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SHARON M. SUZUKI
President

October 27, 2016

2016 OCT 27 P 3:02

PUBLIC UTILITIES
COMMISSION

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

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for November 2016

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2016 energy cost adjustment factor for our Maui Division is -9.782 cents per kilowatt-hour ("kWh"), a decrease of 1.620 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$135.84, a decrease of \$8.10 compared to rates effective October 1, 2016.

The Company's Maui Division fuel composite cost of generation, central station and other increased 56.36 cents per million BTU to 1,104.01 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 4.259 cents per kWh to 13.360 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for November 2016 is -12.595 cents per kWh, an increase of 0.128 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$136.59, an increase of \$0.51 compared to rates effective October 1, 2016.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 3.32 cents per million BTU to 1,547.13 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 27.000 cents per kWh.

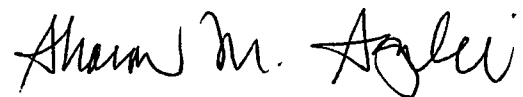
The energy cost adjustment factor for our Moloka'i Division for November 2016 is -9.970 cents per kWh, an increase of 1.161 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$132.85, an increase of \$4.64s compared to rates effective October 1, 2016.s

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 72.79 cents per million BTU to 1,294.97 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 21.80 cents per kWh.

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
October 27, 2016
Page 2

The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning November 1, 2016.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan M. Aglei". The signature is written in a cursive style with a large, stylized initial 'A'.

Attachments

cc: Division of Consumer Advocacy

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION**

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		
	<u>10/01/2016</u>	<u>11/01/2016</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,047.65	1,104.01	56.36
DG Energy, ¢/kWh	0.00	0.00	0.000
Purchased Energy, ¢/kWh	17.619	13.360	(4.259)
 <u>Residential Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(8.162)	(9.782)	(1.620)
 <u>Others - "G,H,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(8.162)	(9.782)	(1.620)
 <u>Residential Customer with</u>			
500 KWH Consumption, \$/Bill	143.94	135.84	(8.10)
600 KWH Consumption, \$/Bill	172.39	162.67	(9.72)

Supersedes Sheet Effective:

October 1, 2016

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - November 1, 2016 (page 1 of 2)

Line

1 Effective Date November 1, 2016
2 Supercedes Factors of October 1, 2016

GENERATION COMPONENT

CENTRAL STATION						
FUEL PRICES, €/mmbtu						
3	Industrial			642.80		
4	Diesel			1,229.21		
5	Other					
BTU MIX, %						
6	Industrial			21.35%		
7	Diesel			78.65%		
8	Other			0.00%		
				100.00%		
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER €/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))			1,104.01		
10	% Input to System kWh Mix			77.29%		
EFFICIENCY FACTOR, mmbtu/kWh						
	(A)	(B)	(C)	(D)		
		Eff Factor	Percent of	Weighted		
	<u>Fuel Type</u>	<u>mmbtu/kwh</u>	Centrl Stn +	<u>Eff Factor</u>		
			<u>Other</u>			
11	Industrial	0.015126	14.90	0.002254		
12	Diesel	0.010026	85.10	0.008532		
13	Other	0.010951	0.00	-		
	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)					
14	Weighted Efficiency Factor, mmbtu/kWh [(lines 11(D) + 12(D) + 13(D))]			0.010786		
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, €/kWh (lines (9 x 10 x 14))			9.20358		
16	BASE CENTRAL STATION + OTHER GENERATION COST, €/mmbtu			2,019.39		
17	Base % Input to Sys kWh Mix			78.09		
18	Efficiency Factor, mmbtu/kwh			0.010951		
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST €/kWh (lines (16 x 17 x 18))			17.26909		
20	COST LESS BASE (line(15 - 19))			(8.06551)		
21	Revenue Tax Req Multiplier			1.0975		
22	CENTRAL STATION + OTHER GENERATION FACTOR, €/kWh (line (20 x 21))			(8.85190)		
					<u>DG ENERGY COMPONENT</u>	
					23 COMPOSITE COST OF DG ENERGY, €/kWh	
					0.000	
				24 % Input to System kWh Mix	0.00%	
				25 WEIGHTED COMPOSITE DG ENERGY COST, €/kWh (Lines 23 x 24)	-	
				26 BASE DG ENERGY COMP COST	0.000	
				27 Base % Input to System kWh Mix	0.01	
				28 WEIGHTED BASE DG ENERGY COST, €/kWh (Line 26 x 27)	0.00000	
				29 Cost Less Base (Line 25 - 28)	0.00000	
				30 Loss Factor	1.063	
				31 Revenue Tax Req Multiplier	1.0975	
				32 DG FACTOR, €/kWh (Line 29 x 30 x 31)	0.00000	
					SUMMARY OF	
					TOTAL GENERATION FACTOR, €/kWh	
				33 CNTRL STN + OTHER (line 22)	(8.85190)	
				34 DG (line 32)	-	
				35 TOTAL GENERATION FACTOR, €/kWh (lines 33 + 34)	(8.85190)	

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - November 1, 2016 (page 2 of 2)

Line

1 Effective Date November 1, 2016
2 Supercedes Factors of October 1, 2016

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>	
	PURCHASED ENERGY PRICE, ¢/kWh	
36	HC&S - Regular Energy - On Peak	19.100
37	- Off Peak	19.100
38		
39		
40	Kaheawa Wind I - On Peak	13.469
41	- Off Peak	12.659
42	Kaheawa Wind II	5.386
43	Sempra Wind	21.227
44	Hydro & Other - On Peak	12.302
45	- Off Peak	10.881
46	FIT	21.523
	PURCHASED ENERGY KWH MIX, %	
47	HC&S - Regular Energy - On Peak	0.00%
48	- Off Peak	0.00%
49		
50		
51	Kaheawa Wind I - On Peak	21.88%
52	- Off Peak	17.58%
53	Kaheawa Wind II	29.24%
54	Sempra Wind	28.81%
55	Hydro & Other - On Peak	0.23%
56	- Off Peak	0.16%
57	FIT	2.10%
		<u>100.00%</u>
58	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh	13.360
	(Lines (36 x 49) + (37 x 50) + (38 x 51) + (39 x 52) + (40 x 53) + (41 x 54) + (42 x 55) + (43 x 54) + (44 x 55) + (45 x 56) + (46 x 57))	
59	% Input to System kWh Mix	22.71%
60	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (58 x 59))	3.03406
61	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	15.847
62	Base % Input to Sys kWh Mix	21.90
63	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (61 x 62))	3.47049
64	COST LESS BASE (lines (60 - 63))	(0.43643)
65	Loss Factor	1.063
66	Revenue Tax Req Multiplier	1.0975
67	PURCHASED ENERGY FACTOR, ¢/kWh (lines (64 x 65 x 66))	(0.50916)

Line

SYSTEM COMPOSITE CALCULATIONS

68	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 67))	(9.36106)
69	ADJUSTMENT, ¢/kWh	
70	ECA Reconciliation Adjustment	(0.421)
71	ECA FACTOR, ¢/kWh (lines (68 + 69 + 70))	(9.782)

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION**

Fuel Oil Inventory Prices for November 2016

<u>TYPE OF OIL BURNED</u>	<u>PRICES \$/BBL</u>	<u>CONVERSION FACTORS</u>	<u>PRICES ¢/MBTU</u>
INDUSTRIAL	40.4962	6.30 MBTU/BBL	642.80
DIESEL/ULSD	72.0316	5.86 MBTU/BBL	1,229.21

**Maui Electric Company, Ltd.
Maui Division**

Month End Fuel Oil Estimate

<u>Kahului</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/20/2016	38,274.028	240,822.50	1,479,634.78
Estimated Use	8,212.108	51,617.15	316,581.81
Estimated Received	15,614.590	98,371.92	686,674.34
Estimated Additional	0.000	0.00	0.00
Estimated End	<u>45,676.510</u>	<u>287,577.27</u>	<u>1,849,727.31</u>

Next month's expense (\$/bbl) = \$ 40.4962

<u>Maalaea</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/20/2016	97,621.852	571,715.11	6,890,895.05
Estimated Use	30,547.782	178,900.81	2,103,156.73
Estimated Received	38,038.881	222,771.88	2,783,711.81
Estimated Additional	0.000	0.00	0.00
Estimated End	<u>105,112.951</u>	<u>615,586.18</u>	<u>7,571,450.13</u>

Next month's expense (\$/bbl) = \$ 72.0316

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION**

Contract Prices effective October 1, 2016

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
INDUSTRIAL		
Tax *	2.7987	44.42
Ocean Transportation	2.0256	32.15
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.2500	3.97
DIESEL		
Tax *	4.3054	73.47
Ocean Transportation	2.0256	34.57
Land Transportation	0.8817	15.05
Storage	2.0417	34.84
Wharfage	0.2500	4.27

* Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST tax and Environmental Response Tax.

Note: Since these components are not accounted for separately in inventory, contract prices for the current month are being provided. Contract prices are considered accurate pending actual delivery of the fuel.

Reference: Decision and Order No. 16134, Docket No. 96-0040.

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION**

PURCHASED POWER PRICE CALCULATIONS

<u>HC&S PRICE DETERMINATION:</u>	<u>Cost</u>
HC&S Regular Energy, ¢/kWh	19.100

<u>KAHEAWA WIND POWER ENERGY RATE:</u>	
Kaheawa Wind - On Peak, ¢/kWh	13.469
- Off Peak, ¢/kWh	12.659

Kaheawa Wind Energy Rate Calculations:

Percent of Energy Payment Rate:

Fixed energy payment rate	70%
Flat payment rate	<u>30%</u>
	<u>100%</u>

Fixed Energy Payment Rate (Table D-1) for 2016:

On-peak, ¢/kwh	9.813
Off-peak, ¢/kwh	8.655

Flat Payment Rate Per Docket No. 2011-0192 D&O 30331:

On-peak, ¢/kwh	22.000
Off-peak, ¢/kwh	22.000

On-Peak Rate = $9.813 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 13.4691 \text{ ¢/kwh}$

Off-Peak Rate = $8.655 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 12.6585 \text{ ¢/kwh}$

MAUI ELECTRIC COMPANY, LTD.
Maui Division
ECA Reconciliation Adjustment
November 2016

1. Amount to be Refunded	(\$1,020,100)
2. Monthly amount (1 / 3 X Line 1)	(\$340,033)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$373,191)
5. Estimated Sales (November 2016)	88,565 mwh
6. Adjustment (Line 4 ÷ Line 5)	(0.421) ¢/kwh

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2016 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)

<u>Line</u>	W/O Deadband 3rd Quarter <u>YTD Total</u>	collection by <u>company*</u>	Basis for Recon With Deadband 3rd Quarter <u>YTD Total</u>	collection by <u>company*</u>
ACTUAL COSTS:				
1	Generation	\$62,322.0	\$62,322.0	
2	Distributed Generation	\$13.5	\$13.5	
3	Purch Power	<u>\$39,551.5</u>	<u>\$39,551.5</u>	
4	TOTAL	\$101,887.0	\$101,887.0	
FUEL FILING COST				
5	Generation	\$63,793.6	\$63,270.8	
6	Distributed Generation	\$0.0	\$0.0	
7	Purch Power	<u>\$39,551.5</u>	<u>\$39,551.5</u>	
8	TOTAL	\$103,345.1	\$102,822.3	
BASE FUEL COST				
9	Generation	\$123,722.4	\$123,722.4	
10	Distributed Generation	\$12.8	\$12.8	
11	Purch Power	<u>\$42,351.6</u>	<u>\$42,351.6</u>	
12	TOTAL	\$166,086.8	\$166,086.8	
13	FUEL-BASE COST (Line 8-12)	-\$62,741.7	-\$63,264.5	
14	ACTUAL FOA LESS TAX	-\$62,867.8	-\$62,867.8	
15	FOA reconciliation adj for prior year	<u>-\$718.1</u>	<u>-\$718.1</u>	
16	ADJUSTED FOA LESS TAX	-\$62,149.7	-\$62,149.7	
17	FOA-(FUEL-BASE) (Line 16-13)	\$592.0 Over	\$1,114.8 Over	
ADJUSTMENTS				
18	Current year FOA accrual reversal	\$1,240.2	\$1,240.2	
19	Other prior year FOA	\$0.0	\$0.0	
20	Other	<u>\$0.0</u>	<u>\$0.0</u>	
21	3rd QUARTER FOA RECONCILIATION (Lines 17+18+19+20)	\$1,832.2 Over	\$2,355.0 Over	
22	2nd QUARTERLY YTD 2016 YTD FOA Reconciliation Recognized in FOA Rates		<u>\$1,334.9</u> Over	
23	FOA Reconciliation to be Refunded November 2016 to January 2017 (Line 22- 21)		<u><u>-\$1,020.1</u></u> To Be Refunded	

* Over means an over-collection by the company.
Under means an under-collection by the company.

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION

Determination of Efficiency Factor to use for Cost-Recovery Purposes

Period: January 1, 2016 through September 30, 2016

	<u>Notes</u>	<u>Jan 1 - Sep 30</u>
<u>Industrial Fuel Oil</u>		
Industrial Fuel Oil Efficiency Factor (TY2012), BTU/kWh	f	15,126
Industrial Fuel Oil Deadband Definition, +/- BTU/kWh	d	100
Industrial Fuel Oil Portion of Recorded Sales, MWh	a	81,014
Industrial Fuel Oil Consumption (Recorded), MMBTU	b	1,274,887
Industrial Fuel Oil Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	15,737
Lower limit of Industrial Fuel Oil Deadband, BTU/kWh	e = f-d	15,026
Higher limit of Industrial Fuel Oil Deadband, BTU/kWh	g = f+d	15,226
Industrial Fuel Oil Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	15,226
<u>Diesel</u>		
Diesel Efficiency Factor (TY2009), BTU/kWh	f	10,026
Diesel Deadband Definition, +/- BTU/kWh	d	100
Diesel Portion of Recorded Sales, MWh	a	509,316
Diesel Consumption (Recorded), MMBTU	b	4,950,127
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	9,719
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	9,926
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	10,126
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	9,926

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND
2016

	<u>Without Deadband</u> <u>Jan 1 - Sep 30</u>	<u>With Deadband - AS FILED</u> <u>Jan 1 - Sep 30</u>
<u>INDUSTRIAL</u>		
Industrial Portion of Recorded Sales , MWH	81,014	81,014
Industrial Sales Efficiency Factor (mmbtu/kwh)	0.015126	0.015226
Mmbtu adjusted for Sales Efficiency Factor	1,225,417	1,233,519
\$/mmbtu	<u>\$5.5850</u>	<u>\$5.5850</u>
TOTAL Industrial \$000s TO BE RECOVERED	\$6,844.0	\$6,889.2
<u>DIESEL FUEL FILING COST</u>		
Diesel Portion of Recorded Sales, MWH	509,316	509,316
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.010026	0.009926
Mmbtu adjusted for Sales Efficiency Factor	5,106,404	5,055,472
\$/mmbtu	<u>\$11.1526</u>	<u>\$11.1526</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$56,949.6	\$56,381.6
TOTAL GENERATION FUEL FILING COST, \$000s	\$63,793.6	\$63,270.8
TOTAL GENERATION BASE FUEL COST , \$000s YTD	\$123,722.4	\$123,722.4
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$63,793.6	\$63,270.8
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$123,722.4	\$123,722.4

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2016 Cumulative Reconciliation Balance**

<u>Month</u>	(1) <u>YTD FOA Reconciliation</u>	<u>Qtr</u>	(2) <u>FOA Rec Adjust Variance</u>	(3) <u>FOA Rec Less Variance</u>	(4) <u>Try to Collect</u>	(5) <u>Actual Collect</u>	(6) <u>Month-end Cumulative Balance</u>
December '15					(518,067)	(518,422)	480,292
January '16					(518,067)	(499,925)	(19,633)
February	200,100	(4)	(37,780)	237,880	(66,700)	(64,342)	153,905
March					(66,700)	(64,142)	89,763
April					(66,700)	(66,051)	23,712
May	1,051,300	(1)	23,058	1,028,242	(350,433)	(350,448)	701,506
June					(350,433)	(356,703)	344,803
July					(350,433)	(360,685)	(15,882)
August	283,600	(2)	(5,636)	289,236	(94,533)	(98,455)	174,899
September					(94,533)	(96,586)	78,313
October					(94,533)		
November	1,020,100	(3)	(16,227)	1,036,327	(340,033)		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 5)
A positive number is an over-collection. A negative number is an under-collection.
- Col(2): FOA reconciliation adjustment variance accumulated during the last three months, starting with the fourth prior month; the difference between the estimated recorded sales used to derive the \$/kwh adjustment and the actual recorded sales.
(Col(5) - Col(4))
- Col(3): FOA reconciliation generated in the current quarter. The YTD FOA reconciliation difference minus the adjustment variance. Col(1) - Col(2)
- Col(4): Amount that the FOA reconciliation adjustment is trying to collect. (Col(1) * 1/3)
- Col(5): Actual collected amount. (recorded sales * \$/kwh adjustment/1.09751)
- Col(6): Cumulative balance of the FOA reconciliation (Previous balance + Col(3) + Col(5))

Maui Electric Company, Ltd.
Maui Division
Calculations of the Average Residential Customer Bill

	Rate		Charge (\$) at 500 Kwh			
	10/01/16	11/01/16	10/01/16	11/01/16	Difference	
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	23.0016	23.0016	115.01	115.01	0.00
Non-fuel Fuel Energy Charge						
First 350 kWh per month	¢/kWh	9.3393	9.3393	32.69	32.69	0.00
Next 850 kWh per month	¢/kWh	11.5993	11.5993	17.40	17.40	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				173.60	173.60	0.00
RBA Rate Adjustment	¢/kWh	1.4082	1.4082	7.04	7.04	0.00
PBF Surcharge	¢/kWh	0.5865	0.5865	2.93	2.93	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0099	0.0099	0.05	0.05	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Purchased Power Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	-8.162	-9.782	-40.81	-48.91	-8.10
Green Infrastructure Fee	\$	1.13	1.13	1.13	1.13	0.00
Avg Residential Bill at 500 kwh				143.94	135.84	

Increase (Decrease -)	-8.10
% Change	-5.63%

	Rate		Charge (\$) at 600 Kwh			
	10/01/16	11/01/16	10/01/16	11/01/16	Difference	
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	23.0016	23.0016	138.01	138.01	0.00
Non-fuel Fuel Energy Charge						
First 350 kWh per month	¢/kWh	9.3393	9.3393	32.69	32.69	0.00
Next 850 kWh per month	¢/kWh	11.5993	11.5993	29.00	29.00	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				208.20	208.20	0.00
RBA Rate Adjustment	¢/kWh	1.4082	1.4082	8.45	8.45	0.00
PBF Surcharge	¢/kWh	0.5865	0.5865	3.52	3.52	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0099	0.0099	0.06	0.06	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Purchased Power Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	-8.162	-9.782	-48.97	-58.69	-9.72
Green Infrastructure Fee	\$	1.13	1.13	1.13	1.13	0.00
Avg Residential Bill at 600 kwh				172.39	162.67	

Increase (Decrease -)	-9.72
% Change	-5.64%

**MAUI ELECTRIC COMPANY, LTD. -- Maui Division
FUEL OIL ADJUSTMENT FACTOR DATA**

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH</u>		<u>RESIDENTIAL BILL (\$)</u>	
	<u>RESIDENTIAL & COMMERCIAL</u>		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
January 1, 2014	1.733		190.94	229.00
February 1, 2014	2.238		193.25	231.77
March 1, 2014	1.978		192.02	230.29
April 1, 2014	1.754		189.62	227.42
May 1, 2014	2.175		193.66	232.25
June 1, 2014	1.675		195.24	234.15
July 1, 2014	1.679		196.18	235.28
August 1, 2014	1.134		193.54	232.12
September 1, 2014	0.855		192.16	230.46
October 1, 2014	0.880		192.27	230.60
November 1, 2014	1.135		193.01	231.48
December 1, 2014	0.325		188.98	226.39
January 1, 2015	-0.702		183.85	220.24
February 1, 2015	-4.255		165.96	198.78
March 1, 2015	-7.740		148.62	177.96
April 1, 2015	-6.921		151.30	181.18
May 1, 2015	-6.092		157.06	188.10
June 8, 2015	-4.794		163.43	195.74
July 1, 2015	-4.336		164.44	196.93
August 1, 2015	-4.415		164.11	196.54
September 1, 2015	-5.820		157.12	188.14
October 1, 2015	-7.471		148.88	178.26
November 1, 2015	-8.651		141.57	169.49
December 1, 2015	-8.557		142.07	170.10
January 1, 2016	-8.649		141.54	169.48
February 1, 2016	-10.511		132.58	158.73
March 1, 2016	-9.196		139.17	166.62
April 1, 2016	-8.768		140.37	168.08
May 1, 2016	-10.483		132.89	159.10
June 1, 2016	-8.170		143.47	171.79
July 1, 2016	-7.334		148.08	177.36
August 1, 2016	-6.973		149.89	179.52
September 1, 2016	-7.866		145.42	174.16
October 1, 2016	-8.162		143.94	172.39
November 1, 2016	-9.782		135.84	162.67

**MAUI ELECTRIC COMPANY, LTD. -- Maui Division
RESIDENTIAL SURCHARGE DATA**

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
01/01/11 - 12/31/11	RESID. PBF SURCHARGE ADJUSTMENT	0.5944 CENTS/KWH
01/12/11 - 05/03/12	FINAL RATE INCREASE (3.65%), DOCKET NO. 2006-0387 (2007 TEST YEAR)	
01/12/11 - 05/03/12	INTERIM RATE INCREASE 2010 TEST YEAR	2.44 PERCENT ON BASE
01/12/11 - 01/31/11	FIRM CAP SURCHARGE	0.081 PERCENT ON BASE
02/01/11 - 04/30/11	FIRM CAP SURCHARGE	0.0515 PERCENT ON BASE
02/01/11 - 02/28/11	IRP RECOVERY REFUND	-3.630 PERCENT ON BASE
03/01/11 - 04/30/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
04/01/11 - 04/30/11	SOLARSAVER ADJUSTMENT	-0.0888 CENTS/KWH
05/01/11 - 03/31/12	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/11 - 05/31/11	IRP RECOVERY REFUND	-0.339 PERCENT ON BASE
05/01/11 - 07/31/11	FIRM CAP SURCHARGE	-0.0180 PERCENT ON BASE
06/01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
08/01/11 - 10/31/11	FIRM CAP SURCHARGE	-0.0056 PERCENT ON BASE
11/01/11 - 01/31/12	FIRM CAP SURCHARGE	0.0047 PERCENT ON BASE
01/01/12 - 12/31/12	RESID. PBF SURCHARGE ADJUSTMENT	0.6766 CENTS/KWH
02/01/12 - 05/03/12	FIRM CAP SURCHARGE	0.0000 PERCENT ON BASE
04/01/12 - 04/30/12	SOLARSAVER ADJUSTMENT	-0.2392 CENTS/KWH
05/01/12 - 03/31/13	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/4/2012 - 07/31/13	FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR)	
05/04/12 - 07/31/12	PURCHASED POWER ADJUSTMENT	0.1889 CENTS/KWH
06/1/2012 - 07/31/13	INTERIM RATE INCREASE 2012 TEST YEAR	4.14 PERCENT ON BASE
08/01/12 - 10/31/12	PURCHASED POWER ADJUSTMENT	0.1747 CENTS/KWH
11/1/2012 - 01/31/13	PURCHASED POWER ADJUSTMENT	0.1427 CENTS/KWH
01/01/13 - 06/30/13	RESID. PBF SURCHARGE ADJUSTMENT	0.7850 CENTS/KWH
02/01/13 - 04/30/13	PURCHASED POWER ADJUSTMENT	0.1530 CENTS/KWH
04/01/13 - 04/30/13	SOLARSAVER ADJUSTMENT	-0.2053 CENTS/KWH
05/01/13 - 03/31/14	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/13 - 07/31/13	PURCHASED POWER ADJUSTMENT	0.1530 CENTS/KWH
06/01/13 - 05/31/14	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.8071 CENTS/KWH
07/01/13 - 06/30/14	RESID. PBF SURCHARGE ADJUSTMENT	0.8312 CENTS/KWH
08/01/13	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR)	
08/01/13 - 08/31/13	PURCHASED POWER ADJUSTMENT	0.1892 CENTS/KWH
09/01/13 - 09/30/13	PURCHASED POWER ADJUSTMENT	0.1865 CENTS/KWH
10/01/13 - 10/31/13	PURCHASED POWER ADJUSTMENT	0.1877 CENTS/KWH
11/01/13 - 11/30/13	PURCHASED POWER ADJUSTMENT	0.0808 CENTS/KWH
12/01/13 - 12/31/13	PURCHASED POWER ADJUSTMENT	0.0861 CENTS/KWH
01/01/14 - 01/31/14	PURCHASED POWER ADJUSTMENT	0.0943 CENTS/KWH
02/01/14 - 02/28/14	PURCHASED POWER ADJUSTMENT	0.0514 CENTS/KWH
03/01/14 - 03/31/14	PURCHASED POWER ADJUSTMENT	0.0650 CENTS/KWH
04/01/14 - 04/30/14	PURCHASED POWER ADJUSTMENT	0.0560 CENTS/KWH
04/01/14 - 04/30/14	SOLARSAVER ADJUSTMENT	-0.2453 CENTS/KWH
05/01/14 - 03/31/15	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/14 - 06/30/14	PURCHASED POWER ADJUSTMENT	0.1957 CENTS/KWH
06/01/14 - 05/31/15	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.6239 CENTS/KWH
07/01/14 - 07/31/14	PURCHASED POWER ADJUSTMENT	0.1960 CENTS/KWH
07/01/14 - 11/30/14	RESID. PBF SURCHARGE ADJUSTMENT	1.0157 CENTS/KWH
08/01/14 - 08/31/14	PURCHASED POWER ADJUSTMENT	0.2145 CENTS/KWH
09/01/14 - 09/30/14	PURCHASED POWER ADJUSTMENT	0.2159 CENTS/KWH
10/01/14 - 10/31/14	PURCHASED POWER ADJUSTMENT	0.2149 CENTS/KWH
11/01/14 - 11/30/14	PURCHASED POWER ADJUSTMENT	0.1066 CENTS/KWH
12/01/14 - 12/31/14	PURCHASED POWER ADJUSTMENT	0.1108 CENTS/KWH
12/01/14 - 06/30/15	RESID. PBF SURCHARGE ADJUSTMENT	0.7583 CENTS/KWH
12/01/14 - 06/30/15	GREEN INFRASTRUCTURE FEE	1.29 DOLLARS/MONTH
01/01/15 - 01/31/15	PURCHASED POWER ADJUSTMENT	0.1117 CENTS/KWH
02/01/15 - 02/28/15	PURCHASED POWER ADJUSTMENT	0.0875 CENTS/KWH
03/01/15 - 03/31/15	PURCHASED POWER ADJUSTMENT	0.1036 CENTS/KWH
04/01/15 - 04/30/15	PURCHASED POWER ADJUSTMENT	0.0963 CENTS/KWH
04/01/15 - 04/30/15	SOLARSAVER ADJUSTMENT	-0.2744 CENTS/KWH
05/01/15 - 05/31/15	PURCHASED POWER ADJUSTMENT	0.1444 CENTS/KWH
05/01/15 - 03/31/16	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/15 - 06/30/15	PURCHASED POWER ADJUSTMENT	0.1453 CENTS/KWH
06/01/15 - 06/07/15	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.0000 CENTS/KWH
06/08/15 - 05/31/16	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.5987 CENTS/KWH
07/01/15 - 07/31/15	PURCHASED POWER ADJUSTMENT	0.1482 CENTS/KWH
07/01/15 - 06/30/16	RESID. PBF SURCHARGE ADJUSTMENT	0.4749 CENTS/KWH
07/01/15 - 12/31/15	GREEN INFRASTRUCTURE FEE	1.42 DOLLARS/MONTH
08/01/15 - 08/31/15	PURCHASED POWER ADJUSTMENT	0.1613 CENTS/KWH
08/17/15 - 02/29/16	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0103 CENTS/KWH
09/01/15 - 09/30/15	PURCHASED POWER ADJUSTMENT	0.1573 CENTS/KWH
10/01/15 - 10/31/15	PURCHASED POWER ADJUSTMENT	0.1612 CENTS/KWH
11/01/15 - 11/30/15	PURCHASED POWER ADJUSTMENT	-0.1207 CENTS/KWH
12/01/15 - 12/31/15	PURCHASED POWER ADJUSTMENT	-0.1139 CENTS/KWH
01/01/16 - 01/31/16	PURCHASED POWER ADJUSTMENT	-0.1055 CENTS/KWH
01/01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE	1.30 DOLLARS/MONTH
02/01/16 - 02/29/16	PURCHASED POWER ADJUSTMENT	-0.0338 CENTS/KWH
03/01/16 - 03/31/16	PURCHASED POWER ADJUSTMENT	-0.0325 CENTS/KWH
03/01/16	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0099 CENTS/KWH
04/01/16 - 04/30/16	PURCHASED POWER ADJUSTMENT	-0.0355 CENTS/KWH
04/01/16 - 04/30/16	SOLARSAVER ADJUSTMENT	-0.1835 CENTS/KWH
05/01/16	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/16 - 05/31/16	PURCHASED POWER ADJUSTMENT	0.0000 CENTS/KWH
06/01/16 - 06/30/16	PURCHASED POWER ADJUSTMENT	-0.0081 CENTS/KWH
06/01/16	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.4082 CENTS/KWH
07/01/16	PURCHASED POWER ADJUSTMENT	0.0000 CENTS/KWH
07/01/16	GREEN INFRASTRUCTURE FEE	1.13 DOLLARS/MONTH
07/01/16	RESID. PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH

~ Surcharges currently in effect are in bold.

~ Base charges include customer charge, demand charge, energy charge, power factor adjustment, voltage discount and minimum charge.

**Maui Electric Company, Ltd. - Maui Division
Residential Bill at 500 kWh/Month Consumption**

