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March 29, 2017

PUBLIC UTILITIES
COMMISSION

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

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for April 2017

Maui Electric Company, Limited's ("Maui Electric" or "Company") April 2017 energy cost adjustment factor for our Maui Division is -5.770 cents per kilowatt-hour ("kWh"), an increase of 1.545 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$155.35, an increase of \$7.03 compared to rates effective March 1, 2017. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$7.72) and credit for the SolarSaver Adjustment (-\$0.69).

The Company's Maui Division fuel composite cost of generation, central station and other increased 15.84 cents per million BTU to 1,177.84 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.052 cents per kWh to 19.243 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for April 2017 is -10.875 cents per kWh, an increase of 0.100 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$143.06, a decrease of \$0.15 compared to rates effective March 1, 2017. The decrease in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$0.40) and the credit for the SolarSaver Adjustment (-\$0.55).

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 15.85 cents per million BTU to 1,700.02 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.

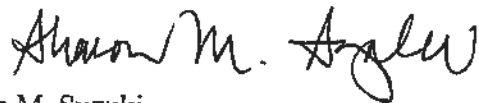
The energy cost adjustment factor for our Moloka'i Division for April 2017 is -8.432 cents per kWh, a decrease of 0.366 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$138.59, a decrease of \$2.02 compared to rates effective March 1, 2017. The decrease in the typical residential bill is due to the decrease in the energy cost adjustment factor (-\$1.47) and the credit for the SolarSaver Adjustment (-\$0.55).

The Honorable Chair and Members
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The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 30.52 cents per million BTU to 1,436.08 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, 2017.

Sincerely,



Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>03-01-17</u>	<u>04-01-17</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,466.60	1,436.08	(30.52)
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	21.80	21.80	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(8.066)	(8.432)	(0.366)
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(8.066)	(8.432)	(0.366)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	140.61	138.59	(2.02)
500 KWH Consumption, \$/Bill	174.95	172.43	(2.52)

Supersedes Sheet Effective:

March 1, 2017

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

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

<u>Line</u>		
1	Effective Date	April 1, 2017
2	Supercedes Factors	March 1, 2017

GENERATION COMPONENT

<u>CENTRAL STATION</u>						
FUEL PRICES, ¢/mmbtu						
3	Industrial					0.00
4	Diesel					1,436.08
5	Other					0.00
BTU MIX, %						
6	Industrial					0.00
7	Diesel					100.00
8	Other					0.00
						<u>100.00</u>
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))					1,436.08
10	% Input to System kWh Mix					99.75
EFFICIENCY FACTOR, mmbtu/kWh						
	(A)	(B)	(C)	(D)		
		Eff Factor	Percent of	Weighted		
	<u>Fuel Type</u>	<u>mmbtu/kwh</u>	<u>Centri Stn + Other</u>	<u>Eff Factor</u>		
11	Industrial	0.000000	0.00	0.000000		
12	Diesel	0.011194	100.00	0.011194		
13	Other	0.011194	0.00	0.000000		
	(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
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))					16.03570
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
20	COST LESS BASE (line(15 - 19))					(7.94901)
21	Revenue Tax Req Multiplier					1.0975
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))					(8.72404)
					<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)					0.00000
26	BASE DG ENERGY COMP COST					0.000
27	Base % Input to System kWh Mix					0.00
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					1.095
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)					-8.72404
34	DG (line 32)					0.00000
35	TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)					-8.72404

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

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

Line

1 Effective Date April 1, 2017
2 Supercedes Factors March 1, 2017

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>	
	PURCHASED ENERGY PRICE, ¢/kWh	
36	FIT	21.800
37		0.000
38	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, %	
39	FIT	100.00
40		0.00
41	Sch Q	0.000
42	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 39) + (37 x 40) + (38 x 41))	21.800
43	% Input to System kWh Mix	0.25
44	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (42 x 43))	0.05394
45	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	21.800
46	Base % Input to Sys kWh Mix	0.09
47	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (45 x 46))	0.01962
48	COST LESS BASE (lines (44 - 47))	0.03432
49	Loss Factor	1.095
50	Revenue Tax Req Multiplier	1.0975
51	PURCHASED ENERGY FACTOR, ¢/kWh (lines (48 x 49 x 50))	0.04124

Line

SYSTEM COMPOSITE CALCULATIONS

52 GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (8.68280)
(lines (35 + 51))
53 Adjustment, ¢/kWh 0.000
54 ECA Reconciliation Adjustment 0.251
55 ECA FACTOR, ¢/kWh (8.432)
(lines (52 + 53 + 54))

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
3/21/2017	8,466.26	48,511.68	699,130.36
Estimated Use	1,409.79	8,078.10	118,473.68
Estimated Received	-	-	-
Estimated Additional	-	-	-
Estimated End	<u>7,056.47</u>	<u>40,433.58</u>	<u>580,656.68</u>

Next Months Expense = \$ 82.2871 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

<u>Type of Oil Burned</u>	<u>Price</u>	<u>Prices ¢/MBTU</u>
Diesel	\$ 82.2871 5.73 BTU/BBL	1436.08

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

Contract Prices effective March 1, 2017

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
ULTRA LOW SULFUR DIESEL		
Tax *	12.3377	215.32
Ocean Transportation	1.6568	28.92
Storage	4.6442	81.05
Wharfage	0.2900	5.06

* Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST tax, Environmental Response Tax, Customs Duty Fee, Federal Oil Spill Recovery Fee, 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.
Molokai Division
ECA Reconciliation Adjustment

April 2017

1. Amount to be Collected	\$14,400
2. Monthly amount (1/3 x Line 1)	\$4,800
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	\$5,268
5. Estimated Sales (April 2017)	2,100 mwh
6. Adjustment (Line 4 ÷ Line 5)	0.251 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI 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 '16					9,300	9,580	(8,349)
January '17					9,300	10,066	1,717
February	(14,400)	(4)	957	(15,357)	4,800	4,589	(9,051)
March					4,800		
April					4,800		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 20)
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.
Molokai Division
Calculations of the Average Residential Customer Bill**

	Rate		Charge (\$) at 400 Kwh			
	03-01-17	04-01-17	03-01-17	04-01-17	Difference	
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	26.3468	26.3468	105.39	105.39	0.00
Non-fuel Fuel Energy Charge						
First 250 kWh per month	¢/kWh	11.4278	11.4278	28.57	28.57	0.00
Next 500 kWh per month	¢/kWh	14.0778	14.0778	21.12	21.12	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				163.58	163.58	0.00
IRP Refund	% on base	0.000	0.000	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	0.0098	0.0098	0.04	0.04	0.00
SolarSaver Adjustment	¢/kWh	0.0000	-0.1378	0.00	-0.55	-0.55
Energy Cost Adjustment	¢/kWh	-8.066	-8.432	-32.26	-33.73	-1.47
Green Infrastructure Fee	\$	1.27	1.27	1.27	1.27	0.00
Avg Residential Bill at 400 kwh				140.61	138.59	

Increase (Decrease -)	-2.02
% Change	-1.44%

	Rate		Charge (\$) at 500 Kwh			
	03-01-17	04-01-17	03-01-17	04-01-17	Difference	
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	26.3468	26.3468	131.73	131.73	0.00
Non-fuel Fuel Energy Charge						
First 250 kWh per month	¢/kWh	11.4278	11.4278	28.57	28.57	0.00
Next 500 kWh per month	¢/kWh	14.0778	14.0778	35.19	35.19	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				203.99	203.99	0.00
IRP Refund	% on base	0.000	0.000	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	0.0098	0.0098	0.05	0.05	0.00
SolarSaver Adjustment	¢/kWh	0.0000	-0.1378	0.00	-0.69	-0.69
Energy Cost Adjustment	¢/kWh	-8.066	-8.432	-40.33	-42.16	-1.83
Green Infrastructure Fee	\$	1.27	1.27	1.27	1.27	0.00
Avg Residential Bill at 500 kwh				174.95	172.43	

Increase (Decrease -)	-2.52
% Change	-1.44%

**MAUI ELECTRIC COMPANY, LTD. -- Molokai 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>@ 400 KWH</u>	<u>@ 500 KWH</u>
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
May 1, 2016	-13.226		120.31	149.57
June 1, 2016	-13.376		118.95	147.87
July 1, 2016	-12.675		122.03	151.76
August 1, 2016	-9.906		133.11	165.61
September 1, 2016	-9.794		133.55	166.17
October 1, 2016	-11.131		128.21	159.48
November 1, 2016	-9.970		132.85	165.29
December 1, 2016	-9.244		135.75	168.92
January 1, 2017	-8.940		137.11	170.58
February 1, 2017	-8.792		137.70	171.32
March 1, 2017	-8.066		140.61	174.95
April 1, 2017	-8.432		138.59	172.43

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

<u>EFFECTIVE DATE</u>	<u>DESCRIPTION OF SURCHARGE</u>	<u>RATE</u>
01/01/11 - 12/31/11	RESID. PBF SURCHARGE ADJUSTMENT	0.5944 CENTS/KWH
01/12/11 - 05/03/12	FINAL RATE INCREASE (3.66%), DOCKET NO. 2006-0387 (2007 TEST YEAR)	
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 YEAR)	
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 (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	1.30 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
05/01/16 - 03/31/17	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 - 12/31/16	GREEN INFRASTRUCTURE FEE	1.13 DOLLARS/MONTH
01/01/17	GREEN INFRASTRUCTURE FEE	1.27 DOLLARS/MONTH
03/01/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0098 CENTS/KWH
04/01/17	SOLARSAVER ADJUSTMENT	-0.1378 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.

