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The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
465 South King Street
Kekuanao'a Building, First Floor
Honolulu, Hawai'i 96813

PUBLIC UTILITIES
COMMISSION

Dear Commissioners:

Subject: Transmittal No. 15-03 (Decoupling)
Transmittal No. 15-04 (Decoupling)
Transmittal No. 15-05 (Decoupling)
Hawaiian Electric Companies' Responses to CA-IRs

Hawaiian Electric Company, Inc., Hawai'i Electric Light Company, Inc., and Maui Electric Company, Limited (collectively, the "Hawaiian Electric Companies" or "Companies") hereby submit responses to the information requests submitted by the Consumer Advocate on April 27, 2015 ("CA-IRs").

The response to CA-IR-2 contains confidential customer-specific information. Such type of information is confidential and has been protected from disclosure in other proceedings, and the public disclosure of such information has not been consented to by the customer. Therefore, the Companies are filing the information subject to the terms of Protective Order No. 2015-PO-06 dated January 26, 2015.

If you have any questions on this matter, please contact me at 543-4622.

Respectfully submitted,

Dean K. Matsuura
Manager, Regulatory Rate Proceedings

Enclosures

cc: Division of Consumer Advocacy

CA-IR-1

Ref: HECO Companies' response to PUC-IR-1, Attachment 4 (Expense Impact of Accounting Change).

The Companies' response indicates a change in the "allocation for its Energy Delivery ("ED") and Power Supply ("PS") clearing charges" as of January 2014 for HECO and April 2014 for HELCO and MECO. Most of the narrative discusses rate base impacts. Attachment 4 provides a summary of the overall 2014 impact of the change, but includes charges to other clearing accounts for which a final accounting distribution is not provided. Please provide the following additional information for each company:

- a. Further analyses, showing the estimated final distribution impacts of the change between capital accounts, expense accounts and 3rd party billable accounts (Accounts Receivables).
- b. Using the information in your response to part (a), please provide an estimate of the 2014 pretax earnings impact of the reduced net expenses (ignoring rate base and depreciation-related changes) as a result of the change in clearing account distributions.
- c. Provide the Companies' best estimate of the 2015 capital and expense impact of the change in ED and PS clearing distributions.
- d. Provide copies of briefing materials and other documents (beyond the Docket No. 2013-0373 rate case Attachment 2 information that is referenced in PUC-IR-1), that were provided to the Consumer Advocate or the PUC to explain the change in ED/PS allocations.
- e. State all assumptions made and provide supporting workpapers for the table on page 8 of the response that summarizes 2015 rate base RAM impacts from the change.
- f. Provide any revision to the table on page 8 that is needed, as a result of the further analysis of secondary distribution of changed charges from ED and PS to other clearing accounts.

Hawaiian Electric Companies' Response:

- a. Attachment 1 provides the requested information in the same format as the Companies' response to PUC-IR-1, Attachment 4, for Hawaiian Electric, Attachment 1, pages 1 (Energy Delivery) and 2 (Power Supply), Hawaii Electric Light, Attachment 1, page 3 (Energy Delivery), and Maui Electric, Attachment 1, pages 4 (Energy Delivery) and 5 (Power Supply). In Attachment 1, the amounts allocable to other clearing accounts have been further allocated to show the estimated final distribution impacts of the Companies'

2014 change in allocation of Energy Deliver (ED) and Power Supply clearing accounts between expense accounts, capital accounts, and other accounts.

- b. The estimated 2014 pretax earnings impacts of the 2014 change in allocation for ED and PS clearing accounts are represented by the O&M expense and nonutility expense line items in Attachment 1. For Hawaiian Electric, the total 2014 expense impact is estimated at -\$8,282,105, consisting of -\$5,074,404 for ED and -\$3,207,701 for PS. For Hawaii Electric Light, the total estimated 2014 expense impact is -\$470,245 for its ED clearing account. For Maui Electric, the total 2014 expense impact is estimated at -\$1,215,520, consisting of -\$1,026,730 for ED and -\$188,790 for PS.

As stated in the Companies' response to PUC-IR-1, subpart f, one of the effects of the 2014 change in allocation methodology was to allocate a greater portion of ED and PS on-costs from expense to capital accounts. This created an opportunity for the Companies to fund some of the necessary expense initiatives described in PUC-IR-1 and still control and manage their expense spending. On the other hand, the on-costs that were allocated to capital accounts under the new allocation method had nominal bill impacts.

- c. The 2015 capital and expense impacts of the 2014 change in the ED and PS allocation change will be impacted by a number of factors such as the relative levels of spending for work on capital projects compared to work charged to expense accounts, and the relative use of Company labor compared to the use of outside contractors. To the extent these factors are similar in 2015 and 2014, the impact of the ED and PS allocation change to capital projects and expense accounts estimated for 2014 provided in Attachment 1 is a reasonable approximation of the 2015 impacts for Hawaiian Electric. For Hawaii

Electric Light and Maui Electric, since the estimated 2014 impacts shown in Attachment 1 reflect April 2014 implementation of the ED and PS clearing account allocation method change, the annualization of the amounts shown in Attachment 1 would be representative of the estimated 2015 impact of the change.

- d. In its 2015 test year rate case in Docket No. 2014-0318, Maui Electric identified its implementation of the change in methodology for allocating ED and PS clearing accounts beginning in April 2014 in a manner consistent with Hawaiian Electric's implementation in January 2014.¹ Maui Electric incorporated the change in its 2015 operating budget used in that rate case filing.

Also, please see Attachment 5 for a copy of the Companies' presentation that was made to the Commission on December 5, 2013.

- e. Attachment 3 provides workpapers and assumptions in support of the data provided in PUC-IR-1, page 8, which have been updated in Attachment 3 of this information request, and which summarizes 2014 rate base impacts from this allocation method change. Attachment 4 of this information request provides updated calculations of 2015 rate base RAM impacts which incorporate the estimated final distribution impacts of the changes between capital accounts, expense accounts and other accounts provided in the response to subpart a of this information request.
- f. Attachment 2 provides an update to the table provided in the Companies' response to PUC-IR-1, page 8, which incorporates the estimated final distribution impacts of the changes between capital accounts, expense accounts and other accounts provided in the response to subpart a of this information request.

¹ Attachment 7, page 3, Docket No. 2014-0318.

Hawaiian Electric Company
Energy Delivery Methodology Comparison

A B C = A - B

Line	Account Group	Ind		Current Method	Old Method	Difference
1	G10	BO	Billable Incidental Electric Revenue	-	-	-
2	G20	NE	Non-billable O&M Expense other than Supervision	4,617	6,401	(1,784) CA-IR-1, subpart b
3	G30	NE	Non-billable O&M Expense other than Supervision	9,408,812	14,311,143	(4,902,331) CA-IR-1, subpart b
4		BE	Billable O&M Expense	231,500	141,692	89,808
5		NS	Non-billable O&M Expense Supervision	205,454	375,744	(170,289) CA-IR-1, subpart b
6	G40	NN	Non-Regulated Expense	164	3,835	(3,671)
7		BN	Billable Non-Regulated Revenue & Expense	240	584	(344)
8	G50	NI	Non-billable Install (Capital)	32,031,110	25,654,923	6,376,187 CA-IR-1, Attachment 3
9		NR	Non-billable Removal	3,652,342	4,744,034	(1,091,692) CA-IR-1, Attachment 3
10		BR	Billable Removal	5,374	16,752	(11,377)
11	G60	BE	Billable O&M Expense	160,387	264,165	(103,778)
12		BC	Billable Clearing	90,889	7,109	83,781
13		BI	Billable Install	130,770	232,431	(101,661)
14		BP	Billable Preliminary Engineering	1,416	-	1,416
15		BR	Billable Removal	68,391	119,785	(51,394)
16	G70	ND	Non-billable Deferred	28,426	72,397	(43,971)
17		BT	Billable Temporary Facilities	144,375	213,273	(68,898)
18	G80	NC	Non-billable Clearing	0	0	0
19		NP	Non-billable Preliminary Engineering	(0)	(1)	0
20	Totals			46,164,269	46,164,269	0

* CA-IR-1, subpart b total

(5,074,404)

Hawaiian Electric Company
Power Supply Methodology Comparison

A B C = A - B

Line	Account Group	Ind		Current Method	Old Method	Difference
1	G10	BO	Billable Incidental Electric Revenue	1,195,571	408,354	787,217
2	G20	NE	Non-billable O&M Expense other than Supervision			
3	G30	NE	Non-billable O&M Expense other than Supervision	5,696,728	8,900,404	(3,203,676) CA-IR-1, subpart b
4		BE	Billable O&M Expense	-	-	-
5		NS	Non-billable O&M Expense Supervision	3,649	7,673	(4,025) CA-IR-1, subpart b
6	G40	NN	Non-Regulated Expense	0	203	(202)
7		BN	Billable Non-Regulated Revenue & Expense	-	-	-
8	G50	NI	Non-billable Install (Capital)	3,451,828	1,534,213	1,917,614 CA-IR-1, Attachment 3
9		NR	Non-billable Removal	1,256,815	676,258	580,557 CA-IR-1, Attachment 3
10		BR	Billable Removal	-	-	-
11	G60	BE	Billable O&M Expense	45,819	110,611	(64,793)
12		BC	Billable Clearing	-	-	-
13		BI	Billable Install	921	2,182	(1,261)
14		BP	Billable Preliminary Engineering	7,470	17,321	(9,851)
15		BR	Billable Removal	292	753	(461)
16	G70	ND	Non-billable Deferred	-	-	-
17		BT	Billable Temporary Facilities	(305)	814	(1,119)
18	G80	NC	Non-billable Clearing	0	0	(0)
19		NP	Non-billable Preliminary Engineering	0	-	0
20	Totals			11,658,787	11,658,787	0

* CA-IR-1, subpart b total

(3,207,701)

Hawaii Electric Light Company
Energy Delivery Methodology Comparison

A B C = A - B

Line	Account Group	Ind		Current Method	Old Method	Difference	
1	G30	NE	Non-billable O&M expense other than supervision	1,752,515	2,231,897	(479,382)	CA-IR-1, subpart b
2		NS	Non-billable O&M expense supervision	11,600	2,463	9,137	CA-IR-1, subpart b
3	G50	NI	Non-billable Install (Capital)	4,117,034	3,294,347	822,687	CA-IR-1, Attachment 3
4		NR	Non-billable Removal	703,375	1,050,228	(346,853)	CA-IR-1, Attachment 3
5	G60	BE	Billable O&M expense	876	(7)	883	
6	G70	BE	Billable O&M expense	36,787	26,560	10,227	
7		BT	Billable Temporary Facilities	16,498	33,197	(16,699)	
8	G80	NC	Non-billable Clearing	-	-	-	
9		NP	Non-billable Preliminary Engineering	-	-	-	
10	Totals			6,638,685	6,638,685	0	

* CA-IR-1, subpart b total (470,245)

Maui Electric Company
Energy Delivery Methodology Comparison

A B C = A - B

Line	Account Group	Ind	Description	Current Method	Old Method	Difference	
1	G10	BE	Billable O&M expense	\$ 7,339	\$ 10,695	\$ (3,356)	
2	G30	NE	O&M non-billable expense	1,685,547	2,711,657	(1,026,110)	CA-IR-1, subpart b
3	G40	NN	Non-billable non-regulated expense	51	671	(620)	CA-IR-1, subpart b
4	G50	NI	Non-billable Install (Capital)	3,371,892	2,355,251	1,016,641	CA-IR-1, Attachment 3
5		NR	Non-billable Removal	738,591	674,479	64,112	CA-IR-1, Attachment 3
6	G60	BE	Billable O&M expense	20,183	32,690	(12,507)	
7		BI	Billable Install	21,164	39,921	(18,757)	
8		BR	Billable Removal	11,395	21,542	(10,147)	
9	G70	BT	Billable Temporary Facilities	6,869	16,124	(9,255)	
10	G80	NC	Non-billable Clearing	-	-	-	
11		NP	Non-billable Preliminary Engineering	-	-	-	
12			Total	<u>\$ 5,863,031</u>	<u>\$ 5,863,031</u>	<u>\$ 0</u>	

* CA-IR-1, subpart b total (1,026,730)

Maui Electric Company
Power Supply Methodology Comparison

A **B** **C = A - B**

Account			Current Method	Old Method	Difference
Line	Group	Ind			
1	G10	BE	Billable O&M expense	\$ 31	\$ 51 \$ (20)
2	G20	NE	Non-billable O&M expense other than supervision	1,094	1,150 (55) CA-IR-1, subpart b
3	G30	NE	Non-billable O&M expense other than supervision	970,720	1,158,865 (188,145) CA-IR-1, subpart b
4	G40	NN	Non-billable non-regulated expense	141	731 (590) CA-IR-1, subpart b
5	G50	NI	Non-billable Install (Capital)	262,519	65,032 197,488 CA-IR-1, Attachment 3
6		NR	Non-billable Removal	3,620	12,030 (8,410) CA-IR-1, Attachment 3
7	G60	BE	Billable O&M expense	94	- 94
8		BI	Billable Install	-	- -
9		BR	Billable Removal	-	- -
10	G70	BT	Billable Temporary Facilities	(126)	235 (361)
11	G80	NC	Non-billable Clearing	0	- 0
12		NP	Non-billable Preliminary Engineering	(0)	0 (0)
13			Total	\$ 1,238,094	\$ 1,238,094 \$ (0)

* CA-IR-1, subpart b total (188,790)

CA-IR-1
 TRANSMITTAL NOS. 15-03,-04,-05
 ATTACHMENT 2
 PAGE 1 OF 1

Hawaiian Electric Companies
 Energy Delivery and Power Supply Methodology Change
 Impact to 2015 RAM Elements

#	Description	Hawaiian Electric Company (Att. 3, pages 8, 11,17,19, Col. H)	Hawaii Electric Light Company (Att. 3, pages 24 and 27, Col. H)	Maui Electric Company (Att. 3, pages 32- 35, Col. K)
1	Energy Delivery:			
2	Plant Additions	\$ 5,315,517	\$ 751,261	\$ 883,299
3	Removals	(1,008,522)	(308,202)	65,121
4	Power Supply:			
5	Plant Additions	1,270,421	n/a	180,614
6	Removals	(3,155)	n/a	(8,502)
7	Total:			
8	Plant Additions	6,585,938	751,261	1,063,913
9	Removals	(1,011,677)	(308,202)	56,619
10	CIAC	(746,639)	(96,887)	(70,094)
11	Net	\$ 4,827,622	\$ 346,172	\$ 1,050,438

Hawaiian Electric Company, Inc.
ED Clearing Change Impact to Plant Additions
2014

A	B	C	D	E = C * D	F	G = F * C	H = E + G
Project #	Project Description	Allocation	ED Methodology Difference	2014 Plant Additions	Allocation of Clearings Difference	2014 Plant Additions Impact of Col. F	Total Impact to 2014 Plant Additions
P0000120	Corr (Inc Emg) OH Trsf Rpl	100%	(31,825)	(31,825)	(29,451)	(29,451)	(61,277)
P0000121	Corr (Inc Emg) UG Trsf Rpl	85%	(30,042)	(25,536)	(34,028)	(28,923)	(54,459)
P0000122	Cor (Inc Emg) Mis Cable Rpl	100%	412,325	412,325	(107,790)	(107,790)	304,535
P0000123	Corr (Inc Emg) OH Dist Rpl	100%	(93,286)	(93,286)	(153,255)	(153,255)	(246,541)
P0000124	Cor (Inc Emg) OH Subtrn Rpl	77%	(4,337)	(3,340)	(10,623)	(8,179)	(11,519)
P0000125	Cor (Inc Emg) OH Trans Rpl	100%	2,062	2,062	93	93	2,155
P0000199	K3 Kahe FWH 34 Replace	0%	(209)	-	(134)	-	-
P0000273	KO Kahe Strmwtr Erosion Ctrl	0%	1,743	-	58	-	-
P0000335	Intl Savings & Loan Vault	0%	(314)	-	(194)	-	-
P0000451	KO Kahe Stormwater Berm	0%	756	-	(941)	-	-
P0000453	W0 Waiau Pond Sheetpiling	100%	122,041	122,041	10,446	10,446	132,487
P0000497	W0 Waiau WW Pond Closure	0%	5,246	-	(324)	-	-
P0000502	Waiau Minor Gen Addns	100%	(170)	(170)	(123)	(123)	(293)
P0000503	Ward Ave Minor Addns	100%	(6,983)	(6,983)	(4,903)	(4,903)	(11,886)
P0000505	Other Minor Gen Plt Addns	19%	(6,783)	(1,289)	(4,197)	(797)	(2,086)
P0000653	Collaborative Communications	100%	(1,266)	(1,266)	(777)	(777)	(2,043)
P0000665	W0 Waiau Parking Lot Add	0%	(3,036)	-	(3,291)	-	-
P0000672	Kakaako Makai-Kewalo 25kV DL	100%	112,820	112,820	(3,449)	(3,449)	109,371
P0000733	Trns Sub RTU Migration Pgm	100%	(5,386)	(5,386)	(3,915)	(3,915)	(9,301)
P0000783	Kakaako Makai-Iwilei 25kV DL	100%	59,019	59,019	130	130	59,149
P0000974	Ala Wai Canal 46kV U Reloc	0%	1,813	-	(8,756)	-	-
P0000991	Airport-Makalapa Fiber Repla	100%	95,613	95,613	8,643	8,643	104,256
P0000992	Airport-Iwilei FO Install and Retire	100%	6,003	6,003	310	310	6,312
P0001078	KO Kahe Maint Shop Reroof	100%	56	56	5	5	61
P0001206	K2 Turbine Drains	100%	(3,604)	(3,604)	(2,031)	(2,031)	(5,635)
P0001247	H8 Process Parameter Monitor	100%	(728)	(728)	(397)	(397)	(1,125)
P0001282	Waiau-Steel Mill 46kV Line	0%	(1,041)	-	(558)	-	-
P0001309	Net Energy Metering	100%	(9,490)	(9,490)	(8,867)	(8,867)	(18,357)
P0001361	Kapolei Business Park 138kV	0%	(225)	-	(170)	-	-
P0001367	CIP Distr. PV Integration (BESS)	0%	(6,084)	-	(3,692)	-	-
P0001370	DOT Airport DSG	100%	(24,949)	(24,949)	(16,333)	(16,333)	(41,282)
P0001392	W0 WWTF Filter Press	100%	(271)	(271)	(190)	(190)	(461)
P0001403	Wah 138kV Lines - Schofield	0%	(9)	-	(5)	-	-
P0001481	AES-CEIP #1 Relay Upgrade	100%	(277)	(277)	(147)	(147)	(424)
P0001486	School-Bkr4568 Rly Up	0%	(59)	-	(33)	-	-
P0001492	Pukele 80MVA Tsf #2	100%	6,337	6,337	(78,958)	(78,958)	(72,621)
P0001494	Pukele 80MVA Tsf #3	100%	(652)	(652)	(771)	(771)	(1,423)
P0001505	Kaloi Substation	100%	(21,990)	(21,990)	(42,672)	(42,672)	(64,661)
P0001507	Kaloi Sub 46kV & 12kV Distr	100%	5,192	5,192	(29,925)	(29,925)	(24,733)
P0001508	Kaloi Telecomm	100%	(8,966)	(8,966)	(6,575)	(6,575)	(15,541)
P0001554	Kaloi Sub 12kV Work	100%	(3,943)	(3,943)	(2,543)	(2,543)	(6,486)
P0001576	SG-Schofield Generation Station	0%	(18,758)	-	(11,252)	-	-
P0001579	Kakaako Makai DOT Queen-Cook	100%	1,244	1,244	(3,803)	(3,803)	(2,559)
P0001604	Tsf Spare #16 10MVA 8% 2013	100%	(141)	(141)	(86)	(86)	(227)
P0001606	Kapolei Substation	100%	905	905	83	83	988
P0001615	Waiau-Koolau#1 Str 55/56	100%	27,630	27,630	2,483	2,483	30,113
P0001644	Waiau-Newtown SW OPGW	0%	4,199	-	25	-	-
P0001646	Koolau-Pukele #2 OPGW Repl	100%	1,360	1,360	124	124	1,485
P0001647	Koolau-Pukele #1 SW Replacement	100%	604	604	55	55	659
P0001648	Kahe-Halawa #2 138kV SW Repl	100%	495	495	(41,254)	(41,254)	(40,759)
P0001649	Kahe-Wahiawa 138kV SW Repl	100%	27,103	27,103	934	934	28,037
P0001662	Waiau-Koolau #2 Reconductor	0%	(2,501)	-	(1,783)	-	-
P0001666	Pukele Bkr #150 138kV P/I	100%	(10,135)	(10,135)	(3,283)	(3,283)	(13,417)
P0001667	Pukele Bkr #149 138kV P/I	100%	(1,066)	(1,066)	(5,971)	(5,971)	(7,037)
P0001669	Waiau 138kV Bkr 112 Replace	100%	516	516	47	47	563
P0001670	Waiau 138kV Bkr 110 Replace	100%	516	516	47	47	563
P0001671	Makalapa Bkr #264 138kV P/I	100%	1,560	1,560	(78)	(78)	1,482
P0001673	Wahiawa 46kV Bkr 4448 Replace	100%	(533)	(533)	(336)	(336)	(869)
P0001675	Koolau Bkr 4484 46kV P/I	100%	(5,340)	(5,340)	(4,660)	(4,660)	(9,999)
P0001676	Pukele 46kV Bkr 4488 P/I	0%	36,538	-	(3,502)	-	-
P0001679	Kahe 138kV Bkr 249 P/I	100%	11,183	11,183	(17,423)	(17,423)	(6,240)
P0001690	Ironwoods - 12kV OH to UG	100%	(13,973)	(13,973)	(19,064)	(19,064)	(33,036)
P0001697	Keehi Circuits Reconnection	0%	(3,565)	-	(8,502)	-	-
P0001731	WOFH - Elec. Relocations	0%	61,990	-	(94,527)	-	-
P0001732	Ph2-Elec Relocations	0%	(38,550)	-	(54,198)	-	-
P0001733	Ph3 Air - PH,Airport,Middle	0%	(23,213)	-	(15,542)	-	-
P0001734	Ph4-Elec Relocations	0%	(12,473)	-	(27,068)	-	-
P0001759	Kal Hwy, Keahole St-12kV UG	100%	(17)	(17)	(12)	(12)	(28)
P0001766	K2 Turbine Protection Upgrade	100%	(1,241)	(1,241)	(719)	(719)	(1,960)

P0001795	K5 51Aux Clg Hx Replacement	0%	(848)	-	(454)	-	-
P0001796	K6 52Aux Clg Hx Replacement	100%	(848)	(848)	(454)	(454)	(1,302)
P0001798	WS/6 Emergency Generator Upg	100%	(62)	(62)	(33)	(33)	(96)
P0001856	P13/2/72 Halawa Accs Rd	0%	(114)	-	(65)	-	-
P0001877	P13 Hamakua Dr - 46kV OH	100%	(50)	(50)	(34)	(34)	(84)
P0001904	Waialau OCB 4655 Replace	100%	516	516	47	47	563
P0001948	Switch #4640 (EOTP Ph2)	100%	(600)	(600)	(406)	(406)	(1,006)
P0001949	SmartTech Install (EOTP Ph2)	100%	(692)	(692)	(421)	(421)	(1,113)
P0001950	Kamokila Ckt OH to UG Conver	100%	3,885	3,885	318	318	4,204
P0001958	FUELS - Cap Fuels Infras	22%	(954)	(210)	(711)	(156)	(366)
P0002015	Koolau Ts#2 80MVA Install	100%	(1,129)	(1,129)	(755)	(755)	(1,884)
P0002018	KO Demin - System Split	0%	(20)	-	(11)	-	-
P0002023	Kahe Ts#1 10MVA Install	100%	(10)	(10)	(5)	(5)	(15)
P0002024	Mapunapuna #1 Tsf/Swg 10MVA Install	100%	(59,609)	(59,609)	(59,246)	(59,246)	(118,855)
P0002025	Koolau Bkr 4465 46kV Install	100%	996	996	(31)	(31)	965
P0002026	Koolau Bkr 4464 46kV Install	100%	1,737	1,737	(325)	(325)	1,412
P0002027	Koolau Bkr 4466 46kV Install	100%	2,895	2,895	(159)	(159)	2,736
P0002028	Keolu Ts#2 10MVA Install	100%	(62)	(62)	(330)	(330)	(391)
P0002029	Koolau #1 Tsf/Swg 10MVA Inst	100%	(64)	(64)	(79)	(79)	(143)
P0002031	Milliani #1 Tsf/Swg 10MVA Install	100%	(436)	(436)	(237)	(237)	(673)
P0002032	Halawa Bkr#4883 46kV Install	100%	(533)	(533)	(294)	(294)	(827)
P0002036	Hauula #1 Tsf/Swg 10MVA Install	100%	(29,020)	(29,020)	(38,776)	(38,776)	(67,795)
P0002037	Wahiala #1 Tsf/Swg 10MVA Install	100%	(885)	(885)	(726)	(726)	(1,611)
P0002038	Ena #3 Tsf/Swg 10MVA Install	100%	1,757	1,757	(41)	(41)	1,715
P0002039	Milliani #2 Tsf/Swg 10MVA Install	100%	(4,673)	(4,673)	(2,600)	(2,600)	(7,273)
P0002050	Tsf Spare #4 80MVA 2013	100%	148,722	148,722	11,169	11,169	159,892
P0002074	Bkr Spare #20 46kV 2014	100%	10,101	10,101	557	557	10,658
P0002090	Bkr Spare #8 138kV 2014	100%	15,500	15,500	1,141	1,141	16,641
P0002091	Bkr Spare #7 138kV 2014	100%	15,454	15,454	1,137	1,137	16,591
P0002092	Kaonohi #1 Tsf/Swg 10MVA Install	0%	(339)	-	(484)	-	-
P0002094	Hickam #1 Tsf/Swg 10MVA Install 2015	0%	875	-	(309)	-	-
P0002095	Hickam #2 Tsf/Swg 10MVA Install 2015	0%	875	-	(308)	-	-
P0002101	Tsf Spare #25 10mva 8% 2015	0%	(154)	-	(94)	-	-
P0002104	Tsf Spare #22 10mva 8% 2014	100%	95,752	95,752	8,557	8,557	104,309
P0002108	Kaneoche #1 Tsf/Swg 10MVA Install	100%	(65,040)	(65,040)	(91,238)	(91,238)	(156,278)
P0002109	Makalapa #2 Tsf/Swg 10MVA	100%	(26,182)	(26,182)	(27,738)	(27,738)	(53,920)
P0002110	Makaloa #3 Tsf/Swg 10MVA Install	100%	(22,891)	(22,891)	(30,516)	(30,516)	(53,407)
P0002111	Makaloa #4 Tsf/Swg 10MVA Install	100%	(19,605)	(19,605)	(29,865)	(29,865)	(49,470)
P0002112	Hoaeae #2 Tsf/Swg 10MVA Install	0%	(611)	-	(7,654)	-	-
P0002113	School Bkr 4407 46kV Install	0%	12,275	-	(185)	-	-
P0002114	Honolulu Bkr 4555 46kV Install	0%	13,090	-	(3,596)	-	-
P0002115	Honolulu Bkr 4561 46kV Install	0%	15,378	-	(2,241)	-	-
P0002116	Iwilei Bkr 4563 46kV Install	0%	10,267	-	(1,600)	-	-
P0002117	Koolau Bkr #334 138kV Install	100%	(220)	(220)	(146)	(146)	(366)
P0002119	Bkr Spare #19 46kV 2014	100%	25,458	25,458	1,582	1,582	27,040
P0002121	K-H#2/K-WAHIAWA STR3	100%	(772)	(772)	(70)	(70)	(842)
P0002122	K-W/K-H #1 STR # 38	100%	6,485	6,485	(1,981)	(1,981)	4,504
P0002153	W0 Waialau FOT 4/5 Drainage	100%	(3,013)	(3,013)	(1,914)	(1,914)	(4,928)
P0002156	Halawa 46 kV Bus OH to UG	0%	3,417	-	(3,684)	-	-
P0002167	ICS SUBSTATION	0%	(20,925)	-	(1,911)	-	-
P0002169	ICS TELECOM	0%	(9,258)	-	(845)	-	-
P0002170	ICS T&D	0%	(8,386)	-	(766)	-	-
P0002193	C&M Misc Equipment	100%	8,086	8,086	738	738	8,824
P0002197	Harding Ave. Pole Relocation	100%	(2,475)	(2,475)	(2,336)	(2,336)	(4,811)
P0002221	Wahiawa T3 46 Bkr 4449 UFLS	100%	(545)	(545)	(346)	(346)	(891)
P0002222	Wahiawa T2 46 Bkr 4448 UFLS	100%	(598)	(598)	(378)	(378)	(976)
P0002227	Ft Weaver #1 12 Bkr 8024 UFL	100%	(5)	(5)	(3)	(3)	(8)
P0002228	Ft Weaver #1 12 Bkr 8025 UFL	100%	(5)	(5)	(3)	(3)	(8)
P0002229	Ft Weaver #2 12 Bkr 8594 UFL	100%	(5)	(5)	(3)	(3)	(8)
P0002230	Ft Weaver #2 12 Bkr 8595 UFL	100%	(5)	(5)	(3)	(3)	(8)
P0002231	Wahiawa #2 12 Bkr 1219 UFLS	100%	(22)	(22)	(11)	(11)	(33)
P0002245	Waialua Ts# 3 Sub Work	0%	(129)	-	(395)	-	-
P0002246	Waialua Ts# 3 T&D Work	0%	1,029	-	(507)	-	-
P0002256	K2 FWH #22 REPLACEMENT	100%	(346)	(346)	(210)	(210)	(557)
P0002264	Pukele 80MVA Ts# 1	0%	118,075	-	1,655	-	-
P0002267	K2 FWH #21 REPLACEMENT	100%	(329)	(329)	(200)	(200)	(529)
P0002270	Halekauwila 4kV Conv T&D	0%	(2,873)	-	(1,682)	-	-
P0002272	Tsf Spare #3 46-4kV 2014	100%	77,604	77,604	6,795	6,795	84,400
P0002273	Waipahu Swg #1 15KV Install	100%	(15,516)	(15,516)	(9,542)	(9,542)	(25,057)
P0002277	Hila 1 Tsf/Swg 10MVA Install	100%	2,030	2,030	20	20	2,050
P0002280	ANCI VS120A-3636 DB	100%	(185)	(185)	(109)	(109)	(293)
P0002303	Hal-Mak 138kV Ln Relc HawCem	100%	(96)	(96)	(9)	(9)	(104)
P0002304	New Vehicle Purchases	60%	(6,939)	(4,163)	(4,261)	(2,557)	(6,720)
P0002311	High Pressure Fluid Line Rep	100%	(767)	(767)	(708)	(708)	(1,475)
P0002317	Waialau 48VDC Charger R&I	100%	(435)	(435)	(1,402)	(1,402)	(1,837)
P0002368	Smart Grid FCI Overhead	100%	51,547	51,547	(63,363)	(63,363)	(11,816)
P0002369	Hon-Iwl 46kV 1 Cable	0%	(2,016)	-	(2,821)	-	-
P0002371	Iwl-Sch 46kV Cable	100%	(57)	(57)	(33)	(33)	(90)
P0002373	Hon-Iwl 46kV 2 Cbl Repl	0%	(223)	-	(1,865)	-	-

P0002375	Hon-Sch 1 46KV Cable	0%	1,981	-	(452)	-	-
P0002377	Hon-Sch 2 46KV Cable	0%	5,801	-	(7,962)	-	-
P0002400	Kahe Maint Trailer	100%	(2,515)	(2,515)	(1,463)	(1,463)	(3,978)
P0002408	IWILEI DIST SUB MOD - CIV	0%	(5,223)	-	(9,284)	-	-
P0002428	KPP Trailer Consolidation	100%	(5,698)	(5,698)	(3,155)	(3,155)	(8,853)
P0002439	CORR UG SVC CONNECTIONS	100%	376,133	376,133	(13,241)	(13,241)	362,892
P0002452	Kahe-Halawa #2 Str 58 Replace	100%	274	274	25	25	299
P0002476	Mililani Solar 46/12kV Reloc	0%	(11)	-	(6)	-	-
P0002487	SPT SVCS E&W OP ACT	100%	(417)	(417)	(690)	(690)	(1,108)
P0002494	Wind Forecasting for Hawaii	0%	(3,930)	-	{2,488}	-	-
P0002498	KO Kahe Intake Route	0%	(111)	-	(148)	-	-
P0002512	Waiau-Wahia SW Newt-Schofd	0%	5,201	-	132	-	-
P0002513	Waiau-Wahia Schfld-Wahia	0%	3,563	-	8	-	-
P0002514	Waiau-Koolau #1 SW Halaw-Koo	0%	3,571	-	11	-	-
P0002515	K4 FWH 44 Replacement	0%	(209)	-	(134)	-	-
P0002516	K3 FWH 35 Replacement	0%	(209)	-	(134)	-	-
P0002519	Kaonohi Swg #2 15KV Install	100%	(259)	(259)	(148)	(148)	(407)
P0002520	Remove Retired Waialua Tsf 3	0%	3,400	-	(251)	-	-
P0002527	Waiae #1 Tsf/Swg 10MVA Inst	100%	735	735	52	52	787
P0002531	KalaeloaRenewableEnergyPkt&D	0%	(918)	-	(609)	-	-
P0002532	KalaeloaRenewableEnergyPk-SS	0%	53,968	-	4,689	-	-
P0002533	KalaeloaRenewableEnergyPk-Com	0%	(1,479)	-	(832)	-	-
P0002534	KalaeloaRenewableEnergyPkMtr	0%	(434)	-	(251)	-	-
P0002535	KalaeloaRenewableEnergyPkCEIP	0%	1,017	-	(4)	-	-
P0002542	Kalaeloa Solar 1-T&D	0%	(923)	-	(84)	-	-
P0002543	Kalaeloa Solar 1-Subst	0%	(17,628)	-	(1,609)	-	-
P0002544	Kalaeloa Solar 1-Kahi	0%	(204)	-	(19)	-	-
P0002545	Kalaeloa Solar 1-Comm	0%	(1,044)	-	(95)	-	-
P0002546	Kalaeloa Solar 1-Meter	0%	(76)	-	(7)	-	-
P0002548	Whitmore 12kV Ckt Upgrade	100%	(4,954)	(4,954)	(15,699)	(15,699)	(20,654)
P0002554	UPPER KIPAPA CKT UPGRADE	100%	(21,495)	(21,495)	(16,689)	(16,689)	(38,183)
P0002558	Smart Grid Loop Schemes	0%	21,912	-	411	-	-
P0002562	Hala 3 Circuit Extension	0%	(9,809)	-	(7,719)	-	-
P0002563	Archer 42A 46KV Re-Conductor	100%	(1,378)	(1,378)	(126)	(126)	(1,504)
P0002592	Waimalu V3940 VR Sw P/I	0%	10,612	-	969	-	-
P0002594	Hal-Mak 138kV P11H Repl	0%	254	-	(1,739)	-	-
P0002595	Iwilei T1 & T2 Removal	100%	800	800	(5,126)	(5,126)	(4,326)
P0002600	Ward Cable Entrance	100%	15,275	15,275	(6,298)	(6,298)	8,977
P0002601	Waimanalo Lndfill 46kV Reloc	100%	(59)	(59)	(33)	(33)	(93)
P0002603	Walgreens Nuuanu - OH Reloc	100%	(226)	(226)	(117)	(117)	(343)
P0002605	Kahe-Wahia SW Install 2	100%	(4,823)	(4,823)	(11,474)	(11,474)	[16,296]
P0002606	Kahe-Wahia SW Install 3	0%	58,867	-	2,325	-	-
P0002607	Kahe-Wahia SW Install 4	0%	8,755	-	(1,387)	-	-
P0002608	Kahe-Halawa #2 SW Install 2	0%	20,042	-	(1,068)	-	-
P0002609	Kahe-Halawa #2 SW Install 3	0%	6,129	-	(418)	-	-
P0002610	Koolau-Pukele #2 Str 5 P/I	100%	21,811	21,811	1,482	1,482	23,293
P0002611	Koolau-Pukele #2 Str 7 P/I	100%	15,431	15,431	1,400	1,400	16,831
P0002612	Koolau-Pukele #2 Str 9 P/I	100%	10,076	10,076	871	871	10,947
P0002613	Koolau-Pukele #2 Str 10 P/I	100%	45,209	45,209	4,068	4,068	49,277
P0002614	Koolau-Pukele #2 Str 11 P/I	100%	41,203	41,203	3,753	3,753	44,956
P0002615	Koolau-Pukele #1 Str 17 P/I	100%	122,502	122,502	10,093	10,093	132,595
P0002616	Koolau-Pukele #1 Str 19 P/I	100%	58,976	58,976	5,385	5,385	64,361
P0002620	Schofield 46kV OH Relocation	0%	(3,292)	-	(3,130)	-	-
P0002621	Kah-Hal2/Kah-Wah Str #1 P/I	100%	9,371	9,371	856	856	10,227
P0002622	Kah-Hal2/Kah-Wah Str #4 P/I	100%	7,587	7,587	693	693	8,279
P0002623	Kah-Hal2/Kah-Wah Str #5 P/I	100%	19,240	19,240	1,757	1,757	20,996
P0002624	Kah-Hal2/Kah-Wah Str #6 P/I	100%	15,762	15,762	1,439	1,439	17,201
P0002625	Kah-Hal2/Kah-Wah Str #7 P/I	100%	7,454	7,454	681	681	8,135
P0002626	Kah-Hal2/Kah-Wah Str #8 P/I	100%	11,525	11,525	1,052	1,052	12,577
P0002627	Kah-Hal2/Kah-Wah Str #9 P/I	100%	7,682	7,682	701	701	8,384
P0002628	Kah-Hal2/Kah-Wah Str #10 P/I	100%	16,567	16,567	1,513	1,513	18,080
P0002629	Kah-Hal2/Kah-Wah Str #11 P/I	100%	5,034	5,034	460	460	5,493
P0002630	Kah-Hal2/Kah-Wah Str #12 P/I	100%	7,395	7,395	675	675	8,070
P0002631	Kah-Hal2/Kah-Wah Str #13 P/I	100%	13,636	13,636	1,245	1,245	14,881
P0002632	Kah-Hal2/Kah-Wah Str #14 P/I	100%	4,467	4,467	408	408	4,874
P0002633	Kah-Hal2/Kah-Wah Str #15 P/I	100%	20,606	20,606	1,881	1,881	22,487
P0002634	Kah-Hal2/Kah-Wah Str #16 P/I	100%	4,133	4,133	377	377	4,510
P0002636	Kah-Hal2/Kah-Wah Str #17 P/I	100%	7,216	7,216	659	659	7,875
P0002637	Kah-Hal2/Kah-Wah Str #18 P/I	100%	15,496	15,496	1,415	1,415	16,911
P0002638	Kah-Hal2/Kah-Wah Str #19 P/I	100%	8,050	8,050	735	735	8,785
P0002639	Kah-Hal2/Kah-Wah Str #20 P/I	100%	27,052	27,052	2,268	2,268	29,320
P0002640	Kah-Hal2/Kah-Wah Str #21 P/I	100%	13,879	13,879	1,047	1,047	14,926
P0002641	Kah-Hal2/Kah-Wah Str #22 P/I	100%	974	974	89	89	1,063
P0002642	Kah-Hal2/Kah-Wah Str #23 P/I	100%	11,426	11,426	1,043	1,043	12,469
P0002643	Kah-Hal2/Kah-Wah Str #25 P/I	100%	30,432	30,432	2,779	2,779	33,211
P0002644	Kah-Hal2/Kah-Wah Str #50 P/I	100%	69,791	69,791	6,372	6,372	76,163
P0002645	Kah-Hal2/Kah-Wah Str #51 P/I	100%	14,659	14,659	1,338	1,338	15,998
P0002646	SWG SPARE #16 15KV 2013	100%	1,687	1,687	(240)	(240)	1,447
P0002647	SWG SPARE #17 15KV 2013	100%	4,336	4,336	1	1	4,338

P0002648	Swg Spare #18 15KV 2013	100%	(798)	(798)	(587)	(587)	(1,385)
P0002649	Swg Spare #19 15KV 2013	100%	(53)	(53)	(33)	(33)	(86)
P0002650	Swg Spare #20 15KV 2015	0%	(302)	-	(200)	-	-
P0002651	Swg Spare #21 15KV 2015	0%	(149)	-	(105)	-	-
P0002652	Ward Building Elevator	100%	(166)	(166)	(111)	(111)	(277)
P0002655	Warehouse Avian Lighting	0%	(7,970)	-	(6,644)	-	-
P0002661	Kaimuki Sub Steel Stru Repl	100%	(2,054)	(2,054)	(3,181)	(3,181)	(5,235)
P0002680	Iwilei 46KV SS SW & Stl Repl	0%	(3,027)	-	(2,535)	-	-
P0002681	Waiau 46KV SS SW & Stl Repl	0%	2,801	-	(606)	-	-
P0002682	Waiau 138KV SS Sw & Stl Repl	0%	5	-	0	-	-
P0002686	Kalaeloa Poleyard Paving	100%	(337)	(337)	(191)	(191)	(529)
P0002687	NORTH Substrn AC Upgrd	100%	(530)	(530)	(395)	(395)	(925)
P0002688	EAST Substrn AC Upgrd	100%	(387)	(387)	(327)	(327)	(715)
P0002689	SOUTH Substrn AC Upgrd	100%	(120)	(120)	(107)	(107)	(227)
P0002690	WEST Substrn AC Upgrd	100%	(1,074)	(1,074)	(811)	(811)	(1,885)
P0002691	W0 Waiau Maint. Trailers	100%	41	41	(102)	(102)	(60)
P0002707	K0 Maintenance Trailer	100%	123,731	123,731	10,749	10,749	134,480
P0002711	Facilities-Pwr Sup	100%	(285)	(285)	(187)	(187)	(472)
P0002729	K3 GCRTU Upgrade	0%	(399)	-	(270)	-	-
P0002730	K4 GCRTU Upgrade	0%	2,464	-	(245)	-	-
P0002731	K6 GCRTU Upgrade	100%	(12,297)	(12,297)	(8,403)	(8,403)	(20,701)
P0002734	W7 GCRTU Upgrade	0%	15	-	1	-	-
P0002738	Ctr Baseyd & Warehouse Fac	0%	(6,036)	-	(3,703)	-	-
P0002740	Frt Shifter 46KV DL P2-SS	0%	(12,584)	-	(8,545)	-	-
P0002741	Frt Shifter 46KV DL P2-T&D	0%	(1,493)	-	(645)	-	-
P0002752	Triplr-Ewa Nui New MW Link	100%	21,823	21,823	(3,177)	(3,177)	18,646
P0002759	Triplr FbrSpur&Mux-Hai-Schl	100%	(13,450)	(13,450)	(17,962)	(17,962)	(31,412)
P0002760	F2 Base Station - PM	100%	5,013	5,011	(460)	(460)	4,551
P0002761	F2 Base Station - Wahiaawa	100%	(429)	(429)	(328)	(328)	(757)
P0002762	F2 Base Station - Kahipa	100%	(846)	(846)	(855)	(855)	(1,701)
P0002763	F2 Base Station - Kawaihoa	100%	2,517	2,517	(105)	(105)	2,412
P0002771	Koolau-Pukele #2 Str 6 P/I	100%	28,064	28,064	1,058	1,058	29,122
P0002772	Koolau-Pukele #2 Str 8 P/I	100%	40,781	40,781	3,714	3,714	44,495
P0002801	V12 Amfac Network Tsf Repl	0%	84	-	(125)	-	-
P0002804	V42A Kapuliwa Network Tsf Rep	0%	(475)	-	(487)	-	-
P0002806	V799 Gravler Network Tsf Rep	0%	(271)	-	(291)	-	-
P0002818	K5 MATS Compliance	100%	(874)	(874)	(470)	(470)	(1,343)
P0002820	Telecom Genset Repl-Malae	0%	979	-	(732)	-	-
P0002821	Telecom Genset Repl-Kokohd	100%	789	789	(2,549)	(2,549)	(1,759)
P0002822	Telecom Genset Repl-Mokuleia	100%	(6,100)	(6,100)	(6,078)	(6,078)	(12,179)
P0002823	Granger/Prism Replacement	100%	(4,844)	(4,844)	(6,389)	(6,389)	(11,233)
P0002824	Alcatel Sonet	100%	(5,640)	(5,640)	(4,440)	(4,440)	(10,079)
P0002829	PP Comm-CIP	100%	(2,544)	(2,544)	(1,880)	(1,880)	(4,424)
P0002830	PP Comm-Kahe	100%	4,553	4,553	11	11	4,564
P0002831	K3 MATS Compliance	0%	(511)	-	(372)	-	-
P0002847	Pawaa Kai V962 VRSw P/I	0%	8,497	-	(4,965)	-	-
P0002849	Sand Island MH#40 Remed	0%	5,442	-	51	-	-
P0002863	P42 Kawaihoa-Kuiliima Rpl	0%	599	-	(4,903)	-	-
P0002870	W9 Controls Upgrade	100%	(1,995)	(1,995)	(1,315)	(1,315)	(3,310)
P0002871	W10 Controls Upgrade	0%	(1,088)	-	(719)	-	-
P0002872	Kah-Hal2/Kah-Wah Str #2 P/I	100%	29,100	29,100	2,657	2,657	31,757
P0002878	WK1/Wai-Wah1 Str #13 P/I	0%	205,250	-	15,704	-	-
P0002879	WK1/Wai-Wah1 Str #14 P/I	0%	122,970	-	4,765	-	-
P0002883	Hale Mohalu II 46KV OH Reloc	100%	(15,205)	(15,205)	(11,848)	(11,848)	(27,053)
P0002885	W10 Inlet Ducting Replacement	0%	(13)	-	(10)	-	-
P0002902	KAHIPA SUB REBUILD SS	0%	176,073	-	9,871	-	-
P0002903	KAHIPA SUB REBLD Kahipa DTT	0%	(434)	-	(643)	-	-
P0002904	KAHIPA SUB REBLD Kahipa MW	0%	(1,006)	-	(596)	-	-
P0002929	Ko-Kahe Utility Scale PV	0%	(3,788)	-	(2,404)	-	-
P0002947	W9 Tesla Recorder installati	100%	(316)	(316)	(162)	(162)	(478)
P0002951	W9 Battery Bank Replacement	0%	(3,095)	-	(1,769)	-	-
P0002952	W10 Battery Bank Replacement	0%	(3,681)	-	(2,065)	-	-
P0002954	Heiaia Bridge P57-P60 Repl	0%	(8,680)	-	(5,575)	-	-
P0002955	WAIAU 46KV BUS LOAD RELIEF	100%	(18,065)	(18,065)	(19,838)	(19,838)	(37,904)
P0002957	Mikilua Sub Security Upgrade	100%	(376)	(376)	(209)	(209)	(585)
P0002972	Waiau-Koolau #1 SW Newtn-Hal	0%	3,874	-	(9)	-	-
P0002976	Ward WH Lighting Grd/C&M	100%	2,401	2,401	(1,033)	(1,033)	1,368
P0002979	Kah-Wah Str #87 P/I	100%	108,678	108,678	5,967	5,967	114,645
P0002980	Kah-Wah Str #104 P/I	100%	57,349	57,349	2,365	2,365	59,713
P0002981	Kah-Wah Str #106 P/I	100%	33,726	33,726	1,647	1,647	35,373
P0002982	Kah-Hal2 Str #76 P/I	100%	56,356	56,356	3,467	3,467	59,823
P0002983	Kah-Hal2 Str #77 P/I	100%	27,820	27,820	1,119	1,119	28,939
P0002984	Kah-Hal2 Str #78 P/I	100%	18,289	18,289	16	16	18,305
P0002985	Kah-Hal2 Str #79 P/I	100%	53,959	53,959	2,964	2,964	56,923
P0002986	Kah-Hal2 Str #80 P/I	100%	60,640	60,640	3,409	3,409	64,049
P0002987	Kah-Hal2 Str #81 P/I	100%	17,221	17,221	(481)	(481)	16,739
P0002988	Kah-Hal2 Str #107 P/I	100%	109,738	109,738	7,722	7,722	117,460
P0002989	Kah-Hal2/Kah-Wah Str #35 P/I	100%	108,010	108,010	3,120	3,120	111,130
P0002990	Kah-Hal2/Kah-Wah Str #45 P/I	100%	90,456	90,456	6,288	6,288	96,744

P0002991	Kah-Hai2/Kah-Wah Str #53 P/I	100%	108,651	108,651	7,026	7,026	115,677
P0002992	Kah-Hai2/Kah-Wah Str #28 P/I	100%	39,052	39,052	{3,233}	(3,233)	35,819
P0002993	Kah-Hai2/Kah-Wah Str #29 P/I	100%	31,293	31,293	{1,827}	(1,827)	29,466
P0002994	Kah-Hai2/Kah-Wah Str #30 P/I	100%	63,361	63,361	{846}	(846)	62,516
P0002995	Kah-Hai2/Kah-Wah Str #31 P/I	100%	21,082	21,082	{3,609}	(3,609)	17,473
P0002996	Kah-Hai2/Kah-Wah Str #32 P/I	100%	46,153	46,153	{2,331}	(2,331)	43,822
P0002997	Kah-Hai2/Kah-Wah Str #33 P/I	100%	73,346	73,346	2,279	2,279	75,625
P0002998	Kah-Hai2/Kah-Wah Str #34 P/I	100%	43,190	43,190	365	365	43,555
P0002999	Kah-Hai2/Kah-Wah Str #35 P/I	100%	40,445	40,445	{1,509}	(1,509)	38,937
P0003000	Kah-Hai2/Kah-Wah Str #37 P/I	100%	41,322	41,322	{846}	(846)	40,476
P0003001	Kah-Hai2/Kah-Wah Str #38 P/I	100%	36,955	36,955	2,035	2,035	38,990
P0003002	Kah-Hai2/Kah-Wah Str #39 P/I	100%	30,790	30,790	1,408	1,408	32,199
P0003003	Kah-Hai2/Kah-Wah Str #40 P/I	100%	36,766	36,766	2,135	2,135	38,901
P0003004	Kah-Hai2/Kah-Wah Str #41 P/I	100%	52,539	52,539	3,269	3,269	55,807
P0003005	Kah-Hai2/Kah-Wah Str #42 P/I	100%	49,689	49,689	2,802	2,802	52,491
P0003006	Kah-Hai2/Kah-Wah Str #43 P/I	100%	23,571	23,571	849	849	24,419
P0003007	Kah-Hai2/Kah-Wah Str #44 P/I	100%	104,555	104,555	7,213	7,213	111,768
P0003008	Kah-Hai2/Kah-Wah Str #45 P/I	100%	30,672	30,672	{2,311}	(2,311)	28,362
P0003009	Kah-Hai2/Kah-Wah Str #47 P/I	100%	31,488	31,488	{1,453}	(1,453)	30,034
P0003010	Kah-Hai2/Kah-Wah Str #48 P/I	100%	63,242	63,242	{491}	(491)	62,751
P0003011	Kah-Hai2/Kah-Wah Str #49 P/I	100%	84,334	84,334	{6,398}	(6,398)	77,936
P0003012	Kah-Hai2/Kah-Wah Str #52 P/I	100%	127,762	127,762	8,418	8,418	136,180
P0003013	Kah-Hai2/Kah-Wah Str #54 P/I	100%	32,346	32,346	332	332	32,678
P0003014	Kah-Hai2/Kah-Wah Str #55 P/I	100%	65,758	65,758	4,283	4,283	70,041
P0003015	Kah-Hai2/Kah-Wah Str #67 P/I	100%	47,495	47,495	{7,514}	(7,514)	39,980
P0003016	Kah-Hai2/Kah-Wah Str #68 P/I	100%	77,580	77,580	1,585	1,585	79,165
P0003017	Kah-Hai2/Kah-Wah Str #69 P/I	100%	89,243	89,243	{3,980}	(3,980)	85,264
P0003022	Chapin Lane UG Duct Line	0%	{1,258}	-	{1,025}	-	-
P0003029	Test & Relay Office Improvem	100%	(159)	(159)	(88)	(88)	{247}
P0003032	Wahlawa-Waialua 46kV P523	100%	16,446	16,446	{5,960}	(5,960)	10,486
P0003033	Wahlawa-Waialua 46kV P532	100%	18,386	18,386	{8,580}	(8,580)	9,805
P0003035	KO Kahe Warehouse & Maintenance Shop PV	0%	{420}	-	{236}	-	-
P0003039	Cust Serv Ph 2 - Paymt Proc	100%	{1,500}	(1,500)	{834}	(834)	{2,334}
P0003056	Wahlawa 125VDC BattMon Instl	100%	1,710	1,710	74	74	1,784
P0003057	SchoolSt 125VDC BattMon Insl	100%	1,654	1,654	{287}	(287)	1,368
P0003058	Pukele 125VDC BattMon Instl	100%	1,837	1,837	34	34	1,871
P0003059	Makalapa 125VDC BattMon Inst	100%	(63)	(63)	{172}	(172)	{236}
P0003060	KwloaMau125VDC BattMon Instl	100%	600	600	{285}	(285)	315
P0003061	KwloaMak125VDC BattMon Instl	100%	1,149	1,149	{19}	(19)	1,131
P0003062	Kamoku 125VDC BattMon Instl	100%	2,039	2,039	{212}	(212)	1,827
P0003063	Iwi46kV 125VDC BattMon Instl	100%	164	164	{116}	(116)	48
P0003064	Iwi38kV 125VDC BattMon Instl	100%	1,201	1,201	{27}	(27)	1,175
P0003066	Koolau 125VDC BattMon Instl	100%	4,117	4,117	104	104	4,220
P0003067	Kalaeloa 125VDC BattMon Inst	100%	2,038	2,038	{172}	(172)	1,866
P0003068	Iwi25kV 125VDC BattMon Instl	100%	1,041	1,041	{316}	(316)	725
P0003069	Halawa 125VDC BattMon Instl	100%	2,979	2,979	{208}	(208)	2,772
P0003070	Ford ls 125VDC BattMon Instl	100%	3,614	3,614	97	97	3,711
P0003071	Ewa Nui 125VDC BattMon Instl	0%	2,034	-	181	-	-
P0003072	CEIP 125VDC BattMon Instl	100%	1,178	1,178	{10}	(10)	1,168
P0003073	Air Sub 125VDC BattMon Instl	100%	4,414	4,414	263	263	4,677
P0003074	Air SwSta 125VDC BattMon Instl	100%	2,289	2,289	55	55	2,344
P0003075	AES 125VDC BattMon Instl	100%	5,292	5,292	136	136	5,428
P0003077	Diamond Head 4kV Conv T&D	100%	{7,020}	(7,020)	{8,148}	(8,148)	{15,168}
P0003085	Batt Monitor Instl - Koko Hd	0%	226	-	16	-	-
P0003086	Batt Monitor Instl - Pukele	100%	2,156	2,156	100	100	2,256
P0003087	Batt Monitor Instl - Ward	100%	9,010	9,010	{1,704}	(1,704)	7,307
P0003088	Batt Monitor Instl - Tripler	100%	1,665	1,665	{582}	(582)	1,083
P0003089	Batt Monitor Instl - WaiauMW	100%	2,303	2,303	191	191	2,494
P0003090	Batt Monitor Instl - Ewa Nui	100%	162	162	{501}	(501)	{340}
P0003091	Batt Monitor Instl - CIP	100%	1,090	1,090	81	81	1,171
P0003092	Batt Monitor Instl - Kahe Pt	100%	1,146	1,146	73	73	1,219
P0003093	Batt Monitor Instl - Kahe	100%	2,089	2,089	67	67	2,155
P0003094	Batt Monitor Instl - Malae	100%	1,556	1,556	{339}	(339)	1,217
P0003095	Batt Monitor Instl - Laie	100%	1,849	1,849	{359}	(359)	1,490
P0003096	Batt Monitor Instl - Koolau	100%	1,466	1,466	{817}	(817)	649
P0003097	Batt Monitor Instl - Kaala	100%	2,238	2,238	{434}	(434)	1,804
P0003098	Batt Monitor Instl - Mauna K	100%	1,612	1,612	{505}	(505)	1,107
P0003099	Batt Monitor Instl - Kawela	100%	1,298	1,298	{1,007}	(1,007)	291
P0003103	Beckoning Pt Batt Mon Inst	100%	1,121	1,121	{636}	(636)	484
P0003104	Milliani Batt Mon Inst	100%	878	878	{564}	(564)	314
P0003105	Ford Island Batt Mon Inst	100%	4,785	4,785	{1,332}	(1,332)	3,453
P0003106	Kuahua Batt Mon Inst	100%	4,246	4,246	78	78	4,324
P0003107	Makalapa Batt Mon Inst	100%	(581)	(581)	{522}	(522)	{1,103}
P0003108	Wahlawa Batt Mon Inst	100%	{4,323}	(4,323)	{2,814}	(2,814)	{7,137}
P0003109	Camp Smith Batt Mon Inst	100%	1,585	1,585	{406}	(406)	1,179
P0003110	Alea Batt Mon Inst	100%	2,807	2,807	{490}	(490)	2,316
P0003111	Fort Shafter Batt Mon Inst	0%	302	-	{103}	-	-
P0003112	Wheeler Batt Mon Inst	0%	1,588	-	{355}	-	-
P0003113	Hickam Batt Mon Inst	100%	1,439	1,439	{1,519}	(1,519)	{80}

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P0003114	Honolulu PP Batt Mon Inst	100%	3,487	3,487	(654)	(654)	2,832
P0003115	HRRV Batt Mon Inst	100%	(39)	(39)	(559)	(559)	(598)
P0003116	Kapahulu Batt Mon Inst	0%	2,320	-	99	-	-
P0003117	Mamala Batt Mon Inst	100%	1,795	1,795	(1,650)	(1,650)	145
P0003118	Plikoi Batt Mon Inst	100%	1,159	1,159	(633)	(633)	526
P0003119	Tripler Batt Mon Inst	100%	2,558	2,558	(679)	(679)	1,879
P0003120	Whitmore Batt Mon Inst	100%	908	908	(524)	(524)	383
P0003122	K5&6 Elevator Replacement	100%	(10)	(10)	(6)	(6)	(15)
P0003123	Swg Spare #19-a 15KV 2014	100%	40,361	40,361	3,363	3,363	43,725
P0003124	Swg Spare #19-b 15KV 2014	100%	40,232	40,232	3,293	3,293	43,524
P0003125	Swg Spare #19-c 15KV 2014	100%	40,232	40,232	3,293	3,293	43,524
P0003126	Swg Spare #19-d 15KV 2014	100%	39,397	39,397	3,431	3,431	42,828
P0003127	Swg Spare #19-e 15KV 2014	100%	39,284	39,284	3,352	3,352	42,636
P0003128	CPP 12th Flr Expansion	100%	(5,670)	(5,670)	(3,169)	(3,169)	(8,839)
P0003131	ERP - Renovation	0%	(31,032)	-	(21,154)	-	-
P0003140	Waiau-School St. 46kV P57B	0%	(2,918)	-	(2,729)	-	-
P0003206	Kah-Wah 138kV Conductor Ph 1	0%	7,665	-	232	-	-
P0003207	Kah-Wah 138kV Conductor Ph 2	0%	26,707	-	(29,064)	-	-
P0003208	Kah-Wah 138kV Conductor Ph 3	0%	1,519	-	(5,481)	-	-
P0003210	Kah-Hal #2 138kV Conduct Ph1	0%	5,436	-	(2,240)	-	-
P0003211	Kah-Hal #2 138kV Cond Ph2	0%	(11,097)	-	(56,992)	-	-
P0003212	Kah-Hal #2 138kV Cond Ph3	0%	(2,295)	-	(8,338)	-	-
P0003214	BPTF SCADA REPLACEMENT	100%	(776)	(776)	(494)	(494)	(1,269)
P0003215	Beckoning Point STATCOM	0%	127,201	-	5,097	-	-
P0003219	K4 APH Drain Vlv Repl	100%	(2,589)	(2,589)	(1,489)	(1,489)	(4,078)
P0003223	CEIP Substation Lighting	100%	1,935	1,935	158	158	2,094
P0003224	Ewa Nui Substation Lighting	100%	17,243	17,243	1,556	1,556	18,798
P0003225	Koolau Substation Lighting	100%	1,335	1,335	(71)	(71)	1,264
P0003226	Kahe Farrington Landscaping	100%	(441)	(441)	(314)	(314)	(756)
P0003231	Kahe 1-4 Substation Lighting	100%	(4,278)	(4,278)	(5,668)	(5,668)	(9,946)
P0003232	Kahe 5-8 Substation Lighting	100%	(3,264)	(3,264)	(4,878)	(4,878)	(8,142)
P0003233	Waiau Substation Lighting	100%	1,971	1,971	(2,440)	(2,440)	(469)
P0003238	Pearl City Substrn-Unit1 Repl	100%	94,566	94,566	(22,781)	(22,781)	71,786
P0003242	Smart Grid Initial Phase	100%	(11,967)	(11,967)	(7,438)	(7,438)	(19,404)
P0003247	W0 Facility Lighting Minimiz	0%	(128)	-	(74)	-	-
P0003253	125VDC Battery Trailer	0%	(855)	-	{1,672}	-	-
P0003254	K1 VFD Project	100%	(814)	(814)	(487)	(487)	(1,301)
P0003256	Makakilo C&D Ph2 - 46kV OH	0%	(5,385)	-	{3,223}	-	-
P0003264	Ewa Nui 125VDC BattMon Insti	100%	366	366	(10)	(10)	356
P0003265	BESS Grid Stability #1	0%	(1,614)	-	(1,266)	-	-
P0003266	BESS Grid Stability #2	0%	(2,761)	-	(2,146)	-	-
P0003268	Halawa Control House P/I	0%	5,736	-	(195)	-	-
P0003269	Halawa Comm Equipment P/I	0%	2,219	-	(762)	-	-
P0003270	Halawa 138kv Expansion	0%	15,720	-	(2,511)	-	-
P0003271	Hal-Koo #1 138 kV Pole Repl	0%	68	-	(746)	-	-
P0003272	Hal-Mak 138 kV Line	0%	670	-	(354)	-	-
P0003273	Hal-Iwi 138 kV Line	0%	664	-	(344)	-	-
P0003274	Hal-Sch 138 kV Line	0%	863	-	(350)	-	-
P0003275	Halawa Bkr#160-162 138KV P/I	0%	1,876	-	(27)	-	-
P0003276	Wai-Hal #2 138 KV Line	0%	196	-	(347)	-	-
P0003277	Hal-Koo #2 138 KV Line	0%	593	-	(282)	-	-
P0003278	Halawa Bkr#157-159 138kV P/I	0%	1,919	-	5	-	-
P0003279	Wai-Hal #1 138 KV Line	0%	1,061	-	(189)	-	-
P0003280	Hal-Koo #3 138 KV Line	0%	876	-	(186)	-	-
P0003281	Halawa Tsf #1 80MVA P/I	0%	2,399	-	(227)	-	-
P0003282	Halawa Tsf #2 80MVA P/I	0%	2,981	-	159	-	-
P0003283	Hal Bkr#176,4436,4492 P/I	0%	2,029	-	76	-	-
P0003284	Halawa Switch Replacements	0%	4,044	-	288	-	-
P0003285	Schofield 46KV OH Extension	0%	(705)	-	(402)	-	-
P0003287	DCFC Site 2 Infrastructure	0%	(32)	-	(21)	-	-
P0003295	Tier 1 Sec. Upgrade-Ewa Nui	100%	(6,989)	(6,989)	(4,273)	(4,273)	(11,263)
P0003296	Tier 1 Sec. Upgrade CEIP	100%	(2,580)	(2,580)	(1,732)	(1,732)	(4,312)
P0003297	Tier 1 Sec. Upgrade Koolau	100%	(11,391)	(11,391)	(7,288)	(7,288)	(18,679)
P0003298	Tier 1 Sec. Upgrade Makalapa	0%	(3,921)	-	(2,696)	-	-
P0003299	Tier 1 Sec. Upgrade-Wahiawa	0%	(6,065)	-	(4,157)	-	-
P0003306	Kuakini Street Extension	0%	(2,557)	-	(1,598)	-	-
P0003313	Kapolei Batt Mon Inst	100%	1,947	1,947	(201)	(201)	1,746
P0003314	Kaloi Batt Mon Inst	100%	2,121	2,121	(88)	(88)	2,034
P0003315	Tier 1 Sec. Upgrade Halawa	100%	(6,241)	(6,241)	(4,345)	(4,345)	(10,586)
P0003316	Int'l Mkt Place 12kV Reloc	0%	(25,593)	-	(10,874)	-	-
P0003318	Ph3 Air - Ualema-Waiwai Reloc	0%	(4,974)	-	(3,289)	-	-
P0003319	K6 Arc Flash Mitigation	0%	(4,174)	-	(3,379)	-	-
P0003320	Batt. Mon. Instl - HPP MW	100%	1,014	1,014	42	42	1,056
P0003321	Kahe-Halawa #2 SW Install 4	0%	(33)	-	(12)	-	-
P0003322	Int'l Mkt Place HH-6 Reloc	0%	9,891	-	(1,712)	-	-
P0003323	Tsf Sparc #4 46-4/2.4kV 2015	0%	(559)	-	(345)	-	-
P0003324	WARD SPACE PLANNING 2014	0%	(2,078)	-	(1,294)	-	-
P0003327	New Ward C&M office trailer	0%	(1,734)	-	(1,479)	-	-
P0003330	ASB11 -Legal Office Furniture	0%	(525)	-	(353)	-	-

P0003331	Black Pt 4kV to 12kV Conv	0%	(5,414)	-	(3,279)	-	-
P0003345	Puu Manawahua to Iwilei MW	0%	1,256	-	(2,226)	-	-
P0003350	Waiau-Wahiwawa Str 15	0%	27,464	-	2,357	-	-
P0003351	Waiau-Wahiwawa Str 16	0%	63	-	(154)	-	-
P0003352	Waiau-Wahiwawa Str 17	0%	119	-	(139)	-	-
P0003353	Waiau-Wahiwawa Str 18	0%	82	-	(222)	-	-
P0003354	Waiau-Wahiwawa Str 19	0%	141	-	(137)	-	-
P0003355	Waiau-Wahiwawa Str 20	0%	22	-	(183)	-	-
P0003356	Waiau-Wahiwawa Str 21	0%	81	-	(143)	-	-
P0003357	Waiau-Wahiwawa Str 22	0%	226	-	(179)	-	-
P0003358	Waiau-Wahiwawa Str 26	0%	641	-	(112)	-	-
P0003359	Waiau-Wahiwawa Str 27	0%	340	-	(200)	-	-
P0003360	Waiau-Wahiwawa Str 28	0%	956	-	(26)	-	-
P0003361	Waiau-Wahiwawa Str 29	0%	514	-	(67)	-	-
P0003362	Waiau-Wahiwawa Str 30	0%	401	-	(77)	-	-
P0003363	Waiau-Wahiwawa Str 31	0%	401	-	(77)	-	-
P0003364	Waiau-Wahiwawa Str 32	0%	317	-	(85)	-	-
P0003365	Waiau-Wahiwawa Str 33	0%	392	-	(78)	-	-
P0003366	Waiau-Wahiwawa Str 34	0%	421	-	(57)	-	-
P0003367	Waiau-Wahiwawa Str 35	0%	1,101	-	(4)	-	-
P0003368	Waiau-Wahiwawa Str 36	0%	627	-	(47)	-	-
P0003369	Waiau-Wahiwawa Str 37	0%	330	-	(74)	-	-
P0003370	Waiau-Wahiwawa Str 38	0%	286	-	(107)	-	-
P0003371	Waiau-Wahiwawa Str 39	0%	691	-	(76)	-	-
P0003372	Waiau-Wahiwawa Str 39A	0%	(404)	-	(552)	-	-
P0003373	Waiau-Wahiwawa Str 39B	0%	334	-	(74)	-	-
P0003374	Waiau-Wahiwawa Str 40	0%	69	-	(89)	-	-
P0003375	Waiau-Wahiwawa Str 41	0%	41	-	(110)	-	-
P0003376	Waiau-Wahiwawa Str 42	0%	356	-	(80)	-	-
P0003377	Waiau-Wahiwawa Str 43	0%	356	-	(80)	-	-
P0003378	Waiau-Wahiwawa Str 44	0%	381	-	(60)	-	-
P0003379	Waiau-Wahiwawa Str 45	0%	356	-	(80)	-	-
P0003380	Waiau-Wahiwawa Str 46	0%	374	-	(78)	-	-
P0003381	Waiau-Wahiwawa Str 47	0%	388	-	(68)	-	-
P0003382	Waiau-Wahiwawa Str 48	0%	395	-	(63)	-	-
P0003383	Waiau-Wahiwawa Str 49	0%	443	-	(73)	-	-
P0003384	Waiau-Wahiwawa Str 50	0%	390	-	(78)	-	-
P0003385	Waiau-Wahiwawa Str 51	0%	390	-	(78)	-	-
P0003386	Waiau-Wahiwawa Str 52	0%	546	-	(39)	-	-
P0003387	Waiau-Wahiwawa Str 53	0%	475	-	(13)	-	-
P0003388	Waiau-Wahiwawa Str 54	0%	576	-	(13)	-	-
P0003389	Waiau-Wahiwawa Str 55	0%	324	-	(72)	-	-
P0003390	Waiau-Wahiwawa Str 56	0%	169	-	(12)	-	-
P0003391	Waiau-Wahiwawa Str 57	0%	454	-	19	-	-
P0003392	Koolau-Pukele #2 Str #1 P/I	0%	45	-	(515)	-	-
P0003393	Koolau-Pukele #2 Str #2 P/I	0%	88	-	(498)	-	-
P0003394	Koolau-Pukele #2 Str #3 P/I	0%	33	-	(531)	-	-
P0003395	Koolau-Pukele #2 Str #4 P/I	0%	2	-	(550)	-	-
P0003396	Koolau-Pukele #2 Str #5 P/I	0%	8	-	(551)	-	-
P0003397	Koolau-Pukele #2 Str #7 P/I	0%	1	-	(553)	-	-
P0003400	Kahe-Halawa #2 SW Install 4	0%	6,607	-	301	-	-
P0003403	Swg Spare #26 15KV 2015	0%	(9)	-	(6)	-	-
P0003404	Swg Spare #27 15KV 2015	0%	(9)	-	(6)	-	-
P0003405	Swg Spare #28 15KV 2015	0%	(9)	-	(6)	-	-
P0003406	Swg Spare #29 15KV 2015	0%	(9)	-	(6)	-	-
P0003414	Kakaako Swg #1 Install	0%	(185)	-	(145)	-	-
P0003415	Kakaako Swg #2 Install	0%	(185)	-	(145)	-	-
P0003418	Ewa Beach #1 Emergency Repla	100%	(147)	(147)	(98)	(98)	(244)
P0003421	Woodlawn #4 Tsf 4kV Install	0%	[1,908]	-	(2,085)	-	-
P0003423	Aikahi Substation Str Rep	0%	(1,345)	-	(914)	-	-
P0003424	Wheeler Batt Mon Inst	100%	134	134	(47)	(47)	86
P0003426	PM to Pu'u Nana MW Link	0%	(791)	-	(697)	-	-
P0003429	Wahiwawa Control House Expans	0%	20,526	-	(4,941)	-	-
P0003430	Waihou South Substation	0%	20,962	-	1,417	-	-
P0003431	Waihou South T&D	0%	1,498	-	(13)	-	-
P0003432	Waihou South Telecom	0%	(162)	-	(110)	-	-
P0003434	Feeder Meter Inst Dist Subs	80%	(30,199)	(24,159)	(37,811)	(30,249)	(54,408)
P0003435	Batt Monitor Inst - Dist Sub	0%	32,714	-	(4,522)	-	-
P0003465	Koolau-Wallupe #1 Str 30 P9	0%	{600}	-	(440)	-	-
P0003466	Dist Ckt Monitoring Prog	100%	905	905	(4,062)	(4,062)	(3,158)
P0003467	WOFH Walipahu Tsf#1 Fans	0%	3,990	-	(881)	-	-
P0003470	LTC Upgrades Dist Subs	100%	1,404	1,404	[3,158)	(3,158)	(1,754)
P0003489	WOFH 2015 Walipahu Recircult	0%	15,314	-	(2,108)	-	-
P0003509	Oklimoto Corporation 93-B1	0%	(378)	-	(270)	-	-
P0003510	SMB I LLC 168-04	0%	(620)	-	(449)	-	-
P0003512	Electromech Relay Upgrades	0%	(1,148)	-	(871)	-	-
P0003525	Waiau-Wahiwawa Str 23	0%	(101)	-	(78)	-	-
P0003526	Waiau-Wahiwawa Str 24	0%	(87)	-	(68)	-	-
P0003535	AES 138kV P6A & P6B Replace	0%	(233)	-	(177)	-	-

P0003540	Dist SS Data Collection Pgm	0%	6,137	-	519	-	-
P0004400	Wahiawa-Waialua #2 Str 32	0%	1,168	-	(1,168)	-	-
P0004403	Waialu-Makalapa #1 Str 9 Repl	0%	(2,865)	-	(1,841)	-	-
P0004404	Waialu-Makalapa #1 Str 10 Repl	0%	(2,649)	-	(1,698)	-	-
P1081000	ED Capitalized Tools & Equip	100%	(254)	(254)	(142)	(142)	(396)
P1244000	Copiers/Faxes/Printers	100%	(142)	(142)	(105)	(105)	(247)
P1250000	Vehicle Purchases	57%	(6,044)	(3,445)	{3,720}	(2,120)	(5,565)
P1429000	PROG Misc Power Plant Adds	97%	(246)	(238)	(183)	(178)	(416)
P1470000	Minor Trans Sub Addns	85%	(18,216)	(15,484)	(114,593)	(97,404)	(112,888)
P1480000	Minor Dist Sub Addns	71%	(150,691)	(106,991)	(212,014)	(150,530)	(257,521)
P1500000	Comm & Control Program	76%	59,064	44,888	[38,437]	[29,212]	15,677
P1505000	SOD Mobile Radio Program	0%	2,127	-	(23)	-	-
P1510000	Misc OH Svc & Extn (CID)	59%	(60,630)	(35,771)	(86,827)	(51,228)	(87,000)
P1580000	Minor OH Dist Addn (CID)	90%	(102,676)	(92,409)	(111,639)	(100,475)	(192,884)
P1670000	P&I&Test Meters & Mtr Eq	100%	(119)	(119)	(80)	(80)	(199)
P1680000	Tsf & Equip Pur (CID)	100%	(9,079)	(9,079)	(5,942)	(5,942)	(15,021)
P1690000	Minor T&D Customer Programs	34%	(31,765)	(10,800)	(32,128)	(10,923)	(21,724)
P1700000	Misc UG Svc & Extn (CID)	69%	(123,137)	(84,965)	(364,471)	(251,485)	(336,449)
P1789000	Preventive OH Transf Repl	100%	(124,623)	(124,623)	(84,294)	(84,294)	(208,918)
P1793000	Preventive UG Transf Repl	100%	(181,627)	(181,627)	(299,277)	(299,277)	(480,904)
P1810000	Prev Misc Cable Failure Rpl	70%	3,618,848	2,533,194	93,970	65,779	2,598,973
P1820000	Minor UG Addns (CID)	80%	(116,489)	(93,192)	(184,592)	(147,673)	(240,865)
P1870000	PROG Power Station Misc	100%	5,160	5,160	(2,136)	(2,136)	3,024
P1990000	Minor T&D System Programs	59%	23,572	13,908	(180,651)	(106,584)	(92,676)
P3400000	Prev OH Dist Repl	100%	1,212,337	1,212,337	(752,329)	(752,329)	460,008
P3401000	Prev OH Subtrans Repl	94%	328,693	308,971	(174,282)	(163,825)	145,146
P3402000	Prev OH Trans Repl	100%	646,454	646,454	9,597	9,597	656,051
P9028000	Mobile Radio F1/F2 Replace	100%	(1,041)	(1,041)	(624)	(624)	(1,666)
Other				(91,046)	-	91,046	-
Total			10,573,489	8,523,240	(4,197,302)	(3,207,723)	5,315,517

Hawaiian Electric Company, Inc.
ED Clearing Change Impact to Removals
2014

A Project #	B Project Description	C Allocation	D ED Methodology Difference	E = C * D Impact of Col. C Difference	F Allocation of Clearings Difference	G = F * C 2014 Removals Impact of Col. I Difference	H = E + G Total Impact to 2014 Removals
P0000120	Corr (Inc Emg) OH Trsf Rpl	100%	(17,197)	(17,197)	(11,676)	(11,676)	(28,873)
P0000121	Corr (Inc Emg) UG Trsf Rpl	85%	4,249	3,611	(47,528)	(40,398)	(36,787)
P0000122	Cor (Inc Emg) Mis Cable Rpl	100%	(74,442)	(74,442)	(61,422)	(61,422)	(135,864)
P0000123	Corr (Inc Emg) OH Dist Rpl	100%	(94,530)	(94,530)	(67,614)	(67,614)	(162,144)
P0000124	Cor (Inc Emg) OH Subtrn Rpl	77%	(8,140)	(6,268)	(5,643)	(4,345)	(10,613)
P0000125	Cor (Inc Emg) OH Trans Rpl	100%	1,805	1,805	(532)	(532)	1,274
P0000505	Other Minor Gen Plt Addns	19%	(36)	(7)	(22)	(4)	(11)
P0000974	Ala Wai Canal 46kV U Reloc	0%	6,430	-	587	-	-
P0001492	Pukele 80MVA Tsf #2	100%	(4,725)	(4,725)	(9,189)	(9,189)	(13,914)
P0001507	Kaloi Sub 46kV & 12kV Distr	100%	(1,863)	(1,863)	(1,129)	(1,129)	(2,992)
P0001579	Kakaako Makai DOT Queen-Cook	100%	126	126	(1,089)	(1,089)	(963)
P0001648	Kahe-Halawa #2 138kV SW Repl	100%	4,312	4,312	(4,197)	(4,197)	115
P0001649	Kahe-Wahiawa 138kV SW Repl	100%	5,831	5,831	532	532	6,364
P0001667	Pukele Bkr #149 138KV P/I	100%	(5,673)	(5,673)	(4,843)	(4,843)	(10,516)
P0001675	Koolau Bkr 4484 46kV P/I	100%	(3,040)	(3,040)	(2,217)	(2,217)	(5,257)
P0001676	Pukele 46kV Bkr 4488 P/I	0%	(475)	-	(337)	-	-
P0001679	Kahe 138kV Bkr 249 P/I	100%	1,076	1,076	(2,869)	(2,869)	(1,793)
P0001690	Ironwoods - 12kV OH to UG	100%	(7,086)	(7,086)	(3,968)	(3,968)	(11,054)
P0001697	Keehi Circuits Reconnection	0%	(5,896)	-	(4,960)	-	-
P0001731	WOFH - Elec. Relocations	0%	(18)	-	(17)	-	-
P0001782	Kahe C&M Trailer (rep)	100%	(1,068)	(1,068)	(616)	(616)	(1,683)
P0001860	K5 Seal Air Dmpr Drv Replace	0%	(100)	-	(64)	-	-
P0001933	H0 H5 & 7 Removal	0%	(864)	-	(562)	-	-
P0002015	Koolau Tsft#2 80MVA Install	100%	(1,309)	(1,309)	(707)	(707)	(2,016)
P0002024	Mapunapuna #1 Tsf/Swg 10MVA Install	100%	(11,670)	(11,670)	(10,778)	(10,778)	(22,448)
P0002025	Koolau Bkr 4465 46kV Install	100%	(71)	(71)	(43)	(43)	(114)
P0002026	Koolau Bkr 4464 46kV Install	100%	(71)	(71)	(43)	(43)	(114)
P0002027	Koolau Bkr 4466 46kV Install	100%	(71)	(71)	(43)	(43)	(114)
P0002036	Hauula #1 Tsf/Swg 10MVA Install	100%	(5,925)	(5,925)	(5,613)	(5,613)	(11,538)
P0002038	Ena #3 Tsf/Swg 10MVA Install	100%	(240)	(240)	(320)	(320)	(559)
P0002039	Mililani #2 Tsf/Swg 10MVA Install	100%	396	396	36	36	432
P0002108	Kaneohe #1 Tsf/Swg 10MVA Install	100%	(19,137)	(19,137)	(13,616)	(13,616)	(32,753)
P0002109	Makalapa #2 Tsf/Swg 10MVA	100%	(6,435)	(6,435)	(6,991)	(6,991)	(13,426)
P0002110	Makaloa #3 Tsf/Swg 10MVA Install	100%	4,718	4,718	(4,848)	(4,848)	(131)
P0002111	Makaloa #4 Tsf/Swg 10MVA Install	100%	1,632	1,632	(6,161)	(6,161)	(4,529)
P0002131	W0 Waiau Units 1 & 2 Removal	0%	(1,834)	-	(1,089)	-	-
P0002246	Waialua Tsf #3 T&D Work	0%	(532)	-	(310)	-	-
P0002271	Halekauwila 4kV Conv Sub	0%	(237)	-	(134)	-	-
P0002377	Hon-Sch 2 46kV Cable	0%	(2,639)	-	(2,539)	-	-
P0002548	Whitmore 12kV Ckt Upgrade	100%	(3,011)	(3,011)	(1,706)	(1,706)	(4,717)
P0002595	Iwilei T1 & T2 Removal	100%	(1,969)	(1,969)	(4,592)	(4,592)	(6,562)
P0002600	Ward Cable Entrance	100%	1,924	1,924	176	176	2,099
P0002605	Kahe-Wahiawa SW Install 2	100%	(10)	(10)	(10)	(10)	(20)
P0002606	Kahe-Wahiawa SW Install 3	0%	5,990	-	(1,068)	-	-
P0002608	Kahe-Halawa #2 SW Install 2	0%	832	-	76	-	-
P0002610	Koolau-Pukele #2 Str 5 P/I	100%	5,183	5,183	473	473	5,656
P0002611	Koolau-Pukele #2 Str 7 P/I	100%	5,824	5,824	532	532	6,355
P0002612	Koolau-Pukele #2 Str 9 P/I	100%	3,304	3,304	302	302	3,606
P0002613	Koolau-Pukele #2 Str 10 P/I	100%	2,270	2,270	207	207	2,478
P0002614	Koolau-Pukele #2 Str 11 P/I	100%	5,854	5,854	535	535	6,389
P0002615	Koolau-Pukele #1 Str 17 P/I	100%	3,067	3,067	280	280	3,347

P0002616	Koolau-Pukele #1 Str 19 P/I	100%	7,862	7,862	718	718	8,580
P0002623	Kah-Hal2/Kah-Wah Str #5 P/I	100%	2,880	2,880	263	263	3,143
P0002624	Kah-Hal2/Kah-Wah Str #6 P/I	100%	2,747	2,747	251	251	2,998
P0002628	Kah-Hal2/Kah-Wah Str #10 P/I	100%	5,451	5,451	498	498	5,949
P0002633	Kah-Hal2/Kah-Wah Str #15 P/I	100%	2,180	2,180	199	199	2,379
P0002637	Kah-Hal2/Kah-Wah Str #18 P/I	100%	6,232	6,232	569	569	6,801
P0002638	Kah-Hal2/Kah-Wah Str #19 P/I	100%	2,950	2,950	269	269	3,220
P0002639	Kah-Hal2/Kah-Wah Str #20 P/I	100%	2,039	2,039	186	186	2,225
P0002640	Kah-Hal2/Kah-Wah Str #21 P/I	100%	2,115	2,115	193	193	2,308
P0002643	Kah-Hal2/Kah-Wah Str #25 P/I	100%	4,492	4,492	410	410	4,902
P0002644	Kah-Hal2/Kah-Wah Str #50 P/I	100%	17,089	17,089	1,560	1,560	18,650
P0002734	W7 GCRTU Upgrade	0%	8	-	1	-	-
P0002759	Triplr FbrSpur&Mux-Hal-Schl	100%	(659)	(659)	(497)	(497)	(1,155)
P0002771	Koolau-Pukele #2 Str 6 P/I	100%	4,458	4,458	407	407	4,865
P0002772	Koolau-Pukele #2 Str 8 P/I	100%	3,511	3,511	321	321	3,831
P0002823	Granger/Prism Replacement	100%	(62)	(62)	(117)	(117)	(179)
P0002824	Alcatel Sonet	100%	(193)	(193)	(119)	(119)	(312)
P0002872	Kah-Hal2/Kah-Wah Str #2 P/I	100%	5,237	5,237	478	478	5,715
P0002878	WK1/Wai-Wah1 Str #13 P/I	0%	200	-	18	-	-
P0002883	Hale Mohalu II 46kV OH Reloc	100%	(1,228)	(1,228)	(851)	(851)	(2,078)
P0002902	KAHIPA SUB REBUILD SS	0%	(1,003)	-	(633)	-	-
P0002932	Kunia Rd Improvements	100%	711	711	65	65	776
P0002955	WAIAU 46KV BUS LOAD RELIEF	100%	(214)	(214)	(140)	(140)	(354)
P0002982	Kah-Hal2 Str #76 P/I	100%	344	344	31	31	375
P0002983	Kah-Hal2 Str #77 P/I	100%	263	263	24	24	287
P0002984	Kah-Hal2 Str #78 P/I	100%	756	756	69	69	825
P0002988	Kah-Hal2 Str #107 P/I	100%	32	32	3	3	35
P0002989	Kah-Hal2/Kah-Wah Str #35 P/I	100%	(2,182)	(2,182)	(1,740)	(1,740)	(3,921)
P0002990	Kah-Hal2/Kah-Wah Str #45 P/I	100%	267	267	24	24	292
P0002991	Kah-Hal2/Kah-Wah Str #53 P/I	100%	399	399	36	36	436
P0002992	Kah-Hal2/Kah-Wah Str #28 P/I	100%	(2,177)	(2,177)	(1,539)	(1,539)	(3,716)
P0002993	Kah-Hal2/Kah-Wah Str #29 P/I	100%	(1,612)	(1,612)	(1,236)	(1,236)	(2,848)
P0002994	Kah-Hal2/Kah-Wah Str #30 P/I	100%	(2,524)	(2,524)	(1,821)	(1,821)	(4,346)
P0002995	Kah-Hal2/Kah-Wah Str #31 P/I	100%	(2,196)	(2,196)	(1,540)	(1,540)	(3,736)
P0002996	Kah-Hal2/Kah-Wah Str #32 P/I	100%	(5,725)	(5,725)	(4,015)	(4,015)	(9,740)
P0002997	Kah-Hal2/Kah-Wah Str #33 P/I	100%	(2,601)	(2,601)	(1,996)	(1,996)	(4,597)
P0002998	Kah-Hal2/Kah-Wah Str #34 P/I	100%	(2,334)	(2,334)	(1,814)	(1,814)	(4,148)
P0002999	Kah-Hal2/Kah-Wah Str #36 P/I	100%	(4,197)	(4,197)	(3,008)	(3,008)	(7,205)
P0003000	Kah-Hal2/Kah-Wah Str #37 P/I	100%	(2,601)	(2,601)	(1,934)	(1,934)	(4,535)
P0003001	Kah-Hal2/Kah-Wah Str #38 P/I	100%	70	70	6	6	76
P0003002	Kah-Hal2/Kah-Wah Str #39 P/I	100%	129	129	12	12	141
P0003003	Kah-Hal2/Kah-Wah Str #40 P/I	100%	300	300	27	27	327
P0003005	Kah-Hal2/Kah-Wah Str #42 P/I	100%	196	196	18	18	214
P0003006	Kah-Hal2/Kah-Wah Str #43 P/I	100%	278	278	25	25	303
P0003007	Kah-Hal2/Kah-Wah Str #44 P/I	100%	285	285	26	26	311
P0003008	Kah-Hal2/Kah-Wah Str #46 P/I	100%	(2,688)	(2,688)	(2,108)	(2,108)	(4,797)
P0003009	Kah-Hal2/Kah-Wah Str #47 P/I	100%	(3,549)	(3,549)	(2,684)	(2,684)	(6,234)
P0003010	Kah-Hal2/Kah-Wah Str #48 P/I	100%	(4,489)	(4,489)	(3,395)	(3,395)	(7,884)
P0003011	Kah-Hal2/Kah-Wah Str #49 P/I	100%	(3,880)	(3,880)	(2,904)	(2,904)	(6,785)
P0003012	Kah-Hal2/Kah-Wah Str #52 P/I	100%	(42)	(42)	(29)	(29)	(71)
P0003013	Kah-Hal2/Kah-Wah Str #54 P/I	100%	53	53	(87)	(87)	(34)
P0003014	Kah-Hal2/Kah-Wah Str #55 P/I	100%	4,688	4,688	428	428	5,116
P0003015	Kah-Hal2/Kah-Wah Str #67 P/I	100%	(3,462)	(3,462)	(2,280)	(2,280)	(5,742)
P0003016	Kah-Hal2/Kah-Wah Str #68 P/I	100%	(1,958)	(1,958)	(1,253)	(1,253)	(3,211)
P0003017	Kah-Hal2/Kah-Wah Str #69 P/I	100%	(2,137)	(2,137)	(1,473)	(1,473)	(3,610)
P0003032	Wahiawa-Waialua 46kV P523	100%	(1,690)	(1,690)	(1,123)	(1,123)	(2,813)
P0003033	Wahiawa-Waialua 46kV P532	100%	(1,574)	(1,574)	(1,052)	(1,052)	(2,627)
P0003077	Diamond Head 4kV Conv T&D	100%	(1,965)	(1,965)	(2,377)	(2,377)	(4,342)
P0003207	Kah-Wah 138kV Conductor Ph 2	0%	(19,959)	-	(16,082)	-	-
P0003208	Kah-Wah 138kV Conductor Ph 3	0%	(3,744)	-	(3,227)	-	-
P0003211	Kah-Hal #2 138kV Cond Ph2	0%	(20,065)	-	(15,769)	-	-

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P0003212	Kah-Hal #2 138kV Cond Ph3	0%	(3,198)	-	(2,906)	-	-
P0003233	Waiau Substation Lighting	100%	(446)	(446)	(353)	(353)	(799)
P0003237	KPY DG Removal	0%	(3,624)	-	(2,246)	-	-
P0003238	Pearl City Substn-Unit1 Repl	100%	(4,959)	(4,959)	(6,129)	(6,129)	(11,087)
P0003257	Iwilei DG Removal	0%	(3,849)	-	(2,443)	-	-
P0003400	Kahe-Halawa #2 SW Install 4	0%	(34)	-	(35)	-	-
P0003418	Ewa Beach #1 Emergency Repla	100%	11,203	11,203	1,023	1,023	12,226
P1470000	Minor Trans Sub Addns	85%	(6,083)	(5,170)	(7,049)	(5,991)	(11,161)
P1480000	Minor Dist Sub Addns	71%	(14,405)	(10,227)	(15,499)	(11,005)	(21,232)
P1500000	Comm & Control Program	76%	1,469	1,116	(335)	(255)	862
P1510000	Misc OH Svc & Extn (CID)	59%	(26,190)	(15,452)	(19,752)	(11,653)	(27,106)
P1580000	Minor OH Dist Addn (CID)	90%	(62,757)	(56,481)	(39,668)	(35,701)	(92,182)
P1670000	P&I/Test Meters & Mtr Eq	100%	-	-	-	-	-
P1690000	Minor T&D Customer Programs	34%	(2,299)	(782)	(2,549)	(867)	(1,648)
P1700000	Misc UG Svc & Extn (CID)	69%	(40,165)	(27,714)	(33,595)	(23,180)	(50,894)
P1789000	Preventive OH Transf Repl	100%	(54,942)	(54,942)	(35,727)	(35,727)	(90,669)
P1793000	Preventive UG Transf Repl	100%	(124,425)	(124,425)	(92,610)	(92,610)	(217,036)
P1810000	Prev Misc Cable Failure Rpl	70%	492,146	344,503	2,782	1,948	346,450
P1820000	Minor UG Addns (CID)	80%	(47,367)	(37,893)	(34,677)	(27,741)	(65,635)
P1870000	PROG Power Station Misc	100%	(125)	(125)	(76)	(76)	(200)
P1990000	Minor T&D System Programs	59%	(33,598)	(19,823)	(25,354)	(14,959)	(34,782)
P3400000	Prev OH Dist Repl	100%	(63,769)	(63,769)	(246,775)	(246,775)	(310,544)
P3401000	Prev OH Subtrans Repl	94%	(67,633)	(63,575)	(57,356)	(53,914)	(117,489)
P3402000	Prev OH Trans Repl	100%	169,471	169,471	14,266	14,266	183,736
			(125,556)	(154,300)	(966,137)	(854,223)	(1,008,522)

Hawaiian Electric Company, Inc.

Gross CAPEX

Gross Plant Adds

Project > Project Type / Project	Total	Project > Project Type / Project	Total	Percent
	2014		2014	
Program: Program		Program: Program		
P0000120: Corr (Inc Emg) OH Trsf Rpl	360,752	P0000120: Corr (Inc Emg) OH Trsf Rpl	371,330	100%
P0000121: Corr (Inc Emg) UG Trsf Rpl	486,736	P0000121: Corr (Inc Emg) UG Trsf Rpl	415,987	85%
P0000122: Cor (Inc Emg) Mis Cable Rpl	5,398,508	P0000122: Cor (Inc Emg) Mis Cable Rpl	8,766,861	100%
P0000123: Corr (Inc Emg) OH Dist Rpl	2,104,431	P0000123: Corr (Inc Emg) OH Dist Rpl	2,605,402	100%
P0000124: Cor (Inc Emg) OH Subtrn Rpl	172,887	P0000124: Cor (Inc Emg) OH Subtrn Rpl	132,348	77%
P0000125: Cor (Inc Emg) OH Trans Rpl	20,360	P0000125: Cor (Inc Emg) OH Trans Rpl	73,452	100%
P0000500: Misc Office Furniture	121,074	P0000500: Misc Office Furniture	121,074	100%
P0000501: Misc Office Equipment	21,238	P0000501: Misc Office Equipment	21,238	100%
P0000502: Waiau Minor Gen Addns	80,796	P0000502: Waiau Minor Gen Addns	83,877	100%
P0000503: Ward Ave Minor Addns	203,062	P0000503: Ward Ave Minor Addns	319,665	100%
P0000504: King St Minor Addns	6,774			0%
P0000505: Other Minor Gen Plt Addns	162,889	P0000505: Other Minor Gen Plt Addns	30,234	19%
P0000652: IT Infrastructure	5,234,548	P0000652: IT Infrastructure	5,234,548	100%
P0000653: Collaborative Communications	197,465	P0000653: Collaborative Communications	197,465	100%
P0000692: CSD Technical Support Prgrm	3,457	P0000692: CSD Technical Support Prgrm	3,457	100%
P0000733: Trns Sub RTU Migration Pgm	58,937	P0000733: Trns Sub RTU Migration Pgm	327,098	100%
P0001309: Net Energy Metering	1,077,281	P0001309: Net Energy Metering	1,077,281	100%
P0001529: Power Supply - Capital Tools	772,207	P0001529: Power Supply - Capital Tools	772,207	100%
P0001720: Purch, Inst, & Test AMI Metr	1,647	P0001720: Purch, Inst, & Test AMI Metr	1,647	100%
P0001857: Environmenta - Capital Tools	103,368	P0001857: Environmenta - Capital Tools	103,368	100%
P0001958: FUELS - Cap Fuels Infras	87,283	P0001958: FUELS - Cap Fuels Infras	19,290	22%
P0001959: FUELS - Capital Tools	7,947	P0001959: FUELS - Capital Tools	7,947	100%
P0002193: C&M Misc Equipment	60,621	P0002193: C&M Misc Equipment	60,621	100%
P0002216: AED Upgrade Replacement	2,811	P0002216: AED Upgrade Replacement	439,206	100%
P0002304: New Vehicle Purchases	3,414,656	P0002304: New Vehicle Purchases	2,041,528	60%
P0002368: Smart Grid FCI Overhead	2,370,307	P0002368: Smart Grid FCI Overhead	2,428,349	100%
P0002387: Misc Tools for SSF	6,422	P0002387: Misc Tools for SSF	6,422	100%
P0002434: ESED Tools and Equipment	33,977	P0002434: ESED Tools and Equipment	33,977	100%
P0002439: CORR UG SVC CONNECTIONS	3,707,077	P0002439: CORR UG SVC CONNECTIONS	4,997,744	100%
P0002487: SPT SVCS E&W OP ACT	12,898	P0002487: SPT SVCS E&W OP ACT	12,898	100%
P0002530: Customer Education	9,236	P0002530: Customer Education	9,236	100%
P0002558: Smart Grid Loop Schemes	81,167			
P0002559: Smart Grid FCI Underground	18,140			
P0002711: Facilities-Pwr Sup	40,246	P0002711: Facilities-Pwr Sup	40,246	100%
P0002712: Facilities-Govt & CA	3,746	P0002712: Facilities-Govt & CA	3,746	100%
P0002713: Facilities-SysOp & Plng	70	P0002713: Facilities-SysOp & Plng	70	100%
P0002714: Facilities-CIO	19,880	P0002714: Facilities-CIO	19,880	100%
P0002797: Facilities-En Del	73,449	P0002797: Facilities-En Del	73,449	100%
P0002798: Facilities-CFO	33,386	P0002798: Facilities-CFO	33,386	100%
P0002939: Facilities-Corp Svcs	52,685	P0002939: Facilities-Corp Svcs	52,685	100%
P0002942: Facilities-Gen Counsel	1,162	P0002942: Facilities-Gen Counsel	1,162	100%
P0002943: Facilities-Cust Svc	9,800	P0002943: Facilities-Cust Svc	9,800	100%
P0003326: Facilities - Systm Operation	16,399	P0003326: Facilities - Systm Operation	16,399	100%
P0003434: Feeder Meter Inst Dist Subs	1,176,856	P0003434: Feeder Meter Inst Dist Subs	940,659	80%
P0003435: Batt Monitor Inst - Dist Sub	584,959			
P0003470: LTC Upgrades Dist Subs	173,386	P0003470: LTC Upgrades Dist Subs	173,386	100%
P0003512: Electromech Relay Upgrades	8,340			
P0003540: Dist SS Data Collection Pgm	40,058			
P1081000: ED Capitalized Tools & Equip	1,644,840	P1081000: ED Capitalized Tools & Equip	1,644,840	100%
P1243000: Client Computing	1,446,778	P1243000: Client Computing	1,446,778	100%
P1244000: Copiers/Faxes/Printers	148,154	P1244000: Copiers/Faxes/Printers	148,154	100%
P1250000: Vehicle Purchases	4,639,145	P1250000: Vehicle Purchases	2,640,643	57%
P1251000: Misc Tel Eqpt NT	618,962	P1251000: Misc Tel Eqpt NT	618,962	100%
P1370000: Distr R/W Purch (Blanket)	447,125	P1370000: Distr R/W Purch (Blanket)	447,125	100%
P1373000: 46kv R/W Purch (blanket)	7,605	P1373000: 46kv R/W Purch (blanket)	7,605	100%
P1429000: PROG Misc Power Plant Adds	1,815,640	P1429000: PROG Misc Power Plant Adds	1,770,033	97%

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P1470000: Minor Trans Sub Addns	3,198,139	P1470000: Minor Trans Sub Addns	2,724,885	85%
P1480000: Minor Dist Sub Addns	2,810,842	P1480000: Minor Dist Sub Addns	1,994,327	71%
P1500000: Comm & Control Program	1,589,314	P1500000: Comm & Control Program	1,204,751	76%
P1505000: SOD Mobile Radio Program	202,883			
P1510000: Misc OH Svc & Extn (CID)	2,387,334	P1510000: Misc OH Svc & Extn (CID)	1,401,786	59%
P1580000: Minor OH Dist Addn (CID)	3,053,961	P1580000: Minor OH Dist Addn (CID)	2,750,874	90%
P1670000: P&I&Test Meters & Mtr Eq	1,073,139	P1670000: P&I&Test Meters & Mtr Eq	1,073,139	100%
P1680000: Tsf & Equip Pur (CID)	9,732,621	P1680000: Tsf & Equip Pur (CID)	9,732,621	100%
P1690000: Minor T&D Customer Programs	682,567	P1690000: Minor T&D Customer Program	229,623	34%
P1700000: Misc UG Svc & Extn (CID)	11,829,950	P1700000: Misc UG Svc & Extn (CID)	8,111,013	69%
P1789000: Preventive OH Transf Repl	869,675	P1789000: Preventive OH Transf Repl	871,515	100%
P1793000: Preventive UG Transf Repl	5,310,965	P1793000: Preventive UG Transf Repl	5,344,878	100%
P1810000: Prev Misc Cable Failure Rpl	31,773,820	P1810000: Prev Misc Cable Failure Rpl	22,093,593	70%
P1820000: Minor UG Addns (CID)	4,719,406	P1820000: Minor UG Addns (CID)	3,793,139	80%
P1870000: PROG Power Station Misc	733,646	P1870000: PROG Power Station Misc	782,398	100%
P1990000: Minor T&D System Programs	5,011,840	P1990000: Minor T&D System Programs	2,974,632	59%
P3400000: Prev OH Dist Repl	25,957,332	P3400000: Prev OH Dist Repl	26,090,466	100%
P3401000: Prev OH Subtrans Repl	6,362,872	P3401000: Prev OH Subtrans Repl	5,961,432	94%
P3402000: Prev OH Trans Repl	4,786,554	P3402000: Prev OH Trans Repl	8,384,408	100%
P4150000: Monitoring Services	5,865	P4150000: Monitoring Services	5,865	100%
Total: Program: Program	161,496,360	Total: Program: Program	146,330,110	

Hawaiian Electric Company, Inc.
PS Clearing Change Impact to Plant Additions
2014

A	B	C	D	E = C * D	F	G = F * C	H = E + G
Project #	Project Description	Allocation	PS Methodology Difference	2014 Plant Additions Impact of Col D Difference	Allocation of Clearings Difference	2014 Plant Additions Impact of Col F Difference	Total Impact to 2014 Plant Additions
P0000086	W0 Waiau WW Oil Detectors	100%	(47)	(47)	(18)	(18)	(65)
P0000096	W7 Sootblower Ctls Upg	0%	(62)	-	(33)	-	-
P0000199	K3 Kahe FWH 34 Replace	0%	29,075	-	(893)	-	-
P0000210	W5 Cycle Chem Instr.	100%	(434)	(434)	(140)	(140)	(574)
P0000314	W7 APH Sootblower Upgrade	0%	(56)	-	(16)	-	-
P0000315	W7 Air Htr Steam Coils	100%	(154)	(154)	(44)	(44)	(198)
P0000316	W8 Air Htr Steam Coils	100%	220	220	(1)	(1)	219
P0000453	W0 Waiau Pond Sheetpiling	100%	(2,545)	(2,545)	(759)	(759)	(3,304)
P0000467	K3&4 Instr Air Compressors	100%	(681)	(681)	(297)	(297)	(978)
P0000468	K5&6 Instr Air Compressors	100%	(924)	(924)	(434)	(434)	(1,359)
P0000497	W0 Walau WW Pond Closure	0%	(7)	-	(2)	-	-
P0000502	Waiau Minor Gen Addns	100%	(1,163)	(1,163)	(287)	(287)	(1,450)
P0000635	K1 Elec Brkr Rm Ventilation	0%	53	-	(0)	-	-
P0000652	IT Infrastructure	100%	(851)	(851)	(232)	(232)	(1,083)
P0000665	W0 Waiau Parking Lot Add	0%	(6)	-	(1)	-	-
P0000677	W7/8 Overhead Utilities	100%	205	205	(2)	(2)	202
P0000680	W0 Waiau Waste Oil Recover	0%	(5)	-	(2)	-	-
P0000798	W6 Instr Air Compr	100%	244	244	(4)	(4)	240
P0000810	W7 Annunciator Replacement	100%	8,034	8,034	(89)	(89)	7,946
P0000811	W8 Annunciator Replacement	100%	6,410	6,410	(47)	(47)	6,363
P0000816	W5 Exciter/Regulator Replace	100%	1,467	1,467	(8)	(8)	1,459
P0000859	H9 Annunciator Replacement	100%	3,001	3,001	(16)	(16)	2,984
P0000895	H8 Main Xfmr Replacement	100%	(32)	(32)	(10)	(10)	(42)
P0000900	BPT Tank 133 Improvements	100%	401,750	401,750	(3,773)	(3,773)	397,977
P0000954	K2 BFP 22 Rotating Assembly	100%	42,568	42,568	(1,147)	(1,147)	41,421
P0000956	W0 WWTF Chem Feed Upgrades	100%	1,388	1,388	(50)	(50)	1,338
P0000981	K5/6 Brkr Deck AC	0%	(15)	-	(4)	-	-
P0000982	W3&4 Elevator Modernization	100%	1,818	1,818	(14)	(14)	1,804
P0000993	K0 Kahe WWTF PLC Upgrade	0%	53	-	(0)	-	-
P0001141	W3 Waiau 3 Blowoff Tank	100%	(4,333)	(4,333)	(1,341)	(1,341)	(5,674)
P0001142	W4 Waiau 4 Blowoff Tank	100%	(1,088)	(1,088)	(323)	(323)	(1,410)
P0001198	K6 Hydrogen Gas Dryer	100%	247	247	(2,469)	(2,469)	(2,222)
P0001206	K2 Turbine Drains	100%	8,258	8,258	(5,551)	(5,551)	2,707
P0001207	K3 Turbine Drains	0%	(948)	-	(222)	-	-
P0001209	K5 Turbine Drains	0%	(7)	-	(2)	-	-
P0001210	K6 Turbine Drains	0%	(14)	-	(4)	-	-
P0001217	W7 Turbine Drains	100%	(93)	(93)	(24)	(24)	(117)
P0001232	K5 FWH 51 Press/Temp Instr	100%	(59)	(59)	(14)	(14)	(72)
P0001233	K5 FWH 52 Press/Temp Instr	100%	(79)	(79)	(22)	(22)	(101)
P0001235	K5 FWH 54 Press/Temp Instr	100%	(91)	(91)	(22)	(22)	(113)
P0001236	K5 FWH 55 Press/Temp Instr	100%	(55)	(55)	(14)	(14)	(69)
P0001237	K5 FWH 56 Press/Temp Instr	100%	(32)	(32)	(8)	(8)	(40)
P0001238	K6 FWH 61 Press/Temp Instr	0%	57	-	(69)	-	-
P0001239	K6 FWH 62 Press/Temp Instr	0%	71	-	(41)	-	-
P0001241	K6 FWH 65 Press/Temp Instr	0%	76	-	(39)	-	-
P0001242	K6 FWH 66 Press/Temp Instr	0%	76	-	(39)	-	-
P0001246	K5 Process Parameter Monitor	100%	(88)	(88)	(23)	(23)	(111)
P0001247	H8 Process Parameter Monitor	100%	7,630	7,630	(158)	(158)	7,473
P0001248	H9 Process Parameter Monitor	100%	2,232	2,232	(24)	(24)	2,208
P0001254	W0 Waiau Tank #3 Lvl Gauge	0%	(4,911)	-	(2,140)	-	-
P0001333	H8 UPS Panel Upgrade	100%	2,550	2,550	(14)	(14)	2,536
P0001370	DOT Airport DSG	100%	(930)	(930)	(392)	(392)	(1,322)
P0001392	W0 WWTF Filter Press	100%	153	153	(454)	(454)	(301)
P0001393	W0 WWTF Misc Upgrades	100%	1,127	1,127	(16)	(16)	1,111
P0001419	W5 TSI Upgrade	100%	(334)	(334)	(110)	(110)	(443)

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P0001430	H8 UPS Upgrade	100%	2,540	2,540	(16)	(16)	2,524
P0001451	W5 FWH 51 Instrumentation	100%	16	16	(9)	(9)	6
P0001452	W5 FWH 53 Instrumentation	100%	101	101	(1)	(1)	101
P0001454	W5 FWH 55 Instrumentation	100%	80	80	(6)	(6)	75
P0001463	W7 FWH 71 Instrumentation	100%	(208)	(208)	(83)	(83)	(291)
P0001465	W7 FWH 73 Instrumentation	100%	(208)	(208)	(83)	(83)	(291)
P0001470	K6 Turbine Controls Upgrade	0%	(192)	-	(59)	-	-
P0001529	Power Supply - Capital Tools	100%	68,664	68,664	(445)	(445)	68,219
P0001576	SG-Schofield Generation Station	0%	48,080	-	(3,947)	-	-
P0001621	K3 Service Water Strainer	0%	438	-	(2)	-	-
P0001625	K3 Exciter Air Conditioning	0%	438	-	(2)	-	-
P0001626	W5 Repl H2 Purity Meter	100%	(83)	(83)	(38)	(38)	(121)
P0001628	W7 Repl H2 Purity Meter	100%	61	61	(0)	(0)	60
P0001629	W8 Repl H2 Purity Meter	100%	(141)	(141)	(48)	(48)	(188)
P0001633	K5 Repl H2 Purity Meter	100%	(54)	(54)	(21)	(21)	(75)
P0001634	K6 Repl H2 Purity Meter	100%	6,861	6,861	(2,441)	(2,441)	4,420
P0001652	K1 Turb-Gen Brg Fire Protect	100%	109	109	(448)	(448)	(339)
P0001653	K2 Turb-Gen Brg Fire Protect	100%	15,007	15,007	(911)	(911)	14,096
P0001654	K3 Turb-Gen Brg Fire Protect	0%	943	-	(206)	-	-
P0001655	K4 Turb-Gen Brg Fire Protect	100%	15,709	15,709	(684)	(684)	15,026
P0001656	K5 Turb-Gen Brg Fire Protect	100%	(8)	(8)	(2)	(2)	(10)
P0001657	W5 Turb-Gen Brg Fire Protect	100%	16,157	16,157	(672)	(672)	15,485
P0001721	H8 MCC Replacement	100%	57	57	(4)	(4)	53
P0001722	H9 MCC Replacement	100%	4,803	4,803	(26)	(26)	4,777
P0001723	K2 21 Traveling Screen	100%	(1,916)	(1,916)	(922)	(922)	(2,838)
P0001766	K2 Turbine Protection Upgrade	100%	(7,288)	(7,288)	(11,864)	(11,864)	(19,152)
P0001768	W6 Turbine Protection Upgrade	0%	(7)	-	(2)	-	-
P0001769	W7 Turbine Protection Upgrade	0%	121	-	(1)	-	-
P0001772	W8 Hot Reheat Line Repl.	100%	213	213	(1)	(1)	212
P0001773	W5/W6 Battery Bank Separation	100%	1,101	1,101	(105)	(105)	996
P0001776	K1 TSI Upgrade	100%	224	224	(1)	(1)	223
P0001777	K2 TSI Upgrade	100%	5,162	5,162	(5,707)	(5,707)	(545)
P0001779	K5 TSI Upgrade	100%	(632)	(632)	(195)	(195)	(827)
P0001780		0%	(1,053)	-	(434)	-	-
P0001793	K3 31Aux Clg Hx Replacement	0%	308	-	(26)	-	-
P0001794	K4 32Aux Clg Hx Replacement	100%	(7)	(7)	(2)	(2)	(9)
P0001795	K5 51Aux Clg Hx Replacement	0%	1,550	-	(77)	-	-
P0001796	K6 52Aux Clg Hx Replacement	100%	32	32	(639)	(639)	(607)
P0001798	W5/6 Emergency Generator Upg	100%	(614)	(614)	(222)	(222)	(836)
P0001799	W7/8 Emergency Generator Upg	100%	(1,018)	(1,018)	(543)	(543)	(1,562)
P0001800	K5 Emergency Generator Upgra	100%	493	493	(34)	(34)	459
P0001801	K6 Emergency Generator Upgra	100%	246	246	(233)	(233)	13
P0001802	W6 TSI Ugrade	100%	498	498	(5)	(5)	493
P0001861	K6 Seal Air Dmpr Drv Replace	100%	(676)	(676)	(973)	(973)	(1,649)
P0001884	K6 HP FWH AMS Install	100%	(1,752)	(1,752)	(599)	(599)	(2,351)
P0001885	K5 HP FWH AMS Install	100%	(130)	(130)	(34)	(34)	(164)
P0001888	K2 HP FWH AMS Install	100%	(3,300)	(3,300)	(882)	(882)	(4,183)
P0001890	W6 HP FWH AMS Install	100%	40	40	(4)	(4)	36
P0001891	W5 HP FWH AMS Install	100%	(77)	(77)	(20)	(20)	(97)
P0001938	W8 UPS Upgrade	100%	114	114	(37)	(37)	77
P0001958	FUELS - Cap Fuels Infras	22%	1,427	314	(643)	(141)	173
P0001959	FUELS - Capital Tools	100%	665	665	(4)	(4)	662
P0001979	BPT Kalaeloa Pipeline	0%	(88)	-	(23)	-	-
P0002017	K0 Demin - HMI Addition	0%	62	-	(450)	-	-
P0002018	K0 Demin - System Split	0%	(1,148)	-	(1,799)	-	-
P0002114	Honolulu Bkr 4555 46kV Install	0%	(3)	-	(1)	-	-
P0002115	Honolulu Bkr 4561 46kV Install	0%	(3)	-	(1)	-	-
P0002153	WO Waiau FOT 4/5 Drainage	100%	(489)	(489)	(1,273)	(1,273)	(1,762)
P0002217	WO CWP Lube Water System	100%	656	656	(13)	(13)	643
P0002256	K2 FWH #22 REPLACEMENT	100%	37,198	37,198	(4,476)	(4,476)	32,722
P0002267	K2 FWH #21 REPLACEMENT	100%	37,585	37,585	(4,116)	(4,116)	33,469
P0002400	Kahē Maint Trailer	100%	(5,349)	(5,349)	(1,349)	(1,349)	(6,698)
P0002428	KPP Trailer Consolidation	100%	(3,903)	(3,903)	(1,030)	(1,030)	(4,933)
P0002433	W4 42 BFP Rot Assembly Repl	100%	6,607	6,607	(42)	(42)	6,565
P0002435	W5 Annunciator Replacement	100%	7,206	7,206	(194)	(194)	7,012

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P0002436	K1 Feedwater Regulator Valve	100%	(9)	(9)	(2)	(2)	(11)
P0002449	H8 Repl H2 Purity Meter	100%	(36)	(36)	(8)	(8)	(44)
P0002465	H9 Repl H2 Purity Meter	100%	(4)	(4)	(1)	(1)	(5)
P0002477	CIP1 Air Purge System	100%	(50)	(50)	(14)	(14)	(64)
P0002500	K0 Demin Anion Tank 1B	100%	1,468	1,468	(8)	(8)	1,460
P0002515	K4 FWH 44 Replacement	0%	31,668	-	(886)	-	-
P0002516	K3 FWH 35 Replacement	0%	31,446	-	(950)	-	-
P0002522	W5 MCC Replacement	100%	10	10	(43)	(43)	(33)
P0002557	W0 Raw Water Piping	100%	(9,589)	(9,589)	(3,893)	(3,893)	(13,482)
P0002596	WS SFOP Disch FT Replacement	100%	(62)	(62)	(25)	(25)	(87)
P0002635	CIP1 1st Row Vane Repl	100%	45,577	45,577	(1,235)	(1,235)	44,342
P0002683	WPP Maintenance Bldg Expans	100%	(93)	(93)	(22)	(22)	(115)
P0002707	K0 Maintenance Trailer	100%	(750)	(750)	(255)	(255)	(1,005)
P0002727	K1&2 Elevator Replacement	0%	33,222	-	(1,695)	-	-
P0002729	K3 GCRTU Upgrade	0%	1,224	-	(284)	-	-
P0002730	K4 GCRTU Upgrade	0%	776	-	(90)	-	-
P0002731	K6 GCRTU Upgrade	100%	27,911	27,911	(4,491)	(4,491)	23,420
P0002814	W7 MATS Compliance	0%	10,242	-	(314)	-	-
P0002816	K1 MATS Compliance	100%	54,667	54,667	(7,502)	(7,502)	47,164
P0002817	K2 MATS Compliance	0%	8,066	-	(420)	-	-
P0002818	K5 MATS Compliance	100%	15,841	15,841	(7,001)	(7,001)	8,840
P0002829	PP Comm-CIP	100%	(97)	(97)	(25)	(25)	(122)
P0002830	PP Comm-Kahe	100%	(412)	(412)	(115)	(115)	(528)
P0002831	K3 MATS Compliance	0%	50,913	-	(4,341)	-	-
P0002832	K4 MATS Compliance	0%	(781)	-	(214)	-	-
P0002833	W0 MATS Compliance - Berm	0%	(415)	-	(118)	-	-
P0002834	K0 MATS Compliance - Berm	0%	(274)	-	(81)	-	-
P0002835	0%	(234)	-	(68)	-	-	-
P0002870	W9 Controls Upgrade	100%	4,735	4,735	(19,219)	(19,219)	(14,484)
P0002871	W10 Controls Upgrade	0%	7,596	-	(3,470)	-	-
P0002877	W0-Waiau Maintenance Shop PV	100%	(17)	(17)	(6)	(6)	(23)
P0002880	W0 MATS Compliance - Pump/Pipe	100%	(90)	(90)	(71)	(71)	(161)
P0002884	W9 Inlet Ducting Replacement	100%	2,759	2,759	(4,669)	(4,669)	(1,910)
P0002885	W10 Inlet Ducting Replacement	0%	8,014	-	(985)	-	-
P0002886	W5 Feedwater Regulator Valve	0%	8,734	-	(681)	-	-
P0002887	W6 Feedwater Regulator Valve	0%	7,850	-	(652)	-	-
P0002888	W7 Feedwater Regulator Valve	0%	(2,753)	-	(768)	-	-
P0002890	H8 82 Traveling Screen	100%	(320)	(320)	(81)	(81)	(402)
P0002929	K0-Kahe Utility Scale PV	0%	84,640	-	(2,685)	-	-
P0002946	W3 3 BFP Rot Assembly Repl	100%	7,782	7,782	(51)	(51)	7,731
P0002947	W9 Tesla Recorder Installati	100%	(1,180)	(1,180)	(1,247)	(1,247)	(2,427)
P0002948	W10 Tesla Recorder Installat	0%	(1,401)	-	(331)	-	-
P0002949	CIP1 Tesla Recorder Installa	0%	(213)	-	(64)	-	-
P0002950	W4 ACW Pump 41 Replacement	100%	280	280	(44)	(44)	236
P0002951	W9 Battery Bank Replacement	0%	4,002	-	(492)	-	-
P0002952	W10 Battery Bank Replacement	0%	3,739	-	(489)	-	-
P0002969	K1 Condensate Polisher	0%	(19)	-	(6)	-	-
P0003021	CIP0 Water Treatment Bld PV	100%	(70)	(70)	(20)	(20)	(90)
P0003023	K6 RSH Replacement	0%	64,827	-	(2,164)	-	-
P0003035	K0 Kahe Warehouse & Maintenance Shop PV	0%	56,997	-	(2,187)	-	-
P0003076	W0 Waiau Blackstart	0%	(538)	-	(189)	-	-
P0003082	W4 ACW Pipe Replacement	100%	(3,450)	(3,450)	(1,744)	(1,744)	(5,194)
P0003084	CIP CT1 BASKT&CYLNDR REPL	100%	137,730	137,730	(1,881)	(1,881)	135,850
P0003100	W3 DCS Computers Upgrade	100%	543	543	(527)	(527)	16
P0003101	W4 DCS Computers Upgrade	100%	4,296	4,296	(186)	(186)	4,110
P0003102	W6 DCS Computers Upgrade	100%	3,854	3,854	(749)	(749)	3,105
P0003121	K3&4 Elevator Replacement	0%	32,312	-	(1,378)	-	-
P0003122	K5&6 Elevator Replacement	100%	58,628	58,628	(3,367)	(3,367)	55,261
P0003204	K6 PEMS Installation	0%	{832}	-	(213)	-	-
P0003214	BPTF SCADA REPLACEMENT	100%	86,179	86,179	(2,294)	(2,294)	83,885
P0003219	K4 APH Drain Vlv Repl	100%	4,146	4,146	(1,862)	(1,862)	2,284
P0003226	Kahe Farrington Landscaping	100%	20,521	20,521	(478)	(478)	20,043
P0003239	BPT Tk 133 Roof Replacement	100%	106,551	106,551	(702)	(702)	105,849
P0003243	K0 Perimeter Fence Lighting	0%	(28)	-	(7)	-	-
P0003244	W0 Perimeter Fence Lighting	0%	79	-	(23)	-	-

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P0003245	CIP0 Perimeter Fence Light	0%	7,566	-	(51)	-	-
P0003246	K0 Facility Lighting Minimiz	0%	109,706	-	(3,773)	-	-
P0003247	W0 Facility Lighting Minimiz	0%	70,050	-	(4,370)	-	-
P0003248	CIP0 Facility Lighting Minim	100%	26,802	26,802	(1,684)	(1,684)	25,118
P0003249	W5 BFP 52 Motor Replacement	100%	(4,525)	(4,525)	(1,533)	(1,533)	(6,058)
P0003250	H8 Dehumidification System	100%	13,164	13,164	(2,439)	(2,439)	10,725
P0003251	H9 Dehumidification System	100%	11,335	11,335	(2,594)	(2,594)	8,741
P0003252	K3 APH Drain Vlv Repl	0%	(606)	-	(139)	-	-
P0003254	K1 VFD Project	100%	56,710	56,710	(15,211)	(15,211)	41,499
P0003301	K2 Arc Flash Mitigation	0%	4,965	-	(600)	-	-
P0003303	K6 Control Console Upgrade	100%	2,756	2,756	(564)	(564)	2,192
P0003319	K6 Arc Flash Mitigation	0%	(2,925)	-	(2,210)	-	-
P0003410	W0 WWTF FP Cake Handling	0%	(2,429)	-	(722)	-	-
P0003456	K3 Control Console Upgrade	0%	(1,311)	-	(303)	-	-
P0003457	K4 Control Console Upgrade	0%	(196)	-	(44)	-	-
P0003490	K2 Arc Flash Mitigation	0%	(75)	-	(16)	-	-
P0003495	K2 BFP 21 Rotating Assembly	100%	36,389	36,389	(1,367)	(1,367)	35,021
P0003517	K1 Stack Elevator Upgrade	0%	747	-	(228)	-	-
P0003518	K6 Stack Elevator Upgrade	0%	747	-	(228)	-	-
P0003541	W0 MATS DAHS	0%	81	-	(11)	-	-
P0003542	K0 MATS DAHS	0%	81	-	(11)	-	-
P1429000	PROG Misc Power Plant Adds	97%	64,669	62,729	(14,390)	(13,958)	48,771
P1470000	Minor Trans Sub Addns	85%	(10)	(9)	(2)	(2)	(11)
P1480000	Minor Dist Sub Addns	71%	(29)	(21)	(7)	(5)	(26)
P1500000	Comm & Control Program	76%	(11,805)	(8,972)	(3,030)	(2,303)	(11,274)
P1870000	PROG Power Station Misc	100%	(16,181)	(16,181)	(10,471)	(10,471)	(26,653)
P7590000	W7 Controls Upgrade	100%	8,236	8,236	(45)	(45)	8,191
P9107000	H9 Boiler Control System	100%	14,922	14,922	(152)	(152)	14,770
Total			2,144,882	1,446,540	(227,268)	(176,119)	1,270,421

Hawaiian Electric Company, Inc.
PS Clearing Change Impact to Removals
2014

A	B	C	D	E = C * D	F	G = F * C	H = E + G
Project #	Project Description	Allocation	PS Methodology Difference	2014 Removals Impact of Col. C Difference	Allocation of Clearings Difference	2014 Removals Impact of Col. C Difference	Total Impact to 2014 Removals
P0000468	K5&6 Instr Air Compressors	1.00		166	166	(5)	(5) 161
P0000816	W5 Exciter/Regulator Replace	1.00		139	139	(1)	(1) 138
P0001141	W3 Waiau 3 Blowoff Tank	1.00		230	230	(3)	(3) 226
P0001142	W4 Waiau 4 Blowoff Tank	1.00		94	94	(1)	(1) 94
P0001206	K2 Turbine Drains	1.00		(606)	(606)	(302)	(302) (907)
P0001238	K6 FWH 61 Press/Temp Instr	0.00		601	-	(19)	-
P0001634	K6 Repl H2 Purity Meter	1.00		(807)	(807)	(244)	(244) (1,050)
P0001766	K2 Turbine Protection Upgrade	1.00		(2,709)	(2,709)	(1,088)	(1,088) (3,796)
P0001773	W5W6 Battery Bank Separation	1.00		88	88	(0)	(0) 87
P0001777	K2 TSI Upgrade	1.00		(1,565)	(1,565)	(572)	(572) (2,137)
P0001796	K6 52Aux Clg Hx Replacement	1.00		9	9	(0)	(0) 9
P0001802	W6 TSI Upgrade	1.00		82	82	(0)	(0) 82
P0001861	K6 Seal Air Dmpr Drv Replace	1.00		(292)	(292)	(71)	(71) (363)
P0001884	K6 HP FWH AMS Install	1.00		(183)	(183)	(52)	(52) (235)
P0001888	K2 HP FWH AMS Install	1.00		(4)	(4)	(49)	(49) (52)
P0001933	H0 HS & 7 Removal	0.00		551,900	-	(4,995)	-
P0001958	FUELS - Cap Fuels Infras	0.22		(1,742)	(383)	(421)	(93) (476)
P0002131	W0 Waiau Units 1 & 2 Removal	0.00		117,700	-	(73,470)	-
P0002217	W0 CWP Lube Water System	1.00		102	102	(1)	(1) 102
P0002256	K2 FWH #22 REPLACEMENT	1.00		5,111	5,111	(190)	(190) 4,921
P0002267	K2 FWH #21 REPLACEMENT	1.00		5,114	5,114	(217)	(217) 4,897
P0002557	W0 Raw Water Piping	1.00		(815)	(815)	(529)	(529) (1,344)
P0002635	CIP1 1st Row Vane Repl	1.00		(15,599)	(15,599)	(4,703)	(4,703) (20,302)
P0002727	K1&2 Elevator Replacement	0.00		252	-	(1)	-
P0002731	K6 GCRTU Upgrade	1.00		(1,380)	(1,380)	(356)	(356) (1,736)
P0002816	K1 MATS Compliance	1.00		6,012	6,012	(233)	(233) 5,779
P0002818	K5 MATS Compliance	1.00		(1,611)	(1,611)	(782)	(782) (2,393)
P0002831	K3 MATS Compliance	0.00		3,429	-	(19)	-
P0002870	W9 Controls Upgrade	1.00		(5,424)	(5,424)	(1,915)	(1,915) (7,339)
P0002884	W9 Inlet Ducting Replacement	1.00		(2,074)	(2,074)	(2,181)	(2,181) (4,255)
P0002886	W5 Feedwater Regulator Valve	0%		(376)	-	(127)	-
P0002887	W6 Feedwater Regulator Valve	0%		(195)	-	(106)	-
P0002947	W9 Tesla Recorder Installati	100%		(824)	(824)	(266)	(266) (1,091)
P0002950	W4 ACW Pump 41 Replacement	100%		60	60	(0)	(0) 59
P0002952	W10 Battery Bank Replacement	0%		(297)	-	(101)	-
P0003023	K6 RSH Replacement	0%		(2,902)	-	(706)	-
P0003082	W4 ACW Pipe Replacement	100%		119	119	(27)	(27) 92
P0003084	CIP CT1 BASKT&CYLNDR REPL	100%		2,518	2,518	(304)	(304) 2,215
P0003102	W6 DCS Computers Upgrade	100%		(447)	(447)	(127)	(127) (574)
P0003121	K3&4 Elevator Replacement	0%		252	-	(1)	-
P0003122	K5&6 Elevator Replacement	100%		11,221	11,221	(62)	(62) 11,159
P0003219	K4 APH Drain Vlv Repl	100%		(1,163)	(1,163)	(418)	(418) (1,581)
P0003239	BPT Tk 133 Roof Replacement	100%		19,113	19,113	(105)	(105) 19,008
P0003247	W0 Facility Lighting Minimiz	0%		(3,821)	-	(1,057)	-
P0003248	CIPO Facility Lighting Minim	100%		2,472	2,472	(14)	(14) 2,458
P0003249	W5 BFP 52 Motor Replacement	100%		(585)	(585)	(201)	(201) (786)
P0003254	K1 VFD Project	100%		45	45	(0)	(0) 45
P0003257	Iwilei DG Removal	0%		(21)	-	(7)	-
P0003258	HPP Tank 7 cleaning	100%		826	826	(274)	(274) 553

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P0003259 Iwilei Pipeline Removal	100%	454	454	(79)	(79)	375
P0003262 Iwilei Tank Farm Demo	100%	(23)	(23)	(8)	(8)	(31)
P0003303 K6 Control Console Upgrade	0%	(285)	-	(71)	-	-
P1429000 PROG Misc Power Plant Adds	97%	(3,197)	(3,101)	(2,059)	(1,997)	(5,099)
P1870000 PROG Power Station Misc	100%	106	106	(174)	(174)	(67)
		<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
		679,270	14,486	(98,714)	(17,641)	(3,155)

Hawaiian Electric Company, Inc.

Gross CAPEX

Gross Plant Adds

Project > Project Type / Project	Total	Project > Project Type / Project	Total	
	2014		2014	Percent
Program: Program		Program: Program		
P0000120: Corr (Inc Emg) OH Trsf Rpl	360,752	P0000120: Corr (Inc Emg) OH Trsf Rpl	371,330	100%
P0000121: Corr (Inc Emg) UG Trsf Rpl	486,736	P0000121: Corr (Inc Emg) UG Trsf Rpl	415,987	85%
P0000122: Cor (Inc Emg) Mis Cable Rpl	5,398,508	P0000122: Cor (Inc Emg) Mis Cable Rpl	8,766,861	100%
P0000123: Corr (Inc Emg) OH Dist Rpl	2,104,431	P0000123: Corr (Inc Emg) OH Dist Rpl	2,605,402	100%
P0000124: Cor (Inc Emg) OH Subtrn Rpl	172,887	P0000124: Cor (Inc Emg) OH Subtrn Rpl	132,348	77%
P0000125: Cor (Inc Emg) OH Trans Rpl	20,360	P0000125: Cor (Inc Emg) OH Trans Rpl	73,452	100%
P0000500: Misc Office Furniture	121,074	P0000500: Misc Office Furniture	121,074	100%
P0000501: Misc Office Equipment	21,238	P0000501: Misc Office Equipment	21,238	100%
P0000502: Waiau Minor Gen Addns	80,796	P0000502: Waiau Minor Gen Addns	83,877	100%
P0000503: Ward Ave Minor Addns	203,062	P0000503: Ward Ave Minor Addns	319,665	100%
P0000504: King St Minor Addns	6,774			0%
P0000505: Other Minor Gen Plt Addns	162,889	P0000505: Other Minor Gen Plt Addns	30,234	19%
P0000652: IT Infrastructure	5,234,548	P0000652: IT Infrastructure	5,234,548	100%
P0000653: Collaborative Communications	197,465	P0000653: Collaborative Communicatio	197,465	100%
P0000692: CSD Technical Support Prgrm	3,457	P0000692: CSD Technical Support Prgrm	3,457	100%
P0000733: Trns Sub RTU Migration Pgm	58,937	P0000733: Trns Sub RTU Migration Pgm	327,098	100%
P0001309: Net Energy Metering	1,077,281	P0001309: Net Energy Metering	1,077,281	100%
P0001529: Power Supply - Capital Tools	772,207	P0001529: Power Supply - Capital Tools	772,207	100%
P0001720: Purch, Inst, & Test AMI Metr	1,647	P0001720: Purch, Inst, & Test AMI Metr	1,647	100%
P0001857: Environmenta - Capital Tools	103,368	P0001857: Environmenta - Capital Tools	103,368	100%
P0001958: FUELS - Cap Fuels Infras	87,283	P0001958: FUELS - Cap Fuels Infras	19,290	22%
P0001959: FUELS - Capital Tools	7,947	P0001959: FUELS - Capital Tools	7,947	100%
P0002193: C&M Misc Equipment	60,621	P0002193: C&M Misc Equipment	60,621	100%
P0002216: AED Upgrade Replacement	2,811	P0002216: AED Upgrade Replacement	439,206	100%
P0002304: New Vehicle Purchases	3,414,656	P0002304: New Vehicle Purchases	2,041,528	60%
P0002368: Smart Grid FCI Overhead	2,370,307	P0002368: Smart Grid FCI Overhead	2,428,349	100%
P0002387: Misc Tools for SSF	6,422	P0002387: Misc Tools for SSF	6,422	100%
P0002434: ESED Tools and Equipment	33,977	P0002434: ESED Tools and Equipment	33,977	100%
P0002439: CORR UG SVC CONNECTIONS	3,707,077	P0002439: CORR UG SVC CONNECTIONS	4,997,744	100%
P0002487: SPT SVCS E&W OP ACT	12,898	P0002487: SPT SVCS E&W OP ACT	12,898	100%
P0002530: Customer Education	9,236	P0002530: Customer Education	9,236	100%
P0002558: Smart Grid Loop Schemes	81,167			
P0002559: Smart Grid FCI Underground	18,140			
P0002711: Facilities-Pwr Sup	40,246	P0002711: Facilities-Pwr Sup	40,246	100%
P0002712: Facilities-Govt & CA	3,746	P0002712: Facilities-Govt & CA	3,746	100%
P0002713: Facilities-SysOp & Plng	70	P0002713: Facilities-SysOp & Plng	70	100%
P0002714: Facilities-CIO	19,880	P0002714: Facilities-CIO	19,880	100%
P0002797: Facilities-En Del	73,449	P0002797: Facilities-En Del	73,449	100%
P0002798: Facilities-CFO	33,386	P0002798: Facilities-CFO	33,386	100%
P0002939: Facilities-Corp Svcs	52,685	P0002939: Facilities-Corp Svcs	52,685	100%
P0002942: Facilities-Gen Counsel	1,162	P0002942: Facilities-Gen Counsel	1,162	100%
P0002943: Facilities-Cust Svc	9,800	P0002943: Facilities-Cust Svc	9,800	100%
P0003326: Facilities - Systm Operation	16,399	P0003326: Facilities - Systm Operation	16,399	100%
P0003434: Feeder Meter Inst Dist Subs	1,176,856	P0003434: Feeder Meter Inst Dist Subs	940,659	80%
P0003435: Batt Monitor Inst - Dist Sub	584,959			
P0003470: LTC Upgrades Dist Subs	173,386	P0003470: LTC Upgrades Dist Subs	173,386	100%
P0003512: Electromech Relay Upgrades	8,340			
P0003540: Dist SS Data Collection Pgm	40,058			
P1081000: ED Capitalized Tools & Equip	1,644,840	P1081000: ED Capitalized Tools & Equip	1,644,840	100%
P1243000: Client Computing	1,446,778	P1243000: Client Computing	1,446,778	100%
P1244000: Copiers/Faxes/Printers	148,154	P1244000: Copiers/Faxes/Printers	148,154	100%
P1250000: Vehicle Purchases	4,639,145	P1250000: Vehicle Purchases	2,640,643	57%
P1251000: Misc Tel Eqpt NT	618,962	P1251000: Misc Tel Eqpt NT	618,962	100%
P1370000: Distr R/W Purch (Blanket)	447,125	P1370000: Distr R/W Purch (Blanket)	447,125	100%
P1373000: 46kv R/W Purch (blanket)	7,605	P1373000: 46kv R/W Purch (blanket)	7,605	100%
P1429000: PROG Misc Power Plant Adds	1,815,640	P1429000: PROG Misc Power Plant Adds	1,770,033	97%

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P1470000: Minor Trans Sub Addns	3,198,139	P1470000: Minor Trans Sub Addns	2,724,885	85%
P1480000: Minor Dist Sub Addns	2,810,842	P1480000: Minor Dist Sub Addns	1,994,327	71%
P1500000: Comm & Control Program	1,589,314	P1500000: Comm & Control Program	1,204,751	76%
P1505000: SOD Mobile Radio Program	202,883			
P1510000: Misc OH Svc & Extn (CID)	2,387,334	P1510000: Misc OH Svc & Extn (CID)	1,401,786	59%
P1580000: Minor OH Dist Addn (CID)	3,053,961	P1580000: Minor OH Dist Addn (CID)	2,750,874	90%
P1670000: P&I&Test Meters & Mtr Eq	1,073,139	P1670000: P&I&Test Meters & Mtr Eq	1,073,139	100%
P1680000: Tsf & Equip Pur (CID)	9,732,621	P1680000: Tsf & Equip Pur (CID)	9,732,621	100%
P1690000: Minor T&D Customer Programs	682,567	P1690000: Minor T&D Customer Progra	229,623	34%
P1700000: Misc UG Svc & Extn (CID)	11,829,950	P1700000: Misc UG Svc & Extn (CID)	8,111,013	69%
P1789000: Preventive OH Transf Repl	869,675	P1789000: Preventive OH Transf Repl	871,515	100%
P1793000: Preventive UG Transf Repl	5,310,965	P1793000: Preventive UG Transf Repl	5,344,878	100%
P1810000: Prev Misc Cable Failure Rpl	31,773,820	P1810000: Prev Misc Cable Failure Rpl	22,093,593	70%
P1820000: Minor UG Addns (CID)	4,719,406	P1820000: Minor UG Addns (CID)	3,793,139	80%
P1870000: PROG Power Station Misc	733,646	P1870000: PROG Power Station Misc	782,398	100%
P1990000: Minor T&D System Programs	5,011,840	P1990000: Minor T&D System Programs	2,974,632	59%
P3400000: Prev OH Dist Repl	25,957,332	P3400000: Prev OH Dist Repl	26,090,466	100%
P3401000: Prev OH Subtrans Repl	6,362,872	P3401000: Prev OH Subtrans Repl	5,961,432	94%
P3402000: Prev OH Trans Repl	4,786,554	P3402000: Prev OH Trans Repl	8,384,408	100%
P4150000: Monitoring Services	5,865	P4150000: Monitoring Services	5,865	100%
Total: Program: Program	161,496,360	Total: Program: Program	146,330,110	

Hawaii Electric Light

Energy Delivery Clearing Change Impact to 2014 Plant Additions

A #	B Project #	C Project Description	D Allocation %	E = C * D Impact ED Methodology	F 2014 Plant Additions Impact of Col. D Difference	G = F * C 2014 Plant Additions Impact of Col. F	H = E + G Total Impact to 2014 Plant Additions
1	H0001131	Distribution PC Purchases	100.00%	(1)	(1)	(0)	(0) (1)
2	H0002015	Radio Console Replacements	0.00%	(140)	-	(6)	- -
3	H0002272	AMR Turtle Meters - Rpl	97.22%	(1,468)	(1,427)	(58)	(56) (1,484)
4	H1015000	MINOR CABLE REPLACEMENT	100.00%	31,205	31,205	138	138 31,343
5	H0002546	Contractor Cellon Poles	100.00%	1,424	1,424	(102)	(102) 1,322
6	H3404000	Substation Equip Repl	100.00%	8,186	8,186	69	69 8,255
7	H1001000	PURCHASE NEW KWH METERS	100.00%	(113,026)	(113,026)	(4,838)	(4,838) (117,865)
8	H1006000	POLE LINE REPL & RELOC	93.66%	82,843	77,595	(10,441)	(9,780) 67,815
9	H1017000	MINOR UG EXTN BELOW 20000	0.00%	(28,176)	-	(1,853)	- -
10	H1007000	MINOR OTHER OH ADDITIONS	99.94%	316	316	(56)	(56) 260
11	H0000010	Battery Replacement	100.00%	113	113	(24)	(24) 89
12	H4800000	MINOR COMMUNICATIONS FAC	66.48%	2,134	1,419	(2)	(1) 1,417
13	H1013000	MINOR OH LINE CONVERSIONS	100.00%	(231)	(231)	(13)	(13) (243)
14	H0001180	Replace Old Service Conduct	79.64%	(1,588)	(1,265)	(73)	(58) (1,323)
15	H1000000	MINOR OH SERVICES	99.99%	(51,603)	(51,598)	(2,207)	(2,207) (53,805)
16	H1002000	PURCH TSF AND RELATED EQ	100.00%	249,147	249,147	3,797	3,797 252,945
17	H1008000	MINOR OH EXTN BELOW 20000	100.00%	(13,254)	(13,254)	(980)	(980) (14,234)
18	H0002411	West HI Repl Live Front Sw	100.00%	17	17	(13)	(13) 3
19	H4750000	OTHER UG ADDITIONS	85.50%	(962)	(823)	(55)	(47) (870)
20	H1016000	MINOR DISTR SUB ADD	99.39%	(11,672)	(11,601)	(1,108)	(1,101) (12,702)
21	HS004000	DISTR DEPT TOOLS & EQUIP	100.00%	38,846	38,846	847	847 39,693
22	H0001795	Replace Lightening Arrestors	100.00%	2,875	2,875	39	39 2,914
23	H0000687	Substation Fencing	100.00%	825	825	14	14 839
24	H4818000	Delta Mobile Radio	100.00%	2,417	2,417	53	53 2,470
25	H0002677	Asset Management Capital	100.00%	17	17	0	0 17
26	H0002020	Trouble Shter Analysis Tools	100.00%	2,953	2,953	65	65 3,018
27	H0002051	Transformer Vault Replaced	0.00%	67	-	1	- -
28	H3422000	SUBSTN BATTERY BANK REPL	85.00%	604	514	(33)	(28) 485
29	H0002679	69kV Insulator Replacement	100.00%	(11)	(11)	(0)	(0) (11)
30	H1009000	MINOR R/W SURVEY	100.00%	7,747	7,747	169	169 7,917
31	H0000176	Comm Site Air Conditioning	100.00%	456	456	10	10 466
32	HS003000	ENGR DEPT TOOLS & EQUIP	100.00%	54	54	1	1 55
33	HS104000	DISTR DEPT OFFICE FURNIT	100.00%	1,200	1,200	26	26 1,227
34	H0001794	Replace CCVT	100.00%	(105)	(105)	(4)	(4) (109)
35	H0002194	HELCO Facilities Energy Eff	100.00%	(91)	(91)	(4)	(4) (95)
36	H1012000	UNIT SUBSTATION PURCHASE	100.00%	48,846	48,846	1,068	1,068 49,914
37	H0000679	Security Plants	10.83%	(1,485)	(161)	(58)	(6) (167)
38	H0000678	Security Building and Facili	100.00%	(128)	(128)	(5)	(5) (133)
39	H0002680	ME Switchgear Replace	100.00%	(794)	(794)	(80)	(80) (873)
40	H0000188	Prod Dept PC Purchase	84.67%	(935)	(792)	(37)	(31) (823)
41	H1020000	POWER STATION ADDITIONS	100.00%	(23)	(23)	(1)	(1) (24)
42	H1003000	MINOR UG SERVICES	100.00%	(38,341)	(38,341)	(1,716)	(1,716) (40,056)
43	H0002389	Banyan Sw Rpl	100.00%	(48)	(48)	(1)	(1) (49)
44	H0002995	DG Monitoring	100.00%	32,228	32,228	547	547 32,775
45	H0001016	Continental Pacific - RLOC	100.00%	(52)	(52)	(2)	(2) (54)
46	H0001800	RTU Replacement 5310-510	100.00%	371	371	5	5 376
47	H0002559	Ahualoa Conversion Ph 1	100.00%	275	275	6	6 281
48	H0002959	Milolii FIT System Interconn	100.00%	4,306	4,306	(132)	(132) 4,174
49	H0002873	TMP Kona Baseyard Comm	0.00%	19,980	-	323	- -

50	H0002681	Puuwaawaa LLBR	0.00%	166	-	2	-	-
51	H0002608	Kanoelehua Expansion	0.00%	(2,551)	-	(100)	-	-
52	H0002918	RPL HOVR PH 8	0.00%	(30)	-	(2)	-	-
53	H0002917	RPL HOVR PH 7	0.00%	(989)	-	(144)	-	-
54	H0002997	Engineering Lobby Relocation	0.00%	(222)	-	(9)	-	-
55	H0002632	Ahualoa Conversion Ph 2	0.00%	(1,284)	-	(52)	-	-
56	H0002963	Hilo Coffee Mill DTT	0.00%	936	-	17	-	-
57	H0002996	TMP Hilo Phase 1	0.00%	5,429	-	71	-	-
58	H0002853	TMP Kahaluu Comm	0.00%	33,211	-	695	-	-
59	H0002763	Kamakoa Wastewater Treatment	0.00%	(465)	-	(21)	-	-
60	H0001377	Hawi Sub Tsf Upgrade	0.00%	(3,459)	-	(216)	-	-
61	H0002695	Haleaha Sub	0.00%	2,407	-	42	-	-
62	H0002868	TMP Kamaoa Comm	0.00%	32,545	-	611	-	-
63	H0002956	New Hope DTT	0.00%	1,041	-	23	-	-
64	H0002543	Pepeekeo Sw Station Upgrade	0.00%	279	-	6	-	-
65	H0002531	6200 Line/Saddle Rd Realign	0.00%	424	-	9	-	-
66	H0003015	Ocean View Sub	0.00%	10	-	0	-	-
67	H0002830	Waimea 7300 Relay Upg	0.00%	1,759	-	38	-	-
68	H0002573	Robert Hamilton (FIT)	100.00%	165	165	4	4	168
69	H0002628	CH DPW Mamalahoa Hwy	100.00%	(38)	(38)	(1)	(1)	(39)
70	H0002703	Kohala Kai LLC	100.00%	(28)	(28)	(1)	(1)	(28)
71	H0002700	Saddle Road West Hi Reloc	100.00%	(25)	(25)	(1)	(1)	(26)
72	H0002760	KAU GYMNASIUM	100.00%	6	6	0	0	7
73	H0002682	Scott Wallace UG	100.00%	24	24	1	1	24
74	H0002690	RPL KILOHANA S/D	100.00%	5,869	5,869	128	128	5,998
75	H0002507	Waikoloa Beach Drive Ph 2	100.00%	69	69	2	2	71
76	H0002404	Waimea 34kV Breaker Upgrade	100.00%	82	82	2	2	84
77	H0002603	Puna 3400 Ph 2	100.00%	246	246	5	5	252
78	H0002661	RPL KONA PALISADES S/D PH7	100.00%	728	728	16	16	744
79	H0002729	Kohanaiki Nalu Circle	100.00%	37	37	1	1	38
80	H0002048	Pahala Sub 7.5MVA69-12KV Tsf	100.00%	166	166	4	4	169
81	H0002394	SH DOT Keaau-Pahoa Rd Reloc	100.00%	(44)	(44)	(1)	(1)	(45)
82	H0002764	Von Schlegell Hawn Prop Trus	100.00%	75	75	2	2	76
83	H0002049	Pahala #1 69KV Drop	100.00%	(11)	(11)	(0)	(0)	(11)
84	H0002621	Kanoe 5.4MVAR Cap Bank Repl	100.00%	(171)	(171)	(4)	(4)	(174)
85	H0002405	Pahala SUPY & MOS	100.00%	116	116	3	3	119
86	H0002762	Kuulei S/D Ph. 1 UG RPL	100.00%	(157)	(157)	(3)	(3)	(161)
87	H0002897	RPL PAHOA-KALAPANA (1-4)	100.00%	1,481	1,481	32	32	1,513
88	H0002641	PALAMANUI OH	100.00%	149	149	3	3	153
89	H0002712	RPL Kona Heights S/D Ph 2	100.00%	881	881	19	19	900
90	H0002716	Kamakana Villages Phase 1A	100.00%	(3,258)	(3,258)	(71)	(71)	(3,329)
91	H0002705	RPL Kona Heights S/D Ph 1	100.00%	247	247	5	5	252
92	H0002522	Kano 6400 Rly Upgrade	100.00%	227	227	5	5	232
93	H0002050	Pahala #1 12KV UG Getaway	100.00%	(0)	(0)	(0)	(0)	(0)
94	H0002692	Ouli DG Relocation	100.00%	(6)	(6)	(0)	(0)	(6)
95	H0002604	Kukuihalee Conversion Ph 2	100.00%	(28)	(28)	(1)	(1)	(28)
96	H0002945	RPL-Nannawale Cellon Ph3&4	100.00%	8	8	0	0	9
97	H0002915	RPL MT VIEW GYM	100.00%	5	5	0	0	5
98	H0002940	AOK (NEM)	100.00%	109	109	2	2	112
99	H0002769	Kaloli - Paradise Distr Tie	100.00%	2,056	2,056	45	45	2,101
100	H0002723	CH DPW Laaloa Ave Ext	100.00%	695	695	15	15	710
101	H0002761	Kuulei S/D Ph. 2 UG RPL	100.00%	12,718	12,718	278	278	12,996
102	H0002896	RPL PAHOA-KALAPANA (5-7)	100.00%	1,301	1,301	28	28	1,330
103	H0002921	Black Sands RPL PH 1 & 2	100.00%	12,894	12,894	282	282	13,176
104	H0002947	Ahualoa Poleline Relocation	100.00%	286	286	6	6	292
105	H0002898	RPL HOVR PH 4	100.00%	14,720	14,720	322	322	15,042
106	H0002950	RPL WAIKOLOA VILLAGE PH 13	100.00%	42,427	42,427	819	819	43,246
107	H0002953	RPL WAIKOLOA VILLAGE PH 11	100.00%	48,476	48,476	924	924	49,399
108	H0002933	Ainaloa Cellon Pole Rpl Ph-1	100.00%	34,699	34,699	745	745	35,445

109 H0002958	Kumau St Improv	100.00%	(2,040)	(2,040)	(153)	(153)	(2,193)
110 H0002965	Big Island Dairy Milkhouse	100.00%	(959)	(959)	(108)	(108)	(1,067)
111 H0002968	Ardie Stein - LE	100.00%	(380)	(380)	(86)	(86)	(466)
112 H0002847	Kaumana 8500 Relay Upgd	100.00%	(4,483)	(4,483)	(198)	(198)	(4,681)
113 H0002962	Jerry Bragdon-SSPP #1149-LE	100.00%	92	92	(31)	(31)	61
114 H0002949	RPL WAIKOLOA VILLAGE PH 14	100.00%	17,451	17,451	236	236	17,687
115 H0002954	RPL WAIKOLOA VILLAGE PH 12	100.00%	60,882	60,882	1,162	1,162	62,044
116 H0002966	SSPP 1152 Rosalie Hubbard	100.00%	2,293	2,293	46	46	2,339
117 H0002973	Puuedo Rectifier PRO1 - LE	100.00%	(727)	(727)	(79)	(79)	(806)
118 H0002975	SH Keaukaha Elem School Cafe	100.00%	(457)	(457)	(61)	(61)	(518)
119 H0002722	RPL KALAMAUKA	100.00%	42,549	42,549	837	837	43,386
120 H0002509	6800 Line Recond Ph 1	100.00%	54,212	54,212	(433)	(433)	53,779
121 H0002977	Martin Harris - SSPP #1142	100.00%	156	156	(14)	(14)	142
122 H0002967	QLT Luhia Street Improvement	100.00%	(2,131)	(2,131)	(114)	(114)	(2,245)
123 H0002981	HPP Distr. Improvements	100.00%	(2,979)	(2,979)	(297)	(297)	(3,276)
124 H0002991	Laipoua 2020 - Health Center	100.00%	(737)	(737)	(68)	(68)	(804)
125 H0002979	RPR Hawaiian Beaches Terrace	100.00%	(5)	(5)	(0)	(0)	(5)
126 H0002792	HCEI Kailua 7500 Relay Upg	100.00%	(1,701)	(1,701)	(106)	(106)	(1,807)
127 H0002842	Mauna Lani 8300 Relay	100.00%	201	201	(41)	(41)	161
128 H0002804	HCEI Keahole 7500 Relay Upg	100.00%	(1,957)	(1,957)	(125)	(125)	(2,081)
129 H0002978	Big Island Dairy Bedding Mtr	100.00%	(182)	(182)	(37)	(37)	(219)
130 H0002982	RPL WAIKOLOA VILLAGE PH 16	100.00%	37,102	37,102	758	758	37,860
131 H0002651	Carina Collar - Ph. 2	100.00%	(3,697)	(3,697)	(205)	(205)	(3,903)
132 H0002500	Kilauea CB6302 Repl	100.00%	(4,396)	(4,396)	(269)	(269)	(4,666)
133 H0002707	Waikii 11 Ground Tsf	100.00%	(553)	(553)	(23)	(23)	(576)
134 H0002619	Kilauea CB3402 Repl	100.00%	(1,982)	(1,982)	(188)	(188)	(2,169)
135 H0002848	Kaumana 6200 Relay Upgd	100.00%	(2,015)	(2,015)	(134)	(134)	(2,149)
136 H0002989	RPL WAIKOLOA VILLAGE 15	100.00%	30,470	30,470	499	499	30,969
137 H0002983	RPL WAIKOLOA VILLAGE PH 18	100.00%	20,406	20,406	289	289	20,695
138 H0002711	Hilo Cargo Building	100.00%	114	114	(1)	(1)	113
139 H0002502	Kailua Comm Facility	100.00%	(19,944)	(19,944)	(1,159)	(1,159)	(21,103)
140 H0002757	Cyanotech DTT	100.00%	(7,628)	(7,628)	(349)	(349)	(7,977)
141 H0002992	FIT TGUH1 LLC	100.00%	(1,817)	(1,817)	(125)	(125)	(1,942)
142 H0002611	Anaeho'omalu Grounding Impr	100.00%	13,515	13,515	164	164	13,678
143 H0002758	Kamehameha DTT	100.00%	(10,450)	(10,450)	(421)	(421)	(10,871)
144 H0002920	Ainaloa Cellon Pole Rpl Ph2	100.00%	30,340	30,340	653	653	30,993
145 H0002708	Nanea Well 3 DTT	100.00%	(3,443)	(3,443)	(145)	(145)	(3,588)
146 H0002855	TMP Kapua Comm	100.00%	26,543	26,543	445	445	26,988
147 H0002960	Ouli Substation Upgrade	100.00%	34,656	34,656	(398)	(398)	34,258
148 H0002844	Keamuku 8500 Relay Upgd	100.00%	(4,665)	(4,665)	(206)	(206)	(4,871)
149 H0002618	Ouli 8300 Relay Upgrade	100.00%	(2,546)	(2,546)	(200)	(200)	(2,746)
150 H0002854	TMP Kealia Comm	100.00%	26,648	26,648	431	431	27,079
151 H0002846	Keamuku 6200 Relay Upgd	100.00%	175	175	(44)	(44)	131
152 H0002990	RPL WAIKOLOA VILLAGE 17	100.00%	22,338	22,338	357	357	22,695
153 H0002957	Kukuihaele Relocation Ph 3	100.00%	(1,342)	(1,342)	(572)	(572)	(1,914)
154 H0002829	Ouli 7300 Relay Upg	100.00%	(3,500)	(3,500)	(207)	(207)	(3,707)
155 H0002999	HAWI ROAD CONVERSION PH 1	100.00%	(18,582)	(18,582)	(816)	(816)	(19,398)
156 H0002961	NAPOOPOO INTERSEC IMPROV	100.00%	(6,303)	(6,303)	(312)	(312)	(6,615)
157 H0003009	Taylor McMahel - SSPP 1153	100.00%	(517)	(517)	(23)	(23)	(541)
158 H0003005	SH Kona Hospital - Emerg Pwr	100.00%	194	194	(41)	(41)	153
159 H0003016	Beach Road 12kV	100.00%	(969)	(969)	(39)	(39)	(1,007)
160 H0002923	RPL HOVR PH 5	0.00%	4,183	-	(80)	-	-
161 H0002916	RPL HOVR PH 6	0.00%	5,371	-	103	-	-
162 H0002710	Waikii 11 Relay Upgrade	0.00%	12,504	-	232	-	-
163 H0002778	Puna 3400 Ph 3	0.00%	(19,495)	-	(1,407)	-	-
164 H0002994	Keahole Airport SIA DTT	0.00%	938	-	20	-	-
165 H0001624	Puuwaawaa Sub Upgrade	0.00%	5,416	-	15	-	-
166	Totals		837,891	764,027	(15,203)	(12,766)	751,261

Sources:

- Column D, line 166: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, Attachment 4, page 3
Column E, line 166: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, page 8 of 14 (ED: Plant Additions)
Column F, line 166: CA-IR-1a Transmittal Nos. 15-03/15-04/15-05

ED Methodology Difference	\$ 837,891	Column D, line 166
Allocations of Clearings Difference	(15,203)	Column F, line 166
Attachment 1, p.3 (G50 NI Difference)	\$ 822,687	

Hawaii Electric Light
Energy Delivery Clearing Change Impact to 2014 Removals

A #	B Project Description	C Allocation %	D ED Methodology Difference	E = C * D 2014 Removals Impact of Col. C Difference	F Allocation of Clearings Difference	G = F * C 2014 Removals Impact of Col. I Difference	H = E + G Total Impact to 2014 Removals
1	H0002898 RPL HOVR PH 4	100.00%	(1,266)	(1,266)	(66)	(66)	(1,332)
2	H1015000 MINOR CABLE REPLACEMENT	100.00%	(18,459)	(18,459)	(770)	(770)	(19,229)
3	H0002949 RPL WAIKOLOA VILLAGE PH 14	100.00%	(4,351)	(4,351)	(179)	(179)	(4,530)
4	H3404000 Substation Equip Repl	100.00%	(3,653)	(3,653)	(148)	(148)	(3,801)
5	H1001000 PURCHASE NEW KWH METERS	100.00%	(28,212)	(28,212)	(1,127)	(1,127)	(29,339)
6	H0002950 RPL WAIKOLOA VILLAGE PH 13	100.00%	(1,392)	(1,392)	(57)	(57)	(1,450)
7	H1006000 POLE LINE REPL & RELOC	93.66%	(164,116)	(153,718)	(9,320)	(8,729)	(162,447)
8	H0000010 Battery Replacement	100.00%	(647)	(647)	(25)	(25)	(673)
9	H1003000 MINOR UG SERVICES	100.00%	(3,803)	(3,803)	(158)	(158)	(3,961)
10	H0002710 Waikii 11 Relay Upgrade	0.00%	323	-	7	-	-
11	H0002611 Anaeho'omalu Grounding Impr	100.00%	1,861	1,861	41	41	1,901
12	H1013000 MINOR OH LINE CONVERSIONS	100.00%	(136)	(136)	(5)	(5)	(141)
13	H0001180 Replace Old Service Conduct	79.64%	(1,831)	(1,459)	(76)	(61)	(1,519)
14	H0002923 RPL HOVR PH 5	0.00%	(3,595)	-	(141)	-	-
15	H0002921 Black Sands RPL PH 1 & 2	100.00%	3,424	3,424	75	75	3,499
16	H0002920 Ainaloa Cellon Pole Rpl Ph2	100.00%	2,939	2,939	64	64	3,003
17	H0002917 RPL HOVR PH 7	0.00%	(2,656)	-	(101)	-	-
18	H1000000 MINOR OH SERVICES	99.99%	(10,262)	(10,261)	(412)	(412)	(10,673)
19	H1002000 PURCH TSF AND RELATED EQ	100.00%	(6,668)	(6,668)	(1,822)	(1,822)	(8,490)
20	H1008000 MINOR OH EXTN BELOW 20000	100.00%	(257)	(257)	(10)	(10)	(267)
21	H0002722 RPL KALAMAUKA	100.00%	(2,987)	(2,987)	(117)	(117)	(3,104)
22	H0002411 West Hi Repl Live Front Sw	100.00%	(637)	(637)	(24)	(24)	(661)
23	H0002953 RPL WAIKOLOA VILLAGE PH 11	100.00%	(2,343)	(2,343)	(95)	(95)	(2,438)
24	H0002933 Ainaloa Cellon Pole Rpl Ph-1	100.00%	3,342	3,342	73	73	3,415
25	H0002680 ME Switchgear Replace	100.00%	(1,715)	(1,715)	(71)	(71)	(1,786)
26	H0002954 RPL WAIKOLOA VILLAGE PH 12	100.00%	(3,123)	(3,123)	(123)	(123)	(3,246)
27	H0002958 Kumau St Improv	100.00%	(1,072)	(1,072)	(45)	(45)	(1,117)
28	H0002960 Ouli Substation Upgrade	100.00%	(15,909)	(15,909)	(646)	(646)	(16,555)
29	H0002844 Keamuku 8500 Relay Upgd	100.00%	(1,907)	(1,907)	(78)	(78)	(1,985)
30	H0002792 HCEI Kailua 7500 Relay Upg	100.00%	(777)	(777)	(31)	(31)	(807)
31	H0002618 Ouli 8300 Relay Upgrade	100.00%	(574)	(574)	(23)	(23)	(597)
32	H5004000 DISTR DEPT TOOLS & EQUIP	100.00%	(66)	(66)	(3)	(3)	(68)
33	H0002868 TMP Kamaoa Comm	0.00%	150	-	3	-	-
34	H0002500 Kilauea CB6302 Repl	100.00%	(2,946)	(2,946)	(127)	(127)	(3,073)
35	H1012000 UNIT SUBSTATION PURCHASE	100.00%	6,867	6,867	150	150	7,017
36	H0002873 TMP Kona Baseyard Comm	0.00%	(614)	-	(26)	-	-
37	H0002846 Keamuku 6200 Relay Upgd	100.00%	(1,575)	(1,575)	(62)	(62)	(1,637)
38	H0002619 Kilauea CB3402 Repl	100.00%	(2,030)	(2,030)	(81)	(81)	(2,111)
39	H0002847 Kaumana 8500 Relay Upgd	100.00%	(926)	(926)	(38)	(38)	(964)
40	H0002842 Mauna Lani 8300 Relay	100.00%	(1,284)	(1,284)	(50)	(50)	(1,335)
41	H0001795 Replace Lightening Arrestors	100.00%	(831)	(831)	(34)	(34)	(865)
42	H0002804 HCEI Keahole 7500 Relay Upg	100.00%	(893)	(893)	(36)	(36)	(929)
43	H0002848 Kaumana 6200 Relay Upgd	100.00%	(1,732)	(1,732)	(67)	(67)	(1,799)
44	H0002962 Jerry Bragdon-SSPP #1149-LE	100.00%	(23)	(23)	(1)	(1)	(24)
45	H0002977 Martin Harris - SSPP #1142	100.00%	(133)	(133)	(5)	(5)	(138)
46	H0002975 SH Keaukaha Elem School Cafe	100.00%	(470)	(470)	(18)	(18)	(489)
47	H3422000 SUBSTN BATTERY BANK REPL	85.00%	(2,129)	(1,810)	(82)	(70)	(1,879)
48	H0002981 HPP Distr. Improvements	100.00%	(4,803)	(4,803)	(190)	(190)	(4,993)
49	H0002989 RPL WAIKOLOA VILLAGE 15	100.00%	(3,323)	(3,323)	(129)	(129)	(3,452)
50	H0002982 RPL WAIKOLOA VILLAGE PH 16	100.00%	(1,859)	(1,859)	(73)	(73)	(1,932)
51	H0002990 RPL WAIKOLOA VILLAGE 17	100.00%	(1,546)	(1,546)	(65)	(65)	(1,611)

CA-IR-1
TRANSMITTAL NOS. 15-03,-04,-05
ATTACHMENT 3
PAGE 27 OF 40

52 H0002778 Puna 3400 Ph 3	0.00%	(19,509)	-	(783)	-	-
53 H0002983 RPL WAIKOLOA VILLAGE PH 18	100.00%	(2,784)	(2,784)	(108)	(108)	(2,892)
54 H0002957 Kukuihaele Relocation Ph 3	100.00%	(4,539)	(4,539)	(188)	(188)	(4,727)
55 H0000176 Comm Site Air Conditioning	100.00%	47	47	1	1	48
56 H0002999 HAWI ROAD CONVERSION PH 1	100.00%	(9,183)	(9,183)	(366)	(366)	(9,549)
57 H0002961 NAPOOPOO INTERSEC IMPROV	100.00%	(2,122)	(2,122)	(84)	(84)	(2,206)
58 H0003009 Taylor McMahel - SSPP 1153	100.00%	(256)	(256)	(10)	(10)	(266)
Totals		(328,973)	(291,981)	(17,880)	(16,221)	(308,202)

Source:

Column D, line 59: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, Attachment 4, page 3

Column E, line 59: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, page 8 of 14 (ED: Removals)

Column F, line 59: CA-IR-1a Transmittal Nos. 15-03/15-04/15-05

ED Methodology Difference	\$ (328,973) Column D, line 59
Allocations of Clearings Difference	(17,880) Column F, line 59
Attachment 1, p.1 (G50 NR Difference)	\$ (346,852)

Hawaii Electric Light
Program Allocation %

Line #	Project #	Project Description	A 2014 Plant Additions	B 2014 Capex	C Program	D = A/B % allocation for Programs Only (Projects 100%)	E % to Apply
1	H0001131	Distribution PC Purchases	(1)	(1)	Y	100.00%	100.00%
2	H0002015	Radio Console Replacements	-	595	Y	0.00%	0.00%
3	H0002272	AMR Turtle Meters - Rpl	153,984	158,393	Y	97.22%	97.22%
4	H1015000	MINOR CABLE REPLACEMENT	263,135	137,103	Y	191.92%	100.00%
5	H0002546	Contractor Cellon Poles	222,495	150,515	Y	147.82%	100.00%
6	H3404000	Substation Equip Rpl	267,762	265,464	Y	100.87%	100.00%
7	H1001000	PURCHASE NEW KWH METERS	1,631,261	1,631,261	Y	100.00%	100.00%
8	H1006000	POLE LINE REPL & RELOC	12,802,602	13,668,558	Y	93.66%	93.66%
9	H1017000	MINOR UG EXTN BELOW 20000	(252,726)	94,431	Y	0.00%	0.00%
10	H1007000	MINOR OTHER OH ADDITIONS	(3,762,176)	(3,764,466)	Y	99.94%	99.94%
11	H0000010	Battery Replacement	29,392	29,392	Y	100.00%	100.00%
12	H4800000	MINOR COMMUNICATIONS FAC	55,399	83,329	Y	66.48%	66.48%
13	H1013000	MINOR OH LINE CONVERSIONS	8,966	7,089	Y	126.48%	100.00%
14	H0001180	Replace Old Service Conduct	19,767	24,819	Y	79.64%	79.64%
15	H1000000	MINOR OH SERVICES	798,441	798,514	Y	99.99%	99.99%
16	H1002000	PURCH TSF AND RELATED EQ	5,847,932	5,843,406	Y	100.08%	100.00%
17	H1008000	MINOR OH EXTN BELOW 20000	703,942	650,294	Y	108.25%	100.00%
18	H0002411	West HI Rpl Live Front Sw	130,669	71,875	Y	181.80%	100.00%
19	H4750000	OTHER UG ADDITIONS	37,501	43,860	Y	85.50%	85.50%
20	H1016000	MINOR DISTR SUB ADD	126,482	127,261	Y	99.39%	99.39%
21	H5004000	DISTR DEPT TOOLS & EQUIP	622,370	620,175	Y	100.35%	100.00%
22	H0001795	Replace Lightening Arrestors	41,408	41,408	Y	100.00%	100.00%
23	H0000687	Substation Fencing	16,250	16,250	Y	100.00%	100.00%
24	H4818000	Delta Mobile Radio	21,444	21,444	Y	100.00%	100.00%
25	H0002677	Asset Management Capital	6,362	6,362	Y	100.00%	100.00%
26	H0002020	Trouble Shtr Analysis Tools	52,005	52,005	Y	100.00%	100.00%
27	H0002051	Transformer Vault Replaced	-	10,985	Y	0.00%	0.00%
28	H3422000	SUBSTN BATTERY BANK REPL	51,728	60,854	Y	85.00%	85.00%
29	H0002679	69kV Insulator Replacement	1,467	(164)	Y	100.00%	100.00%
30	H1009000	MINOR R/W SURVEY	91,643	86,411	Y	106.05%	100.00%
31	H0000176	Comm Site Air Conditioning	6,364	6,364	Y	100.00%	100.00%
32	H5003000	ENGR DEPT TOOLS & EQUIP	(746)	(746)	Y	100.00%	100.00%
33	H5104000	DISTR DEPT OFFICE FURNIT	24,007	24,007	Y	100.00%	100.00%
34	H0001794	Replace CCVT	370	370	Y	100.00%	100.00%
35	H0002194	HELCO Facilities Energy Eff	46,512	31,936	Y	145.64%	100.00%
36	H1012000	UNIT SUBSTATION PURCHASE	1,820,725	1,756,373	Y	103.66%	100.00%
37	H0000679	Security Plants	3,374	31,142	Y	10.83%	10.83%
38	H0000678	Security Building and Facili	78,574	78,574	Y	100.00%	100.00%
39	H0002680	ME Switchgear Replace	94,787	94,787	Y	100.00%	100.00%
40	H0000188	Prod Dept PC Purchase	204,927	242,036	Y	84.67%	84.67%
41	H1020000	POWER STATION ADDITIONS	63,726	6,099	Y	1044.93%	100.00%
42	H1003000	MINOR UG SERVICES	900,225	899,420	Y	100.09%	100.00%
43	H0002389	Banyan Sw Rpl	21,119	21,119	Y	100.00%	100.00%
44	H0002995	DG Monitoring	820,123	820,123	Y	100.00%	100.00%
45	H0001016	Continental Pacific - RLOC	183	183	N	100.00%	100.00%
46	H0001800	RTU Replacement 5310-510	26,075	17,427	N	100.00%	100.00%
47	H0002559	Ahuaoa Conversion Ph I	21,802	13,950	N	100.00%	100.00%
48	H0002959	Milotii FIT System Interconn	125,304	312,492	N	100.00%	100.00%
49	H0002873	TMP Kona Baseyard Comm	-	480,314	N	0.00%	0.00%

50 H0002681	Puuwaawaa LLBR	-	3,110	N	0.00%	0.00%
51 H0002608	Kanoelehua Expansion	-	1,015,119	N	0.00%	0.00%
52 H0002918	RPL HOVR PH 8	-	18,328	N	0.00%	0.00%
53 H0002917	RPL HOVR PH 7	-	105,366	N	0.00%	0.00%
54 H0002997	Engineering Lobby Relocation	-	11,688	N	0.00%	0.00%
55 H0002632	Ahualoa Conversion Ph 2	-	107,530	N	0.00%	0.00%
56 H0002963	Hilo Coffee Mill DTT	-	17,869	N	0.00%	0.00%
57 H0002996	TMP Hilo Phase 1	-	164,770	N	0.00%	0.00%
58 H0002853	TMP Kahaluu Comm	-	587,015	N	0.00%	0.00%
59 H0002763	Kamakoa Wastewater Treatment	-	15,064	N	0.00%	0.00%
60 H0001377	Hawi Sub TsF Upgrade	-	(515,474)	N	0.00%	0.00%
61 H0002695	Haleaha Sub	-	47,813	N	0.00%	0.00%
62 H0002868	TMP Kamaoa Comm	-	620,826	N	0.00%	0.00%
63 H0002956	New Hope DTT	-	25,624	N	0.00%	0.00%
64 H0002543	Pepeekeo Sw Station Upgrade	-	2,938	N	0.00%	0.00%
65 H0002531	6200 Line/Saddle Rd Realign	-	7,732	N	0.00%	0.00%
66 H0003015	Ocean View Sub	-	294	N	0.00%	0.00%
67 H0002830	Waimea 7300 Relay Upg	-	14,146	N	0.00%	0.00%
68 H0002573	Robert Hamilton (FIT)	1,102	1,102	N	100.00%	100.00%
69 H0002628	CH DPW Mamalahoa Hwy	(765)	(765)	N	100.00%	100.00%
70 H0002703	Kohala Kai LLC	(406)	(406)	N	100.00%	100.00%
71 H0002700	Saddle Road West Hi Reloc	85	85	N	100.00%	100.00%
72 H0002760	KAU GYMNASIUM	51	51	N	100.00%	100.00%
73 H0002682	Scott Wallace UG	250	250	N	100.00%	100.00%
74 H0002690	RPL KILOHANA S/D	9,088	(39,617)	N	100.00%	100.00%
75 H0002507	Waikoloa Beach Drive Ph 2	1,786	606	N	100.00%	100.00%
76 H0002404	Waimea 34kV Breaker Upgrade	2,237	2,237	N	100.00%	100.00%
77 H0002603	Puna 3400 Ph 2	4,926	4,926	N	100.00%	100.00%
78 H0002661	RPL KONA PALISADES S/D PH7	158,589	156,979	N	100.00%	100.00%
79 H0002729	Kohanaiki Nalu Circle	574	574	N	100.00%	100.00%
80 H0002048	Pahala Sub 7.5MVA69-12KV TsF	7,146	7,146	N	100.00%	100.00%
81 H0002394	SH DOT Keaau-Pahoa Rd Reloc	1,264	1,264	N	100.00%	100.00%
82 H0002764	Von Schlegell Hawn Prop Trus	2,021	2,021	N	100.00%	100.00%
83 H0002049	Pahala #1 69KV Drop	766	(327)	N	100.00%	100.00%
84 H0002621	Kanoe 5.4MVAR Cap Bank Repl	18,895	13,824	N	100.00%	100.00%
85 H0002405	Pahala SUPY & MOS	3,725	3,480	N	100.00%	100.00%
86 H0002762	Kuulei S/D Ph. 1 UG RPL	230,399	230,399	N	100.00%	100.00%
87 H0002897	RPL PAHOA-KALAPANA (1-4)	379,513	249,070	N	100.00%	100.00%
88 H0002641	PALAMANUI OH	(34,822)	(40,195)	N	100.00%	100.00%
89 H0002712	RPL Kona Heights S/D Ph 2	12,073	4,677	N	100.00%	100.00%
90 H0002716	Kamakana Villages Phase 1A	(23,631)	(24,760)	N	100.00%	100.00%
91 H0002705	RPL Kona Heights S/D Ph 1	5,699	3,921	N	100.00%	100.00%
92 H0002522	Kano 6400 Rly Upgrade	3,777	3,777	N	100.00%	100.00%
93 H0002050	Pahala #1 12KV UG Getaway	799	799	N	100.00%	100.00%
94 H0002692	Ouli DG Relocation	3,609	(89)	N	100.00%	100.00%
95 H0002604	Kukuihaele Conversion Ph 2	5,915	430	N	100.00%	100.00%
96 H0002945	RPL-Nannawale Cellon Ph3&4	1,346	1,346	N	100.00%	100.00%
97 H0002915	RPL MT VIEW GYM	2,006	1,567	N	100.00%	100.00%
98 H0002940	AOK (NEM)	34,329	25,762	N	100.00%	100.00%
99 H0002769	Kaloli - Paradise Distr Tie	361,096	334,103	N	100.00%	100.00%
100 H0002723	CH DPW Laaloa Ave Ext	143,996	101,532	N	100.00%	100.00%
101 H0002761	Kuulei S/D Ph. 2 UG RPL	567,754	547,675	N	100.00%	100.00%
102 H0002896	RPL PAHOA-KALAPANA (5-7)	355,775	293,892	N	100.00%	100.00%
103 H0002921	Black Sands RPL PH 1 & 2	174,703	155,959	N	100.00%	100.00%
104 H0002947	Ahualoa Poleline Relocation	42,789	39,003	N	100.00%	100.00%
105 H0002898	RPL HOVR PH 4	243,411	204,905	N	100.00%	100.00%
106 H0002950	RPL WAIKOLOA VILLAGE PH 13	457,924	457,924	N	100.00%	100.00%
107 H0002953	RPL WAIKOLOA VILLAGE PH 11	613,915	613,915	N	100.00%	100.00%
108 H0002933	Ainaloa Cellon Pole Rpl Ph-1	430,068	418,941	N	100.00%	100.00%
109 H0002958	Kumau St Improv	76,360	76,360	N	100.00%	100.00%
110 H0002965	Big Island Dairy Milkhouse	67,721	67,721	N	100.00%	100.00%

111 H0002968 Ardie Stein - LE	70,588	70,588	N	100.00%	100.00%
112 H0002847 Kaumana 8500 Relay Upgd	38,480	38,480	N	100.00%	100.00%
113 H0002962 Jerry Bragdon-SSPP #1149-LE	31,190	31,190	N	100.00%	100.00%
114 H0002949 RPL WAIKOLOA VILLAGE PH 14	307,936	307,936	N	100.00%	100.00%
115 H0002954 RPL WAIKOLOA VILLAGE PH 12	956,414	956,414	N	100.00%	100.00%
116 H0002966 SSPP 1152 Rosalie Hubbard	36,607	36,607	N	100.00%	100.00%
117 H0002973 Puueo Rectifier PR01 - LE	59,822	59,822	N	100.00%	100.00%
118 H0002975 SH Keaukaha Elem School Cafe	49,225	49,225	N	100.00%	100.00%
119 H0002722 RPL KALAMAUKA	471,089	453,786	N	100.00%	100.00%
120 H0002509 6800 Line Recond Ph 1	2,730,442	2,056,032	N	100.00%	100.00%
121 H0002977 Martin Harris - SSPP #1142	23,397	23,397	N	100.00%	100.00%
122 H0002967 QLT Luhia Street Improvement	54,567	54,567	N	100.00%	100.00%
123 H0002981 HPP Distr. Improvements	174,195	174,195	N	100.00%	100.00%
124 H0002991 Laiopua 2020 - Health Center	49,188	49,188	N	100.00%	100.00%
125 H0002979 RPR Hawaiian Beaches Terrace	134,180	134,180	N	100.00%	100.00%
126 H0002792 HCEI Kailua 7500 Relay Upg	36,674	36,674	N	100.00%	100.00%
127 H0002842 Mauna Lani 8300 Relay	45,472	45,472	N	100.00%	100.00%
128 H0002804 HCEI Keahole 7500 Relay Upg	48,700	48,700	N	100.00%	100.00%
129 H0002978 Big Island Dairy Bedding Mtr	38,691	38,691	N	100.00%	100.00%
130 H0002982 RPL WAIKOLOA VILLAGE PH 16	370,418	370,418	N	100.00%	100.00%
131 H0002651 Carina Collar - Ph. 2	169,965	87,313	N	100.00%	100.00%
132 H0002500 Kilauea CB6302 Repl	125,899	125,899	N	100.00%	100.00%
133 H0002707 Waikii 11 Ground Tsf	29,933	7,884	N	100.00%	100.00%
134 H0002619 Kilauea CB3402 Repl	115,810	115,810	N	100.00%	100.00%
135 H0002848 Kaumana 6200 Relay Upgd	52,170	52,170	N	100.00%	100.00%
136 H0002989 RPL WAIKOLOA VILLAGE 15	589,827	589,827	N	100.00%	100.00%
137 H0002983 RPL WAIKOLOA VILLAGE PH 18	344,186	344,186	N	100.00%	100.00%
138 H0002711 Hilo Cargo Building	108,269	83,195	N	100.00%	100.00%
139 H0002502 Kailua Comm Facility	873,212	574,050	N	100.00%	100.00%
140 H0002757 Cyanotech DTT	107,357	75,147	N	100.00%	100.00%
141 H0002992 FIT TGUHII LLC	65,088	65,088	N	100.00%	100.00%
142 H0002611 Anaeho'omalu Grounding Impr	426,035	426,674	N	100.00%	100.00%
143 H0002758 Kamehameha DTT	57,380	56,733	N	100.00%	100.00%
144 H0002920 Ainaloa Cellon Pole Rpl Ph2	366,485	342,736	N	100.00%	100.00%
145 H0002708 Nanea Well 3 DTT	82,576	51,619	N	100.00%	100.00%
146 H0002855 TMP Kapua Comm	556,062	556,062	N	100.00%	100.00%
147 H0002960 Ouli Substation Upgrade	1,467,614	1,467,614	N	100.00%	100.00%
148 H0002844 Keamuku 8500 Relay Upgd	44,285	44,285	N	100.00%	100.00%
149 H0002618 Ouli 8300 Relay Upgrade	111,613	113,112	N	100.00%	100.00%
150 H0002854 TMP Kealia Comm	642,068	642,068	N	100.00%	100.00%
151 H0002846 Keamuku 6200 Relay Upgd	41,574	41,574	N	100.00%	100.00%
152 H0002990 RPL WAIKOLOA VILLAGE 17	545,847	545,847	N	100.00%	100.00%
153 H0002957 Kukuihaele Relocation Ph 3	537,015	537,015	N	100.00%	100.00%
154 H0002829 Ouli 7300 Relay Upg	111,011	111,011	N	100.00%	100.00%
155 H0002999 HAWI ROAD CONVERSION PH 1	170,327	170,327	N	100.00%	100.00%
156 H0002961 NAPOOPOO INTERSEC IMPROV	170,079	170,079	N	100.00%	100.00%
157 H0003009 Taylor McMahel - SSPP 1153	8,768	8,768	N	100.00%	100.00%
158 H0003005 SH Kona Hospital - Emerg Pwr	88,380	88,380	N	100.00%	100.00%
159 H0003016 Beach Road 12kV	399,444	399,444	N	100.00%	100.00%
160 H0002923 RPL HOVR PH 5	-	232,783	N	0.00%	0.00%
161 H0002916 RPL HOVR PH 6	-	90,963	N	0.00%	0.00%
162 H0002710 Waikii 11 Relay Upgrade	-	240,190	N	0.00%	0.00%
163 H0002778 Puna 3400 Ph 3	-	854,146	N	0.00%	0.00%
164 H0002994 Keahole Airport SIA DTT	-	20,315	N	0.00%	0.00%
165 H0001624 Puuwaawaa Sub Upgrade	-	184,993	Project	0.00%	0.00%
Grand Total	42,750,366	46,498,082			

Maui Electric Company, Ltd.
Energy Delivery Clearing Change Impact to 2014 Plant Additions

Project #	Project Description	2014 Plant Addition			Allocation % (p, o)	If Col. E=100%, use 100%	H=F+G		I	J=I+F		K=H+J
		C	D	E			ED Methodology Difference	2014 Plant Additions Impact of Col. C Difference		Allocation of Clearings Differences	2014 Plant Additions Impact of Col. C Difference	
1 M0000019	Damages Caused by External Party		Y	107.1%	100.0%	\$ (6,428)	\$ (6,428)	\$ (4,498)	\$ (4,498)	\$ (10,926)	\$ (10,926)	
2 M0000029	Minor UG Trans Addn			0.0%	0.0%	\$ 86	-	6	-	-	-	
3 M00000102	Kamalii Sub			0.0%	0.0%	\$ 739	-	53	-	-	-	
4 M00000107	Kuehelihi Substation			0.0%	0.0%	(\$ 1,349)	-	(\$ 1,039)	-	-	-	
5 M00000229	LifeCycle Maintenance 02-03	Y	Y	102.2%	100.0%	\$ 85	\$ 85	6	6	-	91	
6 M0000136	LCM-Batteries&Chargers	Y	Y	100.0%	100.0%	\$ 1,340	\$ 1,340	(\$ 664)	(\$ 664)	677		
7 M00000390	Palaua Sub Tsf Repl			0.0%	0.0%	(\$ 226)	-	(\$ 57)	-	-	-	
8 M00000461	T&D/Main Ofc Bldg Upgrade	Y	Y	83.8%	83.8%	\$ 2,472	\$ 2,071	\$ 178	\$ 149	2,220		
9 M00000690	T&D Sca3 Equipment	Y	Y	100.0%	100.0%	\$ 1,197	\$ 1,197	(\$ 249)	(\$ 249)	948		
10 M00000694	MPP-Kehalohau Relay Upgrade	Y		100.0%	100.0%	\$ 300	\$ 300	22	22	322		
11 M00000700	Puamana Replacements			0.0%	0.0%	(\$ 5,075)	-	(\$ 2,215)	-	-	-	
12 M00000819	LCM - Substation Equipment	Y	Y	65.4%	65.4%	\$ 564	\$ 369	(\$ 690)	(\$ 451)	82		
13 M00000986	Maalaen-Kamalii 69 kV Line			0.0%	0.0%	\$ 2,723	-	\$ 196	-	-	-	
14 M00011024	Puukohi Temporary Sub Addn			0.0%	0.0%	(\$ 25,345)	-	(\$ 1,828)	-	-	-	
15 M0001039	Kaonoku Sub			0.0%	0.0%	(\$ 277)	-	(\$ 888)	-	-	-	
16 M0001203	Maui Hyatt Timeshare	Y		100.0%	100.0%	(\$ 2,014)	(\$ 2,014)	(\$ 990)	(\$ 990)	(3,004)		
17 M0001209	KPP Imprv Wtr Supply Ph2	Y		100.0%	100.0%	(\$ 87)	(\$ 87)	(30)	(30)	(117)		
18 M0001228	SCADA/EMS Lifecycle 2013	Y		100.0%	100.0%	(\$ 570)	(\$ 570)	(\$ 135)	(\$ 135)	(705)		
19 M0001230	Kaanapali P-3			0.0%	0.0%	(\$ 87)	-	(\$ 30)	-	-	-	
20 M0001263	Maalaen-Waimu REL Repl			0.0%	0.0%	\$ 4,676	-	162	-	-	-	
21 M0001264	Maalaen REL Repl			0.0%	0.0%	(\$ 8,086)	-	(5,022)	-	-	-	
22 M0001265	Puunene REL Repl			0.0%	0.0%	\$ 4,794	-	326	-	-	-	
23 M0001266	Kanaha REL Repl			0.0%	0.0%	\$ 6,170	-	425	-	-	-	
24 M0001298	Iao Valley Homesteads	Y		100.0%	100.0%	\$ 2,993	\$ 2,993	\$ 189	\$ 189	3,182		
25 M0001301	Hana Plantation	Y		100.0%	100.0%	\$ 1,704	\$ 1,704	\$ 123	\$ 123	1,827		
26 M0001334	Sub 17 CB783 Replacement	Y		100.0%	100.0%	\$ 1,227	\$ 1,227	(\$ 3,724)	(\$ 3,724)	(4,497)		
27 M0001335	Sub 13 CB Replacement			0.0%	0.0%	(\$ 331)	-	(\$ 138)	-	-	-	
28 M0001354	Mahana Estates	Y		100.0%	100.0%	(\$ 949)	(\$ 949)	(\$ 412)	(\$ 412)	(1,361)		
29 M0001355	2013 Switchgear Replacement	Y		100.0%	100.0%	\$ 137	\$ 137	10	10	147		
30 M0001358	Kanaha-Pukalani REL Repl	Y		100.0%	100.0%	(\$ 3,195)	(\$ 3,195)	(4,802)	(4,802)	(7,997)		
31 M0001359	Lahaina-Lahainahuna SEL Repl	Y		100.0%	100.0%	(\$ 2,481)	(\$ 2,481)	(5,192)	(5,192)	(7,673)		
32 M0001360	Lahainahuna-Lahaina SEL Repl	Y		100.0%	100.0%	(\$ 5,317)	(\$ 5,317)	(5,841)	(5,841)	(11,158)		
33 M0001385	Molokai Bess			0.0%	0.0%	\$ 2,836	-	205	-	-	-	
34 M0001395	Kaunakakai Town Upgrade	Y		100.0%	100.0%	\$ 93,453	\$ 93,453	\$ 5,314	\$ 5,314	98,767		
35 M0001402	Pukalani-Kula Ry Upgr	Y		100.0%	100.0%	\$ 444	\$ 444	32	32	476		
36 M0001403	Maalaen-Luna Ry Upgr	Y		100.0%	100.0%	\$ 445	\$ 445	32	32	477		
37 M0001404	Kula-Kehalohau Ry Upgr	Y		100.0%	100.0%	\$ 2,589	\$ 2,589	66	66	2,654		
38 M0001405	Kealahou-Kula Ry Upgr	Y		100.0%	100.0%	\$ 81	\$ 81	6	6	87		
39 M0001406	Puunene-Maalaen Ry Upgr			0.0%	0.0%	(\$ 7,975)	-	(4,519)	-	-	-	
40 M0001407	Pukalani-Kanaha Ry Upgr	Y		100.0%	100.0%	(\$ 8,032)	(\$ 8,032)	(4,664)	(4,664)	(12,696)		
41 M0001408	Lkuna-Maalaen Ry Upgr	Y		100.0%	100.0%	\$ 1,735	\$ 1,735	125	125	1,861		
42 M0001409	Kula-Pukalani Ry Upgr	Y		100.0%	100.0%	\$ 378	\$ 378	27	27	405		
43 M0001513	Mahainaha Switchgear	Y		100.0%	100.0%	(\$ 612)	(\$ 612)	(286)	(286)	(408)		
44 M0001517	Kumu Modular Sub	Y		100.0%	100.0%	\$ 32,205	\$ 32,205	(5,268)	(5,268)	26,936		
45 M0001518	Kanoko Weir Sub			0.0%	0.0%	(\$ 517)	-	(199)	-	-	-	
46 M0001531	Kula Ag Tsf Replacement			0.0%	0.0%	2,057	-	(1,268)	-	-	-	
47 M0001600	Kube 12kV Pole Installation	Y		100.0%	100.0%	\$ 7	\$ 7	0	0	7		
48 M0001650	Peahi Hui LLC (16 hrs) UG	Y		100.0%	100.0%	(\$ 10,958)	(\$ 10,958)	(649)	(649)	9,949		
49 M0001659	Disaster Recovery Data Ctr.	Y		100.0%	100.0%	\$ 976	\$ 976	(1,407)	(1,407)	(431)		
50 M0001664	Koekoa Hinstl (Fong) Subd			0.0%	0.0%	(\$ 260)	-	(\$ 89)	-	-	-	
51 M0001686	CB 6731 Replace	Y		100.0%	100.0%	\$ 480	\$ 480	35	35	514		
52 M0001687	CB 6727 Replace	Y		100.0%	100.0%	\$ 241	\$ 241	17	17	238		
53 M0001688	CB 6832 Replace	Y		100.0%	100.0%	\$ 248	\$ 248	18	18	266		
54 M0001696	Auwahi to KBY Fiber			100.0%	100.0%	\$ 3,693	\$ 3,693	266	266	3,961		
55 M0001699	MLP 14 - FIT System	Y		100.0%	100.0%	\$ 9,343	\$ 9,343	482	482	9,825		
56 M0001703	Monsanto Farm Pump-Mokuleke	Y		100.0%	100.0%	(\$ 1,115)	(\$ 1,115)	(1,729)	(1,729)	(2,844)		
57 M0001706	Mobile Substation	Y		100.0%	100.0%	(\$ 195,955)	(\$ 195,955)	11,107	11,107	207,062		
58 M0001707	SCADA/EMS Lifecycle 2014	Y		100.0%	100.0%	\$ 5,004	\$ 5,004	(1,456)	(1,456)	3,548		
59 M0001711	Waiiulu-Kunahe 69kV Upgrade			0.0%	0.0%	\$ 117,747	-	5,197	-	-	-	
60 M0001722	Waiiulu Hts Transformer	Y		100.0%	100.0%	\$ 36,606	\$ 36,606	(2,895)	(2,895)	33,711		
61 M0001745	Puunam Microwave Tower	Y		100.0%	100.0%	\$ 50,888	\$ 50,888	\$ 1,857	\$ 1,857	52,745		
62 M0001748	Bak North UG	Y		100.0%	100.0%	(\$ 2,267)	(\$ 2,267)	(1,079)	(1,079)	(3,346)		
63 M0001754	M14-16 Relay Upgrade			100.0%	100.0%	(\$ 721)	(\$ 721)	(301)	(301)	(1,022)		
64 M0001756	M17-19 Relay Upgrade	Y		100.0%	100.0%	(\$ 2,983)	(\$ 2,983)	(1,349)	(1,349)	(4,332)		
65 M0001767	LL1-LL6 480v Power Supply	Y		100.0%	100.0%	(\$ 2,696)	(\$ 2,696)	(1,150)	(1,150)	(3,846)		
66 M0001775	Waitaku Hts Sub 18 PQM	Y		100.0%	100.0%	(\$ 3,945)	(\$ 3,945)	(2,023)	(2,023)	(5,967)		
67 M0001846	Monsanto Pilani Gate OH			0.0%	0.0%	(\$ 20)	-	(8)	-	-	-	
68 M0001847	Lanai Ppu Kilea MW Repl	Y		100.0%	100.0%	\$ 2,290	\$ 2,290	(373)	(373)	1,918		
69 M0001854	Maui Brewing Company	Y		100.0%	100.0%	(\$ 2,990)	(\$ 2,990)	(1,049)	(1,049)	(3,140)		
70 M0001862	Hana Distribution Relocation			0.0%	0.0%	(\$ 41)	-	(16)	-	-	-	
71 M0001863	Japan-US Smart Grid - AMI			0.0%	0.0%	\$ 455	-	(18)	-	-	-	
72 M0001868	Japan-US SG Auto Switching	Y		100.0%	100.0%	(\$ 13,897)	(\$ 13,897)	(6,276)	(6,276)	(20,173)		
73 M0001873	SOH - Street Lights	Y		100.0%	100.0%	\$ 3,635	\$ 3,635	262	262	3,897		
74 M0001874	Mahana Est Water Pumps	Y		100.0%	100.0%	\$ 11,339	\$ 11,339	818	818	12,157		
75 M0001877	Foodland @ KVC UG Ext	Y		100.0%	100.0%	\$ 5,014	\$ 5,014	325	325	5,339		
76 M0001878	Maui Lani Phase 6, Incr. 1	Y		100.0%	100.0%	(\$ 1,683)	(\$ 1,683)	(2,362)	(2,362)	(4,045)		
77 M0001879	Sub 4 CB6642 Replacement	Y		100.0%	100.0%	\$ 5,929	\$ 5,929	(3,548)	(3,548)	2,381		
78 M0001880	MOL P03 Generator Replacement	Y		100.0%	100.0%	(\$ 219)	(\$ 219)	(1,02)	(1,02)	(321)		
79 M0001881	Altec Cable Handler Trailer	Y		100.0%	100.0%	\$ 18,015	\$ 18,015	1,299	1,299	19,314		
80 M0001882	Power Quality Recorders	Y		100.0%	100.0%	\$ 7,820	\$ 7,820	564	564	8,384		
81 M0001883	SCADA Remote Equipment	Y		100.0%	100.0%	\$ 2,077	\$ 2,077	(409)	(409)	1,669		
82 M0001887	MLP 6 - FITT	Y		100.0%	100.0%	\$ 5,994	\$ 5,994	244	244	6,238		
83 M0001889	Puunene Shopping Center	Y		100.0%	100.0%	\$ 17,914	\$ 17,914	929	929	18,843		
84 M0001891	Lanai Recloser Replacement	Y		100.0%	100.0%	\$ 9,633	\$ 9,633	(1,559)	(1,559)	8,074		
85 M0001892	MPP X1-X2 XPMR Replacement			0.0%	0.0%	(\$ 2,563)	-	(4,093)	-	-	-	

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ATTACHMENT 3
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Maui Electric Company, Ltd.
Energy Delivery Clearing Change Impact to 2014 Plant Additions

A	B	C	D	E	F	G	H=F+G	I	J=I+F	K=H+J
Project #	Project Description	2014 Plant Addition	Program	Allocation % (p. 6)	If Col. E >100% use 100%	ED Methodology Difference	2014 Plant Additions Impact of Col. C Difference	Allocation of Clearings Difference	2014 Plant Additions Impact of Col. D Difference	Total Impact to 2014 Plant Additions
86 M0001894	Keanak Sub Reconstruction			0.0%	0.0%	(470)	-	(212)	-	-
87 M0001897	Sub34 CB#6805 Replacement			0.0%	0.0%	3,156	-	(39)	-	-
88 M0001899	Sub34 CB#6808 Replacement			0.0%	0.0%	(409)	-	(332)	-	-
89 M0001899	Sub34 CB#6811 Replacement			0.0%	0.0%	10,263	-	451	-	-
90 M0001904	Power Monitors	Y		100.0%	100.0%	4,369	4,369	315	315	4,684
91 M0001909	Owens FIT Customer	Y		100.0%	100.0%	(770)	(770)	(988)	(988)	(1,758)
92 M0001910	MFO - OH Reloc.	Y		100.0%	100.0%	(1,897)	(1,897)	(1,826)	(1,826)	(3,723)
93 M0001911	Kook Res Regulator Repl	Y		100.0%	100.0%	(1,579)	(1,579)	(1,137)	(1,137)	(2,716)
94 M0001912	MLP 10 - FIT	Y		100.0%	100.0%	23,722	23,722	1,600	1,600	25,322
95 M0001914	Distrib. Circuit Monitoring	Y		100.0%	100.0%	29,611	29,611	(10,192)	(10,192)	19,419
96 M0001916	Waikuku Well Development			0.0%	0.0%	(121)	-	(49)	-	-
97 M0001917	3Par Storage	Y		100.0%	100.0%	568	568	41	41	609
98 M0001918	MPP-PUU Comm Addition			0.0%	0.0%	(916)	-	(396)	-	-
99 M0001919	Upcountry Recloser Repl			0.0%	0.0%	5,629	-	366	-	-
100 M0001920	West Maui Recloser Repl			0.0%	0.0%	5,193	-	334	-	-
101 M0001921	North Shore Recloser Repl			0.0%	0.0%	5,554	-	394	-	-
102 M0001922	Central Maui Recloser Repl			0.0%	0.0%	5,372	-	354	-	-
103 M0001923	Owens FIT System			0.0%	0.0%	(371)	-	(661)	-	-
104 M0001926	BioReal 2.5M FIT System			0.0%	0.0%	(178)	-	(80)	-	-
105 M0001927	Mobile DC Power System	Y		100.0%	100.0%	9,758	9,758	556	556	10,313
106 M0001928	Waikapu Gardens Ph2			0.0%	0.0%	(78)	-	(29)	-	-
107 M0001934	Molokai Wtr Tunnel Recloser			0.0%	0.0%	(1,765)	-	(854)	-	-
108 M0001950	VIP - Cash 'N Carry Lahaina			0.0%	0.0%	(64)	-	(25)	-	-
109 M0001951	Fiber & Electrical Test Eqpt	Y		100.0%	100.0%	4,286	4,286	309	309	4,596
110 M0001970	PTC - Baldwin Bldg			0.0%	0.0%	(25)	-	(9)	-	-
111 M0001972	MEO Transportation Fac.	Y		100.0%	100.0%	1,093	1,093	79	79	1,172
112 M3300000	Transmission Sub Additions	Y	Y	54.9%	54.9%	2,683	1,473	42	23	1,496
113 M3500000	Minor Transm Plant Lincs	Y	Y	93.6%	93.6%	27,479	25,733	(1,740)	(1,629)	24,104
114 M3544000	Kaahumanu T&D Ln Reconstruction			100.0%	100.0%	(74)	(74)	(26)	(26)	(100)
115 M3598000	Ph 1-Wales Ave T&D Ln Reconstruct			0.0%	0.0%	-	-	-	-	-
116 M3601000	Minor Distribution Ss Add	Y	Y	24.5%	24.5%	3,053	748	(96)	(24)	725
117 M7001000	Overhead Services & Extensions	Y	Y	89.6%	89.6%	(48,271)	(43,272)	(26,377)	(23,645)	(66,917)
118 M7010000	Oh Svc & Extensions	Y	Y	-164.3%	100.0%	(2,503)	(2,503)	(1,138)	(1,138)	(3,641)
119 M7300000	Minor Pole Line Reloca	Y	Y	58.2%	58.2%	(7,532)	(4,381)	(4,161)	(2,420)	(6,801)
120 M7750000	Other Overhead Additions	Y	Y	93.3%	93.3%	382,573	357,884	(52,646)	(49,248)	308,636
121 M7900000	Meters & Metering Equip (RB)	Y	Y	100.0%	100.0%	(90,047)	(90,047)	(44,126)	(44,126)	(134,173)
122 M7910000	Transformers & Rel. Eq. (RB)	Y	Y	100.0%	100.0%	1,739	1,739	(416)	(416)	1,322
123 M7990000	Street Lights	Y	Y	90.3%	90.3%	11,533	10,419	(1,389)	(1,255)	9,164
124 M8000000	Underground Services & Exts.	Y	Y	87.4%	87.4%	(56,433)	(49,312)	(30,412)	(26,574)	(75,886)
125 M8010000	Uh Services & Extensions	Y	Y	127.3%	100.0%	(4,210)	(4,210)	(2,326)	(2,326)	(6,536)
126 M8510000	Minor Oh-Ug Conversions	Y	Y	44.0%	44.0%	(285)	(125)	(98)	(43)	(168)
127 M8710000	Minor Cable Failure Replace.	Y	Y	99.8%	99.8%	717	716	(7,731)	(7,719)	(7,003)
128 M8910000	Other Underground Additions	Y	Y	94.2%	94.2%	339,726	320,135	(7,845)	(7,393)	312,742
129 M9010000	Minor Communication Facilities	Y	Y	131.2%	100.0%	526	526	31	31	557
130 M910K3000	Mobile Radio Repl	Y	Y	100.0%	100.0%	735	735	53	53	788
131 M9411000	Tools & Equip-T&D	Y	Y	109.3%	100.0%	22,663	22,663	1,635	1,635	24,297
132 M9662000	Office Furn And Equip T&D	Y	Y	100.0%	100.0%	206	206	15	15	221
133 Totals						\$ 1,262,085	\$ 1,103,364	\$ (245,444)	\$ (220,065)	\$ 883,299

Sources:

Column G, line 133: PUC-IR-1 Transmittal No. 15-03/15-04/15-05, Attachment 4, page 4
 Column H, line 133: PUC-IR-1 Transmittal No. 15-03/15-04/15-05, page 8 of 14 (ED Plant Additions)
 Column I, line 133: CA-IR-1a Transmittal No. 15-03/15-04/15-05

ED Methodology Difference	\$ 1,262,085	Column G, line 133
Allocations of Clearings Difference	\$ (245,444)	Column I, line 133
Attachment 1, p 1 (G50 NI Difference)	\$ 1,016,641	

Maui Electric Company, Ltd
Energy Delivery Clearing Change Impact to 2014 Removals

Project #	Project Description	A		B		C		D		E		F		G		H=F+G		I		J=I+F		K=H+J	
		2014 Plant Addition	Program	Allocation % (p. 6)		If Col. E > 100% use 100%								ED Methodology Difference	2014 Removals Impact of Col. G Difference	Allocation of Clearings Difference	2014 Removals Impact of Col. I Difference	Total Impact to 2014 Removals					
1 M0000039	Damaged Caused by External Party	Y	Y	107.1%		100.0%		\$ (6,303)		\$ (6,303)		\$ (2,892)		\$ (2,892)		\$ (9,195)							
2 M0000136	LCM-Batteries&Chargers	Y	Y	100.0%		100.0%		(914)		(914)		(460)		(460)		(1,373)							
3 M0000690	T&S Scada Equipment	Y	Y	100.0%		100.0%		(36)		(36)		(16)		(16)		(32)							
4 M0000189	LCM - Substation Equipment	Y	Y	65.4%		65.4%		(719)		(470)		(308)		(308)		(671)							
5 M0001264	Maalaea REL Repl			0.0%		0.0%		(1,342)		-		(575)		-		-							
6 M0001334	Sub 17 CB673 Replacement	Y		100.0%		100.0%		(357)		(357)		(386)		(386)		(743)							
7 M0001359	Lahaina-Lahainaluna SEL Repl	Y		100.0%		100.0%		(1,052)		(1,052)		(433)		(433)		(1,485)							
8 M0001360	Lahainaluna-Lahaina SEL Repl	Y		100.0%		100.0%		(834)		(834)		(336)		(336)		(1,171)							
9 M0001395	Kaumakai Town Upgrade	Y		100.0%		100.0%		17,344		17,344		1,251		1,251		18,595							
10 M0001406	Puunene-Maalaea Ry Upgr			0.0%		0.0%		(1,060)		-		(470)		-		-							
11 M0001517	Kuan Modular Sub	Y		100.0%		100.0%		(17)		(17)		(1,293)		(1,293)		(1,310)							
12 M0001531	Kula Ag Taf Replacement			0.0%		0.0%		(1,818)		-		(814)		-		-							
13 M0001686	CB 6731 Replace	Y		100.0%		100.0%		200		200		14		14		214							
14 M0001687	CB 6727 Replace	Y		100.0%		100.0%		200		200		14		14		214							
15 M0001688	CB 6832 Replace	Y		100.0%		100.0%		206		206		15		15		221							
16 M0001706	Mobile Substation	Y		100.0%		100.0%		6,060		6,060		424		424		6,484							
17 M0001722	Wailuku His Transformer	Y		100.0%		100.0%		(3,228)		(3,228)		(1,464)		(1,464)		(4,692)							
18 M0001775	Wailuku His Sub 18-PQM	Y		100.0%		100.0%		(75)		(75)		(32)		(32)		(107)							
19 M0001847	Lanai Puu Kiwa MW Repl	Y		100.0%		100.0%		1,225		1,225		88		88		1,314							
20 M0001879	Sub 4 CB6842 Replacement	Y		100.0%		100.0%		(2,953)		(2,953)		(1,307)		(1,307)		(4,259)							
21 M0001891	Lanai Recloser Replacement	Y		100.0%		100.0%		(1,669)		(1,669)		(760)		(760)		(2,428)							
22 M0001892	MPP XI-X2 XFMR Replacement			0.0%		0.0%		1,597		-		115		-		-							
23 M0001910	MEO - OH Reloc.	Y		100.0%		100.0%		(454)		(454)		(194)		(194)		(649)							
24 M0001911	Koole Rees Regulator Repl	Y		100.0%		100.0%		(3,077)		(3,077)		(1,346)		(1,346)		(4,423)							
25 M0001922	Central Maui Recloser Repl			0.0%		0.0%		296		-		(214)		-		-							
26 M0001934	Molokai Wtr Tunnel Recloser			0.0%		0.0%		(219)		-		(98)		-		-							
27 M3300000	Transmission Sub Additions	Y	Y	54.9%		54.9%		(18)		(18)		(8)		(8)		(14)							
28 M3500000	Minor Transm Plant Lines	Y	Y	93.6%		93.6%		795		795		(2,438)		(2,438)		(2,658)		(1,914)					
29 M7000000	Overhead Services & Extensions	Y	Y	89.6%		89.6%		(6,627)		(5,941)		(2,898)		(2,898)		(8,538)							
30 M7300000	Minor Pole Line Reloca	Y	Y	58.2%		58.2%		(1,820)		(1,820)		(794)		(794)		(1,521)							
31 M7750000	Other Overhead Additions	Y	Y	93.5%		93.5%		34,549		32,319		(42,72)		(42,72)		(39,918)		(7,599)					
32 M7900000	Meters & Metering Equip (RB)	Y	Y	100.0%		100.0%		(14,628)		(14,628)		(6,142)		(6,142)		(20,770)							
33 M7910000	Transformers & Rel Eq (RB)	Y	Y	100.0%		100.0%		13,415		13,415		(6,173)		(6,173)		7,242							
34 M7990000	Street Lights	Y	Y	90.3%		90.3%		176		176		(1,002)		(1,002)		(905)		(746)					
35 M8000000	Underground Services & Extns.	Y	Y	87.4%		87.4%		(3,764)		(3,764)		(1,595)		(1,595)		(1,394)		(4,613)					
36 M8500000	Minor Oh-Ug Conversions	Y	Y	44.0%		44.0%		(231)		(231)		(91)		(91)		(141)							
37 M8700000	Minor Cable Failure Replace.	Y	Y	99.8%		99.8%		(8,213)		(8,213)		(7,358)		(7,358)		(15,746)							
38 M8900000	Other Underground Additions	Y	Y	94.2%		94.2%		(35,038)		(35,038)		(12,251)		(12,251)		(2,182)		(12,069)					
39	Totals							\$ 149,674		\$ 144,457		\$ (85,562)		\$ (79,335)		\$ 65,121							

Source:

Column G, line 39. PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, Attachment 4, page 4
 Column H, line 39. PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, page 8 of 14 (ED- Removals)
 Column I, line 39. CA-IR-1a Transmittal Nos. 15-03/15-04/15-05

ED Methodology Difference	\$ 149,674	Column G, line 39
Allocations of Clearings Difference	(85,562)	Column I, line 39
Attachment 1, p.1 (G50 NR Difference)	\$ 64,111	

Maui Electric Company, Ltd.
Power Supply Clearing Change Impact to 2014 Plant Additions

Project #	Project Description	2014 Plant Addition	Program	Allocation % (p. 6)	If Col E > 100%, use 100%	G	H+F+G	I	J=I+F	K=H+J
1	M0000974	M19 Bypass Damper	Y	100.0%	100.0%	\$ 11,427	\$ 11,427	\$ 900	\$ 900	\$ 12,327
2	M0000975	M17 Bypass Damper	Y	100.0%	100.0%	11,402	11,402	724	724	12,126
3	M0001143	M4 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
4	M0001145	M1 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
5	M0001157	M10 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
6	M0001168	M5 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
7	M0001170	M2 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
8	M0001173	M3 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
9	M0001174	X2 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
10	M0001175	X1 Oxidation Catalyst	Y	100.0%	100.0%	118	118	13	13	131
11	M0001178	MPP UIC Well Modifications		0.0%	0.0%	1,722	-	(530)	-	-
12	M0001187	M7 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
13	M0001188	M6 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
14	M0001190	M13 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
15	M0001191	M12 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
16	M0001192	M11 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
17	M0001193	M8 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
18	M0001194	M9 Oxidation Catalyst	Y	100.0%	100.0%	3	3	0	0	4
19	M0001243	L11 Oxidation Catalyst	Y	100.0%	100.0%	41	41	4	4	45
20	M0001250	Hana Unit Oxidation Catalyst	Y	100.0%	100.0%	4	4	0	0	4
21	M0001252	Mol Cat1 Oxidation Catalyst	Y	100.0%	100.0%	13	13	1	1	15
22	M0001420	M14 2014 Hot Section	Y	100.0%	100.0%	26,548	26,548	2,393	2,393	28,941
23	M0001421	M17 2014 Hot Section	Y	100.0%	100.0%	37,377	37,377	3,614	3,614	40,990
24	M0001528	LL3-4 Breakers	Y	100.0%	100.0%	147	147	16	16	163
25	M0001541	Molokai Waste Storage Struct		0.0%	0.0%	1,993	-	215	-	-
26	M0001652	M14-M17 COMs Relocation	Y	100.0%	100.0%	1,367	1,367	(75)	(75)	1,292
27	M0001697	M19 Gca Breaker	Y	100.0%	100.0%	153	153	16	16	169
28	M0001714	M14-16 Switchge Breaker Upgd		0.0%	0.0%	4,636	-	231	-	-
29	M0001717	MPP DCS HMI EVOLUTION	Y	100.0%	100.0%	2,816	2,816	276	276	3,091
30	M0001722	Wahuku His Transformer	Y	100.0%	100.0%	(4)	(4)	(6)	(6)	(10)
31	M0001752	GT Day Tank		0.0%	0.0%	(56)	-	(110)	-	-
32	M0001754	M14-16 Relay Upgrade	Y	100.0%	100.0%	17,026	17,026	(3,388)	(3,388)	13,638
33	M0001755	MOL Cat Controls Upgrade	Y	100.0%	100.0%	28,470	28,470	(5,535)	(5,535)	22,935
34	M0001756	M17-19 Relay Upgrade	Y	100.0%	100.0%	8,422	8,422	(1,523)	(1,523)	6,899
35	M0001762	MPP Inter Lighting 2014	Y	100.0%	100.0%	2,367	2,367	276	276	2,844
36	M0001767	LL1-LL6 40kA Power Supply	Y	100.0%	100.0%	2,688	2,688	(1,171)	(1,171)	1,517
37	M0001774	Claving Milling Machine	Y	100.0%	100.0%	1,544	1,544	51	51	1,595
38	M0001860	MPP Biodiesel Tank	Y	100.0%	100.0%	1,635	1,635	(1,164)	(1,164)	472
39	M0001875	M14 Low Load Modifications		0.0%	0.0%	3,398	-	15	-	-
40	M0001876	M16 Low Load Modifications		0.0%	0.0%	3,652	-	393	-	-
41	M0001880	MOL P05 Generator Replacement	Y	100.0%	100.0%	870	870	(1,167)	(1,167)	(297)
42	M0001884	MOL G7-9 Catalyst Access Sce	Y	100.0%	100.0%	4,255	4,255	458	458	4,713
43	M0001902	CEMS/RICE Upgrades	Y	100.0%	100.0%	1,116	1,116	120	120	1,236
44	M0001930	Mechanic Shop Roof Replace	Y	100.0%	100.0%	3,581	3,581	386	386	3,966
45	M0001957	MPP Spin A/C Units	Y	100.0%	100.0%	1,553	1,553	(22)	(22)	1,531
46	M0001961	DCS Controller Modules Upgr	Y	100.0%	100.0%	4,688	4,688	376	376	5,064
47	M26001000	MPP Minor PS Additions	Y	104.1%	100.0%	4,257	4,257	(1,717)	(1,717)	2,540
48	M2601100	KPP Minor PS Additions	Y	100.0%	100.0%	(15)	(15)	(45)	(45)	(61)
49	M26021000	LPP Minor PS Addition	Y	100.0%	100.0%	75	75	(685)	(685)	(610)
50	M26031000	MOE Minor PS Addtion	Y	152.0%	100.0%	9	9	1	1	10
51	M31183000	SCR Demonstration Project	Y	100.0%	100.0%	69	69	7	7	77
52	M32101000	MPP Minor PP Additions	Y	66.3%	66.3%	3,598	2,387	(52)	(34)	2,352
53	M32101000	KPP Minor PP Additions	Y	100.0%	100.0%	554	554	16	16	370
54	M32102000	LPP Minor PP Additions	Y	100.0%	100.0%	1,008	1,008	108	108	1,116
55	M32203000	MOE Minor PP Additions	Y	100.0%	100.0%	786	786	35	35	821
56	M9420000	Tools & Equip-Production	Y	98.3%	98.3%	6,419	6,308	584	574	6,883
57	M96063000	Office Furn and Equip	Y	100.0%	100.0%	1,325	1,325	143	143	1,467
58	Totals					\$ 203,300	\$ 186,633	\$ (5,812)	\$ (6,019)	\$ 180,614

Source:

Column G, line 58: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, Attachment 4, page 5
 Column H, line 58: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, page 8 of 14 (PS: Plant Additions)
 Column I, line 58: CA-IR-1a Transmittal Nos. 15-03/15-04/15-05

PS Methodology Difference \$ 203,300 Column G, line 58
 Allocations of Clearings Difference (5,812) Column I, line 58
 Attachment 1, p 2 (G50 NI Difference) \$ 197,488

Maui Electric Company, Ltd.
Power Supply: Clearing Change Impact to 2014 Removals

Project #	Project Description	2014 Plant Addition	D	E	F	G	H=F+G		I	J=I+F	K=H+J
							PS Methodology Difference	2014 Removals Impact of Col. C Difference			
1 M000183	Cat8 Oxidation Catalyst	Y		100.0%	100.0%	\$ (14)	\$ (14)	\$ (23)	\$ (23)	\$ (37)	
2 M0001420	M14 2014 Hot Section	Y		100.0%	100.0%	(305)	(305)	(647)	(647)	(952)	
3 M0001421	M17 2014 Hot Section	Y		100.0%	100.0%	(308)	(308)	(504)	(504)	(812)	
4 M0001714	M14-16 Switchgear Breaker Upgd			0.0%	0.0%	(23)	-	(35)	-	-	
5 M0001752	GT Day Tank			0.0%	0.0%	135	-	15	-	-	
6 M0001754	M14-16 Relay Upgrade	Y		100.0%	100.0%	(353)	(353)	(657)	(657)	(1,010)	
7 M0001755	MOL Cat Controls Upgrade	Y		100.0%	100.0%	(594)	(594)	(1,042)	(1,042)	(1,636)	
8 M0001756	M17-19 Relay Upgrade	Y		100.0%	100.0%	(200)	(200)	(323)	(323)	(523)	
9 M0001767	LL1-LL6 480V Power Supply	Y		100.0%	100.0%	(1,198)	(1,198)	(1,991)	(1,991)	(3,189)	
10 M0001880	MOL P05 Generator Replacement	Y		100.0%	100.0%	(30)	(30)	(55)	(55)	(85)	
11 M0001957	MPP Split A/C Units	Y		100.0%	100.0%	(4)	(4)	(6)	(6)	(10)	
12 M0001961	DCS Controller Modules Upgr	Y		100.0%	100.0%	(33)	(33)	(53)	(53)	(86)	
13 M2600000	MPP Minor Ps Additions	Y	Y	104.1%	100.0%	(41)	(41)	(122)	(122)	(163)	
14	Totals					\$ (2,966)	\$ (3,078)	\$ (5,444)	\$ (5,423)	\$ (8,502)	

Source:

Column G, line 14: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, Attachment 4, page 5
 Column H, line 14: PUC-IR-1 Transmittal Nos. 15-03/15-04/15-05, page 8 of 14 (PS: Removals)
 Column I, line 14: CA-IR-1a Transmittal Nos. 15-03/15-04/15-05

PS Methodology Difference \$ (2,966) Column G, line 14
 Allocations of Clearings Difference \$(5,444) Column I, line 14
 Attachment I, p 2 (G50 NR Difference) \$ (8,410)

Maui Electric Company, Ltd.

Program Allocation %

Line #	Project #	Project Description	A 2014 Plant Additions	B 2014 Capex	C Program	D = A/B % allocation for Programs Only (Projects 100%)
1	M0000019	M0000019: Damages Caused by External Party	60,725	56,698	Y	107.1%
2	M0000229	M0000229: Lifecycle Maintenance 02-03	114,774	112,278	Y	102.2%
3	M0000300	M0000300: Repl.Dist.Tools&Equip	(391)	(391)	Y	100.0%
4	M0000316	M0000316: LCM-Batteries&Chargers	57,505	57,505	Y	100.0%
5	M0000461	M0000461: T&D/Main Offc Bldg Upgrade	72,430	86,456	Y	83.8%
6	M0000531	M0000531: PowerTrax Customer Web Info	1,344	517	Y	260.1%
7	M0000690	M0000690: T&D Scada Equipment	38,753	38,753	Y	100.0%
8	M0000819	M0000819: LCM - Substation Equipment	17,648	26,982	Y	65.4%
9	M0001031	M0001031: Security Capital Equipment	52,046	52,046	Y	100.0%
10	M2600000	M2600000: MPP MINOR PS ADDITIONS	200,040	192,097	Y	104.1%
11	M2601000	M2601000: KPP MINOR PS ADDITIONS	10,943	10,943	Y	100.0%
12	M2602000	M2602000: LPP MINOR PS ADDITION	53,302	53,302	Y	100.0%
13	M2603000	M2603000: MOE MINOR PS ADDITION	23,833	15,677	Y	152.0%
14	M3030000	M3030000: MINOR R/W PURCH & APPRAI-MAUI	(29,385)	(29,385)	Y	100.0%
15	M3032000	M3032000: MINOR R/W PURCH & APPRAI-LANAI	(583)	(583)	Y	100.0%
16	M3033000	M3033000: MINOR R/W PURCH & APPRAI-MOLOF	(930)	(930)	Y	100.0%
17	M3200000	M3200000: MPP MINOR PP ADDITIONS	97,834	147,490	Y	66.3%
18	M3201000	M3201000: KPP MINOR PP ADDITIONS	13,623	13,623	Y	100.0%
19	M3202000	M3202000: LPP MINOR PP ADDITIONS	32,518	32,518	Y	100.0%
20	M3203000	M3203000: MOE MINOR PP ADDITIONS	30,704	30,704	Y	100.0%
21	M3300000	M3300000: TRANSMISSION SUB ADDITIONS	25,896	47,182	Y	54.9%
22	M3500000	M3500000: MINOR TRANSM PLANT LINES	456,425	487,385	Y	93.6%
23	M3600000	M3600000: MINOR DISTRIBUTION SS ADD	16,093	65,658	Y	24.5%
24	M7000000	M7000000: OVERHEAD SERVICES & EXTENSION:	1,362,535	1,519,951	Y	89.6%
25	M7010000	M7010000: OH SVC & EXTENSIONS	173,897	(10,575)	Y	-1644.5%
26	M7300000	M7300000: MINOR POLE LINE RELOCA	99,697	171,404	Y	58.2%
27	M7750000	M7750000: Other Overhead additions	8,678,729	9,277,451	Y	93.5%
28	M7900000	M7900000: METERS & METERING EQUIP (RB)	1,218,646	1,209,047	Y	100.8%
29	M7910000	M7910000: TRANSFORMERS & REL. EQ. (RB)	3,251,562	3,251,562	Y	100.0%
30	M7990000	M7990000: STREET LIGHTS	272,257	301,373	Y	90.3%
31	M8000000	M8000000: UNDERGROUND SERVICES & EXTNS.	2,109,387	2,413,980	Y	87.4%
32	M8010000	M8010000: UG SERVICES & EXTENSIONS	280,884	220,581	Y	127.3%
33	M8500000	M8500000: MINOR OH-UG CONVERSIONS	4,474	10,178	Y	44.0%
34	M8700000	M8700000: MINOR CABLE FAILURE REPLACE.	502,043	502,819	Y	99.8%
35	M8900000	M8900000: Other Underground Additions	6,192,330	6,571,280	Y	94.2%
36	M9000000	M9000000: Minor Communication Facilities	8,227	6,271	Y	131.2%
37	M9083000	M9083000: Mobile Radio Repl	9,619	9,619	Y	100.0%
38	M9410000	M9410000: TOOLS & EQUIP-T&D	412,612	377,629	Y	109.3%
39	M9420000	M9420000: TOOLS & EQUIP-PRODUCTION	165,753	168,670	Y	98.3%
40	M9660000	M9660000: OFFICE FURN AND EQUIP ACC	488	488	Y	100.0%
41	M9661000	M9661000: OFFICE FURN AND EQUIP ADMIN	23,624	9,084	Y	260.1%
42	M9662000	M9662000: OFFICE FURN AND EQUIP T&D	2,089	2,089	Y	100.0%
43	M9663000	M9663000: OFFICE FURN AND EQUIP PRO	56,629	56,629	Y	100.0%
44	M9664000	M9664000: OFFICE FURN AND EQUIP ENG	20,445	23,246	Y	88.0%
45	M9665000	M9665000: OFFICE FURN AND EQUIP CUS	5,786	3,401	Y	170.2%
46	M9667000	M9667000: Offc Furn & Equip Renew Dpt	3,167	-	Y	#DIV/0!
47	M9800000	M9800000: Vehicle Purchases	1,109,813	1,109,813	Y	100.0%
48	M0000390	M0000390: Palau Sub Tsf Repl	0	0	N	100%
49	M0000694	M0000694: MPP-Kealahou Relay Upgrade	12,420	12,420	N	100%
50	M0000974	M0000974: M19 Bypass Damper	677,078	486,944	N	100%
51	M0000975	M0000975: M17 Bypass Damper	676,170	486,036	N	100%

Maui Electric Company, Ltd.

Program Allocation %

Line #	Project #	Project Description	A 2014 Plant Additions	B 2014 Capex	C Program	D = A/B % allocation for Programs Only (Projects 100%)
52	M0001139	M0001139: Maui BESS	222,680	2,207	N	100%
53	M0001143	M0001143: M4 Oxidation Catalyst	2,631	2,631	N	100%
54	M0001145	M0001145: M1 Oxidation Catalyst	2,631	(9,435)	N	100%
55	M0001157	M0001157: M10 Oxidation Catalyst	2,631	2,631	N	100%
56	M0001168	M0001168: M5 Oxidation Catalyst	2,631	2,631	N	100%
57	M0001170	M0001170: M2 Oxidation Catalyst	2,631	(9,435)	N	100%
58	M0001173	M0001173: M3 Oxidation Catalyst	2,631	(9,435)	N	100%
59	M0001174	M0001174: X2 Oxidation Catalyst	2,631	(9,436)	N	100%
60	M0001175	M0001175: X1 Oxidation Catalyst	5,788	(6,844)	N	100%
61	M0001182	M0001182: Cat9 Oxidation Catalyst	5,556	-	N	100%
62	M0001183	M0001183: Cat8 Oxidation Catalyst	15,683	11,261	N	100%
63	M0001184	M0001184: Cat7 Oxidation Catalyst	3,977	-	N	100%
64	M0001185	M0001185: LL8 Oxidation Catalyst	785	785	N	100%
65	M0001187	M0001187: M7 Oxidation Catalyst	2,631	2,631	N	100%
66	M0001188	M0001188: M6 Oxidation Catalyst	2,631	2,631	N	100%
67	M0001189	M0001189: LL7 Oxidation Catalyst	797	797	N	100%
68	M0001190	M0001190: M13 Oxidation Catalyst	2,631	2,631	N	100%
69	M0001191	M0001191: M12 Oxidation Catalyst	2,631	2,631	N	100%
70	M0001192	M0001192: M11 Oxidation Catalyst	2,631	2,631	N	100%
71	M0001193	M0001193: M8 Oxidation Catalyst	2,631	2,631	N	100%
72	M0001194	M0001194: M9 Oxidation Catalyst	2,631	2,631	N	100%
73	M0001203	M0001203: Maui Hyatt Timeshare	104,636	38,687	N	100%
74	M0001209	M0001209: KPP Imprv Wtr Supply Ph2	52,086	(1,267)	N	100%
75	M0001228	M0001228: SCADA/EMS Lifecycle 2013	(278)	(278)	N	100%
76	M0001240	M0001240: LL6 Oxidation Catalyst	785	785	N	100%
77	M0001243	M0001243: LL1 Oxidation Catalyst	1,788	1,473	N	100%
78	M0001244	M0001244: LL2 Oxidation Catalyst	785	785	N	100%
79	M0001245	M0001245: LL3 Oxidation Catalyst	785	785	N	100%
80	M0001246	M0001246: LL4 Oxidation Catalyst	785	785	N	100%
81	M0001249	M0001249: LL5 Oxidation Catalyst	790	790	N	100%
82	M0001250	M0001250: Hana Unit Oxidation Catalyst	399	399	N	100%
83	M0001252	M0001252: Mol Cat1 Oxidation Catalyst	13,944	(4,599)	N	100%
84	M0001253	M0001253: Mol Cat2 Oxidation Catalyst	6,202	(4,946)	N	100%
85	M0001254	M0001254: Mol Cum3 Oxidation Catalyst	4,162	(4,918)	N	100%
86	M0001255	M0001255: Mol Cum4 Oxidation Catalyst	4,142	10	N	100%
87	M0001256	M0001256: Mol Cum5 Oxidation Catalyst	4,132	-	N	100%
88	M0001257	M0001257: Mol Cum6 Oxidation Catalyst	4,152	20	N	100%
89	M0001291	M0001291: ATST	(1,093)	(1,093)	N	100%
90	M0001298	M0001298: Iao Valley Homesteads	151,545	120,495	N	100%
91	M0001301	M0001301: Hana Plantation	154,085	80,419	N	100%
92	M0001327	M0001327: ERIC BRYANT	35,888	10,308	N	100%
93	M0001328	M0001328: LAH WATERSHED PH.2	(9,322)	(9,322)	N	100%
94	M0001334	M0001334: Sub 17 CB6783 Replacement	185,000	185,000	N	100%
95	M0001350	M0001350: Molokai Recloser Upgrade	1,475	1,475	N	100%
96	M0001354	M0001354: Mahana Estates	647	12,194	N	100%
97	M0001355	M0001355: 2013 Switchgear Replacement	6,156	(1,337)	N	100%
98	M0001358	M0001358: Kanaha-Pukalani REL Repl	190,292	190,292	N	100%
99	M0001359	M0001359: Lahaina-Lahainaluna SEL Repl	201,247	201,247	N	100%
100	M0001360	M0001360: Lahainaluna-Lahaina SEL Repl	198,538	198,538	N	100%
101	M0001384	M0001384: DBEDT Molokai Upgrades	(40)	(40)	N	100%
102	M0001395	M0001395: Kaunakakai Town Upgrade	1,010,279	1,010,279	N	100%
103	M0001402	M0001402: Pukalani-Kula Rly Upgr	(4,946)	(4,946)	N	100%
104	M0001403	M0001403: Maalaea-Lluna Rly Upgr	5,900	5,900	N	100%

Maui Electric Company, Ltd.

Program Allocation %

Line #	Project #	Project Description	A	B	C	D = A/B
			2014 Plant Additions	2014 Capex	Program	% allocation for Programs Only (Projects 100%)
105	M0001404	M0001404: Kula-Kealahou Rly Upgr	42,045	41,175	N	100%
106	M0001405	M0001405: Kealahou-Kula Rly UPgr	2,726	2,726	N	100%
107	M0001407	M0001407: Pukalani-Kanaha Rly Upgr	174,143	174,143	N	100%
108	M0001408	M0001408: Lluna-Maalaea Rly Upgr	25,953	25,953	N	100%
109	M0001409	M0001409: Kula-Pukalani Rly Upgr	10,256	18,253	N	100%
110	M0001411	M0001411: KBY Site Improvements	(1,000)	(1,000)	N	100%
111	M0001420	M0001420: M14 2014 Hot Section	992,514	992,514	N	100%
112	M0001421	M0001421: M17 2014 Hot Section	1,001,241	1,001,241	N	100%
113	M0001436	M0001436: Lanai Battery Banks (2)	(344)	(344)	N	100%
114	M0001513	M0001513: Mahinahina Switchgear	10,794	9,002	N	100%
115	M0001517	M0001517: Kuau Modular Sub	782,456	782,456	N	100%
116	M0001523	M0001523: M14 / 16 PCV Valves	11,295	11,295	N	100%
117	M0001528	M0001528: LL3-4 Breakers	4,573	(36)	N	100%
118	M0001554	M0001554: Kahului Airport Acc Rd Ph 1 OH	118,670	88,242	N	100%
119	M0001571	M0001571: M16 50K Capital Overhaul	(80,406)	(80,406)	N	100%
120	M0001600	M0001600: Kihei 12kV Pole Installation	185,977	185,977	N	100%
121	M0001601	M0001601: Kihei 69kV Pole Loading Upgr	(184,177)	(185,876)	N	100%
122	M0001636	M0001636: 2012 Switch Replacement	23,283	23,283	N	100%
123	M0001637	M0001637: 2012 Laptop Replacement #1	(23,283)	(23,283)	N	100%
124	M0001639	M0001639: Rplc E65 H.P. Hwy Kaanapali	(894)	(894)	N	100%
125	M0001642	M0001642: Rpl 75' H2, E13 Piilani Hwy	(1,002)	(1,002)	N	100%
126	M0001643	M0001643: Rpl E76A Riser Sub 23 Puukol	(1,101)	(1,101)	N	100%
127	M0001650	M0001650: Peahi Hui LLC (16 Its) UG	732,146	662,317	N	100%
128	M0001652	M0001652: M14-M17 COMs Relocation	44,507	44,507	N	100%
129	M0001654	M0001654: Walgreens Wailuku UG	50,092	4,987	N	100%
130	M0001659	M0001659: Disaster Recovery Data Ctr.	335,603	280,282	N	100%
131	M0001680	M0001680: Piiholo Wtr Trtmnt OH Reloc	39,020	4,222	N	100%
132	M0001683	M0001683: M15 Gland Steam Valve	31,828	31,828	N	100%
133	M0001685	M0001685: Mitsubishi Control Upgrades	117,506	14,742	N	100%
134	M0001686	M0001686: CB 6731 Replace	(27,927)	(27,927)	N	100%
135	M0001687	M0001687: CB 6727 Replace	32,469	32,469	N	100%
136	M0001688	M0001688: CB 6832 Replace	2,398	2,398	N	100%
137	M0001690	M0001690: Makani Sands Sys Upgrade	54,051	(12,949)	N	100%
138	M0001691	M0001691: Lanai Anchors	41,369	(18,631)	N	100%
139	M0001695	M0001695: MPP Facility Outdoor Light	18,854	(107)	N	100%
140	M0001696	M0001696: Auwahi to KBY Fiber	861,425	73,211	N	100%
141	M0001697	M0001697: M19 Gen Breaker	4,792	(40)	N	100%
142	M0001699	M0001699: MLP 14 - FIT System	141,549	114,256	N	100%
143	M0001702	M0001702: Kevin Davison UG	31,791	7,866	N	100%
144	M0001703	M0001703: Monsanto Farm Pump-Mokulele	80,265	67,639	N	100%
145	M0001704	M0001704: VMWare/Server Replacement	28,753	1,670	N	100%
146	M0001706	M0001706: Mobile Substation	2,156,361	2,131,193	N	100%
147	M0001707	M0001707: SCADA/EMS Lifecycle 2014	184,835	133,908	N	100%
148	M0001713	M0001713: Rpl 2 MV Circuit Breakers	(106)	(106)	N	100%
149	M0001715	M0001715: LLHS OH Relocation	48,698	42,092	N	100%
150	M0001717	M0001717: MPP DCS HMI EVOLUTION	97,215	39,599	N	100%
151	M0001722	M0001722: Wailuku Hts Transformer	725,266	725,266	N	100%
152	M0001744	M0001744: MGS Storm Water Imprv	11,378	11,378	N	100%
153	M0001745	M0001745: Puunana Microwave Tower	1,032,570	995,556	N	100%
154	M0001748	M0001748: Bak North UG	79,879	40,733	N	100%
155	M0001749	M0001749: MOL P06 Generator Replacement	701	684	N	100%
156	M0001754	M0001754: M14-16 Relay Upgrade	626,086	626,086	N	100%
157	M0001755	M0001755: MOL Cat Controls Upgrade	727,580	727,580	N	100%

Maui Electric Company, Ltd.

Program Allocation %

Line #	Project #	Project Description	A	B	C	D = A/B
			2014 Plant Additions	2014 Capex	Program	% allocation for Programs Only (Projects 100%)
158	M0001756	M0001756: M17-19 Relay Upgrade	440,746	440,746	N	100%
159	M0001762	M0001762: MPP Inter Lighting 2014	101,741	101,741	N	100%
160	M0001767	M0001767: LL1-LL6 480v Power Supply	220,928	220,928	N	100%
161	M0001774	M0001774: Clausing Milling Machine	56,764	56,764	N	100%
162	M0001775	M0001775: Wailuku Hts Sub 18: PQM	40,908	40,908	N	100%
163	M0001783	M0001783: DC Fast Charger #1	29,612	2,944	N	100%
164	M0001842	M0001842: Puunene SC Pole Replacements	49,301	38,992	N	100%
165	M0001843	M0001843: T&D Ofc Elec Svc Install	22,483	22,483	N	100%
166	M0001845	M0001845: CHP High Pressure Compressor	9,496	9,496	N	100%
167	M0001847	M0001847: Lanai Puu Kilea MW Repl	68,032	67,473	N	100%
168	M0001848	M0001848: K1 Deact Keep Warm System	302,025	28,352	N	100%
169	M0001849	M0001849: K2 Deact Keep Warm System	117,337	57,416	N	100%
170	M0001851	M0001851: EMS Reporting	13,284	9,644	N	100%
171	M0001853	M0001853: AT&T Mobility	26,892	22,800	N	100%
172	M0001854	M0001854: Maui Brewing Company	41,804	25,262	N	100%
173	M0001856	M0001856: St Anthony HS - 3ph Tsf Upg	4,782	-	N	100%
174	M0001860	M0001860: MPP Biodiesel Tank	150,085	112,988	N	100%
175	M0001861	M0001861: MBP STR LTS HANA HWY	2	2	N	100%
176	M0001867	M0001867: Kilohana Drive Improvements	14,936	12,451	N	100%
177	M0001868	M0001868: Japan-US SG Auto Switching	263,906	229,091	N	100%
178	M0001869	M0001869: Spare HP Core Switch	9,984	9,984	N	100%
179	M0001872	M0001872: UPS System	98,096	98,096	N	100%
180	M0001873	M0001873: SOH - Street Lights	174,150	80,048	N	100%
181	M0001874	M0001874: Mahana Est Water Pumps	141,089	124,377	N	100%
182	M0001877	M0001877: Foodland @ KVC UG Ext	92,516	92,516	N	100%
183	M0001878	M0001878: Maui Lani Phase 6, Incr. I	558,407	558,407	N	100%
184	M0001879	M0001879: Sub 4 CB6842 Replacement	246,481	246,481	N	100%
185	M0001880	M0001880: MOL P05 Generator Replacemnt	81,078	81,078	N	100%
186	M0001881	M0001881: Altec Cable Handler Trailer	233,257	233,257	N	100%
187	M0001882	M0001882: Power Quality Recorders	97,585	97,585	N	100%
188	M0001883	M0001883: SCADA Remote Equipment	47,059	47,059	N	100%
189	M0001884	M0001884: MOL G7-9 Catalyst Access Ste	118,208	118,208	N	100%
190	M0001887	M0001887: MLP 6 - FIT	117,926	117,926	N	100%
191	M0001889	M0001889: Puunene Shopping Center	194,405	236,525	N	100%
192	M0001891	M0001891: Lanai Recloser Replacement	189,869	189,869	N	100%
193	M0001902	M0001902: CEMS/RICE Upgrades	29,707	29,707	N	100%
194	M0001904	M0001904: Power Monitors	57,201	57,201	N	100%
195	M0001909	M0001909: Owens FIT Customer	39,781	53,854	N	100%
196	M0001910	M0001910: MEO - OH Reloc.	88,573	88,573	N	100%
197	M0001911	M0001911: Koole Res Regulator Repl	42,444	42,444	N	100%
198	M0001912	M0001912: MLP 10 - FIT	276,523	276,523	N	100%
199	M0001914	M0001914: Distrib. Circuit Monitoring	865,719	865,719	N	100%
200	M0001917	M0001917: 3Par Storage	365,039	365,039	N	100%
201	M0001927	M0001927: Mobile DC Power System	133,138	133,138	N	100%
202	M0001930	M0001930: Mechanic Shop Roof Replace	115,878	115,878	N	100%
203	M0001951	M0001951: Fiber & Electrical Test Eqpt	54,985	54,985	N	100%
204	M0001957	M0001957: MPP Split A/C Units	56,906	56,906	N	100%
205	M0001961	M0001961: DCS Controller Modules Upgr	193,406	193,406	N	100%
206	M0001969	M0001969: Eng. Clerk and Lib Renov.	48,848	19,792	N	100%
207	M0001972	M0001972: MEO Transportation Fac.	189,232	189,232	N	100%
208	M3183000	M3183000: SCR DEMONSTRATION PROJECT	2,228	2,228	N	100%
209	M3540000	M3540000: Kaahumanu 23kv pole replacement	-	-	N	100%
210	M3544000	M3544000: Kaahumanu T&D Ln Reconstruction	304	304	N	100%

Maui Electric Company, Ltd.

Program Allocation %

Line #	Project #	Project Description	A 2014 Plant Additions	B 2014 Capex	C Program	D = A/B % allocation for Programs Only (Projects 100%)
211	M3598000	M3598000: PH 1-WAKEA AVE T&D LN RECONSTI	-	-	N	100%
212	M3901000	M3901000: HAIKU SUB 16 RECLOSERS	-	-	N	100%
Grand Total			49,632,312	47,908,463		

CA-IR-1, Support for 1e

(Revision of PUC-IR-1, Support for 1d, 1g)

Hawaiian Electric, Maui Electric, Hawaii Electric Light (Trans Nos 15-03, 15-04, 15-05)

Impact to 2015 RAM - RAM Cap and RAM Under Existing Tariff

(amounts in '000s)

<u>Impact to 2015 RAM Cap (HE and ME 4/15/15 Filing)</u>		Reference	HE	ME	HL
1	2014 Plant Additions Impact				
2	Baseline	pg 3	6,243	1,064	697
3	MP	pg 3	343	-	54
4	Removal costs	pg 3	(1,012)	57	(308)
5	Less: Baseline CIAC	pg 3	(707)	(70)	(97)
6	Less: MP CIAC	pg 3	(40)	-	-
7	Less: ADIT	pg 4, 5, 6	(2,248)	(270)	(330)
8	Net Plant Additions in 12/31/14 Balance	Sum Line 2-7	2,579	781	16
9	2014 Average rate base	Line 8 / 2	1,290	390	8
10	Rate of Return	Schedule D	11.74%	10.66%	11.94%
11	Return on Rate Base, pre-tax	Line 9 x 10	151	42	1
12	Revenue Tax Factor		1.0975	1.0975	1.0975
13	Adjusted 2014 RB RAM-Return on Investment	Line 11 x 12	166	46	1
14	Estimated 2015 Depreciation	Line (2+3) x composite depreciation rate ¹	214	25	26
15	CIAC 2015 Amortization	Line (5+6) x CIAC amortization rate ²	(15)	(1)	(2)
16	Total Depreciation & Amortization	Line 14 + 15	200	24	24
17	Revenue Tax Factor		1.0975	1.0975	1.0975
18	Adjusted 2014 Depreciation & Amortization RAM	Line 16 x 17	219	26	26
19	Adjusted 2014 RB RAM and Depreciation & Amortization RAM	Line 13 + 18	385	72	27
20	Escalate by GDPII	Decoupling Filing, Schedule C	1.011	1.011	1.011
21	Impact to 2015 RAM Cap	Line 9 x 10	390	72	28
<u>Impact to 2015 RAM Under Existing Tariff (HL 3/31/15 Filing)</u>			HE	ME	HL
22	2014 Plant Additions Impact				
23	Baseline	Line 2	6,243	1,064	697
24	MP	Line 3	343	-	54
25	Removal costs	Line 4	(140)	57	(308)
26	Less: Baseline CIAC	Line 5	(707)	(70)	(97)
27	Less: MP CIAC	Line 6	(40)	-	-
28	Less: ADIT	Line 7	(2,248)	(270)	(330)
29	Net Plant Additions in 12/31/14 Balance	Sum Line 23-28	3,451	781	16
30	2015 RAM Plant Additions Impact				PUC-IR-1d (revised)
31	Baseline, net of CIAC	Note 3	1,107	199	120
32	Less: ADIT		(22)	(3)	(2)
33	Net 2015 RAM Plant Additions	Line 31 + 32	1,085	196	118
34	In 2015 Average rate base	Line 29 + Line 33/2	3,994	879	75
35	Rate of Return	Schedule D	11.74%	10.66%	11.94%
36	Return on Rate Base, pre-tax	Line 34 x 35	469	94	9
37	Revenue Tax Factor		1.0975	1.0975	1.0975
38	2015 RB RAM-Return on Investment (existing tariff)	Line 36 x 37	515	103	10
40	Estimated 2015 Depreciation	Line 14	214	25	26
41	CIAC 2015 Amortization	Line 15	(15)	(1)	(2)
42	Depreciation & Amortization	Line 40 + 41	200	24	24
43	Revenue Tax Factor		1.0975	1.0975	1.0975
44	2015 Depreciation & Amortization RAM	Line 42 x 43	219	26	26
45	Impact to 2015 RB-RAM and Depreciation & Amortization RAM Under Existing Method	Line 38 + 44	734	129	36
					PUC-IR-1g for HL

Notes

Composite depreciation rates re-calculated per respective company's 2015 Decoupling Filing, Schedule E are as follows:

1 HECO=3.256%, MECO=2.338% and HELCO=3.504%.

CIAC is amortized based on the following:

2 HECO=51 years, MECO=55 years, HELCO=41 years.

Reflects difference in 2014 baseline additions, net of CIAC due to change in clearing treatment that contributes to 5 year historical average included as 2015 RAM 3 year addition.

PUC IR-1

Hawaiian Electric, Maui Electric, Hawaii Electric Light (Trans Nos 15-03, 15-04, 15-05)
Bill Impact of New On-cost Methodology to 2015 RAM

		HE	HL	ME
in '000s				
1 Revenue Requirement Impact to 2015 RAM (4/15/15 Filings)	pg 1: Line 21 for HE, ME and Line 45 for ME	390	36	72
2 Bill Impact:				
3 GWH Sales Volume Estimate June 2015 - May 2016	Decoupling Filing, Sch A	6,892,800	1,068.581	1,101.025
4 RBA Rate Adjustment Impact - cents per kWh		0.0057	0.0034	0.0066
5 Monthly Bill Impact (@ 600 KWH for Oahu, 500 KWH for Hawaii Island, 600 KWH for Maui, and 400 KWH for Lanai and Molokai)		\$ 0.03	\$ 0.02	\$ 0.04 Maui \$ 0.03 Molokai, Lanai

2014 Change in Plant Additions, Cost of Removal, CIAC due to Change in On-cost Methodology

Hawaiian Electric

	Baseline	Major	Total
<u>Energy Delivery:</u>			
Plant Additions	5,377,436	(61,919)	5,315,517
Removals	(990,654)	(17,868)	(1,008,522)
<u>Power Supply:</u>			
Plant Additions	865,575	404,846	1,270,421
Removals	(3,155)	-	(3,155)
<u>Total:</u>			
Plant Additions	6,243,011	342,927	6,585,938
Removals	(993,809)	(17,868)	(1,011,677)
CIAC	(706,739)	(39,900)	(746,639)
Net Additions:	<u>4,542,463</u>	<u>285,159</u>	<u>4,827,622</u>

Maui Electric

	Baseline	Major	Total
<u>Energy Delivery:</u>			
Plant Additions	883,299	-	883,299
Removals	65,121	-	65,121
CIAC additions	(70,094)	-	
<u>Power Supply:</u>			
Plant Additions	180,614	-	180,614
Removals	(8,503)	-	(8,503)
<u>Total:</u>			
Plant Additions	1,063,913	-	1,063,913
Removals	56,619	-	56,619
CIAC additions	(70,094)	-	(70,094)
Net Additions:	<u>1,050,438</u>	-	<u>1,050,438</u>

Hawaiian Electric Light

	Baseline	Major	Total
<u>Energy Delivery:</u>			
Plant Additions	697,482	53,779	751,261
Removals	(308,202)	-	(308,202)
CIAC additions	(96,887)	-	
<u>Power Supply:</u>			
Plant Additions	-	-	-
Removals	-	-	-
<u>Total:</u>			
Plant Additions	697,482	53,779	751,261
Removals	(308,202)	-	(308,202)
CIAC additions	(96,887)	-	(96,887)
Net Additions:	292,393	-	346,172

Hawaiian Electric
Rate Base Impact of New On-cost Methodology
2014

				ADIT - ASSET (LIAB)
				Federal State
Plant additions (Additional Capitalized Clearing) - (A)	Book	Tax	Difference	0.328947368 0.060150376
AFUDC (B)	<u>6,585,938</u>	<u>6,585,938</u>	-	
	(223,947)	(223,947)		(73,667) (13,471)
	<u>6,585,938</u>	<u>6,361,991</u>	<u>(223,947)</u>	
TCI (C)		152,051	152,051	50,017 9,146
Repairs deduction (D)		(1,215,572)	(1,215,572)	(399,859) (73,117)
Tax Depreciation (E)		(2,732,849)	(2,732,849)	(898,963) (164,382)
Cost of Removal		(1,011,677)	(1,011,677)	(332,788) (60,853)
CIAC—assumed fully taxable		(746,639)	(746,639)	(245,605) (44,911)
ADIT on new method incremental changes as of 12/31/14				(1,900,866) (347,587)

(A) Relates to energy delivery property; no power supply property.

(B) AFUDC Calculation

AFUDC placed in service in 2014	7,365,025
Book Additions in 2014	216,593,863
Ratio - AFUDC/Book Additions	3.40038%
Additional Capitalized Clearing Costs	<u>6,585,938</u>
AFUDC	<u>223,947</u>

(C) Tax Capitalized Interest Calculation

TCI placed in service in 2014	5,000,539
Book Additions in 2014	216,593,863
Ratio - TCI/Book Additions	2.30872%
Additional Capitalized Clearing Costs	<u>6,585,938</u>
TCI	<u>152,051</u>

(D) Repairs Deduction

	Transmission	Distribution	Composite T&D	Generation	Total
Repairs Taken in 2014	1,735,027	28,787,365	30,522,392	7,814,236	38,336,628
Book Additions in 2014	57,834,218	130,851,661	188,685,879	27,907,984	216,593,863
Book Repairs %			16.176%	28.000%	
Plant Additions			5,315,517	1,270,421	6,585,938
Repairs Deduction			<u>859,854</u>	<u>355,718</u>	<u>1,215,572</u>

(E) Tax Depreciation

	Energy Delivery	Power Supply	Total
Plant additions (Additional Capitalized Clearing)	5,315,517	1,270,421	6,585,938
AFUDC	(180,748.04)	(43,199.20)	(223,947)
TCI	122,720.24	(997)	121,723
Repairs	(859,854)	(355,718)	(1,215,572)
	<u>4,397,635</u>	<u>870,507</u>	<u>5,268,142</u>
1st year MACRS (20 year MACRS)+bonus	51.88%	51.88%	51.88%
Tax Depreciation	<u>2,281,273</u>	<u>451,575</u>	<u>2,732,849</u>

CIAC assumed to be fully taxable=>no adjustment required book to tax depreciation.

Maui Electric
Rate Base Impact of New On-cost Methodology
2014

	Book	Tax	Difference	ADIT - ASSET (LIAB)	
				Federal	State
Plant additions (Additional Capitalized Clearing) - (A)	1,063,913	1,063,913	-	0.328947368	0.060150376
AFUDC (B)		(179,247)	(179,247)	(58,963)	(10,782)
	1,063,913	884,666	(179,247)		
TCI (C)		121,701	121,701	40,033	7,320
Repairs deduction (D)		(233,310)	(233,310)	(76,747)	(14,034)
Tax Depreciation (E)		(388,500)	(388,500)	(127,796)	(23,368)
Cost of Removal--new method results in decrease		56,619	56,619	18,625	3,406
CIAC--assumed fully taxable		(70,094)	(70,094)	(23,057)	(4,216)
ADIT on new method incremental changes as of 12/31/14				(227,905)	(41,674)

(A) Relates to energy delivery property; no power supply property.

(B) AFUDC Calculation

AFUDC placed in service in 2014	7,365,025
Book Additions in 2014	43,714,894
Ratio - AFUDC/Book Additions	16.84786%
Additional Capitalized Clearing Costs	1,063,913
AFUDC	179,247

(C) TCI Calculation

TCI placed in service in 2014	5,000,539
Book Additions in 2014	43,714,894
Ratio - AFUDC/Book Additions	11.43898%
Additional Capitalized Clearing Costs	1,063,913
AFUDC	121,701

(D) Repairs Deduction

	Transmission	Distribution	Composite T&D	Generation	Total
Repairs Taken in 2014	1,137,714	6,947,634	8,085,348	1,500,000	9,585,348
Book Additions in 2014	2,573,753	33,671,758	36,245,511	7,469,383	43,714,894
Book Repairs %			22.307%	20.082%	
Plant Additions			883,299	180,614	1,063,913
Repairs Deduction			197,039	36,271	233,310

(E) Tax Depreciation

	Energy Delivery	Power Supply	Total
Plant additions (Additional Capitalized Clearing)	883,299	180,614	1,063,913
AFUDC	(148,817)	(30,430)	(179,247)
TCI	101,040	(3,481)	97,560
Repairs	(197,039)	(36,271)	(233,310)
	638,484	110,432	748,916
1st year MACRS (20 year property)+bonus	51.88%	51.88%	51.88%
Tax Depreciation	331,213	57,287	388,500

CIAC assumed to be fully taxable=>no adjustment required book to tax depreciation.

Hawaii Electric Light
Rate Base Impact of New On-cost Methodology
2014

				ADIT - ASSET (LIAB)
				Federal State
	Book	Tax	Difference	0.328947368 0.060150376
Plant additions (Additional Capitalized Clearing) - (A)	751,261	751,261	-	
AFUDC (B)		(9,747)	(9,747)	(3,206) (586)
	<u>751,261</u>	<u>741,514</u>	<u>(9,747)</u>	
TCI (C)		6,683	6,683	2,199 402
Repairs deduction (D)		(107,336)	(107,336)	(35,308) (6,456)
Tax Depreciation (E)		(332,447)	(332,447)	(109,357) (19,997)
Cost of Removal		(308,202)	(308,202)	(101,382) (18,538)
CIAC--assumed fully taxable		(96,887)	(96,887)	(31,871) (5,828)
ADIT on new method incremental changes as of 12/31/14				(278,926) (51,004)

(A) Relates to energy delivery property; no power supply property.

(B) AFUDC Calculation

AFUDC placed in service in 2014	568,935
Book Additions in 2014	43,851,204
Ratio - AFUDC/Book Additions	1.29742%
Additional Capitalized Clearing Costs	<u>751,261</u>
AFUDC	<u>9,747</u>

(C) TCI Calculation

TCI placed in service in 2014	390,114
Book Additions in 2014	43,851,204
Ratio - AFUDC/Book Additions	0.88963%
Additional Capitalized Clearing Costs	<u>751,261</u>
AFUDC	<u>6,683</u>

(D) Repairs Deduction

	Transmission	Distribution	Composite T&D	Generation	Total
Repairs Taken in 2014	1,011,680	4,749,772	5,761,452	563,221	6,324,673
Book Additions in 2014	7,080,888	33,244,317	40,325,205	3,525,999	43,851,204
Book Repairs %				14.287%	
Plant Additions				<u>751,261</u>	
Repairs Deduction				<u>107,336</u>	

(E) Tax Depreciation

Energy Delivery Property	751,261
AFUDC	(9,747)
TCI	6,683
Repairs	<u>(107,336)</u>
	640,861
1st year MACRS (20 year property)+bonus	<u>51.88%</u>
Tax Depreciation	<u>332,447</u>

CIAC assumed to be fully taxable=>no adjustment required book to tax depreciation.

Allocation
Methodology Change
Energy Delivery and Power Supply
Clearings

December 5, 2013



Hawaiian Electric
Maui Electric
Hawai'i Electric Light

Agenda

- ◆ Background
- ◆ Change in Allocation Methodology
- ◆ Manual Journal Entry
- ◆ Implementation
- ◆ Summary



What are Clearing Accounts?

What:

- ◆ Clearing accounts are used to temporarily accumulate costs for certain areas of the Company where the costs for the work relate to some combination of O&M expenses, Capital or billable work.
- ◆ The appropriate allocation of costs to the various charge numbers/accounts is unknown at the time they are incurred.
- ◆ The costs are not able to be direct charged to projects and programs.
- ◆ The accumulated costs are then cleared based on some allocation method to O&M expense, Capital, and billable work.



What type of costs are included in the Energy Delivery (ED) and Power Supply (PS) Clearing Accounts?

What:

- ◆ The Clearing accounts shall include the productive labor and overheads, and other expenses of the Energy Delivery and Power Supply personnel engaged in administrative, supervisory, and clerical functions which are not chargeable directly to other functional accounts or construction work orders.



How are Clearing Accounts currently allocated?

How:

- ◆ Under the business rules developed when the MIMS system was implemented in 1999.
- ◆ Ellipse applies overheads based on total labor hours for the Energy Delivery (ED) and Power Supply (PS) Clearings.
- ◆ The costs charged to a clearing account are allocated (or cleared) to O&M, Capital, billable, and deferred projects through an overhead process.



6

Did the Company change the type of costs included in the Energy Delivery (ED) and Power Supply (PS) Clearings?

What:

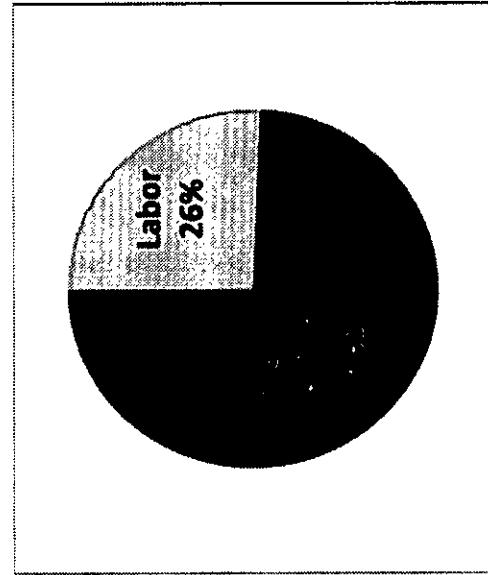
- ◆ No, the type of costs included in the Clearings did not change.
- ◆ The Clearing accounts still reflect some combination of O&M expenses, capital or billable work, and the appropriate allocation of costs to the various charge numbers/accounts is unknown at the time they are incurred, therefore, costs are charged to clearing accounts.
- ◆ The Company is only changing the allocation methodology for the Energy Delivery (ED) and Power Supply (PS) Clearings.



Why are labor hours no longer an accurate allocation method to follow the work?

Why:

- ♦ Need for consistent application of overheads to all work in Operations whether the project is completed by internal labor or contract services.
- ♦ Current method of total labor hours allocates overheads only to projects completed by internal labor resources and excludes projects completed by outside services from receiving overheads.
- ♦ Labor hour allocation method no longer accurately reflects the work. As shown in the chart, the Labor hour method represents only 26% of the total work.



Hawaiian Electric
Maui Electric
Hawai'i Electric Light

Has Hawaiian Electric Company, Inc. prepared a recent
review of its practice for allocating the Energy
Delivery and Power Supply Clearings?⁸

PA Consulting
Group

- ◆ PA Consulting Group completed an Operating Area Overhead
 - . Review in September 2013.

PA Consulting concluded Utility Best Practice as follows:

- ◆ 11 out of 13 Electric Utilities surveyed allocate their clearings to all work both Company and contractor crews.
- ◆ Most Utilities clear their indirect costs based on total cost rather than internal labor hours.



New Allocation Method

9

PA Consulting
Group

Repl. ED and PS Labor Hour Allocation:

"ED & PS" Clearing – Allocate based
on Capital and O&M total dollars
excl. vehicles

"Vehicle" costs in clearings –

No Change

Best practice to direct charge or continue with
allocation based on total labor hours

Hawaiian Electric
Maui Electric
Hawai'i Electric Light



10

How and when will the Companies implement the change in allocation method to total dollars?

How:

- ◆ **Manual Journal Entry** during the month-end closing process until such time we implement the new ERP/EAM system (SAP).

When:

- ◆ Hawaiian Electric intends to implement the PA Consulting approach as of **January 1, 2014.**
- ◆ Hawaii Electric and Maui Electric will follow in **April 2014.**



11

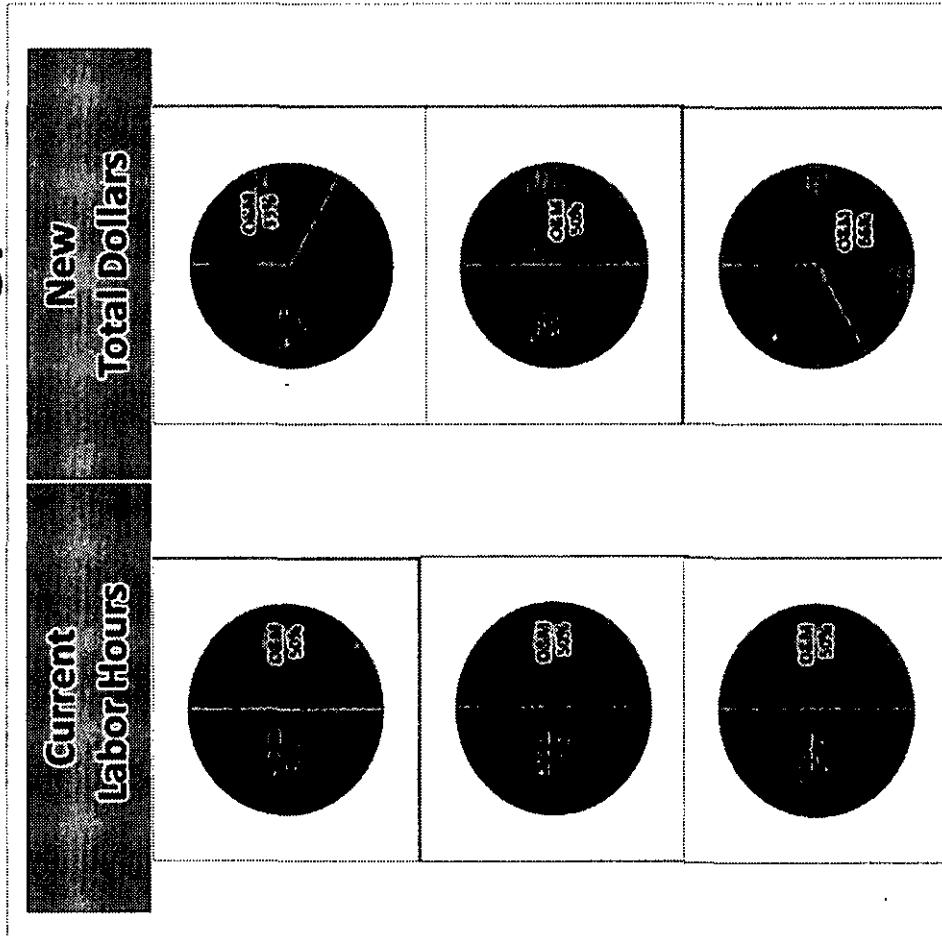
What is the hypothetical impact of this change in allocation methodology?

Question:

What if you have 1/3 O&M and 2/3 Capital?

What if you have $\frac{1}{2}$ O&M and $\frac{1}{2}$ Capital?

What if you have 2/3 O&M and 1/3 Capital?



Note: For analysis purposes, we assumed the internal labor percentages remained constant.

Summary

- ◆ Need for consistent application of overheads to all work in Operations whether the project is completed by internal labor or contract services.
- ◆ Total Dollars represents an accurate reflection of the work.
- ◆ Utility Best Practice - most Utilities clear their indirect costs based on total cost rather than internal labor hours.
- ◆ Hawaiian Electric intends to implement the change in allocation methodology effective January 1, 2014 with Hawaii Electric and Maui Electric following in April 2014.

Allocation
Methodology Change
Energy Delivery and Power Supply
Clearings

December 5, 2013

Hawaiian Electric
Maui Electric
Hawai'i Electric Light



BACKUPS

Hawaiian Electric
Maui Electric
Hawai'i Electric Light



Utility Benchmarking Study

Utility	Region	Clearing Accounts	Cost Pools Allocated To	Cost Pools Allocated Based On Total Work	Cost Driver Allocation Method
1	Midwest	Crew Overheads	Capital, O&M and Removal	Yes	Weighted Average of Budget Dollars for new services, facility relocates, system maintenance, and system improvements
2	Midwest	Construction Overhead Account	Capital	Yes	Total planned Construction Spend
3	Midwest	Local Engineering Clearing Account	Projects	Yes	Percentage of Direct Costs (Labor, Materials and Contract Services)
4	Northeast	Capital Overhead Clearing Account	Capital	Yes	Sum of fully-loaded labor and contractor services
5	Southwest	Supervision and Engineering Clearing Account		Yes	Total Project Costs
6	Midwest	Engineering & Supervision blanket workorder	Capital Projects	Yes	Monthly based on proportion of individual project costs to the total
7	Northeast	Model		No	Internal labor dollars
8	Northeast	Operations Pool	Capital and O&M activities	Yes	Company labor and contractor dollars
9	Southwest	Construction Overhead Clearing	Capital Projects	Yes	Total Costs
10	Midwest	Cost Center Assessments	O&M and Capital	Yes	Percentage of direct charge to O&M and Capital Projects
11	West	27 Different Cost Pools	O&M and Capital	Yes	Total Costs w/some pools using some combination of company and contractor labor
12	East	Capital Cost center/accumulations	Capital Projects	Yes	Proportion of Capital project cost to total costs
13	Midwest	Union Support Staff	O&M and Capital	No	Bargaining unit hours

Hawaiian Electric
Maui Electric
Hawai'i Electric Light



PA Consulting Group

CA-IR-2

Ref: HECO Companies' response to PUC-IR-1 (Clearing Account Distribution Changes).

Other than the accounting changes identified in the response to PUC-IR-1, have the HECO Companies implemented any changes to accounting procedures since the last general rate case test year employed for each utility that have significantly impacted the distribution of costs between expense and capital accounts? Please explain and quantify the annual expense/capital impacts associated with each such change, if applicable. The response should separately identify the impact associated with each such change for each company.

Hawaiian Electric Companies' Response:

In the Companies' response to PUC-IR-1,¹ the revisions made in the allocation method for the costs in the Companies' Energy Delivery (ED) and Power Supply (PS) clearing accounts to capital and O&M projects and / or activities were described. These revisions, which were implemented in 2014, recognize that the business operations have changed. Hawaiian Electric is increasing the use of outside services for system improvement projects as well as projects performed at the request of customers, such as new service or relocation projects. There was a need for consistent application of on-costs to all work in Operations whether the project was completed by internal labor or contract services for consistency in project costs and billing customers. One example of construction projects performed largely through outside services is the [REDACTED]. [REDACTED]

[REDACTED], and significant amounts of construction is required by outside contractors. Hawaiian Electric will be compensated by CIAC which include allocations of substantial amount of on-costs resulting from the new methodology. Without the new methodology, compensation for these on-costs would be allocated based on internal labor hours

¹ Implemented in January 2014 for Hawaiian Electric and in April 2014 for Hawaii Electric Light and Maui Electric. Hawaii Electric Light implementation was limited to its Energy Delivery clearing account as it currently does not have a Power Supply clearing account.

and the overheads would be borne by other system and customer projects performed by primarily internal labor resulting in an incorrect allocation of the costs. The revised methodology results in a more equitable distribution of the Company's indirect cost to the work completed by internal labor and external outside services. The Companies have not implemented any other changes in their practices since each of their last respective general rate cases² which have resulted in significant changes to the distribution of costs between expense and capital accounts.

The revision in the allocation of charges to ED and PS clearing accounts was considered a change in estimate, and not a change in accounting, in the Companies' audited financial statements.

² For Hawaiian Electric, its 2011 test year rate case in Docket No. 2010-0080, for Hawaii Electric Light, its 2010 test year rate case in Docket No. 2009-0164, and for Maui Electric, its 2012 test year rate case in Docket No. 2011-0092.

CA-IR-3

Ref: Transmittal Nos. 15-03, 15-04 and 15-05 & Schedule A1 (Existing Tariffs).

At pages 2 and 5 of the three decoupling transmittal letters and Schedule A1, the HECO Companies refer to “existing tariffs and procedures.” Please confirm that, in this context, such reference is to the immediately preceding O&M RAM, Rate Base RAM and Depreciation & Amortization RAM with one exception – that is, the 90% factor is not applied even though its termination was first ordered by the Commission in Decision and Order No. 32735. If the Companies cannot provide the requested confirmation, please explain.

Hawaiian Electric Companies’ Response:

Yes. The Companies’ reference to “existing tariffs and procedures” applies to the immediately preceding O&M RAM, Rate Base RAM and Depreciation & Amortization RAM with the exception of the removal of the 90% limitation on the incremental Rate Base RAM – Return on Investment. The 90% factor was not applied because of the following provisions in Order No. 32735:

- Pages 5 and 6 state: “(T)he commission concludes that further changes to the RAM are required and that these changes shall be applied to the decoupling filings due to be filed on March 31, 2015: . . . (3) The 90% adjustment shall be removed in favor of the GDPPI cap.” (Emphasis added.)

Page 82 states: “The amendments to the RAM implemented by this Order replace and terminate the previous interim limitations on RAM year Rate Base RAM adjustments required pursuant to Order No. 31908.” Please also refer to the Companies’ response to CA-IR-10 in this filing for further discussion.

In addition to the removal of the 90% limitation on the incremental Rate Base RAM noted above, Maui Electric also reflected the following corrections in its amended RBA Rate Adjustment tariff (Transmittal No. 15-05), filed on April 15, 2015 :

- To ADIT for a misallocation which resulted in an overstatement of ADIT / understatement of the rate base. (See 4/15/2015 filing – MECO-WP-J-002, page 2 (Revised Schedule D1), line 16.)
- To the CIAC 2014 beginning balance discovered subsequent to the March 31, 2015 filing. (See 4/15/2015 filing – MECO-WP-J-002, page 2 (Revised Schedule D1), line 13.)

CA-IR-4

Ref: Transmittal Nos. 15-03, 15-04 and 15-05, Schedule E & WP-J-002 (RAM Amounts).

Please confirm that the following amounts represent the various RAM calculated amounts submitted by the HECO Companies for purposes of the 2015 RAM. If the Company cannot provide the requested confirmations, please explain and correct these amounts.

a. HECO

Original RAM	\$93,922,662
Revised RAM	\$95,117,357
RAM Cap	\$89,586,893

b. HELCO

Original RAM	\$7,175,914
Revised RAM	\$7,178,993
RAM Cap	\$8,061,328

c. MECO

Original RAM	\$13,130,722
Revised RAM	\$13,008,570
RAM Cap	\$12,038,517

d. Referring to parts(a) through (c), please provide a quantification of the amount the RAM Cap amounts for each of the HECO Companies assuming the depreciation and amortization expense was instead based on December 31, 2013 investment instead of 2014. If the requested information is not available, please explain.

Hawaiian Electric Companies' Response:

a – c. Yes. The amounts shown in parts (a) through (c) represent the various RAM calculated amounts submitted by the Hawaiian Electric Companies for purposes of the 2015 RAM.

d. The RAM Cap amounts for each of the Hawaiian Electric Companies, assuming the depreciation and amortization expense was instead based on December 31, 2013 recorded depreciable and amortizable plant balances are as follows:

Hawaiian Electric	\$80,544,936
Hawaii Electric Light	\$6,610,135
Maui Electric	\$10,726,421

Please see Attachments 1-3 of this response for the supporting calculations. Also refer to the Companies' response to CA-IR-5.

SCHEDULE A
(REVISED 4-15-15)
PAGE 1 OF 1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF 2015 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT

Line No.	Description (a)	Reference (b)	Amount (c)	Rate Amount (d)
<u>RECONCILIATION OF RBA BALANCE:</u>				
1	RBA Prior calendar year-end balance	Schedule B	\$ 57,804,048	
2	Revenue Tax Factor	Schedule C	1.0975	
3	Revenue for RBA Balance			\$ 63,439,943
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>				
4	Total RAM Revenue Adjustment Allowed	Schedule A1, Note 2		\$ 80,544,936
5	<u>EARNINGS SHARING REVENUE CREDITS - 2014 ROE:</u>	Schedule H		\$ -
6	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS:</u>	Schedule I		\$ -
7	TOTAL RBA REVENUE ADJUSTMENT - Revised	Sum Col. (d)		\$ 143,984,878
8	GWH SALES VOLUME ESTIMATE JUNE 2015 - MAY 2016 (see HECO-WP-A-001)			6,892.800
9	RBA RATE ADJUSTMENT - cents per kWh - Revised	Note (1)		2.0889
10	MONTHLY BILL IMPACT @ 600 KWH - Revised			\$ 12.53

Note (1): 2015 RBA Rate Adjustment Breakdown

	Col. (d)	Rate Adjustment cents per kWh	Percentage Share
RBA Balance	\$ 63,439,943	0.92037985	44.0601%
RAM Amount	\$ 80,544,936	1.16853725	55.9399%
Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%
Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%
	\$ 143,984,878	2.08891711	100.0000%

Note (2): Total RAM Revenue Adjustment Allowed is the sum of the RAM Cap + Exceptional and Other Projects. See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94, which states that the Total RAM Revenue Adjustment is to be comprised of the RAM Cap plus recovery of Exceptional And Other Matters.

SCHEDULE A1
(NEW 4-15-15)
PAGE 1 OF 1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOPLING CALCULATION WORKBOOK
DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED

Line No.	Description	Reference	
(a)			
	RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES		
1	O&M RAM	3/31/15 Decoupling Filing, Sch A	\$ 14,746,949
2	Rate Base RAM - Return on Investment (Note 2)	3/31/15 Decoupling Filing, Sch A - Note 2	\$ 49,227,808
3	Depreciation & Amortization RAM Expense	3/31/15 Decoupling Filing, Sch A	\$ 31,142,599
4	Total Adjusted RAM Revenue Adjustment		\$ 95,117,357
	RAM REVENUE ADJUSTMENT CAP		
5	RAM Cap for 2015 RAM Revenue Adjustment	Schedule J	\$ 76,745,679
6	Plus: Exceptional and Other Matters	Schedule K	\$ 3,799,257
9	2015 Cap - Total Adjusted RAM Revenue Adjustment (Note 3)		\$ 80,544,936
10	Total RAM Revenue Adjustment Allowed (Note 1)	Lesser of Line 4 or Line 9	\$ 80,544,936
			To Sch A, line 4

- Note 1 RAM Revenue Adjustment Allowed:
See Decision and Order No. 32735, filed March 31, 2015, paragraph 106, page 94:
"The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of (a) the RAM Revenue Adjustment determined according to existing tariffs and procedures or (b) a RAM Revenue Adjustment Cap ("RAM Cap) to be calculated as specified."
- Note 2 See Decision and Order No. 32735, filed March 31, 2015, paragraph 79, page 82:
"The amendments to the RAM implemented by this Order replace and terminate the previous interim limitations on RAM year Rate Base RAM adjustments required pursuant to Order No. 31908."
and paragraph 3, page 6:
"The 90% adjustment shall be removed in favor of the GDPPi cap."
Therefore, the 10% reduction pursuant to Order No. 31908 has been eliminated from the calculation of 2014's Rate Base RAM- Return on Investment.
- Note 3 Total RAM Cap:
See Decision and Order No. 32735, filed March 31, 2015, paragraph 110, page 96:
"The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM."

SCHEDULE B1
(REVISED 4-15-15)
PAGE 1 OF 1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	Docket No. 2010-0080 Amounts (c)	Docket No. 2010-0080 Amounts (d)	Docket No. 2010-0080 Amounts (e)	Docket No. 2010-0080 Amounts (f)	Docket No. 2010-0080 Amounts (g)	Docket No. 2010-0080 Amounts (h)
1	Last Rate Case Annual Electric Revenue at Approved Rate Levels	Note (1)	\$000s \$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954	\$ 1,765,954
2	Less Fuel Expense	Note (1)	\$000s \$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)	\$ (658,172)
3	Purchased Power Expense	Note (1)	\$000s \$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)	\$ (438,707)
4	Revenue Taxes on Line 1 at 8.885% statutory rates)	\$000s \$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)	\$ (156,905)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$000s \$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170	\$ 512,170
6	Add Authorized RAM Revenues	Note (2)	\$000s \$ 38,407	\$ 38,407	\$ -	\$ -	\$ -	\$ -
7	Less Revenue Taxes on Line 6 at 8.885%	\$000s \$ (3,412)	\$ (3,412)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +2	Lines 6+7	\$000s \$ 34,994	\$ 34,994	\$ -	\$ -	\$ -	\$ -
9	Authorized RAM Revenues	Note (3)	\$000s \$ -	\$ -	\$ 69,254	\$ 69,254	\$ -	\$ -
10	Less Revenue Taxes on Line 9 at 8.885%	\$000s \$ -	\$ -	\$ (6,153)	\$ (6,153)	\$ -	\$ -	\$ -
11	Net RAM Adjustment - Test Year +3	Lines 9+10	\$000s \$ -	\$ -	\$ 63,100	\$ 63,100	\$ -	\$ -
12	Authorized RAM Revenues - Revised	Sch. A, Line 4	\$000s \$ -	\$ -	\$ -	\$ -	\$ 80,545	\$ 80,545
13	Less Revenue Taxes on Line 12 at 8.885%	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ (7,156)	\$ (7,156)
14	Net RAM Adjustment - Test Year +4	Lines 12+13	\$000s \$ -	\$ -	\$ -	\$ -	\$ 73,389	\$ 73,389
15	Less EARNINGS SHARING REVENUE CREDITS	Note (2)	\$000s \$ (2,588)	\$ (2,588)	\$ -	\$ -	\$ -	\$ -
16	Less Revenue Taxes on Line 15 at 8.885%	\$000s \$ 230	\$ 230	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15 + 16	\$000s \$ (2,356)	\$ (2,356)	\$ -	\$ -	\$ -	\$ -
18	PUC ORDERED MAJOR OR BASELINE CAPITAL CREDITS	Sch. A, Line 8	\$000s \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues							
20	June 1, 2013 Annualized Revenues w/RAM Increase	Col (e),lines (5+8+17)	\$000s \$ 544,808	\$ 544,808	\$ -			
21	June 1, 2014 Annualized Revenues w/RAM Increase	Col (g),lines (5+11+17)	\$000s \$ 575,270	\$ 575,270	\$ -			
22	June 1, 2015 Annualized Revenues w/RAM Increase	Col (g),lines (5+14+17)	\$000s \$ 585,559	\$ 585,559	\$ -			
23	Distribution of Target Revenues by Month	Note (4)						
24	January	8.10%		\$44,120,429	\$46,598,907	\$47,430,239		
25	February	7.26%		\$39,553,044	\$41,764,635	\$42,511,547		
26	March	8.10%		\$44,120,429	\$46,598,907	\$47,430,239		
27	April	7.84%		\$42,712,929	\$45,101,204	\$45,907,787		
28	May	8.44%		\$45,981,778	\$48,552,827	\$49,421,138		
29	June- effective date of RAM Change	8.47%		\$46,145,218	\$48,725,408	\$49,509,805		
30	July	8.77%		\$47,779,642	\$50,451,219	\$51,353,481		
31	August	9.04%		\$49,250,022	\$52,004,449	\$52,934,489		
32	September	8.68%		\$47,289,315	\$49,933,476	\$50,826,478		
33	October	8.78%		\$47,834,122	\$50,508,748	\$51,412,037		
34	November	8.26%		\$45,001,122	\$47,517,340	\$48,387,133		
35	December	8.25%		\$45,001,122	\$47,517,340	\$48,387,133		
36	Total Distributed Target Revenues	100.00%		\$328,301,183	\$218,600,607	\$348,657,978	\$228,612,480	\$352,857,556
								\$232,700,950

Footnotes:

- 1 Docket No. 2010-0080 amounts derived from Order No. 30576, filed August 9, 2012, effective September 1, 2012, which implemented Decision and Order No. 30505, Exhibit A, page 1, filed June 29, 2012.
- 2 Transmittal 13-03 filed July 16, 2013, revising 2013 target revenue effective June 1, 2013
- 3 Transmittal 14-03 filed May 22, 2014, revising 2014 target revenue effective June 1, 2014
- 4 RBA Tariff Revised July 26, 2011 to reflect 2011 test year

SCHEDULE J
(NEW 4-15-15)
PAGE 1 OF 1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RAM CAP

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	Adjusted 2014 Target Revenues	HECO-WP-J-001	631,901
2	GDP Price Index	HECO-WP-C-002	0.011
3	RAM Cap Increase	Line 1 x 2	6,950.9146
4	Adjusted 2014 RAM Revenue Adjustment	HECO-WP-J-001	69,794.764
5	RAM Cap for 2015 RAM Revenue Adjustment	Line 3 + 4	76,746

Note 1 Target Revenues:
See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94:
"The RAM Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below ("Basis"), times the cumulative annually compounded increase(s) in GDPPI for intervening years, adjusted to include applicable revenue taxes."

HECO-WP-J-001
(NEW 4-15-15)
PAGE 1 OF 1

HAWAIIAN ELECTRIC COMPANY, INC.
DECOPUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED 2014 TARGET REVENUES

Line No.	Description	Reference	Amount \$000
	(a)	(b)	(c)
1	O&M RAM	5/22/14 Decoupling Filing, Sch A	11,576.317
2	Rate Base RAM - Return on Investment	HECO-WP-J-002, pg. 1	38,405.390
3	Depreciation & Amortization RAM Expense	HECO-WP-J-002, pg. 5	19,813.057
4	2014 Adjusted RAM Revenue Adjustment		69,794.764 Sch J
5	Last Rate Order Target Annual Revenues	Schedule B1	512,169.987
6	Revenue Tax Factor (1/(1-8.885%))		1.0975
7	Last Rate Order Target Annual Revenues plus Revenue Taxes	Line 5 x 6	562,106.561
8	2014 Adjusted Target Revenues subject to GDPII Escalation	Line 4 + 7	631,901.325 Sch J

Note 1 See Decision and Order No. 32735, paragraph 108, Page 95, filed March 31, 2015, in which the commission noted that, "... the target revenues that will serve as the Basis for the incremented cap will be the 2014 annualized target revenues adjusted to use recorded 2014 end-of-year actuals (plant in service, depreciation and amortization, CIAC, and ADIT) rather than 2014 RAM year projects in determination of the 2014 Depreciation and Amortization RAM Expense and average rate base in the 2014 Rate Base RAM. This provision will include in the determination of the average 2014 effective rate base used in determining the RAM Cap for the 2015 RAM Revenue Adjustment, the actual end-of-year net plant in service, including all baseline projects installed in 2014, rather than the five year moving average of baseline project expenditures used in the determination of the 2014 Rate Base RAM. The adjusted 2014 target revenues will be incremented by the GDPII index to determine the RAM Cap as provided above."

2014 SCHEDULE E
PAGE 1 OF 3

HAWAIIAN ELECTRIC COMPANY, INC.
DECOPUPLING CALCULATION WORKBOOK
DETERMINATION OF DEPRECIATION & AMORTIZATION RAM ADJUSTMENT

Line No.	NARUC Account (a)	Recorded Depreciable/Amort. Balance (Footnote 3) (b)	Adjustments (Footnote 1) (c)	Adjusted Depreciable/Amort. Balance (d)	PUC Approved Accrual Rate (e)	Actual Recorded at 12/31/2014 - Annual Accrual (f)
1	Depreciable Plant					
2	311	89,808,192		89,808,192	0.01600	1,436,899
3	312	354,493,379	(1,508,832)	352,984,547	0.02030	7,165,586
4	314	177,357,756		177,357,756	0.01540	2,731,309
5	315	74,038,949	(243,014)	73,795,935	0.02430	1,783,241
6	Tot - Steam	695,698,278	(1,751,846)	683,944,430	0.01887	13,127,036
7						
8	341	37,714,305		37,714,305	0.00770	290,400
9	342	18,845,106		18,845,106	0.02580	481,044
10	343	63,881,359		63,881,359	0.03260	2,075,380
11	344	25,842,016		25,842,016	0.01010	261,004
12	345	34,527,815		34,527,815	0.02510	866,648
13	Tot - Gas Turb	180,390,601		180,390,601	0.02203	3,974,457
14						
15	Tot - Prod	878,088,877	(1,751,846)	874,335,031		17,101,493
16						
17	3501	3,045,138		3,045,138	-	-
18	352	39,156,642		39,156,642	0.01600	626,506
19	353	282,294,046		282,294,046	0.01860	5,250,669
20	354	20,459,180		20,459,180	0.01480	302,798
21	355	250,844,292		250,844,292	0.03240	8,127,355
22	356	136,048,872		136,048,872	0.03270	4,448,798
23	357	60,793,952		60,793,952	0.01590	966,624
24	358	52,401,376		52,401,376	0.01730	906,544
25	359	3,201,408		3,201,408	0.01490	47,701
26	Tot - Transm	848,244,906	-	848,244,906	0.02438	20,676,993
27						
28	3601	507,815		507,815	0.02340	11,883
29	361	21,589,339		21,589,339	0.01080	233,165
30	362	201,149,427		201,149,427	0.02020	4,063,218
31	364	161,904,990		161,904,990	0.03390	5,488,579
32	365	105,903,627		105,903,627	0.04190	4,437,362
33	366	231,318,530		231,318,530	0.02190	5,065,876
34	367	335,836,231	(2,822,823)	333,013,808	0.04980	16,584,078
35	368	190,177,318	(211,201)	189,966,117	0.05200	9,878,238
36	369.1	50,185,183		50,185,183	0.05250	2,634,722
37	369.2	172,971,283		172,971,283	0.04070	7,039,930
38	370	32,198,167		32,198,167	0.02660	856,418
39	Tot - Distr	1,503,739,890	(3,033,824)	1,500,708,066	0.03744	56,293,469
40						
41	Tot - T & D	2,351,984,796	(3,033,824)	2,348,950,972		78,970,483
42						
43	380	53,915,936		53,915,936	0.02450	1,320,940
44	Tot - General	53,915,936	-	53,915,936	0.02450	1,320,940
45						
46	Sub-Total	3,281,987,609	(4,785,870)	3,277,201,939		95,392,896
47						
48	3902 (King)	7,225,588		7,225,588	0.01313	94,872
49	3902 (CPP)	2,076,817		2,076,817	0.13226	274,680
50	3902 (Waterhouse)	1,517,450		1,517,450	0.42522	645,250
51	3902 (Hon Cl)	308,065		308,065	0.19550	59,838
52	3902 (ASB)	554,717		554,717	0.16445	91,223
53	3902 (Shinco)	642,089		642,089	0.33333	214,028
54	3902 (Tenant Allowance)	11,710,784	(11,710,784)	-	-	-
55	Tot - LH Impr	24,033,510	(11,710,784)	12,322,726		1,379,888
56						
57	392	49,500,905		49,500,905	0.06130	3,034,405
58						
59	Utility Total Depreciation	3,355,522,024	(16,496,454)	3,339,025,570	0.02974	99,807,190

2014 SCHEDULE E
PAGE 2 OF 3

Line No.	NARUC Account (a)	Recorded Depreciable/Amort. Balance (Footnote 3) (b)	Adjustments (Footnote 1) (c)	Adjusted Depreciable/Amort. Balance (d)	PUC Approved Accrual Rate (e)	Actual Recorded at 12/31/2014 - Annual Accrual (f)
60	Amortizable Plant					
61	316	21,244,262		21,244,262	0.05000	1,062,213
62	Tot - Steam	21,244,262	-	21,244,262	0.05000	1,062,213
63						
64	346	18,629,649		18,629,649	0.05000	931,482
65	Tot - Gas Turb	18,629,649	-	18,629,649	0.05000	931,482
66						
67	Tot - Prod	39,873,911	-	39,873,911	0.05000	1,993,696
68						
69	3911	19,787,818		19,787,818	0.20000	3,957,564
70	3912	4,161,342		4,161,342	0.10000	416,134
71	3913	13,500,525		13,500,525	0.06670	900,485
72	393	1,185,930		1,185,930	0.04000	47,437
73	394	24,046,107		24,046,107	0.04000	961,844
74	395	447,294		447,294	0.06670	29,835
75	396	67,246		67,246	0.05560	3,739
76	397	95,916,387	(7,161)	95,909,226	0.06670	6,397,145
77	398	4,060,507		4,060,507	0.06670	270,836
78	Tot - General	183,173,158	(7,161)	183,165,995	0.07958	12,985,019
79						
80						
81						
82						
83						
84						
85	Net Unrecovered Amortization					(1,101,041)
86						
87	Utility Total Amortization	203,047,067	(7,161)	203,039,906	0.06835	\$ 13,877,673
88						
89	TOTAL RAM DEPRECIATION / AMORTIZATION					\$ 113,684,863 Footnote 5
90	LESS: Vehicle Depreciation (A/C 392 above)					\$ (3,034,405) Footnote 5
91	LESS: Depreciation & Amortization in Current Revenues					Footnote 2 \$ (94,237,000)
92						
93	RAM Adjustment for Depreciation & Amortization					\$ 16,413,458
94	RAM Adjustment for CIAC Amortization					\$ 1,639,441 Footnote 6
95	RAM Adjustment for CIP CT-1 Reg Asset Amortization					5/22/14 Sch G \$ 884,000
96	RAM Adjustment for CIS Def Cost Amortization					HECO-WP-D1-001A \$ 1,220,000
97	Total RAM Adjustment for Depreciation & Amortization					\$ 20,226,899
98	Times: Factor for Revenue Taxes					1,09750
99						
100	RAM DEPRECIATION & AMORTIZATION - Adjusted Actual as of 12/31/2014					\$ 22,198,022
101						
102	RAM Adjustment for CIP CT-1 Reg Asset Amortization (from Line 95)					(954,000)
103	RAM Adjustment for CIS Def Cost Amortization (from Line 96)					(1,220,000)
104	Depreciation and Amortization for Exceptional and Other Matters					(2,174,000)
105	Times: Factor for Revenue Taxes					1,09750
106	Total Depreciation and Amortization for Exceptional and Other Matters					(2,385,885)
107						
108	ADJUSTED RAM DEPRECIATION & AMORTIZATION (Line 100 - 106)					\$ 18,813,057
						HECO-WP-J-001

Footnotes:

Amounts are recorded (in \$000s), except for the following adjustments
(see HECO-WP-D2-001):

	Plant in Service From D1
Waiau 8 Boiler Ctl Upgrade	\$ (1,093)
Waiau 8 Main Transformer Replace	(243)
Kahuku Wind Power	(7)
W7 Controls Upgrade	(418)
Kakaako Makai-Iwilei	(3,034)
Tenant Improvement Allowance (see footnote 4)	(11,711)
Total	\$ (16,504)

2 Depreciation & Amortization in Current Revenues*:

	Depr/Amort Expense
Total Depreciation	\$ 97,297,000
LESS: Vehicle Depreciation (A/C 392)	(2,292,000)
LESS: CIP CT-1 excess depreciation	(603,000)
LESS: EOTP excess depreciation	(1,171,000)
ADD Revised EOTP excess depreciation **	1,006,000
Net Depreciation in Current Revenues	\$ 94,237,000

*Amounts are per page 90 of Exhibit 1 to the Parties' Stipulated Settlement Letter dated July 5, 2011 in HECO's 2011 test year rate case (Docket No. 2010-0080).

**Amount is per page 1 of Exhibit 2, Attachment 3 to the *Stipulated Supplement to the Parties' July 5, 2011 Stipulated Settlement Letter with respect to East Oahu Transmission Project Phase 1 Costs*, dated February 3, 2012. Depreciation added in EOTP interim was based on 2010 plant adds and the 2010 actual depreciation rates (blended rate in 2010). The 2012 depreciation is based on additional plant adds made in 2011 included in the February 3, 2012 stipulation supplement, offset by the write-down of \$9.5M of costs and the lower depreciation rates in 2012 (full year of the lower depreciation rates).

3 Does not include land amounting to \$43,407,220 as of December 31, 2013.

4 Amount represents tenant improvement allowances paid by the lessors and excluded from the RAM calculation.

2014 SCHEDULE E
PAGE 3 OF 3

5	<u>Depreciation & Amortization</u>	Amount
	Total RAM Depreciation / Amortization (Line 89)	113,684,863
	LESS: Vehicle Depreciation (A/C 392) (Line 57)	(3,034,405)
	2014 Depr for MP Excess Costs (3/31/14 HECO-WP-E-001)	188,561
	Rounding	(7)
	Adjusted Total RAM Depreciation & Amortization	110,839,012 [1]

GL# 403000 Depr-Monthly Accruals	95,580,980
GL# 403000 Depr - Amort Vintage	13,878,151
GL# 40400000 Amort LTD-Term Plant	1,379,881
Total GL balance	110,839,012 [2]

Difference - [1]-[2]

6	<u>CIAC Amortization</u>	Amount
	5/22/14 Schedule G3	(6,147,559)
	GL# 403010 Depr-Amort CIAC	(6,147,559)
	Difference	-

SCHEDULE A
(REVISED 4-15-15)
PAGE 1 OF 1

HAWAII ELECTRIC LIGHT COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF 2015 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT

Line No.	Description (a)	Reference (b)	Amount (c)	Rate Amount (d)
<u>RECONCILIATION OF RBA BALANCE:</u>				
1	RBA Prior calendar year-end balance	Schedule B	\$ 7,502,837	
2	Revenue Tax Factor	Schedule C	1.0975	
3	Revenue for RBA Balance			\$ 8,234,363
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>				
4	Total RAM Revenue Adjustment Allowed	Schedule A1, Note 2		\$ 6,610,135
5	<u>EARNINGS SHARING REVENUE CREDITS - 2014 ROE:</u>	Schedule H		\$ -
6	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS:</u>	Schedule I		\$ -
7	TOTAL RBA REVENUE ADJUSTMENT - Revised	Sum Col. (d)		\$ 14,844,498
8	GWH SALES VOLUME ESTIMATE JUNE 2015 - MAY 2016 (see HECO-WP-A-001)			1,068.581
9	RBA RATE ADJUSTMENT - cents per kWh - Revised	Note (1)		1.3892
10	MONTHLY BILL IMPACT @ 500 KWH - Revised			\$ 6.95
Note (1): 2015 RBA Rate Adjustment Breakdown				
		Col. (d)	Rate Adjustment cents per kWh	Percentage Share
	RBA Balance	\$ 8,234,363	0.77058881	55.4708%
	RAM Amount	\$ 6,610,135	0.61858998	44.5292%
	Earnings Sharing Revenue Credits	\$ -	0.00000000	0.0000%
	Major or Baseline Capital Projects Credits	\$ -	0.00000000	0.0000%
		\$ 14,844,498	1.38917859	100.0000%

Note (2): Total RAM Revenue Adjustment Allowed is the sum of the RAM Cap + Exceptional and Other Projects. See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94, which states that the Total RAM Revenue Adjustment is to be comprised of the RAM Cap plus recovery of Exceptional And Other Matters.

SCHEDULE A1
(NEW 4-15-15)
PAGE 1 OF 1

HAWAII ELECTRIC LIGHT COMPANY, INC.
DECOPUPLING CALCULATION WORKBOOK
DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED

Line No.	Description (a)	Reference (b)	Amount (c)
RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES			
1	O&M RAM	3/31/15 Decoupling Filing, Sch A	\$ 3,868,831
2	Rate Base RAM - Return on Investment (Note 2)	3/31/15 Decoupling Filing, Sch A, Note 2	\$ (3,376,152)
3	Depreciation & Amortization RAM Expense	3/31/15 Decoupling Filing, Sch A	\$ 6,686,314
4	Total Adjusted RAM Revenue Adjustment		\$ 7,178,993
RAM REVENUE ADJUSTMENT CAP			
5	RAM Cap for 2015 RAM Revenue Adjustment	Schedule J	\$ 6,201,794
6	Plus: Exceptional and Other Matters	Schedule K	408,341
7	2015 Cap - Total Adjusted RAM Revenue Adjustment (Note 3)		\$ 6,610,135
8	Total RAM Revenue Adjustment Allowed (Note 1)	Lesser of Line 4 or Line 7	\$ 6,610,135
			To Sch A, line 4

Note 1 RAM Revenue Adjustment Allowed:

See Decision and Order No. 32735, filed March 31, 2015, paragraph 106, page 94:

"The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the **lesser** of (a) the RAM Revenue Adjustment determined according to existing tariffs and procedures or (b) a RAM Revenue Adjustment Cap ("RAM Cap) to be calculated as specified."

Note 2

See Decision and Order No. 32735, filed March 31, 2015, paragraph 79, page 82:

"The amendments to the RAM implemented by this Order replace and terminate the previous interim limitations on RAM year Rate Base RAM adjustments required pursuant to Order No. 31908,"

and paragraph 3, page 6:

"The 90% adjustment shall be removed in favor of the GDDPI cap."

Therefore, the 10% reduction pursuant to Order No. 31908 has been eliminated from the calculation of 2014's Rate Base RAM- Return on Investment.

Note 3

Total RAM Cap:

See Decision and Order No. 32735, filed March 31, 2015, paragraph 110, page 96:

"The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM."

SCHEDULE B1
(REVISED 4-15-15)
PAGE 1 OF 1

HAWAII ELECTRIC LIGHT COMPANY, INC.
DECOPUPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description	Reference	Docket No 2009-0164 Amounts					
1	<u>Last Rate Case Annual Electric Revenue at Approved Rate Levels</u>	Note (1)	\$ 355,605	\$ 355,605	\$ 355,605	\$ 355,605	\$ 355,605	\$ 355,605
2	Less Fuel Expense	Note (1)	\$ 000s	\$ (80,078)	\$ (80,078)	\$ (80,078)	\$ (80,078)	\$ (80,078)
3	Purchased Power Expense	Note (1)	\$ 000s	\$ (105,866)	\$ (105,866)	\$ (105,866)	\$ (105,866)	\$ (105,866)
4	Revenue Taxes on Line 1 (8.885% statutory rates)		\$ 000s	\$ (31,596)	\$ (31,596)	\$ (31,596)	\$ (31,596)	\$ (31,596)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 000s	\$ 169,661	\$ 138,065	\$ 138,065	\$ 138,065	\$ 138,065
6	Add Authorized RAM Revenues - Transmittal No. 13-02	Note (2)	\$ 000s	\$ (24)	\$ (24)	\$ -	\$ -	\$ -
7	Less Revenue Taxes on Line 9 at 8.885%		\$ 000s	\$ 2	\$ 2	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +3	Lines 6+7	\$ 000s	\$ (22)	\$ (22)	\$ -	\$ -	\$ -
9	Authorized RAM Revenues - Transmittal No. 14-04	Note (3)	\$ -	\$ -	\$ 4,776	\$ 4,776	\$ -	\$ -
10	Less Revenue Taxes on Line 9 at 8.885%		\$ -	\$ -	\$ (424)	\$ (424)	\$ -	\$ -
11	Net RAM Adjustment - Test Year +4	Lines 9+10	\$ -	\$ -	\$ 4,353	\$ 4,353	\$ -	\$ -
12	Authorized RAM Revenues	Sch A, Line 4	\$ -	\$ -	\$ -	\$ -	\$ 6,610	\$ 6,610
13	Less Revenue Taxes on Line 12 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ (587)	\$ (587)
14	Net RAM Adjustment - Test Year +5	Lines 12+13	\$ -	\$ -	\$ -	\$ -	\$ 6,023	\$ 6,023
15	Less EARNINGS SHARING REVENUE CREDITS	Sch A, Ln 5 or Sch H	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16	Less Revenue Taxes on Line 15 at 8.885%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net Earnings Sharing Revenue Credits	Lines 15+16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	PUC ORDERED MAJOR OR BASELINE CAPITAL CREDITS	Sch A, Ln 6 or Sch I	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total Annual Target Revenues							
20	HELCO TY 2010 Final Annualized Revenues	Line 5	\$ 000s	\$ 159,681	\$ 138,065	\$ 138,065	\$ 138,065	\$ 138,065
21	HELCO TY 2010 + 2013 RAM Annualized Revenues	Lines 5 + 8	\$ 000s	\$ 160,839	\$ 139,044	\$ 142,419	\$ 142,419	\$ 142,419
22	HELCO TY 2010 + 2014 RAM Annualized Revenues	Lines 5 + 11	\$ 000s					
23	HELCO TY 2010 + 2015 RAM Annualized Revenues	Lines 5 + 14	\$ 000s					
24	Distribution of Target Revenues by Month	Note (4)						
				2013	2014	2015	2015	2016
25	January			\$ 11,457,630	\$ 11,620,748	\$ 11,659,331		
26	February			\$ 10,449,911	\$ 10,781,092	\$ 10,007,468		
27	March			\$ 11,540,457	\$ 11,906,199	\$ 12,045,784		
28	April			\$ 11,043,499	\$ 11,393,492	\$ 11,927,066		
29	May			\$ 11,554,261	\$ 11,920,441	\$ 12,080,192		
30	June			\$ 13,859,626	\$ 11,835,804	\$ 11,772,016		
31	July			\$ 14,856,831	\$ 12,304,971	\$ 12,446,231		
32	August			\$ 14,988,109	\$ 12,589,809	\$ 12,737,406		
33	September			\$ 14,232,732	\$ 11,948,925	\$ 12,089,010		
34	October			\$ 14,588,975	\$ 12,248,004	\$ 12,391,595		
35	November			\$ 14,012,201	\$ 11,783,781	\$ 11,931,595		
36	December			\$ 14,419,338	\$ 12,105,585	\$ 12,247,807		
37	Total Distributed Target Revenues	100.00%		\$ 100,765,710	\$ 86,045,758	\$ 84,596,679	\$ 87,821,972	\$ 86,568,103
								\$ 86,499,859

Footnotes:

1. See Letter to Commission, Subject: HELCO Revised Schedules Resulting from Decision and Order No. 30168, Exhibit 1A, page 1, filed February 21, 2012, in Docket No. 2009-0164
2. Transmittal 13-02 filed May 14, 2013 establishing 2013 RAM effective June 1, 2013.
3. Transmittal 14-04 filed May 14, 2014 establishing 2014 RAM effective June 1, 2014.
4. Source: HELCO RBA Provision Tariff effective June 1, 2013 based on 2010 test year.

SCHEDULE J
(NEW 4-15-15)
PAGE 1 OF 1

HAWAII ELECTRIC LIGHT COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF RAM CAP

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	Adjusted 2014 Target Revenues	HELCO-WP-J-001	156,013
2	Gross Domestic Product Price Index (GDPI)	HELCO-WP-C-002	0.011
3	RAM Cap Increase	Line 1 x 2	1,716
4	Adjusted 2014 RAM Revenue Adjustment	HELCO-WP-J-001	4,486
5	RAM Cap for 2015 RAM Revenue Adjustment	Line 3 + 4	6,202

Note 1 Target Revenues:
See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94:
"The RAM Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below ("Basis"), times the cumulative annually compounded increase(s) in GDPI for intervening years, adjusted to include applicable revenue taxes."

HELCO-WP-J-001
 (NEW 4-15-15)
 PAGE 1 OF 1

HAWAII ELECTRIC LIGHT COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED 2014 TARGET REVENUES

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	O&M RAM	5/14/14 Decoupling Filing, Sch A	\$ 3,150
2	Rate Base RAM - Return on Investment	HELCO-WP-J-002, Page 1	(3,681)
3	Depreciation & Amortization RAM Expense	HELCO-WP-J-002, Page 5	5,017
4	Total 2014 Adjusted RAM Revenue Adjustment		\$ 4,486 Sch J
5	Last Rate Order Target Annual Revenues	Schedule B1	\$ 138,065
6	Revenue Tax Factor (1/(1-8.885%))		1,0975
7	Last Rate Order Target Annual Revenues plus Revenue Taxes	Line 5 x 6	\$ 151,527
8	2014 Adjusted Target Revenues subject to GDPII Escalation	Line 4 + 7	\$ 158,013 Sch J

- Note 1 See Decision and Order No. 32735, paragraph 108, Page 95, filed March 31, 2015, in which the commission noted that, "... the target revenues that will serve as the Basis for the incremented cap will be the 2014 annualized target revenues adjusted to use recorded 2014 end-of-year actuals (plant in service, depreciation and amortization, CIAC, and ADIT) rather than 2014 RAM year projects in determination of the 2014 Depreciation and Amortization RAM Expense and average rate base in the 2014 Rate Base RAM. This provision will include in the determination of the average 2014 effective rate base used in determining the RAM Cap for the 2015 RAM Revenue Adjustment, the actual end-of-year net plant in service, including all baseline projects installed in 2014, rather than the five year moving average of baseline project expenditures used in the determination of the 2014 Rate Base RAM. The adjusted 2014 target revenues will be incremented by the GDPII index to determine the RAM Cap as provided above."

2014 SCHEDULE E
PAGE 1 OF 3

HAWAII ELECTRIC LIGHT COMPANY, INC.
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF DEPRECIATION & AMORTIZATION RAM ADJUSTMENT

Line No.	NARUC Account (a)	Recorded Depreciable/Amort. Balance (Footnote 3)	Adjustments (c)	Adjusted Depreciable/Amort. Balance (d)	PUC Approved Accrual Rate in Dkt No. 2009- 0321 (e)	PUC Approved Annual Accrual (f)
		(b)		(d)	(e)	(f)
Plant Accounts						
2	311	\$ 18,281,831		\$ 18,281,831	0.02900	\$ 530,173
3	312	73,863,591		73,863,591	0.03080	2,274,989
4	314	51,269,643		51,269,643	0.02540	1,302,249
5	315	9,629,587		9,629,587	0.03350	322,591
6	318	-		-		
7	Tot - Steam	153,044,653	-	153,044,653	0.02895	4,430,012
8						
9	331	97,513		97,513	0.00940	917
10	332	5,721,338		5,721,338	0.02030	116,143
11	333	2,536,114		2,536,114	0.02130	54,019
12	334	748,324		748,324	0.00620	4,840
13	336	8,339		8,339	0.00000	-
14	Tot - Hydro	9,111,627	-	9,111,627	0.01929	175,719
15						
16	341	21,845,870		21,845,870	0.02640	571,451
17	342	12,543,720		12,543,720	0.01990	249,620
18	343	64,777,473		64,777,473	0.02220	1,438,060
19	344	55,642,036		55,642,036	0.01910	1,062,763
20	345	8,846,452		8,846,452	0.01710	147,854
21	Tot - Other Prod	163,255,550	-	163,255,550	0.02125	3,469,748
22						
23	Tot - Prod	325,411,830	-	325,411,830		8,075,479
24						
25	3501	3,232,400		3,232,400	0.01460	47,193
26	352	2,865,594		2,865,594	0.00890	25,504
27	353	56,708,445		56,708,445	0.01980	1,122,827
28	354	75,903		75,903	0.02120	1,609
29	355	52,978,767		52,978,767	0.01750	927,128
30	356	37,958,421		37,958,421	0.04430	1,681,558
31	357	434,888		434,888	0.00000	-
32	358	754,874		754,874	0.00180	1,359
33	359	128,935		128,935	0.01350	1,741
34	Tot - Transm	155,138,226	-	155,138,226	0.02455	3,808,919
35						
36	3801	729,097		729,097	0.01990	14,509
37	381	3,301,518		3,301,518	0.01600	52,824
38	382	57,328,757	(1,194,003)	56,134,755	0.01820	1,021,653
39	383 (Footnote 5)	-	1,194,003	1,194,003	0.03960	47,283
40	384	117,728,534		117,728,534	0.03780	4,450,139
41	385	100,250,432		100,250,432	0.03400	3,408,515
42	386	25,513,557		25,513,557	0.02870	732,239
43	387	107,569,912		107,569,912	0.04080	4,388,852
44	388	87,338,121		87,338,121	0.08870	5,999,992
45	389.1	40,191,172		40,191,172	0.03470	1,394,634
46	389.2	26,935,105		26,935,105	0.02850	767,651
47	370	18,755,415		18,755,415	0.04840	810,982
48	Tot - Distr	583,639,619	-	583,639,619	0.03956	23,089,251
49						
50	Tot - T & D	738,777,845	-	738,777,845		26,898,170
51						
52	390	18,355,447		18,355,447	0.01290	210,985
53	Tot - General	18,355,447	-	18,355,447	0.01290	210,985
54						
55	Sub-Total	1,080,545,122	-	1,080,545,122		35,184,634
56						
57	3921	6,210,250		6,210,250	0.15120	938,990
58	3922	12,596,721		12,596,721	0.02720	342,631
59	Tot - Vehicles	18,806,971	-	18,806,971	0.06815	1,281,621
60						
61						
62	Utility Total Depreciation	\$ 1,099,352,093	\$ -	\$ 1,099,352,093	0.03317	\$ 36,465,254

2014 SCHEDULE E
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63						
64						
65	Amortization Amounts					
66						
67	316	\$ 1,864,478		\$ 1,864,478	0.05000	\$ 93,224
68	Tot - Steam	1,864,478	-	1,864,478	0.05000	93,224
69						
70	335	42,053		42,053	0.05000	2,103
71	Tot - Hydro	42,053	-	42,053	0.05000	2,103
72						
73	346	3,165,004		3,165,004	0.05000	158,250
74	Tot - Other Prod	3,165,004	-	3,165,004	0.05000	158,250
75						
76	Tot - Prod	5,071,534	-	5,071,534	0.05000	253,577
77						
78	3911	2,515,486		2,515,486	0.20000	503,097
79	3912	350,241		350,241	0.10000	35,024
80	3913	537,302		537,302	0.06670	35,838
81	393	527,337		527,337	0.04000	21,093
82	394	7,982,993		7,982,993	0.04000	318,520
83	395	352,206		352,206	0.06670	23,492
84	396	23,124		23,124	0.05580	1,288
85	397	16,721,598		16,721,598	0.06670	1,115,330
86	398	3,484,250		3,484,250	0.06670	232,400
87	Tot - General	\$ 32,474,535	\$ -	\$ 32,474,535	0.07040	\$ 2,288,080
88						
89						
90						
91						
92						
93	Net Unrecovered Amortization (Footnote 1)					754,348
94						
95	Utility Total Amortization	\$ 37,546,069	\$ -	\$ 37,546,069	0.08773	\$ 3,294,006
96						
97	TOTAL RAM DEPRECIATION / AMORTIZATION					\$ 39,760,260
98	LESS: Vehicle Depreciation (A/C 392 above)					\$ (1,281,621)
99	LESS: Depreciation & Amortization in Current Revenues					Footnote 2 \$ (33,208,900)
100						
101	RAM Adjustment for Depreciation & Amortization					\$ 5,269,738
102	RAM Adjustment for CIAC Amortization					Sch. G \$ (698,835)
103	RAM Adjustment for CIS Deferred Cost Amortization (Footnote 4)					\$ 213,463
104	Total RAM Adjustment for Depreciation & Amortization					\$ 4,784,367
105	Times: Factor for Revenue Taxes					1.0975
106						
107	RAM DEPRECIATION & AMORTIZATION					\$ 5,250,910
108						
109	RAM Adjustment for CIS Def Cost Amortization (Line 103)					\$ (213,463)
110	Depreciation and Amortization for Exceptional and Other Matters					\$ (213,463)
109	Times: Factor for Revenue Taxes					1.0975
110	Total Depreciation and Amortization for Exceptional and Other Matters					\$ (234,278)
111						
110	ADJUSTED RAM DEPRECIATION & AMORTIZATION (Line 107 + Line 110)					\$ 5,016,632

Footnotes:

1	Account	Net Unrecovered Amortization (c)(i)	Annual Recovery (c) / 5 years
	316	\$ 146,914	\$ 29,383
	335	24,160	4,832
	346	63,071	12,614
	3911	268,651	53,730
	3912	(17,354)	(3,471)
	3913	582,700	116,540
	393	(62,302)	(12,460)
	394	(176,472)	(35,294)
	395	149,469	29,894
	396	(7,654)	(1,531)
	397	2,277,517	455,503
	398	523,044	104,609
	Unrecovered Amortization	\$ 3,771,742	
	Annual Recovery (increases amortization expense annually for five years)		\$ 754,348
	(i) Source: Accounting Records		

2014 SCHEDULE E
PAGE 3 OF 3

2	<u>Depreciation & Amortization in Current Revenues (ii):</u> Total Depreciation LESS: Vehicle Depreciation (A/C 392) Net Depreciation in Current Revenues	Depr/Amort Expense <u>\$ 34,376,700</u> <u>(1,187,800)</u> <u>\$ 33,208,900</u>
	and Order No. 30168, HELCO T-13, Attachment 1, page 1, Response to Final D&O, filed 2/21/12, Docket No. 2009-0164.	
3	Utility Total Depreciable Plant Balance - Line 62 Utility Total Amortizable Plant Balance - Line 95 Total Utility Depreciation and Amortization Plant Balance	<u>\$ 1,099,352,093</u> <u>37,546,089</u> <u>\$ 1,136,898,182</u>
	Total Utility Plant in Service Balance (iii) less: Land Balance (iv) less: ARO Asset Balance (v)	<u>\$ 1,142,153,265</u> <u>(5,230,503)</u> <u>(24,599)</u> <u>\$ 1,136,898,182</u>
	(iii) December 2013 Monthly Financial Report PUC, page 8 (iv) Accounting Records (v) December 2013 Monthly Financial Report PUC, page 11	
4	See HELCO-WP-D1-001, page 1.	
5	New asset category for storage battery equipment, notice to Commission filed 10/25/13, Docket Nos. 2009-0286, 2009-0321, 2010-0053.	

SCHEDULE A
(REVISED 4-15-15)
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MAUI ELECTRIC COMPANY, LIMITED
DECOPUPLING CALCULATION WORKBOOK
DETERMINATION OF 2015 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT

Line No.	Description (b)	Reference (b)	Amount (c)	Rate Amount (d)
<u>RECONCILIATION OF RBA BALANCE:</u>				
1	RBA Prior calendar year-end balance	Schedule B	\$ 6,789,533	
2	Revenue Tax Factor	Schedule C	1.0975	
3	Revenue for RBA Balance			\$ 7,451,513
<u>RATE ADJUSTMENT MECHANISM "RAM" AMOUNT:</u>				
4	Total RAM Revenue Adjustment Allowed	Schedule A1, Note (2)	\$ 10,726,421	
5	<u>EARNINGS SHARING REVENUE CREDITS - 2014 ROE:</u>	Schedule H	\$ (520,522)	
6	<u>PUC-ORDERED MAJOR OR BASELINE CAPITAL PROJECTS CREDITS:</u>	Schedule I	\$ -	
7	TOTAL RBA REVENUE ADJUSTMENT - Revised	Sum Col. (d)	\$ 17,657,411	
8	GWH SALES VOLUME ESTIMATE JUNE 2015 - MAY 2016	MECO-WP-A-001		1,101.025
9	RBA RATE ADJUSTMENT, RBA Balance - ¢ per kWh - Revised	Note (1)		1.8037
10	MONTHLY BILL IMPACT @ 600 KWH - Maui Division - Revised		\$ 9.62	
11	MONTHLY BILL IMPACT @ 400 KWH - Molokai and Lanai Divisions - Revised		\$ 6.41	

Note (1): 2015 RBA Rate Adjustment Breakdown

	Col. (d)	Rate Adjustment cents per kWh	Percentage Share
RBA Balance	\$ 7,451,513	0.67677963	42.2005%
RAM Amount	\$ 10,726,421	0.97422135	60.7474%
Earnings Sharing Revenue Credits	\$ (520,522)	-0.04727818	-2.9479%
Major or Baseline Capital Projects Credits	\$ 0.00000000	0.00000000	0.0000%
	\$ 17,657,411	1.60372483	100.00%

Note (2): Total RAM Revenue Adjustment Allowed is the sum of the RAM Cap + Exceptional and Other Projects. See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, pages 94-95, which states that the Total RAM Revenue Adjustment is to be comprised of the RAM Cap plus recovery of Exceptional And Other Matters.

SCHEDULE A1
 (NEW 4-15-15)
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MAUI ELECTRIC COMPANY, LIMITED
DECOPUPLING CALCULATION WORKBOOK
DETERMINATION OF TOTAL RAM REVENUE ADJUSTMENT ALLOWED

Line No.	Description (a)	Reference (b)	Amount (c)
RAM REVENUE ADJUSTMENT DETERMINED ACCORDING TO EXISTING TARIFFS AND PROCEDURES			
		3/31/15 Decoupling Filing,	
1	O&M RAM	Sch A	\$ 2,764,684
2	Rate Base RAM - Return on Investment (Note 2)	Schedule D	\$ 6,849,188
3	Depreciation & Amortization RAM Expense	3/31/15 Decoupling Filing, Sch E, Line 200	\$ 3,394,698
4	Total Adjusted RAM Revenue Adjustment		\$ 13,008,570
RAM REVENUE ADJUSTMENT CAP			
5	RAM Cap for 2015 RAM Revenue Adjustment	Schedule J	\$ 10,296,121
6	Plus: Exceptional and Other Matters	Schedule K	430,300
7	2015 Cap - Total Adjusted RAM Revenue Adjustment (Note 3)		\$ 10,726,421
8	Total RAM Revenue Adjustment Allowed (Note 1)	Lesser of Line 4 or Line 7	\$ 10,726,421
			To Sch A, line 4

Note 1 RAM Revenue Adjustment Allowed:

See Decision and Order No. 32735, filed March 31, 2015, paragraph 106, page 94:

"The RAM Revenue Adjustment to be applied to determine effective Target Revenues will be the lesser of (a) the RAM Revenue Adjustment determined according to existing tariffs and procedures or (b) a RAM Revenue Adjustment Cap ("RAM Cap") to be calculated as specified."

Note 2 See Decision and Order No. 32735, filed March 31, 2015, paragraph 79, page 82:

"The amendments to the RAM implemented by this Order replace and terminate the previous interim limitations on RAM year Rate Base RAM adjustments required pursuant to Order No. 31908,"

and paragraph 3, page 6:

"The 90% adjustment shall be removed in favor of the GDPPi cap."

Therefore, the 10% reduction pursuant to Order No. 31908 has been eliminated from the calculation of 2014's Rate Base RAM- Return on Investment.

Note 3 Total RAM Cap:

See Decision and Order No. 32735, filed March 31, 2015, paragraph 110, page 96:

"The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM."

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TRANSMITTAL NOS. 15-03,-04,-05
ATTACHMENT 3
PAGE 3 OF 9

SCHEDULE B1
(REVISED 4-15-15)
PAGE 1 OF 1

MAUI ELECTRIC COMPANY, LIMITED
DECOPLING CALCULATION WORKBOOK
DETERMINATION OF TARGET REVENUES

Line No.	Description (a)	Reference (b)	D&O No. 31268 Docket No. 2011-0092 Amounts (c)	D&O No. 31268 Docket No. 2011-0092 Amounts (d)	D&O No. 31268 Docket No. 2011-0092 Amounts (e)	D&O No. 31268 Docket No. 2011-0092 Amounts (f)	D&O No. 31268 Docket No. 2011-0092 Amounts (g)	D&O No. 31268 Docket No. 2011-0092 Amounts (h)
			D&O No. 31268 Docket No. 2011-0092 Amounts (i)					
1	Last Rate Case Annual Electric Revenue at Accepted Rate Levels	Note (1)	\$ 416,810	\$ 416,810	\$ 416,810	\$ 416,810	\$ 416,810	\$ 416,810
2	Less Fuel Expense	Note (1)	\$ (212,580)	\$ (212,580)	\$ (212,580)	\$ (212,580)	\$ (212,580)	\$ (212,580)
3	Purchased Power Expenses	Note (1)	\$ (44,856)	\$ (44,856)	\$ (44,856)	\$ (44,856)	\$ (44,856)	\$ (44,856)
4	Revenue Taxes on Line 1 (8.885% statutory rates)	\$ (37,034)	\$ (37,034)	\$ (37,034)	\$ (37,034)	\$ (37,034)	\$ (37,034)	\$ (37,034)
5	Last Rate Order Target Annual Revenues	Sum Lines 1..4	\$ 122,340	\$ 122,340	\$ 122,340	\$ 122,340	\$ 122,340	\$ 122,340
6	Add Authorized RAM Revenues - Transmittal No 13-01	Tariff Transmittal	\$ 3,239	\$ 3,239	\$ -	\$ -	\$ -	\$ -
7	Less Revenue Taxes on Line 6 at 8.885%	\$ (286)	\$ (286)	\$ -	\$ -	\$ -	\$ -	\$ -
8	Net RAM Adjustment - Test Year +1	Lines 6+7	\$ 2,952	\$ 2,952	\$ -	\$ -	\$ -	\$ -
9	Revenues June 2013 and July 2013 RAM	\$ (541)	\$ (541)	\$ -	\$ -	\$ -	\$ -	\$ -
10	Adjusted RAM for August 2013 to May 2014, Annualized	Lines 8+9	\$ 2,917	\$ 2,917	\$ -	\$ -	\$ -	\$ -
11	Authorized RAM Revenues - Transmittal No 14-05	Sch A, line 7	\$ -	\$ -	\$ 8,617	\$ 8,617	\$ -	\$ -
12	Less Revenue Taxes on Line 11 at 8.885%	\$ -	\$ -	\$ (789)	\$ (789)	\$ -	\$ -	\$ -
13	Net RAM Adjustment - Test Year +2	Lines 11+12 + Aug to May Factors)	\$ -	\$ -	\$ 7,851	\$ 7,851	\$ -	\$ -
14	Authorized RAM Revenues	Sch A, line 4	\$ -	\$ -	\$ -	\$ -	\$ 19,728	\$ 19,728
15	Less Revenue Taxes on Line 14 at 8.885%	\$ -	\$ -	\$ -	\$ -	\$ (953)	\$ (953)	\$ -
16	Net RAM Adjustment - Test Year +3	Lines 14+15	\$ -	\$ -	\$ -	\$ -	\$ 9,775	\$ 9,775
17	Less EARNINGS SHARING REVENUE CREDITS - 2013 ROE:	Sch H or Sch A, Ln 5	\$ -	\$ -	\$ (367)	\$ (367)	\$ (521)	\$ (521)
18	Less Revenue Taxes on Line 14 at 8.885%	\$ -	\$ -	\$ 33	\$ 33	\$ 46	\$ 46	\$ -
19	Net Earnings Sharing Revenue Credits from 2013	Lines 17 + 18	\$ -	\$ -	\$ (334)	\$ (334)	\$ (474)	\$ (474)
20	PUC ORDERED MAJOR OR BASELINE CAPITAL CREDITS	Sch I or Sch A, Ln 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21	Total Annual Target Revenues							
22	August 1, 2013 Annualized Revenues + Ad 2013 RAM Revenues	Lines 5 + 10	\$ 125,258	\$ 125,258	\$ -			
23	June 1, 2014 Annualized Revenues + 2014 RAM Revenues	Lines 5 + 13 + 16	\$ -	\$ 129,656	\$ 129,656	\$ -		
24	June 1, 2015 Annualized Revenues + 2015 RAM Revenues	Lines 5 + 16 + 19	\$ 100,000	\$ -	\$ -	\$ -	\$ (31,640)	\$ (31,640)
25	Distribution of Target Revenues by Month in Dollars	Note (2)	2013	2014	2014	2015	2015	2016
26	January	8.29%	-	\$ 10,383,870	-	\$ 10,785,201	-	\$ 10,912,918
27	February	7.35%	-	\$ 9,006,447	-	\$ 9,544,539	-	\$ 9,675,508
28	March	8.28%	-	\$ 10,871,345	-	\$ 10,752,215	-	\$ 10,869,154
29	April	7.34%	-	\$ 8,870,313	-	\$ 10,232,765	-	\$ 10,373,185
30	May	8.39%	-	\$ 10,480,922	-	\$ 10,860,073	-	\$ 11,031,763
31	June - June 1st is assumed effective date of RAM	8.51%	-	\$ 11,050,888	-	\$ 11,200,524	-	\$ 11,352,247
32	July	8.87%	-	\$ 11,518,378	-	\$ 11,576,427	-	\$ 11,744,308
33	August	9.00%	\$ 11,273,201	\$ 11,667,191	-	\$ 11,847,558	-	\$ 12,027,689
34	September	8.34%	\$ 10,446,499	\$ 10,830,130	-	\$ 10,978,757	-	\$ 11,130,937
35	October	8.78%	\$ 10,907,933	\$ 11,401,504	-	\$ 11,587,921	-	\$ 11,800,195
36	November	8.19%	\$ 10,258,613	\$ 10,635,343	-	\$ 10,761,278	-	\$ 10,933,546
37	December	8.13%	\$ 10,163,456	\$ 10,557,429	-	\$ 10,702,294	-	\$ 10,835,766
38	Total Distributed Target Revenues	100.00%	\$ 53,159,404	\$ 50,328,577	\$ 77,680,661	\$ 52,178,613	\$ 75,746,700	\$ 52,892,766

Explanations

1 Docket No 2011-0092 Interim amounts derived from Interim Decision & Order, Exhibit A, page 1, dated May 21, 2012.
Docket No 2011-0092 Final amounts derived from MECO Revised Results of Operations, Exhibit 1A, Page 1, filed June 17, 2013

2 RSA Tariff effective June 1, 2012 based on 2012 test year

SCHEDULE J
(NEW 4-15-15)
PAGE 1 OF 1

MAUI ELECTRIC COMPANY, LIMITED
DECOPUPLING CALCULATION WORKBOOK
DETERMINATION OF RAM CAP

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	Adjusted 2014 Target Revenues Subject to GDDPI escalation	MECO-WP-J-001	\$142,629
2	Gross Domestic Product Price Index (GDPPi)	MECO-WP-C-002	0.011
3	RAM Cap Increase	Line 1 x 2	1,569
4	Adjusted 2014 RAM Revenue Adjustment	MECO-WP-J-001	8,727
5	RAM Cap for 2015 RAM Revenue Adjustment	Line 3 + 4	10,296

Note 1 Target Revenues:

See Decision and Order No. 32735, filed March 31, 2015, paragraph 107, page 94:
"The RAM Cap shall be based on the Target Revenues determined in accordance with the RBA and RAM tariffs as provided below ("Basis"), times the cumulative annually compounded increase(s) in GDPPi for intervening years, adjusted to include applicable revenue taxes."

MECO-WP-J-001
(NEW 4-15-15)
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MAUI ELECTRIC COMPANY, LIMITED
DECOUPLING CALCULATION WORKBOOK
DETERMINATION OF ADJUSTED 2014 TARGET REVENUES

Line No.	Description (a)	Reference (b)	Amount \$000 (c)
1	O&M RAM	5/14/14 Decoupling Filing, Sch. A	\$ 1,967
2	Rate Base RAM - Return on Investment	MECO-WP-J-002, p.1	4,919
3	Depreciation & Amortization RAM Expense	MECO-WP-J-002, p.6	<u>1,841</u>
4	2014 Total Adjusted RAM Revenue Adjustment		\$ 8,727 Sch J
5	Last Rate Order Target Annual Revenues	Schedule B1	\$ 122,340
6	Earnings Sharing Credit	Schedule B1	<u>\$ (334)</u>
7			<u>\$ 122,006</u>
8	Revenue Tax Factor (1/(1-8.885%))		1.0975
9	Last Rate Order Target Annual Revenues plus Revenue Taxes	Line 7 x 8	\$ 133,902
10	2014 Adjusted Target Revenues subject to GDPI Escalation	Line 4 + 9 (Note 1)	\$ 142,629 Sch J

Note 1 See Decision and Order No. 32735, paragraph 107, Page 94 - 95, filed March 31, 2015, in which the commission noted that the basis used in determining the RAM Cap shall be adjusted to exclude or otherwise appropriately account for adjustments for the recovery of revenues for previously explicitly stipulated and approved exceptional matters or other matters specifically ordered by the commission, which shall, in any event, be recovered fully without respect to any limitations resulting from application of the RAM Cap. Accordingly, the 2014 RAM revenue requirement for CIS Deferred Cost is excluded from the 2014 Adjusted Target Revenues subject to GDPI escalation.

2014 SCHEDULE E
PAGE 1 OF 4

MAUI ELECTRIC COMPANY, LIMITED
DECOPLING CALCULATION WORKBOOK
DETERMINATION OF DEPRECIATION & AMORTIZATION RAM ADJUSTMENT

Line No.	NARUC Account	Recorded Depreciable/Amort. Balance	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate	Annual Accrual
		(b) Footnote (1)	(d) Footnote (2)	Dkt. 2009-0288	
1	Plant Accounts				
2	310.00			0.0000	
3	311.00	6,747,274	6,747,274	0.0289	194,996
4	312.00	50,795,703	50,795,703	0.0375	1,804,839
5	314.00	48,256,916	48,256,916	0.0589	2,842,332
6	315.00	8,704,408	8,704,408	0.0419	384,715
7	MAUI STEAM PRODUCTION	<u>114,504,301</u>	<u>114,504,301</u>	<u>0.0463</u>	<u>5,308,882</u>
8					
9	340.00			0.0000	
10	341.00	34,354,351	34,354,351	0.0117	401,946
11	342.00	4,037,848	4,037,848	0.0097	39,167
12	343.00	37,993,711	37,993,711	0.0080	303,950
13	344.00	108,966,881	108,966,881	0.0184	1,787,057
14	345.00	27,407,178	27,407,178	0.0157	430,293
15	MAUI OTHER PRODUCTION	<u>212,759,969</u>	<u>212,759,969</u>	<u>0.0139</u>	<u>2,862,412</u>
16					
17	MAUI TOTAL PRODUCTION	<u>327,264,270</u>	<u>327,264,270</u>	<u>0.0253</u>	<u>8,289,284</u>
18					
19	350.20			0.0000	
20	350.00	2,446,271.97	2,446,272	0.0158	38,651
21	352.00	7,255,042.66	7,255,043	0.0202	146,552
22	353.00	49,567,248.01	49,567,248	0.0158	783,163
23	355.00	30,986,840.02	30,986,840	0.0187	517,482
24	356.00	27,199,350.25	27,199,350	0.0175	475,989
25	357.00	714,084.55	714,085	0.0159	11,354
26	358.00	1,194,895.73	1,194,896	0.0198	23,659
27	MAUI TRANSMISSION	<u>119,383,833</u>	<u>119,383,833</u>	<u>0.0167</u>	<u>1,998,849</u>
28					
29	360.20			0.0000	
30	360.00	1,280,738	1,280,738	0.0203	25,999
31	361.00	1,483,312	1,483,312	0.0120	17,580
32	362.00	41,398,481	41,398,481	0.0134	554,739
33	363.00	2,134,400	2,134,400	0.0192	40,880
34	364.00	30,932,065	30,932,065	0.0170	525,845
35	365.00	52,443,791	52,443,791	0.0165	865,323
36	366.00	58,846,806	58,846,806	0.0203	1,190,526
37	367.00	63,668,821	63,668,821	0.0117	744,925
38	368.00	55,927,284	55,927,284	0.0222	1,241,588
39	369.10	22,158,504	22,158,504	0.0378	837,591
40	369.20	52,737,175	52,737,175	0.0232	1,223,502
41	370.00	15,573,056	15,573,056	0.0192	289,003
42	373.00	11,556,793	11,556,793	0.0187	218,112
43	MAUI DISTRIBUTION	<u>409,921,005</u>	<u>409,921,005</u>	<u>0.0190</u>	<u>7,783,692</u>
44					
45	389.20			0.0000	
46	390.00	<u>11,215,577</u>	<u>11,215,577</u>	<u>0.0106</u>	<u>118,885</u>
47	MAUI GENERAL	<u>11,215,577</u>	<u>11,215,577</u>	<u>0.0106</u>	<u>118,885</u>
48					
49	392.10	5,801,466	5,801,466	0.0536	310,859
50	392.20	4,025,786	4,025,786	0.0305	122,786
51	MAUI TRANSPORTATION	<u>9,827,251</u>	<u>9,827,251</u>	<u>0.0441</u>	<u>433,745</u>
52					
53	TOTAL MAUI DIVISION	<u>877,591,938</u>	<u>877,591,938</u>	<u>0.0212</u>	<u>18,602,465</u>
54					

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Line No.	NARUC Account (a)	Recorded Depreciable/Amort. Balance	Adjustments (c)	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate Dkt. 2008-0286	Annual Accrual (f)
		Footnote (1)		Footnote (2)	(d)	
55	LANAI					
56	340.0L	-			0.0000	
57	341.0L	4,020,333		4,020,333	0.0454	182,523
58	342.0L	1,914,270		1,914,270	0.0304	58,194
59	343.0L	1,442,668		1,442,668	0.0360	51,936
60	344.0L	8,060,068		8,060,068	0.0234	188,606
61	345.0L	3,417,295		3,417,295	0.0253	88,458
62	LANAI OTHER PRODUCTION	18,854,633		18,854,633	0.0301	587,718
63						
64	360.1L	152,538,21		152,538	0.0203	3,087
65	362.0L	1,994,590,46		1,994,590	0.0165	32,911
66	364.0L	2,055,947,65		2,055,948	0.0185	38,035
67	365.0L	2,828,190,05		2,828,190	0.0165	46,632
68	366.0L	1,280,127,73		1,280,128	0.0211	27,011
69	367.0L	2,315,459,05		2,315,459	0.0122	28,249
70	368.0L	798,197,77		798,198	0.0208	16,803
71	368.1L	1,050,690,33		1,050,690	0.0380	39,926
72	369.2L	1,000,190,87		1,000,191	0.0258	25,605
73	370.0L	606,573,85		606,574	0.0195	11,828
74	373.0L	264,349,43		264,349	0.0166	4,388
75	LANAI DISTRIBUTION	14,344,855		14,344,855	0.0191	274,284
76						
77	389.2L	-		-	0.0000	-
78	390.0L	801,885		801,885	0.0138	11,066
79	LANAI GENERAL	801,885		801,885	0.0138	11,066
80						
81	392.1L	635,940		635,940	0.0086	5,468
82	392.2L	282,587		282,587	0.0875	24,726
83	LANAI TRANSPORTATION	918,527		918,527	0.0329	30,195
84						
85	Lanai CHP - Production	-	3,010,000	3,010,000	0.0301	90,632
86	Lanai CHP - Distribution	-	490,000	490,000	0.0191	9,368
87	LANAI RATEMAKING ADJUSTMENT	-	3,500,000	3,500,000	0.0288	100,001
88						
89	TOTAL LANAI DIVISION	34,919,901	3,500,000	38,419,901	0.0256	983,262
90						
91	MOLOKAI					
92	302.0M	-		-	0.0000	-
93	INTANGIBLE PLANT	-	-	-	0.0000	-
94						
95	340.0M	-		-	0.0000	-
96	341.0M	2,627,033		2,627,033	0.0447	117,428
97	342.0M	1,927,423		1,927,423	0.0452	87,120
98	343.0M	1,773,054		1,773,054	0.0258	45,390
99	344.0M	11,146,696		11,146,696	0.0354	394,583
100	345.0M	3,892,153		3,892,153	0.0266	103,531
101	MOLOKAI OTHER PRODUCTION	21,386,359		21,386,359	0.0350	748,062
102						
103	350.1M	-		-	0.0000	-
104	353.0M	605,475		605,475	0.0232	14,047
105	354.0M	38,669		38,669	0.0233	901
106	355.0M	117,065		117,065	0.0077	901
107	356.0M	280,337		280,337	0.0097	2,525
108	MOLOKAI TRANSMISSION	1,021,545		1,021,545	0.0180	18,375
109						
110	360.1M	26,568		26,568	0.0202	537
111	361.0M	59,259		59,259	0.0066	381
112	362.0M	1,269,842		1,269,842	0.0163	20,695
113	364.0M	2,603,918		2,603,918	0.0224	58,328
114	365.0M	2,898,158		2,898,158	0.0177	51,297
115	366.0M	136,064		136,064	0.0227	3,089
116	367.0M	3,771,268		3,771,268	0.0174	65,820
117	368.0M	1,565,081		1,565,081	0.0225	35,214
118	369.1M	1,450,834		1,450,834	0.0406	58,904
119	369.2M	1,047,133		1,047,133	0.0261	27,330
120	370.0M	794,454		794,454	0.0121	9,813
121	373.0M	330,608		330,608	0.0152	5,025
122	MOLOKAI DISTRIBUTION	15,952,987		15,952,987	0.0211	336,043
123						
124	389.2M	56,383		56,383	0.0003	17
125	390.0M	882,348		882,348	0.0085	5,800
126	MOLOKAI TOTAL GENERAL	738,731		738,731	0.0079	5,817
127						
128	392.1M	813,274		813,274	0.0000	-
129	392.2M	340,754		340,754	0.0000	-
130	MOLOKAI TRANSPORTATION	954,029		954,029	0.0000	-
131						
132	TOTAL MOLOKAI DIVISION	40,033,851		40,033,651	0.0277	1,108,297
133						
134						
135	UTILITY TOTAL DEPRECIATION	952,545,490	3,500,000	956,045,490	0.0217	20,894,025
136						

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Line No.	NARUC Account	Recorded Depreciable/Amort. Balance	Adjustments	Adjusted Depreciable/Amort. Balance	PUC Approved Accrual Rate Dkt. 2009-0286	Annual Accrual
	(a)	(b)	(c)	(d)	(e)	(f)
137 Amortization Amounts						
138						
139	MAUI					
140	316.00	3,241,483		3,241,483	0.0500	\$ 162,074
141	348.00	14,971,800		14,971,800	0.0500	748,590
142	MAUI PRODUCTION	<u>18,213,283</u>	-	<u>18,213,283</u>	0.0500	<u>910,684</u>
143						
144	391.10	1,878,951		1,878,951	0.2000	375,790
145	391.20	437,099		437,099	0.1000	43,710
146	391.30	1,159,650		1,159,650	0.0687	77,349
147	393.00	654,096		654,096	0.0400	22,164
148	394.00	5,867,618		5,867,618	0.0400	234,705
149	395.00	325,167		325,167	0.0887	21,689
150	398.00	140,554		140,554	0.0556	7,815
151	397.00	18,721,774		18,721,774	0.0687	1,248,742
152	398.00	1,035,344		1,035,344	0.0687	89,057
153	MAUI GENERAL	<u>30,120,253</u>	-	<u>30,120,253</u>	0.0698	<u>2,101,021</u>
154						
155	TOTAL MAUI DIVISION	<u>48,333,536</u>	-	<u>48,333,536</u>	0.0623	<u>3,011,685</u>
156						
157	LANAI					
158	346.0L	1,179,454		1,179,454	0.0500	58,973
159	LANAI OTHER PRODUCTION	<u>1,179,454</u>	-	<u>1,179,454</u>	0.0500	<u>58,973</u>
160						
161	391.1L	-			0.2000	-
162	391.2L	123		123	0.1000	12
163	391.3L	2,859		2,859	0.0687	197
164	394.0L	32,584		32,584	0.0400	1,303
165	397.0L	753,729		753,729	0.0687	50,274
166	398.0L	34,054		34,054	0.0687	2,271
167	LANAI GENERAL	<u>823,449</u>	-	<u>823,449</u>	0.0656	<u>54,058</u>
168						
169	TOTAL LANAI DIVISION	<u>2,002,903</u>	-	<u>2,002,903</u>	0.0564	<u>113,031</u>
170						
171	MOLOKAI					
172	348.0M	1,944,030		1,944,030	0.0500	97,201
173	MOLOKAI OTHER PRODUCTION	<u>1,944,030</u>	-	<u>1,944,030</u>	0.0500	<u>97,201</u>
175						
176	391.1M	-			0.2000	-
177	391.2M	123		123	0.1000	12
178	391.3M	10,387		10,387	0.0687	693
179	394.0M	89,793		89,793	0.0400	3,592
180	397.0M	1,422,878		1,422,878	0.0687	94,906
181	398.0M	32,143		32,143	0.0687	2,144
182	MOLOKAI GENERAL	<u>1,555,323</u>	-	<u>1,555,323</u>	0.0652	<u>101,347</u>
183						
184	TOTAL MOLOKAI DIVISION	<u>3,499,353</u>	-	<u>3,499,353</u>	0.0587	<u>188,548</u>
185						
186	Net Unrecovered Amortization - Footnote (3)					(693,021)
187						
188	UTILITY TOTAL AMORTIZATION	<u>53,835,792</u>	-	<u>53,835,792</u>	0.0489	<u>2,630,243</u>
189						
190	TOTAL RAM DEPRECIATION / AMORTIZATION					\$ 23,324,267
191	LESS: Vehicle Depreciation (A/C 392 above)					\$ (463,841)
192	LESS: Depreciation & Amortization in Current Revenues				Footnote (4)	\$ (20,933,000)
193						
194	RAM Adjustment for Depreciation & Amortization					\$ 1,927,327
195	RAM Adjustment for CMC Amortization				Sch. G	\$ (249,855)
196	RAM Adjustment for CIS Amortization				MECO-WP-D1-001, page 2	\$ 233,099
197	Total RAM Adjustment for Depreciation & Amortization					\$ 1,910,871
198	Times: Factor for Revenue Taxes					1,0975
199						
200	RAM DEPRECIATION & AMORTIZATION					\$ 2,096,878
	RAM Adjustment for CIS Def Cost Amortization (from Line 196)					\$ (233,099)
	Depreciation and Amortization for Exceptional and Other Matters					\$ (233,099)
	Times: Factor for Revenue Taxes					1,0975
	Total Depreciation and Amortization for Exceptional and Other Matters					\$ (266,829)
	ADJUSTED RAM DEPRECIATION & AMORTIZATION (Line 200 - 205)					\$ 1,841,049

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Footnotes:

(1) Depreciable Balance	\$ 952,545,490	Line 135
Amortizable Balance	53,835,792	Line 188
Total Utility Plant per Schedule	\$ 1,006,381,282	

Add: Land, Land Rights, Franchises &
Consents as of 12/31/13 not included in
Schedule 1,714,890

Total Utility Plant per G/L	\$ 1,008,096,173	December 2013 Monthly Financial Report filed 2/21/14
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(2) Amounts are recorded, except for the
following adjustment:

Lanai CHP	3,500,000	MECO-RWP-1401 (Revised 3/28/12), Dkt. No. 2011-0092, page 10
Total Adjustment	\$ 3,500,000	

(3) Net Unrecovered Amortization:

Account	Net Unrecovered Amortization (c)*	Annual Recovery (c) / 5 years *
316.00	297,187	59,437
346.00	(1,793,299)	(358,680)
391.10	243,180	48,632
391.20	281,487	56,297
391.30	183,845	32,769
393.00	(100,913)	(20,183)
394.20	331,080	66,218
394.30	90,755	18,151
395.10	201,528	40,308
395.20		
395.40	(2,856)	(571)
396.00	(8,091)	(1,218)
397.00	(3,100,803)	(620,161)
398.00	(70,198)	(14,039)
Over-recovered Amortization	(3,485,105)	
Annual Recovery (increases amortization expense annually for five years)		(693,021)

* Source: MECO 2012 Test Year Rate Case, Docket No. 2011-0092, CA-IR-181, Attachment 1, columns (E) & (F)

(4) Depreciation & Amortization in Current Revenues:

	Depr/Amort Expense
Total Depreciation	21,347,000
LESS: Vehicle Depreciation (A/C 392)	(414,000)
Net Depreciation in Current Revenues	20,933,000

*Amounts are per MECO Revised Workpaper MECO-RWP-1401, page 1 dated March 28, 2012 in MECO's 2012 test year rate case (Docket No. 2011-0092).

CA-IR-5

Ref: Transmittal Nos. 15-03, 15-04 and 15-05, Schedule E & WP-J-002 (Depreciation & Amortization).

Please provide the following:

- a. Please confirm that the primary difference in the calculation of depreciation and amortization expense between Schedule E (existing RAM) and WP-J-002 (RAM Cap) is the cutoff date of depreciable/amortizable plant. If each company cannot provide the requested confirmation, please explain.
- b. Referring to part (a) above, please confirm that the depreciable/amortizable investment for Schedule E is at December 31, 2013 while WP-J-002 is at December 31, 2014. If each company cannot provide the requested confirmation, please explain.
- c. Please confirm that the December 31, 2013 plant balances represent the investment basis on which the HECO Companies actually recorded depreciation and amortization expense in calendar year 2014. If each company cannot provide the requested confirmation, please explain.
- d. Please confirm that the December 31, 2014 plant balances represent the investment basis on which the HECO Companies *will* actually record depreciation and amortization expense in calendar year 2015. If each company cannot provide the requested confirmation, please explain.
- e. Referring to parts (a) through (d) above, please explain why the amount of the “RAM Adjustment for CIAC Amortization” on WP J 002 is the same value on Schedule E when these two calculations represent two different calendar year accruals.
- f. Referring to the discussion of depreciation starting at page 3 of the three decoupling transmittal letters, please confirm that D&O No. 32735 does not state that the depreciation and amortization expense to be included in determination of the RAM Cap shall represent the amounts to be recorded in calendar year 2015. If each company cannot provide the requested confirmation, please explain.
- g. Referring to parts (d) and (f) above, since D&O No. 32735 does not state that the depreciation and amortization expense to be included in determination of the RAM Cap shall represent the amounts to be recorded in calendar year 2015, please explain why the HECO Companies based its proposed depreciation and amortization calculations on year-end 2014 investment rather than beginning of year 2014 or average 2014 investment.

Hawaiian Electric Companies' Response:

- a. No. Both Schedule E (existing RAM) and WP-J-002 of the Companies' 4/15/15 filings utilize 12/31/14 plant balances to calculate the depreciation and amortization expense.

The primary difference between Schedule E and WP-J-002 is that WP-J-002 excludes the

RAM revenues associated with CIS deferred costs for all Hawaiian Electric Companies and the CT-1 regulatory asset for Hawaiian Electric. As explained in each company's 4/15/15 transmittal, the revenues related to these items are excluded from the 2014 target revenue base and added back at 2015 RAM levels in determining the 2015 cumulative RAM adjustment based on the RAM Cap.

- b. No. The depreciable/amortizable investments is as-of December 31, 2014 for Schedule E in the 2015 RAM filing. As stated above, the same balances are used to compute depreciation and amortization in WP-J-002.
- c. Yes. Confirmed.
- d. Yes. For book purposes, the Company calculates and records depreciation and amortization expense based on prior year ending plant balances.
- e. See the Companies' responses to subparts a. and b. above. Both Schedule E and WP-J-002 utilize 12/31/14 balances to calculate depreciation and amortization expense. The same is true for CIAC amortization.
- f. Paragraph 108 on page 95 of Order No. 32735 ("Order") states the following:

"The 2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues for purposes of determining the cap will be adjusted to use recorded 2104 end-of-year actuals (plant in service, depreciation and amortization, CIAC and ADIT) rather than the 2014 RAM year projections in determination of the 2014 Depreciation and Amortization RAM Expense and average rate base in the 2014 Rate Base RAM."

As stated in the Companies' response to subpart d, the Companies' annual depreciation expense is based on the prior year ending plant in service balance. The Order instructs the Companies to utilize 2014 end-of-year actual balances to determine the adjusted 2014 Depreciation and Amortization RAM expense. Therefore, the Companies utilized the

2014 end-of-year actual plant and CIAC balances to determine the Depreciation & Amortization RAM in 2014 adjusted target revenues. See also the explanation on pages 3-5 of the amended RBA Rate Adjustment tariff filing for each of the Hawaiian Electric Companies, filed on April 15, 2015.

- g. The Order does not explicitly state that the depreciation and amortization expense to be used in determining the RAM Cap shall not be the amounts recorded in calendar year 2015. As discussed in the Companies' response to subpart f, paragraph 108 orders the Companies to use 2014 end-of-year actual balances in calculating depreciation and amortization expense. The Companies' interpretation of the Order does result in amounts that will be recorded in 2015, except the Companies excluded depreciation on major projects above the Commission-approved amounts and depreciation related to CIS deferred costs and the CT-1 regulatory asset in their calculations. The use of 2014 ending investment balances in determining the RAM Cap includes recovery of 2014 plant additions, and is consistent with the Commission's treatment of including all 2014 plant additions in the adjusted 2014 Rate Base RAM return on investment determination per paragraphs 98 and 108.

Additionally, footnote 4 on page 6 and paragraph 78 on page 82 of the Order state the following:

With respect to recovery of revenues for capital projects, the amended RAM will thus allow continued automatic recovery for capital project net plant additions in an amount effectively in rough approximation to the rate of depreciation and amortization on approved utility rate base, plus an increment of effective rate base indexed on general inflation.

As stated on page 4 of the Companies' April 15, 2015 transmittals, paragraph 108 makes clear that the adjusted 2014 target revenues should be based on recorded 2014 end-of-year actuals in determining the 2014 Rate Base RAM. Therefore, "approved utility rate base" includes 2014 plant additions, and in order to achieve the methodology quoted above – that the amended RAM will allow continued automatic recovery for capital project net plant additions in an amount effectively in rough approximation to the rate of depreciation and amortization on approved utility rate base, plus an increment of effective rate base indexed on general inflation – depreciation on 2014 plant additions would need to be recovered through 2015 RAM revenues. Not being able to include depreciation on 2014 plant additions in the 2015 RAM Cap when 2014 plant investments have already been made would preclude the Companies from ever recovering the depreciation for 2014 plant additions for the 2015 RAM Period going forward. The Companies would only begin to recover depreciation for the 2014 plant additions when they are able to reset their revenue requirements in a future rate case, but the recovery of depreciation expense incurred for 2014 plant additions prior to the resetting of rates would be lost forever.

If end-of-year 2013 plant balances were used, this would be the same as the 2014 Depreciation & Amortization RAM; however, paragraph 108 of the Commission's Order states that the 2014 Depreciation & Amortization RAM shall be "adjusted" to use end-of-year actuals in determining the Depreciation & Amortization RAM. In addition, utilizing 2013 ending investment balances would result in no recovery of 2014 plant additions when the investments have already been placed into service and are providing benefits to

customers. The Companies' proposed depreciation treatment is consistent with and is in the spirit of the following statement on page 7 of Order No. 32735:

The commission stresses that these changes are designed to provide the commission with control of and prior regulatory review over substantial additions to baseline projects between rate cases. This Order does not deprive the HECO Companies of the opportunity to recover any prudently incurred expenditures or limit orderly recovery for necessary expanded capital programs. Instead, the Order limits the amount of unapproved capital project expenditures that can automatically be incorporated into effective rates through the RAM without timely prior regulatory review.

[Emphasis added.] Excluding depreciation on 2014 plant additions from the 2015 RAM Cap would deprive the Companies from recovering depreciation for prudently incurred expenditures (i.e., 2014 plant additions) that Order No. 32735 has explicitly allowed into the RAM rate base.

Because the Order did not direct the Companies to utilize average 2014 year balances to calculate an adjusted Depreciation and Amortization RAM, 2014 average balances were not used.

CA-IR-6

Ref: Transmittal Letters, pages 3-5 (Annualization of 2015 Depreciation & Amortization).

In its transmittal letters, the HECO Companies state that they, "...appreciate the Commission's decision to utilize the recorded 2014 end of-year actuals for net plant in service to determine the adjusted 2014 Rate Base RAM amount. In view of the possible intent of certain language in the Order, the Company respectfully requests consideration of the following regarding the calculation of the 2014 Depreciation and Amortization RAM amounts." The letters then indicate, "[t]herefore, in Attachment 2 of this filing, the Company is utilizing the recorded end of year 2014 plant in service and CIAC balances to calculate the adjusted 2014 Depreciation and Amortization RAM." Please respond to the following:

- a. Confirm that the Depreciation and Amortization RAM for 2014 and prior years have never used the forecasted end-of-year plant in service balances that are used in calculating the Rate Base RAM, or explain any inability to provide such confirmation.
- b. Confirm that footnote #5 that states, "...because under the Company's methodology of calculating depreciation, the depreciation is based on prior year ending (2013) plant in service balance" is an accurate discussion of what happens on the HECO Companies' books, where recorded depreciation accruals are based upon prior year-end recorded plant in service balances, or explain any inability to provide such confirmation and provide needed corrections to footnote #5.
- c. Confirm that footnote #5 that states, "...because under the Company's methodology of calculating depreciation, the depreciation is based on prior year ending (2013) plant in service balance" is an accurate discussion of what happens within the RAM tariff, where RAM year depreciation and amortization expense is based upon prior year-end recorded plant in service balances, or explain any inability to provide such confirmation and provide needed corrections to footnote #5.
- d. If the prior year 2014 Depreciation and Amortization RAM is restated using recorded end-of-year 2014 plant in service balances, is the resulting amount the same as would be produced in calculating the 2015 Depreciation and Amortization RAM under the currently effective RAM tariff? Please explain and quantify any negative response.
- e. After the prior year 2014 Depreciation and Amortization RAM is restated using recorded end-of-year 2014 plant in service balances, as set forth in the Companies' WP-J-002, pages 4 and 5, is the resulting 2014 Depreciation and Amortization RAM amount then carried forward into WP-J-001, page 1, line 3, and then to Schedule J, line 1, where it is further escalated by the 2015 GDPPI index? Please explain and quantify any negative response.
- f. If your response to part (e) is affirmative, please explain what period of time is covered by the resulting Depreciation and Amortization RAM that is calculated based upon recorded end of year 2014 plant in service and then further escalated by a GDPPI index? Is the result an estimate of calendar 2016 depreciation and amortization expense?
- g. Based on D&O No. 32735 and the HECO Companies' interpretations, please discuss each company's intentions regarding the plant in service base that will be used for the 2016 annual decoupling filing. For instance, will each company again use recorded end-

of-year 2014 plant in service balances to determine the 2015 depreciation and amortization expense? Or, will each company use recorded end-of-year 2015 plant in service balances to determine the 2015 depreciation and expense?

Hawaiian Electric Companies' Response:

- a. Confirmed.
- b. Yes. That quote is from Footnote #5 of each of the Companies' April 15, 2015 transmittal letters. The full quote states, "The Depreciation and Amortization RAM recovered through the 2014 RBA rate adjustment did not include depreciation expense for plant additions through 2014, because under the Company's methodology of calculating depreciation, the depreciation accrual is based on the prior year ending (2013) plant in service balance."
- c. Yes, confirmed.
- d. Yes. The 2015 Depreciation and Amortization RAM utilizes 2014 ending balances to compute the 2015 RAM. This results in depreciation and amortization on 2014 investments that are placed into service and began providing benefits to customers in 2014.
- e. Yes, that is correct. The Companies were following Order No. 32735, page 96, which stated that the 2014 Adjusted RAM revenues used to determine 2014 adjusted target revenues shall be incremented by the GDPII. The result contributing to the 2015 RAM Cap is not an estimate of calendar 2016 depreciation and amortization expense. It is simply the Companies' literal and mathematical interpretation of the Order. However, the Companies realize that further escalating the 2015 Depreciation and Amortization RAM expense amount by GDPII results in an amount in the RAM Cap above the actual

2015 Depreciation and Amortization expense, and are willing to make an adjustment to reduce the RAM Cap for the amount in excess of the 2015 Depreciation and Amortization expense.

- f. See the Companies' response to e. above.
- g. Going forward, the Companies understand that the RAM must be calculated in two ways: (1) under the "existing" tariff and procedures and (2) under the RAM Cap methodology described in Order No. 32735. In accordance with Order No. 32735, the lesser of the two will be the RAM allowed in rates. For the 2016 decoupling filing, the Companies will utilize the prior year (2015) ending plant in service balances to determine the 2016 Depreciation & Amortization RAM in accordance with "existing" tariff and procedures. To determine the RAM Cap for 2016, the Companies will escalate the 2015 target revenues (based on the "Basis" described in paragraph 107 of Order No. 32735) by GDPPI to determine the RAM Cap for 2016. Therefore, the 2016 RAM Cap will be determined by a continued escalation of the base already determined for the 2015 RAM Cap. The Companies will not use recorded end-of-year 2015 plant in service balances to determine a new Depreciation & Amortization RAM under the RAM Cap methodology.

CA-IR-7

Ref: Transmittal Letters, pages 3-5 (Annualization of 2015 Depreciation & Amortization).

In its transmittal letters, the Companies' state that they, "...appreciate the Commission's decision to utilize the recorded 2014 end-of-year actuals for net plant in service to determine the adjusted 2014 Rate Base RAM amount. In view of the possible intent of certain language in the Order, the Company respectfully requests consideration of the following regarding the calculation of the 2014 Depreciation and Amortization RAM amounts."

In D&O No. 32735, paragraph 98 (page 90) states, "For the initial implementation of the RAM Cap and until the next general rate case for each company, the starting basis for determining the RAM Cap will be the 2014 target revenues adjusted upward to include the actual recorded end of-year statements of net plant in service, depreciation and amortization, CIAC, and ADIT as the end-of-year rate base for the calculation of the 2014 RAM Revenue Adjustment." Please respond to the following:

- a. Describe the HECO Companies' understanding of the phrase "as the end-of-year rate base" and explain whether and how revising 2014 target revenues upward for only "rate base" utilization of recorded end-of-year plant, accumulated depreciation, CIAC and ADIT indicates any "possible intent" with respect to calculating estimated 2015 depreciation and amortization expense, using end of-year recorded 2014 plant balances.
- b. Do the HECO Companies contend that the reference to "depreciation and amortization" within paragraph 98 of the Order may have been intended to update Depreciation and Amortization expense, rather than rate base? Please explain any affirmative response.

Hawaiian Electric Companies' Response:

- a. The Companies understand the paragraph to mean that the 2014 Rate Base RAM shall be updated to utilize 12/31/14 recorded balances for the adjusted 2014 RAM year return on investment calculation. However, paragraph 98 is not the only paragraph in the Order that speaks to adjustments to be made to the 2014 RAM Revenue Adjustment. As explained in the Companies' transmittal letters, the Companies point to paragraph 108 (page 95) for possible intent with respect to using 2014 end-of-year recorded balances to compute adjusted Depreciation & Amortization expense. Please refer to pages 3 -5 of the Companies' transmittal letters for the Companies' position on their interpretation of paragraph 108, and to the response to CA-IR-5. Additionally, the updating of 2014

ending RAM year balances to actuals result in a return on rate base to be earned on 2014 plant additions. Consistent with allowing a return on 2014 plant additions, utilizing 12/31/14 investment balances in computing depreciation and amortization expense would allow recovery of 2014 plant additions.

- b. The Companies do not know what the Commission's intent was regarding paragraph 98. However, as noted above and in the Companies' transmittal letters, the Companies point to paragraph 108 for possible intent regarding calculation of the Depreciation and Amortization expense.

CA-IR-8

Ref: Transmittal Letters, pages 3-5 (Annualization of 2015 Depreciation & Amortization).

In its transmittal letters, the Companies' state that they, "...appreciate the Commission's decision to utilize the recorded 2014 end-of-year actuals for net plant in service to determine the adjusted 2014 Rate Base RAM amount. In view of the possible intent of certain language in the Order, the Company respectfully requests consideration of the following regarding the calculation of the 2014 Depreciation and Amortization RAM amounts." In D&O No. 32735, paragraph 110 (page 96) states, "The RAM Cap will apply to the entire RAM Revenue adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM." Please respond to the following:

- a. Confirm that, in its revised decoupling filing, HECO Schedule B1 at line 22 is requesting a proposed target revenue level at June 1, 2015 of \$593.8 million, which is 3.2 percent larger than the target revenue levels at June 1, 2014 of \$575.3 million, or explain any inability to provide such confirmation.
- b. In its transmittal letter at page 4, HECO estimates the value of updating the Depreciation and Amortization RAM to be approximately \$9 million. If this amount were removed from the proposed June 1, 2015 target revenues, would the revised June 1, 2015 target revenues be reduced to \$584.8 million, which represents an approximate 1.6 percent increase over existing target revenues? Please explain and quantify any negative response.
- c. Explain how the Company's proposed updating of the Depreciation and Amortization RAM for 2014 can be considered consistent with the intent of paragraph 110 of D&O No. 32735, when the resulting target revenue increase greatly exceeds GDPPI growth of 1.1%. Include in your explanation any quantification of the Rate Base RAM impact of the permitted replacement of end-of-year 2014 rate base inputs with actual data in determination of the basis for the RAM Cap.

Hawaiian Electric Companies' Response:

- a. Yes. Hawaiian Electric's Schedule B1, line 22 is requesting a proposed target revenue level at June 1, 2015 of \$593.8 million, which is 3.2 percent higher when compared to target revenue levels at June 1, 2014 of \$575.3 million.,
- b. Yes. Hawaiian Electric estimates that the impact of utilizing the 2014 Depreciation and Amortization recorded expense based on 2013 net plant additions (and no 2014 net plant additions) would result in approximately \$9.0 million less than the RAM Cap filed. However, the Companies calculate the revised June 1, 2015 target revenues to be reduced

to approximately \$585.6 million, which represents an approximate 1.8 percent increase over existing target revenues. Please see the response to CA-IR-4, Attachment 1, in this filing, for the supporting calculations.

- c. Paragraph 110 of Order No. 32735 states: "The RAM Cap will apply to the entire RAM Revenue Adjustment including the O&M RAM, Rate Base RAM (including Major Capital Projects and Baseline Projects), and the Depreciation and Amortization RAM." The Companies' proposed RAM Cap, target revenues and Depreciation and Amortization RAM for 2015 are entirely consistent with paragraph 110. Order No. 32735 makes clear that the 2014 target revenues would be adjusted for the purpose of calculating the RAM Cap and that the GDPPI would be applied to the adjusted 2014 target revenues to calculate the RAM Cap.

The increase in the June 1, 2015 target revenues as compared to the June 1, 2014 target revenues is greater than the 1.1 percent GDPPI, based on Order No. 32735, paragraph 108 on pages 95 and 96:

- "...the target revenues that will serve as the Basis for the incremented cap will be the 2014 annualized target revenues adjusted (underlined for emphasis) as follows...."
- "The adjusted (underlined for emphasis) 2014 target revenues will be incremented by the GDPPI index to determine the RAM Cap as provided above."

The Companies have adjusted the 2014 target revenues consistent with the provisions of Order No. 32735, as explained in these responses to the Consumer Advocate's IRs and in their amended RBA Rate Adjustment tariffs filed on April 15, 2015, and applied the GDPPI to calculate the RAM Cap for 2015. Therefore, the 1.1 percent GDPPI growth

CA-IR-8
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factor was appropriately applied to “adjusted” target revenue, as opposed to the June 1, 2014 Annual Target revenue.

As a result, the increase in annual Target Revenue between June 1, 2014 and June 1, 2015 exceeds the GDPPI growth of 1.1 percent and is made up of the following components:

	Hawaiian Electric	Maui Electric	Hawaii Electric
Depreciation & Amortization RAM	1.4%	0.9%	0.9%
RAM Cap increase (GDPPI)	1.1%	1.1%	1.1%
Update Rate Base to 2014 Recorded	0.4%	0.2%	0.0%
RB RAM Return on Investment 10% of Current Year Incremental	0.3%	0.2%	0.1%
Earnings sharing credit	0.0%	-0.1%	0.0%
Adjustment to lesser of cap or existing tariffs	0.0%	0.0%	-0.6%
	3.2%	2.3%	1.5%

Please see CA-IR-8, Attachment 1, in this filing, for further details.

**HAWAIIAN ELECTRIC COMPANY
DECOPUPLING CALCULATION WORKBOOK
RECONCILIATION OF TOTAL ANNUAL TARGET REVENUES**

Line No.	Description (a)	Reference (b)	2014 Filing (5/22/14)		Original (4/15/15) Amount \$000	Average Difference (c)
			Amount \$000	Original (4/15/15) Amount \$000		
1	Net Cost of Plant in Service	Schedule D1/HECO-WP-J-002, p. 2	\$ 2,178,418	\$ 2,286,362	\$ (53,944)	
2a	CIP CT-1 Reg Asset	Schedule D1/HECO-WP-J-002, p. 2	\$ 4,215	\$ 4,215	\$ -	
2b	CIS Deferred Cost	Schedule D1/HECO-WP-J-002, p. 2	12,705	12,705	-	
3	Unamortized CIAC	Schedule D1/HECO-WP-J-002, p. 2	(277,302)	(283,740)	3,219	
4	Accumulated Def Income Taxes	Schedule D1/HECO-WP-J-002, p. 2	(378,011)	(436,608)	58,597	
5				1,540,025	1,582,934	(21,455)
6	Pretax Rate of Return	Schedule D			11.74%	
7	Pretax Return Requirement	Line 5 x 8			(2,518)	
8	Revenue Tax Factor (1/(1-8.885%))	Schedule D			1.0975	
9	Revenue Requirement Difference due to Rate Base Change	Line 7 x 8			(2,784)	
10	Rate Base RAM - Return on Investment	Schedule D/HECO-WP-J-002, p.1	37,281	40,045	(2,764)	
11	Less: Exceptional and Other Matters	HECO-WP-J-002, p. 3		(1,640)	1,640	
12	Less: RB RAM Return on Investment 10% of Current Year Incremental	(Line 10 - \$18,255,456) x 10%	(1,803)	-	(1,803)	
13	Rate Base RAM Return on Investment Prior Year + 90% of Current Year Incremental	Line 10 + 11 + 12	35,478	38,405	(2,927)	
14	O&M RAM	5/22/14 Decoupling Filing, Sch. A	11,576	11,576	-	
15	Depreciation & Amortization RAM Expense	Schedule E/HECO-WP-J-002, p.5	22,199	31,143	(8,944)	
15a	Less: Exceptional and Other Matters	HECO-WP-J-002, p.5	(2,386)	2,386		
16	2014 Total Adjusted RAM Revenue Adjustment		\$ 69,254	\$ 78,738	\$ (9,486)	
17	RAM Cap Increase	Schedule J	-	7,049	(7,049)	
18	Plus: Exceptional and other matters	Schedule K	-	3,799	(3,799)	
19	Last Rate Order Target Annual Revenues	Schedule B1	512,170	512,170	-	
20	Earnings Sharing Credit	Schedule B1	-	-	-	
21	Last Rate Order Target Annual Revenues net of Revenue Taxes		512,170	512,170	-	
22	Revenue Tax Factor (1/(1-8.885%))		1,0975	1,0975	1.0975	
23	Last Rate Order Target Annual Revenues plus Revenue Taxes	Line 21 x 22	\$ 562,107	\$ 562,107	\$ -	
24	Total Annual Target Revenues	Line 16 + 17 + 18 + 23	\$ 631,360	\$ 651,693	\$ (20,333)	
25	Total Annual Target Revenues net of Revenue Taxes	Schedule B1	575,271	593,798	(18,527)	

Reconciliation of Total Annual Target Revenues

26	2014 Total Annual Target Revenues net of Revenue Taxes	Line 25	575,271	
27	Update Rate Base to 2014 Recorded	Line 10	2,519	0.44%
28	Exceptional and Other Matters	Line 11 + 15a	(3,668)	-0.64%
29	RB RAM Return on Investment 10% of Current Year Incremental	Line 12	1,642	0.29%
30	Depreciation & Amortization RAM Expense	Line 15	8,149	1.42%
31	RAM CAP Increase	Line 17	6,423	1.12%
32	Exceptional and other matters	Line 18	3,462	0.60%
33	Earnings Sharing Credit	Line 20	-	0.00%
34	2015 Total Annual Target Revenues net of Revenue Taxes	Line 25	593,798	3.22%

MAUI ELECTRIC COMPANY, LIMITED
DECOUPLING CALCULATION WORKBOOK
RECONCILIATION OF TOTAL ANNUAL TARGET REVENUES

Line No.	Description (a)	Reference (b)	2014 Filing (5/14/14)		Original (4/15/15) Amount \$000	Average Difference
			Amount \$000	(c)		
1	Net Cost of Plant in Service	Schedule D1/MECO-WP-J-002, p. 2	\$ 556,687	\$ 574,208	\$ (8,760)	
2	CIS Deferred Cost	Schedule D1/MECO-WP-J-002, p. 2	2,428	2,428	-	
3	Unamortized CIAC	Schedule D1/MECO-WP-J-002, p. 2	(89,107)	(88,218)	(445)	
4	Accumulated Def Income Taxes	Schedule D1/MECO-WP-J-002, p. 2	(71,452)	(85,427)	8,987	
5			398,555	402,992	(2,218)	
6	Pretax Rate of Return	Schedule D			10.66%	
7	Pretax Return Requirement	Line 5 x 6			(238)	
8	Revenue Tax Factor (1/(1-8.885%))	Schedule D			1.0975	
9	Revenue Requirement Difference due to Rate Base Change	Line 7 x 8			(259)	
10	Rate Base RAM - Return on Investment	Schedule D/MECO-WP-J-002, p.1	4,883	5,143	(259)	
11	Less: Exceptional and Other Matters	MECO-WP-J-002, p. 3			224	
12	Less: RB RAM Return on Investment 10% of Current Year Incremental	(Line 10 - \$1,580.242) x 10%	(330)	-	(330)	
13	Rate Base RAM Return on Investment Prior Year + 90% of Current Year Incremental	Line 10 + 11 + 12	4,553	4,919	(366)	
14	O&M RAM	5/14/14 Decoupling Filing, Sch. A	1,967	\$ 1,967	\$ -	
15	Depreciation & Amortization RAM Expense	Schedule E/MECO-WP-J-002, p.6	2,097	3,395	\$ (1,298)	
15a	Less: Exceptional and Other Matters	MECO-WP-J-002, p. 6			(256)	
16	2014 Total Adjusted RAM Revenue Adjustment		\$ 8,617	\$ 10,026	\$ (1,408)	
17	RAM Cap Increase	Schedule J	-	1,583	(1,583)	
18	Plus: Exceptional and other matters	Schedule K	-	430	(430)	
19	Last Rate Order Target Annual Revenues	Schedule B1	122,340	122,340	-	
20	Earnings Sharing Credit	Schedule B1	(334)	(474)	140	
21	Last Rate Order Target Annual Revenues net of Revenue Taxes		122,006	121,866	140	
22	Revenue Tax Factor (1/(1-8.885%))		1.0975	1.0975	1.0975	
23	Last Rate Order Target Annual Revenues plus Revenue Taxes	Line 21 x 22	\$ 133,902	\$ 133,748	\$ 154	
24	Total Annual Target Revenues	Line 16 + 17 + 18 + 23	\$ 142,519	\$ 145,786	\$ (3,268)	
25	Total Annual Target Revenues net of Revenue Taxes:	Schedule B1	129,858	132,835	(2,977)	

Reconciliation of Total Annual Target Revenues

26	2014 Total Annual Target Revenues net of Revenue Taxes	Line 25	129,858	
27	Update Rate Base to 2014 Recorded	Line 10	236	0.18%
28	Exceptional and Other Matters	Line 11 + 15a	(437)	-0.34%
29	RB RAM Return on Investment 10% of Current Year Incremental	Line 12	301	0.23%
30	Depreciation & Amortization RAM Expense	Line 15	1,183	0.91%
31	RAM CAP Increase	Line 17	1,442	1.11%
32	Exceptional and other matters	Line 18	392	0.30%
33	Earnings Sharing Credit	Line 20	(140)	-0.11%
34	2015 Total Annual Target Revenues net of Revenue Taxes	Line 25	132,835	2.29%

HAWAII ELECTRIC LIGHT
DECOPLING CALCULATION WORKBOOK
RECONCILIATION OF TOTAL ANNUAL TARGET REVENUES

Line No.	Description (a)	Reference (b)	2014 Filing (5/14/14)		Original (4/15/15) (c)
			Amount \$000	Original \$000	
1	Net Cost of Plant in Service	Schedule D1/HELCO-WP-J-002, p. 2	\$ 825,578	\$ 832,484	\$ (3,444)
2	CIS Deferred Cost	Schedule D1/HELCO-WP-J-002, p. 2	2,224	2,224	-
3	Unamortized CIAC	Schedule D1/HELCO-WP-J-002, p. 2	(94,589)	(94,475)	(57)
4	Accumulated Def Income Taxes	Schedule D1/HELCO-WP-J-002, p. 2	(84,488)	(92,618)	4,065
5				448,723	447,595
6	Pretax Rate of Return	Schedule D			11.94%
7	Pretax Return Requirement	Line 5 x 6			67
8	Revenue Tax Factor (1/(1-8.885%))	Schedule D			1.0975
9	Revenue Requirement Difference due to Rate Base Change	Line 7 x 8			74
10	Rate Base RAM - Return on Investment	Schedule D/HELCO-WP-J-002, p. 1	(3,407)	(3,481)	74
11	Less: Exceptional and Other Matters	HELCO-WP-J-002, p. 3	(200)	(200)	
12	Less: RB RAM Return on Investment 10% of Current Year Incremental	(Line 10 + \$5,573,351) x 10%	(217)	-	(217)
13	Rate Base RAM Return on Investment Prior Year + 90% of Current Year Incremental	Line 10 + 11 + 12	(3,824)	(3,681)	58
14	O&M RAM	5/14/14 Decoupling Filing, Sch. A	3,150	\$ 3,150	-
15	Depreciation & Amortization RAM Expense	Schedule E/HELCO-WP-J-002, p. 5	5,251	\$ 6,888	(1,435)
15a	Less: Exceptional and Other Matters	HELCO-WP-J-002, p. 5	(234)	\$ 234	
16	2014 Total Adjusted RAM Revenue Adjustment		\$ 4,778	\$ 5,921	\$ (1,143)
17	RAM Cap Increase	Schedule J	-	1,732	(1,732)
18	Plus: Exceptional and other matters	Schedule K	-	408	(408)
19	Last Rate Order Target Annual Revenues	Schedule B1	138,065	138,065	-
20	Earnings Sharing Credit	Schedule B1	-	-	-
21	Last Rate Order Target Annual Revenues net of Revenue Taxes		138,065	138,065	-
22	Revenue Tax Factor (1/(1-8.885%))		1,0975	1,0975	1.0975
23	Last Rate Order Target Annual Revenues plus Revenue Taxes	Line 21 x 22	\$ 151,526	\$ 151,526	-
24	Total Annual Target Revenues	Line 16 + 17 + 18 + 23	\$ 156,304	\$ 159,588	\$ (3,284)
25	Total Annual Target Revenues net of Revenue Taxes			142,418	145,410
26	Difference between RAM Cap (4/15/15) and original (3/31/15)	(8,061,326 - 7,178,093)=882,335 - 8.885%			(804)
27	Adjusted Total Annual Target Revenues net of Revenue Taxes	Schedule B1			144,608
Reconciliation of Total Annual Target Revenues					
28	2014 Total Annual Target Revenues net of Revenue Taxes	Line 25	142,418		
29	Update Rate Base to 2014 Recorded	Line 10	(87)	-0.05%	
30	Exceptional and Other Matters	Line 11 + 15a	(398)	-0.28%	
31	RB RAM Return on Investment 10% of Current Year Incremental	Line 12	197	0.14%	
32	Depreciation & Amortization RAM Expense	Line 15	1,308	0.92%	
33	RAM CAP Increase	Line 17	1,578	1.11%	
34	Exceptional and other matters	Line 18	372	0.26%	
35	Earnings Sharing Credit	Line 20	-	0.00%	
36	2015 Total Annual Target Revenues net of Revenue Taxes	Line 25		2.10%	
37	Adjustment for lesser of Cap or Existing tariffs	Line 26	(804)	-0.58%	
38	Adjusted 2015 Total Annual Target Revenues net of Revenue Taxes	Line 27		1.54%	

CA-IR-9

Ref: Transmittal Letters, pages 3-5 (Annualization of 2015 Depreciation & Amortization).

In the transmittal letters, the HECO Companies state that they, "...appreciate the Commission's decision to utilize the recorded 2014 end of-year actuals for net plant in service to determine the adjusted 2014 Rate Base RAM amount. In view of the possible intent of certain language in the Order, the Company respectfully requests consideration of the following regarding the calculation of the 2014 Depreciation and Amortization RAM amounts." In D&O No. 32735, paragraph 108 defines the "2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues for purposes of determining the cap" and references "use of recorded 2014 end-of-year actuals (parenthetical omitted) rather than 2014 RAM year projections in determination of the 2014 Depreciation and Amortization RAM Expense and average rate base in the 2014 Rate Base RAM." Please respond to the following:

- a. Confirm that the 2014 Depreciation and Amortization RAM Expense was never based upon any "2014 RAM year projections", but was instead based upon recorded prior year ending 2013 plant in service balances, as stated in footnote 5 of the HECO Companies' transmittal letter, or explain any inability to provide such confirmation.
- b. Confirm that, in the absence of RAM modifications required in D&O No. 32735, the existing RAM tariff would require calculation of the 2015 Depreciation and Amortization RAM based upon recorded year-end 2014 plant in service balances, rather than any projected or estimated amounts, or explain any inability to provide such confirmation.
- c. Confirm that the "2014 RAM year projections" referenced in the paragraph 108 of the Commission's Order were applied only within the Rate Base RAM under the currently effective (prior to D&O No. 32735) decoupling mechanism, or explain any inability to provide such confirmation.

Hawaiian Electric Companies' Response:

- a. Yes, confirmed.
- b. Yes, confirmed.
- c. Yes. Under the currently effective tariff, the Rate Base RAM – Return on Investment includes RAM year projections for baseline additions using a five-year historical average and the estimated amount of major project additions in service by September 30, not to exceed their Commission-authorized amounts. Similar projections are also used for CIAC and ADIT. The Depreciation & Amortization RAM in the currently effective tariff

is based on approved depreciation and amortization rates multiplied by prior year ending balances; and does not reflect projections.

However, paragraph 108 of the Commission's Order states that the "2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues for purposes of determining the cap will be adjusted to use recorded 2014 end-of-year actuals . . . in determination of the 2014 Depreciation and Amortization RAM expense...". Hence, the Companies calculated the 2014 Depreciation and Amortization RAM expense as explained in the Companies' amended RBA Rate Adjustment tariffs filed on April 15, 2015 and in their response to CA-IR-5. These calculations are consistent with Order No. 32735 (at 7) which states that "This Order does not deprive the HECO Companies of the opportunity to recover any prudently incurred expenditures or limit orderly recovery for necessary expanded capital programs."

CA-IR-10

Ref: Transmittal Letters, page 2, Footnote 2 (90% Factor Elimination).

In the transmittal letters at footnote 2, the HECO Companies quote page 82 of Order No. 32735, indicating that the “RAM revenue adjustment no longer includes the 90% limitation on the incremental Rate Base RAM Return on Investment.” Please respond to the following:

- a. Confirm that, in WP-J-001, pages 1 and 2, the HECO Companies have removed the 90 percent limitation in calculating the Basis for the RAM Cap, such that the amount on WP-J-001 at line 2 is larger than it would have been under the currently effective RAM mechanism with the 90 percent limitation in place, or explain any inability to provide such confirmation.
- b. Confirm that target revenues, as approved in tariff transmittal processed and approved by the Commission last year, included the effects of the 90 percent limitation upon Rate Base RAM-Return on Investment.
- c. Confirm that in D&O No. 32735, paragraph 108 specifies a single adjustment to the 2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues for purposes of the cap, and that single adjustment is to replace projected end of year 2014 rate base inputs with recorded actual data, or explain any inability to provide such confirmation.
- d. Explain the HECO Companies’ understanding of D&O No. 32735 at paragraph 3 that states, “[t]he 90% adjustment shall be removed in favor of the GDPPI cap.”
- e. Do the Companies contend that D&O No. 32735 specifies that the GDPPI cap is to be calculated and applied only after adding back the impact of the 90% adjustment upon 2014 target revenues?
- f. Please provide D&O No. 32735 citations and explanations for any affirmative response to part (e).

Hawaiian Electric Companies’ Response:

- a. Yes, confirmed. Line 2 of HECO-WP-J-001, HELCO-WP-J-001 and MECO-WP-J-001 reflects an amount that excludes the 90 percent limitation in calculating the 2014 Adjusted Rate Base RAM – return on investment. Therefore, the amount shown on line 2 is larger than if it included the 90 percent limitation on the 2014 incremental Rate Base RAM- return on investment.
- b. Yes. The Companies’ 2014 target revenues included the effects of the 90 percent limitation on the 2014 incremental Rate Base RAM – return on investment.

- c. The Company does not read paragraph 108 as specifying a single adjustment (“to replace projected end-of-year 2014 rate base inputs with recorded actual data”) to the 2014 RAM Revenue Adjustment. Paragraph 108 states the following:

The 2014 RAM Revenue Adjustment used to determine the adjusted 2014 target revenues for purposes of determining the cap will be adjusted to use recorded 2014 end-of-year actuals (plant in service, depreciation and amortization, CIAC, and ADIT) rather than 2014 RAM year projections in determination of the 2014 Depreciation and Amortization RAM Expense and average rate base in the 2014 Rate Base RAM.

[Emphasis added. Footnote omitted.] As explained in the Companies’ response to CA-IR-5 and CA-IR-8 and in their amended RBA Rate Adjustment tariffs filed on April 15, 2015, paragraph 110 indicates that the 2014 target revenues would be adjusted to use recorded 2014 end-of-year actuals in the determination of the 2014 Depreciation and Amortization RAM expense, and therefore the Companies have proposed adjustments to the 2014 Depreciation and Amortization RAM expense.

Further, paragraph 107 states that “(t)he Basis used in determining the RAM Cap shall be adjusted to exclude or otherwise appropriately account for adjustments for the recovery of revenues for previously explicitly stipulated and approved exceptional matters or other matters specifically ordered by the commission,” and footnote 149 refers to CT-I and CIS costs as such items. Therefore, CT-I and CIS costs should also be adjusted out of the 2014 Rate Base RAM – return on investment to determine 2014 adjusted target revenues subject to escalation. Additionally, pages 6 and 82 of the Order also order the termination of the 90% limitation. (See all the Companies’ response to CA-IR-3.)

Further, although paragraph 108 does not explicitly address whether the 90% adjustment should be eliminated, paragraph 3 on page 6 of Order No. 32735 explicitly calls for its removal in favor of the GDPPI cap and page 82 of the Order states that the “amendments to the RAM implemented by this Order replace and terminate the previous interim limitations on RAM year Rate Base RAM adjustments required pursuant to Order No. 31908.” Retaining the 90% adjustment in the adjusted 2014 target revenues (which would be used as the basis for the RAM Cap) would be inconsistent with these provisions of the order. Therefore, it follows that the 90% adjustment should be removed from the adjusted 2014 target revenues.

- d. *The 90% limitation was ordered in Decision and Order No. 31908 (“D&O 31908”) of Docket No. 2013-0141. Page 49 of D&O 31908 states that the modification is “intended to serve as an interim measure to at least partly mitigate the untenable characteristic of the existing RAM that allows the utilities’ baseline expenditures to flow through the Rate Base RAM Adjustment fully and directly to increase allowed target revenues without prior review or approval by the commission and without the same measure of cost control incentives as provided by the other components of the RAM and RBA tariffs.” Therefore, the 90% limitation was an interim measure, and it no longer applies with the implementation of the RAM Cap calculation described in Order No. 32735. Paragraph 3 on page 6 of Order No. 32735 states that “the 90% adjustment shall be removed in favor of the GDPPI cap.” This means the replacement of one by the other – i.e., the RAM Cap supersedes the 90% limitation. Therefore, it follows that the 90% adjustment should be*

removed from the RAM Revenue Adjustment and from the 2014 adjusted target revenues.

- e. Yes. Order No. 32735 directs a new way to calculate 2015 RAM revenues that starts with determining 2014 adjusted target revenues to be escalated by GDPPI. Page 82 of the Order states that the “amendments to the RAM implemented by this Order replace and terminate the previous interim limitations on RAM year Rate Base RAM adjustments required pursuant to Order No. 31908.” Therefore, the calculation to determine the 2015 RAM Cap, which is implemented by the new Order, shall replace and exclude the 90% limitation previously required under Order No. 31908.

Additionally, pages 5 and 6 quoted above states that “changes shall be applied to the decoupling filing due to be filed on March 31, 2015”, including, among other things, that “the 90% adjustment shall be removed in favor of the GDPPI cap.” Because the Companies are now subject to a RAM cap, the 90% limitation shall no longer apply. This would be true for determining the 2015 RAM and future RAM year RAMs under the “existing” tariff, as well as the 2014 Adjusted RAM subject to escalation in computing the 2015 RAM Cap. If the 2014 Adjusted RAM used in determining the 2015 RAM Cap included the 90% limitation, it would result in 2015 RAM revenues that are subject to the RAM Cap as implemented in Order No. 32735 and that have been limited by the 10% reduction implemented by D&O 31908. This would be inconsistent with the language in the Order – page 6 states that only one shall apply and not the other. Similarly, page 82 states that with the implementation of Order No. 31908 (interpreted to mean all aspects of

the RAM Cap calculation, including the adjusted base), the 90% adjustment shall no longer apply.

- f. See the Companies' response to subpart e. above.

CA-IR-11

Ref: Transmittal Nos. 15-03, 15-04 and 15-05 (Stipulated & Exceptional Matters).

At page 5 of the three decoupling transmittal letters dated April 15, 2015, the HECO Companies quote from D&O 32735 at paragraph 107 regarding “explicitly stipulated and approved exceptional matters.” Such amounts are to be excluded from quantifying the RAM Cap but are to be recovered fully without limitation. Do the HECO Companies concur that such treatments are limited to matters previously ordered by the Commission (i.e., prior approval of negotiated settlement or a separate Commission decision)? If the Company cannot provide the requested confirmation, please explain.

Hawaiian Electric Companies’ Response:

The Companies do not interpret “previously explicitly stipulated and approved exceptional matters” in paragraph 107 to mean previous to the date of Order No. 32735. Rather, the provision means previous to any given time that the Basis is determined for the RAM Cap. Paragraph 107 states: “The Basis used in determining the RAM Cap shall be adjusted to exclude or otherwise appropriately account for adjustments for the recovery of revenues for previously explicitly stipulated and approved exceptional matters or other matters specifically ordered by the commission, which shall, in any event, be recovered fully without respect to any limitations resulting from application of the RAM Cap.¹⁴⁹” Footnote 149 states: “The commission notes that currently such applicable matters include adjustments accounting for CT-1 costs (for the HECO Companies) and CIS costs (for all of the HECO Companies) as provided in a stipulated agreement approved by the commission as amended in Order No. 31126 in Docket No. 2008-0083.” [Emphasis added.] The use of the word “currently” indicates that there could be additional applicable matters in the future. Therefore, the adjustments referenced in Paragraph 107 could include adjustments in addition to the CT-1 and CIS costs if the

Commission approves such adjustments prior to the determination of the Basis for the RAM Cap in a future RAM period.

CA-IR-12

Ref: HECO Transmittal 14-03 dated May 14, 2014, Attachment 1, page 8 (Bonus Depreciation Issue).

In resolving last year's decoupling issues, the Company's May 2014 tariff transmittal acknowledged the Consumer Advocate's concern regarding the possibility of Congressional action to retroactively extend bonus tax depreciation for the 2014 tax year. In its response, HECO stated, "In this light, the Company agrees that if a bonus tax depreciation provision is enacted in 2014, the benefit derived by such provision should accrue to the customer by way of an adjustment to target revenues. The methodology and impact of the benefit to the rate base RAM should be addressed at the time of enactment in order that the parties can apply the law, when and if revised, to all the relevant facts at that time." Please respond to the following:

- a. Confirm that bonus depreciation was, in fact, approved in December of 2014 for application to all investments in qualifying assets in the 2014 tax year, or explain any inability to provide such confirmation.
- b. Confirm that, in responses to Consumer Advocate informal information requests in the 2014 decoupling transmittal, the HECO Companies provided estimated quantification of the target revenue requirement impact of 2014 bonus depreciation, indicating reductions in the amounts of \$1,673,734 for HECO, \$431,234 for HELCO and \$295,057 for MECO, respectively, or explain and inability to confirm and provide calculations of any applicable revised values.
- c. Confirm that, in its revised decoupling filings, no adjustments to target revenue have been proposed to account for bonus depreciation in 2014, and explain why this omission is viewed as reasonable.
- d. Provide complete copies of all reports, studies, analyses, workpapers, projections and other document supportive of your response to part (c).
- e. Confirm that, in its revised decoupling filings, the updated end of year 2014 rate base input values do include the effects of 2014 bonus depreciation, because recorded ADIT balances at December 31, 2014 were reflective of current tax laws at that time.
- f. Confirm that, in its revised decoupling filings, the HECO Companies have again assumed currently effective tax law under which bonus depreciation expired at December of 2014, even though, in most recent years, legislation has extended bonus tax depreciation provisions.
- g. Explain each company's proposed treatment of the uncertainties surrounding 2015 bonus tax depreciation.

Hawaiian Electric Companies' Response:

- a. Yes. On December 19, 2014, 50% bonus depreciation was enacted to apply to qualifying assets placed into service between January 1, 2014 and December 31, 2014.
- b. Confirmed.

- c. Confirmed. No adjustments to target revenues have been proposed to account for bonus depreciation in 2014.

The Companies assert that the enactment of bonus depreciation did not warrant an adjustment to target revenues because bonus depreciation was enacted after all federal estimated tax payments for the 2014 tax year were paid.

The Companies are required to pay estimated federal income taxes based on the law currently in effect and payments are due in four installments on the 15th of April, June, September and December. The law in effect through December 15, 2014 did not include a provision for bonus depreciation and therefore the Companies were required to make payments on that basis. Consequently, The Companies did not realize any deferred tax benefits associated with bonus depreciation at any time in 2014.

Upon the enactment of bonus depreciation on December 19, 2014, the Company was required to provide for the ADIT associated with the estimated bonus depreciation on qualified assets placed into service in 2014 for financial accounting purposes. However, the cash benefit would not be realized until either a refund of 2014 estimated taxes was received or 2015 estimated taxes were reduced by the overpayment resulting from the additional bonus depreciation deductions, both of which would take place in 2015.

Consequently, it was reasonable to maintain 2014 target revenues without an adjustment to rate base RAM for the ADIT associated with bonus depreciation in 2014 since the Companies received no associated tax benefits in 2014. This end-of-year enactment of the bonus depreciation provision was tantamount to no enactment at all since the Companies' actions were consistent with the current law in effect through

December 19, 2014, four days after the last federal estimated income tax payment was due. To include the effects of ADIT related to 2014 bonus depreciation in 2014 target revenues would penalize the Company for complying with the current tax law.

Note that the ADIT associated with 2014 bonus depreciation is included in the Companies' 2015 beginning balances for the 2015 decoupling filing, appropriately reflecting a full year's benefit for bonus depreciation in the year it was or will be actually realized.

- d. See Attachments 1 and 2 of this response
- e. As stated in c. above, the ADIT associated with 2014 bonus depreciation was included in the recorded December 31, 2014 balances for the 2015 decoupling filing.
- f. Yes. The Companies are assuming current law, which does not provide for bonus depreciation in 2015.
- g. All the Companies are required to make estimated tax payments based on current law. As long as these payments are accruing, the Company will not receive any tax deferral benefits associated with the ADIT on bonus depreciation that might be enacted for 2015. Congress must pass a bonus depreciation bill and the President must sign such bill into law before the Company can record the ADIT and realize the benefits. The process was uncertain last year and we can anticipate a similar situation for 2015. To date, Congress has not dealt with any extensions of bonus depreciation and therefore, bonus depreciation has not been assumed to be effective until a provision is enacted into law.

It should be noted that both Hawaiian Electric and Maui Electric are subject to the RAM Cap in 2015. For the 2015 RAM, the 12/31/14 ADIT balance was trued-up to derive the 2014 Adjusted RB RAM in the 2014 target revenue base for the 2015 RAM

cap. Therefore, the RAM Caps in the revised decoupling filings at 4/15/15 for Hawaiian Electric and Maui Electric actually incorporate half a year of the ADIT associated with bonus depreciation for 2014, as escalated for 2015.

Given the applicability of the RAM Cap for Hawaiian Electric and Maui Electric, the impact of bonus depreciation on the 2015 ADIT becomes moot since the 12/31/15 ADIT balances have no bearing in the allowed 2015 RAM revenue adjustment.

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Tax Legislation

Complete Analysis of the Tax and ERISA Provisions of the Tax Increase Prevention Act of 2014, the Achieving a Better Life Experience Act of 2014, the 2015 Continuing Appropriations Act, and Other Acts of the 113th Congress

Organization of the Complete Analysis

Code As Amended

§59A thru §244

§168 Accelerated cost recovery system.

Code Sec. 168. Accelerated cost recovery system.

This subsection shall not apply to property placed in service after ¹²December 31, 2014.

(k) Special allowance for certain property acquired after December 31, 2007, and before ¹³January 1, 2015.

(1) Additional allowance.

In the case of any qualified property-

(A) the depreciation deduction provided by section 167(a) for the taxable year in which such property is placed in service shall include an allowance equal to 50 percent of the adjusted basis of the qualified property, and

(B) the adjusted basis of the qualified property shall be reduced by the amount of such deduction before computing the amount otherwise allowable as a depreciation deduction under this chapter for such taxable year and any subsequent taxable year.

(2)Qualified property.

For purposes of this subsection -

(A) In general. The term "qualified property" means property-

(i)

(I) to which this section applies which has a recovery period of 20 years or less,

(II) which is computer software (as defined in section 167(f)(1)(B)) for which a deduction is allowable under section 167(a) without regard to this subsection ,

(III) which is water utility property, or

(IV) which is qualified leasehold improvement property,

(ii) the original use of which commences with the taxpayer after December 31, 2007,

(iii) which is-

(I) acquired by the taxpayer after December 31, 2007, and before ¹⁴January 1, 2015, but only if no written binding contract for the acquisition was in effect before January 1, 2008, or

(II) acquired by the taxpayer pursuant to a written binding contract which was entered into after December 31, 2007, and before ¹⁵January 1, 2015, and

(iv) which is placed in service by the taxpayer before ¹⁶January 1, 2015, or, in the case of property described in subparagraph (B) or (C) , before ¹⁷January 1, 2016.

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Code, Regulations, Committee Reports & Tax Treaties

Internal Revenue Code

Current Code

Subtitle F Procedure and Administration §§6001-7874

Chapter 68 ADDITIONS TO THE TAX, ADDITIONAL AMOUNTS, AND ASSESSABLE
PENALTIES §§6651-6751

Subchapter A Additions to the Tax and Additional Amounts §§6651-6665

Part I GENERAL PROVISIONS §§6651-6658

§6655 Failure by corporation to pay estimated income tax.

Internal Revenue Code

§ 6655 Failure by corporation to pay estimated income tax.

(a) Addition to tax.

Except as otherwise provided in this section , in the case of any underpayment of estimated tax by a corporation, there shall be added to the tax under chapter 1 for the taxable year an amount determined by applying-

(1) the underpayment rate established under section 6621 ,

(2) to the amount of the underpayment,

(3) for the period of the underpayment.

(b) Amount of underpayment; period of underpayment.

For purposes of subsection (a) -

(1) Amount.

The amount of the underpayment shall be the excess of-

- (A) the required installment, over
- (B) the amount (if any) of the installment paid on or before the due date for the installment.

(2) Period of underpayment.

The period of the underpayment shall run from the due date for the installment to whichever of the following dates is the earlier-

- (A) the 15th day of the 3rd month following the close of the taxable year, or
- (B) with respect to any portion of the underpayment, the date on which such portion is paid.

(3) Order of crediting payments.

For purposes of paragraph (2)(B) , a payment of estimated tax shall be credited against unpaid required installments in the order in which such installments are required to be paid.

(c) Number of required installments; due dates.

For purposes of this section -

(1) Payable in 4 installments.

There shall be 4 required installments for each taxable year.

(2) Time for payment of installments.

In the case of the following required
installments:

The due date is:

1st

April 15

2nd	June 15
3rd	September 15
4th	December 15.

(d) Amount of required installments.

For purposes of this section -

(1) Amount.

(A) In general. Except as otherwise provided in this section , the amount of any required installment shall be 25 percent of the required annual payment.

(B) Required annual payment. Except as otherwise provided in this subsection , the term "required annual payment" means the lesser of-

- (i) 100 percent of the tax shown on the return for the taxable year (or, if no return is filed, 100 percent of the tax for such year), or
- (ii) 100 percent of the tax shown on the return of the corporation for the preceding taxable year.

Clause (ii) shall not apply if the preceding taxable year was not a taxable year of 12 months, or the corporation did not file a return for such preceding taxable year showing a liability for tax.

(2) Large corporations required to pay 100 percent of current year tax.

(A) In general. Except as provided in subparagraph (B) , clause (ii) of paragraph (1)(B) shall not apply in the case of a large corporation.

(B) May use last year's tax for 1st installment. Subparagraph (A) shall not apply for purposes of determining the amount of the 1st required installment for any taxable year. Any reduction in such 1st installment by reason of the preceding sentence shall be recaptured by increasing the amount of the next required installment determined under paragraph (1) by the amount of such reduction.

(e) Lower required installment where annualized income installment or adjusted seasonal installment is less than amount determined under Subsection (d) .

(1) In general.

In the case of any required installment, if the corporation establishes that the annualized income installment or the adjusted seasonal installment is less than the amount determined under subsection (d)(1) (as modified by paragraphs (2) and(3) of subsection (d))

(A) the amount of such required installment shall be the annualized income installment (or, if lesser, the adjusted seasonal installment), and

(B) any reduction in a required installment resulting from the application of this paragraph shall be recaptured by increasing the amount of the next required installment determined under subsection (d)(1) (as so modified) by the amount of such reduction (and by increasing subsequent required installments to the extent that the reduction has not previously been recaptured under this subparagraph).

(2) Determination of annualized income installment.

(A) In general. In the case of any required installment, the annualized income installment is the excess (if any) of-

(i) an amount equal to the applicable percentage of the tax for the taxable year computed by placing on an annualized basis the taxable income and alternative minimum taxable income-

(I) for the first 3 months of the taxable year, in the case of the 1st required installment,

(II) for the first 3 months of the taxable year, in the case of the 2nd required installment,

(III) for the first 6 months of the taxable year in the case of the 3rd required installment, and

(IV) for the first 9 months of the taxable year, in the case of the 4th required installment, over

(ii) the aggregate amount of any prior required installments for the taxable year.

(B) Special rules. For purposes of this paragraph -

- (i) Annualization. The taxable income and alternative minimum taxable income shall be placed on an annualized basis under regulations prescribed by the Secretary.
- (ii) Applicable percentage.

In the case of the following required

installments:	The applicable percentage is:
1st	25
2nd	50
3rd	75
4th	100

(C) Election for different annualization periods.

- (i) If the taxpayer makes an election under this clause-
- (I) **subclause (I) of subparagraph (A)(i)** shall be applied by substituting "2 months" for "3 months",
- (II) **subclause (II) of subparagraph (A)(i)** shall be applied by substituting "4 months" for "3 months",
- (III) **subclause (III) of subparagraph (A)(i)** shall be applied by substituting "7 months" for "6 months", and
- (IV) **subclause (IV) of subparagraph (A)(i)** shall be applied by substituting "10 months" for "9 months".

- (ii) If the taxpayer makes an election under **this clause** -
- (I) **subclause (II) of subparagraph (A)(i)** shall be applied by substituting "5 months" for "3 months".
- (II) **subclause (III) of subparagraph (A)(i)** shall be applied by substituting "8 months" for "6 months", and
- (III) **subclause (IV) of subparagraph (A)(i)** shall be applied by substituting "11 months" for "9 months".
- (iii) An election under **clause (i) or (ii)** shall apply to the taxable year for which made and such an election shall be effective only if made on or before the date required for the payment of the first required installment for such taxable year.

(3) Determination of adjusted seasonal installment.

- (A) In general. In the case of any required installment, the amount of the adjusted seasonal installment is the excess (if any) of-
- (i) 100 percent of the amount determined under **subparagraph (C)** , over
- (ii) the aggregate amount of all prior required installments for the taxable year.
- (B) Limitation on application of paragraph. This paragraph shall apply only if the base period percentage for any 6 consecutive months of the taxable year equals or exceeds 70 percent.
- (C) Determination of amount. The amount determined under **this subparagraph** for any installment shall be determined in the following manner-
- (i) take the taxable income for all months during the taxable year preceding the filing month,

- (ii) divide such amount by the base period percentage for all months during the taxable year preceding the filing month,
- (iii) determine the tax on the amount determined under clause (ii) , and
- (iv) multiply the tax computed under clause (iii) by the base period percentage for the filing month and all months during the taxable year preceding the filing month.

(D) Definitions and special rules. For purposes of this paragraph -

(i) **Base period percentage.** The base period percentage for any period of months shall be the average percent which the taxable income for the corresponding months in each of the 3 preceding taxable years bears to the taxable income for the 3 preceding taxable years.

(ii) **Filing month.** The term "filing month" means the month in which the installment is required to be paid.

(iii) **Reorganization, etc.** The Secretary may by regulations provide for the determination of the base period percentage in the case of reorganizations, new corporations, and other similar circumstances.

(4) Treatment of subpart F and section 936 income.

(A) **In general.** Any amounts required to be included in gross income under section 936(h) or 951(a) (and credits properly allocable thereto) shall be taken into account in computing any annualized income installment under **paragraph (2)** in a manner similar to the manner under which partnership income inclusions (and credits properly allocable thereto) are taken into account.

(B) Prior year safe harbor.

(i) **In general.** If a taxpayer elects to have this subparagraph apply for any taxable year-

(I) **subparagraph (A)** shall not apply, and

(II) for purposes of computing any annualized income installment for such taxable year, the taxpayer shall be treated as having received ratably during such taxable year items of income and credit described in subparagraph (A) in an amount equal to 115 percent of the amount of such items shown on the return of the taxpayer for the preceding taxable year (the second preceding taxable year in the case of the first and second required installments for such taxable year).

(ii) Special rule for noncontrolling shareholder.

(I) In general. If a taxpayer making the election under clause (i) is a noncontrolling shareholder of a corporation, clause (i)(II) shall be applied with respect to items of such corporation by substituting "100 percent" for "115 percent".

(II) Noncontrolling shareholder. For purposes of subclause (I), the term "noncontrolling shareholder" means, with respect to any corporation, a shareholder which (as of the beginning of the taxable year for which the installment is being made) does not own (within the meaning of section 958(a)), and is not treated as owning (within the meaning of section 958(b)), more than 50 percent (by vote or value) of the stock in the corporation.

(5) Treatment of certain REIT dividends.

(A) In general. Any dividend received from a closely held real estate investment trust by any person which owns (after application of subsection (d)(5) of section 856) 10 percent or more (by vote or value) of the stock or beneficial interests in the trust shall be taken into account in computing annualized income installments under paragraph (2) in a manner similar to the manner under which partnership income inclusions are taken into account.

(B) Closely held REIT. For purposes of subparagraph (A), the term "closely held real estate investment trust" means a real estate investment trust with respect to which 5 or fewer persons own (after application of subsection (d)(5) of section 856) 50 percent or more (by vote or value) of the stock or beneficial interests in the trust.

(f) Exception where tax is small amount.

No addition to tax shall be imposed under **subsection (a)** for any taxable year if the tax shown on the return for such taxable year (or, if no return is filed, the tax) is less than \$500.

(g) Definitions and special rules.

(1) Tax.

For purposes of **this section** , the term "tax" means the excess of-

- (A) the sum of:
 - (i) the tax imposed by **section 11 or 1201(a)** , or subchapter L of chapter 1, whichever applies,
 - (ii) the tax imposed by **section 55** , plus
 - (iii)

the tax imposed by **section 887** , over

- (B) the credits against tax provided by part IV of subchapter A of chapter 1.

For purposes of the preceding sentence, in the case of a foreign corporation subject to taxation under **section 11 or 1201(a)** , or under subchapter L of chapter 1, the tax imposed by **section 881** shall be treated as a tax imposed by **section 11** .

(2) Large corporation.

- (A) In general. For purposes of **this section** , the term "large corporation" means any corporation if such corporation (or any predecessor corporation) had taxable income of \$1,000,000 or more for any taxable year during the testing period.

- (B) Rules for applying subparagraph (A) .

- (i) Testing period. For purposes of **subparagraph (A)** , the term "testing period" means the 3 taxable years immediately preceding the taxable year involved.
- (ii) Members of controlled group. For purposes of applying **subparagraph (A)** to any taxable year in the testing period with respect to corporations which are component members of a controlled group of corporations for such taxable year, the \$1,000,000 amount specified in **subparagraph (A)** shall be divided among such members under rules similar to the rules of **section 1561** .
- (iii) Certain carrybacks and carryovers not taken into account. For purposes of **subparagraph (A)** , taxable income shall be determined without regard to any amount carried to the taxable year under **section 172 or 1212(a)** .

(3) Certain tax-exempt organizations.

For purposes of this section -

- (A) Any organization subject to the tax imposed by **section 511** , and any private foundation, shall be treated as a corporation subject to tax under **section 11** .
- (B) Any tax imposed by **section 511** , and any tax imposed by **section 1 or 4940** on a private foundation, shall be treated as a tax imposed by **section 11** .
- (C) Any reference to taxable income shall be treated as including a reference to unrelated business taxable income or net investment income (as the case may be).

In the case of any organization described in **subparagraph (A)** , **subsection (b)(2)(A)** shall be applied by substituting "5th month" for "3rd month", **subsection (e)(2)(A)** shall be applied by substituting "2 months" for "3 months" in clause (i)(I) , the election under clause (i) of **subsection (e)(2)(C)** may be made separately for each installment, and clause (ii) of **subsection (e)(2)(C)** shall not apply. In the case of a private foundation, **subsection (c)(2)** shall be applied by substituting "May 15" for "April 15".

(4) Application of section to certain taxes imposed on S corporations.

In the case of an S corporation, for purposes of this section -

(A) The following taxes shall be treated as imposed by section 11 :

(i) The tax imposed by section 1374(a) .

(ii) The tax imposed by section 1375(a) .

(iii) Any tax for which the S corporation is liable by reason of section 1371(d)(2) .

(B) Paragraph (2) of subsection (d) shall not apply.

(C) Clause (ii) of subsection (d)(1)(B) shall be applied as if it read as follows:

"(ii) the sum of-

"(I) the amount determined under clause (i) by only taking into account the taxes referred to in clauses (i) and (iii) of subsection (g)(4)(A) , and

"(II) 100 percent of the tax imposed by section 1375(a) which was shown on the return of the corporation for the preceding taxable year."

(D) The requirement in the last sentence of subsection (d)(1)(B) that the return for the preceding taxable year show a liability for tax shall not apply.

(E) Any reference in subsection (e) to taxable income shall be treated as including a reference to the net recognized built-in gain or the excess passive income (as the case may be).

(h) Excessive adjustment under section 6425 .

(1) Addition to tax.

If the amount of an adjustment under section 6425 made before the 15th day of the 3rd month following

the close of the taxable year is excessive, there shall be added to the tax under chapter 1 for the taxable year an amount determined at the underpayment rate established under **section 6621** upon the excessive amount from the date on which the credit is allowed or the refund is paid to such 15th day.

(2) Excessive amount.

For purposes of paragraph (1), the excessive amount is equal to the amount of the adjustment or (if smaller) the amount by which-

(A) the income tax liability (as defined in **section 6425(c)**) for the taxable year as shown on the return for the taxable year, exceeds

(B) the estimated income tax paid during the taxable year, reduced by the amount of the adjustment.

(i) Fiscal years and short years.

(1) Fiscal years.

In applying this section to a taxable year beginning on any date other than January 1, there shall be substituted, for the months specified in this section, the months which correspond thereto.

(2) Short taxable year.

This section shall be applied to taxable years of less than 12 months in accordance with regulations prescribed by the Secretary.

(j) Regulations.

The Secretary shall prescribe such regulations as may be necessary to carry out the purposes of this section.