

2017 AUG 29 P 3: 37

August 29, 2017

PURLIC 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 September 2017

Maui Electric Company, Limited's ("Maui Electric" or "Company") September 2017 Energy Cost Adjustment factor for our Maui Division is -9.278 cents per kilowatt-hour ("kWh"), a decrease of 1.410 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$138.24, a decrease of \$7.06 compared to rates effective August 1, 2017. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor (-\$7.05) and the decrease in the Purchased Power Adjustment Clause rate (-\$0.01).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 16.19 cents per million BTU to 1,057.04 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.934 cents per kWh to 18.147 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for September 2017 is -10.389 cents per kWh, an increase of 1.270 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$145.44, an increase of \$5.08 compared to rates effective August 1, 2017. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 104.96 cents per million BTU to 1,714.06 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 September 2017 is -10.692 cents per kWh, a decrease of 1.022 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$129.99, a decrease of \$4.09 compared to rates effective August 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 August 29, 2017 Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 83.37 cents per million BTU to 1,267.83 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 September 1, 2017.

Sincerely,

Sharon M. Suzuki

President

Attachments

cc: Division of Consumer Advocacy

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIV 08-01-17	'E DATES <u>09-01-17</u>	<u>Change</u>
COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,609.10 0.00 27.00	1,714.06 0.00 27.00	104.96 0.00 0.00
Residential Schedule "R"			
Energy Cost Adjustment, ¢/kWh	(11.659)	(10.389)	1.270
Others - "G,P,F"			
Energy Cost Adjustment, ¢/kWh	(11.659)	(10.389)	1.270
Residential Customer with			
400 KWH Consumption, \$/Bill	140.36	145.44	5.08
500 KWH Consumption, \$/Bill	174.58	180.93	6.35

Supersedes Sheet Effective: August 1, 2017

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line
1 Effective Date September 1, 2017 August 1, 2017 2 Supercedes Factors of

GENERATION COMPONENT

	CENTRAL STATION		1	
	FUEL PRICES, ¢/mmbtu			
2	Industrial	0.00		
-	Diesel - Miki Basin	1,664.08		
		1,871.28		
	Diesel - Manele Bay Other	0.00		
ь	Other	0.00		
	BTU MIX, %		DG ENERGY COMPONENT	
7	Industrial	0.00%	25 COMPOSITE COST OF DG	
8	Diesel - Miki Basin	75.88%	ENERGY, ¢/kWh	0.000
9	Diesel - Manele Bay	24.12%		
10	Other	0.00%	26 % Input to System kWh Mix	0.00%
	_	100.00%		
			27 WEIGHTED COMPOSITE DG ENERGY	
11	COMPOSITE COST OF GENERATION,		COST, ¢/kWh (Lines 25 x 26)	0.00000
	CENTRAL STATION + OTHER ¢/mmbtu	1,714.06	, , ,	
	(Lines $(3 \times 7) + (4 \times 8) + (5 \times 9) + (6 \times 10)$)			
12	% Input to System kWh Mix	90.23%	28 BASE DG ENERGY COMP COST	0.000
	,		29 Base % Input to System kWh Mix	0.00%
	EFFICIENCY FACTOR, mmbtu/kWh		30 WEIGHTED BASE DG ENERGY COST,	
	(A) (B) (C)	(D)	¢/kWh (Line 28 x 29)	0.00000
	Percent of	(-)	,,,,,,,,,(<u>=, = 0</u> ,	
	Eff Factor Centrl Stn +	Weighted	31 Cost Less Base (Line 27 - 30)	0.00000
	Fuel Type mmbtu/kwh Other	Eff Factor	32 Loss Factor	1.0510
13	Industrial 0.000000 0.00	0.000000	33 Revenue Tax Reg Multiplier	1.0975
14	Diesel 0.011151 100.00	0.011151	34 DG FACTOR,	
15	Other 0.011151 0.00	0.000000	¢/kWh (Line 31 x 32 x 33)	0.00000
	(Lines 13, 14, 15): Col(B) x Col(C) = Col(\$7.1111 (2.115 5 1 X 52 X 55)	0.0000
16	Weighted Efficiency Factor, mmbtu/kWh	υ ,		
	[lines 13(D) + 14(D) + 15(D)]	0.011151		
		0.011131		
17	WEIGHTED COMPOSITE CENTRAL STAT	ION +		
	OTHER GEN COST, ¢/kWh			
	(lines (11 x 12 x 16))	17.24610		
18	BASE CENTRAL STATION + OTHER GEN	FRATION		
10	COST, ¢/mmbtu	2,647.15		
10	Base % Input to Sys kWh Mix	89.65%		
	Efficiency Factor, mmbtu/kwh	0.011151		
	WEIGHTED BASE CENTRAL STATION +	0.011131		
1	OTHER GENERATION COST ¢/kWh			
	(lines (18 x 19 x 20))	26.46322		
	(11103 (10 x 13 x 20))	20.40322	SUMMARY OF	
20	COST ESS BASE (line/47 24))	(0.24742)		
	COST LESS BASE (line(17 - 21))	(9.21712)	•	
	Revenue Tax Req Multiplier	1.0975	` ' '	10.11579)
24	CENTRAL STATION + OTHER GENERATI	-	36 DG (line 34)	-
	FACTOR, ¢/kWh (line (22 x 23))	-10.11579	37 TOTAL GENERATION FACTOR,	10 11570
			¢/kWh (lines 35 + 36) (10.11579)

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line
1 Effective Date
2 Supercedes Factors of September 1, 2017 August 1, 2017

<u>Line</u>	PURCHASED ENERGY COMPOR	<u>NENT</u>
38 39	PURCHASED ENERGY PRICE, ¢/kWh LANAI SOLAR RESEARCH - On Peak - Off Peak	27.000 27.000
40	Sch Q	0.000
41 42	PURCHASED ENERGY KWH MIX, % LANAI SOLAR RESEARCH - On Peak - Off Peak	100.00% 0.00%
43	Sch Q	0.00%
45	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43)) % Input to System kWh Mix WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	27.000 9.77% 2.63790
48	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh Base % Input to Sys kWh Mix WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))	27.000 10.35 2.79450
51 52	COST LESS BASE(lines (46 - 49)) Loss Factor Revenue Tax Req Multiplier PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	(0.15660) 1.051 1.0975 (0.18063)

SYSTEM COMPOSITE CALCULATIONS Line

54	54 GENERATION AND PURCHASED ENERGY		
	FACTOR, ¢/kWh	(10.29642)	
	(lines (37 + 53))		
55	Adjustment, ¢/kWh	0.000	
56	ECA Reconciliation Adjustment	(0.093)	
57	ECA FACTOR, ¢/kWh	(10.389)	
	(lines (54 + 55 + 56))		

Maui Electric Company, Ltd. Lanai Division

MONTH END FUEL OIL ESTIMATE

Miki Basin - ULSD	Barrels	MBTU	\$
8/21/2017	3,580.76	20,517.75	334,263.06
Estimated Use	1,511.90	8,663.19	134,267.27
Estimated Received	2,000.00	11,460.00	187,977.80
Estimated Additional	<u> </u>		
Estimated End	4,068.86	23,314.56	387,973.59

Next Month's Combined Miki Expense (\$/bbl) = \$ 95.3519 /bbl

Manele CHP	Barrels	MBTU	\$
8/21/2017	163.81	938.63	19,180.94
Estimated Use	3.38	19.37	351.64
Estimated Received	-	-	-
Estimated Additional	805.54	4,615.74	84,745.91
Estimated End	965.97	5,535.00	103,575.21

Next Month's Manele Expense (\$/bbl) = \$ 107.2241 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>	Conversion Factor	Prices ¢/MBTU
Diesel - Miki Basin	\$ 95.3519	5.73 BTU/BBL	1,664.08
Diesel - Manele Bay	\$ 107.2241	5.73 BTU/BBL	1,871.28

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION

Contract Prices effective August 1, 2017

TYPE OF OIL BURNED	\$/BBL	¢/MBTU
MIKI BASIN - ULTRA LOV	V SULFUR DIESE	L (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 LOV	<u>V SULFUR DIESE</u>	<u>L</u>
Tax *	11.8062	206.04
Ocean Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
MANELE BAY - ULTRA LO		
Tax *	15.7907	275.58
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

September 2017

1. Amount to be refunded	(\$5,800)
2. Monthly amount (1/3 X Line 1)	(\$1,933)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$2,121)
5. Estimated Sales (September 2017)	2,286 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.093 ¢/kwh

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION 2017 Cumulative Reconciliation Balance

<u>Month</u>	(1) YTD FOA Reconciliation G	(2) FOA Rec Adjust tr Variance	(3) FOA Rec Less <u>Variance</u>	(4) Try to Collect	(5) Actual Collect	(6) Month-end Cumulative <u>Balance</u>
December '16 January '17 February March April May	17,200 (a	4) (2,409) 1) (1,818)	19,609 21,618	(3,767) (3,767) (5,733) (5,733) (5,733) (6,600)	(4,443) (3,949) (6,375) (6,727) (6,537) (7,182)	1,351 (2,598) 10,636 3,909 (2,628) 11,808
June July August September	5,800 (:	2) (2,345)	8,145	(6,600) (6,600) (1,933) (1,933)	(7,559) (7,242)	4,249 (2,993)
NOTES:						
Col(1):	Quarterly FOA r A positive numb		•		•	r-collection.
Col(2):	FOA reconciliati starting with the sales used to de (Col(5) - Col(4))	on adjustmen fourth prior m	t variance acc nonth; the diffe	umulated durii rence betweei	ng the last the n the estimate	ree months, ed recorded
Col(3):	FOA reconciliati	on generated	in the current	quarter. The	YTD FOA red	conciliation

difference minus the adjustment variance. Col(1) - Col(2)

Col(4): Col(5):

Col(6):

Amount that the FOA reconciliation adjustment is trying to collect. (Col(1) * 1/3)

Cumulative balance of the FOA reconciliation (Previous balance + Col(3) + Col(5))

Actual collected amount. (recorded sales * \$/kwh adjustment/1.09751)

Maui Electric Company, Ltd. Lanai 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					
	08-01-17	09-01-17			
effective date:	08/01/13	08/01/13			
¢/kWh	32.2668	32.2668			
¢/kWh	9.1240	9.1240			
¢/kWh	11.6240	11.6240			
\$	8.50	8.50			
% on base	0.0000	0.0000			
¢/kWh	1.5654	1.5654			
¢/kWh	0.4244	0.4244			
¢/kWh	0.0098	0.0098			
¢/kWh	0.0000	0.0000			
¢/kWh	-11.659	-10.389			
\$	1.18	1.18			

<u></u>				
	Charge (\$) at 400 Kwh			
08-01-17	09-01-17	Difference		
129.07	129.07	0.00		
22.81	22.81	0.00		
17.44	17.44	0.00		
8.50	8.50	0.00		
177.82	177.82	0.00		
0.00	0.00	0.00		
6.26	6.26	0.00		
1.70	1.70	0.00		
0.04 0.00	0.04 0.00	0.00 0.00		
-46.64	-41.56	5.08		
1.18	1.18	0.00		
140.36	145.44			

Increase (Decrease -) % Change

5.08 3.62%

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 500 kwh

Rate				
	08-01-17	09-01-17		
effective date:	08/01/13	08/01/13		
¢/kWh	32.2668	32.2668		
¢/kWh	9.1240	9.1240		
¢/kWh	11.6240	11.6240		
\$	8.50	8.50		
% on base	0.0000	0.0000		
¢/kWh	1.5654	1.5654		
¢/kWh	0.4244	0.4244		
¢/kWh	0.0098	0.0098		
¢/kWh	0.0000	0.0000		
¢/kWh	-11.659	-10.389		
\$	1.18	1.18		

Charge (\$) at 500 Kwh			
08-01-17	09-01-17	Difference	
161.33	161.33	0.00	
22.81	22.81	0.00	
29.06	29.06	0.00	
8.50	8.50	0.00	
221.70	221.70	0.00	
0.00	0.00	0.00	
7.83	7.83	0.00	
2.12	2.12	0.00	
0.05	0.05	0.00	
0.00	0.00	0.00	
-58.30	-51.95	6.35	
1.18	1.18	0.00	
174.58	180.93		

Increase (Decrease -) % Change

6.35
3.64%

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

FUEL FACTOR CENTS / KWH

RESIDENTIAL & RESIDENTIAL BILL (\$)			
EFFECTIVE DATE	COMMERCIAL		@ 500 KWH
	001111111111111111111111111111111111111	<u> </u>	<u> </u>
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
2000			
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
April 1, 2017	-10.875	143.06	177.92
May 1, 2017	-11.993	139.14	173.02
June 1, 2017	-11.149	143.14	178.03
July 1, 2017	-11.181	142.28	176.97
August 1, 2017	-11.659	140.36	174.58
September 1, 2017	-10.389	145.44	180.93

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
06/01/11	IRP RECOVERY REFUND	0.000	PERCENT ON BASE
08/01/13	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2	012 TEST Y	EAR)
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	0.0103	CENTS/KWH
	RECOVERY PROVISION		
01/01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
03/01/16 - 02/28/17	RENEWABLE ENERGY INFRASTRUCTURE COST	0.0099	CENTS/KWH
	RECOVERY PROVISION		
04/01/16 - 04/30/16	SOLARSAVER ADJUSTMENT		CENTS/KWH
05/01/16 - 03/31/17	SOLARSAVER ADJUSTMENT		CENTS/KWH
06/01/16 - 05/31/17	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH
07/01/16 - 06/30/17	RESID. PBF SURCHARGE ADJUSTMENT		CENTS/KWH
07/01/16 - 12/31/16	GREEN INFRASTRUCTURE FEE	_	DOLLARS/MONTH
01/01/17 - 06/30/17	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
03/01/17	RENEWABLE ENERGY INFRASTRUCTURE COST	0.0098	CENTS/KWH
04/04/47 04/00/47	RECOVERY PROVISION	0.4070	OENTO//ANIII
04/01/17 - 04/30/17	SOLARSAVER ADJUSTMENT		CENTS/KWH
05/01/17	SOLARSAVER ADJUSTMENT		CENTS/KWH
06/01/17	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH
07/01/17	GREEN INFRASTRUCTURE FEE	_	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.