1.

c. Explain with specificity what additional work would be performed in connection with the 23,925 hours not needed for Overhauls at Maalaea that would become available for other "General Maintenance" activities.

d. Provide copies of all available studies, reports, analyses, workpaper and other documents illustrating a need for expanded labor hours for other "general" maintenance activities, including but not limited to backlog reports, deferred project lists, etc.

e. Describe the process used to determine changing work requirements and the work to be done in connection with each of the positive entries that add labor hours to various corrective and preventative activity codes shown in the "Difference 2007 Budget & Illustrative Normalized Test Year 2007" column of the response to CA-IR-222, Exhibit 3.

f. Provide complete copies of all studies, analyses, workpapers and other documents associated with your response to part (e) of this information request.

MECO Response:

a. To reconcile the 40,994 of "Total Overhaul Labor Hours" provided in response to CA-IR-222, Exhibit 1, to the "Overhaul" hours by RA shown in the response to CA-IR-283, Attachment 1, the first step is to revise the 40,994 hours to 60,882 hours to correct an inadvertent error. A revised response for CA-IR-222 is being submitted concurrently with this response.

The second step in the reconciliation is to recognize that the labor hours in the revised CA-IR-222, Exhibit 1, reflect production maintenance hours for the Maui Division only.

On the other hand, the labor hours in CA-IR-283, Attachment 1, reflect labor hours under the Production department's O&M account group, which includes labor hours from account blocks such as Production O&M, A&G Operation, Distribution Operation, Transmission Operation, etc.

Attachment 1 provides detail by responsibility area to reconcile the 60,882 hours of "Total Overhaul Labor Hours" for the Maui Division reflected in the revised response for CA-IR-222, Exhibit 1, to the "Overhaul" hours by RA shown in the response for CA-IR-283, Attachment 1. For MGB, of the 8,173 labor hours shown on line 4 of Attachment 1, CA-IR-283, 8,173 labor hours are for the Maui Division. For MGC, of the 954 labor hours shown on line 7 of Attachment 1, CA-IR-283, 954 labor hours are for the Maui Division. For MGD, of the 37,395 labor hours shown on line 10 of Attachment 1, CA-IR-283, 37,395 labor hours are for the Maui Division. For MGE, of the 12,575 labor hours shown on line 13 of Attachment 1, CA-IR-283, 12,275 labor hours are for the Maui Division. And finally, for MGK, of the 2,085 labor hours shown on line 16 of Attachment 1, CA-IR-283, 2,085 labor hours are for the Maui Division. The total 60,882 labor hours ties to the "Total Overhaul Labor Hours" for the Maui Division reflected in the response for CA-IR-222, Exhibit 1. Attachment 2 provides detailed breakdown of labor hours represented in CA-IR-283, Attachment 1, by responsibility area, account block and location codes.

b. To reconcile the 48,279 of "Other Maintenance Labor Hours" provided in response to CA-IR-222, Exhibit 1, to the "General Maintenance" hours by RA shown in the response to CA-IR-283, Attachment 1, the first step is to revise the 48,279 hours to 28,771 hours to correct an inadvertent error. A revised response for CA-IR-222 is being submitted concurrently with this response.

The second step in the reconciliation is to recognize that the labor hours in the revised CA-IR-222, Exhibit 1, reflect production maintenance hours for the Maui Division only. On the other hand, the labor hours in CA-IR-283, Attachment 1, reflect labor hours under the Production department's O&M account group, which includes labor hours from account blocks such as Production O&M, A&G Operation, Distribution Operation, Transmission Operation, etc.

Attachment 1 provides detail by responsibility area to reconcile the 28,771 hours of "Other Maintenance Labor Hours" for the Maui Division reflected in the revised response for CA-IR-222, Exhibit 1, to the "General Maintenance" hours by RA shown in the response to CA-IR-283, Attachment 1. For MGB, of the 11,180 labor hours shown on line 5 of Attachment 1, CA-IR-283, 7,774 labor hours are for the Maui Division. For MGC, of the 4,958 labor hours shown on line 8 of Attachment 1, CA-IR-283, 4,337 labor hours are for the Maui Division. For MGD, of the 4,311 labor hours shown on line 11 of Attachment 1, CA-IR-283, 4,131 labor hours are for the Maui Division. For MGE, of the 11,845 labor hours shown on line 14 of Attachment 1, CA-IR-283, 11,091 labor hours are for the Maui Division. For MGK, of the 41,225 labor hours shown on line 17 of Attachment 1, CA-IR-283, 36 labor hours are for the Maui Division. And finally, for MGM, of the 59,311 labor hours shown on line 23 of Attachment 1, CA-IR-283, 194 labor hours are for the Maui Division. The 28,771 total labor hours ties to the 28,771 total labor hours of "Other Maintenance Labor Hours" for the Maui Division reflected in the response for CA-IR-222, Exhibit 1, as revised. Attachment 2 provides detailed breakdown of labor hours represented in CA-IR-283, Attachment 1, by responsibility area, account block and location codes.

c. Additional work that could be performed by maintenance in connection with the 20,923 hours, as reflected in the revised response for CA-IR-222, would include structural maintenance, such as welding repairs and structural painting, additional preventive maintenance such as equipment cleaning and rotable engine component repairs, and predictive maintenance such as an equipment monitoring and maintenance program to predict equipment failures before it happens.

d. MECO does not have any studies, reports, or analysis done for other general maintenance work.

e. In order to normalize maintenance labor, in response to CA-IR-222, many adjustments were made both positive and negative to the 2007 budget. Those items relating to a positive or increase in maintenance labor are shown in CA-IR-222, Exhibit 3 (Revised). The process used to normalize test year production overhaul labor as reflected in the response to CA-IR-222, was that reductions in overhaul labor due to test year normalization of overhaul labor were added to a general maintenance line-item. This normalization of test year overhaul labor to test year general maintenance labor involved the four maintenance labor groups MGB (boiler maintenance) MGC (combined cycle maintenance), MGD (diesel maintenance), and MGE (electrical maintenance). The total test year production maintenance labor hours did not change.

f. There are no studies, analyses, workpapers, or other documents associated with the response for part (e) of this information request. When overhaul maintenance is not being performed, general maintenance work on other equipment is done.

Maui Electric Company, Limited

2007 BUDGET - PRODUCTION LABOR HOURS
RECONCILIATION DATA FOR CA-IR-222, EXHIBIT 1 AND CA-IR-283, ATTACHMENT 1

			(A)	(B)	(C)	(D)
			2007 BUDGET			
Line	RA	Acct Grp Descr	PRODUCTION O&M* (PER CA-IR-283 ATTACHMENT 1)	PRODUCTION MAINTENANCE MAUI DIVISION	PRODUCTION MAINTENANCE OTHER DIVISION	OTHER PRODUCTION O&M ALL DIVISION
1	MGA	Overhaul	0	0	0	0
2	MGA	General Maintenance	14,119	1,208	0	12,911
3	MGA	Total	14,119	1,208	0	12,911
4	MGB	Overhaul	8,173	8,173	0	0
5	MGB	General Maintenance	11,180	7,774	0	3,406
6	MGB		19,353	15,947	0	3,406
7	MGC	Overhaul	954	954	0	0
8	MGC	General Maintenance	4,958	4,337	0	621
9	MGC		5,912	5,291	0	621
10	MGD	Overhaul	37,395	37,395	0	0
11	MGD	General Maintenance	4,311	4,131	0	180
12	MGD		41,706	41,526	0	180
13	MGE	Overhaul	12,575	12,275	0	300
14	MGE	General Maintenance	11,845	11,091	396	358
15	MGE		24,420	23,366	396	658
16	MGK	Overhaul	2,085	2,085	0	0
17	MGK	General Maintenance	41,225	36	0	41,189
18	MGK		43,310	2,121	0	41,189
19	MGL	Overhaul	0	0	0	0
20	MGL	General Maintenance	12,528	0	3,150	9,378
21	MGL		12,528	0	3,150	9,378
22	MGM	Overhaul	0	0	0	
23	MGM	General Maintenance	59,311	194	0	59,117
24	MGM		59,311	194	0	59,117
25	MGT	Overhaul	426	0	426	0
26	MGT	General Maintenance	12,440	0	2,196	10,244
27	MGT		12,866	0	2,622	10,244
28	**Production**	**Overhaul**	**61,608**	**60,882**	**426**	**300**
29	**Production**	**General Maintenance**	**171,917**	**28,771**	**5,742**	**137,404**
30	**Production**	**Total**	**233,525**	**89,653**	**6,168**	**137,704**

NOTE:
* Does not include Production department's Capital account 2007 budgeted labor hours.

Dept	RA	Acct Grp	Acct Grp Descr	Acct Blk	Acct Blk Descr	Proj or NonProj	Loc	FY07 RAVB07
Production	MGA	G30	O&M	B30	Prod Oper	NonProject	GNS	465.00
							GPO	19.00
							LNS	466.00
							LPO	87.00
							MAU	205.00
							MHN	42.00
							MNS	5,896.00
							MPO	2,261.00
							MST	11.00
							MWW	128.00
							NST	2,635.00
								12,215.00
				B31	Prod Maint	NonProject	MNS	279.00
							MPM	608.00
							NST	255.00
							NWW	66.00
								1,208.00
				B32	Transmission Oper	NonProject	MAU	12.00
								12.00
				B34	Distribution Oper	NonProject	GDO	48.00
							LDO	48.00
							MDO	582.00
								678.00
				B38	A & G Operation	NonProject	MAU	6.00
								6.00
								14,119.00
		G50	Capital	B50	Construction	Project	M12	60.00
							M13	60.00
							T01	291.70
								411.70
								411.70
								14,530.70
	MGB	G30	O&M	B30	Prod Oper	NonProject	MPO	48.00
							NST	3,358.00
								3,406.00
				B31	Prod Maint	NonProject	MPM	986.00
							N01	870.00
							N02	870.00
							N03	872.00
							N04	872.00
							NST	3,076.00
							NTF	156.00
							NWW	72.00
								7,774.00
						Project	M12	256.00
							N01	2,432.00
							N02	1,688.00

Dept	RA	Acct Grp	Acct Grp Descr	Acct Blk	Acct Blk Descr	Proj or NonProj	Loc	FY07 RAVB07
Production	MGB	G30	O&M	B31	Prod Maint	Project	N03	2,110.00
							N04	1,687.00
								8,173.00
								19,353.00
		G50	Capital	B50	Construction	Project	N03	166.00
							NST	272.00
							NTF	240.00
								678.00
				B51	Removal	Project	N01	8.00
							N02	8.00
							N03	167.00
							NST	32.00
							NTF	160.00
								375.00
								1,053.00
								20,406.00
	MGC	G30	O&M	B30	Prod Oper	NonProject	MNS	369.00
							MST	252.00
								621.00
				B31	Prod Maint	NonProject	M14	264.00
							M15	658.00
							M16	264.00
							M17	264.00
							M18	68.00
							M19	264.00
							MNS	734.00
							MPM	231.00
							MST	470.00
							MWT	724.00
							MWW	396.00
								4,337.00
						Project	M15	594.00
							M16	120.00
							M17	120.00
							M19	120.00
								954.00
								5,912.00
		G50	Capital	B50	Construction	Project	MWT	200.00
								200.00
				B51	Removal	Project	MWT	80.00
								80.00
								280.00
								6,192.00

Dept	RA	Acct Grp	Acct Grp Descr	Acct Blk	Acct Blk Descr	Proj or NonProj	Loc	FY07 RAVB07
Production	MGD	G30	O&M	B30	Prod Oper	NonProject	MPO	180.00
								180.00
				B31	Prod Maint	NonProject	M01	131.00
							M02	38.00
							M03	56.00
							M04	168.00
							M05	111.00
							M06	111.00
							M07	57.00
							M08	169.00
							M09	71.00
							M10	225.00
							M11	157.00
							M12	277.00
							M13	170.00
							M14	48.00
							M15	36.00
							M17	48.00
							MH1	15.00
							MH2	16.00
							MNS	1,317.50
							MPM	763.00
							MWT	45.00
							MX1	40.00
							MX2	61.00
								4,130.50
						Project	M03	1,095.00
							M04	6,240.00
							M05	6,240.00
							M06	6,240.00
							M08	6,240.00
							M12	8,272.00
							M15	1,650.00
							M16	112.00
							M17	160.00
							M19	160.00
							N01	320.00
							N04	666.00
								37,395.00
								41,705.50
		G50	Capital	B50	Construction	Project	M12	4.00
							M13	4.00
							MTF	160.00
								168.00
				B51	Removal	Project	MWT	80.00
								80.00
								248.00
								41,953.50
	MGE	G30	O&M	B30	Prod Oper	NonProject	MNS	10.00

Dept	RA	Acct Grp	Acct Grp Descr	Acct Blk	Acct Blk Descr	Proj or NonProj	Loc	FY07 RAVB07
Production	MGE	G30	O&M	B30	Prod Oper	NonProject	MPO	108.00
							NST	240.00
								358.00
				B31	Prod Maint	NonProject	G09	96.00
							L05	300.00
							M01	48.00
							M02	48.00
							M03	48.00
							M04	125.00
							M05	105.00
							M06	112.00
							M07	112.00
							M08	104.00
							M09	90.00
							M10	156.00
							M11	156.00
							M12	187.00
							M13	168.00
							M14	276.00
							M15	264.00
							M16	228.00
							M17	228.00
							M18	264.00
							M19	228.00
							MHN	120.00
							MNS	2,876.00
							MPM	965.00
							MWT	406.00
							MWW	144.00
							MX1	48.00
							MX2	48.00
							N01	336.00
							N02	336.00
							N03	336.00
							N04	336.00
							NST	2,049.00
							NWW	144.00
								11,487.00
						Project	G07	100.00
							G08	100.00
							G09	100.00
							M03	176.00
							M04	808.00
							M05	808.00
							M06	808.00
							M08	1,480.00
							M12	1,313.00
							M15	1,596.00
							M16	64.00
							M17	56.00
							M19	56.00
							N01	1,240.00
							N02	1,142.00
							N03	1,364.00
							N04	1,384.00

Dept	RA	Acct Grp	Acct Grp Descr	Acct Blk	Acct Blk Descr	Proj or NonProj	Loc	FY07 RAVB07
Production	MGE	G30	O&M	B31	Prod Maint	Project		12,575.00
								24,420.00
		G50	Capital	B50	Construction	Project	L05	72.00
							L08	72.00
							M12	16.00
							M13	16.00
							M14	110.00
							MTF	32.00
							MWT	160.00
							N01	280.00
							N02	120.00
							NST	152.00
								1,030.00
				B51	Removal	Project	MWT	80.00
							N01	80.00
							N02	80.00
								240.00
								1,270.00
								25,690.00
	MGK	G30	O&M	B30	Prod Oper	NonProject	MPO	464.00
							NST	40,725.00
								41,189.00
				B31	Prod Maint	NonProject	NWW	36.00
								36.00
						Project	N01	640.00
							N02	445.00
							N03	555.00
							N04	445.00
								2,085.00
								43,310.00
								43,310.00
	MGL	G30	O&M	B30	Prod Oper	NonProject	LNS	9,336.00
							LPO	42.00
								9,378.00
				B31	Prod Maint	NonProject	L01	6.00
							L02	6.00
							L03	5.00
							L04	5.00
							L05	5.00
							L06	5.00
							L07	30.00
							L08	30.00
							LNS	3,058.00
								3,150.00

Dept	RA	Acct Grp	Acct Grp Descr	Acct Blk	Acct Blk Descr	Proj or NonProj	Loc	FY07 RAVB07
Production	MGL	G30	O&M					12,528.00
								12,528.00
	MGM	G30	O&M	B30	Prod Oper	NonProject	M15	2,202.00
							M18	2,204.00
							MNS	44,018.00
							MPO	961.00
							MST	5,148.00
							MWT	2,304.00
							MWW	2,280.00
								59,117.00
				B31	Prod Maint	NonProject	MNS	97.00
							MPM	97.00
								194.00
								59,311.00
								59,311.00
	MGT	G30	O&M	B30	Prod Oper	NonProject	GNS	10,232.00
								10,232.00
				B31	Prod Maint	NonProject	G01	15.00
							G02	15.00
							G03	15.00
							G04	15.00
							G05	15.00
							G06	15.00
							G07	120.00
							G08	120.00
							G09	120.00
							GNS	1,140.00
							GPM	594.00
							GT1	12.00
								2,196.00
						Project	G07	142.00
							G08	142.00
							G09	142.00
								426.00
				B38	A & G Operation	NonProject	MAM	12.00
								12.00
								12,866.00
		G50	Capital	B50	Construction	Project	MAM	124.00
								124.00
				B51	Removal	Project	MAM	3.00
								3.00
								127.00
								12,993.00

Dept	RA	Acct Grp	Acct Grp Descr	Acct Blk	Acct Blk Descr	Proj or NonProj	Loc	FY07 RAVB07
Production								236,914.20
								236,914.20

CA-IR-319

Ref: MECO Response to CA-IR-101, Attachments 1 through 9 (Excel spreadsheets of Materials and Services Expenses).

Please provide the following:

a. Updated Attachments 1 through 9, substituting Jan-August 2007 actual data in place of the earlier Jan-April data.

b. Identify and describe any known significantly unusual or non-recurring expenses in your response to part (a) of this information request that may cause such data to not be meaningful in comparison to the corresponding projected test year amounts.

MECO Response:

a. Please refer to Attachment 1-9 provided herein for the updated CA-IR-101 Attachments 1 through 9, substituting January to August 2007 actual data in place of the earlier January to April 2007 data. The Company provides the YTD 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. Please refer to Attachment 1-9 (column Q) provided herein for descriptions of known significantly unusual or non-recurring expenses related to our response to part a.

Confidential Information Deleted Pursuant To Protective Order No. 23379.

CA-IR-319
DOCKET NO. 2006-0387
ATTACHMENT 1-9

Attachment 1-9 contains confidential information and are being provided subject to

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

CA-IR-319

Ref: MECO Response to CA-IR-101, Attachments 1 through 9 (Excel spreadsheets of Materials and Services Expenses).

Please provide the following:

a. Updated Attachments 1 through 9, substituting Jan-August 2007 actual data in place of the earlier Jan-April data.

b. Identify and describe any known significantly unusual or non-recurring expenses in your response to part (a) of this information request that may cause such data to not be meaningful in comparison to the corresponding projected test year amounts.

MECO Response:

a. The updated Attachments 1 through 9, substituting January to August 2007 actual data in place of the earlier January to April 2007 data are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information on, or before, September 21.

b. Please refer to the response above on item a.

CA-IR-320

Ref: MECO Response to CA-IR-99 (Intercompany Charges from HECO).

Please provide the following:

a. Update page 2 with a column showing actual charges in year-to-date 2007 through August.

b. Provide the explanatory information initially requested in part (c) of CA-IR-99 (assuming the work is now complete).

MECO Response:

a. Please refer to Attachment 1 for the updated page 2 with a column showing actual charges in year-to-date 2007 through August. 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. Part c. of CA-IR-99 referenced CA-IR-2, T-5; Attachments 1,3,4,19 (Non-Labor ICB Charges from HECO) and asked MECO to "explain the reasons for any significant fluctuations in historical charges or apparent inconsistencies with the proposed test year charges, indicating whether further adjustment is required for any items."

CA-IR-2 Attachment 1 (Alternate Energy Support): As indicated in CA-IR-320 Attachment 1, the 2007 actual charges to-date are consistent with the proposed test year charges.

CA-IR-2 Attachments 3,4 (Perform Generation Planning Studies): 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.

<u>CA-IR-19 Attachment 19 (Svc to procure, manage, and deliver fuel)</u>: As indicated in CA-IR-320 Attachment 1, the year to date 2007 through August actual expenses of $29,000 are $34,000 lower than the test year 2007 expenses for this period of $63,000.

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. The recorded billings from January to August are approximately $29,000 compared to the budget for this

period of $63,000. This represents services billed to MECO of $29,000/$63,000 = 0.460 or 46.0% for this period. The actual billing of 46.0% of the forecast to date compares with the labor factor of 46.7% because of vacancies in the department.

HECO Fuels Resources Division
2007 Budget - Billable to MECO
($ in thousands)

	Jan to Aug				2007
	Actual	Budget	Variance		Budget
Labor & Overheads	$27	$58	($31)	-53%	$85
Outside Services	$2	$4	($2)	-50%	$8
Other		$1	($1)	-100%	$2
Total	**$29**	**$63**	**($34)**	**-54%**	**$95**

Please note the $36,735 shown in CA-IR-320, Attachment 1 includes $5,061 in December 2006 billings and $2,718 in August 2007 billings which are not reflected in the "HECO Fuels Resources Division, 2007 Budget – Billable to MECO" actual of $29,000.

Confidential Information Deleted Pursuant To Protective Order No. 23379.

CA-IR-320
DOCKET NO. 2006-0387
ATTACHMENT 1

Attachment 1 contains confidential information and is being provided subject to

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

CA-IR-320

Ref: MECO Response to CA-IR-99 (Intercompany Charges from HECO).

Please provide the following:

a. Update page 2 with a column showing actual charges in year-to-date 2007 through August.

b. Provide the explanatory information initially requested in part (c) of CA-IR-99 (assuming the work is now complete).

MECO Response:

a. The updated page 2 with a column showing actual charges in year-to-date 2007 through August is not currently available, and is expected to be available in mid-September. MECO plans to provide requested information on, or before, September 21.

CA-IR-321

Ref: MECO T-5, page 14, line 22 (Maintenance Needs).

According to T-5, the 2007 Operating Budget was prepared through a process including, "Historical costs were reviewed for reasonableness and adjusted as required to meet specific needs expected in 2007." Please provide the following information:

a. State and explain whether MECO maintains a prioritized list of power station maintenance projects.

b. If your response to part (a) of this information request is affirmative, please provide a complete copy of the listings of projects that existed for Kahalui, Palaau, Miki Basin and Maalaea stations when the 2007 Operating Budget was prepared.

c. Provide a listing the projects on the listings provided in your response to part (b) of this information request that were included in the 2007 Operating Budget, indicating the criteria that were employed to determine individual listed project inclusion versus exclusion.

d. Provide the actual expenditures to-date in 2007 for each listed station maintenance project in your response to part (b) of this information request, indicating the amounts charged by activity code (for example 552, 552M, etc.).

e. Explain the reasons for any individually significant station maintenance projects that have been deferred or added since the development of the 2007 Operating Budget and describe the reasons for such changes.

f. Explain and quantify how the adjustment set forth in MECO-WP-504 for "structural maintenance" impacts the ratemaking level of overall station maintenance listed projects included in the operating budget.

MECO Response:

a. MECO Power Supply's maintenance project prioritization process is dependent upon unit type. Combustion turbine, combustion turbine borescope inspections, electro-motive division "EMD", and diesel engine overhaul projects are normally scheduled based on run-time intervals recommended by the original equipment manufacturer "OEM" (please refer to CA-IR-81). Steam unit overhaul projects are based on the annual maintenance interval mandated by the State of Hawaii's Department of Labor and Industrial Relations through the boiler and pressure vessel operating permits.

b. Please refer to Attachment 1 provided herein.

c. All overhaul and maintenance projects listed on Attachment 1 under the "Preliminary 2007 Operating Budget" column were included in the "Final 2007 Operating Budget" column except for the M14 hot section replacement. The M14 Hot Section was excluded from the 2007 operating budget because this engine was overhauled at the end of 2005 and re-installed early in 2006, which was not known at the time the preliminary list was generated. The next M14 hot section replacement is due in early 2009.

The M14 HRSG Low Pressure "LP" section retubing is the only project listed under the "Final 2007 Operating" column different from the preliminary list. It was not included on the preliminary project list because low pressure retubing is not considered part of our normal periodic maintenance; however, the need for this maintenance came about after the preliminary list was generated and before the final budget was due, therefore, it was included in the 2007 operating budget.

d. The examples listed (552, 552M, etc.) by the Consumer Advocates on this information request represent the NARUC account and not the activity code. However, in an effort to provide information to facilitate the Consumer Advocate's review of MECO's rate case, actual expenditures (as of July 31, 2007) for each overhaul project are listed by the plant, NARUC account and activity code. Please refer to Attachment 2. The Company provides the YTD July 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.

e. Please refer to Attachment 3 for explanations why individually significant maintenance projects have been deferred or added since the development of the 2007 Operating Budget.

f. The adjustments set forth in MECO-WP-504 for "structural maintenance" have no impact on the ratemaking level of overall station maintenance listed projects (listed in Attachment 1 included herein) because structural maintenance work is not considered a project as defined in our response to parts a-e of this IR. There is no overlap between the MECO-WP-504 structural maintenance work and the projects identified in parts a-e of this IR.

Maui Electric Company, Limited

2007 OPERATING MAINTENANCE PROJECT LISTS

PROJECT NO.	UNIT	PRELIMINARY 2007 OPERATING BUDGET (As of 4/20/06)	FINAL 2007 OPERATING BUDGET (As of 06/20/06)
		PROJECT DESCRIPTION	
Kahului Power Plant			
M0000168	K1	Annual turbine overhaul	Annual turbine overhaul
M0000146	K2	Annual overhaul	Annual overhaul
M0000170	K3	Annual overhaul	Annual overhaul
M0000172	K4	Annual overhaul	Annual overhaul
Maalaea Power Plant			
M0000151	M3	Major overhaul	Major overhaul
M0000065	M4	Major overhaul	Major overhaul
M0000066	M5	Major overhaul	Major overhaul
M0000022	M6	Major overhaul	Major overhaul
M0000067	M8	Major overhaul	Major overhaul
M0000050	M12	Major overhaul	Major overhaul
M0000175	M14	Hot section replacement & generator cleaning	Generator cleaning
M0000047	M14 HRSG	Annual maintenance	Annual maintenance & low pressure section retubing
M0000056	M16	Re-install overhauled engine	Re-install overhauled engine
M0000047	M16 HRSG	Annual maintenance	Annual maintenance
M0000356	M17	Hot section replacement	Hot section replacement
M0000357	M19	Hot section replacement	Hot section replacement
Miki Basin Power Plant			
No scheduled overhaul for this year.			
Paalau Power Plant			
M0000156	Cat7	20,000 hr. major overhaul	20,000 hr. major overhaul
M0000030	Cat8	20,000 hr. major overhaul	20,000 hr. major overhaul
M0000031	Cat9	20,000 hr. major overhaul	20,000 hr. major overhaul

Confidential Information
Deleted Pursuant To
Protective Order No. 23379.

CA-IR-321
DOCKET NO. 2006-0387
ATTACHMENT 2

Attachment 2 contains confidential information and is provided subject to

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

Maui Electric Company, Limited
2007 OPERATING MAINTENANCE PROJECTS
(Original vs. Updated List)

PROJECT NO.	UNIT	PROJECT DESCRIPTION	ORIGINAL 2007 OPERATING BUDGET (As of 06/20/06)	UPDATED 2007 OPERATING BUDGET (As of 08/31/07)	EXPLANATION
Kahului Power Plant					
M0000168	K1	Annual turbine overhaul	Annual turbine overhaul	Annual turbine overhaul and turbine blades replacement (4 rows).	Added replacement of turbine blades due to damaged blade rings.
M0000146	K2	Annual overhaul	Annual overhaul	Deferred to 2008	Deferred due to change in overhaul schedule for units on forced outages at MPP.
M0000170	K3	Annual overhaul	Annual overhaul	Annual overhaul	n/a
M0000172	K4	Annual overhaul	Annual overhaul	Annual overhaul and turbine lube oil pump shaft replacement	Replacement due to bent lube oil pump shaft.
Maalaea Power Plant					
M0000151	M3	Major overhaul	Major overhaul	Major overhaul	n/a
M0000065	M4	Major overhaul	Major overhaul	Major overhaul	n/a
M0000066	M5	Major overhaul	Major overhaul	Deferred to 2008	Deferred due to less operating hours for the unit and to monitor the fuel consumption.
M0000022	M6	Major overhaul	Major overhaul	Deferred to 2008	Deferred to January 2008 due to change in the overhaul schedule.
M0000067	M8	Major overhaul	Major overhaul	Major overhaul and accessory gear replacement	Accessory gear were replaced due to the gear damage; running the unit longer puts it on the risk before it's even due for a gear replacement.
M0000034	M10	Not scheduled	Not scheduled	Major overhaul	This is mainly due to delay in 2006 overhaul schedule; this unit was started for overhaul in Dec. 2006.
M0000050	M12	Major overhaul	Major overhaul	Major overhaul	n/a

Maui Electric Company, Limited
2007 OPERATING MAINTENANCE PROJECTS
(Original vs. Updated List)

PROJECT NO.	UNIT	ORIGINAL 2007 OPERATING BUDGET (As of 06/20/06) PROJECT DESCRIPTION	UPDATED 2007 OPERATING BUDGET (As of 08/31/07)	EXPLANATION
Maalaea Power Plant (Continued)				
M0000175	M14	Generator cleaning	Generator cleaning and replace repaired engine	Replacement of repaired engine was added due to delay in the 2006 overhaul schedule.
M0000047	M14 HRSG	Annual maintenance & low pressure section retubing	Annual maintenance	Manufacturer could not meet the estimated date for delivery of the LP tubes.
M0000056	M16	Re-install overhauled engine	50,000 hr overhaul removed engine and re-install overhauled engine	Removal of engine was added this year due to delay in the 2006 overhaul schedule.
M0000047	M16 HRSG	Annual maintenance	Annual maintenance	n/a
M0000356	M17	Hot section replacement	Hot section replacement and replace engine	Replacement of engine using the spare engine due to internal engine compressor damage.
M0000357	M19	Hot section replacement	Hot section replacement	n/a
M0000147	X1	Not scheduled	Major overhaul	Added due to more operating hours this year than originally estimated.
M0000148	X2	Not scheduled	Repair and overhaul	Forced overhaul to repair the headframe frame and replace the crankshaft.

Miki Basin Power Plant

No scheduled overhaul for this year.

Paalau Power Plant

M0000156	Cat7	20,000 hr. major overhaul	20,000 hr. major overhaul	n./a
M0000030	Cat8	20,000 hr. major overhaul	20,000 hr. major overhaul	n./a
M0000031	Cat9	20,000 hr. major overhaul	20,000 hr. major overhaul	n./a

CA-IR-322

Ref: MECO Response to CA-IR-91, Attachments 1 to 16 (Production Budget Reporting/Tracking).

Please provide the following information regarding MECO Production budget reporting and tracking procedures:

a. Provide updated copies of the additional available monthly reports of production O&M budget variances to-date in 2007.

b. Provide a narrative description of each individually significant 2007 actual to-date versus budgeted Production O&M variance and explain how the updated view of anticipated calendar 2007 O&M spending is expected to be impacted by such variance.

c. Provide a narrative description of each individually significant 2007 actual to-date versus budget Production Department capital expenditure variance and explain how the updated view of anticipated calendar 2007 capital spending is expected to be impacted by such variance.

MECO Response:

a. Please refer to Attachment 1 for the updated copies of May to July 2007 monthly reports of production O&M budget variances.

b. Please refer to Attachment 2. The Company provides the YTD 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. Please refer to Attachment 3. The Company provides the YTD 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
PRODUCTION DEPARTMENT
MONTHLY VARIANCE REPORT - MAY 2007

FUEL OIL VARIANCE: $ 2,814,297 24.4%
BBLS 9,486 6.1%

	FORECAST			ACTUAL		
	BBLS	COST	TOTAL	BBLS	COST	TOTAL
KPP	26,175	50.62	1,325,000	32,384	55.84	1,808,271
MPP	119,419	77.17	9,215,600	122,842	93.54	11,490,034
LPP	4,607	101.03	465,500	4,514	104.92	473,619
MOL	5,898	85.54	504,500	5,845	94.61	552,973
CHP		0.00	0	0	0	0
TOTAL	156,099		11,510,600	165,585		14,324,897

	VARIANCE	
	BBLS	TOTAL
KPP	6,209	$483,271
MPP	3,423	$2,274,434
LPP	(93)	$8,119
MOL	(53)	$48,473
CHP	-	-
TOTAL	9,486	$2,814,297

EXPLANATION:

1. Sales 2.10% above forecast on Maui.
2. Sales 1.09% below forecast on Lanai.
3. Sales 4.47% below forecast on Molokai.
4. KPP fuel price 10.3% above forecast.
5. MPP fuel price 21.2% above forecast.
6. LPP fuel price 3.9% below forecast.
7. MOL fuel price 10.6% above forecast.
8. Also, Maui heatrates higher due to explanations below.

OPERATION VARIANCE: $ (24,730) -2.7%

	FORECAST			ACTUAL		
	FUEL	TOTAL	OPER	FUEL	TOTAL	OPER
KPP	1,325,000	1,615,938	290,938	1,808,271	2,090,772	282,501
MPP	9,215,600	9,717,507	501,907	11,490,034	11,939,478	449,444
LPP	465,500	522,038	56,538	473,619	541,165	67,546
MOL	504,500	563,866	59,366	552,973	627,988	75,015
PPA			8,853			18,366
Ovhd Adj.						
TOTAL			917,602			892,872

	OPER VARIANCE
KPP	(8,437)
MPP	(52,463)
LPP	11,008
MOL	15,649
PPA	9,513
Ovhd Adj.	-
TOTAL	(24,730)

EXPLANATION:

1. **KPP:** Mainly due to fuel additive originially budgeted under NARUC Acct. 500 but are expensed under NARUC Acct. 501, **<$11k>**
2. **MPP:** Mainly due to delay in recording expenditures for lube oil usage, **<$42k>**
3. **LPP:** Mainly due to the Source Testing, **+$14k**
4. **MOL:** Mainly due to the Source Testing, **+$10k**
5. **PPA:** None

MAINTENANCE VARIANCE: $ 973,936 116.2%

	FCST	ACTUAL	VARIANCE
KPP	326,139	256,257	(69,882)
MPP	482,035	1,491,363	1,009,328
LPP	19,098	40,571	21,473
MOL	10,771	23,788	13,017
Ovhd Adj.			-
TOTAL	838,043	1,811,979	973,936

EXPLANATION:

1. **KPP:** Mainly due to unanticipated increased costs for the KPP Berm Wall Restoration, **+$32k**
2. **KPP:** Mainly due to delay in schedule for the painting of stack duct support originally budgeted for May, **<$55k>**
3. **MPP:** Mainly due to services to dismantle, clean, inspect & test end rings on M14, **+$50k**
4. **MPP:** Mainly due to M19 Hot Section Overhaul, which was originally budgeted in July, **+$807k**
5. **MPP:** Mainly due to material and outside services costs for M13 engine repair, **+$1,560k**
6. **MPP:** Mainly due to delay in overhaul schedule for M3 (originally budgeted in May but moved to July), **<$273k>**
7. **LAN:** Mainly due to Ultipor Filter to change main F.O. (Pall) filter and housing rental for L07 & L08 overhaul, **+$21k**
8. **MOL:** Mainly due to delay in overhaul schedule for Cat9 (originally budgeted in Jan.-Feb. but moved to May, **+$13k**

PURCHASE POWER VARIANCE: $ 8,029 0.33%

	FORECAST		ACTUAL	
	KWH	COST	KWH	COST
MAUI				
HC&S	7,887,000	1,173,400	8,380,009	1,440,059
HC&S Capacity		151,200		151,631
WIND, KAHEAWA	10,892,000	1,102,200	8,057,519	870,639
HYDRO, MAKILA	186,000	27,500		
MOLOKAI				
SML ALT ENERGY				
WIND				
TOTAL	18,965,000	2,454,300	16,437,528	2,462,329

	VARIANCE	
	MWH	COST
MAUI		
HC&S	493,009	266,659
HC&S Capacity	-	431
HC&S Purchased Power	-	-
WIND, KAHEAWA	(2,834,481)	(231,561)
HYDRO, MAKILA	(186,000)	(27,500)
MOLOKAI		
SML ALT ENERGY	-	-
WIND	-	-
TOTAL	(2,527,472)	8,029

2007 2nd Qtr.	HC&S AVOIDED COST $/KWH		
	FCST	ACT	VAR
MAUI			
ON-PEAK	0.1163	0.1773	0.0610
OFF-PEAK	0.1065	0.1615	0.0550

EXPLANATION:

1. Purchase power high costs due to higher avoided cost then forecast.

HEAT RATE VARIANCE:

	BTU/KWH, net			Monthly
	FCST	ACTUAL	VARIANCE	% VARIANCE
KPP	13,730	14,922	1,192	8.68%
MPP	9,141	9,126	(15)	-0.16%
SYSTEM	10,239	9,982	(257)	-2.51%
LPP	10,062	9,807	(255)	-2.53%
MOL	9,927	10,260	333	3.35%
CHP			-	0%

	SALES, net			Monthly
	FCST	ACTUAL	VARIANCE	% VARIANCE
MAUI	101,056,000	103,178,603	2,122,603	2.10%
LANAI	2,551,000	2,523,127	(27,873)	-1.09%
MOLOKAI	3,163,900	3,022,412	(141,488)	-4.47%
CHP			-	0.00%

NET POWER PRODUCED

	KWH			
	FCST	ACTUAL	VARIANCE	% VARIANCE
KPP	12,010,000	13,672,350	1,662,350	13.84%
MPP	76,555,000	78,877,438	2,322,438	3.03%
CHP			-	0%
Maui Total	88,565,000	92,549,788	3,984,788	4.50%
LPP	2,683,300	2,697,258	13,958	0.52%
MOL	3,481,500	3,338,075	(143,425)	-4.12%

EXPLANATION:

1. KPP heatrate high due to rescheduling of K3 overhaul in May. K3 overhaul was originally budgeted in November.
2. MPP heatrate close to forecast. No explanation needed.
3. LPP heatrate low due to less running hours on the EMDs.
4. MOL heatrate high due to rescheduling of new CAT unit overhauls from budgeted forecast.

MAUI ELECTRIC COMPANY, LIMITED
PRODUCTION DEPARTMENT
MONTHLY VARIANCE REPORT - JUNE 2007

FUEL OIL VARIANCE: $ 3,368,533 29.6%
BBLS 5,965 3.7%

	FORECAST			ACTUAL		
	BBLS	COST	TOTAL	BBLS	COST	TOTAL
KPP	41,206	50.62	2,085,900	44,798	56.96	2,551,660
MPP	108,243	77.17	8,353,100	110,002	100.90	11,099,331
LPP	4,612	101.05	455,900	4,977	108.88	541,894
MOL	5,601	85.53	479,100	5,750	95.59	549,648
CHP		0.00	0	0	0	0
TOTAL	159,562		11,374,000	165,527		14,742,533

	VARIANCE	
	BBLS	TOTAL
KPP	3,592	$465,760
MPP	1,759	$2,746,231
LPP	465	$85,994
MOL	149	$70,548
CHP	-	-
TOTAL	5,965	$3,368,533

EXPLANATION:

1. Sales 0.74% above forecast on Maui.
2. Sales 4.00% below forecast on Lanai.
3. Sales 1.62% below forecast on Molokai.
4. KPP fuel price 12.5% above forecast.
5. MPP fuel price 30.8% above forecast.
6. LPP fuel price 7.7% below forecast.
7. MOL fuel price 11.8% above forecast.
8. Also, Maui heatrates higher due to explanations below.

OPERATION VARIANCE: $ 80,759 9.2%

	FORECAST			ACTUAL		
	FUEL	TOTAL	OPER	FUEL	TOTAL	OPER
KPP	2,085,900	2,375,009	289,109	2,551,660	2,856,945	305,285
MPP	8,353,100	8,825,988	472,888	11,099,331	11,592,944	493,613
LPP	455,900	506,275	50,375	541,894	604,252	62,358
MOL	479,100	533,807	54,707	549,648	632,162	82,514
PPA			9,120			13,188
Ovhd Adj.						
TOTAL			876,199			956,958

	OPER VARIANCE
KPP	16,176
MPP	20,725
LPP	11,983
MOL	27,807
PPA	4,068
Ovhd Adj.	-
TOTAL	80,759

EXPLANATION:

1. **KPP:** Mainly due to higher actual costs than budgeted to operate & monitor boiler related equipment. **+13k**
2. **MPP:** Mainly due to higher actual costs than budgeted for the lube oil. **+$19k**
3. **LPP:** Mainly due to the CEMS & Source Testing. **+$10k**
4. **MOL:** Mainly due to the CEMS & Source Testing. **+$15k**
5. **MOL:** Mainly due to higher actual costs than budgeted for the lube oil. **+13k**
6. **PPA:** None

MAINTENANCE VARIANCE: $ 1,297,808 85.6%

	FCST	ACTUAL	VARIANCE
KPP	325,644	253,818	(71,826)
MPP	1,162,774	2,520,648	1,357,874
LPP	18,363	24,943	6,580
MOL	9,426	14,606	5,180
Ovhd Adj.			-
TOTAL	1,516,207	2,814,015	1,297,808

EXPLANATION:

1. KPP: Mainly due change order and accruals for the structural concrete bonding, +$117k
2. KPP: Mainly due to delay in schedule for M15 HR1 and HR2 annual maintenance , <$239k>
3. MPP: Mainly due to unanticipated additional costs for M16 overhaul, +$1,653k
4. MPP: Mainly due to delay in M17 overhaul, <$833k>
5. MPP: Mainly due to delay in recording expenditures for M08 overhaul, +$427k
6. MPP: Mainly due to delay in recording expenditures for M19 overhaul, +$138k
7. LAN: None
8. MOL: None

PURCHASE POWER VARIANCE: $ 62,088 2.37%

	FORECAST		ACTUAL	
	KWH	COST	KWH	COST
MAUI				
HC&S	7,553,000	1,122,900	7,939,719	1,363,582
HC&S Capacity		151,200		150,294
WIND, KAHEAWA	13,067,000	1,322,500	10,833,499	1,171,412
HYDRO, MAKILA	180,000	26,600		
MOLOKAI				
SML ALT ENERGY				
WIND				
TOTAL	20,790,000	2,623,200	18,773,218	2,685,288

	VARIANCE	
	MWH	COST
MAUI		
HC&S	386,719	240,682
HC&S Capacity	-	(906)
HC&S Purchased Power	-	-
WIND, KAHEAWA	(2,223,501)	(151,089)
HYDRO, MAKILA	(180,000)	(26,600)
MOLOKAI		
SML ALT ENERGY	-	-
WIND	-	-
TOTAL	(2,016,782)	62,088

2007	HC&S AVOIDED COST $/KWH		
2nd Qtr.	FCST	ACT	VAR
MAUI			
ON-PEAK	0.1163	0.1773	0.0610
OFF-PEAK	0.1065	0.1615	0.0550

EXPLANATION:

1. Purchase power high costs due to higher avoided cost then forecast.

HEAT RATE VARIANCE:

	BTU/KWH, net			Monthly
	FCST	ACTUAL	VARIANCE	% VARIANCE
KPP	13,877	14,496	619	4.46%
MPP	9,127	9,085	(42)	-0.46%
SYSTEM	10,239	10,250	11	0.11%
LPP	10,062	10,863	801	7.96%
MOL	9,927	10,326	399	4.02%
CHP			-	0%

	SALES, net			Monthly
	FCST	ACTUAL	VARIANCE	% VARIANCE
MAUI	102,460,000	103,219,403	759,403	0.74%
LANAI	2,497,600	2,597,620	100,020	4.00%
MOLOKAI	3,004,600	3,053,368	48,768	1.62%
CHP			-	0.00%

NET POWER PRODUCED

	KWH			
	FCST	ACTUAL	VARIANCE	% VARIANCE
KPP	18,707,000	19,469,450	762,450	4.08%
MPP	69,499,000	70,941,750	1,442,750	2.08%
CHP			-	0%
Maui Total	88,206,000	90,411,200	2,205,200	2.50%
LPP	2,627,500	2,685,038	57,538	2.19%
MOL	3,306,800	3,263,375	(43,225)	-1.31%

EXPLANATION:

1. KPP heatrate high due to more generation from KPP units than forecasted. More generation from smaller units.
2. MPP heatrate lower then forecast because of less generation. Generation shifted to KPP. Problems with M14 remaining out for generator repairs, M17 went down for fuel leak repair, M8 overhaul took longer then forecasted, and M11 went out for a few days for a manifold leak.
3. LPP heatrate high due to higher load (more sales) then forecast causing EMDs to run more.
4. MOL heatrate high due to CAT8 down awaiting new generator cables to arrive. Less efficient units run to cover load.

MAUI ELECTRIC COMPANY, LIMITED
PRODUCTION DEPARTMENT
MONTHLY VARIANCE REPORT - JULY 2007

FUEL OIL VARIANCE: $ 3,229,986 27.1%
BBLS 1,299 0.8%

	FORECAST			ACTUAL		
	BBLS	COST	TOTAL	BBLS	COST	TOTAL
KPP	38,413	50.62	1,944,500	41,230	63.28	2,608,842
MPP	118,391	77.17	8,981,900	114,663	99.39	11,396,701
LPP	4,645	101.05	469,400	4,979	109.85	546,928
MOL	6,013	85.54	514,400	5,890	99.78	587,715
CHP		0.00	0	0	0	0
TOTAL	165,463		11,910,200	166,761		15,140,186

	VARIANCE	
	BBLS	TOTAL
KPP	2,817	$664,342
MPP	(1,728)	$2,414,801
LPP	333	$77,528
MOL	(123)	$73,315
CHP	-	-
TOTAL	1,299	$3,229,986

EXPLANATION:

1. Sales 1.02% above forecast on Maui.
2. Sales 4.37% above forecast on Lanai.
3. Sales 5.06% below forecast on Molokai.
4. KPP fuel price 25.0% above forecast.
5. MPP fuel price 28.8% above forecast.
6. LPP fuel price 8.7% above forecast.
7. MOL fuel price 16.6% above forecast.
8. Also, Maui heatrates higher due to explanations below.

OPERATION VARIANCE: $ (58,720) -6.8%

	FORECAST			ACTUAL		
	FUEL	TOTAL	OPER	FUEL	TOTAL	OPER
KPP	1,944,500	2,250,080	305,580	2,608,842	2,897,206	288,364
MPP	8,981,900	9,422,797	440,897	11,396,701	11,797,387	400,686
LPP	469,400	521,670	52,270	546,928	601,465	54,537
MOL	514,400	571,838	57,438	587,715	642,393	54,678
PPA			9,475			8,675
Ovhd Adj.						
TOTAL			865,660			806,940

	OPER VARIANCE
KPP	(17,216)
MPP	(40,211)
LPP	2,267
MOL	(2,760)
PPA	(800)
Ovhd Adj.	-
TOTAL	(58,720)

EXPLANATION:

1. **KPP:** Mainly due to reallocation of charges for the LO-1 fuel additive at KPP, **<$16k>**
2. **MPP:** Mainly due to budgeted amount is higher than actual costs for lube oil, **<$26k>**
3. **MPP:** Mainly due to budgeted amount is higher than actual costs for Nox water treatment chemicals, **<$12k>**
4. **LPP:** None
5. **MOL:** None
6. **PPA:** None

MAINTENANCE VARIANCE: $ (355,599) -31.7%

	FCST	ACTUAL	VARIANCE
KPP	506,212	162,927	(343,285)
MPP	576,542	572,098	(4,444)
LPP	26,374	16,922	(9,452)
MOL	12,177	13,759	1,582
Ovhd Adj.			-
TOTAL	1,121,305	765,706	(355,599)

EXPLANATION:

1. KPP: Mainly due to delay in schedule for M15 HR1 and HR2 annual maintenance , <$372k>
2. MPP: None
3. LAN: None
4. MOL: None

PURCHASE POWER VARIANCE: $ 728,216 26.55%

	FORECAST		ACTUAL	
	KWH	COST	KWH	COST
MAUI				
HC&S	7,583,000	1,142,200	7,964,377	1,523,552
HC&S Capacity	-	151,200	-	149,340
WIND, KAHEAWA	13,975,000	1,421,400	15,810,183	1,798,024
HYDRO, MAKILA	186,000	27,900		
MOLOKAI				
SML ALT ENERGY				
WIND				
TOTAL	21,744,000	2,742,700	23,774,560	3,470,916

	VARIANCE	
	MWH	COST
MAUI		
HC&S	381,377	381,352
HC&S Capacity	-	(1,860)
HC&S Purchased Power	-	-
WIND, KAHEAWA	1,835,183	376,624
HYDRO, MAKILA	(186,000)	(27,900)
MOLOKAI		
SML ALT ENERGY	-	-
WIND	-	-
TOTAL	2,030,560	728,216

2007	HC&S AVOIDED COST $/KWH		
2nd Qtr.	FCST	ACT	VAR
MAUI			
ON-PEAK	0.1163	0.1773	0.0610
OFF-PEAK	0.1065	0.1615	0.0550

EXPLANATION:

1. Purchase power high costs due to higher avoided cost then forecast.

HEAT RATE VARIANCE:

	BTU/KWH, net			Monthly
	FCST	ACTUAL	VARIANCE	% VARIANCE
KPP	13,756	14,420	664	4.82%
MPP	9,147	9,153	6	0.07%
SYSTEM	10,239	10,250	11	0.11%
LPP	10,062	10,205	143	1.42%
MOL	9,927	10,177	250	2.52%
CHP			-	0%

	SALES, net			Monthly
	FCST	*ACTUAL*	*VARIANCE*	*% VARIANCE*
MAUI	107,053,000	108,140,108	1,087,108	1.02%
LANAI	2,672,300	2,884,701	112,401	4.37%
MOLOKAI	3,226,000	3,062,914	(163,086)	-5.06%
CHP			-	0.00%

NET POWER PRODUCED

	KWH			
	FCST	ACTUAL	VARIANCE	% VARIANCE
KPP	17,593,000	18,013,560	420,560	2.39%
MPP	74,568,000	573,394,820	(1,173,180)	-1.57%
CHP			-	0%
Maui Total	92,161,000	91,408,380	(752,620)	-0.82%
LPP	2,705,400	2,859,013	153,613	5.68%
MOL	3,549,700	3,391,845	(157,855)	-4.45%

EXPLANATION:

1. **KPP** heatrate high due to more generation from KPP units than forecasted. More generation from smaller units.
2. **MPP** heatrate no explanation needed.
3. **LPP** heatrate high due to higher load (more sales) then forecast causing EMDs to run more.
4. **MOL** heatrate high due to CAT7 conrod bearing failure. Expected repair end of September.

Confidential Information
Deleted Pursuant To
Protective Order No. 23379.

CA-IR-322
DOCKET NO. 2006-0387
ATTACHMENTS 2-3

Attachments 2 and 3 contain confidential information and are being provided subject to

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

CA-IR-323

Ref: MECO Use of Generating Unit Spare Components.

Please provide the following information:

a. Does MECO own any generating unit spare components to support its maintenance efforts?

b. If your response to part (a) of this information request is affirmative, please list and describe each individually significant generating unit spare by NARUC account, indicating the approximate vintage and cost of same.

c. What procedures are employed to use spare parts and how often is each unit listed in your response to part (b) actually utilized?

d. Describe the accounting that occurs when spare parts are used and replaced as part of production maintenance activities.

e. Are spare parts included in depreciation expense, and if so what is the test year amount of such depreciation?

MECO Response:

a. Yes, MECO owns generating unit spare components to support its maintenance efforts.

b. The generating unit spare components owned by MECO which support its maintenance efforts are accounted in two different accounts. MECO accounts for generating units spare components either in Account no. 154, plant materials and operating supplies or in Account no. 101, utility plant in service. MECO owns a significant number of different generating unit spare components accounted in Account no. 154, plant materials and operating supplies. For the purposes of the Company's response to this information request, MECO has defined individually significant generating unit components to mean items with a cost equal to or greater than $1000. A listing of the items which meet this criteria is provided in Attachment 1 to this response. The only generating unit spare component that MECO owns that is accounted in Account no. 101, utility plant in service, is a General Electric ("GE") LM2500PE combustion turbine engine. This acquisition of the spare engine was approved by the Commission in Decision and Order No. 20690 dated November 26, 2003 in Docket

No. 03-0178. However, a list and description of any generating unit spare by NARUC account as requested cannot be provided due to the complexity of the inventory materials used or not used as a spare components for any related generating units. When a material purchased is classified as a stock item, that stock item is included in the materials inventory, on which is accounted for under NARUC Account 154. When a material is issued for a certain job or work then that's when the actual material cost can be determined as to what NARUC account it should be expensed to will be determined by the activity, equipment and/or system being worked on.

c. Our materials coordinators are responsible for managing the inventory levels in our warehouses. To ensure that adequate levels of stock materials are maintained and valid quantities are ordered, the Power Supply department utilizes our Ellipse System, which has the capability of automatically calculating the reorder points and reorders quantities based on historical usage, as well as future demand for materials. The system creates recommended order informing the materials coordinator to replenish materials, also the materials coordinators make additional orders to meet our scheduled overhaul maintenance. This task of ordering of parts becomes a challenge due to changes in lead times for parts and the unavailability of parts from vendor's warehouses.

d. As indicated in the response to part a above, the Company accounts for generating unit spare components either in Account no. 154, plant materials and operating supplies, or in Account no. 101, utility plant in service.

For generating unit spare components accounted for in Account no. 154, plant materials and operating supplies, the use of such components would generally be accounted for as a reduction in (or credit to) the balance for Account no. 154, plant materials and operating supplies, and an increase in (or debit to) production maintenance expense. The replacement

of such generating unit spare components would generally be accounted for as an increase in (or debit to) the balance for Account no. 154, plant materials and operating supplies, and a corresponding increase in (or credit to) Account no. 232, accounts payable.

For generating unit spare components accounted for in Account no. 101, utility plant in service, as noted in the response to part b above, the only generating unit spare component that MECO owns that is accounted for in Account no. 101 is a GE LM2500PE engine that is used as a spare. The costs to place the spare engine into utility service were capitalized to plant at the time of acquisition. Depreciation expense was recorded annually for this asset beginning in January of the year following acquisition. Depreciation expense is discussed further in MECO T-12. No further accounting entries would generally be required for the use of the spare for MECO's production maintenance activities. In the future, if the Company makes a decision to pursue replacement of the spare engine, such replacement would be accounted for in the same manner that MECO would account for the retirement of existing and acquisition of new utility plant in service, subject to any applicable requirements or conditions imposed by the Commission.

e. As indicated in the response to part a above, the Company accounts for generating unit spare components either in Account no. 154, plant materials and operating supplies, or in Account no. 101, utility plant in service. Generating unit spare components accounted for in Account no. 154, plant materials and operating supplies, are not depreciated and are therefore not included in depreciation expense. Generating unit spare components accounted for in Account no. 101, utility plant in service, are depreciated. MECO's test year estimate for depreciation expense includes approximately $142,000 for the depreciation of the spare LM2500PE engine. Depreciation expense is discussed further in MECO T-12.

CA-IR-324

Ref: MECO Response to CA-IR-98, Attachment 1 (Labor Hours Capital vs. O&M).

Please provide the following information:

a. Explain the process and input data used to estimate the test year labor hours that would be chargeable to capital versus O&M activities.

b. Provide complete copies of the information relied upon in preparing test year labor hour forecasts to determine amounts of time chargeable to capital projects.

c. Explain all known reasons why test year capitalized labor hours are expected to be at lower than historical levels for MGA and MGT.

d. Provide actual year-to-date O&M Capital and O&M hours by RA through August in the format of Attachment 1 and explain any known unusual or non-recurring activities reflected in such data.

MECO Response:

a. To determine whether a project is capital or O&M, MECO Power Supply personnel follow the Company-wide policies and procedures. Costs are classified as capital or asset if the item received has future value (i.e., provides future benefits to the Company and the value spans more than twelve months). Costs are classified as O&M or expense if the item received is valuable and provides benefits for less than twelve months. Below is the criteria for classifying costs as capital and must meet all criteria:

1. Costs of more than $300
2. Useful service life of more than one year
3. Property unit – Costs, including the costs for replacements or additions, must be for a complete recognized property unit. If less than a property unit, costs incurred must result in significant additional value in terms of prolonged useful service life or increased efficiency or capacity of existing property units as in the case of improvements, betterments or alterations. A Property Unit Catalog is available to identify property units.

Time and costs related to the operation and maintenance of the Company's power system are charged to a separate work order or code block with the appropriate accounting classification (i.e., NI for non-billable install-capital, NR for non-billable removal, and NE for non-billable O&M Expense other than Supervision).

Every year, department managers and project managers review and determine which projects/programs should be considered for inclusion in the upcoming five-year budget which is presented to the Board of Directors for approval (including any on-going projects) based on assigned priority ratings. When a capital project has been determined and identified, the project manager is responsible for providing the estimates for the labor hours as well as other resources needed. The estimated labor hours are allocated to capital and/or non -capital. The project managers estimate the labor hours by reviewing historical labor hours of the same or similar capital project and current trends that would impact the respective program project, and by assessing the hours needed to a complete a project based on experience. Meetings to discuss the prioritization of the projects are then held to determine which capital projects will proceed through the budget process for review by the Capital Budget Committee (CBC). Note: Rankings are generally based on the value of each identified project to the Company's strategic goals & objectives & their respective priority assessment ratings. During the prioritization process, total project/program costs should remain at or below these spending targets. As part of the budget preparation process, the Accounting Department sets spending targets and issues them to the departments. Projects reviewed and approved by the CBC for inclusion in the annual budget are flagged as such in Pillar and presented to the President for review and approval. Projects not approved by the BOARD are classified as "unbudgeted" and must be approved in accordance with established Company approval levels.

The process and input data used for the O&M labor hours are also identified in our response to CA-IR-283. (Copies provided in Attachment 1 of this response). The following procedures are performed to develop the department's non-project/project Pillar estimates for the test year forecast:

Pillar Overhaul Project- Labor Estimates (O&M). Staffing and labor estimates are based on the two-year overhaul schedule. The Supervisors use historical overhaul labor hours plus identified overhaul scope work requirements in determining budget labor hour estimates. In addition, the Pillar Labor Resource Leveling report is used to check the labor resources available as compared to the demand on labor resources.

Pillar Non-Project -Labor Estimates (O&M). On an annual basis, the Supervisors determine total labor hours including overtime, based upon the head count provided by the Manager. This high-level estimate is entered into a spreadsheet showing total labor available per month, overtime hours, overhaul hours, capital hours, and general maintenance hours. The overhaul and capital labor requirements are determined first, followed by general maintenance. Historical trending is used to ensure reasonableness. In addition, the Pillar Labor Resource Leveling report is used to check the labor resources available as compared to the demand on labor resources.

b. The requested information relied upon in preparing test year labor hour forecasts to determine amounts of time chargeable to capital projects is provided in Attachment 4.

c. For MGA, the year-to-date recorded capital labor hours for 2007 through August 2007 is 348 hours, as shown on Attachment 3, page 1. The test year 2007 estimate of 412 capital labor hours is lower than prior years, because the M18 steam turbine project accounted for a substantial amount of capital labor hours in 2004, 2005, and 2006. Since the M18 steam turbine was placed in service in October 2006, there are no capital labor hours for the project

in 2007, resulting in a lower number of test year capital labor hours relative to prior years. See Attachment 2, Page 1, for MGA capital project details.

For MGT, the year-to-date recorded capital labor hours for 2007 through August 2007 is 368 hours, as shown on Attachment 3, page 1. The test year 2007 estimate of 127 hours is lower than prior years because MECO has less capital projects scheduled in 2007, compared to 2004, 2005, and 2006. See Attachment 2, Page 2, for MGT capital project details.

d. Please see Attachment 3 for actual year-to-date O&M and Capital labor hours by RA through August 31, 2007 in the format of CA-IR-98 Attachment 1. The following are explanations of known unusual or non-recurring activities reflected in Attachment 3:

1. MGA: The actual year-to-date labor hours are more than the year-to-date budgeted labor hours mainly due to the following:
    a. Capital. Labor hours for TCPSEN relating to M18-18MW capital project.
    b. O&M. Labor hours for TCPSEN relating to Kaheawa Wind Power contract administration.
2. MGB: The actual year-to-date labor hours are less than the year-to-date budgeted labor hours mainly due to the following:
    a. Capital - Labor hours budgeted for the following capital projects, which has not been recorded due to timing differences and delay in schedule:
        i. KPP Welding Lean-to Roof originally forecasted to be placed in service in March 2007 but moved to September 2007.
        ii. KPP Condensate Storage Tank Pedestal originally forecasted to be placed in service in July 2007 but moved to August 2008.
        iii. KPP Compressor originally forecasted to be placed in service in March 2007 but moved to September 2007.

iv. KPP Used Oil Berm originally forecasted to be placed in service in September 2007 but moved to December 2007.

b. O&M - The 2007 labor budget included a transfer employee from MGK to MGB. This employee was not transferred into MGB until August 2007. The result of this delayed transfer is less labor hours for MGB and more labor hours for MGK.

3. MGC: There are no known unusual or non-recurring activities labor hours were charged to capital. However, the actual year-to-date O&M labor hours are more than the budgeted year-to-date mainly due to the compressor and bearing problems for M14; increased labor hours are projected to complete the replacement of engine with a leased engine.

4. MGD: The actual year-to-date O&M labor hours are more than the budgeted year-to-date mainly due to unbudgeted labor hours for overhaul maintenance of units X2, M08 and M10 and corrective maintenance at Maalaea Power Plant (MPP) such as lube oil purifier no. 1 vibration problems, M12 vent fan shaft and bearing damage, M10 and M11 basement floor sump pump and MPP station common maintenance.

5. MGE: The year-to-date O&M hours are less than budgeted because MECO has not been able to fill two vacancies for qualified technicians in MGE. Because of this staffing shortage non-essential 2007 MGE O&M work has been postponed when possible.

6. MGK: The 2007 labor budget accounted for the transfer of one employee from MGK to MGB. This employee was not transferred into MGB until August 2007. The result of this delayed transfer is less labor hours for MGB and more labor hours for MGK.

The Kahului Plant Manager (MGA) has been out on long term sick leave in 2007. One of the MGK Supervisors has been filling in for this position. The other MGK Supervisors have accordingly been working over-time to cover for the displaced Supervisor.

Also, for periods of time in 2007 MGK has not had a qualified relief crew for sick/vacation coverage, which has resulted in additional over-time hours by the MGK Supervisors. Several MGK personnel are new and have been in training in 2007. Eventually these personnel will be qualified to provide relief coverage, which will reduce the MGK hours.

7. MGL: The actual year-to-date O&M labor hours are less than the budgeted year-to-date mainly due to the timing of the filling of a new position added this year. The position, which was originally forecasted for an Operator Helper, which was subsequently changed to as a Maintenance Electrician and was filled on July 16, 2007.
8. MGM: The actual year-to-date O&M labor hours are less than the budgeted year-to-date mainly due to retirements of two positions and extended absence of one position, namely, Operator Helper, Operations Supervisor and Control and Switch Board Operator.
9. MGT: There are no known unusual or non-recurring activities labor hours were charged to capital and O&M.

CA-IR-283

Ref: MECO T-5, page 21 (Maintenance Work Requirements).

According to the testimony, "Production maintenance labor expense was determined by estimating the work requirements and the staffing necessary to perform this work." Please provide the following:

a. Explain in detail how "work requirements" were quantified, indicating each metric used for such quantification.

b. Provide complete copies of all studies, reports, analyses, projections and other documents associated with or supportive of your response to part (a) of this information request.

c. Provide detailed comparative historical data for the years 2002 through 2007, to date, indicating how MECO measures and tracks "work requirements" that are performed by company personnel within each RA.

d. Provide test year work requirements metrics, comparable to your response to part (c), by RA.

e. Explain why MECO-WP-505, at the line captioned "TOTAL MPP DIESEL ENGINE OVHL MAINTENANCE" projects a reduction of budgeted non-labor Diesel maintenance overhaul costs that reduces projected expenses from $2.2 million to $0.9 million, yet MECO has not reduced its MGD staffing or labor hours to reflect the reduced work requirements.

f. Explain and quantify all reasons why the lower diesel operating hours described at MECO T-5, page 18, will not cause a corresponding reduction in MPP maintenance work requirements and labor hours.

MECO Response:

a. Due to the complexity of all the different tasks for each and every job assignment, the Production maintenance "work requirements" are forecasted based on "labor demands". The "labor demands" are determined by the total hours available and the number of projected hours for overhaul, capital and general maintenance. The total hours available are calculated by adding the total supply hours for each labor class and the projected overtime hours. The total supply hours for each labor class are calculated based on the number of employee count multiplied by the available hours per employee for each labor class. The projected overtime hours are based on overtime hours required for each O&M project or "unit overhaul" and/or

historical experience. (See pages 3 and 4 of MECO's response to CA-IR-98. Copies provided in Attachment 2 of this response.)

The labor hours estimated for each overhaul are based on the historical standard overhaul labor hours by labor class and the time period scheduled for a standard unit overhaul, which is factored by the number of weeks for each standard overhaul schedule, the number of employee available for each labor class and number of working hours for each day. Then, the labor hours estimated for each capital projects are calculated by using the historical labor hours for the same or similar capital project. Lastly, the labor hours estimated for general maintenance or other O&M non-project or non-overhaul are calculated by subtracting total hours available from the number of hours projected for the overhaul and capital projects.

b. Please refer to the following responses: 1) CA-IR-92, Attachment 3, page 1; 2) CA-93, Attachment 1, page 1, and; 3) CA-IR-94, Attachment 1, page 1. (Copies provided in Attachment 2 of this response.)

c. Please refer to Attachment 1 of this response. As indicated on our response to item a. above, MECO Power Supply's measurement and tracking of the projected "work requirements" that are performed by company personnel within each RA are not done at the task level. However, to keep track of the actual hours recorded for a certain work, MECO Power Supply creates a work order for every standard job or work which requires MECO labor hours. The creation of the work order allows us not just to keep track of the actual hours spent on a work associated to an overhaul, corrective, preventive and predictive maintenance, but as well as the actual costs incurred for non-labor expenses, such as materials and outside services.

d. Please refer to response to item c.

e. Please refer to CA-IR-222 items a. and b.

f. Please refer to CA-IR-222 item c.

Maui Electric Company, Limited

PRODUCTION LABOR HOURS - OVERHAUL, CAPITAL AND O&M
2002 - 2006 RECORDED, 2007 RECORDED TO DATE, 2007 BUDGET

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
			RECORDED						TEST YEAR
								YTD June	
Line	RA	Acct Grp Descr	2002	2003	2004	2005	2006	2007	2007
1	MGA	Overhaul	39	154	0	22	0	0	0
2	MGA	Capital	458	820	828	1,105	1,055	320	412
3	MGA	General Maintenance	16,279	13,218	14,161	14,454	14,895	7,672	14,119
4	MGA	Total	16,775	14,191	14,989	15,581	15,950	7,991	14,531
5	MGB	Overhaul	2,969	6,823	6,009	6,058	2,735	61	8,173
6	MGB	Capital	977	1,160	1,247	284	256	123	1,053
7	MGB	General Maintenance	12,671	10,369	11,204	11,824	14,915	9,067	11,180
8	MGB		16,617	18,353	18,459	18,166	17,905	9,251	20,406
9	MGC	Overhaul	0	439	321	437	1,054	638	954
10	MGC	Capital	0	90	14	53	37	105	280
11	MGC	General Maintenance	41	5,324	4,627	5,872	5,342	2,850	4,958
12	MGC		41	5,853	4,962	6,362	6,433	3,592	6,192
13	MGD	Overhaul	25,209	23,059	20,779	18,320	15,643	16,406	37,395
14	MGD	Capital	43	112	94	21	167	76	248
15	MGD	General Maintenance	22,830	18,433	21,935	20,530	22,390	6,972	4,311
16	MGD		48,082	41,604	42,807	38,870	38,200	23,453	41,954
17	MGE	Overhaul	6,459	8,831	8,546	8,182	6,397	2,665	12,575
18	MGE	Capital	1,124	997	2,898	1,607	1,512	598	1,270
19	MGE	General Maintenance	10,892	10,240	12,024	14,905	15,313	8,177	11,845
20	MGE		18,475	20,069	23,468	24,693	23,221	11,440	25,690
21	MGK	Overhaul	566	1,103	989	888	577	0	2,085
22	MGK	Capital	0	52	160	-2	0	0	0
23	MGK	General Maintenance	41,088	43,146	42,021	43,735	43,837	24,036	41,225
24	MGK		41,654	44,302	43,170	44,621	44,414	24,036	43,310
25	MGL	Overhaul	0	0	52	0	66	0	0
26	MGL	Capital	0	0	0	0	0	0	0
27	MGL	General Maintenance	12,283	10,777	10,591	10,647	10,403	5,594	12,528
28	MGL		12,283	10,777	10,643	10,647	10,469	5,594	12,528
29	MGM	Overhaul	83	124	102	20	27	0	0
30	MGM	Capital	0	36	12	8	423	68	0
31	MGM	General Maintenance	60,064	61,767	59,098	59,532	59,517	28,154	59,311
32	MGM		60,147	61,927	59,212	59,560	59,967	28,223	59,311

Maui Electric Company, Limited

PRODUCTION LABOR HOURS - OVERHAUL, CAPITAL AND O&M
2002 - 2006 RECORDED, 2007 RECORDED TO DATE, 2007 BUDGET

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
			RECORDED						TEST YEAR
								YTD June	
Line	RA	Acct Grp Descr	2002	2003	2004	2005	2006	2007	2007
33	MGT	Overhaul	32	0	331	0	0	0	426
34	MGT	Capital	0	205	816	859	678	267	127
35	MGT	General Maintenance	12,776	13,143	12,429	12,895	13,257	6,642	12,440
36	MGT		12,808	13,348	13,575	13,754	13,935	6,909	12,993
37	Production	Overhaul	35,356	40,533	37,127	33,925	26,498	19,770	61,608
38	Production	Capital	2,600	3,472	6,067	3,935	4,127	1,556	3,390
39	Production	General Maintenance	188,924	186,418	188,089	194,393	199,868	99,162	171,917
40	Production	Total	226,880	230,422	231,283	232,253	230,492	120,488	236,914

3. Yes, available labor hours for the assumed staffing level were converted into available hours, overtime as well as estimated amounts of non-productive holiday, vacation and sick pay.
4. Yes, available operator and administrative hours are generally across activity codes, based upon historical distribution of such hours.
5. Yes, total maintenance hours are compared to overhaul schedules and any hours not required for overhauls would be used for general plant maintenance.
6. Yes, if overhaul schedules cannot be met with internal resources, there may be a need to defer general maintenance, utilize contractors or take a risk with deferring an overhaul.
7. Yes, backlogged non-project plant maintenance work would be done during a scheduled overhaul, maintenance outage and in some cases does not require and outage.
8. Yes, there are capital projects where staff can charge to capital accounts.

b. Separate labor hour data for straight-time capital, straight time O&M, overtime capital and overtime O&M cannot be produced because labor costing is performed with the use of standard labor rates, which allocate overtime and other premium pay across all productive labor hours. However, in an effort to provide information to facilitate the Consumer Advocate's review of MECO's rate case, a comparative summary of total hours worked for each RA, broken down between capital and O&M for the years 2004 through 2006 for recorded data and the 2007 Operating Budget, is

provided in Attachment 1. In addition, Attachment 2 provides a summary of actual incurred straight time and overtime labor hours for each RA labor category for calendar years 2004, 2005 and 2006, as well as the comparable labor hour data included in the Production's 2007 test year rate case forecast. This summary includes total labor hours, not labor hours allocated between O&M, capital and other accounts. Please note that page 3 of Attachment 2 does not tie to MECO-WP-1106 (pages 3 and 4) as there was an error in calculating the straight time and overtime hours in 2007 forecast; a corrected MECO-WP-1106 will be filed at a later date. A summary of total hours worked for each RA, relating to total compensated absence hours (holiday, vacation and sick) is not included, however, the information requested will be provided when the data becomes available. There are no any additional categories of labor hours required to equal total paid hours.

GDMANT (18)

*RA # *Labor Class #	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	TOTAL 2007
Overhaul hours	2,688	3,168	4,096	3,552	1,693	1,655	3488	2,976	3,192	3,454	3,285	3541	38788
General Maint hours	460	112	224	5	630	1,014	148	147	47	0	0	0	2783.5
Capital	40	40	4	4	0	0	0	0	0	160	0	0	248
Total	3,188	3,320	4,324	3,561	2,323	2,669	3,636	3,123	3,239	3,614	3,285	3,541	39819.5
													0
Supply	3312	2880	3168	3024	3312	3024	3168	3312	2880	3312	3168	3024	37584
OT	384	608	1280	992	157.5	462.5	672	512	512	512	384	640	7116
Total Hrs Avail	3696	3488	4448	4016	3469.5	3486.5	3840	3824	3392	3824	3552	3664	44700

*RA # *Labor Class #	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	TOTAL 2007
GDSUPV (1) Mike Abbey													
Overhaul hours	42	64	78	72	15	48	52	44	48	48	46	50	607
General Maint hours	166	128	168	158	174	125	156	172	144	168	154	158	1,871
Capital	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	208	192	246	230	189	173	208	216	192	216	200	208	2478
													0
Supply	184	160	176	168	184	168	176	184	160	184	176	168	2088
OT	24	32	70	62	5	5	32	32	32	32	24	40	390
Total Hrs Avail	208	192	246	230	189	173	208	216	192	216	200	208	2478

*RA # *Labor Class #	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	TOTAL 2007
GDMATL (Eileen)													
Overhaul hours	0	0	0	0	0	0	0	0	0	0	0	0	0
General Maint hours	196	176	211	199	187	170	192	200	176	200	188	188	2283
Ellipse	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	196	176	211	199	187	170	192	200	176	200	188	188	2283
													0
Supply	184	160	176	168	184	168	176	184	160	184	176	168	2088
OT	12	16	35	31	3	2	16	16	16	16	12	20	195
Total Hrs Avail	196	176	211	199	187	170	192	200	176	200	188	188	2283

*RA # *Labor Class #	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	TOTAL 2007
GDMATL (Shamus)													
Overhaul hours	0	0	0	0	0	0	0	0	0	0	0	0	0
General Maint hours	196	176	211	199	186	171	192	200	176	200	188	188	2283
Capital	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	196	176	211	199	186	171	192	200	176	200	188	188	2283
													0
Supply	184	160	176	168	184	168	176	184	160	184	176	168	2088
OT	12	16	35	31	2	3	16	16	16	16	12	20	195
Total Hrs Avail	196	176	211	199	186	171	192	200	176	200	188	188	2283

GEMANT (10)

*RA #	*Labor Class #	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Total 2007
Overhauls	GEMANT	1530	1368	672	625	1387	1637	432	1184	584	584	1335	765	12,103
Capital		160	160	136	88	160	80	24	0	240	96	0	0	1,144
General Maintenance		451	373	1253	1,268	594	264	1605	957	1077	1461	726	1216	11,245
Total		2,141	1,901	2,061	1,981	2,141	1,981	2,061	2,141	1,901	2,141	2,061	1,981	24,492
														0
Available		1840	1600	1760	1680	1840	1680	1760	1840	1600	1840	1760	1680	20880
OT		301	301	301	301	301	301	301	301	301	301	301	301	3,612
Total Avail		2,141	1,901	2,061	1,981	2,141	1,981	2,061	2,141	1,901	2,141	2,061	1,981	24,492

*RA #	*Labor Class #	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Total 2007
GESUPV (Gerardo)														
Overhauls	GESUPV	40	48	40	32	45	67	28	46	27	27	36	36	472
Capital		40	0	0	10	10	10	0	0	40	16	0	0	126
General Maintenance		130	138	162	152	155	117	174	164	119	167	166	158	1802
Total		210	186	202	194	210	194	202	210	186	210	202	194	2400
														0
Available		184	160	176	168	184	168	176	184	160	184	176	168	2088
OT		26	26	26	26	26	26	26	26	26	26	26	26	312
Total Avail		210	186	202	194	210	194	202	210	186	210	202	194	2400

*RA #	*Labor Class #	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Total 2007
GEMANT (Extra person)														
Overhauls	GESUPV	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital		0	0	0	0	0	0	0	0	0	0	0	0	0
General Maintenance		184	160	176	168	184	168	176	184	160	184	176	168	2088
Total		184	160	176	168	184	168	176	184	160	184	176	168	2088
														0
Available		184	160	176	168	184	168	176	184	160	184	176	168	2088
OT		0	0	0	0	0	0	0	0	0	0	0	0	0
Total Avail		184	160	176	168	184	168	176	184	160	184	176	168	2088

Total 2007 for MGE = 28,980

7 men (GBMANT)

*RA #	*Labor Class #	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
Overhaul	Hours	977	577	128	128	1431	123	0	1120	840	280	1,110	833	7547
Capital	Hours	4	116	32	0	0	80	400	0	8	0	333	0	973
General Maint		**555.5**	**612.5**	**1200**	**1176**	**224.5**	**1039.5**	**844**	**180**	**284**	**1020**	**58.5**	**616**	**7810.5**
														0
Total Hrs		1536.5	1305.5	1360	1304	1655.5	1242.5	1244	1300	1132	1300	1501.5	1449	16330.5
Available		1288	1120	1232	1176	1288	1176	1232	1288	1120	1288	1232	1176	14616
OT		248.5	185.5	128	128	367.5	66.5	12	12	12	12	269.5	273	1714.5
Total Hrs Avail		**1536.5**	**1305.5**	**1360**	**1304**	**1655.5**	**1242.5**	**1244**	**1300**	**1132**	**1300**	**1501.5**	**1449**	**16330.5**

GBSUPV

*RA #	*Labor Class #	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
Overhauls	Hours	84	50	0	0	122	11	0	96	72	24	96	71	626
Capital	Hours	0	40	16	0	0	0	24	0	0	0	0	0	80
General Maint		**135.5**	**96.5**	**166**	**174**	**115**	**166.5**	**158**	**94**	**94**	**166**	**118.5**	**136**	**1620**
														0
Total Hrs		219.5	186.5	182	174	237	177.5	182	190	166	190	214.5	207	2326
Available		184	160	176	168	184	168	176	184	160	184	176	168	2088
OT		35.5	26.5	6	6	52.5	9.5	6	6	6	6	38.5	39	237.5
Total Hrs Avail		**219.5**	**186.5**	**182**	**174**	**236.5**	**177.5**	**182**	**190**	**166**	**190**	**214.5**	**207**	**2325.5**

GBMATL

*RA #	*Labor Class #	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
Overhauls	Hours	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital	Hours	0	0	0	0	0	0	0	0	0	0	0	0	0
General Maint		**219.5**	**186.5**	**176**	**168**	**237**	**177.5**	**176**	**184**	**160**	**184**	**214.5**	**207**	**2290**
														0
Total Hrs		219.5	186.5	176	168	237	177.5	176	184	160	184	214.5	207	2290
Available		184	160	176	168	184	168	176	184	160	184	176	168	2088
OT		35.5	26.5	0	0	52.5	9.5	0	0	0	0	38.5	39	201.5
Total Hrs Avail		**219.5**	**186.5**	**176**	**168**	**236.5**	**177.5**	**176**	**184**	**160**	**184**	**214.5**	**207**	**2289.5**

Note: Added in an extra GBMANT personnel per Stan Kiyonaga on 07/10/06; available hours for this additional employee not accounted for on this calculation.

Maui Electric Company, Limited

PRODUCTION LABOR HOURS DETAIL - MGA
2004 - 2006 RECORDED and 2007 BUDGET
By Capital Project Number

Proj	Project	2004 Recorded	2005 Recorded	2006 Recorded	2007 Budget
M0000339	MPP Fuel/Lube Oil Piping	10	-	-	-
M0000414	KPP Improve water supply	24	-	1	-
M0000416	KPP Septic system	69	-	-	-
M0000417	MPP Septic system	7	-	-	-
M0000422	K4 Static Exciter	80	-	-	-
M0000585	Hana Day Tanks	18	-	-	-
M0000597	M12/13 Biodiesel Stor & Del Sys	94	254	-	-
M0000602	M17 Opacity Monitor	28	-	-	-
M0000722	M14 CEMS Replacement	-	-	101	-
M0000723	M16 CEMS Replacement	-	-	100	-
M0000790	M12/13 CEMS Replacement	-	-	-	120
M3111000	Waena Gen Sta Ph 1 - 20MW CT	-	-	-	292
M3141001	MPP M18-18 MW Steam Turbine NI	499	851	853	-
	Total Capital Labor Hours - MGA	**828**	**1,105**	**1,055**	**412**

Maui Electric Company, Limited

PRODUCTION LABOR HOURS DETAIL - MGT
2004 - 2006 RECORDED and 2007 BUDGET
By Capital Project Number

Proj	Project	2004 Recorded	2005 Recorded	2006 Recorded	2007 Budget
M0000019	Damages Caused by External Party	4	24	14	-
M0000390	Palaau Sub Tsf Repl	103	-	-	-
M0000391	Puunana Sub Tsf Repl	49	-	-	-
M0000547	Potable Water Well 17 Offsite	60	-	-	-
M0000591	Alanui Kai'imi'ike Extension	13	-	-	-
M0000633	Kaluakoi UG Main Fdr Repl Ph 1	74	-	-	-
M0000637	Kaluakoi UG Main Fdr Repl Ph3	-	-	-	120
M0000638	Kaluakoi UG Main Fdr Repl Ph 2	-	194	-	-
M0000652	SOH: Molokai Kawaikapu Bridge UA# 1678	6	18	-	7
M0000762	GT1 Exhaust	-	-	24	-
M2603000	MOE MINOR PS ADDITION	-	-	9	-
M7000000	OVERHEAD SERVICES & EXTENSIONS	179	207	177	-
M7010000	OH SVC & EXTENSIONS	28	26	13	-
M7300000	MINOR POLE LINE RELOCA	-	1	-	-
M7750000	Other Overhead additions	195	215	302	-
M7761000	MINOR STORM DAMAGE REPAIRS	-	-	11	-
M7900000	METERS & METERING EQUIP (RB)	-	1	4	-
M7910000	TRANSFORMERS & REL. EQ. (RB)	-	5	-	-
M8000000	UNDERGROUND SERVICES & EXTNS.	52	134	98	-
M8010000	UG SERVICES & EXTENSIONS	29	23	2	-
M8700000	MINOR CABLE FAILURE REPLACE.	2	-	-	-
M8900000	Other Underground Additions	22	13	25	-
	Total Capital Labor Hours - MGT	**816**	**859**	**678**	**127**

Confidential Information
Deleted Pursuant To
Protective Order No. 23379.

CA-IR-324
DOCKET NO. 2006-0387
ATTACHMENT 3

Attachment 3 contains confidential information and is provided subject to

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

Attachment 4 is voluminous 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 document. An electronic copy of the requested information is being provided.

CA-IR-324

Ref: MECO Response to CA-IR-98, Attachment 1 (Labor Hours Capital vs. O&M).

Please provide the following information:

a. Explain the process and input data used to estimate the test year labor hours that would be chargeable to capital versus O&M activities.

b. Provide complete copies of the information relied upon in preparing test year labor hour forecasts to determine amounts of time chargeable to capital projects.

c. Explain all known reasons why test year capitalized labor hours are expected to be at lower than historical levels for MGA and MGT.

d. Provide actual year-to-date O&M Capital and O&M hours by RA through August in the format of Attachment 1 and explain any known unusual or non-recurring activities reflected in such data.

MECO Response:

d. The actual year-to-date O&M Capital and O&M hours by RA through August in the format of CA-IR-98 Attachment 1 is not currently available, and is expected to be available in mid-September. MECO plans to provide requested information on, or before, September 21.

CA-IR-325

Ref: MECO Response to CA-IR-98, Attachment 2 (ST and OT Labor Hours).

Please provide the following:

a. 2007 projected monthly "ST" hours by RA and "OT" hours by RA, in a format comparable to the information provided in Attachment 2.

b. 2007 actual monthly "ST" and "OT" hours by RA, for all available months of 2007 to date, in a format comparable to the information provided in Attachment 2.

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 your response to parts (a) and (b) of this information request.

MECO Response:

a. Please refer to Attachment 1 provided herein for 2007 projected monthly "ST" and "OT" hours by RA, in a format comparable to the information provided in CA-IR-98 Attachment 2.

b. The source for overtime hours is the Company's payroll system, which records data on a bi-weekly pay-period basis. For that reason, actual monthly data for 2007 "ST" and "OT" by RA cannot be provided. In lieu of that format, 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 2 provided herein.

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.

c. Reasons for the significant variances in year-to-date actual straight hours and overtime hours by RA in relation to the projected test year levels are as follows:

1. MGA: As previously stated in our response to CA-IR-224, the 2007 forecast for MGA overtime hours is expected to be higher than recorded because the 2007 forecast includes both paid and unpaid overtime hours. The 2007 budget for MGA includes 164 hours of paid overtime, and 2,204 hours of unpaid overtime. The 2007 actual year-to-date overtime hours paid for MGA is 198 hours. The 2007 actual year-to-date straight time hours is lower than the 2007 forecast year-to-date straight time hours mainly due to the Kahului Power Plant Station Manager, whose currently on long term sick leave beginning on June 26, 2007.
2. MGB: The 2007 actual year-to-date straight time hours is less than the projected test year level due to delay in schedule for capital projects such as KPP Welding Lean-to Roof, KPP Compressor and KPP Used Oil Berm and overhaul project for units K2, K4 and M12. Also, the 2007 MGB labor budget included a transfer employee from MGK to MGB. This employee was not transferred into MGB until August 2007. The result of this delayed transfer is less 2007 recorded labor hours for MGB (and more for MGK).
3. MGC: The 2007 actual year-to-date overtime hours is more than the projected test year level mainly due to unscheduled outages for general maintenance and/or overhaul maintenance for units M14's replacement of repaired engine and replacement of engine with a leased engine due to compressor and bearing problems, M16's removal of engine, which was originally scheduled in 2006, and

M17's replacement of engine using the spare engine due to internal engine compressor damage.

4. MGD: The 2007 actual year-to-date straight time hours is less than the projected test year level mainly due to the delay in schedule for overhaul projects for units M05, M06 and M12 overhaul. The 2007 actual year-to-date overtime hours is more than the projected test level mainly due to unscheduled outages for overhaul maintenance of units X2, M08 and M10.
5. MGE: The 2007 actual year-to-date straight time hours is less than the projected test year level mainly due to the inability to fill two vacancies for qualified technicians in MGE. The 2007 actual year-to-date overtime hours is more than the projected test year level mainly due to unscheduled outages and change in the overhaul schedule for units K1, K2, K4, M10 and X2.
6. MGK: The 2007 actual year-to-date overtime hours is more than the projected test year level. The Kahului Plant Manager (MGA) has been out on long term sick leave in 2007 which has required one of the MGK Supervisors to fill this position. The other MGK Supervisors have accordingly been working over-time to cover for the displaced Supervisor. Also, for periods of time in 2007 MGK has not had a qualified relief crew for sick/vacation coverage, which has resulted in additional over-time hours by the MGK Supervisors. Several MGK personnel are inexperienced and have been in training in 2007. These personnel will soon be qualified to provide relief coverage, which will reduce the MGK hours.
7. MGL: The 2007 actual year-to-date straight time hours are less than the projected test year level mainly due to a delay in filling a vacant position. The position,

originally forecasted as an Operation Helper, was changed to a Maintenance Electrician, and was filled in July 2007.

8. MGM: The 2007 actual year-to-date straight time hours are less than the projected test year level and 2007 actual year-to-date overtime hours are more than the projected test year level mainly due to vacancies in three positions: Operator Helper, Operations Supervisor, and Control & Switch Board Operator. The Operator Helper position is expected to be filled in December 2007. The Operations Supervisor position was filled in September 2007. The Control & Switchboard Operator position vacancy, created in May 2007 (due to a retirement), remains unfilled. By year end 2007 MGM expects to be at normal forecasted staffing level.

9. MGT: The 2007 actual year-to-date straight time hours is less than the projected test year level due to more labor hours for GTOPER were budgeted for the operation and monitoring of plant equipment, overhaul maintenance for units Cat 7, Cat 8 and Cat 9. The 2007 actual year-to-date overtime hours is more than the projected test year level due to increased labor hours for GTOPER's corrective type of maintenance for common structure and system and GTSUPV's monitoring of plant and operations.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

CA-IR-325
DOCKET NO. 2006-0387
ATTACHMENTS 1-2

Attachments 1 and 2 contain confidential information and are being provided subject to Protective Order No. 23379, dated April 23, 2007.

CA-IR-326

Ref: MECO Responses to CA-IR-217, Attachment 1; CA-IR-216, Confidential Attachment 1 (Lube Oil).

Please provide the following:

a. Explain the reasons for abnormally large gallons per hour consumption of lube oil for M11 in 2004 (12.2.gph) and M13 in 2003 (11.7 gph).

b. Has Mitsubishi provided MECO with any guidelines regarding anticipated hourly lube oil consumption rates?

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

d. Provide actual delivered invoice cost information supportive of the most recent actual lube oil prices paid for the Super RR EW40 and the Mobilgard ADL products.

e. Using the current invoice cost data provided in your response to part (d) of this information request, please replicate the translation steps set forth in Confidential Attachment 1 of the response to CA-IR-216.

MECO Response:

a. There was an error in the lube oil consumption for all the Mitsubishi units in CA-IR-217, Attachment 1. The corrected consumption is shown in Exhibit 1.

b. Mitsubishi has not provided MECO with any guidelines regarding expected hourly lube oil consumption rates.

c. Not applicable.

d. The latest actual delivered invoices for Super RR EW40 and Mobilgard ADL as well as the other lube oils used are provided in Exhibit 2.

e. The Attachment to response CA-IR-216 has been replicated using the most current cost for Super RR EW40 and Mobilgard ADL in Exhibit 3. The numbers in bold represents the updated numbers from the latest invoices supplied in Exhibit 2 of this request.

Confidential Information Deleted
Pursuant To Protective Order No. 23379

CA-IR-326
DOCKET NO. 2006-0387
EXHIBITS 1-3

Exhibits 1-3 contain confidential information and are being provided subject to

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

CA-IR-327

Ref: MECO Response to CA-IR-104, CA-IR-215b (Emission Fees).

Please provide the following:

a. Confirm that the actual DoH fee will be $57.14 per ton for 2007 fees payable in 2008.

b. Provide a recalculation of annual fees, using test year normalized production dispatch levels and actual fees payable per ton.

c. Confirm that HECO assumed a normalized ongoing level of emission fee waivers in its filing in Docket No. 2006-0386, in determining expense amounts included in settlement of the 2007 test year.

d. Explain all reasons why MECO would be less likely to receive fee waivers than HECO in the future.

e. Provide complete copies of all documents associated with or supportive of your response to part (d) of this information request.

MECO Response:

a. The actual DoH fee for 2007 operations is not expected to be available until released by the DoH at the end of 2007 or beginning of 2008. Based on the actual $/Ton fee for the last five years and the historical % increases per year (shown in table below), MECO estimates that the 2007 fee will be no less than $57.14 per ton.

Year	$/Ton	Increase over previous year
2002	49.81	
2003	50.71	1.807%
2004	51.83	2.209%
2005	53.23	2.701%
2006	55.15	3.607%
2007	57.14[a]	3.607%[b]
a: Estimated minimum fee.		
b: Estimated minimum fee increase.		

b. A recalculation of annual fees using the estimated minimum fee payable per ton (indicated in part a. above) is provided herein as Attachment A. The recalculation was performed for Kahului Power Plant and Maalaea Power Plant using test year normalized production dispatch levels. No recalculation was performed for the Lanai and Molokai Divisions as no production simulations are run for these plants.

c. HECO assumed a normalized ongoing level of emission fee waivers in its filing in Docket No. 2006-0386.

d. MECO's chances to receive future emission fee waivers should be the same as HECO's.

e. The DoH's policy has been to grant emission fee waivers to either all companies in the state or as in the last three years, to no companies in the state. MECO is not aware of any potential change to this policy.

Emission Fee Estimates for 2007

(Recalculated as requested in CA-IR-327.b)

2006 Operational Year (Actuals)									2007 Operational Year (Prod Simulation)				
Island	Plant	Unit	Gallons	Plant Gallons	Tons	Tons/Gal	$/Ton	Emission Fee	Plant Gallons[1]	Tons	Tons/Gal	$/Ton	Emission Fee (Estimate)
Maui	KPP	K1	3,006,465										
Maui	KPP	K2	2,543,068										
Maui	KPP	K3	7,597,081										
Maui	KPP	K4	8,533,993	21,680,607	3,753	1.73E-04	$ 55.15	$ 206,964	20,964,594	3,629	1.73E-04	$ 57.14	$ 207,364
Maui	MPP	M1	716,325										
Maui	MPP	M2	554,007										
Maui	MPP	M3	631,404										
Maui	MPP	M4	1,641,705										
Maui	MPP	M5	536,941										
Maui	MPP	M6	1,669,072										
Maui	MPP	M7	485,224										
Maui	MPP	M8	1,307,915										
Maui	MPP	M9	529,031										
Maui	MPP	M10	3,650,256										
Maui	MPP	M11	2,948,094										
Maui	MPP	M12	4,621,994										
Maui	MPP	M13	-										
Maui	MPP	X1	574,214										
Maui	MPP	X2	588,500										
Maui	MPP	CT14	13,473,852										
Maui	MPP	CT16	14,449,470										
Maui	MPP	CT17	6,656,823										
Maui	MPP	CT19	6,638,979										
Maui	MPP	SG1	1,124	61,674,930	5,058	8.20E-05	$ 55.15	$ 278,930	54,671,946	4,484	8.20E-05	$ 57.14	$ 256,198

[1] Source is *MECO-WP-404*, page 2 of 101, "Adjusted Barrels" column x 42 gallons/bbl.

CA-IR-328

Ref: MECO Responses to CA-IR-87, pages 3 to 5; CA-IR-226, Attachment 1 (Structural Maintenance).

Please provide the following:

a. An updated schedule for the response to CA-IR-226, Attachment 1 for Kahului, adding a column for actual spending on a year-to-date August 2007 basis, with explanations for each significant departure from projected spending levels for the test year.
b. An updated Maalaea schedule for the response to CA-IR-87, adding a column for actual spending on a year-to-date August 2007 basis, with explanations for each significant departure from projected spending levels for the test year.
c. An updated Palaau schedule for the response to CA-IR-87, adding a column for actual spending on a year-to-date August 2007 basis, with explanations for each significant departure from projected spending levels for the test year.

MECO Response:

a. An updated schedule for the response to CA-IR-226, Attachment 1 for Kahului, adding a column for actual spending on a year-to-date August 2007 basis is provided herein as Attachment A. There is no significant departure from projected spending levels for the test year. 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. An updated schedule for the response to CA-IR-87, for Maalaea, adding a column for actual spending on a year-to-date August 2007 basis is provided herein as Attachment B. There is no significant departure from projected spending levels for the test year. 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.

c. An updated schedule for the response to CA-IR-87, for Palaau, adding a column for actual spending on a year-to-date August 2007 basis is provided herein as Attachment C. There is no significant departure from projected spending levels for the test year. 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.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

CA-IR-328
DOCKET NO. 2006-0387
ATTACHMENTS A-C

Attachments A-C contain confidential information and are being provided subject to

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

CA-IR-328

Ref: MECO Responses to CA-IR-87, pages 3 to 5; CA-IR-226, Attachment 1 (Structural Maintenance).

Please provide the following:

a. An updated schedule for the response to CA-IR-226, Attachment 1 for Kahului, adding a column for actual spending on a year-to-date August 2007 basis, with explanations for each significant departure from projected spending levels for the test year.
b. An updated Maalaea schedule for the response to CA-IR-87, adding a column for actual spending on a year-to-date August 2007 basis, with explanations for each significant departure from projected spending levels for the test year.
c. An updated Palaau schedule for the response to CA-IR-87, adding a column for actual spending on a year-to-date August 2007 basis, with explanations for each significant departure from projected spending levels for the test year.

MECO Response:

a. August 2007 expense amounts are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information on, or before, September 21.

b. August 2007 expense amounts are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information on, or before, September 21.

c. August 2007 expense amounts are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information on, or before, September 21.

CA-IR-329

Ref: MECO Response to CA-IR-82, Attachment 1 (Production O&M Comparative Data).

Please provide the following:

a. An updated Attachment 1 with columns added showing:
   1. Projected 2007 year-to-date August expense amounts.
   2. Comparable Actual 2007 year-to-date August expense amounts.

b. Explain individually significant differences (variances) between parts (1) and (2) of your response to part (a) of this information request.

MECO Response:

a. Please see Attachment 1 for the updated CA-IR-82 Attachment 1 with columns added showing the projected 20007 year-to-date August expense amounts and comparable actual 2007 year-to-date August expense amounts. The Company provides the YTD 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. Please refer to Attachment 2 for explanations of significant variances between actual 2007 year-to-date August expense amounts and projected 2007 year-to-date August expense amounts, by NARUC account. The Company provides the YTD 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.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

CA-IR-329
DOCKET NO. 2006-0387
ATTACHMENTS 1-2

Attachments 1-2 contain confidential information and are being provided subject to

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

CA-IR-329

Ref: MECO Response to CA-IR-82, Attachment 1 (Production O&M Comparative Data).

Please provide the following:

a. An updated Attachment 1 with columns added showing:
   1. Projected 2007 year-to-date August expense amounts.
   2. Comparable Actual 2007 year-to-date August expense amounts.

b. Explain individually significant differences (variances) between parts (1) and (2) of your response to part (a) of this information request.

MECO Response:

a. The updated Attachment 1 with columns added showing the projected 2007 year-to-date August expense amounts and comparable actual 2007 year-to-date August expense amounts are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information on, or before, September 21.

b. Please refer to the response above on item a.

CA-IR-330

Ref: MECO Responses to CA-IR-84, Attachment 1; CA-IR-279 (CT Major Overhaul Costs).

Please provide the following:

a. Detailed additional information supportive of the M16 major overhaul expense of $2,532,060 that served as the basis for escalated costs used to estimate normalized overhaul costs for M16, M17 and M19 prospectively, including but not limited to:

   1. Monthly actual expenses incurred in 1999 and 2000 by expense element to overhaul M16.
   2. Complete copies of scope of work and cost information from the "missing 1999-2000 overhaul report on M16" (response to CA-IR-279, part b) when it is found or replaced.
   3. Calculations indicating how historical actual costs were escalated to determine the $2,532,060 amount used in MECO-WP-505.

b. Explain all reasons why/if the 1999-2000 overhaul work on M16 is believed to be more indicative of future normalized overhaul costs for M16, M17 and M19 than the 2005 updated actual costs incurred to overhaul M14 in 2005.

c. Provide complete copies of all studies, reports, analyses, workpapers and other documents associated with your response to part (b) of this information request.

d. For each combustion turbine (units 14, 16, 17 and 19), provide the cumulative runtime hours at December 31 of each year since commencing commercial operation and at the date of each:

   1. Major Overhaul;
   2. Hot Section Replacement; and
   3. LPT Repair or other major outage event.

e. If your response to part (d) of this information indicates overhaul outages other than the 16,000 hour hot section and 50,000 hour major overhaul interval used in MECO-WP-505 to normalize overhaul activity, please explain the reasons for historical departures from these test year intervals.

MECO Response:

a. Note that the 2007 M16 overhaul has been completed at a cost of $3.7 million, as reflected in the response to CA-IR-330. The expenses to support the budget expense of $2,532,060 consist of $2,529,600 for the M16 overhaul plus $2,460 for use of cranes during the overhauls. The $2,460 was an estimate of $2,400 from Pacific Pile & Crane of $1,200 per

lift for two lifts in 2006. One lift was to remove the engine and install the spare while the other lift was to remove the spare and reinstall the overhauled engine. This $2,400 forecast was escalated from 2006 to 2007 with a 2006 base escalation factor of 2.5% ($2,400 x 1.025 = $2,460) as shown in the PILLAR screen print in Exhibit 1.

1. The monthly recorded expenditures for the M16 overhaul in 1999-2000 are shown in Exhibit 2, pages 1-3. There was a late charge recorded in March 2001 for this overhaul. This expense is shown on page 3.
2. The missing overhaul report has not been located. MECO is attempting to get a copy from the vendor that did the overhaul.
3. The year-end total from Expense Element 501 (Outside Services) was totaled for the three years in Exhibit 2. This total came out to be $2,320,734 (2003 dollars). An escalation rate of 9% (2003 base rate of 2.2% compounded to 2007) as shown in the PILLAR screen print in Exhibit 3 was used to escalate this expense to $2,529,600 (2007 dollars). This amount plus $2,460 in crane service was used for the test year combustion turbine overhaul forecast of $2,532,060.

b. The 50,000 hour overhaul on M16 in 1999-2000 was a complete overhaul of all engine components at a total cost of $2,320,734. The overhaul on M14 performed in 2005 did not include the cost for overhaul of the low pressure turbine ("LPT"). The approximate cost for a typical LPT overhaul is $630,000 as shown in CA-IR-84, page 12. If this approximate $630,000 cost was add to the $1,918,639 cost shown for the M14 overhaul the total overhaul cost would be $2,548,639 which would be close to the test year budget of $2,532,060.

c. The 2005 M14 overhaul report is 109 pages and is approximately ½ inch thick and hard bound. A copy of the first page of the report has been submitted in the response to

CA-IR-279, Exhibit 1, page 1. MECO has made a copy of this report and submit it as Exhibit 4 as requested by the Consumer Advocate.

d. Information for the cumulative run time hours of each combustion turbine at year end and at the date of each major overhaul, hot section replacement and LPT repair or other major outage event is shown in Exhibit 5. Under the date column the year-end dates are identified by the year as requested in this response. The dates in-between the years indicate when maintenance was done. Under the columns for the engine/package the hours for the overhauls or breakdown maintenance are indicated. Under the columns for hot sections the hours for each hot section replacement for the engines are indicated. The columns labeled LPT indicate the hours at which the LPT was taken out for repair. The last column describes the work that was done and at what T5.4 temperature the engine was run at. There were no other activities besides the 16,000 hour hot section replacements and 50,000 hour overhauls used for normalization purposes. There was an incident on April 1, 2006 with a bearing failure on unit M14 but this was not considered in normalizing maintenance costs for the combustion turbines.

091807 2006 base year

Hyperion Pillar - Desktop - [UpdProjOB2006: Expense: M16 Major Overhaul - Crane]

File Edit Line-Item Values View Format Window Help

Line item	Project	Exp Element
M16 Major Overhaul - Crane	M0000056	501
	M16 Overhaul	Outside Services-General

Dimensions | Units | Rates | Amounts | Other

FY06 Calculated	FY07 Calculated	FY08 Calculated
0.000	1.025	0.000

FY06	Jan	0.000	Feb	0.000	Mar	0.000	Q1 0.000
	Apr	1.000	May	1.000	Jun	1.000	Q2 0.000
	Jul	1.000	Aug	1.000	Sep	1.000	Q3 0.000
	Oct	1.000	Nov	1.000	Dec	1.000	Q4 0.000
FY07	Jan	1.025	Feb	1.025	Mar	1.025	Q1 1.025
	Apr	1.025	May	1.025	Jun	1.025	Q2 0.000
	Jul	1.025	Aug	1.025	Sep	1.025	Q3 0.000
	Oct	1.025	Nov	1.025	Dec	1.025	Q4 0.000
FY08	Jan	1.051	Feb	1.051	Mar	1.051	Q1 0.000
	Apr	1.051	May	1.051	Jun	1.051	Q2 0.000
	Jul	1.051	Aug	1.051	Sep	1.051	Q3 0.000
	Oct	1.051	Nov	1.051	Dec	1.051	Q4 0.000
FY09	Jan	1.077	Feb	1.077	Mar	1.077	Q1 0.000
	Apr	1.077	May	1.077	Jun	1.077	Q2 0.000
	Jul	1.077	Aug	1.077	Sep	1.077	Q3 0.000
	Oct	1.077	Nov	1.077	Dec	1.077	Q4 0.000

Currency	Label	Link To
$	Rates	Escalation Rate (2006 Base)

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M16 Overhaul M0000056
Recorded Expense by EE and Month

EE	Jan 99 Act99	Feb 99 Act99	Mar 99 Act99	Apr 99 Act99	May 99 Act99	Jun 99 Act99	Jul 99 Act99	Aug 99 Act99	Sep 99 Act99	Oct 99 Act99	Nov 99 Act99	Dec 99 Act99	FY99 Act99
150	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,285	$0	$0	$5,285
155	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,249	$0	$0	$1,249
201	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,468	$907	$4,711	$11,086
205	0	0	0	0	0	0	0	0	0	0	0	0	0
301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$436	$0	$0	$436
401	0	0	0	0	0	0	0	0	0	0	0	0	0
405	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,589	$0	$0	$1,589
406	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
421	$0	$0	$0	$0	$0	$0	$0	$0	$0	$963	$0	$0	$963
422	$0	$0	$0	$0	$0	$0	$0	$0	$0	$193	$0	$0	$193
423	$0	$0	$0	$0	$0	$0	$0	$0	$0	$593	$0	$0	$593
501	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,498	$0	**$1,498**
520	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
521	0	0	0	0	0	0	0	0	0	0	0	0	0
522	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

M16 Overhaul M0000056

Recorded Expense by EE and Month

EE	Jan 00 Act00	Feb 00 Act00	Mar 00 Act00	Apr 00 Act00	May 00 Act00	Jun 00 Act00	Jul 00 Act00	Aug 00 Act00	Sep 00 Act00	Oct 00 Act00	Nov 00 Act00	Dec 00 Act00	FY00 Act00
150	$2,082	$0	$0	$6,070	$2,414	$0	$0	$0	$0	$0	$0	$0	$10,565
155	$382	$0	$0	$0	$2,103	$0	$0	$0	$0	$0	$0	$0	$2,486
201	($863)	$0	$0	$133	$1,289	$0	$0	$0	$0	$0	$0	$0	$560
205	0	0	0	0	0	0	0	0	0	0	0	0	0
301	$64	$0	$0	$46	$0	$0	$0	$0	$0	$0	$0	$0	$110
401	0	0	0	0	0	0	0	0	0	0	0	0	0
405	$0	$0	$0	$600	$253	$0	$0	$0	$0	$0	$0	$0	$853
406	$275	$0	$0	$931	$81	$0	$0	$0	$0	$0	$0	$0	$1,288
421	$255	$0	$0	$862	$352	$0	$0	$0	$0	$0	$0	$0	$1,469
422	$194	$0	$0	$656	($107)	$0	$0	$0	$0	$0	$0	$0	$743
423	$217	$0	$0	$534	$397	$0	$0	$0	$0	$0	$0	$0	$1,147
501	$0	$0	$0	$44,908	$2,160,895	$0	$27,073	$0	$0	$0	$0	$0	**$2,232,875**
520	$508	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$508
521	0	0	0	0	0	0	0	0	0	0	0	0	0
522	$3,168	$435	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,603

M16 Overhaul M0000056
Recorded Expense by EE and Month

EE	Jan 01 Act01	Feb 01 Act01	Mar 01 Act01	Apr 01 Act01	May 01 Act01	Jun 01 Act01	Jul 01 Act01	Aug 01 Act01	Sep 01 Act01	Oct 01 Act01	Nov 01 Act01	Dec 01 Act01	FY01 Act01
150	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
155	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
201	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
205	0	0	0	0	0	0	0	0	0	0	0	0	0
301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
401	0	0	0	0	0	0	0	0	0	0	0	0	0
405	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
406	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
421	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
422	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
423	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
501	$0	$0	$86,361	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$86,361**
520	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
521	0	0	0	0	0	0	0	0	0	0	0	0	0
522	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

091807 – line item was linked to 2003 Base (2.20%)

Hyperion Pillar - Desktop - [UpdProj0B2006: Expense: M16 Major Overhaul - Service & Materials to perform OH]

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Line item	Project	Exp Element
M16 Major Overhaul - Service & Materials to perfor	M0000056	501
	M16 Overhaul	Outside Services-General

Dimensions | Units | Rates | Amounts | Other

FY06 Calculated	FY07 Calculated	FY08 Calculated
0.000	1.090	0.000

FY06	Jan	1.067	Feb	1.067	Mar	1.067	Q1 0.000
	Apr	1.067	May	1.067	Jun	1.067	Q2 0.000
	Jul	1.067	Aug	1.067	Sep	1.067	Q3 0.000
	Oct	1.067	Nov	1.067	Dec	1.067	Q4 0.000
FY07	Jan	1.090	Feb	1.090	Mar	1.090	Q1 1.090
	Apr	1.090	May	1.090	Jun	1.090	Q2 0.000
	Jul	1.090	Aug	1.090	Sep	1.090	Q3 0.000
	Oct	1.090	Nov	1.090	Dec	1.090	Q4 0.000
FY08	Jan	1.114	Feb	1.114	Mar	1.114	Q1 0.000
	Apr	1.114	May	1.114	Jun	1.114	Q2 0.000
	Jul	1.114	Aug	1.114	Sep	1.114	Q3 0.000
	Oct	1.114	Nov	1.114	Dec	1.114	Q4 0.000
FY09	Jan	1.139	Feb	1.139	Mar	1.139	Q1 0.000
	Apr	1.139	May	1.139	Jun	1.139	Q2 0.000
	Jul	1.139	Aug	1.139	Sep	1.139	Q3 0.000
	Oct	1.139	Nov	1.139	Dec	1.139	Q4 0.000

Currency	Label	Link To
$	Rates	Z* Escalation Rate (2003 Base)

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CA-IR-330
DOCKET NO. 2006-0387
EXHIBIT 4
PAGES 1-109 OF 109

Exhibit 4 is voluminous 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 document. An electronic copy of the requested information is being provided.

CA-IR-330d

CT MAINTENANCE HOURS

DATE	PACKAGE/ENGINE				HOT SECTION				LPT				
Dec. 31	M14	M16	M17	M19	M14	M16	M17	M19	M14	M16	M17	M19	DESCRIPTION
1992	**3,334**												
1993	**9,288**	**3,722**											
1994	**17,244**	**11,207**											
7/26/95	22,009				22,009				22,009				Hot section replacement. T5.4@1,485
11/11/95										18,520			LPT replacement. T5.4@1,485
1995	**25,333**	**19,706**											
3/8/96		21,285				21,285							Hot section replacement. T5.4@1,485
1996	**33,768**	**27,947**											
1/10/97									34,007				LPT replacement. T5.4@1,512
3/21/97	35,644				13,635								Hot section replacement. T5.4@1,512
11/22/97		35,391				14,105							
1997	**42,254**	**36,272**											
1998	**50,907**	**44,940**	**115**										
2/20/99	52,093				16,246				52,093				50,000hr. Overhaul. LPT replacement. T5.4@1,500
2/20/99													LPT replacement. T5.4@1,500
10/9/99		51,450				16,059				51,450			50,000hr. Overhaul. LPT replacement. T5.4@1,500
1999	**59,414**	**53,414**	**4,104**										
2000	**67,239**	**61,620**	**8,073**	**1,566**									
8/25/01	72,613				15,611								Hot section replacement. T5.4@1,500
2001	**75,584**	**70,019**	**11,621**	**6,214**									
3/4/02		71,455				15,199							Hot section replacement. T5.4@1,500
2002	**84,162**	**78,610**	**13,869**	**8,778**									
5/28/03				10,219				10,219					Hot section replacement. T5.4@1,500
10/25/03	91,113				18,500								Hot section replacement. T5.4@1,500
2003	**92,720**	**87,016**	**16,274**	**13,343**									
2/28/04		88,401				16,946							Hot section replacement. T5.4@1,500
6/3/04			17,314				17,314						Hot section replacement. T5.4@1,500
2004	**101,139**	**95,511**	**19,809**	**18,170**									
5/30/05	104,681				13,568								50,000hr. Overhaul
2005	**109,668**	**104,098**	**23,798**	**23,310**									
4/1/06	111,756								841				#3 Bearing failure.
2006	**118,135**	**112,711**	**28,833**	**28,444**									
1/5/07		112,804				24,355							50,000hr. Overhaul
4/21/07				30,350				20,131					Hot section replacement. T5.4@1,500
8/7/07			33,633				16,248						Hot section replacement. T5.4@1,500

Notes:

M14 had 32 fired hours on engine when delivered not included.
M14 had 160 run hours before commercial operation not included.
M16 had 32 fired hours on engine when delivered. Hours included.
M17 had 52.6 fired hours on engine when delivered. Hours included.
M19 had 39 fired hours on engine when delivered. Hours included.

CA-IR-331

Ref: MECO Responses to CA-IR-103, Page 7; CA-IR-2, T-5, Attachment 111 (M16 CT Overhaul).

Please provide the following:

a. Service and materials to perform the M16 overhaul in 2007 are estimated at $2,529,600. Please provide complete copies of all supporting studies, vendor bids, analyses, workpapers and other documents supportive of this value (if any exist).

b. State and describe the estimated dates and scope of work associated with the 2007 M16 overhaul and explain steps taken by MECO to plan and manage this work.

c. Provide copies of overhaul reports and other documents associated with your response to part (b) of this information request, including any updated cost estimates for same.

d. If work has commenced on the M16 overhaul, provide actual monthly charges incurred to date and anticipated to completion in connection with this project.

e. Provide copies of contracts, invoices and other documents supportive of your response to part (d) of this information request, as available.

f. CA-IR-2, Attachment 111 states that this estimate is "based on cost of last M16 Major OH in 1999." Please explain all reasons why this work done eight years ago is believed to be indicative of work scope and cost today.

g. Provide copies of all studies, reports, analyses, workpapers and other documents supportive of your response to part (f) of this information request.

MECO Response:

a. Please refer to the response in CA-IR-330, part a, for the explanation of the estimated $2,529,600 cost of the M16 overhaul in 1999-2000. The Request For Proposal on the M16 overhaul work in 2007 is attached as Exhibit 1. This proposal is based on a percentage of blades that are expected to be replaced. Depending upon inspection at tear down, this proposed repair cost may change.

b. The engine for the M16 overhaul was removed on January 5, 2007 and sent to a repair facility in Calgary, Canada at TransCanada Turbines for overhaul. At that time, the MECO spare engine was installed to provide power to the system. The overhauled engine was re-installed and returned to service on June 2, 2007. MECO normally allows 3 days for the

removal and installation of the spare engine and another 3 days to remove the spare engine and reinstall the overhauled engine. To minimize any capacity deficit, the engine change out is done on a Friday, Saturday, and Sunday when MECO normally experiences a lower system load. When an engine and hot section are removed together, a day can be saved because these components do not have to be separated.

c. A copy of the overhaul report is attached as Exhibit 2.

d. The monthly charges for the M16 overhaul in 2007 is supplied as Exhibit 3. The total cost of the 2007 M16 overhaul was $3,660,329.12.

e. Copies of invoices received from the vendor that did the overhaul are attached as Exhibit 4.

f. The 50,000 hour overhaul done in 1999 was a complete overhaul which included the engine and hot section. The overhaul done in 1999 is representative of the overhaul in 2007 where both engine and hot section were sent back to the overhaul facility for refurbishment. When the engine and hot section are overhauled together the removal and installation of the components is forecast to take 2 days each. If just the engine is replace or just a hot section is done the work takes 3 days each. This additional day is due to separating the engine and hot sections so the appropriate part can be replaced. If done together the engine and hot section can be removed in one piece. In CA-IR-2, Attachment 111 the overhaul is identified as a two day overhaul which implies the engine and hot section were removed in one piece and not separated.

g. As mentioned in CA-IR-279, the overhaul report for the 1999 overhaul of unit M16 could not be located. The 2007 overhaul report is attached as Exhibit 2.

TransCanada Turbines
5021 Lisa Marie Ct.
Bakersfield, CA 93313

Dear Mr. Shea,

Maui Electric Company, Ltd. (MECO) is scheduling a 50,000-hour overhaul on Unit M-16 (GE LM2500PE-MLW, serial number 481-669), on or about the month of June 2006 and is soliciting requests for proposals from various vendors to do this work.
The scope of this proposal should include estimates of the costs of:

1. Conducting a 50,000 hour, Zero time overhaul, i.e. installing all new bearings and seals, and new parts for anything marginally serviceable.
2. Rate sheet for materials and labor.
3. Technical support to oversee engine removal/reinstallation in the field. Field labor to be provided in house.
4. Transportation and freight costs for shipping the unit to and from the overhaul facility. Surface and or air depending on shop availability and unit removal timing.
5. Provide shipping container for engine transport.
6. Turn-around time and the availability of your overhaul facility.
7. Material and workmanship must be covered by warrantee.

At the time of overhaul the GG will have about 51,490 hours, the hot-section will have about 19,314 hours, and the LPT will have about 51,490 hours. The hot-section is single crystal Chromalloy. Pl-Al coated and the first three stages of the LPT are Pl-Al coated. Please assume10% fallout in compressor, 10% fallout for the 1st stage nozzles and blades and 10% fallout of the second stage nozzles and blades. Assume 10% fallout in LPT section.

If TransCanada is interested in performing this work, please submit a proposal by April 21, 2006. If you have any questions regarding this work please call John Mauri at (808) 442-4912.
Or E-mail *john.mauri@mauielectric.com.*

Your proposal should be addressed:

John Mauri
Maui Electric Company, Ltd.
PO Box 398
Kahului, Maui, Hawaii 96733

Fax number: (808) 244-6887

Sincerely,

John Mauri
Combined Cycle Plant Supervisor

Cc: Tony Cabacungan

Exhibit 2 is voluminous 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 document. An electronic copy of the requested information is being provided.

2007 M16 OVERHAUL
MONTHLY SUMMARY

Costing (MAUI ELECTRIC COMPANY, LTD.)

Costs Edit View Tools Help

District Code: MECO MAUI ELECTRIC COMPANY, LTD

Project No: G0013539 2007-M16 Overhaul

Costs by Subproject | Costs by Period | Costs by Category | Category Costs by Period

Grid | Graph

	Period	Actual Cost (Total)	Estimated Costs	Actual Revenue	Estimated Revenue
1	12/06	$1,129.54	$0.00	$0.00	$0.00
2	TOT06	$1,129.54	$0.00	$0.00	$0.00
3	01/07	$44,048.87	$0.00	$0.00	$0.00
4	02/07	$790,787.82	$0.00	$0.00	$0.00
5	03/07	$1,110,630.76	$0.00	$0.00	$0.00
6	04/07	$60,272.46	$0.00	$0.00	$0.00
7	05/07	$3,195.19	$0.00	$0.00	$0.00
8	06/07	$1,649,576.48	$0.00	$0.00	$0.00
9	07/07	($126,834.73)	$0.00	$0.00	$0.00
10	08/07	$127,562.70	$0.00	$0.00	$0.00
11	TOT07	$3,659,199.58	$0.00	$0.00	$0.00
12	TOTAL:	$3,660,329.12	$0.00	$0.00	$0.00

Selection | Select Display Cost: Direct / Total | Type: Bar - Depth | Color: Actual Cost (Total)

9 matches

Date Printed	26 September 2007 16:58:20
Eclipse Users	rjung
Program Name	msq660.exe
Program Description	MSQ660 - Projects
Version	ABE
Revision	50 $ Date Thursday, August 03, 2006
Module	3660
Product Version	5.2.3.2
File Version	5.2328.0.50
Location	D:\Program Files\Mincom\MIMS Open Enterprise\5.2.3.2\Bin\
Compiled Date	15 August 2006 10:41
Form Name	frmMsq66007GridGraph2

2007 M16 OVERHAUL
MONTHLY SUMMARY BY EXPENSE CATEGORY

Costing (MAUI ELECTRIC COMPANY, LTD.)

Costs Edit View Tools Help

District Code: MECO MAUI ELECTRIC COMPANY, LTD.

Project No: G0013639 2007-M16 Overhaul

Costs by Subproject | Costs by Period | Costs by Category | Category Costs by Period

Grid | Graph

		Category Desc	More	12/06	01/07	02/07	03/07	04/07	05/07	06/07	07/07	08/07
	1	DIRECT LABOR COSTS	NO	$341.00	$14,427.93	$397.39	$262.94	$358.65	$1,534.97	$8,863.40	$0.00	$0.00
	2	MATERIAL COSTS	NO	$467.84	$17,603.13	$2,455.18	$49.64	$15,261.18	$0.00	$29,063.63	$0.00	$0.00
	3	OUTSIDE SERVICES	NO	$0.00	$1,800.00	$787,717.00	$1,110,096.18	$42,612.35	$0.00	$1,606,090.42	($126,834.70)	$127,562.70
	4	OTHER COSTS	NO	$0.00	$0.00	$0.00	$0.00	$1,760.16	$441.18	$0.00	$0.00	$0.00
	5	OVERHEAD COSTS	NO	$320.70	$10,217.31	$278.25	$222.00	$280.12	$1,179.04	$6,569.03	$0.00	$0.00
	6	Exp Total		$1,129.54	$44,048.37	$790,787.82	$1,110,630.76	$60,272.46	$3,155.19	$1,649,576.48	($126,834.70)	$127,562.70
	7	Total		$1,129.54	$44,048.37	$790,787.82	$1,110,630.76	$60,272.46	$3,155.19	$1,649,576.48	($126,834.70)	$127,562.70

Selection | Select Display Cost: Direct / Total | Type: Bar - Depth | Color: DIRECT LABOR COSTS

5 matches

Date Printed	26 September 2007 16:56:26
Ellipse Userid	rung
Program Name	msg620.exe
Program Description	M5 D660 - Projects
Version	48E
Revision	50 $ Date: Thursday, August 03, 2006
Module	3660
Product Version	5.2.3.2
File Version	5.2328.0.50
Location	D:\Program Files\Mincom\MIMS Open Enterprise\5.2.3.2\Bin\
Compiled Date	15 August 2006 10:41
Form Name	frmMsg66007GridGraph2

TRANSCANADA TURBINES
The Independent Alternative

APRCVD FEB 20 '07 AM 9:34

TransCanada Turbines Ltd.
150 Palmer Road N.E.
Calgary, Alberta, Canada T2E 7R3
Telephone: (403) 219-6600
Fax: (403) 219-6666
Toll Free: 1-877-219-5800
International Toll Free: 001-800-514-5800
email: info@tcturbines.com
Website: www.tcturbines.com

INVOICE
Payment Due 30 Days From Invoice Date

MAUI ELECTRIC COMPANY LTD
P.O. BOX 2750
HONOLULU
96840-0001

Invoice Number: 402695
Invoice Date: Feb 1, 2007
Payment Due: Upon Receipt

Attention: Accounts Payable

Item	Customer P.O. Number	Engine Serial Number	TCT S.O. Number	Description	GST	Item Amount (USD$)
1	M31402	481-669	06-2LM-060	*SALES- LM2500 OVERHAUL*		
				Progress Payment #1	N	175,048.00
	Subtotal					175,048.00
	G.S.T. of 6% (GST Registration #88192 2777 RT0001)				6%	0.00
	Invoice Total				(USD$)	175,048.00

Invoice Approved By:

Projects/Operations _____ Date _____

Finance SCD Date 8/2/07

Invoice Approval Dates:

PLEASE REMIT PAYMENTS IN USD$ VIA WIRE TO THE FOLLOWING ACCOUNT:

HSBC Bank Canada
Main Branch
407 – 8th Avenue S.W.
Calgary, Alberta
T2P 1E5

Transit #: 10029
Bank #: 016
Account #: 386764 070
Swift #: HKBCCATT
Beneficiary Name: TransCanada Turbines Ltd.

USE TAX

TRANSCANADA TURBINES
The Independent Alternative

AP RCVD FEB 20 '07 AM 9:34

TransCanada Turbines Ltd.
150 Palmer Road N.E.
Calgary, Alberta, Canada T2E 7R3
Telephone: (403) 219-6500
Fax: (403) 219-6666
Toll Free: 1-877-219-5800
International Toll Free: 001-800-514-5800
email: info@tcturbines.com
Website: www.tcturbines.com

INVOICE
Payment Due 30 Days From Invoice Date

MAUI ELECTRIC COMPANY LTD
P.O. BOX 2760
HONOLULU
96840-0001

Invoice Number: 402696
Invoice Date: Feb 23, 2007
Payment Due: Mar 5, 2007

Attention: Accounts Payable

Item	Customer P.O. Number	Engine Serial Number	TCT S.O. Number	Description	GST	Item Amount (USD$)
1	M31402	481-669	06-2LM-060	*SALES- LM2500 OVERHAUL* Progress Payment #2	N	612,669.00
	Subtotal					612,669.00
	G.S.T. of 6% (GST Registration #88192 2777 RT0001)				6%	0.00
	Invoice Total				(USD$)	612,669.00

Invoice Approved By:

Projects/Operations _____ Date _____

Finance SCS Date 8/2/07

PLEASE REMIT PAYMENTS IN USD$ VIA WIRE TO THE FOLLOWING ACCOUNT:

HSBC Bank Canada
Main Branch
407 – 6th Avenue S.W.
Calgary, Alberta
T2P 1E5

Transit #: 10029
Bank #: 016
Account #: 386764 070
Swift #: HKBCCATT
Beneficiary Name: TransCanada Turbines Ltd.

USE TAX

TRANSCANADA TURBINES
The Independent Alternative

APRCVD APR 9 '07 AM10:29

TransCanada Turbines Ltd.
150 Palmer Road N.E.
Calgary, Alberta, Canada T2E 7R3
Telephone: (403) 219-6600
Fax: (403) 219-6666
Toll Free: 1-877-219-5800
International Toll Free: 001-800-514-5800
email: info@tcturbines.com
Website: www.tcturbines.com

INVOICE
Payment Due 30 Days From Invoice Date

MAUI ELECTRIC COMPANY LTD
P.O. BOX 2750
HONOLULU
96840-0001

Invoice Number: 402736
Invoice Date: Mar 28, 2007

Attention: Accounts Payable

Item	Customer P.O. Number	Engine Serial Number	TCT S.O. Number	Description	GST	Item Amount (USD$)
1	M31402	461-669	06-2LM-060	*SALES- LM2500 OVERHAUL*		
				Progress Payment #3	N	1,065,308.78
	Subtotal					1,065,308.78
	G.S.T. of 6% (GST Registration #88192 2777 RT0001)				6%	0.00
	Invoice Total				(USD$)	1,065,308.78

Invoice Approved By:

Projects/Operations _____

Finance SLD

Invoice Approval Dates:

Date _____

Date 30/3/07

PLEASE REMIT PAYMENTS IN USD$ VIA WIRE TO THE FOLLOWING ACCOUNT:

HSBC Bank Canada
Main Branch
407 – 8th Avenue S.W.
Calgary, Alberta
T2P 1E5

Transit #: 10029
Bank #: 016
Account #: 388764 070
Swift #: HKBCCATT
Beneficiary Name: TransCanada Turbines Ltd.

USE TAX

TRANSCANADA TURBINES
The Independent Alternative

AP RCVD JUN 15 '07 AM 7:45

TransCanada Turbines Ltd.
150 Palmer Road N.E.
Calgary, Alberta, Canada T2E 7R3
Telephone: (403) 219-6600
Fax: (403) 219-5656
Toll Free: 1-877-219-5800
International Toll Free: 001-800-514-5800
email: info@tcturbines.com
Website: www.tcturbines.com

INVOICE
Payment Due 30 Days From Invoice Date

MAUI ELECTRIC COMPANY LTD
P.O. BOX 2750
HONOLULU, HI
96840-0001

Invoice Number: 402795
Invoice Date: 31-May-07

Attention: Accounts Payable

Item	Customer P.O. Number	Engine Serial Number	TCT S.O. Number	Description	GST	Item Amount (USD)
1	M31402	480-669	06-2LM-060	Repairs		976,928.40
	L3 per R Swing			Material		2,060,837.88
				Labour		196,690.00
				Other		38,500.00
				Total		3,272,956.28
				Less Progress Payment received:		
				Invoice #402695		-175,048.00
				Invoice #402698		-512,889.00
				Invoice #402735		-1,065,308.78
	Subtotal					1,419,930.50
	G.S.T. of 6% (GST Registration #88192 2777 RT0001)				6%	0.00
	Invoice Total				(USD)	1,419,930.50

Invoice Approved By:

Projects/Operations _____

Finance SCD

Invoice Approval Dates:

Date _____

Date 5/6/07.

PLEASE REMIT PAYMENTS IN USD$ VIA WIRE TO THE FOLLOWING ACCOUNT:

HSBC Bank Canada
Main Branch
407 – 8th Avenue S.W.
Calgary, Alberta
T2P 1E5

Transit #: 10029
Bank #: 016
Account #: 388764 070
Swift #: HKBCCATT
Beneficiary Name: TransCanada Turbines Ltd.

USE TAX

TRANSCANADA TURBINES
The Independent Alternative

APRCVD AUG 6 '07 AM 8:23

TransCanada Turbines Ltd.
150 Palmer Road N.E.
Calgary, Alberta, Canada T2E 7R3
Telephone: (403) 219-6600
Fax: (403) 219-6666
Toll Free: 1-877-219-5800
International Toll Free: 001-800-514-5800
email: info@tcturbines.com
Website: www.tcturbines.com

INVOICE
Payment Due 30 Days From Invoice Date

MAUI ELECTRIC COMPANY LTD
P.O. BOX 2760
HONOLULU, HI
96840-0001

Attention: Accounts Payable

SK 27256

Invoice Number: 402765A
Invoice Date: 31-May-07

Item	Customer P.O. Number	Engine Serial Number	TCT S.O. Number	Description	GST	Item Amount (USD)
1	M31402	480-889	06-2LM-060	Repairs		976,928.40
				Material		2,060,837.88
				Labour		196,690.00
				Other		38,500.00
				Field Service		18,688.19
				Engine and Container Shipping		103,970.25
				Total		3,395,612.72
				Less Progress Payment received:		
				Invoice #402695		-175,048.00
				Invoice #402696		-612,689.00
				Invoice #402736		-1,065,308.78
				Payment Received July 16th chq#45409		-1,419,930.50
	Subtotal					122,656.44
	G.S.T. of 6% (GST Registration #88192 2777 RT0001)				6%	0.00
	Invoice Total				(USD)	122,656.44

Invoice Approved By:

Projects/Operations _____ Date _____

Finance SCD Date 31-7-07

Invoice Approval Dates:

PLEASE REMIT PAYMENTS IN USD$ VIA WIRE TO THE FOLLOWING ACCOUNT:

HSBC Bank Canada
Main Branch
407 – 6th Avenue S.W.
Calgary, Alberta
T2P 1E5

Transit #: 10029
Bank #: 016
Account #: 386764 070
Swift #: HKBCCATT
Beneficiary Name: TransCanada Turbines Ltd.

USE TAX

CA-IR-332

Ref: MECO Response to CA-IR-103, Page 8 (M17, M19 Hot Section Replacement).

Please provide the following:

a. Service and materials to perform the M17 and M19 Hot Section replacements in 2007 are estimated at $842,000 each. Please provide complete copies of all supporting studies, vendor bids, analyses, workpapers and other documents supportive of this value.

b. State and describe the estimated dates and scope of work associated with the 2007 M17 and M19 hot section replacements and explain steps taken by MECO to plan and manage this work.

c. Provide copies of overhaul reports and other documents associated with your response to part (b) of this information request, including any updated cost estimates for same.

d. If work has commenced on the M17 or the M19 hot section replacement projects, provide actual monthly charges incurred to date and anticipated to completion in connection with each project.

e. Provide copies of contracts, invoices and other documents supportive of your response to part (d) of this information request, as available.

MECO Response:

a. The M19 hot section replacement work was done in April 2007, at a cost of $985,211.80 which does not include MECO labor. The cost with MECO labor for the M19 hot section replacement is $1,000,257.37. The document(s) requested are subject to a confidentiality provision with the vendor. MECO is seeking the vendor's approval to provide the document(s) to the Consumer Advocate and will update this response when MECO receives an answer from the vendor. A recommendation to do additional work to restore the M19 hot section are contained on in Exhibit 1, pages 1 and 2. The total cost estimate less taxes for M19 work is $897,036 ($776,547 basic repair + $10,453 shipping + $47,966 Chromalloy recoating + $62,070 combustion liner replacement. The hot section replacement for unit M17 is scheduled in November 2007.

b. The hot section work for M19 was done in April 2007. The hot section work for M17 is scheduled in November 2007. A typical RFQ (Request For Quote) is submitted as Exhibit 2. This RFQ sets the basis for all vendors to submit a proposal using the same basic repair assumptions.

c. MECO has not yet received a hot section repair report on its rotable hot section for M19, but has received proposals for additional work to restore it to operating conditions. The proposals for additional work are found in Exhibit 1, pages 8 and 9, and the additional costs for these proposals are shown in Exhibit 1, page 8, for Chromalloy coating of the blades to extend the life of the blades from 12,500 to 16,000 hours, and the replacement of the hot section liner shown on Exhibit 1, page 9, due to burnout.

d. A monthly expense report is provided for the hot section replacement for unit M19 in Exhibit 3. The hot section replacement for unit M17 has not occurred and is scheduled in November 2007.

e. Refer to the Exhibit 1 and Exhibit 3.

Rachael Byrne
Customer Service – Combustor Shop
Tel: (850) 224-7684 x 309

CHROMALLOY FLORIDA
630 Anchors Street, N.W.
Ft. Walton Beach, FL 32548

CHROMALLOY FLORIDA
Evaluation Report

Date Quoted: July 13, 2007

Customer: Maui Electric

C-FL Job #: 57281 **R.O. #:** M33772

Information Received on P.O.: **P/N:** 910M29G73 **S/N:** N/A

Description: LM2500 Combustor Assembly

Discrepancy: Actual S/N GGMVD133 *Please update your records*

Customer Repair Requested: Overhaul

Repairs Needed to Make Serviceable:
IAW GEK 99418 (Revision 3), Section #10
Inspection: Visual, Dimensional, and FPI.
Cowl – S/N: BAI1673B
All 10 bushings damaged – replacement required; Rivet holes cracked and oversized; Dimensional restoration required
Dome – S/N: GGMVA264
All 30 swirlers worn out of tolerance; TBC chipped and depleted; Inner and outer rivet band has several cracks; Rivet holes cracked and oversized; Trumpets & swirler cups burnt – weld repair required; Dimensional restoration required; Igniter tubes & sleeves worn out of tolerance
Inner Liner
Received inner liner from customer for the combustor (ICC in combustor scrap)
Outer Liner –S/N: GGMVA907
Rivet holes cracked and oversized; #9-#10 panel burnt and cracked beyond repair – replacement required; #1 panel cooling hole cracked in several areas; TBC chipped and depleted; Dimple cracked – welding required; Dimensional restoration required

Labor and Consumables	$17,995.00
Materials (Includes 10% Mark-up)	$29,971.00
Total Price to Repair:	**$47,966.00**

TAT: **30 days from quote approval**

APPROVAL: _____ **DATE:** _____

NOTE:

GE Packaged Power, Inc.
16415 Jacintoport Blvd.
Houston, TX 77015
281-864-2512
Billing Inquiries: 866-545-2411

QUOTE

QUOTE NUMBER : 55705 - 1	
DATE : 29-MAY-07	PAGE : 1 of 1
CUSTOMER RFQ# :	
SALESPERSON : Everett, Dennis (G. Montalvo)	
SALESCONTACT# : 281-864-2719	
SALESREP EMAIL : dennis.everett@ge.com	

BILL TO:

MAUI ELECTRIC COMPANY LTD (INC)
P.O. BOX 2750
P.O. BOX 1670
HONOLULU, HI 96806
United States

Line#	Part#	Description	Qty	Net Availability	Lead Time Business Days	Amounts in USD Unit price	Extended price
1	9016M53G11	LINER	1	0	19	62,070.00	62,070.00

PAYMENT TERMS : Net due in 30 days NOTE: All items subject to prior sale. Order is subject to Terms and Conditions for sale of Parts GE Form 33C (Rev.2002) located: www.gepower.com/legal/en/geiiform33c.htm This quote will expire on 28-JUN-07.	SUBTOTAL (USD)	TAX (USD)	TOTAL (USD)
	62,070.00	0.00	62,070.00

Jet Turbine Services, Inc
711 Morning Star Dr.
Anaheim, CA 92808

Dear Mr. Gasaway,

March 13, 2007

Maui Electric Company, Ltd. is scheduling an on-site hot section exchange on unit M19 (GE LM 2500PE-MLW, ESN # 481-759), at the Maalea Generating Station on the weekend of April 20, 2007, and is soliciting proposals from various vendors to do the work.

The job includes providing service representatives to assist in the removal of the engine from the package, swapping the HPTR's, and re-installing the engine into the package. The HPTR will be done as a rotable exchange. Shipping containers for the HPTR and nozzle assemblies are to be provided by the vendor.

For estimating purposes use the following values;

1st stage Nozzles- 10 % fallout
1st stage Blades- 10 % fallout
2nd stage Nozzles- All repairable
2nd stage Blades – All repairable

All hot gas path components to be coated with Platinum-Aluminide. Provide new Chromalloy 1st stage and 2nd stage nozzles and blades.

M19 will have approximately 20,000 hrs at the time of this hot section. The T5.4 setting for the unit is 1500 deg. F. The package is an IHI package, access is through the inlet of the package to an engine dolly provided by MECO and then towed to a nearby enclosed maintenance shop with overhead crane. The dolly also has overhead beam with trolleys.

The work scope will consist of;

1. All technical supervision services, parts, and consumable material needed to do the work, (labor provided by MECO)
2. Job will commence at 7:00 am Friday morning on the selected weekend and be completed by 6:00 pm on the following Sunday.
3. All special tooling
4. Delivery costs of all hardware, HPTR's and tooling to and from jobsite.
5. Material and workmanship must be warranted for a minimum of 12 months from installation, or 36 months from date of shipping, whichever comes first. Warranty will include replacement parts, service representative's time and materials to replace warranted parts as well as all costs associated with shipping for the warranty service. Chromalloy 24,000 hr warranty to be applied.
6. Supply a report which details work done and parts replaced.
7. Any prorated warranty due to fall out in existing HS to be credited back to MECO.

Your proposal should received by March 30, 2007

Sincerely,
John Mauri
Combined Cycle Plant Supervisor
Tel: 808-442-4912
Fax: 808-244-6887
E-mail: john.mauri@mauielectric.com

M19 HOT SECTION
MONTHLY EXPENSE SUMMARY

Costing (MAUI ELECTRIC COMPANY, LTD.)

Costs File View Tools Help

District Code: MECO — MAUI ELECTRIC COMPANY, LTD.

Project No: G0014291 — M19 Hot Section-Mechanical 2007

Costs by Subproject | Costs by Period | Costs by Category | Category Costs by Period

Grid | Graph

	Period	Actual Cost (Total)	Estimated Costs	Actual Revenue	Estimated Revenue
1	04/07	$35,625.77	$0.00	$0.00	$0.00
2	05/07	$308,961.16	$0.00	$0.00	$0.00
3	06/07	$128,673.93	$0.00	$0.00	$0.00
4	07/07	($54,556.53)	$0.00	$0.00	$0.00
5	08/07	$88,059.40	$0.00	$0.00	$0.00
6	09/07	$3,493.62	$0.00	$0.00	$0.00
7	10/07	$1,700,257.37	$0.00	$0.00	$0.00
8	TOTAL:	$1,000,257.37	$0.00	$0.00	$0.00

Selection — Select Display Cost: Direct / Total — Type: Bar - Depth — Color: Actual Cost (Total)

Snapshot

Date Printed	26 September 2007 17:05:59
Ellipse Used	[illegible]
Program Name	[illegible]
Program Description	MSQ660 - Projects
Version	4.8E
Revision	50 $ Date Thursday, August 03, 2006
Module	3660
Product Version	5.2.3.2
File Version	5.2328.0.50
Location	D:\Program Files\Mincom\MIMS Open Enterprise\5.2.3.2\Bin\
Compiled Date	15 August 2006 10:4[illegible]
Form Name	frmMsq66307GridGraph6

M19 HOT SECTION REPLACEMENT 2007
MONTHLY EXPENSES BY EXPENSE ELEMENT

Costing (MAUI ELECTRIC COMPANY, LTD.)

District Code: MECO MAUI ELECTRIC COMPANY, LTD.

Project No: G0014291 M19 Hot Section-Mechanical 2007

Costs by Subproject | Costs by Period | Costs by Category | Category Costs by Period

Grid | Graph

	Category Code	Category Desc	More	04/07	05/07	06/07	07/07	08/07	09/07
1	LABOR	DIRECT LABOR COSTS	NO	$15,174.04	($128.47)	$0.00	$0.00	$0.00	$0.00
2	MATERIAL	MATERIAL COSTS	NO	$9,571.64	$1,484.08	$128,673.93	($64,556.53)	$0.00	$3,493.62
3	O/S SVCS	OUTSIDE SERVICES	NO	$0.00	$807,608.86	$0.00	$0.00	$88,059.40	$0.00
4	OTHER	OTHER COSTS	NO	$0.00	$8.00	$0.00	$0.00	$0.00	$0.00
5	OVERHEADS	OVERHEAD COSTS	NO	$10,880.09	($11.31)	$0.00	$0.00	$0.00	$0.00
6	TOTE	Exp Total		$35,625.77	$808,961.18	$128,673.93	($64,556.53)	$88,059.40	$3,493.62
7	TOTAL	Total		$35,625.77	$808,961.18	$128,673.93	($64,556.53)	$88,059.40	$3,493.62

Selection | Select Display Cost: Direct / Total | Type: Bar - Depth | Color: DIRECT LABOR COSTS

5 matches

Date Printed	26 September 2007 17:05:33
Ellipse Unend	rung
Program Name	msq660.exe
Program Description	MSQ660 - Projects
Version	ABE
Revision	50 $ Date Thursday, August 03, 2006
Module	3660
Product Version	5.2.3.2
File Version	5.2328.0.50
Location	C:\Program Files\Vincom\MIMS Open Enterprise\5.2.3.2\Bin\
Compiled Date	15 August 2006 13:41
Form Name	frmMsq66007GridGraph5

CA-IR-333

Ref: MECO Response to CA-IR-103, Page 6 (M14 Generator Cleaning & Inspection).

Please provide the following:

a. Service and materials to perform the M14 Generator Cleaning/Inspection in 2007 are estimated at $161,615. Please provide complete copies of all supporting studies, vendor bids, analyses, workpapers and other documents supportive of this value.

b. State and describe the estimated dates and scope of work associated with this 2007 M14 generator work and explain steps taken by MECO to plan and manage this work.

c. Provide copies of outage reports and other documents associated with your response to part (b) of this information request, including any updated cost estimates for same.

d. If work has commenced on the M14 generator inspection/cleaning project, provide actual monthly charges incurred to date and anticipated to completion in connection with each project.

e. Explain and reconcile the costs for this work to the budgeted periodic overhaul work considered in MECO-WP-505.

f. Provide copies of contracts, invoices and other documents supportive of your response to part (d) of this information request, as available.

MECO Response:

a. The M14 generator inspection/cleaning was done in June and July 2007. To date, MECO has been billed $398,484.30 for the work (this amount does not include MECO labor). Estimates used to forecast the M14 generator inspection/cleaning are supplied in Exhibit 1.

b. The M14 generator was inspected and cleaned between June 4, 2007 and July 16, 2007 during the time the unit was down for its annual HRSG maintenance and a control system upgrade project. Since the unit was to down for its annual HRSG maintenance, the work for the generator inspection/cleaning and controls upgrade was scheduled at the same time to reduce the need to take another outage. Description of the inspection/cleaning report is supplied in Exhibit 2.

c. Inspection/cleaning of this generator was due to a generator oil seal leak. The oil seal was repaired in 2006 but the generator could not be cleaned at the time. A report on the oil leak

is supplied in Exhibit 3. The total cost for the M14 work was $410,493.85, as shown in Exhibit 4.

d. Monthly charges for the work done on M14 generator are supplied in Exhibit 4

e. Generator inspection and cleaning was not considered in the normalization of overhaul costs in MECO-WP-505.

f. Invoices from the vendor for the cleaning/inspection of the unit M14 generator are supplied in Exhibit 5.

CA-IR-333
DOCKET NO. 2006-0387
EXHIBITS 1-5

Exhibits 1-5 are voluminous 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. Electronic copies of the requested information are being provided.

CA-IR-334

Ref: MECO Response to CA-IR-103, Page 6 (M15 Steam Turbine Overhaul).

Please provide the following:

a. Service and materials to perform the M15 Steam Turbine Overhaul in 2007 are estimated at $420,002. Please provide complete copies of all supporting studies, vendor bids, analyses, workpapers and other documents supportive of this value.

b. State and describe the estimated dates and scope of work associated with this 2007 M15 turbine work and explain steps taken by MECO to plan and manage this work.

c. Provide copies of outage reports and other documents associated with your response to part (b) of this information request, including any updated cost estimates for same.

d. If work has commenced on the M15 turbine overhaul project, provide actual monthly charges incurred to-date and anticipated to completion in connection with each project.

e. Explain and reconcile the costs for this work to the budgeted periodic turbine overhaul work considered in MECO-WP-505 at $71,550 every 52,560 hours.

f. Provide copies of contracts, invoices and other documents supportive of your response to part (d) of this information request, as available.

MECO Response:

a. The forecast of $420,000 for M15 in 2007 was not for a steam turbine overhaul of M15, but was for retubing of M14, one of the HRSGs (Heat Recovery Steam Generators) that are the prime movers for the M15 steam turbine. The breakdown of the forecast is shown in the response to CA-IR-103, Page 6, as being for the M14 HRSG.

The M14 HRSG retubing work will not be performed in 2007, because the tubing manufacturer could not meet MECO's overhaul schedule to perform the repair work. The $420,000 forecast amount that was not expended for the M14 HRSG retubing was utilized for other non-budgeted maintenance, including $169,000 for removal of the retaining rings on the M14 generator cleaning, $28,000 for a contractor to plug the leaking tubes on the M14 HRSG, and to offset the overrun of the 50,000 hour overhaul on unit M16. Quotations for

the M14 generator retaining ring removal and cleaning along with the purchase order for the plugging of the M14 HRSG tubes are supplied in Exhibit 1.

b. The M14 HRSG retubing work forecasted for 2007 has been postponed because the tubing manufacturer could not meet MECO's overhaul schedule to perform the repair work. MECO has plugged the leaking tubes and will be rescheduling the work when an extended outage can be scheduled.

c. The M14 HRSG retubing work has been delayed beyond the end of 2007, so there are no reports.

d. There are no expense reports to date for the M14 HRSG retubing.

e. The budgeted steam turbine overhaul was based on a similar size steam turbine overhaul at the Kahului Power Plant. The $420,000 budgeted for 2007 is not for a steam turbine overhaul as identified in CA-IR-103, Page 6.

f. No invoices have been received.

AGTSERVICES
24 Sam Stratton Road
Amsterdam, NY 12010
(518) 843-1112 phone
(518) 843-8389 fax
www.agtservices.com

QUOTATION

DATE: June 10, 2007
QUOTATION NO: 187R1-2007

Client:
Mr. Gerardo Flores
Maui Electric, Co.

E-mail: gflores@mauielectric.com
Phone: 808-442-4905
Fax:

RFQ #
RR Removal of M14 – Brush 29566 KVA Generator

ITEM #	ITEM	DESCRIPTION	TOTAL (US $$)
1	Extra Work – Staffing and Duration	Time and Material estimate to perform on a single (10 hour) shift basis (1 GS, 1 LW, and 3 Winders) removal and reinstallation of the retaining rings for the purpose of cleaning the end windings. See Item #1A for details of work scope. *Duration: 10 days, working 1-10 hour shift per day, 7 days per week.*	T&M Estimated to be $ 169,110.00. See Attached Worksheet

ITEM #	ITEM	DESCRIPTION	TOTAL (US $$)
1A	RR Removal Work Scope	Retaining ring removal work scope to consist of the following: 1. Perform incoming electrical tests: *(already completed as part of Test and Inspection)* ▪ Insulation resistance, polarization index (Megger/PI) ▪ DC winding resistance ▪ AC impedance 2. Visually and dimensionally inspect field journals 3. Remove retaining rings (induction heating) 4. Clean retaining rings (if painted) 5. NDE retaining rings (by others) 6. Perform retaining ring-off electrical tests: ▪ Insulation resistance, polarization index (Megger/PI) ▪ DC winding resistance ▪ AC Impedance test ▪ Pole Balance test ▪ Turn to turn test of individual coils 7. Inspect windings for abnormalities (rings off): ▪ Winding end turns ▪ End turn blocking ▪ Coil Stack Alignment 8. Thoroughly clean end windings 9. Review inspection findings with customer 10. Install new AGTS-supplied ring insulation 11. Install retaining rings using induction heating 12. Perform suitability for service electrical tests: ▪ Insulation resistance, polarization index (Megger/PI) ▪ DC winding resistance ▪ AC Impedance test ▪ DC Hipot ▪ Pole Balance test 13. Perform run out inspection of retaining rings 14. Review all data with customer 15. Prep field for installation – paint, if needed	
		Please note: ▪ *A draft copy will be reviewed with and provided to customer prior to leaving site. A formal color report, with photos if applicable of areas of concern, will be submitted within 30 days of job completion.* ▪ *Depending upon the operating condition and age of the unit, we may be required to clean the stator prior to conducting any high voltage testing. As we don't know if this cleaning will be required, we have NOT included in the above test pricing, but rather will be performed on a T&M basis.*	
		NOTE: Any repairs needed as a result of any testing and inspection will be billed at either Time & Material rates (rate sheet attached) or a mutually agreed upon firm price offer. Emergency support for testing and/or repairs is available from our Amsterdam, NY offices within twelve (12) hours notification.	

ITEM #	ITEM	DESCRIPTION	TOTAL (US $$)
Please call if you have questions!			
Weekend hours phone: (518) 441-9515 - Mike Bresney, (518) 368-7305 - Jim Taillon, or (518) 365-8353 - Vinny Rigosu			

Signature: *William R. Dollard, Jr.*

William R. Dollard, Jr.
Contract Manager

Enclosure

Taxes, permits, or license fees EXCLUDED
2007 AGTS Rate Sheet attached.
Terms and conditions attached.
Insurance certificate forwarded upon request.

AGT SERVICES

(518) 843-1112

DIVISION OF RESPONSIBILITIES

(unless otherwise addressed in Specification)

	AGT*Services*	Owner
Unloading, locating, and reloading contractor's equipment		X
Scaffolding		X
Welding Gases (propane & oxygen)		X
Heat lamps/heaters for equipment protection		X
Phone services (fax machine)		X
Office facilities (copier)		X
Sanitary Facilities (sink and toilet)		X
Protective covers for turbine deck, electrical equipment, etc. (outdoor units)		X
Trash receptacles and disposal		X
Electricians for all specialty electrical work		X
Designated hazardous material (flammable liquid) storage		X
D-C Test & Inspection Programs Only:		
Electric Power (110V)		X
NDT services (retaining rings, journals, etc.)		X
Dry generator (produce acceptable megger readings prior to mobilization)		X
Disconnect (prior to testing) and reconnect (upon completion of testing) generator links and neutral grounding transformer connections		X
Disconnect/ground RTDs		X
Open bushing box; ventilate; test for acceptable O_2 levels		X
Test & remove all materials designated as hazardous by EPA and/or OSHA (asbestos & lead)	T&M	
Clean stator core/end windings (if contaminated) to allow safe high voltage testing environment	T&M	

PLEASE NOTE: Standard customer site support is also an essential part of any generator maintenance contract. The published support requirements are developed over time and with the understanding that certain utilities and/or mechanical support has to be in place and available to do the work in the manner it should be conducted. Sometimes just having adequate protection against weather or climate factors is necessary to assure that sensitive equipment or the health and safety of personnel are assured, which in turn assures that the work is processed and completed in a satisfactory manner. All support items listed are important and deemed equally necessary to perform the work according to schedule and contract terms. Any failure to support, as applicable to the location, site and/or environment may have an adverse impact to schedule and if the schedule is compromised due to lack of adequate support from the site or customer, AGT Services may seek to recover lost revenues that result.

AGTSERVICES Inc.

2007 United States Rate Schedule

(revised 2-9-07)

Classification	Hourly Labor Rate	
	Straight Time	Over Time
Shop Preparation – tool packing; site deliveries	50.00	75.00
Generator Winder	105.00	157.50
Generator Lead Winder	130.00	195.00
Generator Specialist	180.00	270.00
Engineering Consultant/Technical Director	220.00	330.00

Travel time = 8 hours each way (continental US); actual hours (Hawaii, Alaska)
Straight time = Monday – Friday (excluding holidays), first 8 hours
Over time = Saturday – Sunday, all hours; Monday – Friday, all hours in excess of 8; and six company holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day)
Stand-by time (weekday) = Maximum 8 hours/day @ Straight time rate, + expenses
Stand-by time (weekend) = expenses only

Travel and living (T&L) expenses are billed at cost + 10%, with a $150/man/day minimum charge. T&L may include, but is not limited to, the following charges – (1) Airfare, including excess baggage fees, change fees, and airline surcharges, if any; (2) Vehicle mileage, currently at $0.485 per mile for employee vehicles and $1.00 for company vehicles; (3) Airport parking; (4) Taxi fees to/from airport; (5) Rental car; (6) Per diem, currently $40/day, with the exception of New York City, Los Angeles, and Washington, DC and all Alaska and Hawaii at $50/day; (7) Miscellaneous expensed site purchases

Miscellaneous Charges	Mark-up
Tooling/test equipment rental	D-C test set - $600/week ELCID - $350/test Stator repair tooling - $600/wk Field repair tooling - $600/wk Other repair tooling prices on request
Third party equipment rental (induction heater, power rollers, specialized test equipment)	Cost + 15%
Freight/Subcontractors	Cost + 15%
Consumables/Disposables	Cost + 20%
Materials – short-shelf/stock *Materials – custom-order/reverse-engineered*	Cost + 20% Cost + 30% + engineering time, as applicable

Payment Terms- Net 30 Days

AGTServices Inc.
24 Sam Stratton Road
Amsterdam, NY 12010

(518) 843-8389 facsimile

AGTSERVICES

(518) 843-1112

STANDARD TERMS AND CONDITIONS

Payment Terms
Unless specified otherwise in this contract, payment terms are 30 day net from the issue date of the invoice. For accounts 30 days past due, an annual rate of 18% interest charge will be levied and billed on a monthly basis.

Taxes and Duties
Company's prices do not include sales, use, excise, value added or similar taxes. Consequently, in addition to the price specified herein, the amount of any present or future sales, use, excise, value added or other tax applicable to the sale or use of the equipment hereunder shall be paid by Purchaser, or in lieu thereof, Purchaser shall provide Company with a tax exemption certificate acceptable to the taxing authorities. Any taxes (including income, stamp and turnover taxes), duties, fees, charges or assessments of any nature levied by any governmental authority other than of the U.S. in connection with this transaction, whether levied against Purchaser, against Company or its employees, or against any of Company's subcontractors or their employees, or otherwise, at any tier, shall be for Purchaser's account and shall be paid directly by Purchaser to the governmental authority concerned. If Company is required by law or otherwise to pay any such levy and/or fines, penalties, or assessments in the first instance or as a result of Purchaser's failure to comply with any applicable laws or regulations governing the payment of such levies by Purchaser, the amount of any payments so made by Company shall be reimbursed by Purchaser to Company upon submission of Company's invoices. All rights to drawback of customs duties for the equipment (or material therein) belong to and shall remain in Company. Purchaser agrees to cooperate with Company and to furnish such documents to Company as may be necessary to obtain drawback.

Governmental Authorizations
Purchaser shall be responsible for the timely obtaining of any required authorization, such as an Export License, Import License, Exchange Permit or Planning Permission, Operating License, or any other governmental authorization, even though any such authorization may be applied for by Company. Company shall not be liable in any authorization is delayed, denied, revoked, restricted or not renewed and Purchaser shall not be relieved thereby of its obligations to pay Company for its work. All sales hereunder shall at all times be subject to the export control laws and regulations of the US Government and any amendments thereof. Purchaser agrees that it shall not make any disposition, by way of transshipment, re-export, diversion or otherwise, except as said laws and regulations may expressly permit, of US origin goods purchased from Company, other than in and to the ultimate country of destination specified on Purchaser's order and/or declared as the country of ultimate destination on Company's invoices.

Warranty
AGT Services Inc. (Company) warrants that services will be performed in a competent manner. Industry accepted suitability for service criteria will apply. If the purchaser notifies Company in writing of dissatisfaction, Company will replace the assigned specialist or manager in a timely manner. In the event it is determined that the services were improperly performed, Company will re-perform that portion of services at no charge. Company warrants to Purchaser that equipment to be delivered and work to be performed will be free from defects in material or workmanship. If the equipment delivered hereunder or the work carried out does not meet the above warranties, Purchaser shall promptly notify Company and make the equipment available promptly for correction. Company shall thereupon correct any nonconformance or defect in materials or workmanship by, at its option, either repairing any defective parts of the equipment, or by making available at Company's plant necessary repaired or replacement parts. Where a failure cannot be corrected by Company's reasonable efforts, the parties will negotiate an equitable agreement.

Company does not warrant the equipment or work against normal wear and tear due to operation or environment. Further, Company does not warrant any equipment of others design where such equipment is not normally supplied by Company. The foregoing warranties (except as to title) for each unit shall apply for a period of twelve (12) months from the date of completion of repairs. The foregoing warranties as exclusive and in lieu of all other warranties, whether written, oral, implied or statutory (except as to title). NO IMPLIED STATUTORY WARRANTY OR MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. The foregoing shall constitute the exclusive remedies of Purchaser for claims (except as to title) based on defect in or failure of products or services, whether the claims are in tort (including negligence), strict liability or otherwise, whether arising before or after delivery, and however instituted. Upon expiration of the warranty period, all such liability shall terminate. Company makes no warranty, express or implied, to any other person or entity concerning the services performed hereunder, and Purchaser shall defend and indemnify Company from any claims made under any warranty or representation by Purchaser to any third party.

Force Majeure
No failure or omission to carry out or observe any of the terms, provisions or conditions of this Contract shall give rise to any claim by Purchaser against the Company or be deemed to be breach of this Contract if the same shall be caused by or arises out of any act beyond the control of Company, including but not limited to:

(a) any war, declared or not or hostilities, or of belligerence, blockades, revolution, insurrection, riot, public disorder, expropriation, requisition, confiscation or nationalization, export or import restrictions by any governmental authorities, closing of harbors, docks, canals, or other assistance's to or adjuncts of the shipping or navigation's of or within any place, rationing or allocation, whether imposed by law, decree or regulation by, or by compliance of industry at the insistence of any governmental authority, or fire, unusual flood, earthquake, storm, lightning, tide (other than normal tides), tidal wave, perils of the sea, accidents of navigation or breakdown or injury of vessels, accidents to harbors, docks, canals, or other assistance's to or adjuncts of the shipping or navigation, epidemic, quarantine, strikes or combination or workmen, lookouts or other labor disturbances, or any other event, matter or thing, wherever occurring, which shall not be within the reasonable control of Company.

(b) In the event of such a delay, the dates for delivery and completion shall be extended for a period equal to the time lost by reason of delay.

(c) If the company is delayed by the actions or failure to act of the Purchaser, its subcontractors or assigns, then the dates of shipment and completion shall be extended by a period equal to the time lost by reason of delay. Furthermore, the Purchaser shall reimburse the Company for all extra costs incurred by Company as a result of that delay.

Limitation of Liability
COMPANY'S LIABILITY, FOR ANY CLAIM OF ANY KIND (EXCLUDING BODILY INJURY), WHETHER BASED ON CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, FOR ANY LOSS OR DAMAGE ARISING OUT OF, CONNECTED WITH, OR RESULTING FROM THIS CONTRACT SHALL IN NO CASE EXCEED THE CONTRACT PRICE FOR THE SERVICES WHICH GIVES RISE TO THIS CLAIM AND IN ANY EVENT SHALL TERMINATE ONE YEAR AFTER COMPLETION OF SERVICES.

COMPANY SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO LOSS OF USE, LOSS OF PROFITS OR REVENUE, OR COST OF SUBSTITUTES. IF THIS IS A SUBCONTRACT PURCHASER MUST OBTAIN A PROVISION FROM

HIS PURCHASER PROVIDING THE COMPANY AND ITS SUPPLIERS THE PROTECTION OF THIS ARTICLE. This Limitation of Liability prevails over any conflicting provisions of this contract.

Liability and Indemnity
Company shall not be liable for injuries suffered by Purchaser, its employees, agents, representatives or assigns incurred while performing work, delivering equipment, material or supplies, or performing or carrying out any other work or services in connection with this contract. Purchaser shall hold Company harmless from any and all claims, causes or action, injuries or damages incurred by or to its employees, agents, representatives or other individuals not employees of the Company arising from the performance of this contract, unless the claims, causes or actions injuries or damages are caused by the sole negligence of, or gross misconduct of Company, its agents, representatives or assigns.

Proprietary Information
Purchaser agrees to consider as confidential all information, data and material disclosed by Company to Purchaser in connection with this contract. Purchaser agrees to take all reasonable precautions to prevent disclosure of such information, data and material to third parties and to use such information, data and materials only for the limited purpose of this contract and for no other purpose. These obligations of confidentiality provided hereunder shall survive termination of this contract. Notwithstanding any other provision hereof, all proprietary rights (including but not limited to patent rights and trade secrets) in and to the information supplied by Company shall remain the property of Company.

The preceding obligations of the Purchaser of nondisclosure and the limitation upon the right to use the information shall not apply to the extent that Purchaser can demonstrate that the information is:

(a) In the possession or control of Purchaser prior to the time of disclosure hereunder; or
(b) At the time of disclosure or thereafter becomes public knowledge through no fault or omission of Purchaser; or
(c) Lawfully obtained by the Purchaser from a third party under no obligation of confidentiality to Company.

Price Adjustments
In case a change in the contract specification results in a change in price, all installments shall be adjusted accordingly. However, if the change results in a decrease in price, then the payments previously made shall be retained by Company and applied to subsequent payments as they become due. In the event of a cancellation or termination of this contract, if the amount theretofore paid exceed the cancellation charges, the excess shall be refunded to the Purchaser. If deliveries are delayed by Purchaser and Company agrees to a revised delivery schedule, due dates of payments shall be based on the revised delivery schedule. Payments already made shall be retained by Company and applied to payments as they become due. Suspension If either party to this contract decides to suspend work under this contract, that party shall give the other one week advanced, written notice of the suspension date. Purchaser will be responsible for any and all costs incurred prior to the suspension date.

Cancellation
Shipping dates are approximate and are based upon prompt receipt of the equipment and/or materials and all necessary information. The Purchaser may cancel this contract only upon written notice and upon payment to the Company of reasonable and proper cancellation charges.

Non-Fulfillment
The due fulfillment by Purchaser of all the conditions set forth above, including the issuance of acceptable, irrevocable letters of credit and the making of payments there under as prescribed within the times specified hereunder are the essence of this contract and the failure to fulfill any such conditions shall constitute a breach of contract by Purchaser. Should Purchaser fail to fulfill any of the conditions of this clause, Company may suspend work or performance under the contract and any cost incurred by Company is accordance with such suspension shall be added to the contract price. In the event that Purchaser does not correct such failure in the manner and time satisfactory to Company, then Company may, at its option, terminate the contract with respect to the portion of equipment not delivered and work not yet performed and Company's termination charges shall be paid by Purchaser to Company upon presentation by Company of its invoices including under the letter of credit to the extent funds are available. Performance of Company's obligations shall be extended for a period equaling the period of Purchaser's non-fulfillment of any portion of the payment terms, whether or not Company suspends performance.

Non-Waiver of Breach
Either party hereto may specifically waive any breach of this Contract by the other party, provided that no such waiver shall be binding or effective unless in writing and no such waiver shall constitute a continuing waiver of similar or other breaches. A waiving party, at any time and upon notice given in writing to the breaching party, may direct future compliance with the waived term or terms of this Contract, in which event the breaching party shall comply as directed from such time forward.

Notices
Each party shall provide the other party with a telephone number to be used for routine and emergency operational notifications. For routine notifications, any such telephonic notification shall be followed up with written notification as outlined below.
All notices and other communications from either party to the other hereunder shall be in writing and shall be deemed received when actually received if personally delivered, upon acknowledgment of receipt if sent by facsimile, or upon the expiration of the third business day after being deposited in the United States mails, postage prepaid, certified or registered, addressed to the other party.

Severability
Nothing contained in this Contract shall be construed so as to require the commission of any act contrary to any law, and wherever there is any conflict between any provision of this Contract and any law, such law shall prevail; provided, however, that in such event the provisions of this Contract so affected shall be curtailed and limited only to the extent necessary to permit compliance with the minimum legal requirement, and no other provisions of this Contract shall be affected thereby, and all such other provisions shall continue in full force and effect.

Successors
This Contract shall be binding on and shall inure to the benefit of any and all successors of the parties.

Rules of Construction and Headings
Any ambiguities shall be resolved without reference to which party may have drafted this Contract. The description headings of the several sections and paragraphs of this Contract are inserted for convenience only and do not constitute a part of this Contract.

Entire Agreement and Amendment
This Contract constitutes the entire agreement between the parties, and supersedes all previous understandings, commitments or representations concerning the subject matter. This Contract may not be amended or modified in any way, and none of its provisions may be waived, except by a writing signed by an authorized officer of the party against whom the amendment, modification or waiver is sought to be enforced. The parties each acknowledge that the other party has not made any representations other than those which are contained herein.

Details: 1 GS, 1 LW, and 3 winders to work 1-10 hour shifts per day, 7 days per week
Work scope includes - RR removal and and winding cleaning.
Will be mobilizing 3 winders and converting one GS (already on-site) to Lead Winder for the increased work scope.

	Class	Rate	Mark Up	Monday 11-Jun ST	Tuesday 12-Jun ST	Wednesday 13-Jun ST	Thursday 14-Jun ST	Friday 15-Jun ST	Saturday 16-Jun ST	Sunday 17-Jun ST	Subtotal
	Consultant	$ 220.00									$ -
	Specialist	$ 180.00									$ -
	Lead Winder	$ 130.00									$ -
	Winder	$ 105.00				36					$ 3,780.00
	Shop Prep	$ 50.00		6							$ 300.00
	Airfare	$ 1,500.00	10%			3					$ 4,950.00
Travel (IN)	Expenses + 10%	$ 250.00	10%			3					$ 825.00

	Class	Hourly ST Rate	Mark Up	Monday 11-Jun ST	Monday 11-Jun OT	Tuesday 12-Jun ST	Tuesday 12-Jun OT	Wednesday 13-Jun ST	Wednesday 13-Jun OT	Thursday 14-Jun ST	Thursday 14-Jun OT	Friday 15-Jun ST	Friday 15-Jun OT	Saturday 16-Jun ST	Saturday 16-Jun OT	Sunday 17-Jun ST	Sunday 17-Jun OT	Subtotal
	Consultant	$ 220.00																$ -
	Specialist	$ 180.00		16	4	16	4	16	4	8	2	8	2		10		10	$ 21,240.00
	Lead Winder	$ 130.00								8	2	8	2		10		10	$ 6,760.00
	Winder	$ 105.00								24	6	24	6		30		30	$ 16,380.00
On Site	Shop Prep	$ 50.00																$ -
Labor	Expenses + 10%	$ 250.00	10%	2		2		2		5		5		5		5		$ 7,150.00

	Class	Hourly ST Rate	Mark Up	Monday 18-Jun ST	Monday 18-Jun OT	Tuesday 19-Jun ST	Tuesday 19-Jun OT	Wednesday 20-Jun ST	Wednesday 20-Jun OT	Thursday 21-Jun ST	Thursday 21-Jun OT	Friday 22-Jun ST	Friday 22-Jun OT	Saturday 23-Jun ST	Saturday 23-Jun OT	Sunday 24-Jun ST	Sunday 24-Jun OT	Subtotal
	Consultant	$ 220.00																$ -
	Specialist	$ 180.00		8	2	8	2	8	2	8	2	8	2		10			$ 12,600.00
	Lead Winder	$ 130.00		8	2	8	2	8	2	8	2	8	2		10			$ 9,100.00
	Winder	$ 105.00		24	6	24	6	24	6	24	6	24	6		30			$ 22,050.00
On Site	Shop Prep	$ 50.00																$ -
Labor	Expenses + 10%	$ 250.00	10%	5		5		5		5		5		5				$ 8,250.00

	Class	Rate	Mark Up	Monday 18-Jun ST	Tuesday 19-Jun ST	Wednesday 20-Jun ST	Thursday 21-Jun ST	Friday 22-Jun ST	Saturday 23-Jun ST	Sunday 24-Jun ST	Subtotal
	Consultant	$ 220.00									$ -
	Specialist	$ 180.00								18	$ 3,240.00
	Lead Winder	$ 130.00								18	$ 2,340.00
	Winder	$ 105.00								54	$ 5,670.00
	Shop Prep	$ 50.00									$ -
Travel	Airfare	$ 1,000.00	10%								$ -
(OUT)	Expenses + 10%	$ 250.00	10%							5	$ 1,375.00

	Category	Rate	Mark-up	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Subtotal
	Freight		15%	$ 10,000.00						$ 8,000.00	$ 20,700.00
	Subcontractor		15%								$ -
	Consumables		20%	$ 2,000.00							$ 2,400.00
	Equipment Rental		20%	$ 5,000.00							$ 6,000.00
	Test Box Rental	$ 600.00		$ 600.00							$ 600.00
	ELCID Rental	$ 4,000.00									$ -
	Field Repair Tool Rental	$ 600.00		$ 600.00							$ 600.00
	Stator Repair Tool Rental	$ 600.00									$ -
	Materials - Stock		20%	$ 2,000.00							$ 2,400.00
Misc	Materials - Custom		30%	$ 8,000.00							$ 10,400.00

TOTAL T&M ESTIMATE - SINGLE SHIFT $ 169,110.00

CA-IR-334
DOCKET NO. 2006-0387
EXHIBIT I
PAGE 8 OF 11

MAUI ELECTRIC COMPANY, LTD.
P.O. BOX 398
210 WEST KAMEHAMEHA AVENUE
KAHULUI HI 96733-6898

MKP -GA
Page : 1

Purchase Order Number: M33799
Change Order:
Change Order Date:

Supplier:
ATTN: DERRICK ARAKAKI
ARAKAKI MECHANICAL LLC
ATTN: DERRICK T. ARAKAKI
16-225 WILIAMA PLACE
KEAAU HI 96749-8011

Supplier Code: 001429

Ship To: MAUI ELECTRIC COMPANY, LTD.
1000 N. KIHEI ROAD
KIHEI, HI 96753

ATTN: MAALAEA POWER PLANT

Send Invoice: MAUI ELECTRIC COMPANY, LTD.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: JUNG,RODNEY S L
Phone No.: 871-2356
Fax No.: (808)872-3285
E-Mail:
RODNEY.JUNG@MAUIELECTRIC.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 15
Original Purchase Order Date: 06/05/07

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax
001	Plug 22 tubes in M14 HRSG LP drum. Refer to Agreement: MSTR-GA-07-014 Clauses: CNTR ; SACK	08/31/07	0.00	NA	28020.0000	28020.0000

MAUI ELECTRIC COMPANY, LTD.
P.O. BOX 398
210 WEST KAMEHAMEHA AVENUE
KAHULUI HI 96733-6898

MKP -GA
Page : 2

Purchase Order Number: M33799
Change Order:
Change Order Date:

Supplier:
ATTN: DERRICK ARAKAKI
ARAKAKI MECHANICAL LLC
ATTN: DERRICK T. ARAKAKI
16-225 WILIAMA PLACE
KEAAU HI 96749-8011

Supplier Code: 001429

Ship To: MAUI ELECTRIC COMPANY, LTD.
1000 N. KIHEI ROAD
KIHEI, HI 96753

ATTN: MAALAEA POWER PLANT

Send Invoice: MAUI ELECTRIC COMPANY, LTD.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: JUNG,RODNEY S L
Phone No.: 871-2356
Fax No.: (808)872-3285
E-Mail:
RODNEY.JUNG@MAUIELECTRIC.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 15
Original Purchase Order Date: 06/05/07

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax

The following clauses will apply to the respective line items:

CNTR This purchase order is issued in accordance with the reference contract nominated, and all work authorized shall be in accordance with the terms and conditions contained therein.

SACK SUPPLIER:
PLEASE ACKNOWLEDGE THIS ORDER BY SIGNING AND DATING THIS ORIGINAL PURCHASE ORDER AND RETURNING TO THE ATTENTION OF THE BUYER LISTED ON THE ORDER.
MAILING ADDRESS: P.O. BOX 2750
HONOLULU, HI 96840-0001

FAILURE TO RETURN THE ACKNOWLEDGEMENT COPY MAY CAUSE A DELAY IN YOUR PAYMENT.

PLEASE MAKE A COPY OF THIS PURCHASE ORDER FOR YOUR RECORDS AS NO DUPLICATE SHALL BE SENT.

ACKNOWLEDGED BY: _____

MAUI ELECTRIC COMPANY, LTD.
P.O. BOX 398
210 WEST KAMEHAMEHA AVENUE
KAHULUI HI 96733-6898

MKP -GA
Page : 3

Purchase Order Number: M33799
Change Order:
Change Order Date:

Supplier:
ATTN: DERRICK ARAKAKI
ARAKAKI MECHANICAL LLC
ATTN: DERRICK T. ARAKAKI
16-225 WILIAMA PLACE
KEAAU HI 96749-8011

Supplier Code: 001429

Ship To: MAUI ELECTRIC COMPANY, LTD.
1000 N. KIHEI ROAD
KIHEI, HI 96753

ATTN: MAALAEA POWER PLANT

Send Invoice: MAUI ELECTRIC COMPANY, LTD.
ATTN: Accounts Payable
P.O. BOX 2750
HONOLULU HI 96840-0001

Buyer: JUNG,RODNEY S L
Phone No.: 871-2356
Fax No.: (808)872-3285
E-Mail:
RODNEY.JUNG@MAUIELECTRIC.COM

Freight Terms: NOT APPLICABLE
Payment Terms: Net 15
Original Purchase Order Date: 06/05/07

P O Line No.	Description	Delivery Date	Quantity Ordered	Unit of Purchase	Unit Price Without Tax	Extended Price Including Tax

DATE: _____

TOTAL Purchase Order: 28020.00
Page: 3 of 3

CA-IR-334
DOCKET NO. 2006-0387
EXHIBIT 1
PAGE 11 OF 11

CA-IR-335

Ref: MECO response to CA-IR-126 (T&D Overtime).

Attachment 2 provides Non-Overtime hours and dollars for 2004-2006 (actual) and 2007 (forecast). The non-overtime dollars were used as the denominator in calculating the % overtime in the response to CA-IR-125, which revised MECO-624. Please provide the following:

a. Please define and describe the term "non-overtime" as used in the context of the labor hours and labor dollars provided on Attachment 2.

b. Referring to part (a) above, is the reference to "non-overtime" limited to straight time pay or does it also include other categories of employee compensation? Please explain.

MECO Response:

a. In the context of MECO's response to CA-IR-126, Attachment 2, the term "non-overtime" labor hours represents the 2,088 hours each employee performs during the test year at the rate of 8 hours a day times 261 days, which is the number of work days in the 2007 test year.

b. In the context of MECO's response to CA-IR-126, Attachment 2, the "non-overtime" dollars is at straight time-and does not contain other categories of employee compensation.

CA-IR-336

Ref: MECO response to CA-IR-126 (T&D Overtime).

Attachment 1 of the response to CA-IR-126 provides "overtime" hours and dollars for each island (Maui only, Molokai and Lanai), as well as a total MECO. However, Attachment 2 only provides "non-overtime" hour and dollars on a total MECO basis. Please provide the following:

a. Please provide a breakdown of the "non-overtime" hours and dollars on Attachment 2 for each island, similar to the information provided in Attachment 1.

b. Please confirm that the various tables conveying "overtime" hours and dollars on Attachment 1 were mislabeled, as all being "Lanai." Instead, the tables should have been labeled in the following order: MECO, Maui only, Molokai and Lanai. If this cannot be confirmed, please explain.

MECO Response:

a. See Attachment 1 to this response.

b. The Consumer Advocate is correct. Page 1 of 4 in Attachment 1 of MECO's response to CA-IR-126 should be labeled "MECO Consolidated Overtime". Page 2 of 4 should be labeled "Maui Overtime". Page 3 of 4 should be labeled "Molokai Overtime". Page 4 of 4 is correctly labeled "Lanai Overtime".

MAUI ELECTRIC COMPANY, LIMITED
NON-OVERTIME HOURS AND DOLLARS
TOTAL COMPANY

	2004		2005		2006		2007	
	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars
President								
Accounting	28,556.00	882,856.16	28,936.10	903,529.45	28,884.56	903,986.73	31,320.00	
Customer Services	74,716.57	1,969,132.71	75,717.33	1,998,058.21	78,964.87	2,121,797.25	89,784.00	
Distribution	199,189.65	6,183,366.50	200,235.01	6,349,712.55	204,018.68	6,516,584.38	231,768.00	
Production	239,958.15	7,333,137.94	247,210.79	7,757,372.20	244,184.14	7,893,208.77	256,824.00	
Administration	21,194.73	641,038.13	21,506.37	662,371.99	22,797.75	706,444.79	22,968.00	
Engineering	59,189.55	1,799,004.84	59,802.44	1,842,974.30	59,791.42	1,888,885.68	64,728.00	
TOTAL	**622,804.65**	**18,808,536.28**	**633,408.04**	**19,514,018.70**	**638,641.42**	**20,030,907.60**	**697,392.00**	

SOURCE:
Payroll Recap Report
2007 Rate Case Budget File

Note: 2007 Non-overtime dollar amounts from the 2007 Operating Budget cannot be accurately derived because labor cost estimates contained in MECO's 2007 Operating Budget were prepared with the use of standard labor rates, which spread overtime costs over all productive labor hours.
MECO-WP-1106

MAUI ELECTRIC COMPANY, LIMITED
NON-OVERTIME HOURS AND DOLLARS
MAUI ONLY

	2004		2005		2006		2007	
	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars
President								
Accounting	28,556.00	882,856.16	28,936.10	903,529.45	28,884.56	903,986.73	31,320.00	
Customer Services	68,476.57	1,793,969.91	69,477.33	1,818,772.45	72,724.87	1,937,092.69	83,520.00	
Distribution	184,692.65	5,738,674.07	185,778.51	5,883,206.26	189,147.65	6,013,987.06	217,152.00	
Production	215,418.15	6,582,612.92	222,224.79	6,967,192.56	219,078.14	7,080,707.85	229,680.00	
Administration	21,194.73	641,038.13	21,506.37	662,371.99	22,797.75	706,444.79	22,968.00	
Engineering	59,189.55	1,799,004.84	59,802.44	1,842,974.30	59,791.42	1,888,885.68	64,728.00	
TOTAL	**577,527.65**	**17,438,156.03**	**587,725.54**	**18,078,047.01**	**592,424.39**	**18,531,104.80**	**649,368.00**	

SOURCE:
Payroll Recap Report
2007 Rate Case Budget File

Note: 2007 Non-overtime dollar amounts from the 2007 Operating Budget cannot be accurately derived because labor cost estimates contained in MECO's 2007 Operating Budget were prepared with the use of standard labor rates, which spread overtime costs over
MECO-WP-1106

MAUI ELECTRIC COMPANY, LIMITED
NON-OVERTIME HOURS AND DOLLARS
MOLOKAI ONLY

	2004		2005		2006		2007	
	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars
President								
Accounting	0.00	0.00	0.00	0.00	0.00	0.00		
Customer Services	6,240.00	175,162.80	6,240.00	179,285.76	6,240.00	184,704.56	6,264.00	
Distribution	8,257.00	239,927.94	8,215.50	254,137.79	8,631.03	282,967.53	8,352.00	
Production	14,164.00	439,883.64	14,622.00	472,437.76	15,034.00	494,786.44	14,616.00	
Administration	0.00	0.00	0.00	0.00	0.00	0.00		
Engineering	0.00	0.00	0.00	0.00	0.00	0.00		
TOTAL	**28,661.00**	**854,974.38**	**29,077.50**	**905,861.31**	**29,905.03**	**962,458.53**	**29,232.00**	

SOURCE:
Payroll Recap Report
2007 Rate Case Budget File
RA's Used were CT (Customer Services), DT (Distribution), GT (Production)

Note: 2007 Non-overtime dollar amounts from the 2007 Operating Budget cannot be accurately derived because labor cost estimates contained in MECO's 2007 Operating Budget were prepared with the use of standard labor rates, which spread overtime costs over

MECO-WP-1106

MAUI ELECTRIC COMPANY, LIMITED
NON-OVERTIME HOURS AND DOLLARS
LANAI ONLY

	2004		2005		2006		2007	
	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars	Non-Overtime Hours	Non-Overtime Dollars
President								
Accounting	0.00	0.00	0.00	0.00	0.00	0.00		
Customer Services	0.00	0.00	0.00	0.00	0.00	0.00		
Distribution	6,240.00	204,764.49	6,241.00	212,368.50	6,240.00	219,629.79	6,264.00	
Production	10,376.00	310,641.38	10,364.00	317,741.88	10,072.00	317,714.48	12,528.00	
Administration	0.00	0.00	0.00	0.00	0.00	0.00		
Engineering	0.00	0.00	0.00	0.00	0.00	0.00		
TOTAL	**16,616.00**	**515,405.87**	**16,605.00**	**530,110.38**	**16,312.00**	**537,344.27**	**18,792.00**	

SOURCE:
Payroll Recap Report
2007 Rate Case Budget File
RA's Used were DL (Distribution) and GL (Production)

Note: 2007 Non-overtime dollar amounts from the 2007 Operating Budget cannot be accurately derived because labor cost estimates contained in MECO's 2007 Operating Budget were prepared with the use of standard labor rates, which spread overtime costs over

MECO-WP-1106

CA-IR-337

Ref: MECO response to CA-IR-135 (T&D Staffing & Outside Services).

Part b. of CA-IR-135 sought contract services costs charged to T&D O&M expense, segregated between vegetation management and other contract services. In response, MECO provided Attachment 1, which excluded the steel pole repair project ($150,000) and vegetation management (ref. CA-IR-114). Page 8 of Attachment 1 provides input values on the "Totals" line, which were presumed to represent the total amounts for the preceding rows of outside services data. Please provide the following:

a. Please confirm that the following table accurate depicts the input values inserted on the "Totals" line, as well as the actual sum of the rows of data set forth in the spreadsheet file supporting Attachment 1. If this cannot be confirmed, please explain.

	2007 Budget	2006 Actuals	2005	2004	2003	2002	2001
Totals	$947,632	$1,239,397	$1,158,062	$1,643,168	$1,685,228	$1,485,951	$1,132,931
Sum	$1,023,432	$720,972	$518,696	$813,140	$973,123	$722,805	$436,444

b. Referring to part (a) above, please explain which set of "totals" accurately depict the non-vegetation contract services charged to T&D O&M accounts (i.e., the input "Totals" or the actual "Sum"). If none of the amounts are correct, please explain.

c. Please revise and correct the information provided in Attachment 1 of the response to CA-IR-135 to correctly present the requested data, if necessary.

MECO Response:

a. MECO's response to CA-IR-135, Attachment 1, does not accurately depict the input values inserted on the "Totals" line as well as the actual sum of the rows of data set forth in the spreadsheet file supporting Attachment 1. Data was inadvertently included and excluded from Attachment 1. A revised Attachment 1 was submitted on September 11, 2007. The "Totals" line as well the actual sum of the rows should be as follows:

	2007 Budget	2006 Actuals	2005	2004	2003	2002	2001
Totals	$1,023,432	$659,680	$488,999	$769,370	$891,794	$718,757	$390,019
Sum	$1,023,432	$659,680	$488,999	$769,370	$891,794	$718,757	$390,019

b. As explained in the response to part a. above, both the "Totals" and the actual "sum" from the original Attachment 1 are not accurate. The revised Attachment 1 of the response to CA-IR-135, submitted on September 11, 2007, provides the correct contract services expense excluding steel pole repairs (activity code 344) and vegetation management (activity codes 355 & 494) charged to T&D O&M accounts.

c. Attachment 1 of the response to CA-IR-135 has been revised to reflect the correct amounts for the requested information. The revised attachment was submitted on September 11, 2007.

CA-IR-338

Ref: MECO T-6, MECO-WP-622 & CA-IR-30 (T&D Outside Services).

The information contained in the following table was extracted from MECO's response to CA-IR-30:

	2004	2005	2006	2007 FCST
MECO -- Vegetation A/C 571	$ 44,013	$ 25,722	$ 59,665	$ 81,000
MECO -- Vegetation A/C 593	831,803	654,650	535,436	814,440
Total MECO Vegetation	875,816	680,371	595,102	895,440
MECO -- Outside Services Other	772,017	493,737	662,381	1,176,015
Total MECO Outside Services	$1,647,832	$1,174,109	$1,257,482	$2,071,455
Maui -- Vegetation A/C 571	$ 44,013	$ 25,722	$ 59,665	$ 81,000
Maui -- Vegetation A/C 593	705,436	508,634	456,761	660,000
Total Maui Vegetation	749,450	534,356	516,426	741,000
Maui -- Outside Services Other	639,547	393,519	613,839	1,106,740
Total Maui Outside Services	$1,388,997	$ 927,875	$1,130,266	$1,847,740
Molokai -- Vegetation A/C 571	$ -	$ -	$ -	$ -
Molokai -- Vegetation A/C 593	84,110	130,770	61,077	125,840
Total Molokai Vegetation	84,110	130,770	61,077	125,840
Molokai -- Outside Services Other	82,945	38,992	42,054	51,560
Total Molokai Outside Services	$ 167,055	$ 169,762	$ 103,131	$ 177,400
Lanai -- Vegetation A/C 571	$ -	$ -	$ -	$ -
Lanai -- Vegetation A/C 593	42,256	15,245	17,598	28,600
Total Lanai Vegetation	42,256	15,245	17,598	28,600
Lanai -- Outside Services Other	49,525	61,227	6,487	17,715
Total Lanai Outside Services	$ 91,781	$ 76,472	$ 24,086	$ 46,315

a. Please confirm that the above table accurate portrays MECO's historical and 2007 test year forecast for outside services, excluding the 2007 abandoned project adjustment. If this cannot be confirmed, please correct the information contained therein and explain the basis for each change.

b. Referring to the above table, the total MECO "outside services other" category in the 2007 test year forecast is almost $1.2 million – significantly higher than historical years 2004-2006. Please identify, describe and quantify the primary factors and related outside services amounts that comprise this increase in the test year forecast.

c. Please provide a detailed explanation of the significant increase in the total MECO "outside services other" for the forecast test year in light of MECO's proposed increase in T&D employees (Dec-06 actual count of 96 T&D and 29 Engineering employees vs. TY forecast of 111 T&D and 31 Engineering employees).

d. Referring to part (b) above, please indicate whether each identified item is a nonrecurring event or an annually recurring transaction.

e. Referring to the above table, please provide comparable actual monthly amounts charged to T&D O&M expense during the period January through August 2007.

MECO Response:

a. The above table does not accurately portray MECO's historical and 2007 test year forecast for outside services, excluding the 2007 abandoned project adjustment. The totals are correct, however, the MECO and Maui – Vegetation A/C 593 amounts, Total Vegetation, and Outside Services Other are incorrect. The corrected amounts provided in the revised table below are from the information provided in MECO-WP-622 lines 6 and 11.

	2004	2005	2006	2007 FCST
MECO -- Vegetation A/C 571	$ 44,013	$ 25,722	$ 59,665	$ 81,000
MECO -- Vegetation A/C 593	834,349	657,055	538,036	817,023
Total MECO Vegetation	878,362	682,777	597,701	898,023
MECO -- Outside Services Other	769,470	491,332	659,781	1,173,432
Total MECO Outside Services	$1,647,832	$1,174,109	$1,257,482	$2,071,455
Maui – Vegetation A/C 571	$ 44,013	$ 25,722	$ 59,665	$ 81,000
Maui -- Vegetation A/C 593	707,983	511,040	459,361	662,583
Total Maui Vegetation	751,996	536,762	519,026	743,583
Maui -- Outside Services Other	637,001	391,113	611,240	1,104,157
Total Maui Outside Services	$1,388,997	$ 927,875	$1,130,266	$1,847,740
Molokai -- Vegetation A/C 571	$ -	$ -	$ -	$ -
Molokai -- Vegetation A/C 593	84,110	130,770	61,077	125,840
Total Molokai Vegetation	84,110	130,770	61,077	125,840
Molokai -- Outside Services Other	82,945	38,992	42,054	51,560
Total Molokai Outside Services	$ 167,055	$ 169,762	$ 103,131	$ 177,400
Lanai – Vegetation A/C 571	$ -	$ -	$ -	$ -
Lanai – Vegetation A/C 593	42,256	15,245	17,598	28,600
Total Lanai Vegetation	42,256	15,245	17,598	28,600
Lanai -- Outside Services Other	49,525	61,227	6,487	17,715
Total Lanai Outside Services	$ 91,781	$ 76,472	$ 24,086	$ 46,315

b. Attachment 2 of this response provides a breakdown of the major drivers of the increase in the 2007 test year budget versus the three year average. Listed in lines 1 through 20 are the primary drivers (over $10,000) for the variance between the test year budget and the three year average. Nine out of twenty of these drivers are new expenses that were not included in previous years (items with a $0 in column "c"). The total difference between the 2007 test year budget for outside services "other" and the 2004-2006 outside services "other" average

is $750,805. As shown in Attachment 2, increases due to new expenses account for $223,642 of this variance. Expenses that have increased due to expansion of a task, such as the roads and trails work at $38,790 (lines 7 and 11), helicopter work at $56,239 (lines 6 and 10), steel pole maintenance at $149,343 (line 8), sub-station maintenance at $34,765 (lines 2 and 4), microfilming engineering records at $11,409 (line 19), and the excavation for replacement of submersible transformers at $39,599 (line 3) account for $330,145 of the increase. Other expense increases, such as line items 9 and 12 have been covered in previous response to IRs, which are referenced in column (i) make up the remainder. Columns (f) and (g) list the reference item numbers and supporting documents from the response to CA-IR-2 for each of the line items making up the majority of the increase.

c. The increase in outside services "other" is driven by work that MECO personnel are neither skilled nor efficient at, and is work that is more effectively and efficiently performed by outside contractors. The employees added to MECO's staffing for 2007 were not in fields where they would impact the outside services that have contributed to the increase in this expense. Further, the types of activities that MECO out sources to outside services tend to be extremely specialized, such as helicopter work, road maintenance, maintaining proprietary software, waste oil disposal, etc.

d. See Attachment 2 column (h) of this response.

e. See Attachment 1 of this response. The Company provides the outside services expense information for July and August 2007 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 Company, Limited
2007 Test Year Data
Outside Services "501" 2007 Actuals Recorded by Months

	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	YTD
MECO -- Vegetation A/C 571				$ 8,503		$ 3,042			
MECO -- Vegetation A/C 593	$ -	$23,294	$110,762	$45,280	$ 67,926	$ 46,307			
Total MECO Vegetation	$ -	$23,294	$110,762	$53,783	$ 67,926	$ 49,350			
MECO -- Outside Services Other	$86,712	$11,354	$ 66,461	$41,806	$ 99,104	$173,616			
Total MECO Outside Services	$86,712	$34,648	$177,223	$95,589	$167,031	$222,966			
Maui -- Vegetation A/C 571				$ 8,503		$ 3,042			
Maui -- Vegetation A/C 593		$ 200	$ 61,047	$39,054	$ 17,804	$ 46,278			
Total Maui Vegetation	$ -	$ 200	$ 61,047	$47,556	$ 17,804	$ 49,320			
Maui -- Outside Services Other	$37,909	$11,290	$ 55,199	$40,445	$ 81,180	$173,616			
Total Maui Outside Services	$37,909	$11,490	$116,246	$88,002	$ 98,985	$222,936			
Molokai -- Vegetation A/C 571									
Molokai -- Vegetation A/C 593	$ -	$23,094	$ 49,694	$ 6,226	$ 50,108				
Total Molokai Vegetation	$ -	$23,094	$ 49,694	$ 6,226	$ 50,108	$ -			
Molokai -- Outside Services Other	$ 35	$ 35	$ 11,004	$ 36	$ 10,361	$ -			
Total Molokai Outside Services	$ 35	$23,129	$ 60,697	$ 6,263	$ 60,469	$ -			
Lanai -- Vegetation A/C 571									
Lanai -- Vegetation A/C 593			$ 21		$ 14	$ 29			
Total Lanai Vegetation	$ -	$ -	$ 21	$ -	$ 14	$ 29			
Lanai -- Outside Services Other	$48,768	$ 29	$ 259	$ 1,325	$ 7,563	$ -			
Total Lanai Outside Services	$48,768	$ 29	$ 280	$ 1,325	$ 7,577	$ 29			

Confidential Information Deleted
Pursuant to Protective Order No. 23379

Maui Electric Company, Limited
2007 Rate Case Data

2007 Outside Services (EE 501) Variances from 2004-2006 Averages over $10K not including Vegitation Management

Line #	RA	Act	2007 TY	2007 TY versus 2004-2006 AVG	2004-2006 AVG	CA-IR-2 Attach. #5 Item #	CA-IR-2 Attachment Reference #	Recurring Expense	Notes
	a	b	c	d=c-e	e	f	g	h	i
1	MDE	333	$15,000	$15,000	$0	35	6F	yes	Air-conditioning services
2	MDE	351	$20,000	$13,524	$6,476	47	6F	yes	Substation transmission work Aina
3	MDE	482	$40,000	$39,599	$400	60	6F	yes	Excavate submersible transf. vaults
4	MDE	485	$24,000	$21,241	$2,759	65	6F	yes	Maintaining fences and gravel at substations
5	MDE	931	$12,432	$12,432	$0	101-104	6F	yes	Landscape maint.& water for SS
6	MDK	328	$36,000	$35,438	$562	105	6F	yes	Helicopter work.
7	MDK	342	$24,000	$22,572	$1,428	106	6C, 6F	yes	Maintain roads and trails (construciton)
8	MDK	344	$150,000	$149,343	$658	107	6B, 6E	yes	Steel pole maintenance (painting)
9	MDK	478	$105,000	$81,461	$23,539	112	6B, 6E	yes	See CA-IR-351
10	MDR	328	$52,000	$20,801	$31,199	131-132	6B, 6E	yes	Helicopter inspecitons
11	MDR	342	$50,000	$16,218	$33,782	134	6B, 6E	yes	See CA-IR-242
12	MDR	354	$123,000	$115,558	$7,442	135-137	6B, 6E	Various	See CA-IRs 240 and 291
13	MDR	456	$20,000	$20,000	$0	139	6C, 6F	yes	Dist map compile/updating
14	MDR	464	$22,850	$22,850	$0	142	6F	yes	See CA-IRs 237, 238, and 239
15	MDR	491	$50,000	$50,000	$0	144	6B, 6E	yes	EMS/SCADA licenses and maintenance
16	MDT	877	$42,560	$42,560	$0	158	6E, 6F	yes	Waste oil testing and disposal
17	MWM	326	$24,000	$24,000	$0	159	7B	yes	Compile and update trans maps
18	MWM	456	$24,000	$24,000	$0	160	7B	yes	Compile and update distribution maps
19	MWP	456	$15,000	$11,409	$3,591	161	7B	yes	Microfilm engineering records
20	MWS	400	$12,800	$12,800	$0	169	7C	yes	Summer interns
21	Totals:			$750,805					

Note: Differences due to rounding

CA-IR-338

Ref: MECO T-6, MECO-WP-622 & CA-IR-30 (T&D Outside Services).

The information contained in the following table was extracted from MECO's response to CA-IR-30:

	2004	2005	2006	2007 FCST
MECO -- Vegetation A/C 571	$ 44,013	$ 25,722	$ 59,665	$ 81,000
MECO -- Vegetation A/C 593	831,803	654,650	535,436	814,440
Total MECO Vegetation	875,816	680,371	595,102	895,440
MECO -- Outside Services Other	772,017	493,737	662,381	1,176,015
Total MECO Outside Services	$1,647,832	$1,174,109	$1,257,482	$2,071,455
Maui -- Vegetation A/C 571	$ 44,013	$ 25,722	$ 59,665	$ 81,000
Maui -- Vegetation A/C 593	705,436	508,634	456,761	660,000
Total Maui Vegetation	749,450	534,356	516,426	741,000
Maui -- Outside Services Other	639,547	393,519	613,839	1,106,740
Total Maui Outside Services	$1,388,997	$ 927,875	$1,130,266	$1,847,740
Molokai -- Vegetation A/C 571	$ -	$ -	$ -	$ -
Molokai -- Vegetation A/C 593	84,110	130,770	61,077	125,840
Total Molokai Vegetation	84,110	130,770	61,077	125,840
Molokai -- Outside Services Other	82,945	38,992	42,054	51,560
Total Molokai Outside Services	$ 167,055	$ 169,762	$ 103,131	$ 177,400
Lanai -- Vegetation A/C 571	$ -	$ -	$ -	$ -
Lanai -- Vegetation A/C 593	42,256	15,245	17,598	28,600
Total Lanai Vegetation	42,256	15,245	17,598	28,600
Lanai -- Outside Services Other	49,525	61,227	6,487	17,715
Total Lanai Outside Services	$ 91,781	$ 76,472	$ 24,086	$ 46,315

a. Please confirm that the above table accurate portrays MECO's historical and 2007 test year forecast for outside services, excluding the 2007 abandoned project adjustment. If this cannot be confirmed, please correct the information contained therein and explain the basis for each change.

b. Referring to the above table, the total MECO "outside services other" category in the 2007 test year forecast is almost $1.2 million – significantly higher than historical years 2004-2006. Please identify, describe and quantify the primary factors and related outside services amounts that comprise this increase in the test year forecast.

c. Please provide a detailed explanation of the significant increase in the total MECO "outside services other" for the forecast test year in light of MECO's proposed increase in T&D employees (Dec-06 actual count of 96 T&D and 29 Engineering employees vs. TY forecast of 111 T&D and 31 Engineering employees).

d. Referring to part (b) above, please indicate whether each identified item is a nonrecurring event or an annually recurring transaction.
e. Referring to the above table, please provide comparable actual monthly amounts charged to T&D O&M expense during the period January through August 2007.

MECO Response:

e. Referring to the above table, the comparable actual monthly amounts charge to T&D O&M Expense for the month of August 2007 are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information for the month of August 2007 on, or before, September 21, 2007.

CA-IR-339

Ref: MECO-WP-622 and responses to CA-IR-30 & CA-IR-135 (T&D Staffing & Outside Services).

Please provide the following:

a. In general terms, does the historical cost data on outside services include or exclude amounts incurred for temporary agency or contract labor hires to perform work associated with vacant or unfilled permanent employment positions? Please explain.

b. If the response to part (a) above indicates that the outside services costs exclude temporary agency or contract labor hires to perform work associated with vacant or unfilled permanent employment positions, please provide the amounts incurred for such services charged to T&D O&M accounts, as follows:

   1. Actual amounts charged to T&D O&M expense in calendar years 2001 through 2006.
   2. Actual monthly amounts charged to T&D O&M expense during the period January through August 2007.
   3. Comparable amounts included in the Company's 2007 test year forecast.

MECO Response:

a. In general terms, the historical cost data on outside services expense element "501" exclude amounts incurred for temporary agency or contract labor hires to perform work associated with vacant or unfilled permanent employment positions. Historical cost data on outside services for temporary agency or contract labor hires are captured under outside services expense element "503"- temporary hire.

b. 1. There were no actual amounts charged to T&D O&M expense in calendar years 2001 through 2006 for outside services expense element "503".

   2. There were no actual amounts charged to T&D O&M expense during the period January through August for outside services expense element "503".

   3. There were no comparable amounts budgeted for outside service expense element "503" T&D O&M expense for 2007 test year forecast.

CA-IR-339

Ref: MECO-WP-622 and responses to CA-IR-30 & CA-IR-135 (T&D Staffing & Outside Services).

Please provide the following:

a. In general terms, does the historical cost data on outside services include or exclude amounts incurred for temporary agency or contract labor hires to perform work associated with vacant or unfilled permanent employment positions? Please explain.

b. If the response to part (a) above indicates that the outside services costs exclude temporary agency or contract labor hires to perform work associated with vacant or unfilled permanent employment positions, please provide the amounts incurred for such services charged to T&D O&M accounts, as follows:

   1. Actual amounts charged to T&D O&M expense in calendar years 2001 through 2006.
   2. Actual monthly amounts charged to T&D O&M expense during the period January through August 2007.
   3. Comparable amounts included in the Company's 2007 test year forecast.

MECO Response:

b. 2. The actual monthly amounts charge to T&D O&M expense for the month of August 2007 are not currently available, and are expected to be available in mid-September. MECO plans to provide the requested information for the month of August 2007 on, or before, September 21, 2007.

CA-IR-340

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

In response to CA-IR-124, Attachment 1 shows 37,584 straight time and 7,436 overtime hours for Engineering RA: MWP, including merit and bargaining unit positions. Please provide the following:

a. Referring to MECO's response to CA-IR-1 (Attachment 7A, pages 2 through 4), the total hours for RA: MWP are 33,565, including 6,421 overtime hours (i.e., labor classes WPDENR, WPDPNR & WPJPNR). Please explain why these hours do not tie to the information provided in Attachment 1 of CA-IR-124.

b. Referring to part (a) above, please confirm that the only merit labor class set forth on the referenced pages of Attachment 7A is WPDENR. If this cannot be confirmed, please explain.

c. Should Attachment 1 of CA-IR-124 be revised? Please explain.

MECO Response:

a. The labor input sheets provided in MECO's response to CA-IR-1 (Attachment 7A, pages 2 through 4), include only those labor classes that have budgeted T&D O&M hours. The response to CA-IR-124, Attachment 1 includes all labor classes for Engineering RA: MWP, including both merit and bargaining unit positions. Labor classes WPPLNR and WPSUPV are not included in the response to CA-IR-1, Attachment 7A; therefore in total the hours will not tie to the information provided in CA-IR-124, Attachment 1. Attachment 1 to this response shows how the hours provided in the response to CA-IR-1 Attachment 7A tie to the hours provided in the response to CA-IR-124, Attachment 1.

b. Yes, the only merit labor class set forth on the referenced pages of Attachment 7A is labor class WPDENR.

c. The response to CA-IR-124, Attachment 1 does not need to be revised. See the response provided in part a. above.

Maui Electric Company, Limited
2007 Rate Case Data
Labor Hour Demands for Responsibility Area (RA MWP) by Labor Class

						ST vs OT Hours		Labor Input Sheet	
Dept	RA	Lbr Class	Ind	EE	2007 TY Hours	ST Hours	OT Hours	Total Labor Hours	Total OT Hours
	MWP	WPDENR	NC	150	2,544.00				
	MWP	WPDENR	ND	107	1,016.00				
	MWP	WPDENR	NE	150	96.00				
	MWP	WPDENR	NI	150	6,489.00				
	MWP	WPDENR	NR	150	20.00				
Engineering	**MWP**	**WPDENR**			**10,165.00**	**8,352.00**	**1,813.00**	**10,165.00**	**1,813.00**
	MWP	WPDPNR	NC	150	1,968.00				
	MWP	WPDPNR	ND	107	1,096.00				
	MWP	WPDPNR	NE	150	192.00				
	MWP	WPDPNR	NI	150	7,372.00				
Engineering	**MWP**	**WPDPNR**			**10,628.00**	**8,352.00**	**2,276.00**	**10,628.00**	**2,276.00**
	MWP	WPJPNR	NC	150	3,828.00				
	MWP	WPJPNR	ND	107	1,160.00				
	MWP	WPJPNR	NE	150	528.00				
	MWP	WPJPNR	NI	150	7,064.00				
	MWP	WPJPNR	NR	150	192.00				
Engineering	**MWP**	**WPJPNR**			**12,772.00**	**10,440.00**	**2,332.00**	**12,772.00**	**2,332.00**
	MWP	WPPLNR	NC	150	852.00				
	MWP	WPPLNR	ND	107	832.00				
	MWP	WPPLNR	NE	150	0.00				
	MWP	WPPLNR	NI	150	5,128.00				
	MWP	WPPLNR	NR	150	96.00				
Engineering	**MWP**	**WPPLNR**	**x**		**6,908.00**	**6,264.00**	**644.00**		
	MWP	WPSUPV	NC	150	2,568.00				
	MWP	WPSUPV	ND	107	648.00				
	MWP	WPSUPV	NE	150	0.00				
	MWP	WPSUPV	NI	150	1,328.00				
	MWP	WPSUPV	NR	150	3.00				
Engineering	**MWP**	**WPSUPV**	**x**		**4,547.00**	**4,176.00**	**371.00**		
Engineering	**MWP**				**45,020.00**	**37,584.00**	**7,436.00**	**33,565.00**	**6,421.00**
						37,584.00	**7,436.00**	**33,565.00**	**6,421.00**
						CA-IR-124 Attachment 1		**CA-IR-1 Attachment 7A**	

CA-IR-341

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

In response to part (a) of CA-IR-236, the Company explained that the significant increase in Engineering overtime hours in the 2007 test year forecast was due, in part, to uncompensated merit overtime. After identifying various revisions for comparison with overtime hours for prior years, MECO noted that the bargaining unit positions comprising RA: MWP included a forecasted 82% increase in overtime hours from 2006 to 2007 (e.g., 2,871 hours in 2006 vs. 5,234 hours in 2007), citing to increased labor needs for increasing project complexity. Please provide the following:

a. It is unclear how MECO determined that the 2007 test year forecast should include an 82% increase in MWP BU overtime due to increased project complexity. Please explain how the need for such a marked increase in MWP BU overtime hours was determined.

b. Referring to part (a) above, please provide a pinpoint reference to the pages of MECO's response to CA-IR-2 that considers and quantifies additional MWP BU labor demands for:
   1. Increases in the number of customer projects, system projects and/or blanket projects. If none, please so state.
   2. Increased complexity of customer projects, system projects and/or blanket projects. If none, please so state.

c. Referring to the response to part (b) above, please provide a copy of any additional forecast workpapers or supporting documentation that quantifies the additional MWP BU labor demands resulting from increased number of projects and complexity of such projects causing the 82% overtime increase.

MECO Response:

a. The 82% increase in overtime for these positions is the result of the labor demands for this work group exceeding its labor supply. One primary driver for the increase in labor demands for MWP BU, which added to the resulting increased overtime for the identified RAs, is the increased amount of time and effort required to meet all legal and governmental permits and/or processes prior to the actual installation of system infrastructure. In some cases, projects require "offsite" work requiring the same attention as the "onsite" work. This "offsite" work includes communications and interactions with

many different Federal, State, and local government agencies, which is often a complex and time consuming process. Other drivers are the increase in the number of projects, the complexity of these projects, and the paperwork associated with these projects. As a result of these time consuming drivers, Engineering personnel have had to start including allowances in their Project Initiation and Pillar form estimates to cover these hours and to reflect the actual labor hours they were incurring as a result of executing these tasks. These hours increased the labor demand and when combined with the Engineering employee's normal design work, resulted in a significantly higher labor resource demand that had to be spread across the same supply, which ultimately resulted in the need for additional overtime.

b. 1. It is not possible to identify specific pinpoint references in MECO's response to CA-IR-2 to address the increase in the number and complexity of projects due to the nature of how MECO budgets for new projects (through blankets). Inherent in the process is the need to anticipate the future mix and number of projects without firm commitments from developers and customers. This requires the Engineering Department to not only rely on formal service request, but also to act proactively through informal consultations and meetings with County Building Department employees, private contractors, and independent developers. Through this informal process the Engineering Department develops an expectation of the requirements for the coming year and budgets blanket projects accordingly. At the time the test year budget forecast was developed, the Engineering Department foresaw and budgeted for a pending shift in the increase of commercial work as opposed to residential work,

and the increasing labor demands driven by government compliance issues. The final 2006 actuals support this shift to more commercial projects. While customer projects totaling 3,671 service requests in 2006 was slightly less than the 3,683 service requests in 2005, the ratio of the more complex commercial, hotel, and subdivision requests, which are more time consuming to perform, as compared to simple single phase residential service requests increased. MECO's Engineering Department received 616 commercial requests in 2006 compared to 521 in 2005, which is an 18% increase. For hotel requests MECO received 3 in 2006 as compared to 1 in 2005, which is a 200% increase. Similarly, MECO received 103 subdivisions service requests in 2006 compared to 74 in 2005, which was a 39% increase. Early 2007 numbers also support the expected increase in system work over 2005 and 2006 with system service requests experiencing an increase from 11 system projects in 2006 as compared to 15 system projects for 2007, an increase of 36%.

2. As stated in the response to part b (1) above, the increase in labor hour demands was due to the expectation of an increase in the number of commercial, hotel and subdivision service requests. Each of these types of projects requires significantly more involvement with governmental and legal processes (i.e., government permits, Special Management Area (SMA) assessments and filings, easements, etc.). The complexity in regards to these customer projects is to assure that MECO is in compliance to all governmental requirements and legal issues. As an example of the "complexity", the County of Maui in some cases requires additional review and approval of projects by the Maui County Council following reviews by the County

departments. Further, this review includes approval by the State Historic Preservation Division (SHPD). Similarly, the system projects mentioned in the response to part (a) above may undergo the same governmental and legal processes. Each of these reviews and approvals require work on the part of the planner. One primary difference between previous years and the present is that the government bodies are now strictly enforcing procedural compliance for all regulations, where previously they allowed a large amount of latitude. An example of these new processes is in the replacement of poles. Previously, MECO could change poles and increase their height and change their locations to meet new standards at MECO's discretion. Currently, MECO must seek and receive permission on the height and location from the county council and other government bodies, which requires additional labor hours to generate the corresponding paper work and communications.

c. Overtime hours are not budgeted for specific projects, but rather they are the result of subtracting aggregate labor demand from aggregate labor supply. It is not possible to identify which projects the overtime is applicable to for either future budgets or historical actuals. Attachment 1 to this response provides the total labor demand and labor supply for the RAs in question that demonstrates the increase in total demand between 2006 and 2007 that resulted in the increase in overtime.

Maui Electric Company, Limited
2007 Rate Case Data
MWP Bargaining Unit Labor Classes (WPDPNR, WPJPNR, WPPLNR), 2006 Actual versus 2007 TY Hours

Dept	RA	Ind	Proj	Project	2006	2007 TY	Incr/(Decr)
Engineering	MWP	BT	M0000042	Temporary Services-Meco	1,319.25	0.00	-1,319.25
Engineering	MWP	BT	M1004000	Temp OH Svc-Maui	126.75	0.00	-126.75
Engineering	MWP	BT	M8010000	UG SERVICES & EXTENSIONS	52.50	0.00	-52.50
Engineering	**MWP**	**BT**			**1,498.50**	**0.00**	**-1,498.50**
Engineering	MWP	NC	NMWZZZZZ	Engineering	4,887.33	6,648.00	1,760.67
Engineering	**MWP**	**NC**			**4,887.33**	**6,648.00**	**1,760.67**
Engineering	MWP	ND	NMZZZZZZ	Corporate Entries	4,539.50	3,088.00	-1,451.50
Engineering	**MWP**	**ND**			**4,539.50**	**3,088.00**	**-1,451.50**
Engineering	MWP	NE	NMWZZZZZ	Engineering	0.00	288.00	288.00
Engineering	MWP	NE	NMZZZZZZ	Corporate Entries	300.50	432.00	131.50
Engineering	**MWP**	**NE**			**300.50**	**720.00**	**419.50**
Engineering	MWP	NI	M0000012	Waiinu Sub 36 Unit Sub/69kv Brkr Addn	1.00	0.00	-1.00
Engineering	MWP	NI	M0000430	SOH Mokulele Hwy Widen Ph2B	-0.75	0.00	0.75
Engineering	MWP	NI	M0000525	SOH H'akala Hwy Widening	6.00	0.00	-6.00
Engineering	MWP	NI	M0000544	Kahului Airport Improv	1.00	0.00	-1.00
Engineering	MWP	NI	M0000611	Kehalani Subd Offsite 23kV	21.00	0.00	-21.00
Engineering	MWP	NI	M0000631	Hope Chapel	135.50	0.00	-135.50
Engineering	MWP	NI	M0000652	SOH: Molokai Kawaikapu Bridge UA# 1678	5.50	10.00	4.50
Engineering	MWP	NI	M0000659	Makawao 1200 KVAR Cap Bank	0.00	62.00	62.00
Engineering	MWP	NI	M0000680	County of Maui-Mkt St Impvts	1.00	23.00	22.00
Engineering	MWP	NI	M0000697	69kV Reloc Waikapu	3.00	0.00	-3.00
Engineering	MWP	NI	M0000699	Pomaikai Ph 1	0.00	100.00	100.00
Engineering	MWP	NI	M0000707	COM: Kupa'a Well #1 Offsite	353.25	0.00	-353.25
Engineering	MWP	NI	M0000716	Install Viper-E25 Onehee Ave	0.00	80.00	80.00
Engineering	MWP	NI	M0000718	Reconductor Ckt.1347-Kanaha	0.00	148.00	148.00
Engineering	MWP	NI	M0000719	Recond-Kaahumanu-Papa/Kane	0.00	174.00	174.00
Engineering	MWP	NI	M0000720	Reconductor-Mahalani St-UG	0.00	180.00	180.00
Engineering	MWP	NI	M0000740	Kehalani Offsite Reloc	3.00	0.00	-3.00
Engineering	MWP	NI	M0000741	Clemence Subdivision	19.50	80.00	60.50
Engineering	MWP	NI	M0000742	Lanikeha Sub'd-PH1	5.50	0.00	-5.50
Engineering	MWP	NI	M0000745	Sys Imp Piiholo Farms III	123.25	0.00	-123.25
Engineering	MWP	NI	M0000748	SOH Mokulele Hwy PH1B	0.75	0.00	-0.75
Engineering	MWP	NI	M0000761	Kai Malu @ Wailea	4.25	0.00	-4.25
Engineering	MWP	NI	M0000764	MAhanalua Nui Subdivision-PH4	34.75	0.00	-34.75
Engineering	MWP	NI	M0000765	Kihei Kauhale Subdivision	107.25	0.00	-107.25
Engineering	MWP	NI	M0000766	Ke Alii Kai II Subdivision	207.00	0.00	-207.00

Maui Electric Company, Limited
2007 Rate Case Data
MWP Bargaining Unit Labor Classes (WPDPNR, WPJPNR, WPPLNR), 2006 Actual versus 2007 TY Hours

Dept	RA	Ind	Proj	Project	2006	2007 TY	Incr/(Decr)
Engineering	MWP	NI	M0000767	System Improvements Hikina Subdivision	52.00	8.00	-44.00
Engineering	MWP	NI	M0000768	Wailea MF-5 (Wailea Kanani)	251.50	0.00	-251.50
Engineering	MWP	NI	M0000769	Honolua Ridge PH-II	328.08	0.00	-328.08
Engineering	MWP	NI	M0000770	Kamali'i Alayna Subd	406.50	45.00	-361.50
Engineering	MWP	NI	M0000771	Kamali'i Alayna OS	4.50	0.00	-4.50
Engineering	MWP	NI	M0000772	Maui Hi Perf Computer Ctr	1.00	0.00	-1.00
Engineering	MWP	NI	M0000780	Maui Lani Ph7 Incr2	237.00	0.00	-237.00
Engineering	MWP	NI	M0000781	Peahi Farms Offsite	433.50	0.00	-433.50
Engineering	MWP	NI	M0000808	Kihei 35 Add-Dist. To Hi Tech	0.00	160.00	160.00
Engineering	MWP	NI	M0000811	Kihei 35 Dist Add-Eleu Pl	0.00	160.00	160.00
Engineering	MWP	NI	M0000812	UG Sys Impvts Kualono Sub'd	0.00	80.00	80.00
Engineering	MWP	NI	M0000828	St. Francis Offsite	70.00	94.00	24.00
Engineering	MWP	NI	M0000829	Ke Alii Villas	166.25	30.00	-136.25
Engineering	MWP	NI	M0000830	Lahaina Bypass	160.75	60.00	-100.75
Engineering	MWP	NI	M0000837	Kehalani Site 22 (Ohia Ph-3)	250.50	0.00	-250.50
Engineering	MWP	NI	M0000838	Kapalua Village-Ph 1	262.75	0.00	-262.75
Engineering	MWP	NI	M0000839	Kai Makani Condo Offsite	5.50	0.00	-5.50
Engineering	MWP	NI	M0000841	Sys Impvts Kapalua Vg Ph 1	16.00	0.00	-16.00
Engineering	MWP	NI	M0000842	Waiohuli Hikina Subdivision	127.75	0.00	-127.75
Engineering	MWP	NI	M0000845	Land Court 960 Subdivision	99.00	0.00	-99.00
Engineering	MWP	NI	M0000846	Highlands Estates Well Pump	116.50	0.00	-116.50
Engineering	MWP	NI	M0000847	Kilohana Waena Subdivision	137.25	0.00	-137.25
Engineering	MWP	NI	M0000848	The Courts @ Lanai City	167.75	0.00	-167.75
Engineering	MWP	NI	M0000852	Kai Makani Condo's Onsite	176.25	0.00	-176.25
Engineering	MWP	NI	M0000853	Caputo-OH to UG Conversion	125.00	0.00	-125.00
Engineering	MWP	NI	M0000855	Keokea Five LLC	147.75	0.00	-147.75
Engineering	MWP	NI	M0000857	St. Francis Onsite	174.25	0.00	-174.25
Engineering	MWP	NI	M0000858	Waiolani Pikake Sub'd	73.00	0.00	-73.00
Engineering	MWP	NI	M0000859	Papali Wailea	139.00	0.00	-139.00
Engineering	MWP	NI	M0000860	Waiehu Kou Sub'd Ph 4	103.50	0.00	-103.50
Engineering	MWP	NI	M0000861	Kaanapali Sub'd	81.00	0.00	-81.00
Engineering	MWP	NI	M0000862	Parcel C Phase 2	76.50	0.00	-76.50
Engineering	MWP	NI	M0000863	E Paepae Sub'd	203.25	0.00	-203.25
Engineering	MWP	NI	M3141001	MPP M18-18 MW Steam Turbine NI	4.00	0.00	-4.00
Engineering	MWP	NI	M3500000	MINOR TRANSM PLANT LINES	26.00	96.00	70.00
Engineering	**MWP**	**NI**	**M7000000**	**OVERHEAD SERVICES & EXTENSIONS**	**1,747.00**	**4,620.00**	**2,873.00**

Maui Electric Company, Limited
2007 Rate Case Data
MWP Bargaining Unit Labor Classes (WPDPNR, WPJPNR, WPPLNR), 2006 Actual versus 2007 TY Hours

Dept	RA	Ind	Proj	Project	2006	2007 TY	Incr/(Decr)
Engineering	MWP	NI	M7010000	OH SVC & EXTENSIONS	877.25	0.00	-877.25
Engineering	MWP	NI	M7300000	MINOR POLE LINE RELOCA	477.75	20.00	-457.75
Engineering	MWP	NI	M7450000	MINOR OH FDRS & CONV	30.00	96.00	66.00
Engineering	**MWP**	**NI**	**M7750000**	**Other Overhead additions**	**39.75**	**816.00**	**776.25**
Engineering	MWP	NI	M7900000	METERS & METERING EQUIP (RB)	81.75	252.00	170.25
Engineering	MWP	NI	M7910000	TRANSFORMERS & REL. EQ. (RB)	32.25	0.00	-32.25
Engineering	MWP	NI	M7920000	MINOR STATE HWY PROJECTS	-109.75	144.00	253.75
Engineering	MWP	NI	M7990000	STREET LIGHTS	109.50	120.00	10.50
Engineering	**MWP**	**NI**	**M8000000**	**UNDERGROUND SERVICES & EXTNS.**	**5,955.42**	**11,508.00**	**5,552.58**
Engineering	MWP	NI	M8010000	UG SERVICES & EXTENSIONS	1,843.50	0.00	-1,843.50
Engineering	MWP	NI	M8500000	MINOR OH-UG CONVERSIONS	240.00	288.00	48.00
Engineering	MWP	NI	M8900000	Other Underground Additions	126.75	60.00	-66.75
Engineering	MWP	NI	M8980000	Makena CKT 1395 Extension	0.00	50.00	50.00
Engineering	**MWP**	**NI**			**17,106.50**	**19,564.00**	**2,457.50**
Engineering	MWP	NP	M8010000	UG SERVICES & EXTENSIONS	-119.08	0.00	119.08
Engineering	MWP	NP	NMGZZZZZ	Production	30.25	0.00	-30.25
Engineering	**MWP**	**NP**			**-88.83**	**0.00**	**88.83**
Engineering	MWP	NR	M0000740	Kehalani Offsite Reloc	15.00	0.00	-15.00
Engineering	MWP	NR	M7000000	OVERHEAD SERVICES & EXTENSIONS	155.42	24.00	-131.42
Engineering	MWP	NR	M7010000	OH SVC & EXTENSIONS	13.50	0.00	-13.50
Engineering	MWP	NR	M7300000	MINOR POLE LINE RELOCA	9.75	48.00	38.25
Engineering	MWP	NR	M7750000	Other Overhead additions	3.00	24.00	21.00
Engineering	MWP	NR	M8000000	UNDERGROUND SERVICES & EXTNS.	68.25	96.00	27.75
Engineering	MWP	NR	M8500000	MINOR OH-UG CONVERSIONS	0.00	96.00	96.00
Engineering	MWP	NR	M8900000	Other Underground Additions	3.50	0.00	-3.50
Engineering	**MWP**	**NR**			**268.42**	**288.00**	**19.58**
				TOTAL:	**28,511.92**	**30,308.00**	**1,796.08**
MWP Labor Supply (2007) hrs			**25,056**	OT:	2,871.00	5,252.00	2,381.00
							82.93%

CA-IR-342

Ref: MECO responses to CA-IR-1, CA-IR-124 & CA-IR-236 (T&D Labor).

In response to CA-IR-124, Attachment 2 provides a comparative analysis of the O&M vs. Capital allocations based on labor hour distributions by RA (T&D and Engineering only) for the 2007 budget and 2004 through 2006 actual. Please provide the following:

a. Please identify and describe the source of the labor hours for the 2007 Budget.

b. Referring to Attachment 2 of the response to CA-IR-124, are the total O&M and Capital hours intended to represent total productive hours, for all labor classes within an RA, that are not billable to third parties?

c. Referring to Attachment 2, are the O&M hours intended to represent the productive O&M hours, for all labor classes within an RA, that are charged to all O&M accounts? Please explain

d. In response to CA-IR-1, MECO T-6 provided various labor input sheets supporting the 2007 test year forecast for the T&D and Engineering RA's by labor class. Please provide the following:

   1. Should the total productive hours from the labor input sheets, for all labor classes in an RA, tie to the total of O&M and Capital hours for that RA on Attachment 2 of CA-IR-124? If not, please explain.

   2. Should the total O&M hours from the labor input sheets, for all labor classes in an RA, tie to the total O&M hours for that RA on Attachment 2 of the response to CA-IR-124? If not, please explain.

e. For the 2007 forecast, please provide a schedule reconciling by RA the O&M hours (and total O&M and Capital labor hours) from the labor input sheets supplied by MECO T-6 in response to CA-IR-1 to the O&M hours (and total O&M and Capital labor hours) set forth on Attachment 2 of the response to CA-IR-124.

MECO Response:

a. For CA-IR-124 Attachment 2, the 2007 test year budget labor hours are derived from all project and non-project labor demands budgeted by individual budgeters. The O&M budget amounts were developed as part of the regular Company-wide detailed budgeting and management review process from March to December 2006. The planning and budgeting instructions and assumptions used in developing the Operating Budget are provided in MECO-WP-908. During the process, detailed estimates of O&M expenses as well as other

non-project expenses (non-billable deferred, non-billable clearing, non-preliminary preliminary engineering, etc.) were prepared and entered into the non-project budgeting files by line supervisors and managers throughout the Company. The detailed estimates, called responsibility area ("RA") budgets, were then summarized to produce the 2007 O&M expense budgets. See CA-IR-288 for how the T&D Department forecasted the 2007 test year labor hours. The project demands are the outcome of the project budgeting process as prepared and entered into the project budgeting files by project managers as explained in Ms. Arase's testimony (MECO T-14), pages 7 through 9, where the test year plant additions estimates are an outcome of the process that develops the Company's capital expenditure estimate. In the preliminary stages of the budgeting process, individual projects are identified and their scope, and cost estimates are developed. The respective department will review and rank the proposed project for inclusion in the upcoming 5-year capital project and subject to further review by the Capital Budget Committee. During the detailed budgeting process, the proposed projects are refined/built/updated and resource leveling reports are generated to allow those providing the resources an opportunity to review the demands, in terms of labor hours, placed on their respective resources and adjusted, if necessary to level the labor demands on a specific resource class in arriving at a realistic capital expenditures budget.

b. The total O&M and Capital hours provided in the response to CA-IR-124 Attachment 2 does not represent total productive hours for all labor classes within an RA, which are not billed to third parties. In addition to O&M and Capital hours, total productive hours for T&D and Engineering include other productive hours for Non-billable clearing (NC), Non-billable

Preliminary Engineering (NP), Billable O&M Expense (BE), Billable Temporary (BT), and Non-Billable Nonregulated Assets (NA).

c. The O&M hours provided in the response to CA-IR-124 Attachment 2 do not represent the productive O&M hours, for all labor classes within an RA, which are charged all O&M accounts but rather represent only non-billable O&M (NE) hours, for all labor classes within an RA. The productive O&M hours may also include different types of O&M hours such as Billable O&M Expense (BE), O&M expense billable to third parties.

d. 1. The total productive hours from the labor input sheets provided in the response to CA-IR-1, MECO T-6 for all labor classes in an RA, will not tie to the total of O&M and capital hours for that RA provided on Attachment 2 of the response to CA-IR-124. The response to CA-IR-1, MECO T-6, does not include all labor input sheets for the T&D and Engineering Departments. The labor input sheets for only those labor classes that support the test year budgeted T&D O&M (NE) expenses provided in Exhibit MECO-602, were provided in the response to CA-IR-1, MECO T-6. For example, the Engineering Department labor class WLTC (see Attachment 1, page 5 of 6) does have O&M (NE) 2007 test year budgeted labor of 2,502 hours and is included in the response to CA-IR-124 Attachment 2; however, those labor hours do not roll up to T&D O&M (NE) expenses provided in Exhibit MECO 602, and as a result, a labor input sheet for labor class WLTC was not provided in the response to CA-IR-1, MECO T6.

2. The total O&M (NE) hours for an RA from the labor input sheets provided in the response to CA-IR-1, MECO T-6, do not tie to the total O&M (NE) hours for that RA on Attachment 2 of the response to CA-IR-124. See the response to part d. (1), above.

e. See Attachment 1 of this response.

Maui Electric Company, Limited
2007 Rate Case Data
Distribution and Engineering Department Labor Hour Demands by Department (Dept), Responsibility Area (RA), Labor Class (Lbr Class), Indicator (Ind) and Expense Element (EE)

							Non-Productive v Productive			CA-IR-124 A2			CA-IR-124 A1		Labor Input Sheet	
Dept	RA	Lbr Class	Ind	EE	2007 TY Hours	Prod or Nprod	Nprod	Prod	Total	Capital (NI/NR)	O&M (NE/ND108)	OTHERS	ST	OT	Total Hours	OT Hours
DISTRIBUTION DEPARTMENT																
		_ENABLV	NC	150	2,201.96	Prod	0.00	2,201.96	2,201.96	0.00	0.00	2,201.96				
		_ENABLV	ND	107	352.00	Nprod	352.00	0.00	352.00	0.00	0.00	352.00				
Distribution	**MDA**	**_ENABLV**	**x**		**2,553.96**		**352.00**	**2,201.96**	**2,553.96**	**0.00**	**0.00**	**2,553.96**	**2,088.00**	**465.96**		
		DASENG	NC	150	1,692.00	Prod	0.00	1,692.00	1,692.00	0.00	0.00	1,692.00				
		DASENG	ND	107	272.00	Nprod	272.00	0.00	272.00	0.00	0.00	272.00				
		DASENG	NI	150	902.00	Prod	0.00	902.00	902.00	902.00	0.00	0.00				
Distribution	**MDA**	**DASENG**	**x**		**2,866.00**		**272.00**	**2,594.00**	**2,866.00**	**902.00**	**0.00**	**1,964.00**	**2,088.00**	**778.00**		
Distribution	**MDA**				**5,419.96**		**624.00**	**4,795.96**	**5,419.96**	**902.00**	**0.00**	**4,517.96**	**4,176.00**	**1,243.96**	**0.00**	**0.00**
		DCCREW	NC	150	297.96	Prod	0.00	297.96	297.96	0.00	0.00	297.96				
		DCCREW	ND	107	1,440.00	Nprod	1,440.00	0.00	1,440.00	0.00	0.00	1,440.00				
		DCCREW	NE	150	4,015.08	Prod	0.00	4,015.08	4,015.08	0.00	4,015.08	0.00				
		DCCREW	NI	150	4,166.00	Prod	0.00	4,166.00	4,166.00	4,166.00	0.00	0.00				
Distribution	**MDC**	**DCCREW**			**9,919.04**		**1,440.00**	**8,479.04**	**9,919.04**	**4,166.00**	**4,015.08**	**1,737.96**	**8,352.00**	**1,567.04**	**9,919.00**	**1,567.00**
		DCFCSP	NC	150	2,624.00	Prod	0.00	2,624.00	2,624.00	0.00	0.00	2,624.00				
		DCFCSP	ND	107	272.00	Nprod	272.00	0.00	272.00	0.00	0.00	272.00				
Distribution	**MDC**	**DCFCSP**	**x**		**2,896.00**		**272.00**	**2,624.00**	**2,896.00**	**0.00**	**0.00**	**2,896.00**	**2,088.00**	**808.00**		
		DCSUPV	NC	150	1,850.00	Prod	0.00	1,850.00	1,850.00	0.00	0.00	1,850.00				
		DCSUPV	ND	107	272.00	Nprod	272.00	0.00	272.00	0.00	0.00	272.00				
		DCSUPV	NE	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
		DCSUPV	NI	150	68.00	Prod	0.00	68.00	68.00	68.00	0.00	0.00				
Distribution	**MDC**	**DCSUPV**			**2,190.00**		**272.00**	**1,918.00**	**2,190.00**	**68.00**	**0.00**	**2,122.00**	**2,088.00**	**102.00**		
Distribution	**MDC**				**15,005.04**		**1,984.00**	**13,021.04**	**15,005.04**	**4,234.00**	**4,015.08**	**6,755.96**	**12,528.00**	**2,477.04**	**9,919.00**	**1,567.00**
		DECREW	NA	150	40.00	Prod	0.00	40.00	40.00	0.00	0.00	40.00				
		DECREW	NC	150	635.00	Prod	0.00	635.00	635.00	0.00	0.00	635.00				
		DECREW	ND	107	2,512.00	Nprod	2,512.00	0.00	2,512.00	0.00	0.00	2,512.00				
		DECREW	NE	150	10,747.00	Prod	0.00	10,747.00	10,747.00	0.00	10,747.00	0.00				
		DECREW	NI	150	4,504.00	Prod	0.00	4,504.00	4,504.00	4,504.00	0.00	0.00				
		DECREW	NR	150	852.00	Prod	0.00	852.00	852.00	852.00	0.00	0.00				
Distribution	**MDE**	**DECREW**			**19,290.00**		**2,512.00**	**16,778.00**	**19,290.00**	**5,356.00**	**10,747.00**	**3,187.00**	**16,704.00**	**2,586.00**	**19,290.00**	**2,586.00**
		DESUPV	NC	150	1,570.00	Prod	0.00	1,570.00	1,570.00	0.00	0.00	1,570.00				
		DESUPV	ND	107	224.00	Nprod	224.00	0.00	224.00	0.00	0.00	224.00				
		DESUPV	NE	150	240.00	Prod	0.00	240.00	240.00	0.00	240.00	0.00				
		DESUPV	NI	150	477.00	Prod	0.00	477.00	477.00	477.00	0.00	0.00				
		DESUPV	NR	150	5.00	Prod	0.00	5.00	5.00	5.00	0.00	0.00				
Distribution	**MDE**	**DESUPV**			**2,516.00**		**224.00**	**2,292.00**	**2,516.00**	**482.00**	**240.00**	**1,794.00**	**2,088.00**	**428.00**	**2,516.00**	**428.00**
		TCPSES	NC	150	512.00	Prod	0.00	512.00	512.00	0.00	0.00	512.00				
		TCPSES	ND	107	224.00	Nprod	224.00	0.00	224.00	0.00	0.00	224.00				
		TCPSES	NE	150	1,420.00	Prod	0.00	1,420.00	1,420.00	0.00	1,420.00	0.00				
Distribution	**MDE**	**TCPSES**			**2,156.00**		**224.00**	**1,932.00**	**2,156.00**	**0.00**	**1,420.00**	**736.00**	**2,088.00**	**68.00**	**2,156.00**	**68.00**
Distribution	**MDE**				**23,962.00**		**2,960.00**	**21,002.00**	**23,962.00**	**5,838.00**	**12,407.00**	**5,717.00**	**20,880.00**	**3,082.00**	**23,962.00**	**3,082.00**
		DBUOC	NC	150	2,172.00	Prod	0.00	2,172.00	2,172.00	0.00	0.00	2,172.00				

Maui Electric Company, Limited
2007 Rate Case Data
Distribution and Engineering Department Labor Hour Demands by Department (Dept), Responsibility Area (RA), Labor Class (Lbr Class), Indicator (Ind) and Expense Element (EE)

Dept	RA	Lbr Class	Ind	EE	2007 TY Hours	Prod or Nprod	Nprod	Prod	Total	Capital (NI/NR)	O&M (NE/ND108)	OTHERS	ST	OT	Total Hours	OT Hours
		DBUOC	ND	107	312.00	Nprod	312.00	0.00	312.00	0.00	0.00	312.00				
Distribution	**MDK**	**DBUOC**	**x**		**2,484.00**		**312.00**	**2,172.00**	**2,484.00**	**0.00**	**0.00**	**2,484.00**	**2,088.00**	**396.00**		
		DKCREW	BE	150	396.00	Prod	0.00	396.00	396.00	0.00	0.00	396.00				
		DKCREW	BT	150	300.00	Prod	0.00	300.00	300.00	0.00	0.00	300.00				
		DKCREW	NC	150	2,428.00	Prod	0.00	2,428.00	2,428.00	0.00	0.00	2,428.00				
		DKCREW	ND	107	9,728.00	Nprod	9,728.00	0.00	9,728.00	0.00	0.00	9,728.00				
		DKCREW	ND	108	400.00	Prod	0.00	400.00	400.00	0.00	400.00	0.00				
		DKCREW	NE	150	7,194.04	Prod	0.00	7,194.04	7,194.04	0.00	7,194.04	0.00				
		DKCREW	NI	150	35,141.50	Prod	0.00	35,141.50	35,141.50	35,141.50	0.00	0.00				
		DKCREW	NR	150	9,830.00	Prod	0.00	9,830.00	9,830.00	9,830.00	0.00	0.00				
Distribution	**MDK**	**DKCREW**			**65,417.54**		**9,728.00**	**55,689.54**	**65,417.54**	**44,971.50**	**7,594.04**	**12,852.00**	**66,816.00**	**-1,398.46**	**65,418.00**	**-1,398.00**
		DKFCSP	NC	150	2,534.00	Prod	0.00	2,534.00	2,534.00	0.00	0.00	2,534.00				
		DKFCSP	ND	107	264.00	Nprod	264.00	0.00	264.00	0.00	0.00	264.00				
Distribution	**MDK**	**DKFCSP**	**x**		**2,798.00**		**264.00**	**2,534.00**	**2,798.00**	**0.00**	**0.00**	**2,798.00**	**2,088.00**	**710.00**		
		DKSUPV	NC	150	2,296.00	Prod	0.00	2,296.00	2,296.00	0.00	0.00	2,296.00				
		DKSUPV	ND	107	1,016.00	Nprod	1,016.00	0.00	1,016.00	0.00	0.00	1,016.00				
		DKSUPV	NE	150	252.00	Prod	0.00	252.00	252.00	0.00	252.00	0.00				
		DKSUPV	NI	150	2,030.00	Prod	0.00	2,030.00	2,030.00	2,030.00	0.00	0.00				
		DKSUPV	NR	150	245.00	Prod	0.00	245.00	245.00	245.00	0.00	0.00				
Distribution	**MDK**	**DKSUPV**			**5,839.00**		**1,016.00**	**4,823.00**	**5,839.00**	**2,275.00**	**252.00**	**3,312.00**	**6,264.00**	**-425.00**	**5,839.00**	**-425.00**
Distribution	**MDK**				**76,538.54**		**11,320.00**	**65,218.54**	**76,538.54**	**47,246.50**	**7,846.04**	**21,446.00**	**77,256.00**	**-717.46**	**71,257.00**	**-1,823.00**
		DLCREW	NC	150	284.00	Prod	0.00	284.00	284.00	0.00	0.00	284.00				
		DLCREW	ND	107	544.00	Nprod	544.00	0.00	544.00	0.00	0.00	544.00				
		DLCREW	NE	150	1,968.00	Prod	0.00	1,968.00	1,968.00	0.00	1,968.00	0.00				
		DLCREW	NI	150	1,532.00	Prod	0.00	1,532.00	1,532.00	1,532.00	0.00	0.00				
		DLCREW	NR	150	500.00	Prod	0.00	500.00	500.00	500.00	0.00	0.00				
Distribution	**MDL**	**DLCREW**			**4,828.00**		**544.00**	**4,284.00**	**4,828.00**	**2,032.00**	**1,968.00**	**828.00**	**4,176.00**	**652.00**	**4,828.00**	**652.00**
		DLSUPV	NC	150	528.00	Prod	0.00	528.00	528.00	0.00	0.00	528.00				
		DLSUPV	ND	107	352.00	Nprod	352.00	0.00	352.00	0.00	0.00	352.00				
		DLSUPV	NE	150	1,428.00	Prod	0.00	1,428.00	1,428.00	0.00	1,428.00	0.00				
Distribution	**MDL**	**DLSUPV**			**2,308.00**		**352.00**	**1,956.00**	**2,308.00**	**0.00**	**1,428.00**	**880.00**	**2,088.00**	**220.00**	**2,308.00**	**220.00**
Distribution	**MDL**				**7,136.00**		**896.00**	**6,240.00**	**7,136.00**	**2,032.00**	**3,396.00**	**1,708.00**	**6,264.00**	**872.00**	**7,136.00**	**872.00**
		DCSUPV	NC	150	72.00	Prod	0.00	72.00	72.00	0.00	0.00	72.00				
		DCSUPV	ND	107	344.00	Nprod	344.00	0.00	344.00	0.00	0.00	344.00				
		DCSUPV	NE	150	1,800.00	Prod	0.00	1,800.00	1,800.00	0.00	1,800.00	0.00				
Distribution	**MDM**	**DCSUPV**			**2,216.00**		**344.00**	**1,872.00**	**2,216.00**	**0.00**	**1,800.00**	**416.00**	**2,088.00**	**128.00**	**2,216.00**	**128.00**
		DMCREW	NC	150	102.00	Prod	0.00	102.00	102.00	0.00	0.00	102.00				
		DMCREW	ND	107	1,708.00	Nprod	1,708.00	0.00	1,708.00	0.00	0.00	1,708.00				
		DMCREW	NE	150	10,462.00	Prod	0.00	10,462.00	10,462.00	0.00	10,462.00	0.00				
		DMCREW	NI	150	2,599.00	Prod	0.00	2,599.00	2,599.00	2,599.00	0.00	0.00				
		DMCREW	NR	150	48.00	Prod	0.00	48.00	48.00	48.00	0.00	0.00				
Distribution	**MDM**	**DMCREW**			**14,919.00**		**1,708.00**	**13,211.00**	**14,919.00**	**2,647.00**	**10,462.00**	**1,810.00**	**12,528.00**	**2,391.00**	**14,919.00**	**2,391.00**

Maui Electric Company, Limited
2007 Rate Case Data
Distribution and Engineering Department Labor Hour Demands by Department (Dept), Responsibility Area (RA), Labor Class (Lbr Class), Indicator (Ind) and Expense Element (EE)

Dept	RA	Lbr Class	Ind	EE	2007 TY Hours	Prod or Nprod	Nprod	Prod	Total	Capital (NI/NR)	O&M (NE/ND108)	OTHERS	ST	OT	Total Hours	OT Hours
Distribution	**MDM**				**17,135.00**		**2,052.00**	**15,083.00**	**17,135.00**	**2,647.00**	**12,262.00**	**2,226.00**	**14,616.00**	**2,519.00**	**17,135.00**	**2,519.00**
		DBUOC	NC	150	784.00	Prod	0.00	784.00	784.00	0.00	0.00	784.00				
		DBUOC	ND	107	312.00	Nprod	312.00	0.00	312.00	0.00	0.00	312.00				
		DBUOC	NE	150	1,464.00	Prod	0.00	1,464.00	1,464.00	0.00	1,464.00	0.00				
Distribution	**MDR**	**DBUOC**			**2,560.00**		**312.00**	**2,248.00**	**2,560.00**	**0.00**	**1,464.00**	**1,096.00**	**2,088.00**	**472.00**	**2,560.00**	**472.00**
		DRCREW	BT	150	1,056.00	Prod	0.00	1,056.00	1,056.00	0.00	0.00	1,056.00				
		DRCREW	NC	150	708.00	Prod	0.00	708.00	708.00	0.00	0.00	708.00				
		DRCREW	ND	107	4,099.00	Nprod	4,099.00	0.00	4,099.00	0.00	0.00	4,099.00				
		DRCREW	NE	150	16,736.96	Prod	0.00	16,736.96	16,736.96	0.00	16,736.96	0.00				
		DRCREW	NI	150	4,963.00	Prod	0.00	4,963.00	4,963.00	4,963.00	0.00	0.00				
		DRCREW	NR	150	456.00	Prod	0.00	456.00	456.00	456.00	0.00	0.00				
Distribution	**MDR**	**DRCREW**			**28,018.96**		**4,099.00**	**23,919.96**	**28,018.96**	**5,419.00**	**16,736.96**	**5,863.00**	**25,056.00**	**2,962.96**	**28,019.00**	**2,963.00**
		DRDISP	NC	150	678.00	Prod	0.00	678.00	678.00	0.00	0.00	678.00				
		DRDISP	ND	107	1,440.00	Nprod	1,440.00	0.00	1,440.00	0.00	0.00	1,440.00				
		DRDISP	NE	150	7,464.00	Prod	0.00	7,464.00	7,464.00	0.00	7,464.00	0.00				
		DRDISP	NI	150	812.00	Prod	0.00	812.00	812.00	812.00	0.00	0.00				
		DRDISP	NR	150	120.00	Prod	0.00	120.00	120.00	120.00	0.00	0.00				
Distribution	**MDR**	**DRDISP**			**10,514.00**		**1,440.00**	**9,074.00**	**10,514.00**	**932.00**	**7,464.00**	**2,118.00**	**10,440.00**	**74.00**	**10,514.00**	**74.00**
		DRDSUP	NC	150	344.00	Prod	0.00	344.00	344.00	0.00	0.00	344.00				
		DRDSUP	ND	107	1,600.00	Nprod	1,600.00	0.00	1,600.00	0.00	0.00	1,600.00				
		DRDSUP	NE	150	9,972.00	Prod	0.00	9,972.00	9,972.00	0.00	9,972.00	0.00				
		DRDSUP	NI	150	676.00	Prod	0.00	676.00	676.00	676.00	0.00	0.00				
		DRDSUP	NR	150	12.00	Prod	0.00	12.00	12.00	12.00	0.00	0.00				
Distribution	**MDR**	**DRDSUP**			**12,604.00**		**1,600.00**	**11,004.00**	**12,604.00**	**688.00**	**9,972.00**	**1,944.00**	**12,528.00**	**76.00**	**12,604.00**	**76.00**
		DRFCSP	NC	150	1,134.00	Prod	0.00	1,134.00	1,134.00	0.00	0.00	1,134.00				
		DRFCSP	ND	107	352.00	Nprod	352.00	0.00	352.00	0.00	0.00	352.00				
		DRFCSP	NE	150	630.00	Prod	0.00	630.00	630.00	0.00	630.00	0.00				
Distribution	**MDR**	**DRFCSP**			**2,116.00**		**352.00**	**1,764.00**	**2,116.00**	**0.00**	**630.00**	**1,486.00**	**2,088.00**	**28.00**	**2,116.00**	**28.00**
		DRFSUP	NC	150	1,204.00	Prod	0.00	1,204.00	1,204.00	0.00	0.00	1,204.00				
		DRFSUP	ND	107	232.00	Nprod	232.00	0.00	232.00	0.00	0.00	232.00				
		DRFSUP	NE	150	768.00	Prod	0.00	768.00	768.00	0.00	768.00	0.00				
		DRFSUP	NI	150	80.00	Prod	0.00	80.00	80.00	80.00	0.00	0.00				
Distribution	**MDR**	**DRFSUP**			**2,284.00**		**232.00**	**2,052.00**	**2,284.00**	**80.00**	**768.00**	**1,436.00**	**2,088.00**	**196.00**	**2,284.00**	**196.00**
		DRSENG	ND	107	232.00	Nprod	232.00	0.00	232.00	0.00	0.00	232.00				
		DRSENG	NE	150	740.00	Prod	0.00	740.00	740.00	0.00	740.00	0.00				
		DRSENG	NI	150	1,348.00	Prod	0.00	1,348.00	1,348.00	1,348.00	0.00	0.00				
Distribution	**MDR**	**DRSENG**			**2,320.00**		**232.00**	**2,088.00**	**2,320.00**	**1,348.00**	**740.00**	**232.00**	**2,088.00**	**232.00**	**2,320.00**	**232.00**
Distribution	**MDR**				**60,416.96**		**8,267.00**	**52,149.96**	**60,416.96**	**8,467.00**	**37,774.96**	**14,175.00**	**56,376.00**	**4,040.96**	**60,417.00**	**4,041.00**
		DBUOC	NC	150	1,920.00	Prod	0.00	1,920.00	1,920.00	0.00	0.00	1,920.00				
		DBUOC	ND	107	312.00	Nprod	312.00	0.00	312.00	0.00	0.00	312.00				
Distribution	**MDS**	**DBUOC**	*		**2,232.00**		**312.00**	**1,920.00**	**2,232.00**	**0.00**	**0.00**	**2,232.00**	**2,088.00**	**144.00**		
		DSMATL	NC	150	7,332.00	Prod	0.00	7,332.00	7,332.00	0.00	0.00	7,332.00				
		DSMATL	ND	107	1,456.00	Nprod	1,456.00	0.00	1,456.00	0.00	0.00	1,456.00				

Maui Electric Company, Limited
2007 Rate Case Data
Distribution and Engineering Department Labor Hour Demands by Department (Dept), Responsibility Area (RA), Labor Class (Lbr Class), Indicator (Ind) and Expense Element (EE)

Dept	RA	Lbr Class	Ind	EE	2007 TY Hours	Prod or Nprod	Nprod	Prod	Total	Capital (NI/NR)	O&M (NE/ND108)	OTHERS	ST	OT	Total Hours	OT Hours
		DSMATL	NE	150	380.00	Prod	0.00	380.00	380.00	0.00	380.00	0.00				
		DSMATL	NI	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
Distribution	**MDS**	**DSMATL**			**9,168.00**		**1,456.00**	**7,712.00**	**9,168.00**	**0.00**	**380.00**	**8,788.00**	**8,352.00**	**816.00**	**9,168.00**	**816.00**
		DSSUPV	NC	150	1,860.00	Prod	0.00	1,860.00	1,860.00	0.00	0.00	1,860.00				
		DSSUPV	ND	107	352.00	Nprod	352.00	0.00	352.00	0.00	0.00	352.00				
		DSSUPV	NI	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
Distribution	**MDS**	**DSSUPV**	**x**		**2,212.00**		**352.00**	**1,860.00**	**2,212.00**	**0.00**	**0.00**	**2,212.00**	**2,088.00**	**124.00**		
Distribution	***MDS***				***13,612.00***		***2,120.00***	***11,492.00***	***13,612.00***	***0.00***	***380.00***	***13,232.00***	***12,528.00***	***1,084.00***	***9,168.00***	***816.00***
		DTCREW	NC	150	850.00	Prod	0.00	850.00	850.00	0.00	0.00	850.00				
		DTCREW	ND	107	1,168.00	Nprod	1,168.00	0.00	1,168.00	0.00	0.00	1,168.00				
		DTCREW	NE	150	3,562.00	Prod	0.00	3,562.00	3,562.00	0.00	3,562.00	0.00				
		DTCREW	NI	150	3,489.00	Prod	0.00	3,489.00	3,489.00	3,489.00	0.00	0.00				
		DTCREW	NR	150	872.00	Prod	0.00	872.00	872.00	872.00	0.00	0.00				
Distribution	**MDT**	**DTCREW**			**9,941.00**		**1,168.00**	**8,773.00**	**9,941.00**	**4,361.00**	**3,562.00**	**2,018.00**	**8,352.00**	**1,589.00**	**9,941.00**	**1,589.00**
Distribution	**MDT**				**9,941.00**		**1,168.00**	**8,773.00**	**9,941.00**	**4,361.00**	**3,562.00**	**2,018.00**	**8,352.00**	**1,589.00**	**9,941.00**	**1,589.00**
		DBUTCA	NC	150	2,280.00	Prod	0.00	2,280.00	2,280.00	0.00	0.00	2,280.00				
		DBUTCA	ND	107	272.00	Nprod	272.00	0.00	272.00	0.00	0.00	272.00				
Distribution	**MDV**	**DBUTCA**	**x**		**2,552.00**		**272.00**	**2,280.00**	**2,552.00**	**0.00**	**0.00**	**2,552.00**	**2,088.00**	**464.00**		
		DBUTCM	NC	150	4,320.00	Prod	0.00	4,320.00	4,320.00	0.00	0.00	4,320.00				
		DBUTCM	ND	107	544.00	Nprod	544.00	0.00	544.00	0.00	0.00	544.00				
		DBUTCM	NI	150	144.00	Prod	0.00	144.00	144.00	144.00	0.00	0.00				
Distribution	**MDV**	**DBUTCM**	**x**		**5,008.00**		**544.00**	**4,464.00**	**5,008.00**	**144.00**	**0.00**	**4,864.00**	**4,176.00**	**832.00**		
Distribution	**MDV**				**7,560.00**		**816.00**	**6,744.00**	**7,560.00**	**144.00**	**0.00**	**7,416.00**	**6,264.00**	**1,296.00**	**0.00**	**0.00**
		WINFOR	ND	107	1,324.00	Nprod	1,324.00	0.00	1,324.00	0.00	0.00	1,324.00				
		WINFOR	NE	150	9,648.00	Prod	0.00	9,648.00	9,648.00	0.00	9,648.00	0.00				
		WINFOR	NI	150	180.00	Prod	0.00	180.00	180.00	180.00	0.00	0.00				
Distribution	**MWI**	**WINFOR**			**11,152.00**		**1,324.00**	**9,828.00**	**11,152.00**	**180.00**	**9,648.00**	**1,324.00**	**10,440.00**	**712.00**	**11,152.00**	**712.00**
		WISUPV	ND	107	280.00	Nprod	280.00	0.00	280.00	0.00	0.00	280.00				
		WISUPV	NE	150	1,960.00	Prod	0.00	1,960.00	1,960.00	0.00	1,960.00	0.00				
		WISUPV	NI	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
Distribution	**MWI**	**WISUPV**			**2,240.00**		**280.00**	**1,960.00**	**2,240.00**	**0.00**	**1,960.00**	**280.00**	**2,088.00**	**152.00**	**2,240.00**	**152.00**
Distribution	**MWI**				**13,392.00**		**1,604.00**	**11,788.00**	**13,392.00**	**180.00**	**11,608.00**	**1,604.00**	**12,528.00**	**864.00**	**13,392.00**	**864.00**
TOTAL DISTRIBUTION					**250,118.50**		**33,811.00**	**216,307.50**	**250,118.50**	**76,051.50**	**93,251.08**	**80,815.92**	**231,768.00**	**18,350.50**	**222,327.00**	**13,527.00**
TOTAL PER CA-IR-124 A1, A2, LABOR INPUT SHEET										**76,051.50**	**93,251.08**		**231,768.00**	**18,350.50**	**222,327.00**	**13,527.00**
ENGINEERING DEPARTMENT																
		_ENABLV	NC	150	2,172.00	Prod	0.00	2,172.00	2,172.00	0.00	0.00	2,172.00				
		_ENABLV	ND	107	312.00	Nprod	312.00	0.00	312.00	0.00	0.00	312.00				
		_ENABLV	NE	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
Engineering	**MWA**	**_ENABLV**	**x**		**2,484.00**		**312.00**	**2,172.00**	**2,484.00**	**0.00**	**0.00**	**2,484.00**	**2,088.00**	**396.00**		
		WAIMPL	NC	150	2,124.00	Prod	0.00	2,124.00	2,124.00	0.00	0.00	2,124.00				
		WAIMPL	ND	107	272.00	Nprod	272.00	0.00	272.00	0.00	0.00	272.00				

Maui Electric Company, Limited
2007 Rate Case Data
Distribution and Engineering Department Labor Hour Demands by Department (Dept), Responsibility Area (RA), Labor Class (Lbr Class), Indicator (Ind) and Expense Element (EE)

Dept	RA	Lbr Class	Ind	EE	2007 TY Hours	Prod or Nprod	Nprod	Prod	Total	Capital (NI/NR)	O&M (NE/ND108)	OTHERS	ST	OT	Total Hours	OT Hours
Engineering	MWA	WAIMPL	x		2,396.00		272.00	2,124.00	2,396.00	0.00	0.00	2,396.00	2,088.00	308.00		
		WATC	NC	150	2,330.00	Prod	0.00	2,330.00	2,330.00	0.00	0.00	2,330.00				
		WATC	ND	107	272.00	Nprod	272.00	0.00	272.00	0.00	0.00	272.00				
Engineering	MWA	WATC	x		2,602.00		272.00	2,330.00	2,602.00	0.00	0.00	2,602.00	2,088.00	514.00		
Engineering	MWA				7,482.00		856.00	6,626.00	7,482.00	0.00	0.00	7,482.00	6,264.00	1,218.00	0.00	0.00
		WBUOC	NC	150	4,378.00	Prod	0.00	4,378.00	4,378.00	0.00	0.00	4,378.00				
		WBUOC	ND	107	648.00	Nprod	648.00	0.00	648.00	0.00	0.00	648.00				
		WBUOC	NE	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
Engineering	MWC	WBUOC	x		5,026.00		648.00	4,378.00	5,026.00	0.00	0.00	5,026.00	4,176.00	850.00		
Engineering	MWC				5,026.00		648.00	4,378.00	5,026.00	0.00	0.00	5,026.00	4,176.00	850.00	0.00	0.00
		WLTC	NC	150	498.00	Prod	0.00	498.00	498.00	0.00	0.00	498.00				
		WLTC	ND	107	528.00	Nprod	528.00	0.00	528.00	0.00	0.00	528.00				
		WLTC	NE	150	2,502.00	Prod	0.00	2,502.00	2,502.00	0.00	2,502.00	0.00				
		WLTC	NI	150	1,058.00	Prod	0.00	1,058.00	1,058.00	1,058.00	0.00	0.00				
Engineering	MWL	WLTC	x		4,586.00		528.00	4,058.00	4,586.00	1,058.00	2,502.00	1,026.00	4,176.00	410.00		
Engineering	MWL				4,586.00		528.00	4,058.00	4,586.00	1,058.00	2,502.00	1,026.00	4,176.00	410.00	0.00	0.00
		WMPLNR	NC	150	1,320.00	Prod	0.00	1,320.00	1,320.00	0.00	0.00	1,320.00				
		WMPLNR	ND	107	352.00	Nprod	352.00	0.00	352.00	0.00	0.00	352.00				
		WMPLNR	NE	150	232.04	Prod	0.00	232.04	232.04	0.00	232.04	0.00				
		WMPLNR	NI	150	180.00	Prod	0.00	180.00	180.00	180.00	0.00	0.00				
Engineering	MWM	WMPLNR			2,084.04		352.00	1,732.04	2,084.04	180.00	232.04	1,672.00	2,088.00	-3.96	2,084.00	-4.00
Engineering	MWM				2,084.04		352.00	1,732.04	2,084.04	180.00	232.04	1,672.00	2,088.00	-3.96	2,084.00	-4.00
		WPDENR	NC	150	2,544.00	Prod	0.00	2,544.00	2,544.00	0.00	0.00	2,544.00				
		WPDENR	ND	107	1,016.00	Nprod	1,016.00	0.00	1,016.00	0.00	0.00	1,016.00				
		WPDENR	NE	150	96.00	Prod	0.00	96.00	96.00	0.00	96.00	0.00				
		WPDENR	NI	150	6,489.00	Prod	0.00	6,489.00	6,489.00	6,489.00	0.00	0.00				
		WPDENR	NR	150	20.00	Prod	0.00	20.00	20.00	20.00	0.00	0.00				
Engineering	MWP	WPDENR			10,165.00		1,016.00	9,149.00	10,165.00	6,509.00	96.00	3,560.00	8,352.00	1,813.00	10,165.00	1,813.00
		WPDPNR	NC	150	1,968.00	Prod	0.00	1,968.00	1,968.00	0.00	0.00	1,968.00				
		WPDPNR	ND	107	1,096.00	Nprod	1,096.00	0.00	1,096.00	0.00	0.00	1,096.00				
		WPDPNR	NE	150	192.00	Prod	0.00	192.00	192.00	0.00	192.00	0.00				
		WPDPNR	NI	150	7,372.00	Prod	0.00	7,372.00	7,372.00	7,372.00	0.00	0.00				
Engineering	MWP	WPDPNR			10,628.00		1,096.00	9,532.00	10,628.00	7,372.00	192.00	3,064.00	8,352.00	2,276.00	10,628.00	2,276.00
		WPJPNR	NC	150	3,828.00	Prod	0.00	3,828.00	3,828.00	0.00	0.00	3,828.00				
		WPJPNR	ND	107	1,160.00	Nprod	1,160.00	0.00	1,160.00	0.00	0.00	1,160.00				
		WPJPNR	NE	150	528.00	Prod	0.00	528.00	528.00	0.00	528.00	0.00				
		WPJPNR	NI	150	7,064.00	Prod	0.00	7,064.00	7,064.00	7,064.00	0.00	0.00				
		WPJPNR	NR	150	192.00	Prod	0.00	192.00	192.00	192.00	0.00	0.00				
Engineering	MWP	WPJPNR			12,772.00		1,160.00	11,612.00	12,772.00	7,256.00	528.00	4,988.00	10,440.00	2,332.00	12,772.00	2,332.00
		WPPLNR	NC	150	852.00	Prod	0.00	852.00	852.00	0.00	0.00	852.00				
		WPPLNR	ND	107	832.00	Nprod	832.00	0.00	832.00	0.00	0.00	832.00				
		WPPLNR	NE	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
		WPPLNR	NI	150	5,128.00	Prod	0.00	5,128.00	5,128.00	5,128.00	0.00	0.00				

Maui Electric Company, Limited
2007 Rate Case Data
Distribution and Engineering Department Labor Hour Demands by Department (Dept), Responsibility Area (RA), Labor Class (Lbr Class), Indicator (Ind) and Expense Element (EE)

Dept	RA	Lbr Class	Ind	EE	2007 TY Hours	Prod or Nprod	Nprod	Prod	Total	Capital (NI/NR)	O&M (NE/ND108)	OTHERS	ST	OT	Total Hours	OT Hours
		WPPLNR	NR	150	96.00	Prod	0.00	96.00	96.00	96.00	0.00	0.00				
Engineering	**MWP**	**WPPLNR**	**x**		**6,908.00**		**832.00**	**6,076.00**	**6,908.00**	**5,224.00**	**0.00**	**1,684.00**	**6,264.00**	**644.00**		
		WPSUPV	NC	150	2,568.00	Prod	0.00	2,568.00	2,568.00	0.00	0.00	2,568.00				
		WPSUPV	ND	107	648.00	Nprod	648.00	0.00	648.00	0.00	0.00	648.00				
		WPSUPV	NE	150	0.00	Prod	0.00	0.00	0.00	0.00	0.00	0.00				
		WPSUPV	NI	150	1,328.00	Prod	0.00	1,328.00	1,328.00	1,328.00	0.00	0.00				
		WPSUPV	NR	150	3.00	Prod	0.00	3.00	3.00	3.00	0.00	0.00				
Engineering	**MWP**	**WPSUPV**	**x**		**4,547.00**		**648.00**	**3,899.00**	**4,547.00**	**1,331.00**	**0.00**	**3,216.00**	**4,176.00**	**371.00**		
Engineering	**MWP**				**45,020.00**		**4,752.00**	**40,268.00**	**45,020.00**	**27,692.00**	**816.00**	**16,512.00**	**37,584.00**	**7,436.00**	**33,565.00**	**6,421.00**
		WSSENG	NC	150	3,584.00	Prod	0.00	3,584.00	3,584.00	0.00	0.00	3,584.00				
		WSSENG	ND	107	671.92	Nprod	671.92	0.00	671.92	0.00	0.00	671.92				
		WSSENG	NE	150	868.00	Prod	0.00	868.00	868.00	0.00	868.00	0.00				
		WSSENG	NI	150	2,302.00	Prod	0.00	2,302.00	2,302.00	2,302.00	0.00	0.00				
Engineering	**MWS**	**WSSENG**			**7,425.92**		**671.92**	**6,754.00**	**7,425.92**	**2,302.00**	**868.00**	**4,255.92**	**6,264.00**	**1,161.92**	**7,426.00**	**1,162.00**
		WSSENL	NC	150	944.04	Prod	0.00	944.04	944.04	0.00	0.00	944.04				
		WSSENL	ND	107	304.00	Nprod	304.00	0.00	304.00	0.00	0.00	304.00				
		WSSENL	NE	150	168.00	Prod	0.00	168.00	168.00	0.00	168.00	0.00				
		WSSENL	NI	150	672.00	Prod	0.00	672.00	672.00	672.00	0.00	0.00				
Engineering	**MWS**	**WSSENL**			**2,088.04**		**304.00**	**1,784.04**	**2,088.04**	**672.00**	**168.00**	**1,248.04**	**2,088.00**	**0.04**	**2,088.00**	**0.00**
		WSSUPV	NC	150	1,275.96	Prod	0.00	1,275.96	1,275.96	0.00	0.00	1,275.96				
		WSSUPV	ND	107	224.00	Nprod	224.00	0.00	224.00	0.00	0.00	224.00				
		WSSUPV	ND	150	6.00	Prod	0.00	6.00	6.00	0.00	0.00	6.00				
		WSSUPV	NE	150	517.96	Prod	0.00	517.96	517.96	0.00	517.96	0.00				
		WSSUPV	NI	150	611.00	Prod	0.00	611.00	611.00	611.00	0.00	0.00				
		WSSUPV	NP	150	6.00	Prod	0.00	6.00	6.00	0.00	0.00	6.00				
Engineering	**MWS**	**WSSUPV**			**2,640.92**		**224.00**	**2,416.92**	**2,640.92**	**611.00**	**517.96**	**1,511.96**	**2,088.00**	**552.92**	**2,640.92**	**552.92**
Engineering	**MWS**				**12,154.88**		**1,199.92**	**10,954.96**	**12,154.88**	**3,585.00**	**1,553.96**	**7,015.92**	**10,440.00**	**1,714.88**	**12,154.92**	**1,714.92**
TOTAL ENGINEERING					**76,352.92**		**8,335.92**	**68,017.00**	**76,352.92**	**32,515.00**	**5,104.00**	**38,733.92**	**64,728.00**	**11,624.92**	**47,803.92**	**8,131.92**
TOTAL PER CA-IR-124 A1, A2, LABOR INPUT SHEET										**32,515.00**	**5,104.00**		**64,728.00**	**11,624.92**	**47,803.92**	**8,131.92**

CA-IR-343

Ref: MECO response to CA-IR-284 (T&D Staffing).

In partial response to part (a) of CA-IR-284, MECO stated that year-to-date June 2007 T&D overtime was 29,710 hours compared to June 2007 test year budget of 9,175 hours. Please provide the following actual T&D information by RA and by labor class, showing monthly activity for the period January-June 2007 and a total for that period:

a. Total productive hours.
b. Total nonproductive hours.
c. Total overtime hours.

MECO Response:

The requested information cannot be provided in terms of calendar months because the source for overtime hour data is the Company's payroll system, which records data on a bi-weekly pay period basis, as opposed to a calendar month basis. For the same reason, the information for the requested calendar period January-June 2007 is not available. In lieu of the requested information, the table below presents the available information which is closest to providing the requested information, i.e., the YTD recorded hours worked for the 12 pay periods beginning January 1, 2007 and ending July 1, 2007, by RA. Please note that the hours shown below do not match the 29,710 hours contained in MECO's response to CA-IR-284. The 29,710 hours was based on hours paid in 2007 which included, in addition to the hours in the table below, the December 18 through December 31, 2006 pay period which was paid on January 5, 2007.

With respect to the requested information by individual labor class, an overly burdensome manual process would be required to prepare an overtime hours breakdown by labor class. In general, a manual review of all the original daily labor input sheets for over 100 employees covering twelve pay periods, or over 1,820 entries, would be required. However,

MECO is willing to generate the requested information on a selective basis, e.g., for a specific labor class, if requested by the Consumer Advocate.

MAUI ELECTRIC COMPANY, LTD.			
YEAR TO DATE LABOR HOURS			
AS OF PAY PERIOD ENDED JULY 1, 2007			
RA	PRODUCTIVE HOURS	NON PRODUCTIVE HOURS	OVERTIME HOURS
MDA	2,816.00	350.00	498.50
MDC	4,746.50	453.50	537.25
MDE	8,976.00	1,376.03	3,874.00
MDK	26,936.00	5,477.42	11,271.13
MDL	2,789.00	331.00	705.00
MDM	5,689.50	710.50	1,954.50
MDR	22,007.00	3,522.64	7,144.29
MDS	4,339.50	596.50	674.92
MDT	3,485.00	757.00	281.74
MDV	2,513.50	206.50	1,582.75
MWI	5,358.00	882.00	11.00
Totals	89,656.00	14,663.09	28,535.08

Source: Payroll Recap Reports for Pay Period Ended 7/1/07 less Pay Period Ended 12/31/06

CA-IR-344

Ref: MECO response to CA-IR-2 (T&D Non Labor Expense).

Referring to Attachment 5, page 4, of the response to CA-IR-2, Item 147 is identified as Replacement Distribution Tools/Equipment. The supporting documentation (Attachments 6B, page 2, and 6E, pages 51-53) indicate that the forecast amount of $127,680 is "in line with trending and adjusted for full T&D staffing in 2007" and contain actual amounts for 2004 ($137,587), 2005 ($94,673) and 2006 ($105,922), respectively. However, it does not appear that the Company's workpapers show how this data was used to derive the $127,680 forecast amount. Please provide the following:

a. Please provide any additional workpapers, including spreadsheet files, supporting the calculation of the $127,680.

b. Please describe and provide any inflation factors or trending techniques relied upon by MECO.

c. Please describe and provide any T&D staffing counts relied upon by MECO.

MECO Response:

a. The expense for this activity is highly unpredictable and is not easily trended due to the large deviations from year to year. The 2007 test year expense was based on the average of three years with the highest expense of the last six years and adjusted for inflation by 2.5%.

MDS492MAUNEM0000300			
Item 47	Actuals		Expense
*2001	120,228	Three highest Years	373,697
2002	115,882	Avg. of 3 highest yrs.	124,566
2003	99,408	Inflation Factor	2.50%
2004	137,587		
2005	94,872	2007 test year budget	127,680
**2006	108,055		

*Trended from six months on record of actuals, starting from June 2001 to December 2001. No records previous to June 2001 for this expense.

**Trended based on actuals through June 2006 when expense was budgeted.

b. The inflation factor utilized was 2.5 percent. This factor is consistent with exhibit MECO-923 of MECO T-9's testimony for this docket.

c. MECO made an error indicating this expense was "adjusted for full T&D staffing in 2007". There is no discernable correlation between staffing and this expense and the 2007 staffing count was not considered when estimating this expense.

CA-IR-345

Ref: MECO response to CA-IR-2 (T&D Non Labor Expense).

Referring to Attachment 5, page 4, of the response to CA-IR-2, Items 150, 151 and 152 are generally identified Distribution Tools, Supplies and Equipment. The supporting documentation (Attachment 6F, page 11) merely identify Items 150 ($20,000) and 151 ($12,000) as "Field purchase of Construction tool replacement" and Item 152 ($2,400) as "outside repair of construction tools, testers." However, these items have no additional workpaper references, nor any indication as to how these amounts were forecast. Please provide the following:

a. Please provide copies of any additional workpapers, including spreadsheet files, supporting the calculation of the identified forecast amounts.

b. Please describe and provide any historical data, inflation factors or trending techniques relied upon by MECO to derive the forecast amounts.

MECO Response:

a. Provided below is an explanation of the development of the test year estimates for Items 150, 151, and 152.

Item 150: Note that MECO's response to CA-IR-2, Attachment 6F, page 11, Item 150 contains an error. The expense element for Item 150 should be 201. This expense is for direct purchase of tool and equipment normally costing less then $300 dollars a unit. The 2007 test year expense was based on the average of the previous six years increased for inflation by 2.5% and rounded.

MDS492MAUNENMDZZZZZ201

Item 150	Actuals		Expense
2001	$44,509	Six year total	$117,366
2002	$13,408	Average of six yrs.	$19,561
2003	$14,122	Inflation Factor	2.5%
2004	$0	Six year average + Inflation	$20,050
2005	$18,534		
*2006	$26,793	2007 test year budget	$20,000

* trended based on actuals through June 2006 when expense was budgeted

Item 151: This expense is for direct purchase of tools and equipment using the Company's ProCard credit card. Due to the significant increase in expenses in 2004-2006 compared to 2001-2003, the 2007 test year expense was determined by averaging the six year (2001-2006) average and the three recent year (2004-2006) average. This new average was then increased for inflation by 2.5% and rounded.

MDS492MAUNENMDZZZZZ205

Item 151	Actuals		Expense
2001	$7,512	Six year total	$59,734
2002	$6,317	Average of six yrs.	$9,955
2003	$6,327	Last three yr. total	$39,578
2004	$16,479	Average of last three yrs.	$13,192
2005	$11,623	(6yr avg + 3 yrs avg) /2	$11,575
*2006	$11,476	Inflation Factor	2.5%
		Average + Inflation	$11,864
		2007 test year budget	$12,000

* trended based on actuals through June 2006 when expense was budgeted

Item 152: This expense is for the repair of tools and equipment by outside vendors. The 2007 test year expense was based on the average of the previous six years increased for inflation by 2.5% and rounded. The test year expense was rounded to $2,400 due to the large quantity of battery powered tools ordered in the previous three years and the expectation of the added maintenance on these units.

MDS492MAUNENMDZZZZZ501

Item 152	Actuals		Expense
2001	$3,829	Six year total	$13,418
2002	$960	Average of six yrs.	$2,236
2003	$3,088	Inflation Factor	2.5%
2004	$2,240	Six year avg + Inflation	$2,292
2005	$1,660		
*2006	$1,641	2007 test year budget	$2,400

* trended based on actuals through June 2006 when expense was budgeted

b. See response to part a. above.

CA-IR-346

Ref: MECO response to CA-IR-2 (T&D Non Labor Expense).

Referring to Attachment 5, page 1, of the response to CA-IR-2, Item 5 is identified as Standard Vehicle Usage – Light. The supporting documentation (Attachment 8B, page 5) indicates that the forecast amount of $30,316 is based on 1,984 operating hours for two vehicles at an hourly rate of $7.64. Please provide the following:

a. Please identify the make, model and year of these vehicles.

b. Are these leased or MECO owned vehicles?

c. How was the hourly rate of $7.64 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 vehicles consist of two 2000 GMC S15 4X2 Pick-up trucks.

b. The subject vehicles are owned by Maui Electric Company, Ltd.

c. See the response to CA-IR-370 part c. and Attachment 1of the response to CA-IR-370.

d. See the response to CA-IR-370 part d.

e. See the response to CA-IR-370 part e.

CA-IR-347

Ref: MECO response to CA-IR-2 (T&D Non Labor Expense).

Referring to Attachment 5 of the response to CA-IR-2, each of the items listed below refer to Attachment 6F for supporting documentation. However, the only information supplied for each item is the following statement: "approx avg based on prior actuals" or "avg of prior years actuals." For each of the following items, please provide copies of any additional workpapers, including spreadsheet files, supporting the calculation of the identified forecast amounts using any averaging or escalation techniques based on prior year data:

a. Item 11, DC Comm Equipment Parts, $3,000.
b. Item 12, DC Instrument Parts, $3,000.
c. Item 22, DC MW Card Repairs, $2,000.
d. Item 26, DC MW Card Repairs, $3,000.
e. Item 28, DC Comm Parts, $39,999.
f. Item 29, DC Safety Supplies, $1,800.
g. Item 30, DC Telephone System Parts, $3,000.
h. Item 31, DC Comm Parts, $999.
i. Item 32, DC MW Parts, $999.
j. Item 88, Oil Disposal Services Maui, $24,000.
k. Item 89, Oil Disposal Services Maui, $4,200.

MECO Response:

For the response to parts (a.) through (k.) above, there are no additional documents supporting the forecasted amounts. The budget preparer for these expenses is no longer employed by MECO and the exact rational and documentation he may or may not have utilized to project these expenses is unknown. However, in general, budgeters in the T&D area review historical data, such as three-year (2003-2005) averages, five-year (2001-2005) averages, recent trends, and new projects or goals, and then apply their knowledge and experience to develop the budget estimates. It should also be noted that each of these expense items are composed of multiple goods or services that vary from year to year and many of them are budgeted in aggregate. Attachment 1 of this response provides the actual amounts for years 2001 through 2005 and the three-year (2003-2005) and five-year (2001-2005) averages that were considered in estimating the test year 2007 expenses. In addition, the 2006 and year-to-date August 2007 actuals are being provided.

Maui Electric Company, Limited
2007 Test Year Data
Selected T&D Non-Labor Expenses

ITEM #	CODE BLOCK	TEST YEAR BUDGET 2007	YTD AUGUST 2007	ACTUAL 2006	ACTUAL 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	5 YEAR AVG. (2001-2005)	3 YEAR AVG. (2003-2005)
11,12	MDC492MAUNENMDZZZZZ201 Total	$6,000	$3,615	$2,971	$3,871	$8,921	$16,419	$6,118	$1,792	$7,424	$9,737
22	MDC917LDONENMDZZZZZ501 Total	$2,000	$149	$236	$9,325	$0	$320	$625	$360	$2,126	$3,215
26	MDC917MAMNENMDZZZZZ501 Total	$3,000	$0	$0	$5,807	$0	$0	$0	$100	$1,181	$1,936
28,29,30	MDC917MAUNENMDZZZZZ201 Total	$44,800	$34,591	$11,072	$46,603	$106,307	$60,508	$8,047	($258)	$44,241	$71,139
31,32	MDC917MAUNENMDZZZZZ205 Total	$2,000	$125	$1,575	$1,650	$2,315	$2,399	$2,820	$798	$1,996	$2,121
88	MDE877MDONENMDZZZZZ201 Total	$24,000	$11,002	$14,591	$19,242	$14,258	$15,697	$50,737	$9,887	$21,964	$16,399
89	MDE877MDONENMDZZZZZ205 Total	$4,200	$7,795	$3,493	$3,859	$5,406	$5,828	$14	$601	$3,142	$5,031
	TOTAL (All Items)	**$86,000**	**$57,277**	**$33,938**	**$90,357**	**$137,207**	**$101,171**	**$68,361**	**$13,280**	**$82,075**	**$109,578**

CA-IR-348

Ref: MECO response to CA-IR-2 (T&D Non Labor Expense).

Referring to Attachment 5 of the response to CA-IR-2, each of the items listed below refer to Attachment 6F for supporting documentation. However, the only information supplied for each item is the following statement: "trending." For each of the following items, please provide copies of any additional workpapers, including spreadsheet files, supporting the calculation of the identified forecast amounts using any trending or escalation techniques based on prior year data:

a. Item 44, Maint Transmission Equipment Corrective, $18,000.
b. Item 47, Maint Transmission SS Facilities, $20,000.
c. Item 63, Maint Dist Equipment Preventative, $18,000.
d. Item 64, Maint Dist Equipment Preventative, $12,000.
e. Item 65, 485 Main Dist SS Eq Prev-Gravel, $12,000.
f. Item 77, 488 Main Dist SS Structure, $12,000.

MECO Response:

For the response to parts (a.) through (f.) above, there are no additional documents supporting the forecasted amounts. The budget preparer for these expenses is no longer employed by MECO and the exact rational and documentation he may or may not have utilized to project these expenses is unknown. However, in general, budgeters in the T&D area review historical data, such as three-year (2003-2005) averages, five-year (2001-2005) averages, recent trends, and new projects or goals, and then apply their knowledge and experience to develop the budget estimates. It should also be noted that each of these expense items are composed of multiple goods or services that vary from year to year and many of them are budgeted in aggregate. Attachment 1 of this response provides the actual amounts for years 2001 through 2005 and the three-year (2003-2005) and five-year (2001-2005) averages that were considered in estimating the test year 2007 expenses. In addition, the 2006 and year-to-date August 2007 actuals are being provided.

Maui Electric Company, Limited
2007 Test Year Data
Selected T&D Non-Labor Expenses

ITEM #	CODE BLOCK	TEST YEAR BUDGET 2007	YTD AUGUST 2007	ACTUAL 2006	ACTUAL 2005	ACTUAL 2004	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	5 YEAR AVG. (2001-2005)	3 YEAR AVG. (2003-2005)
44	MDE350MAUNENMDZZZZZ201 Total	$18,000	$15,676	$25,216	$7,844	$14,355	$8,733	($34,219)	$47,172	$8,777	$10,311
47	MDE351MAUNENMDZZZZZ201 Total	$10,000	$44,402	$1,824	$26	$0	$62	$5,423	$54	$1,113	$29
63	MDE485MAUNENMDZZZZZ201 Total	$18,000	$36,680	$33,137	$17,172	$19,236	$19,898	$9,508	$26,444	$18,452	$18,769
64	MDE485MAUNENMDZZZZZ205 Total	$12,000	$9,607	$16,232	$16,618	$12,446	$7,844	$12,428	$6,873	$11,242	$12,303
65	MDE485MAUNENMDZZZZZ501 Total	$24,000	$14,335	$6,082	$1,908	$76	$2,972	$10,383	$14,226	$5,913	$1,652
77	MDE488MAUNENMDZZZZZ501 Total	$12,000	$334	$4,925	$647	$14,144	$6,267	$5,911	$0	$5,394	$7,019
	TOTAL (All Items)	**$94,000**	**$121,034**	**$87,416**	**$44,215**	**$60,257**	**$45,776**	**$9,434**	**$94,769**	**$50,890**	**$50,083**

CA-IR-349

Ref: MECO response to CA-IR-2 (T&D Non Labor Outside Services).

Referring to Attachment 5, page 4, of the response to CA-IR-2, Items 159 and 160 are identified as Transmission and Distribution Maps and Prints in the amount of $24,000 each. The supporting documentation (Attachment 7B, pages 1 through 4) contain historical data from 2004 (Review and Edit MECO Strip Charts, $15,575) and 2006 (Microfilm Engineering Records, $15,000). However, these items have no additional workpaper references, nor any indication as to how these amounts were forecast. Please provide the following:

a. Please provide copies of any additional workpapers, including spreadsheet files, supporting the calculation of the identified forecast amounts.

b. Please describe and provide any historical data, inflation factors or trending techniques relied upon by MECO to derive the forecast amounts.

c. Please explain how about $30 thousand spent over a three year period was translated into $48 thousand of expense for the 2007 test year forecast.

MECO Response:

a. There are no additional workpapers supporting the calculations provided in the 2007 test year forecast for the expenses for items 159 and 160. Only pages 1 and 2 of Attachment 7B relate to the 2007 test year estimate for items 159 and 160. The moniker "strip charts" is interchangeable with maps and prints. The 2007 forecast for Item 159 was determined from the 2004 Purchase Order, PO#M22096, amount (as shown in the response to CA-IR-2 Attachment 7B, pages 1 and 2) of $15,575 which covered approximately 65% (total maps completed divided by total maps needing updating)of the annual work required for distribution maps and prints. This 65% was extrapolated to 100% to arrive at the 2007 forecast of $23,961.53, which was then rounded up to $24,000. Since approximately the same amount of work was needed to update transmission maps and prints, the same amount was budgeted for both items.

b. The only data available for these expense items when the 2007 test year estimates were forecasted was the information provided in the response CA-IR-2, Attachment 7b, pages 1 and 2. Neither trending nor the use of inflation factors was utilized to derive the forecasted amounts.

c. It is unclear where the $30,000 amount the CA is referencing is derived from, but the $48,000 is based on the amount deemed required to outsource the mapping work and was estimated on best data MECO had at the time these expenses were forecasted for the 2007 test year. In previous years, the updating of distribution maps and prints was a combination of in-house (one employee) and outsourced work. However, the demands for the updating of both transmission and distribution maps and prints, driven by system growth, system re-circuiting, the implementation of the Hawaii OneCall program, and the emphasis on employee safety, have accelerated to the point where the level of MECO's in-house and out-sourced commitment was not sufficient to maintain transmission and distribution system maps and prints. As a result, the Engineering Department made the decision to outsource map and print updating beginning in 2007 and redirect the in-house work towards quality control and media management. The Engineering Department determined that to do so would require a 2007 test year budget of $24,000 each for transmission and distribution map and print updating.

CA-IR-350

Ref: MECO response to CA-IR-2 (T&D Non Labor Outside Services)

Referring to Attachment 5, page 2, of the response to CA-IR-2, Item 91 is identified as Oil Disposal Services Maui-O/S SS862 in the amount of $162,000. The supporting documentation (Attachment 6B, page 1) states that this amount is "Based on prior year actual, unpredictable circumstances drive cost." Attachment 6E, page 12, provides actual data from 2006. Please provide the following:

a. Please describe the general nature of the oil disposal services covered by this forecast item.

b. Referring to part (a) above, are these oil disposal services annually recurring? Please explain.

c. For calendar years 2004 and 2005, please provide comparable oil disposal services amounts.

d. Please explain the statement that "unpredictable circumstances drive costs" specifically identifying the circumstances considered to be "unpredictable."

e. Referring to part (d) above, how did the Company's forecasting technique eliminate or mitigate the "unpredictable circumstances" for purposes of quantifying the test year estimate? Please explain.

MECO Response:

a. This expense covers general oil waste clean-up and disposal services. As a result of MECO's daily O&M maintenance work, equipment that is removed from service at the end of it's service life or due to damage, or equipment being serviced and having it's insulating oil changed, results in the generation of waste oil and contaminated materials. Another major driver for this expense is the mediation of oil spills. Oil spills are caused by a variety of sources, such as vehicle accidents involving MECO equipment and equipment structural failure due to corrosion. Oil spills can involve large or small quantities of oil, but all must be cleaned up and the waste products transported and disposed of according to strict guidelines. Federal, State, and local government regulations require this oil and all contaminated

materials to be collected and disposed of following strict environmental guidelines. Due to the nature of these regulations and the equipment and skills required to dispose of this oil, MECO utilizes licensed contractors specializing in processing waste oil to assist in the clean-up, handling, disposal, and tracking of this type of controlled waste.

b. This oil disposal service expense is annually recurring. Oil filled equipment is a common and critical part of MECO's system. MECO continually perform repairs, maintenance, and replacement of this equipment, which results in oil wastes and contaminated materials being generated. In addition, MECO is responsible for oil spills resulting from its equipment.

c. The comparable oil disposal service amounts for the years 2001 through and 2006 are:

MDE877MDONENMDZZZZZ501

Year	Expense
2001	$112,618
2002	$142,233
2003	$110,997
2004	$234,266
2005	$105,621
2006	$162,622
2007 test year budget	$162,000

d. The unpredictable circumstances are mainly those related to oil spills. Oil spills occur under a wide array of circumstances where clean-up and disposal costs vary greatly. Such factors include oil content (hazardous or non-hazardous as defined by government regulation), location of spill (near water ways, schools, parks, etc.), the equipment involved (quantity of oil contained), how long the oil has been leaking, and how customers are affected. The causes of oil spills also pose challenges when budgeting for this expense. Causes include but

are not limited to vehicle accidents, equipment failures, public vandalism, and acts of nature, all of which are unpredictable and unavoidable. The type of oil spill determines the extent of the clean-up and disposal costs. For example, if a transformer is damaged in a vehicle accident and oil is released, not only must the oil be removed, but also the soil, roadway pavement, and sidewalks it contaminated. If the oil has PCBs then the laws require that a certified handler be utilized to remove the oil, soil, and all materials, including tools and clothing that have come into contact with the PCBs. In addition, all the material must be containerized and shipped to the mainland to an approved processor for incineration.

e. MECO is unable to eliminate or mitigate the unpredictable circumstances driving this expense since they are largely out of MECO's control. However, when budgeting this expense, MECO generally uses the previous year's expense for the next year, while fully realizing that the magnitude of the potential expense in any given year has the potential to be significantly higher than predicted. With increasing cost throughout the disposal process, the addition of more oil filled equipment in the field due to system growth, and the aging of MECO's equipment, MECO believes that this expense will continue to increase each year. Through its system inspection processes MECO does schedule preventive maintenance and equipment change-outs where possible to prevent oil spills due to corrosion.

CA-IR-351

Ref: MECO response to CA-IR-2 (T&D Non Labor Outside Services).

Referring to Attachment 5, page 3, of the response to CA-IR-2, Item 112 is identified as DK RO Maui Dist Line UG Corrective Exp O/S in the amount of $105,000. The supporting documentation (Attachment 6B, page 1) states that this amount is for "sidewalk and conduit repair for Direct bury UG cable by contractor typical sidewalk repair 4x8 & 4x10= $648.82 to $671.02." Attachment 6E, page 29, refers to an average cost of $660 with 65% of cable faults direct buried with sidewalk repairs (about 162). Please provide the following:

a. Does the "162" represent 65% of a larger cable fault number? Please explain and provide copies of supporting documentation.

b. Referring to part (a) above, is the number of cable faults and the 65% factor based on prior year (e.g., 2006) experience or an average of prior years data? Please explain and provide supporting documentation.

c. Did MECO use outside contractors in 2004, 2005 and 2006 to perform comparable sidewalk and conduit repair? Please explain.

d. Please provide the amount paid to outside contractors in 2004, 2005 and 2006 to perform sidewalk and conduit repair, comparable to the $105,000 included in the test year forecast.

MECO Response:

a. The 2007 budget year estimate of 162 direct buried cable faults is 65% of the total estimated cable fault occurrences projected for 2007, which is estimated in MECO-609, page 1, to be 250 occurrences.

b. The test year estimate of 250 cable fault occurrences is based on the trend of historical data as shown in MECO-609 and the judgment based on experience of the individual that developed the estimate. The 65% factor of cable faults with sidewalk repairs was based on the repair orders in 2005 that involved sidewalk repairs.

c. Depending on the nature of the repair, MECO used both outside contractors and internal labor in 2004, 2005, and 2006 to perform sidewalk and conduit repair. However, the cost of

utilizing MECO crews to do the repair of sidewalks was found to be higher than contracting the repairs to vendors that utilized unskilled labor. In consideration of the increasing number of cable faults, the increasing demand they created for skilled MECO labor to repair the actual fault, and the cost benefits of outsourcing sidewalk repairs, it was decided that beginning in 2007 MECO would outsource all direct buried cable fault sidewalk repair.

d. The outside services expenses for sidewalk and conduit repair in 2004, 2005, and 2006 were $8,575, $19,230, and $45,662. Cost of sidewalk and conduit repairs completed by MECO crews is included in the total cost per cable fault job and it is not possible to segregate the cable repair labor from the sidewalk and conduit repair labor. As stated in the response to part c. above, the $105,000 test year estimate is also based on MECO's decision to outsource all buried cable fault sidewalk repairs beginning in 2007.

CA-IR-352

Ref: MECO Response to CA-IR-138, Attachment A (Uncollectibles).

Please provide the following:

a. Update Attachment A for all available months of additional data subsequent to April 2007.

b. Explain any individually significant account write-offs within the updated months provided in your response to part (a) of this information request.

MECO Response:

a. See Attachment A for all available months of additional data subsequent to April 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. See Confidential Attachment B for explanations of any individually significant account write-offs within the updated months provided in the response to part (a) above and Attachment A. The Company provides the requested 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.

Confidential Information Deleted
Pursuant to Protective Order No. 23379

Maui Electric Company, Limited
Account 904
Percentage of Sales Revenue

net write-offs			sales revenue			
month year	amount $(1000)	12 months ending	month year	amount $(1000)	12 months ending	percent write-off
June	9.593	168.104	February	24,748.3	309,572.5	0.054
July	27.074	188.482	March	25,193.8	313,870.2	0.060
August	7.758	186.817	April	26,061.6	315,255.1	0.059
September	17.684	190.054	May	26,343.4	318,783.5	0.060
October	10.674	183.982	June	28,756.8	321,841.3	0.057
November	21.913	188.159	July	31,984.7	327,863.9	0.057
December	22.013	200.883	August	32,680.8	334,401.3	0.060
January 2007	16.356	187.197	September	31,408.7	339,048.5	0.055
February	11.181	176.207	October	31,642.1	343,144.1	0.051
March	20.466	191.815	November	30,272.0	344,839.4	0.056
April	21.890	212.044	December	27,686.6	344,581.8	0.062
May	37.577	224.179	January	27,069.7	343,848.5	0.065
June	6.234	220.820	February	26,147.6	345,247.8	0.064
July	[redacted]		March	26,930.4	346,984.4	[redacted]

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-353

Ref: MECO Response to CA-IR-138, part b; MECO-WP-711 (Improved Uncollectible Write-Off Experience).

Please provide the following:

a. The Company's response to CA-IR-138, part (b) does not appear to fully explain why the percentage write-off experience improved dramatically, starting in early 2004. Please provide additional explanations for why write-offs have been reduced from nearly 0.1 percent prior to July 2004 to about half that level since July 2004 (according to MECO-WP-711)

b. State any known reasons why uncollectible write-offs can be expected to increase above current levels of about $200,000 per year.

c. Provide complete copies of all documents associated with or supportive of your response to part (b) of this information request.

MECO Response:

a. As illustrated in MECO-WP-711 and updated in the response to CA-IR-138, the percentage write-off experience did improve dramatically, starting in early 2004. The Company believes that the primary reason why such write-offs have been reduced from nearly 0.1 percent prior to July 2004 to about half that level since July 2004 is due to the fact that there were increased efforts by the Company to establish customers' credit through the assessment and collection of deposits equivalent to two months of energy use, consistent with Rule No. 6 of MECO's tariff, prior to this period. Therefore, the negative effects of the 2004 write-offs were minimized by the increase in deposits collected in prior periods.

b. See Confidential Attachment A filed under and subject to the Stipulation for Protective Order approved by Protective Order No. 23379 for all available months of additional data subsequent to April 2007. The Company provides the requested 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. See Confidential Attachment A for information associated with or supportive of the response to part (b) above.

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.