



SHARON M. SUZUKI  
President

February 24, 2017

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

PUBLIC UTILITIES  
COMMISSION

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for March 2017

Maui Electric Company, Limited's ("Maui Electric" or "Company") March 2017 energy cost adjustment factor for our Maui Division is -7.314 cents per kilowatt-hour ("kWh"), an increase of 0.933 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$148.32, an increase of \$4.67 compared to rates effective February 1, 2017.

The Company's Maui Division fuel composite cost of generation, central station and other decreased 24.79 cents per million BTU to 1,162.00 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.866 cents per kWh to 19.191 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for March 2017 is -10.975 cents per kWh, an increase of 0.243 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$143.21, an increase of \$0.97 compared to rates effective February 1, 2017.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 25.04 cents per million BTU to 1,684.17 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.

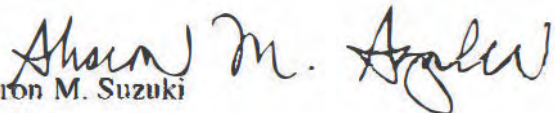
The energy cost adjustment factor for our Moloka'i Division for March 2017 is -8.066 cents per kWh, an increase of 0.726 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$140.61, an increase of \$2.91 compared to rates effective February 1, 2017.

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 60.39 cents per million BTU to 1,466.60 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 March 1, 2017.

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>02-01-17</u>	<u>03-01-17</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,659.13	1,684.17	25.04
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	(11.218)	(10.975)	0.243
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(11.218)	(10.975)	0.243
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	142.24	143.21	0.97
500 KWH Consumption, \$/Bill	176.90	178.11	1.21

Supersedes Sheet Effective:

February 1, 2017

MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - March 1, 2017 (page 1 of 2)

Line

1 Effective Date March 1, 2017  
2 Supersedes Factors of February 1, 2017

**GENERATION COMPONENT**

<b>CENTRAL STATION</b>						
FUEL PRICES, ¢/mmbtu						
3	Industrial			0.00		
4	Diesel - Miki Basin			1,684.17		
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 <sup>1</sup>			0.00%		
10	Other			0.00%		
				100.00%		
11	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))			1,684.17		
12	% Input to System kWh Mix			90.85%		
EFFICIENCY FACTOR, mmbtu/kWh						
	(A)	(B)	(C)	(D)		
			Percent of			
	Fuel Type	Eff Factor mmbtu/kwh	Centrl Stn + Other	Weighted Eff Factor		
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): Cd(B) x Cd(C) = Cd(D)					
16	Weighted Efficiency Factor, mmbtu/kWh [(lines 13(D) + 14(D) + 15(D))]			0.011151		
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))			17.06179		
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 (lines (18 x 19 x 20))			26.46322		
22	COST LESS BASE (line(17 - 21))			(9.40143)		
23	Revenue Tax Req Multiplier			1.0975		
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))			-10.31807		
					<b>DG ENERGY COMPONENT</b>	
	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)		(10.31807)		
	36	DG (line 34)		-		
	37	TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)		(10.31807)		

<sup>1</sup> 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 - March 1, 2017 (page 2 of 2)

<u>Line</u>		
1	Effective Date	March 1, 2017
2	Supersedes Factors of	February 1, 2017

<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	9.15%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	2.47050
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))	(0.32400)
51	Loss Factor	1.051
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	(0.37373)

<u>Line</u>	<u>SYSTEM COMPOSITE CALCULATIONS</u>	
54	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (37 + 53))	(10.69180)
55	Adjustment, ¢/kWh	0.000
56	ECA Reconciliation Adjustment	(0.283)
57	ECA FACTOR, ¢/kWh (lines (54 + 55 + 56))	(10.975)

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

**MONTH END FUEL OIL ESTIMATE**

<u>Miki Basin - ULSD</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
2/16/2017	4,664.95	26,730.16	447,472.80
Estimated Use	1,650.55	9,457.65	156,914.73
Estimated Received	1,285.71	7,367.12	124,415.59
Estimated Additional	-	-	-
Estimated End	<u>4,300.11</u>	<u>24,639.63</u>	<u>414,973.66</u>

Next Month's Combined Miki Expense (\$/bbl) = \$ 96.5030 /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	\$ 96.5030	5.73 BTU/BBL	1,684.17

MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION

Contract Prices effective February 1, 2017

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
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**MIKI BASIN - ULTRA LOW SULFUR DIESEL (DYED)**

Tax *	1.6002	27.93
Ocean Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

**MIKI BASIN - ULTRA LOW SULFUR DIESEL**

Tax *	11.8062	206.04
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, Environmental Response Tax, Customs Duty Fee, Fed Oil Spill Recovery Fee, Federal Oil Spill Liability Tax, and Federal Excise 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**

**March 2017**

1. Amount to be refunded	(\$17,200)
2. Monthly amount (1 / 3 X Line 1)	(\$5,733)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$6,292)
5. Estimated Sales (March 2017)	2,224 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.283 ¢/kwh



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

<u>Month</u>	(1) YTD FOA <u>Reconciliation</u>	(2) FOA Rec Adjust <u>Qtr</u> <u>Variance</u>	(3) FOA Rec Less <u>Variance</u>	(4) Try to Collect	(5) Actual Collect	(6) Month-end Cumulative <u>Balance</u>
December '16				(3,767)	(4,443)	1,351
January '17				(3,767)	(3,949)	(2,598)
February	17,200	(4) (2,409)	19,609	(5,733)		
March				(5,733)		

## 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  
FUEL OIL ADJUSTMENT FACTOR DATA**

FUEL FACTOR  
CENTS / KWH  
RESIDENTIAL & RESIDENTIAL BILL (\$)  
EFFECTIVE DATE    COMMERCIAL @ 400 KWH    @ 500 KWH

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
November 1, 2016	-12.595	136.59	169.87
December 1, 2016	-11.160	142.33	177.05
January 1, 2017	-11.861	139.67	173.68
February 1, 2017	-11.218	142.24	176.90
March 1, 2017	-10.975	143.21	178.11

**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
<b>06/01/11</b>	<b>IRP RECOVERY REFUND</b>	<b>0.000 PERCENT ON BASE</b>
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
<b>08/01/13</b>	<b>FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR)</b>	
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 - 02/28/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0099 CENTS/KWH
04/01/16 - 04/30/16	SOLARSAVER ADJUSTMENT	-0.1835 CENTS/KWH
<b>05/01/16</b>	<b>SOLARSAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
<b>06/01/16</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>1.4082 CENTS/KWH</b>
<b>07/01/16</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.5865 CENTS/KWH</b>
07/01/16 - 12/31/16	GREEN INFRASTRUCTURE FEE	1.13 DOLLARS/MONTH
<b>01/01/17</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.27 DOLLARS/MONTH</b>
<b>03/01/17</b>	<b>RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION</b>	<b>0.0098 CENTS/KWH</b>

~ Surcharges currently in effect are in bold.

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