

2017 JUN -1 P 3:52

SHARON M. SUZUKI President

June 1, 2017

PUBLIC UTILITIES
COMMISSION

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 June 2017
Revised Attachments Reflecting RBA Rate Adjustment

Enclosed for filing are revised Attachments 1, 7, 8A, 8B, 9, 10, 15, 16A, 16B, 17, 22, 23A, and 23B of Maui Electric Company, Limited 's ("Maui Electric" or "Company") June 2017 energy cost adjustment factor filing, reflecting the impact of the Company's Revenue Balancing Account ("RBA") rate adjustment, as approved by the Commission in Order No. 34581 issued on May 31, 2017.

On May 26, 2017, Maui Electric filed its energy cost adjustment factors for June 2017 and indicated that it would file the enclosed revised attachments after the Commission issued its decision on the Company's RBA rate adjustment proposal submitted in Transmittal No. 17-04 and incorporate the impact in the customer bill analysis. There is no change to the energy cost adjustment factors as filed May 26, 2017.

For our Maui Division, a residential customer consuming 500 kWh of electricity will be paying \$159.61, an increase of \$14.82 compared to rates effective May 1, 2017. The increase in the typical Maui Division residential bill is due to the increase in the energy cost adjustment factor (+\$14.03) and the increase in the RBA rate adjustment (+\$0.79).

For our Lāna'i Division, a residential customer consuming 400 kWh of electricity will be paying \$143.14, an increase of \$4.00 compared to rates effective May 1, 2017. The increase in the typical Lāna'i Division residential bill is due to the increase in the energy cost adjustment factor (+\$3.37) and the increase in the RBA rate adjustment (+\$0.63).

For our Moloka'i Division, a residential customer consuming 400 kWh of electricity will be paying \$139.44, an increase of \$1.97 compared to rates effective May 1, 2017. The increase in the typical Moloka'i Division residential bill is due to the increase in the energy cost adjustment factor (+\$1.34) and the increase in the RBA rate adjustment (+\$0.63).

The Honorable Chair and Members of the Hawai'i Public Utilities Commission June 1, 2017 Page 2

For the Commission's convenience, Maui Electric is refiling all of the attachments included in the May 26, 2017 filing. The revised attachments are notated with "Revised 6/1/17" in the headers; the other attachments are unchanged.

Sincerely,

Sharon M. Suzuk

President

Attachments

cc: Division of Consumer Advocacy

# MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

### **ENERGY COST ADJUSTMENT FACTOR**

	EFFECTIVE DATES <u>05-01-17</u> <u>06-01-17</u>		<u>Change</u>	
COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,417.57 0.00 21.80	1,444.45 0.00 21.80	26.88 0.00 0.00	
Residential Schedule "R"				
Energy Cost Adjustment, ¢/kWh	(8.851)	(8.516)	0.335	
Others - "G,P,F"				
Energy Cost Adjustment, ¢/kWh	(8.851)	(8.516)	0.335	
Residential Customer with				
400 KWH Consumption, \$/Bill 500 KWH Consumption, \$/Bill	137.47 171.02	139.44 173.49	1.97 2.47	

Supersedes Sheet Effective: May 1, 2017

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

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

<u>Line</u>

1 Effective Date June 1, 20172 Supercedes Factors May 1, 2017

### **GENERATION COMPONENT**

	CENTRAL S	TATION		
	FUEL PRICES, ¢/mmbtu			
3	Industrial		0.00	
4	Diesel		1,444.45	
5	Other		0.00	
	BTU MIX, %			DG ENERGY COMPONENT
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
			<u>100.00</u>	
				25 WEIGHTED COMPOSITE DG ENERGY COST,
9	COMPOSITE COST OF GENER			¢/kWh (Lines 23 x 24) 0.00000
	CENTRAL STATION + OTHER	**	1,444.45	
	(Lines $(3 \times 6) + (4 \times 7) + (5 \times 8)$	)		
10	% Input to System kWh Mix		99.75	26 BASE DG ENERGY COMP COST 0.000
				27 Base % Input to System kWh Mix 0.00
	EFFICIENCY FACTOR, mmbtu/l		(5)	28 WEIGHTED BASE DG ENERGY COST,
	(A) (B)	(C)	(D)	¢/kWh (Line 26 x 27) 0.00000
		ercent of	\\/ = : =   = t = =	00 0
		entrl Stn +	Weighted	29 Cost Less Base (Line 25 - 28) 0.00000
	Fuel Type mmbtu/kwh	Other 0.00	Eff Factor	30 Loss Factor 1.095
11	Industrial 0.000000	0.00	0.000000	31 Revenue Tax Req Multiplier 1.0975
12		100.00	0.011194	32 DG FACTOR,
13	Other 0.011194	0.00	0.000000	¢/kWh (Line 29 x 30 x 31) 0.00000
1.1	(Lines 11, 12, 13): Col(B) x Co Weighted Efficiency Factor, mmb			
14	[lines 11(D) + 12(D) + 13(D)]	Jlu/KVVII	0.011194	
	[IIIIes 11(D) + 12(D) + 13(D)]		0.011194	
15	WEIGHTED COMPOSITE CENT	TRAL STATION	I <sub>+</sub>	
. •	OTHER GENERATION COST,		•	
	(lines (9 x 10 x 14))	Ψ/	16.12837	
	(			
16	BASE CENTRAL STATION + O	ΓHER		
	GENERATION COST, ¢/mmb	otu	2,144.57	
17	Base % Input to Sys kWh Mix		99.91	
18	Efficiency Factor, mmbtu/kwh		0.011194	
19	WEIGHTED BASE CENTRAL S	TATION + OTH	IER	
	GENERATION COST ¢/kWh			
	(lines (16 x 17 x 18))		23.98471	
				SUMMARY OF
	COST LESS BASE (line(15 - 19)	)	(7.85634)	TOTAL GENERATION FACTOR, ¢/kWh
	Revenue Tax Req Multiplier		1.0975	33 CNTRL STN + OTHER (line 22) -8.62233
22	CENTRAL STATION + OTHER		,	34 DG (line 32) 0.00000
	FACTOR, ¢/kWh (line (20 x 21	))	(8.62233)	35 TOTAL GENERATION FACTOR,
				¢/kWh (lines 33 + 34) -8.62233

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

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

Line

Effective Date
 Supercedes Factors
 June 1, 2017
 May 1, 2017

<u>Line</u>	PURCHASED ENERGY COMPONENT	
	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
13	% Input to System kWh Mix	0.25
	WEIGHTED COMPOSITE PURCHASED ENERG	
	COST, ¢/kWh (lines (42 x 43))	0.05450
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
	COST LESS BASE (lines (44 - 47))	0.03488
	Loss Factor	1.095
	Revenue Tax Req Multiplier	1.0975
51	PURCHASED ENERGY FACTOR, ¢/kWh	0.04192
	(lines (48 x 49 x 50))	

### Line SYSTEM COMPOSITE CALCULATIONS

### Maui Electric Company, Ltd. Molokai Division

### MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
5/19/2017	7,219.90	41,370.05	600,821.21
Estimated Use	1,742.64	9,985.33	141,549.42
Estimated Received	5,500.00	31,515.00	449,282.97
Estimated Additional	<u> </u>		
Estimated End	10,977.26	62,899.72	908,554.76

Next Months Expense = \$82.7670 /bbl

### FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>		Prices ¢/MBTU
Diesel	\$ 82.7670	5.73 BTU/BBI	1444.45

### MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

### **Contract Prices effective May 1, 2017**

TYPE OF OIL BURNED	\$/BBL	¢/MBTU
ULTRA LOW SULFUR DIE	SEL	
Tax *	12.3253	215.10
Ocean Transportation	1.5469	27.00
Storage	4.6440	81.05
Wharfage	0.2900	5.06

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.

<sup>\*</sup> 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.

# MAUI ELECTRIC COMPANY, LTD. Molokai Division ECA Reconciliation Adjustment

### June 2017

1	. Amount to be Collected	\$3,600	
2	. Monthly amount (1/3 x Line 1)	\$1,200	
3	. Revenue Tax Divisor	0.91115	
4	. Total (Line 2 / Line 3)	\$1,317	
5	. Estimated Sales (June 2017)	2,068	mwh
6	. Adjustment (Line 4 ÷ Line 5)	0.064	¢/kwh

# MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION 2017 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 Collect	(6) Month-end Cumulative <u>Balance</u>
December '16 January '17 February March April May June	(14,400) (3,600)	(4) (1)	957 897	(15,357) (4,497)	9,300 9,300 4,800 4,800 4,800 1,200 1,200	9,580 10,066 4,589 5,142 5,253	(8,349) 1,717 (9,051) (3,909) 1,344
NOTES:							
Col(1):	Quarterly FOA r A positive numb			•	•		ection
Col(2):	FOA reconciliati starting with the sales used to de (Col(5) - Col(4))	on adju fourth perive the	stment variar prior month; t s \$/kwh adjus	nce accumulate he difference t stment and the	ed during the between the e actual record	last three mestimated recorded	onths, corded
Col(3):	FOA reconciliati	on gene	erated in the	current quartei	r. The YTD F	OA reconcili	ation

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. Molokai Division Calculations of the Average Residential Customer Bill

Paga Patas
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
PBF Surcharge Renewable Energy Infrastructure Cost
PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision
PBF Surcharge Renewable Energy Infrastructure Cost
PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision SolarSaver Adjustment
PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision

Avg Residential Bill at 400 kwh

	Rate	
	05-01-17	06-01-17
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	1.5654
¢/kWh	0.5865	0.5865
¢/kWh	0.0098	0.0098
¢/kWh	0.0000	0.0000
Ψ/ΚΨΙΙ	0.0000	0.0000
¢/kWh	-8.851	-8.516
\$	1.27	1.27

Chara	- (A) -+ 1	00 Kuda
	e (\$) at 4	
05-01-17	06-01-17	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
5.63	6.26	0.63
2.35	2.35	0.00
2.00	2.00	0.00
0.04	0.04	0.00
0.00	0.00	0.00
0.00	0.00	0.00
-35.40	-34.06	1.34
1.27	1.27	0.00
407.47	100.44	
137.47	139.44	

Increase (Decrease -) % Change

1.97 1.43%

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					
	05-01-17	06-01-17			
effective date:	08/01/13	08/01/13			
¢/kWh	26.3468	26.3468			
¢/kWh	11.4278	11.4278			
**	14.0778	14.0778			
¢/kWh					
\$	8.50	8.50			
% on base	0.000	0.000			
¢/kWh	1.4082	1.5654			
¢/kWh	0.5865	0.5865			
¢/kWh	0.0098	0.0098			
·					
¢/kWh	0.0000	0.0000			
¢/kWh	-8.851	-8.516			
\$	1.27	1.27			

Charge (\$) at 500 Kwh						
05-01-17	06-01-17	Difference				
131.73	131.73	0.00				
		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				
0.00	0.00	0.00				
7.04	7.83	0.79				
_						
2.93	2.93	0.00				
0.05	0.05	0.00				
0.00	0.00	0.00				
-44.26	-42.58	1.68				
_						
1.27	1.27	0.00				
171.02	173.49					

Increase (Decrease -) % Change

2.47 1.44%

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

EFECTIVE DATE	FUEL FACTOR CENTS / KWH RESIDENTIAL &		TAL BILL (\$)
EFFECTIVE DATE	COMMERCIAL	<u>@ 400 KWH</u>	@ 500 KWH
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 December 1, 2016	-9.970 0.244	132.85 135.75	165.29
December 1, 2016	-9.244	133.73	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

### 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	•	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	1.30	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	-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	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	0.0098	CENTS/KWH		
	RECOVERY PROVISION	0.0000	<u></u>		
04/01/17 - 04/30/17	SOLARSAVER ADJUSTMENT	-0 1378	CENTS/KWH		
05/01/17 - 04/30/17 05/01/17	SOLARSAVER ADJUSTMENT		CENTS/KWH		
06/01/17	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH		
UO/U I / I /	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.3034	CENTO/NVI		

<sup>~</sup> Surcharges currently in effect are in bold. ~ Base charges include customer charge, demand charge, energy charge, power factor adjustment, voltage discount and minimum charge.