State of Hawaii



Public Utilities Commission

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Form: Hawaii PUC eFile Non-Docketed Entity: Maui Electric Company, Limited

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SHARON M. SUZUKI President

March 29, 2016

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 April 2016

Maui Electric Company, Limited's ("Maui Electric" or "Company") April 2016 energy cost adjustment factor for our Maui Division is -8.768 cents per kilowatt-hour ("kWh"), an increase of 0.428 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$140.37, an increase of \$1.20 compared to rates effective March 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$2.14), the decrease in the Purchased Power Adjustment Clause rate (-\$0.02), and the credit for the SolarSaver Adjustment (-\$0.92).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 18.33 cents per million BTU to 858.01 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.060 cents per kWh to 18.878 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for April 2016 is -15.204 cents per kWh, an increase of 0.629 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$125.90, an increase of \$1.78 compared to rates effective March 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$2.51) and the credit for the SolarSaver Adjustment (-\$0.73).

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 43.23 cents per million BTU to 1,252.80 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 April 2016 is -13.391 cents per kWh, a decrease of 0.742 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$118.92, a decrease of \$3.69 compared to rates effective March 1, 2016. The decrease in the typical residential bill is due to the decrease in the energy cost adjustment factor (-\$2.96) and the credit for the SolarSaver Adjustment (-\$0.73).

The Honorable Chair and Members of the Hawai'i Public Utilities Commission March 29, 2016 Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 60.44 cents per million BTU to 1,057.44 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 attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning April 1, 2016.

Sincerely,

/s/ Sharon M. Suzuki

Sharon M. Suzuki President

Attachments

cc: Division of Consumer Advocacy

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIV 03-01-16	E DATES <u>04-01-16</u>	<u>Change</u>
COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,117.88 0.00 21.80	1,057.44 0.00 21.80	(60.44) 0.00 0.00
Residential Schedule "R"			
Energy Cost Adjustment, ¢/kWh	(12.649)	(13.391)	(0.742)
Others - "G,P,F"			
Energy Cost Adjustment, ¢/kWh	(12.649)	(13.391)	(0.742)
Residential Customer with			
400 KWH Consumption, \$/Bill 500 KWH Consumption, \$/Bill	122.61 152.45	118.92 147.82	(3.69) (4.63)

Supersedes Sheet Effective: March 1, 2016

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

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

Line

1 Effective Date April 1, 2016 2 Supercedes Factors March 1, 2016

GENERATION COMPONENT

FUEL PRICES, ¢/mmbtu	
3 Industrial 0.00	
4 Diesel 1,057.44	
5 Other 0.00	
BTU MIX, % DG ENERGY COMPONE	NT
6 Industrial 0.00 23 COMPOSITE COST OF DG	
7 Diesel 100.00 ENERGY, ¢/kWh	0.000
8 Other 0.00 24 % Input to System kWh Mix	0.00
100.00	
25 WEIGHTED COMPOSITE DG ENER	RGY COST,
9 COMPOSITE COST OF GENERATION, ¢/kWh (Lines 23 x 24)	0.00000
CENTRAL STATION + OTHER ¢/mmbtu 1,057.44	
(Lines (3 x 6) + (4 x 7) + (5 x 8))	
10 % Input to System kWh Mix 99.76 26 BASE DG ENERGY COMP COST	0.000
27 Base % Input to System kWh Mix	0.00
EFFICIENCY FACTOR, mmbtu/kWh 28 WEIGHTED BASE DG ENERGY CO	OST,
(A) (B) (C) (D) ¢/kWh (Line 26 x 27)	0.00000
Percent of	
Eff Factor Centrl Stn + Weighted 29 Cost Less Base (Line 25 - 28)	0.00000
<u>Fuel Type</u> <u>mmbtu/kwh</u> <u>Other</u> <u>Eff Factor</u> 30 Loss Factor	1.095
11 Industrial 0.000000 0.00 0.000000 31 Revenue Tax Req Multiplier	1.0975
12 Diesel 0.011194 100.00 0.011194 32 DG FACTOR,	0.00000
13 Other 0.011194 0.00 0.000000 ¢/kWh (Line 29 x 30 x 31)	0.00000
(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)	
14 Weighted Efficiency Factor, mmbtu/kWh [lines 11(D) + 12(D) + 13(D)] 0.011194	
[IIIIes $11(D) + 12(D) + 13(D)$] 0.011194	
15 WEIGHTED COMPOSITE CENTRAL STATION +	
OTHER GENERATION COST, ¢/kWh	
(lines (9 x 10 x 14)) 11.80882	
40 DAGE CENTRAL CTATION - OTHER	
16 BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu 2.144.57	
17 Base % Input to Sys kWh Mix 99.91	
18 Efficiency Factor, mmbtu/kwh 0.011194	
19 WEIGHTED BASE CENTRAL STATION + OTHER	
GENERATION COST ¢/kWh	
(lines (16 x 17 x 18)) 23.98471	
` SUMMARY OF	
20 COST LESS BASE (line(15 - 19)) (12.17589) TOTAL GENERATION FACTOR, \$\psi\$	′kWh
21 Revenue Tax Req Multiplier 1.0975 33 CNTRL STN + OTHER (line 22)	-13.36304
22 CENTRAL STATION + OTHER GENERATION 34 DG (line 32)	0.00000
FACTOR, ¢/kWh (line (20 x 21)) (13.36304) 35 TOTAL GENERATION FACTOR,	
¢/kWh (lines 33 + 34)	-13.36304

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

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

Line

Effective Date April 1, 2016
 Supercedes Factors March 1, 2016

<u>Line</u>	PURCHASED ENERGY COMPONENT	
36 37	PURCHASED ENERGY PRICE, ¢/kWh FIT	21.800 0.000
38	Sch Q	0.000
39 40	PURCHASED ENERGY KWH MIX, % FIT	100.00
41	Sch Q	0.000
43	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 39) + (37 x 40) + (38 x 41)) % Input to System kWh Mix WEIGHTED COMPOSITE PURCHASED ENERG	21.800 0.24 Y
	COST, ¢/kWh (lines (42 x 43))	0.05187
46	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh Base % Input to Sys kWh Mix WEIGHTED BASE PURCHASED ENERGY	21.800 0.09
	COST, ¢/kWh (lines (45 x 46))	0.01962
49 50	COST LESS BASE (lines (44 - 47)) Loss Factor Revenue Tax Req Multiplier PURCHASED ENERGY FACTOR, ¢/kWh (lines (48 x 49 x 50))	0.03225 1.095 1.0975 0.03876

<u>Line</u> <u>SYSTEM COMPOSITE CALCULATIONS</u>

52 GENERATION AND PURCHASED ENERGY
FACTOR, ¢/kWh
(lines (35 + 51))
53 Adjustment, ¢/kWh
54 ECA Reconciliation Adjustment
55 ECA FACTOR, ¢/kWh
(lines (52 + 53 + 54))
(13.391)

Maui Electric Company, Ltd. Molokai Division

MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
3/21/2016	6,347.67	36,372.13	408,224.49
Estimated Use	1,423.22	8,155.05	91,163.93
Estimated Received	5,000.00	28,650.00	284,274.33
Estimated Additional	-	-	-
Estimated End	9,924.45	56,867.08	601,334.89

Next Months Expense = \$ 60.5913 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>		Prices ¢/MBTU
Diesel	\$ 60.5913	5.73 BTU/BBL	1057.44

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

Contract Prices effective March 1, 2016

TYPE OF OIL BURNED	\$/BBL	¢/MBTU
ULTRA LOW SULFUR DIE	SEL	
Tax *	1.4700	25.65
Ocean Transportation	1.8026	31.46
Storage	4.7171	82.32
Wharfage	0.2400	4.19

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.

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

MAUI ELECTRIC COMPANY, LTD. Molokai Division ECA Reconciliation Adjustment

April 2016

Amount to be refunded	(\$4,000)
2. Monthly amount (1/3 x Line 1)	(\$1,333)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$1,463)
5. Estimated Sales (April 2016)	2,187 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.067 ¢/kwh

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

<u>Month</u>	(1) YTD FOA Reconciliation	<u>Qtr</u>	(2) FOA Rec Adjust <u>Variance</u>	(3) FOA Rec Less <u>Variance</u>	(4) Try to <u>Collect</u>	(5) Actual <u>Collect</u>	(6) Month-end Cumulative <u>Balance</u>
December '15 January '16 February March April	4,000	(4)	(55)	4,055	(1,433) (1,433) (1,333) (1,333) (1,333)	(1,450) (1,417) (1,321)	1,370 (47) 2,687
NOTES:							
Col(1):	Quarterly FOA re A positive number			•		n under-colle	ection
Col(2):	FOA reconciliation starting with the	on adjus	stment variar	nce accumulat	ted during the	ast three mo	onths,

(Col(5) - Col(4))
Col(3): FOA reconciliation generated in the current quarter. The YTD FOA reconciliation

sales used to derive the \$/kwh adjustment and the actual recorded sales.

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. Molokai Division Calculations of the Average Residential Customer Bill

Base Rates Base Fuel/Energy Charge Non-fuel Fuel Energy Charge First 250 kWhr per month Next 500 kWhr per month Customer Charge Total Base Charges
IRP Refund
Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision SolarSaver Adjustment
Energy Cost Adjustment Green Infrastructure Fee
Avg Residential Bill at 400 kwh

	Rate	
	03-01-16	04-01-16
effective date:	08/01/13	08/01/13
¢/kWh	26.3468	26.3468
¢/kWh	11.4278	11.4278
¢/kWh	14.0778	14.0778
\$	8.50	8.50
% on base	0.000	0.000
¢/kWh	1.5987	1.5987
¢/kWh	0.4749	0.4749
¢/kWh	0.0099	0.0099
¢/kWh	0.0000	-0.1835
¢/kWh	-12.649	-13.391
, \$	1.30	1.30

Chara	o (¢) ot 4	00 Kud			
	Charge (\$) at 400 Kwh				
03-01-16	04-01-16	Difference			
105.39	105.39	0.00			
28.57	28.57	0.00			
21.12	21.12	0.00			
8.50	8.50	0.00			
163.58	163.58	0.00			
0.00	0.00	0.00			
6.39	6.39	0.00			
1.90	1.90	0.00			
0.04 0.00	0.04 -0.73	0.00 -0.73			
-50.60 1.30	-53.56 1.30	-2.96 0.00			
122.61	118.92				

Increase (Decrease -) % Change

-3.69 -3.01%

-4.63

-3.04%

Base Rates
Base Fuel/Energy Charge
Non-fuel Fuel Energy Charge
First 250 kWhr per month
Next 500 kWhr per month
Customer Charge
Total Base Charges
IRP Refund
Revenue Balancing Rate Adjus

Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision SolarSaver Adjustment

Energy Cost Adjustment Green Infrastructure Fee

Avg Residential Bill at 500 kwh

Rate					
	03-01-16	04-01-16			
effective date:	08/01/13	08/01/13			
¢/kWh	26.3468	26.3468			
¢/kWh	11.4278	11.4278			
¢/kWh	14.0778	14.0778			
\$	8.50	8.50			
% on base	0.000	0.000			
¢/kWh	1.5987	1.5987			
¢/kWh	0.4749	0.4749			
¢/kWh	0.0099	0.0099			
¢/kWh	0.0000	-0.1835			
¢/kWh	-12.649	-13.391			
\$	1.30	1.30			

Charge (\$) at 500 Kwh							
03-01-16	04-01-16	Difference					
131.73	131.73	0.00					
28.57	28.57	0.00					
35.19	35.19	0.00					
8.50	8.50	0.00					
203.99	203.99	0.00					
0.00	0.00	0.00					
7.99	7.99	0.00					
2.37	2.37	0.00					
0.05	0.05	0.00					
0.00	-0.92	-0.92					
0.00	-0.52	-0.52					
-63.25	-66.96	-3.71					
		_					
1.30	1.30	0.00					
152.45	147.82						

Increase (Decrease -) % Change

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

EEEECTIVE DATE	FUEL FACTOR CENTS / KWH RESIDENTIAL &		IAL BILL (\$)
EFFECTIVE DATE	COMMERCIAL	<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 1, 2014	3.885	185.67	231.62
February 1, 2014	4.590	188.49	235.14
March 1, 2014	4.652	188.74	235.45
April 1, 2014	4.585	187.49	233.89
May 1, 2014	4.690	188.89	235.64
June 1, 2014	4.779	192.52	240.17
July 1, 2014	5.145	194.72	242.92
August 1, 2014	4.697	192.93	240.68
September 1, 2014	-2.835	162.80	203.01
October 1, 2014	1.864	181.60	226.51
November 1, 2014	2.683	184.87	230.61
December 1, 2014	1.266	179.46	223.52
January 1, 2015	-0.141	173.84	216.48
February 1, 2015	-3.412	160.75	200.13
March 1, 2015	-6.056	150.18	186.91
April 1, 2015	-6.122	148.81	185.21
May 1, 2015	-6.727	147.49	183.55
June 8, 2015	-7.453	144.48	179.79
July 1, 2015	-6.185	148.55	184.84
August 1, 2015	-5.864	149.83	186.45
September 1, 2015	-5.935	149.59	186.14
October 1, 2015	-9.896	133.75	166.34
November 1, 2015	-10.149	132.73	165.07
December 1, 2015	-9.676	134.63	167.44
January 1, 2016	-9.942	133.44	165.99
February 1, 2016	-11.270	128.13	159.35
March 1, 2016	-12.649	122.61	152.45
April 1, 2016	-13.391	118.92	147.82

MAUI ELECTRIC COMPANY, LTD. -- Molokai 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	RESID. PBF SURCHARGE ADJUSTMENT FINAL RATE INCREASE (3.66%), DOCKET NO. 2006-0387 INTERIM RATE INCREASE 2010 TEST YEAR IRP RECOVERY REFUND IRP RECOVERY REFUND SOLARSAVER ADJUSTMENT SOLARSAVER ADJUSTMENT IRP RECOVERY REFUND IRP RECOVERY REFUND RESID. PBF SURCHARGE ADJUSTMENT SOLARSAVER ADJUSTMENT SOLARSAVER ADJUSTMENT FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 INTERIM RATE INCREASE 2012 TEST YEAR RESID. PBF SURCHARGE ADJUSTMENT SOLARSAVER ADJUSTMENT SOLARSAVER ADJUSTMENT SOLARSAVER ADJUSTMENT REVENUE BALANCING ACCOUNT RATE ADJUSTMENT REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	(2007 TEST	
01/12/11 - 05/03/12	INTERIM RATE INCREASE 2010 TEST YEAR	2.38	PERCENT ON BASE
02/01/11 - 02/28/11	IRP RECOVERY REFUND	-3.472	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	-0.204	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 - 7/31/13	FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163	(2010 TEST	
6/1/2012- 7/31/13	INTERIM RATE INCREASE 2012 TEST YEAR	4.11	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	-0.205	CENTS/KWH
05/01/13 - 03/31/14	SOLARSAVER ADJUSTMENT	0.000	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		
04/01/14 - 04/30/14	SOLARSAVER ADJUSTMENT		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 RESID. PBF SURCHARGE ADJUSTMENT GREEN INFRASTRUCTURE FEE SOLARSAVER ADJUSTMENT SOLARSAVER 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		0.000	CENTS/KWH
06/01/15 - 06/07/15	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH
06/08/15 07/01/15	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH
• • • • • • • • • • • • • • • • • • • •	RESID. PBF SURCHARGE ADJUSTMENT		CENTS/KWH
07/01/15 - 12/31/15	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
08/17/15 - 02/29/16	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0103	CENTS/KWH
01/01/16	GREEN INFRASTRUCTURE FEE	1 30	DOLLARS/MONTH
03/01/16	RENEWABLE ENERGY INFRASTRUCTURE COST		CENTS/KWH
	RECOVERY PROVISION	3.3300	
04/01/16	SOLARSAVER ADJUSTMENT	-0.1835	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.