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SHARON M. SUZUKI
President

September 28, 2016

2016 SEP 28 P 3:39

PUBLIC UTILITIES
COMMISSION

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

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for October 2016

Maui Electric Company, Limited's ("Maui Electric" or "Company") October 2016 energy cost adjustment factor for our Maui Division is -8.162 cents per kilowatt-hour ("kWh"), a decrease of 0.296 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$143.94, a decrease of \$1.48 compared to rates effective September 1, 2016.

The Company's Maui Division fuel composite cost of generation, central station and other decreased 73.30 cents per million BTU to 1,047.65 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 1.755 cents per kWh to 17.619 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for October 2016 is -12.723 cents per kWh, a decrease of 0.089 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$136.08, a decrease of \$0.35 compared to rates effective September 1, 2016.

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 4.83 cents per million BTU to 1,543.81 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.

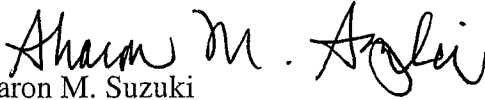
The energy cost adjustment factor for our Moloka'i Division for October 2016 is -11.131 cents per kWh, a decrease of 1.337 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$128.21, a decrease of \$5.34 compared to rates effective September 1, 2016.

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 108.76 cents per million BTU to 1,222.18 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
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The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning October 1, 2016.

Sincerely,


Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>09-01-16</u>	<u>10-01-16</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,548.64	1,543.81	(4.83)
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	27.00	27.00	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(12.634)	(12.723)	(0.089)
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(12.634)	(12.723)	(0.089)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	136.43	136.08	(0.35)
500 KWH Consumption, \$/Bill	169.68	169.23	(0.45)

Supersedes Sheet Effective:

September 1, 2016

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line

- 1 Effective Date October 1, 2016
- 2 Supercedes Factors of September 1, 2016

GENERATION COMPONENT

<u>CENTRAL STATION</u>					
FUEL PRICES, ¢/mmbtu					
3	Industrial			0.00	
4	Diesel - Miki Basin			1,543.81	
5	Diesel - Manele Bay			0.00	
6	Other			0.00	
BTU MIX, %					
7	Industrial			0.00%	
8	Diesel - Miki Basin			100.00%	
9	Diesel - Manele Bay ¹			0.00%	
10	Other			0.00%	
				100.00%	
11	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu			1,543.81	
	(Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))				
12	% Input to System kWh Mix			91.91%	
EFFICIENCY FACTOR, mmbtu/kWh					
	(A)	(B)	(C)	(D)	
			Percent of		
			Centrl Stn +	Weighted	
	<u>Fuel Type</u>	<u>Eff Factor</u>	<u>Other</u>	<u>Eff Factor</u>	
		<u>mmbtu/kwh</u>			
13	Industrial	0.000000	0.00	0.000000	
14	Diesel	0.011151	100.00	0.011151	
15	Other	0.011151	0.00	0.000000	
	(Lines 13, 14, 15): Col(B) x Col(C) = Col(D)				
16	Weighted Efficiency Factor, mmbtu/kWh			0.011151	
	[lines 13(D) + 14(D) + 15(D)]				
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh			15.82233	
	(lines (11 x 12 x 16))				
18	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			2,647.15	
19	Base % Input to Sys kWh Mix			89.65%	
20	Efficiency Factor, mmbtu/kwh			0.011151	
21	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh			26.46322	
	(lines (18 x 19 x 20))				
22	COST LESS BASE (line(17 - 21))			(10.64089)	
23	Revenue Tax Req Multiplier			1.0975	
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))			-11.67838	
				<u>DG ENERGY COMPONENT</u>	
				25 COMPOSITE COST OF DG ENERGY, ¢/kWh	0.000
				26 % Input to System kWh Mix	0.00%
				27 WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26)	0.00000
				28 BASE DG ENERGY COMP COST	0.000
				29 Base % Input to System kWh Mix	0.00%
				30 WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 28 x 29)	0.00000
				31 Cost Less Base (Line 27 - 30)	0.00000
				32 Loss Factor	1.0510
				33 Revenue Tax Req Multiplier	1.0975
				34 DG FACTOR, ¢/kWh (Line 31 x 32 x 33)	0.00000
				SUMMARY OF	
				TOTAL GENERATION FACTOR, ¢/kWh	
				35 CNTRL STN + OTHER (line 24)	(11.67838)
				36 DG (line 34)	-
				37 TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)	(11.67838)

¹ The Manele CHP experienced a catastrophic fire on March 6, 2015. Its return to service is undetermined at this time.

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line

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

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>	
	PURCHASED ENERGY PRICE, ¢/kWh	
38	LANAI SOLAR RESEARCH - On Peak	27.000
39	- Off Peak	27.000
40	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, %	
41	LANAI SOLAR RESEARCH - On Peak	100.00%
42	- Off Peak	0.00%
43	Sch Q	0.00%
44	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43))	27.000
45	% Input to System kWh Mix	8.09%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	2.18430
47	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	27.000
48	Base % Input to Sys kWh Mix	10.35
49	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))	2.79450
50	COST LESS BASE(lines (46 - 49))	(0.61020)
51	Loss Factor	1.051
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	(0.70385)

Line SYSTEM COMPOSITE CALCULATIONS

54 GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (12.38223)
(lines (37 + 53))
55 Adjustment, ¢/kWh 0.000
56 ECA Reconciliation Adjustment (0.341)
57 ECA FACTOR, ¢/kWh (12.723)
(lines (54 + 55 + 56))

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

MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
9/21/2016	3,410.19	19,540.39	299,709.85
Estimated Use	1,376.93	7,889.81	122,184.74
Estimated Received	1,285.71	7,367.12	116,453.31
Estimated Additional	795.17	4,556.30	69,958.80
Estimated End	4,114.14	23,574.00	363,937.22

Next Month's Combined Miki Expense (\$/bbl) = \$ 88.4601 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

<u>Type of Oil Burned</u>	<u>Price</u>	<u>Conversion Factor</u>	<u>Prices ¢/MBTU</u>
Diesel - Miki Basin	\$ 88.4601	5.73 BTU/BBL	1,543.81

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

Contract Prices effective September 1, 2016

TYPE OF OIL BURNED \$/BBL ¢/MBTU

MIKI BASIN - ULTRA LOW SULFUR DIESEL (DYED)

Tax *	1.5120	26.39
Ocean Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

MIKI BASIN - ULTRA LOW SULFUR DIESEL

Tax *	1.5120	26.39
Ocean Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

* 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.
Lanai Division
ECA Reconciliation Adjustment

October 2016

1. Amount to be refunded	(\$21,600)
2. Monthly amount (1 / 3 X Line 1)	(\$7,200)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$7,902)
5. Estimated Sales (October 2016)	2,314 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.341 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
LANAI 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					(2,067)	(2,151)	1,855
January '16					(2,067)	(2,194)	(339)
February	(13,300)	(4)	(208)	(13,092)	4,433	4,591	(8,840)
March					4,433	4,930	(3,910)
April					4,433	5,061	1,151
May	14,900	(1)	528	14,372	(4,967)	(5,627)	9,896
June					(4,967)	(5,492)	4,404
July					(4,967)	(5,749)	(1,345)
August	21,600	(2)	(557)	22,157	(7,200)	(8,334)	12,478
September					(7,200)		
October					(7,200)		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 13)
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.
Lanai Division
Calculations of the Average Residential Customer Bill

	Rate		Charge (\$) at 400 Kwh			
	09-01-16	10-01-16	09-01-16	10-01-16	Difference	
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	32.2668	32.2668	129.07	129.07	0.00
Non-fuel Fuel Energy Charge						
First 250 kWhr per month	¢/kWh	9.1240	9.1240	22.81	22.81	0.00
Next 500 kWhr per month	¢/kWh	11.6240	11.6240	17.44	17.44	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				177.82	177.82	0.00
IRP Refund	% on base	0.0000	0.0000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	1.4082	1.4082	5.63	5.63	0.00
PBF Surcharge	¢/kWh	0.5865	0.5865	2.35	2.35	0.00
Renewable Energy Infrastructure Cost						
Recovery Provision	¢/kWh	0.0099	0.0099	0.04	0.04	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	-12.634	-12.723	-50.54	-50.89	-0.35
Green Infrastructure Fee	\$	1.13	1.13	1.13	1.13	0.00
Avg Residential Bill at 400 kwh				136.43	136.08	

Increase (Decrease -)	-0.35
% Change	-0.26%

	Rate		Charge (\$) at 500 Kwh			
	09-01-16	10-01-16	09-01-16	10-01-16	Difference	
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	32.2668	32.2668	161.33	161.33	0.00
Non-fuel Fuel Energy Charge						
First 250 kWhr per month	¢/kWh	9.1240	9.1240	22.81	22.81	0.00
Next 500 kWhr per month	¢/kWh	11.6240	11.6240	29.06	29.06	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				221.70	221.70	0.00
IRP Refund	% on base	0.0000	0.0000	0.00	0.00	0.00
Revenue Balancing 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
Energy Cost Adjustment	¢/kWh	-12.634	-12.723	-63.17	-63.62	-0.45
Green Infrastructure Fee	\$	1.13	1.13	1.13	1.13	0.00
Avg Residential Bill at 500 kwh				169.68	169.23	

Increase (Decrease -)	-0.45
% Change	-0.27%

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

<u>EFFECTIVE DATE</u>	FUEL FACTOR		RESIDENTIAL BILL (\$)
	CENTS / KWH	RESIDENTIAL & COMMERCIAL	
		<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 1, 2014	0.693	187.14	233.37
February 1, 2014	1.420	190.05	237.00
March 1, 2014	1.370	189.85	236.75
April 1, 2014	1.854	190.81	237.94
May 1, 2014	-1.036	180.23	224.72
June 1, 2014	0.013	187.69	234.05
July 1, 2014	0.208	189.21	235.94
August 1, 2014	-0.179	187.66	234.00
September 1, 2014	-0.244	187.40	233.68
October 1, 2014	-3.591	174.02	216.94
November 1, 2014	-1.766	181.32	226.07
December 1, 2014	-3.365	175.18	218.07
January 1, 2015	-4.698	169.85	211.41
February 1, 2015	-7.361	159.20	198.09
March 1, 2015	-8.793	153.47	190.93
April 1, 2015	-6.831	160.22	199.37
May 1, 2015	-9.750	149.64	186.15
June 8, 2015	-8.842	153.16	190.56
July 1, 2015	-7.314	158.27	196.91
August 1, 2015	-8.457	153.70	191.19
September 1, 2015	-10.465	145.71	181.20
October 1, 2015	-12.259	138.53	172.23
November 1, 2015	-12.177	138.86	172.64
December 1, 2015	-11.304	142.35	177.01
January 1, 2016	-12.957	135.62	168.62
February 1, 2016	-14.236	130.51	162.23
March 1, 2016	-15.833	124.12	154.24
April 1, 2016	-15.204	125.90	156.47
May 1, 2016	-13.856	132.03	164.13
June 1, 2016	-12.617	136.22	169.37
July 1, 2016	-11.833	139.64	173.68
August 1, 2016	-12.201	138.17	171.84
September 1, 2016	-12.634	136.43	169.68
October 1, 2016	-12.723	136.08	169.23

**MAUI ELECTRIC COMPANY, LTD. -- Lanai 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	2.68 PERCENT ON BASE
02/01/11 - 02/28/11	IRP RECOVERY REFUND	-4.332 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	-0.356 PERCENT ON BASE
06/01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
01/01/12 - 12/31/12	RESID. PBF SURCHARGE ADJUSTMENT	0.6766 CENTS/KWH
04/01/12 - 04/30/12	SOLARSAVER ADJUSTMENT	-0.2392 CENTS/KWH
05/01/12 - 03/31/13	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
5/4/2012 - 07/31/13	FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR)	
6/1/2012 - 07/31/13	INTERIM RATE INCREASE 2012 TEST YEAR	4.02 PERCENT ON BASE
01/01/13 - 06/30/13	RESID. PBF SURCHARGE ADJUSTMENT	0.7850 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
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)	
04/01/14 - 04/30/14	SOLARSAVER ADJUSTMENT	-0.2453 CENTS/KWH
05/01/14 - 03/31/15	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/14 - 05/31/15	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.6239 CENTS/KWH
07/01/14 - 11/30/14	RESID. PBF SURCHARGE ADJUSTMENT	1.0157 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
04/01/15 - 04/30/15	SOLARSAVER ADJUSTMENT	-0.2744 CENTS/KWH
05/01/15 - 03/31/16	SOLARSAVER ADJUSTMENT	0.0000 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 - 06/30/16	RESID. PBF SURCHARGE ADJUSTMENT	0.4749 CENTS/KWH
07/01/15 - 12/31/15	GREEN INFRASTRUCTURE FEE	1.42 DOLLARS/MONTH
08/17/15 - 02/29/16	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0103 CENTS/KWH
01/01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE	1.3000 DOLLARS/MONTH
03/01/16	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0099 CENTS/KWH
04/01/16 - 04/30/16	SOLARSAVER ADJUSTMENT	-0.1835 CENTS/KWH
05/01/16	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/16	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.4082 CENTS/KWH
07/01/16	RESID. PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH
07/01/16	GREEN INFRASTRUCTURE FEE	1.13 DOLLARS/MONTH

~ Surcharges currently in effect are in bold.

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