



FILED

December 27, 2016 2016 DEC 27 P 3:47

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 January 2017

Maui Electric Company, Limited's ("Maui Electric" or "Company") January 2017 energy cost adjustment factor for our Maui Division is -7.659 cents per kilowatt-hour ("kWh"), an increase of 1.410 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$146.59, an increase of \$7.18 compared to rates effective December 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$7.04) and the increase in the Green Infrastructure Fee (+\$0.14).

The Company's Maui Division fuel composite cost of generation, central station and other increased 45.41 cents per million BTU to 1,245.72 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 5.924 cents per kWh to 19.040 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for January 2017 is -11.861 cents per kWh, a decrease of 0.701 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$139.67, a decrease of \$2.66 compared to rates effective December 1, 2016. The decrease in the typical residential bill is due to the decrease in the energy cost adjustment factor (-\$2.80) and the increase in the Green Infrastructure Fee (+\$0.14).

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 79.25 cents per million BTU to 1,595.09 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.

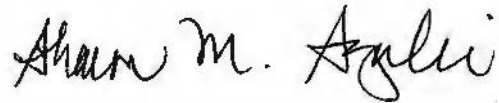
The energy cost adjustment factor for our Moloka'i Division for January 2017 is -8.940 cents per kWh, an increase of 0.304 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$137.11, an increase of \$1.36 compared to rates effective December 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$1.22) and the increase in the Green Infrastructure Fee (+\$0.14).

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
December 27, 2016
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 23.86 cents per million BTU to 1,378.09 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 January 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>12-01-16</u>	<u>01-01-17</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,354.23	1,378.09	23.86
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	(9.244)	(8.940)	0.304
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(9.244)	(8.940)	0.304
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	135.75	137.11	1.36
500 KWH Consumption, \$/Bill	168.92	170.58	1.66

Supersedes Sheet Effective:

December 1, 2016

1 Effective Date January 1, 2017
 2 Supercedes Factors December 1, 2016

GENERATION COMPONENT

CENTRAL STATION

FUEL PRICES, ¢/mmbtu

3 Industrial 0.00
 4 Diesel 1,378.09
 5 Other 0.00

BTU MIX, %

6 Industrial 0.00
 7 Diesel 100.00
 8 Other 0.00
100.00

9 COMPOSITE COST OF GENERATION,
 CENTRAL STATION + OTHER ¢/mmbtu 1,378.09
 (Lines (3 x 6) + (4 x 7) + (5 x 8))
 10 % Input to System kWh Mix 99.78

EFFICIENCY FACTOR, mmbtu/kWh

	(A)	(B)	(C)	(D)
		Eff Factor	Percent of Centrl Stn + Other	Weighted Eff Factor
	<u>Fuel Type</u>	<u>mmbtu/kwh</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)) 15.39214

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)) (8.59257)
 21 Revenue Tax Req Multiplier 1.0975
 22 CENTRAL STATION + OTHER GENERATION

DG ENERGY COMPONENT

23 COMPOSITE COST OF DG
 ENERGY, ¢/kWh
 24 % Input to System kWh Mix

25 WEIGHTED COMPOSITE DG ENERGY C
 ¢/kWh (Lines 23 x 24) 0.

26 BASE DG ENERGY COMP COST
 27 Base % Input to System kWh Mix
 28 WEIGHTED BASE DG ENERGY COST,
 ¢/kWh (Line 26 x 27) 0.

29 Cost Less Base (Line 25 - 28) 0.

30 Loss Factor

31 Revenue Tax Req Multiplier

32 DG FACTOR,
 ¢/kWh (Line 29 x 30 x 31) 0.

SUMMARY OF

TOTAL GENERATION FACTOR, ¢/kWh

33 CNTRL STN + OTHER (line 22) -9

34 DG (line 32) 0

1	Effective Date	January 1, 2017
2	Supercedes Factors	December 1, 2016

Line	<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))	
		0.04833
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))	
		0.02871
49	Loss Factor	1.095
50	Revenue Tax Req Multiplier	1.0975
51	PURCHASED ENERGY FACTOR, ¢/kWh (lines (48 x 49 x 50))	
		0.03450

Line SYSTEM COMPOSITE CALCULATIONS

52	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh	
	(lines (35 + 51))	(9.39585)
53	Adjustment, ¢/kWh	0.000
54	ECA Reconciliation Adjustment	0.456
55	ECA FACTOR, ¢/kWh (lines (52 + 53 + 54))	
		(8.940)

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
12/20/2016	4,303.81	24,660.83	334,768.08
Estimated Use	1,643.10	9,414.96	127,499.96
Estimated Received	5,800.00	33,234.00	460,829.93
Estimated Additional	-	-	-
Estimated End	<u>8,460.71</u>	<u>48,479.87</u>	<u>668,098.05</u>

Next Months Expense = \$ 78.9648 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

<u>Type of Oil Burned</u>	<u>Price</u>		<u>Prices ¢/MBTU</u>
Diesel	\$ 78.9648	5.73 BTU/BBL	1378.09

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

Contract Prices effective December 1, 2016

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
ULTRA LOW SULFUR DIESEL		
Tax *	1.4700	25.65
Ocean Transportation	1.7960	31.34
Storage	4.7171	82.32
Wharfage	0.2500	4.36

* 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.
Molokai Division
ECA Reconciliation Adjustment
January 2017

1. Amount to be Collected	\$27,900
2. Monthly amount (1/3 x Line 1)	\$9,300
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	\$10,207
5. Estimated Sales (January 2017)	2,238 mwh
6. Adjustment (Line 4 ÷ Line 5)	0.456 ¢/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 '15					(1,433)	(1,450)	1,370
January '16					(1,433)	(1,417)	(47)
February	4,000	(4)	(55)	4,055	(1,333)	(1,321)	2,687
March					(1,333)	(1,326)	1,361
April					(1,333)	(1,381)	(20)
May	(5,900)	(1)	35	(5,935)	1,967	1,994	(3,961)
June					1,967	2,099	(1,862)
July					1,967	2,103	241
August	(11,400)	(2)	111	(11,511)	3,800	4,201	(7,069)
September					3,800	3,753	(3,316)
October					3,800	3,955	639
November	(27,900)	(3)	490	(28,390)	9,300	9,822	(17,929)
December					9,300		
January '17					9,300		

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))

Rates
 Fuel/Energy Charge
 Fuel Energy Charge
 First 250 kWh per month
 Next 500 kWh per month
 Customer Charge

Base Charges

Refund

Revenue Balancing Rate Adjustment
Surcharge
Renewable Energy Infrastructure Cost
Recovery Provision
Saver Adjustment

Energy Cost Adjustment
Renewable Infrastructure Fee

	Rate	
	12-01-16	01-01-17
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	1.4082	1.4082
¢/kWh	0.5865	0.5865
¢/kWh	0.0099	0.0099
¢/kWh	0.0000	0.0000
¢/kWh	-9.244	-8.940
\$	1.13	1.27

Charge (\$) at 400		
12-01-16	01-01-17	D
105.39	105.39	
28.57	28.57	
21.12	21.12	
8.50	8.50	
163.58	163.58	
0.00	0.00	
5.63	5.63	
2.35	2.35	
0.04	0.04	
0.00	0.00	
-36.98	-35.76	
1.13	1.27	
135.75	137.11	

Residential Bill at 400 kwh

Increase (Decrease -)
 % Change

Rates
 Fuel/Energy Charge
 Fuel Energy Charge
 First 250 kWh per month
 Next 500 kWh per month
 Customer Charge

Base Charges

Refund

Revenue Balancing Rate Adjustment
Surcharge
Renewable Energy Infrastructure Cost
Recovery Provision
Saver Adjustment

Energy Cost Adjustment
Renewable Infrastructure Fee

	Rate	
	12-01-16	01-01-17
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	1.4082	1.4082
¢/kWh	0.5865	0.5865
¢/kWh	0.0099	0.0099
¢/kWh	0.0000	0.0000
¢/kWh	-9.244	-8.940
\$	1.13	1.27

Charge (\$) at 500		
12-01-16	01-01-17	D
131.73	131.73	
28.57	28.57	
35.19	35.19	
8.50	8.50	
203.99	203.99	
0.00	0.00	
7.04	7.04	
2.93	2.93	
0.05	0.05	
0.00	0.00	
-46.22	-44.70	
1.13	1.27	

**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, 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
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

RESIDENTIAL SURCHARGE DATA

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
01/11 - 12/31/11	RESID. PBF SURCHARGE ADJUSTMENT	0.5944 CENTS/KWH
01/12 - 05/03/12	FINAL RATE INCREASE (3.66%), DOCKET NO. 2006-0387 (2007 TEST YEAR)	
01/12 - 05/03/12	INTERIM RATE INCREASE 2010 TEST YEAR	2.38 PERCENT ON BASE
01/11 - 02/28/11	IRP RECOVERY REFUND	-3.472 PERCENT ON BASE
01/11 - 04/30/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
01/11 - 04/30/11	SOLARSAVER ADJUSTMENT	-0.0888 CENTS/KWH
01/11 - 03/31/12	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
01/11 - 05/31/11	IRP RECOVERY REFUND	-0.204 PERCENT ON BASE
01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
01/12 - 12/31/12	RESID. PBF SURCHARGE ADJUSTMENT	0.6766 CENTS/KWH
01/12 - 04/30/12	SOLARSAVER ADJUSTMENT	-0.2392 CENTS/KWH
01/12 - 03/31/13	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
01/12 - 7/31/13	FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR)	
01/12 - 7/31/13	INTERIM RATE INCREASE 2012 TEST YEAR	4.11 PERCENT ON BASE
01/13 - 06/30/13	RESID. PBF SURCHARGE ADJUSTMENT	0.7850 CENTS/KWH
01/13 - 04/30/13	SOLARSAVER ADJUSTMENT	-0.205 CENTS/KWH
01/13 - 03/31/14	SOLARSAVER ADJUSTMENT	0.000 CENTS/KWH
01/13 - 05/31/14	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.8071 CENTS/KWH
01/13 - 06/30/14	RESID. PBF SURCHARGE ADJUSTMENT	0.8312 CENTS/KWH
01/13	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR)	
01/14 - 04/30/14	SOLARSAVER ADJUSTMENT	-0.2453 CENTS/KWH
01/14 - 03/31/15	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
01/14 - 05/31/15	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.6239 CENTS/KWH
01/14 - 11/30/14	RESID. PBF SURCHARGE ADJUSTMENT	1.0157 CENTS/KWH
01/14 - 06/30/15	RESID. PBF SURCHARGE ADJUSTMENT	0.7583 CENTS/KWH
01/14 - 06/30/15	GREEN INFRASTRUCTURE FEE	1.29 DOLLARS/MONTH
01/15 - 04/30/15	SOLARSAVER ADJUSTMENT	-0.2744 CENTS/KWH
01/15 - 03/31/16	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
01/15 - 06/07/15	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.0000 CENTS/KWH
01/15 - 05/31/16	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.5987 CENTS/KWH
01/15 - 06/30/16	RESID. PBF SURCHARGE ADJUSTMENT	0.4749 CENTS/KWH
01/15 - 12/31/15	GREEN INFRASTRUCTURE FEE	1.42 DOLLARS/MONTH
01/15 - 02/29/16	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0103 CENTS/KWH
01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE	1.30 DOLLARS/MONTH
01/16	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0099 CENTS/KWH
01/16 - 04/30/16	SOLARSAVER ADJUSTMENT	-0.1835 CENTS/KWH
01/16	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
01/16	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.4082 CENTS/KWH
01/16	RESID. PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH
01/16 - 12/31/16	GREEN INFRASTRUCTURE FEE	1.13 DOLLARS/MONTH
01/17	GREEN INFRASTRUCTURE FEE	1.27 DOLLARS/MONTH

Surcharges currently in effect are in bold.

Base charges include customer charge, demand charge, energy charge, power factor