



July 29, 2019

FILED

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

2019 JUL 29 P 3:26

PUBLIC UTILITIES
COMMISSION

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for August 2019

Maui Electric Company, Limited's ("Maui Electric" or "Company") August 2019 Energy Cost Adjustment factor for our Maui Division is 2.938 cents per kilowatt-hour ("kWh"), a decrease of 0.121 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$178.02, a decrease of \$0.58 compared to rates effective July 1, 2019. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor (-\$0.61), partially offset by the increase in the Purchase Power Adjustment (+\$0.03).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 79.21 cents per million BTU to 1,428.53 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.228 cents per kWh to 19.702 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for August 2019 is 3.232 cents per kWh, an increase of 0.144 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$171.84, an increase of \$0.58 compared to rates effective July 1, 2019. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor (+\$0.58).

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 102.28 cents per million BTU to 2,022.05 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 30.00 cents per kWh.

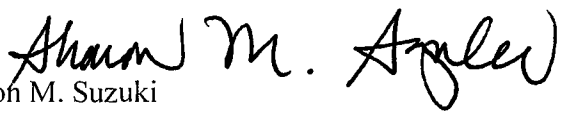
The Energy Cost Adjustment factor for our Moloka'i Division for August 2019 is 2.259 cents per kWh, a decrease of 0.912 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$155.00, a decrease of \$6.65 compared to rates effective July 1, 2019. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor (-\$3.64) and decrease in the Purchase Power Adjustment (-\$3.01).

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The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 20.05 cents per million BTU to 1,683.20 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 August 1, 2019.

Sincerely,


Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>07/01/2019</u>	<u>08/01/2019</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,507.74	1,428.53	(79.21)
DG Energy, ¢/kWh	0.00	0.00	0.000
Purchased Energy, ¢/kWh	19.474	19.702	0.228
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	3.059	2.938	(0.121)
<u>Others - "G,H,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	3.059	2.938	(0.121)
<u>Residential Customer with</u>			
500 KWH Consumption, \$/Bill	178.60	178.02	(0.58)
600 KWH Consumption, \$/Bill	213.35	212.67	(0.68)

Supersedes Sheet Effective:

July 1, 2019

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

ENERGY COST ADJUSTMENT (ECA) FILING - August 1, 2019 (page 1 of 2)

Line

1 Effective Date August 1, 2019
2 Supercedes Factors of July 1, 2019

GENERATION COMPONENT

CENTRAL STATION					DG ENERGY COMPONENT		
FUEL PRICES, ¢/mmbtu							
3	Industrial			975.32			
4	Diesel			1,577.11			
5	Other						
BTU MIX, %							
6	Industrial			24.69%	23 COMPOSITE COST OF DG ENERGY, ¢/kWh 0.000		
7	Diesel			75.31%	24 % Input to System kWh Mix 0.00%		
8	Other			0.00%	25 WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24) -		
				100.00%			
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))			1,428.53	26 BASE DG ENERGY COMP COST 0.000		
10	% Input to System kWh Mix			61.39%	27 Base % Input to System kWh Mix 0.01		
EFFICIENCY FACTOR, mmbtu/kWh					28 WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27) 0.00000		
	(A)	(B)	(C)	(D)			
			Percent of		29 Cost Less Base (Line 25 - 28) 0.00000		
	Fuel Type	Eff Factor	Centrl Stn +	Weighted	30 Loss Factor 1.057		
		mmbtu/kwh	Other	Eff Factor	31 Revenue Tax Req Multiplier 1.0975		
11	Industrial	0.015892	17.28	0.002746	32 DG FACTOR, ¢/kWh (Line 29 x 30 x 31) 0.00000		
12	Diesel	0.009950	82.72	0.008231			
13	Other	0.011102	0.00	-			
(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)							
14	Weighted Efficiency Factor, mmbtu/kWh [lines 11(D) + 12(D) + 13(D)]			0.010977			
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))			9.62655			
16	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			1,181.71			
17	Base % Input to Sys kWh Mix			69.96			
18	Efficiency Factor, mmbtu/kwh			0.011102			
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18))			9.17829			
20	COST LESS BASE (line(15 - 19))			0.44826	SUMMARY OF TOTAL GENERATION FACTOR, ¢/kWh		
21	Revenue Tax Req Multiplier			1.0975	33 CNTRL STN + OTHER (line 22) 0.49197		
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))			0.49197	34 DG (line 32) -		
					35 TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34) 0.49197		

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

ENERGY COST ADJUSTMENT (ECA) FILING - August 1, 2019 (page 2 of 2)

Line		
1	Effective Date	August 1, 2019
2	Supercedes Factors of	July 1, 2019

Line	PURCHASED ENERGY COMPONENT		
	PURCHASED ENERGY PRICE, ¢/kWh		
36	Kaheawa Wind I	- On Peak	13.783
37		- Off Peak	12.935
38	Kaheawa Wind II		25.684
39	Sempre Wind		22.197
40	Hydro & Other	- On Peak	14.488
41		- Off Peak	13.849
42	South Maui RR		11.060
43	Ku'ia Solar		11.060
44	CBRE PV		16.500
45			
46	FIT		21.458
	PURCHASED ENERGY KWH MIX, %		
47	Kaheawa Wind I	- On Peak	19.73%
48		- Off Peak	15.97%
49	Kaheawa Wind II		29.67%
50	Sempre Wind	- On Peak	28.25%
51	Hydro & Other	- On Peak	0.17%
52		- Off Peak	0.15%
53	South Maui RR		1.46%
54	Ku'ia Solar		1.42%
55	CBRE PV		0.42%
56			
57	FIT		2.76%
			<u>100.00%</u>
58	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh		19.702
	(Lines (36 x 47) + (37 x 48) + (38 x 49) + (39 x 50) + (40 x 51) + (41 x 52) + (42 x 53) + (43 x 54) + (44 x 55) + (46 x 57))		
59	% Input to System kWh Mix		38.61%
60	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (58 x 59))		7.60694
61	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh		16.774
62	Base % Input to Sys kWh Mix		30.03
63	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (61 x 62))		5.03723
64	COST LESS BASE (lines (60 - 63))		2.56971
65	Loss Factor		1.057
66	Revenue Tax Req Multiplier		1.0975
67	PURCHASED ENERGY FACTOR, ¢/kWh (lines (64 x 65 x 66))		2.98101

Line	SYSTEM COMPOSITE CALCULATIONS		
68	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 67))		3.47298
69	ADJUSTMENT, ¢/kWh		
70	ECA Reconciliation Adjustment		(0.535)
71	ECA FACTOR, ¢/kWh (lines (68 + 69 + 70))		2.938

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

Fuel Oil Inventory Prices for August 2019

<u>TYPE OF OIL BURNED</u>	<u>PRICES \$/BBL</u>	<u>CONVERSION FACTORS</u>		<u>PRICES ¢/MBTU</u>
INDUSTRIAL	61.4453	6.30	MBTU/BBL	975.32
DIESEL/ULSD	92.3478	5.86	MBTU/BBL	1,577.11

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

Month End Fuel Oil Estimate

<u>Kahului</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
7/18/2019	43,224.46	272,314.10	2,790,531.98
Estimated Use	14,221.44	89,595.09	928,563.88
Estimated Received	19,000.00	119,700.00	1,087,591.58
Estimated Additional	0.00	0.00	0.00
Estimated End	<u>48,003.02</u>	<u>302,419.01</u>	<u>2,949,559.68</u>

Next month's expense (\$/bbl) = \$ 61.4453

<u>Maalaea</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
7/18/2019	79,788.82	467,204.79	7,506,555.93
Estimated Use	34,296.88	200,825.95	3,231,341.98
Estimated Received	31,642.00	185,280.27	2,842,263.58
Estimated Additional	4,385.98	25,701.83	410,709.75
Estimated End	<u>81,519.92</u>	<u>477,360.94</u>	<u>7,528,187.28</u>

Next month's expense (\$/bbl) = \$ 92.3478

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

Contract Prices effective July 1, 2019

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
INDUSTRIAL		
Tax *	3.1783	50.45
Ocean Transportation	1.8939	30.06
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.3900	6.19
DIESEL		
Tax *	4.7502	81.06
Ocean Transportation	1.8939	32.32
Land Transportation	0.9782	16.69
Storage	2.9010	49.51
Wharfage	0.3900	6.66

* Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST tax, Environmental Response Tax, Customs Duty Fee, and Fed Oil Spill Recovery Fee

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.
MAUI DIVISION**

PURCHASED POWER PRICE CALCULATIONS

KAHEAWA WIND POWER ENERGY RATE:

Kaheawa Wind - On Peak, ¢/kWh	13.783
- Off Peak, ¢/kWh	12.935

Kaheawa Wind Energy Rate Calculations:

Percent of Energy Payment Rate:

Fixed energy payment rate	70%
Flat payment rate	<u>30%</u>
	<u>100%</u>

Fixed Energy Payment Rate (Table D-1) for 2019:

On-peak, ¢/kwh	10.261
Off-peak, ¢/kwh	9.050

Flat Payment Rate Per Docket No. 2011-0192 D&O 30331:

On-peak, ¢/kwh	22.000
Off-peak, ¢/kwh	22.000

On-Peak Rate = $10.2610 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 13.783 \text{ ¢/kwh}$

Off-Peak Rate = $9.05 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 12.935 \text{ ¢/kwh}$

MAUI ELECTRIC COMPANY, LTD.
Maui Division
ECA Reconciliation Adjustment
August 2019

1. Amount to be Refunded	(\$1,306,700)
2. Monthly amount (1 / 3 X Line 1)	(\$435,567)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$478,041)
5. Estimated Sales (August 2019)	89,415 mwh
6. Adjustment (Line 4 ÷ Line 5)	(0.535) ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2019 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)**

<u>Line</u>	<u>W/O Deadband 2nd Quarter YTD Total</u>	<u>collection by company*</u>	<u>Basis for Recon With Deadband 2nd Quarter YTD Total</u>	<u>collection by company*</u>
ACTUAL COSTS:				
1	\$60,959.8		\$60,959.8	
2	\$16.4		\$16.4	
3	<u>\$21,883.2</u>		<u>\$21,883.2</u>	
4	\$82,859.4		\$82,859.4	
FUEL FILING COST				
5	\$61,243.7		\$61,160.0	
6	\$0.0		\$0.0	
7	<u>\$21,883.2</u>		<u>\$21,883.2</u>	
8	\$83,126.9		\$83,043.2	
BASE FUEL COST				
9	\$76,219.0		\$76,219.0	
10	\$12.1		\$12.1	
11	<u>\$21,232.8</u>		<u>\$21,232.8</u>	
12	\$97,463.8		\$97,463.8	
13	FUEL-BASE COST (Line 8-12)	-\$14,336.9	-\$14,420.6	
14	ACTUAL FOA LESS TAX	-\$14,805.6	-\$14,805.6	
15	FOA reconciliation adj for prior year	<u>-\$2,202.2</u>	<u>-\$2,202.2</u>	
16	ADJUSTED FOA LESS TAX	-\$12,603.4	-\$12,603.4	
17	FOA-(FUEL-BASE) (Line 16-13)	\$1,733.5 Over	\$1,817.2 Over	
ADJUSTMENTS				
18	Current year FOA accrual reversal	\$1,021.0	\$1,021.0	
19	Other prior year FOA	\$0.0	\$0.0	
20	Other	<u>\$0.0</u>	<u>\$0.0</u>	
21	2nd QUARTER FOA RECONCILIATION (Lines 17+18+19+20)	\$2,754.5 Over	\$2,838.2 Over	
22	1st QUARTERLY FOA Reconciliation Recognized in FOA Rates		<u>\$1,531.5</u> Over	
23	FOA Reconciliation to be Refunded August 2019 to October 2019 (Line 22- 21)		<u><u>-\$1,306.7</u></u> To Be Refunded	

* Over means an over-collection by the company.
Under means an under-collection by the company.

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

Determination of Efficiency Factor to use for Cost-Recovery Purposes

Period: January 1, 2019 through January 13, 2019

	<u>Notes</u>	<u>YTD</u>
<u>Industrial Fuel Oil</u>		
Industrial Fuel Oil Efficiency Factor (TY2018), BTU/kWh	f	15,892
Industrial Fuel Oil Deadband Definition, - BTU/kWh	d	100
Industrial Fuel Oil Portion of Recorded Sales, MWh	a	6,043
Industrial Fuel Oil Consumption (Recorded), MMBTU	b	91,414
Industrial Fuel Oil Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	15,127
Lower limit of Industrial Fuel Oil Deadband, BTU/kWh	e = f-d	15,792
Higher limit of Industrial Fuel Oil Deadband, BTU/kWh	g = f	15,892
Industrial Fuel Oil Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	15,792
<u>Diesel</u>		
Diesel Efficiency Factor (TY2018), BTU/kWh	f	9,950
Diesel Deadband Definition, - BTU/kWh	d	100
Diesel Portion of Recorded Sales, MWh	a	23,411
Diesel Consumption (Recorded), MMBTU	b	226,043
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	9,656
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	9,850
Higher limit of Diesel Deadband, BTU/kWh	g = f	9,950
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	9,850

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

Determination of Efficiency Factor to use for Cost-Recovery Purposes

Period: January 14, 2019 through June 30, 2019

	<u>Notes</u>	<u>YTD</u>
<u>Industrial Fuel Oil</u>		
Industrial Fuel Oil Efficiency Factor (TY2018), BTU/kWh	f	15,892
Industrial Fuel Oil Deadband Definition, - BTU/kWh	d	100
Industrial Fuel Oil Portion of Recorded Sales, MWh	a	63,250
Industrial Fuel Oil Consumption (Recorded), MMBTU	b	994,878
Industrial Fuel Oil Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	15,729
Lower limit of Industrial Fuel Oil Deadband, BTU/kWh	e = f-d	15,792
Higher limit of Industrial Fuel Oil Deadband, BTU/kWh	g = f+d	15,992
Industrial Fuel Oil Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	15,792
<u>Diesel</u>		
Diesel Efficiency Factor (TY2018), BTU/kWh	f	9,950
Diesel Deadband Definition, - BTU/kWh	d	100
Diesel Portion of Recorded Sales, MWh	a	292,151
Diesel Consumption (Recorded), MMBTU	b	2,908,334
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	9,955
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	9,850
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	10,050
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	9,955

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND**

	2019			
	Without Deadband	With Deadband AS FILED	Without Deadband	With Deadband AS FILED
	<u>Jan 1 - Jan 13</u>	<u>Jan 1 - Jan 13</u>	<u>Jan 14 - June 30</u>	<u>Jan 14 - June 30</u>
INDUSTRIAL				
Industrial Portion of Recorded Sales , MWH	6,043	6,043	63,250	63,250
Industrial Sales Efficiency Factor (mmbtu/kwh)	0.015892	0.015792	0.015892	0.015792
Mmbtu adjusted for Sales Efficiency Factor	96,036	95,431	1,005,177	998,852
\$/mmbtu	<u>\$10.7273</u>	<u>\$10.7273</u>	<u>\$10.2467</u>	<u>\$10.2467</u>
TOTAL Industrial \$000s TO BE RECOVERED	\$1,030.2	\$1,023.7	\$10,299.7	\$10,234.9
DIESEL FUEL FILING COST				
Diesel Portion of Recorded Sales, MWH	23,411	23,411	292,151	292,151
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.009950	0.009850	0.009950	0.009955
Mmbtu adjusted for Sales Efficiency Factor	232,936	230,595	2,906,905	2,908,366
\$/mmbtu	<u>\$15.2504</u>	<u>\$15.2504</u>	<u>\$15.9487</u>	<u>\$15.9487</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$3,552.4	\$3,516.7	\$46,361.3	\$46,384.6
TOTAL GENERATION FUEL FILING COST, \$000s	\$4,582.6	\$4,540.4	\$56,661.1	\$56,619.6
TOTAL GENERATION BASE FUEL COST , \$000s	\$6,172.9	\$6,172.9	\$70,046.0	\$70,046.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$4,582.6	\$4,540.4	\$61,243.7	\$61,160.0
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$6,172.9	\$6,172.9	\$76,219.0	\$76,219.0

**MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2019 Cumulative Reconciliation Balance**

Month	(1) YTD FOA Reconciliation	Qtr	(2) FOA Rec Adjust Variance	(3) FOA Rec Less Variance	(4) Try to Collect	(5) Actual Collect	(6) Month-end Cumulative Balance
December '18					(327,700)	(323,073)	279,528
January '19					(327,700)	(345,025)	(65,497)
February	1,886,900	(4)	(48,178)	1,935,078	(628,967)	(587,149)	1,282,432
March					(628,967)	(591,146)	691,286
April					(628,967)	(657,008)	34,278
May	1,531,500	(1)	62,314	1,469,186	(510,500)	(538,146)	965,318
June					(510,500)	(580,323)	384,995
July					(510,500)		
August	1,306,700	(2)	(125,510)	1,432,210	(435,567)		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 5)
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.
Maui Division
Calculations of the Average Residential Customer Bill

	Rate		Charge (\$) at 500 Kwh		
	07/01/19	08/01/19	07/01/19	08/01/19	Difference
Base Rates					
effective date:	06/01/19	06/01/19			
Base Fuel/Energy Charge ¢/kWh	15.9777	15.9777	79.89	79.89	0.00
Non-fuel Fuel Energy Charge					
First 350 kWhr per month ¢/kWh	12.1240	12.1240	42.43	42.43	0.00
Next 850 kWhr per month ¢/kWh	14.3840	14.3840	21.58	21.58	0.00
Customer Charge \$	11.50	11.50	11.50	11.50	0.00
Total Base Charges			155.40	155.40	0.00
RBA Rate Adjustment ¢/kWh	0.8716	0.8716	4.36	4.36	0.00
PBF Surcharge ¢/kWh	0.4775	0.4775	2.39	2.39	0.00
SolarSaver Adjustment ¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Refund of 2018 Interim % on Base	0.00	0.00	0.00	0.00	0.00
Purchased Power Adjustment ¢/kWh	-0.0045	0.0023	-0.02	0.01	0.03
Energy Cost Adjustment ¢/kWh	3.059	2.938	15.30	14.69	-0.61
Green Infrastructure Fee \$	1.17	1.17	1.17	1.17	0.00
Avg Residential Bill at 500 kwh			178.60	178.02	
			Increase (Decrease -)		-0.58
			% Change		-0.32%

	Rate		Charge (\$) at 600 Kwh		
	07/01/19	08/01/19	07/01/19	08/01/19	Difference
Base Rates					
effective date:	06/01/19	06/01/19			
Base Fuel/Energy Charge ¢/kWh	15.9777	15.9777	95.87	95.87	0.00
Non-fuel Fuel Energy Charge					
First 350 kWhr per month ¢/kWh	12.1240	12.1240	42.43	42.43	0.00
Next 850 kWhr per month ¢/kWh	14.3840	14.3840	35.96	35.96	0.00
Customer Charge \$	11.50	11.50	11.50	11.50	0.00
Total Base Charges			185.76	185.76	0.00
RBA Rate Adjustment ¢/kWh	0.8716	0.8716	5.23	5.23	0.00
PBF Surcharge ¢/kWh	0.4775	0.4775	2.87	2.87	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
Refund of 2018 Interim % on Base	0.00	0.00	0.00	0.00	0.00
Purchased Power Adjustment ¢/kWh	-0.0045	0.0023	-0.03	0.01	0.04
Energy Cost Adjustment ¢/kWh	3.059	2.938	18.35	17.63	-0.72
Green Infrastructure Fee \$	1.17	1.17	1.17	1.17	0.00
Avg Residential Bill at 600 kwh			213.35	212.67	
			Increase (Decrease -)		-0.68
			% Change		-0.32%

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

<u>EFFECTIVE DATE</u>	FUEL FACTOR CENTS / KWH		RESIDENTIAL BILL (\$)	
	<u>RESIDENTIAL & COMMERCIAL</u>		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
January 1, 2017	-7.659		146.59	175.55
February 1, 2017	-8.247		143.65	172.02
March 1, 2017	-7.314		148.32	177.61
April 1, 2017	-5.770		155.35	186.05
May 1, 2017	-7.998		144.79	173.38
June 1, 2017	-5.191		159.61	191.16
July 1, 2017	-5.635		157.32	188.42
August 1, 2017	-7.867		145.30	174.01
September 1, 2017	-9.278		138.19	165.47
October 1, 2017	-7.391		147.64	176.80
November 1, 2017	-5.305		158.18	189.46
December 1, 2017	-7.839		145.51	174.26
January 1, 2018	-6.115		154.28	184.75
February 1, 2018	-5.747		156.16	187.00
March 1, 2018	-4.402		162.88	195.07
April 1, 2018	-4.914		159.68	191.23
May 1, 2018	-4.510		162.34	194.42
June 1, 2018	-2.402		174.53	209.05
July 1, 2018	-1.259		180.32	216.01
August 1, 2018	-3.848		167.07	200.11
September 1, 2018	-3.445		174.06	208.51
October 1, 2018	-3.282		174.90	209.51
November 1, 2018	-2.358		179.87	215.47
December 1, 2018	-2.401		179.65	215.21
January 1, 2019	-3.405		174.77	209.33
February 1, 2019	-5.987		161.69	193.64
March 1, 2019	-5.839		162.44	194.54
April 1, 2019	-5.441		163.99	196.39
May 1, 2019	-4.041		171.40	205.29
June 1, 2019	3.899		179.76	214.71
July 1, 2019	3.059		178.60	213.35
August 1, 2019	2.938		178.02	212.67

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
06/01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
04/01/13 - 04/30/13	SOLARSAVER ADJUSTMENT	-0.2053 CENTS/KWH
8/1/2013 - 5/31/19	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR)	
04/01/17 - 04/30/17	SOLARSAVER ADJUSTMENT	-0.1378 CENTS/KWH
05/01/17 - 3/31/18	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/17 - 05/31/17	PURCHASED POWER ADJUSTMENT	-0.0224 CENTS/KWH
06/01/17 - 06/30/17	PURCHASED POWER ADJUSTMENT	-0.0218 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
07/01/17 - 07/31/17	PURCHASED POWER ADJUSTMENT	-0.0202 CENTS/KWH
07/01/17 - 06/30/18	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
08/01/17 - 08/31/17	PURCHASED POWER ADJUSTMENT	-0.0286 CENTS/KWH
08/17/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 CENTS/KWH
09/01/17 - 09/30/17	PURCHASED POWER ADJUSTMENT	-0.0307 CENTS/KWH
10/01/17 - 10/31/17	PURCHASED POWER ADJUSTMENT	-0.0275 CENTS/KWH
11/01/17 - 11/30/17	PURCHASED POWER ADJUSTMENT	-0.0058 CENTS/KWH
12/01/17 - 12/31/17	PURCHASED POWER ADJUSTMENT	-0.0054 CENTS/KWH
01/01/18 - 01/31/18	PURCHASED POWER ADJUSTMENT	-0.0060 CENTS/KWH
01/01/18 - 06/30/18	GREEN INFRASTRUCTURE FEE	1.3400 DOLLARS/MONTH
02/01/18 - 04/30/18	PURCHASED POWER ADJUSTMENT	0.0003 CENTS/KWH
04/01/18 - 04/30/18	SOLARSAVER ADJUSTMENT	-0.1278 CENTS/KWH
05/01/18 - 03/31/19	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/18 - 06/30/18	PURCHASED POWER ADJUSTMENT	0.0004 CENTS/KWH
06/01/18 - 08/22/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.8954 CENTS/KWH
07/01/18 - 07/31/18	PURCHASED POWER ADJUSTMENT	0.0003 CENTS/KWH
07/01/18 - 06/30/19	RESID. PBF SURCHARGE ADJUSTMENT	0.4658 CENTS/KWH
07/01/18 - 12/31/18	GREEN INFRASTRUCTURE FEE	1.2100 DOLLARS/MONTH
08/01/18 - 08/31/18	PURCHASED POWER ADJUSTMENT	-0.0618 CENTS/KWH
09/01/18 - 09/30/18	PURCHASED POWER ADJUSTMENT	-0.0635 CENTS/KWH
08/23/18 - 05/31/19	INTERIM RATE INCREASE 2018 TEST YEAR	7.42 PERCENT ON BASE
08/23/18 - 05/31/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3183 CENTS/KWH
10/01/18 - 10/31/18	PURCHASED POWER ADJUSTMENT	-0.0602 CENTS/KWH
11/01/18 - 11/30/19	PURCHASED POWER ADJUSTMENT	0.0108 CENTS/KWH
12/01/18 - 12/31/18	PURCHASED POWER ADJUSTMENT	0.0099 CENTS/KWH
01/01/19 - 01/31/19	PURCHASED POWER ADJUSTMENT	0.0094 CENTS/KWH
01/01/19 - 06/30/19	GREEN INFRASTRUCTURE FEE	1.35 DOLLARS/MONTH
02/01/19 - 02/28/19	PURCHASED POWER ADJUSTMENT	-0.0241 CENTS/KWH
03/01/19 - 03/31/19	PURCHASED POWER ADJUSTMENT	-0.0224 CENTS/KWH
04/01/19 - 04/30/19	PURCHASED POWER ADJUSTMENT	-0.0244 CENTS/KWH
04/01/19 - 04/30/19	SOLARSAVER ADJUSTMENT	-0.0855 CENTS/KWH
05/01/19 - 05/31/19	PURCHASED POWER ADJUSTMENT	-0.0274 CENTS/KWH
05/01/19	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/19 - 06/30/19	PURCHASED POWER ADJUSTMENT	-0.0067 CENTS/KWH
06/01/19	FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2018 TEST YEAR)	
06/01/19 - 06/30/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR	-2.03 PERCENT ON BASE
06/01/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.8716 CENTS/KWH
07/01/19 - 07/31/19	PURCHASED POWER ADJUSTMENT	-0.0045 CENTS/KWH
07/01/19	RESID. PBF SURCHARGE ADJUSTMENT	0.4775 CENTS/KWH
07/01/19	GREEN INFRASTRUCTURE FEE	1.17 DOLLARS/MONTH
08/01/19	PURCHASED POWER ADJUSTMENT	0.0023 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.

**Maui Electric Company, Ltd. - Maui Division
Residential Bill at 500 kWh/Month Consumption**

