

SHARON M. SUZUKI President

June 1, 2018

2018 JUN -1 P 4: 20

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 2018
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 2018 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. 35493. The enclosed revised Attachments 14 and 21 reflect corrections to first quarter 2018 reference.

On May 29, 2018, Maui Electric filed its energy cost adjustment factors for June 2018 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. 18-03 and incorporate the impact in the customer bill analysis. There is no change to the energy cost adjustment factors as filed May 29, 2018.

For our Maui Division, a residential customer consuming 500 kWh of electricity will be paying \$174.53, an increase of \$12.19 compared to rates effective May 1, 2018. The increase in the typical Maui Division residential bill is due to the increase in the energy cost adjustment factor (+\$10.54) and the increase in the RBA rate adjustment (+\$1.65).

For our Lāna'i Division, a residential customer consuming 400 kWh of electricity will be paying \$163.86, an increase of \$7.60 compared to rates effective May 1, 2018. The increase in the typical Lāna'i Division residential bill is due to the increase in the energy cost adjustment factor (+\$6.28) and the increase in the RBA rate adjustment (+\$1.32).

For our Moloka'i Division, a residential customer consuming 400 kWh of electricity will be paying \$160.24, an increase of \$7.48 compared to rates effective May 1, 2018. The increase in the typical Moloka'i Division residential bill is due to the increase in the energy cost adjustment factor (+\$6.16) and the increase in the RBA rate adjustment (+\$1.32).

The Honorable Chair and Members of the Hawai'i Public Utilities Commission June 1, 2018 Page 2

For the Commission's convenience, Maui Electric is refiling all of the attachments included in the May 29, 2018 filing. The revised attachments are notated with "Revised 6/1/18" in the headers; the other attachments are unchanged.

Sincerely,

Sharon M. Suzuki

President

Attachments

cc: Division of Consumer Advocacy

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		
	<u>05-01-18</u>	<u>06-01-18</u>	<u>Change</u>
COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,740.15 0.00 21.80	1,865.88 0.00 21.80	125.73 0.00 0.00
Residential Schedule "R"			
Energy Cost Adjustment, ¢/kWh	(5.031)	(3.490)	1.541
Others - "G,P,F"			
Energy Cost Adjustment, ¢/kWh	(5.031)	(3.490)	1.541
Residential Customer with			
400 KWH Consumption, \$/Bill 500 KWH Consumption, \$/Bill	152.76 190.12	160.24 199.48	7.48 9.36

Supersedes Sheet Effective: May 1, 2018

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

ENERGY COST ADJUSTMENT (ECA) FILING - June 1, 2018 (page 1 of 2)

Line

1 Effective Date June 1, 2018 2 Supercedes Factors May 1, 2018

GENERATION COMPONENT

	CENTRAL STATION		
	FUEL PRICES, ¢/mmbtu		
3	Industrial	0.00	
4	Diesel	1,865.88	
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 GENERATION,		¢/kWh (Lines 23 x 24) 0.00000
	CENTRAL STATION + OTHER ¢/mmbtu	1,865.88	
	(Lines (3 x 6) + (4 x 7) + (5 x 8))		
10	% Input to System kWh Mix	99.98	26 BASE DG ENERGY COMP COST 0.000
			27 Base % Input to System kWh Mix 0.00
	EFFICIENCY FACTOR, mmbtu/kWh		28 WEIGHTED BASE DG ENERGY COST,
	(A) (B) (C)	(D)	¢/kWh (Line 26 x 27) 0.00000
	Percent of		
	Eff Factor Centrl Stn +	Weighted	29 Cost Less Base (Line 25 - 28) 0.00000
	Fuel Type mmbtu/kwh Other	Eff Factor	30 Loss Factor 1.095
11	Industrial 0.000000 0.00	0.000000	31 Revenue Tax Req Multiplier 1.0975
12	Diesel 0.011194 100.00	0.011194	32 DG FACTOR,
13	Other 0.011194 0.00	0.000000	¢/kWh (Line 29 x 30 x 31) 0.00000
	(Lines 11, 12, 13): $Col(B) \times Col(C) = Col(D)$		
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))	20.88242	
16	BASE CENTRAL STATION + OTHER		
	GENERATION COST, ¢/mmbtu	2,144.57	
	Base % Input to Sys kWh Mix	99.91	
	Efficiency Factor, mmbtu/kwh	0.011194	
19	WEIGHTED BASE CENTRAL STATION + OTH	EK	
	GENERATION COST ¢/kWh		
	(lines (16 x 17 x 18))	23.98471	OLIMANDY OF
-00	000T LE00 DAGE (line (45 - 40))	(0.40000)	SUMMARY OF
	COST LESS BASE (line(15 - 19))	(3.10229)	
	Revenue Tax Req Multiplier	1.0975	33 CNTRL STN + OTHER (line 22) -3.40476
22	CENTRAL STATION + OTHER GENERATION	(0.40.470)	34 DG (line 32) 0.00000
	FACTOR, ¢/kWh (line (20 x 21))	(3.40476)	•
			¢/kWh (lines 33 + 34) -3.40476

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

ENERGY COST ADJUSTMENT (ECA) FILING - June 1, 2018 (page 2 of 2)

Line

1 Effective Date June 1, 2018 2 Supercedes Factors May 1, 2018

<u>Line</u>	PURCHASED ENERGY COMPONENT	
	BUBOULAGED ENERGY BRIGE . # NA#	
00	PURCHASED ENERGY PRICE, ¢/kWh	04.000
	FIT	21.800
37		0.000
38	Sch Q	0.000
	DUDGUACED ENEDGY MAIL MIX 0/	
39	PURCHASED ENERGY KWH MIX, %	100.00
40	rii	0.00
40		0.00
41	Sch Q	0.000
40	COMPOSITE COST OF BUILDOUNGED	
42	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh	21.800
	(Lines (36 x 39) + (37 x 40) + (38 x 41))	21.800
42	% Input to System kWh Mix	0.02
	WEIGHTED COMPOSITE PURCHASED ENER	
44	COST, ¢/kWh (lines (42 x 43))	0.00443
	0001; <i>\(\psi \)</i> (11103 (42 \(\tau \)))	0.00443
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))	(0.01519)
	Loss Factor	1.095
50	Revenue Tax Req Multiplier	1.0975
51		(0.01825)
	(lines (48 x 49 x 50))	,

<u>Line</u> <u>SYSTEM COMPOSITE CALCULATIONS</u>

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

Maui Electric Company, Ltd. Molokai Division

MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
5/22/2018	9,718.43	55,686.60	1,030,478.21
Estimated Use	1,189.24	6,814.35	118,579.72
Estimated Received	-	-	-
Estimated Additional	<u> </u>		<u> </u>
Estimated End	8,529.19	48,872.25	911,898.49

Next Months Expense = \$ 106.9150 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>		Prices ¢/MBTU
Diesel	\$ 106.9150	5.73 BTU/BBL	1865.88

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

Contract Prices effective May 1, 2018

TYPE OF OIL BURNED	\$/BBL	¢/MBTU
ULTRA LOW SULFUR DIES	EL	
Tax *	2.1911	38.24
Ocean Transportation	1.4941	26.08
Storage	4.8063	83.88
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.

^{*} 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 2018

Amount to be refunded	(\$4,029)
2. Monthly amount (1/3 x Line 1)	(\$1,343)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$1,474)
5. Estimated Sales (June 2018)	2,200 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.067 ¢/kwh

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION 2018 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 Collect	(5) Actual Collect	(6) Month-end Cumulative <u>Balance</u>
December '17 January '18 February March April May June	10,400 4,029	(4) (1)	- (33)	10,400 4,062	(533) (533) (3,467) (3,467) (3,467) (1,343) (1,343)	(534) (550) (3,397) (3,553) (3,687)	528 (22) 6,981 3,428 (259)
NOTES:							
Col(1): Col(2):	Quarterly FOA r A positive numb FOA reconciliati starting with the sales used to de (Col(5) - Col(4))	er is an on adju: fourth p	over-collecti stment variar prior month; t	on. A negativ nce accumulat he difference	e number is and ted during the between the e	last three mo stimated reco	onths,

FOA reconciliation generated in the current quarter. The YTD FOA reconciliation

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

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

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

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

Col(3):

Col(4): Col(5):

Col(6):

Maui Electric Company, Ltd. Molokai 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	
	05-01-18	06-01-18
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	1.5654	1.8954
¢/kWh	0.4244	0.4244
¢/kWh	0.0000	0.0000
¢/kWh	0.0000	0.0000
¢/kWh	-5.031	-3.490
\$	1.34	1.34

Charge (\$) at 400 Kwh				
05-01-18	06-01-18	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		
6.26	7.58	1.32		
1.70	1.70	0.00		
0.00	0.00	0.00		
0.00	0.00	0.00		
-20.12	-13.96	6.16		
1.34	1.34	0.00		
152.76	160.24			

Increase (Decrease -) % Change

7.48 4.90%

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 Adjus
PBF Surcharge
Renewable Energy Infrastructu

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					
	05-01-18	06-01-18			
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	1.5654	1.8954			
¢/kWh	0.4244	0.4244			
¢/kWh	0.0000	0.0000			
¢/kWh	0.0000	0.0000			
¢/kWh	-5.031	-3.490			
\$	1.34	1.34			

Charge (\$) at 500 Kwh					
05-01-18	06-01-18	Difference			
131.73	131.73	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			
7.83	9.48	1.65			
2.12	2.12	0.00			
0.00	0.00	0.00			
0.00	0.00	0.00			
-25.16	-17.45	7.71			
1.34	1.34	0.00			
190.12	199.48				

Increase (Decrease -) % Change

9.36 4.92%

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

EFFECTIVE DATE	FUEL FACTOR CENTS / KWH RESIDENTIAL & COMMERCIAL		TAL BILL (\$) <u>@ 500 KWH</u>
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
January 1, 2018	-6.300	147.68	183.78
February 1, 2018	-6.275	147.78	183.90
March 1, 2018	-4.937	153.13	190.59
April 1, 2018	-5.975	148.47	184.76
May 1, 2018	-5.031	152.76	190.12
June 1, 2018	-3.490	160.24	199.48
•			

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE		RATE	
06/01/11 08/01/13	IRP RECOVERY REFUND FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (20		PERCENT ON BASE	
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 - 08/16/17	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 - 03/31/18	SOLARSAVER ADJUSTMENT	0.0000	CENTS/KWH	
6/1/2017 - 05/31/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.5654	CENTS/KWH	
07/01/17 - 12/31/17	GREEN INFRASTRUCTURE FEE	1.18	DOLLARS/MONTH	
08/17/17	RENEWABLE ENERGY INFRASTRUCTURE COST	0.0000	CENTS/KWH	
	RECOVERY PROVISION			
07/01/17	RESID. PBF SURCHARGE ADJUSTMENT	0.4244	CENTS/KWH	
01/01/18	GREEN INFRASTRUCTURE FEE	1.34	DOLLARS/MONTH	
04/01/18 - 04/30/18	SOLARSAVER ADJUSTMENT	1.3400	CENTS/KWH	
05/01/18	SOLARSAVER ADJUSTMENT	0.0000	CENTS/KWH	
06/01/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.8954	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.