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PUBLIC UTILITIES
COMMISSION

November 28, 2017

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 December 2017

Maui Electric Company, Limited's ("Maui Electric" or "Company") December 2017 Energy Cost Adjustment factor for our Maui Division is -7.839 cents per kilowatt-hour ("kWh"), a decrease of 2.534 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$145.51, a decrease of \$12.67 compared to rates effective November 1, 2017. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor.

The Company's Maui Division fuel composite cost of generation, central station and other decreased 122.27 cents per million BTU to 1,301.55 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 4.550 cents per kWh to 12.921 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for December 2017 is -9.353 cents per kWh, a decrease of 1.089 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$149.55, a decrease of \$4.35 compared to rates effective November 1, 2017. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor.

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 98.61 cents per million BTU to 1,864.77 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.

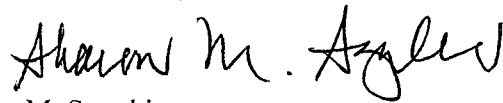
The Energy Cost Adjustment factor for our Moloka'i Division for December 2017 is -5.591 cents per kWh, a decrease of 0.679 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$150.36, a decrease of \$2.71 compared to rates effective November 1, 2017. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor.

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
November 28, 2017
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The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 55.36 cents per million BTU to 1,690.58 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 December 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>11-01-17</u>	<u>12-01-17</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,745.94	1,690.58	(55.36)
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	(4.912)	(5.591)	(0.679)
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(4.912)	(5.591)	(0.679)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	153.07	150.36	(2.71)
500 KWH Consumption, \$/Bill	190.56	187.16	(3.40)

Supersedes Sheet Effective:

November 1, 2017

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

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

<u>Line</u>		
1	Effective Date	December 1, 2017
2	Supercedes Factors	November 1, 2017

GENERATION COMPONENT

<u>CENTRAL STATION</u>						
FUEL PRICES, ¢/mmbtu						
3	Industrial			0.00		
4	Diesel			1,690.58		
5	Other			0.00		
BTU MIX, %						
6	Industrial			0.00		
7	Diesel			100.00		
8	Other			<u>0.00</u>		
				<u>100.00</u>		
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines 3 x 6) + (4 x 7) + (5 x 8))			1,690.58		
10	% Input to System kWh Mix			99.78		
EFFICIENCY FACTOR, mmbtu/kWh						
	(A)	(B)	(C)	(D)		
		Eff Factor	Percent of	Weighted		
	<u>Fuel Type</u>	<u>mmbtu/kwh</u>	<u>Centrl 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))			18.88341		
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))			(5.10130)		
21	Revenue Tax Req Multiplier			1.0975		
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))			(5.59868)		
<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)			-5.59868		
34	DG (line 32)			0.00000		
35	TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)			-5.59868		

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

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

<u>Line</u>		
1	Effective Date	December 1, 2017
2	Supercedes Factors	November 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	0.22
44	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (42 x 43))	0.04796
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))	0.02834
49	Loss Factor	1.095
50	Revenue Tax Req Multiplier	1.0975
51	PURCHASED ENERGY FACTOR, ¢/kWh (lines (48 x 49 x 50))	0.03406

<u>Line</u>	<u>SYSTEM COMPOSITE CALCULATIONS</u>	
52	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 51))	(5.56462)
53	Adjustment, ¢/kWh	0.000
54	ECA Reconciliation Adjustment	(0.026)
55	ECA FACTOR, ¢/kWh (lines (52 + 53 + 54))	(5.591)

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
11/20/2017	6,396.14	36,649.90	624,248.98
Estimated Use	1,467.05	8,406.20	146,767.06
Estimated Received	-	-	-
Estimated Additional	-	-	-
Estimated End	<u>4,929.09</u>	<u>28,243.70</u>	<u>477,481.92</u>

Next Months Expense = \$ 96.8702 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

<u>Type of Oil Burned</u>	<u>Price</u>	<u>Prices ¢/MBTU</u>
Diesel	\$ 96.8702 5.73 BTU/BBL	1690.58

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

Contract Prices effective November 1, 2017

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
ULTRA LOW SULFUR DIESEL		
Tax *	2.1200	37.00
Ocean Transportation	1.7752	28.71
Storage	4.6440	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

December 2017

1. Amount to be refunded	(\$1,600)
2. Monthly amount (1/3 x Line 1)	(\$533)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$585)
5. Estimated Sales (December 2017)	2,254 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.026 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
2017 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	5,142	(3,909)
April					4,800	5,253	1,344
May	(3,600)	(1)	897	(4,497)	1,200	1,209	(1,944)
June					1,200	1,373	(571)
July					1,200	1,327	756
August	(3,300)	(2)	635	(3,935)	1,100	1,271	(1,908)
September					1,100	1,216	(692)
October					1,100	1,094	402
November	1,600	(3)	414	1,186	(533)		
December					(533)		

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		
		11-01-17	12-01-17	11-01-17	12-01-17	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 kWhr per month	¢/kWh	11.4278	11.4278	28.57	28.57	0.00
Next 500 kWhr 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	1.5654	1.5654	6.26	6.26	0.00
PBF Surcharge	¢/kWh	0.4244	0.4244	1.70	1.70	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	-4.912	-5.591	-19.65	-22.36	-2.71
Green Infrastructure Fee	\$	1.18	1.18	1.18	1.18	0.00
Avg Residential Bill at 400 kwh				153.07	150.36	

Increase (Decrease -)	-2.71
% Change	-1.77%

	Rate			Charge (\$) at 500 Kwh		
		11-01-17	12-01-17	11-01-17	12-01-17	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 kWhr per month	¢/kWh	11.4278	11.4278	28.57	28.57	0.00
Next 500 kWhr 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	1.5654	1.5654	7.83	7.83	0.00
PBF Surcharge	¢/kWh	0.4244	0.4244	2.12	2.12	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	-4.912	-5.591	-24.56	-27.96	-3.40
Green Infrastructure Fee	\$	1.18	1.18	1.18	1.18	0.00
Avg Residential Bill at 500 kwh				190.56	187.16	

Increase (Decrease -)	-3.40
% Change	-1.78%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH RESIDENTIAL & COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$)</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
May 1, 2017	-8.851	137.47	171.02
June 1, 2017	-8.516	139.44	173.49
July 1, 2017	-8.482	138.83	172.76
August 1, 2017	-9.670	134.08	166.82
September 1, 2017	-10.692	129.95	161.66
October 1, 2017	-9.093	136.35	169.65
November 1, 2017	-4.912	153.07	190.56
December 1, 2017	-5.591	150.36	187.16

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
06/01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
08/01/13	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR)	
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 - 05/31/17	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.4082 CENTS/KWH
07/01/16 - 06/30/17	RESID. PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH
07/01/16 - 12/31/16	GREEN INFRASTRUCTURE FEE	1.13 DOLLARS/MONTH
01/01/17 - 06/30/17	GREEN INFRASTRUCTURE FEE	1.27 DOLLARS/MONTH
03/01/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0098 CENTS/KWH
04/01/17 - 04/30/17	SOLARSAVER ADJUSTMENT	-0.1378 CENTS/KWH
05/01/17	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/17	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.5654 CENTS/KWH
07/01/17	GREEN INFRASTRUCTURE FEE	1.18 DOLLARS/MONTH
07/01/17	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 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.