



January 29, 2020

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

FILED

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PUBLIC UTILITIES  
COMMISSION

Dear Commissioners:

Subject: Maui Electric Energy Cost Recovery Factor for February 2020

Maui Electric Company, Limited's ("Maui Electric" or "Company") February 2020 Energy Cost Recovery factor for our Maui Division is 17.482 cents per kilowatt-hour ("kWh"), an increase of 0.731 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$172.82, an increase of \$4.25 compared to rates effective January 1, 2020. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery Factor (+\$3.65) and the implementation of the residential DSM Adjustment (+\$0.63), partially offset by the decrease in the Purchase Power Adjustment (-\$0.03).

The Company's Maui Division fuel composite cost of generation, central station and other increased 75.26 cents per million BTU to 1,471.34 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.791 cents per kWh to 20.257 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for February 2020 is 24.109 cents per kWh, a decrease of 1.260 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$168.65, a decrease of \$5.04 compared to rates effective January 1, 2020. The decrease in the typical residential bill is due to the decrease of the Energy Cost Recovery Factor (-\$5.04).

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 39.48 cents per million BTU to 2,083.55 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 Recovery factor for our Moloka'i Division for February 2020 is 21.165 cents per kWh, an increase of 2.632 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$164.02, an increase of \$10.27 compared to rates effective January 1, 2020. The increase in the typical residential bill is due to the increase of the Energy Cost Recovery Factor (+\$10.53), partially offset by the termination of the Purchase Power Adjustment (-\$0.26).

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January 29, 2020  
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 140.89 cents per million BTU to 1,693.58 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 22.46 cents per kWh.

The Efficiency Factors used reflect the factors for 2020 provided in Maui Electric's Revised Target Sales Heat Rates filed on January 29, 2020, in Docket No 2017-0150. The lower revised target sales heat rates for our Maui Division are 0.015786 million BTU per kilowatt-hour for industrial fuel, 0.009938 million BTU per kilowatt-hour for diesel fuel, and 0.011072 million BTU per kilowatt-hour for other company generation sources. The lower revised target sales heat rates for our Lāna'i Division are 0.010872 million BTU per kilowatt-hour for diesel fuel and other company generation sources. There is no change to the target sales heat rates for the Moloka'i Division.

The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning February 1, 2020.

Sincerely,



Sharon M. Suzuki  
President

Attachments

cc: Division of Consumer Advocacy

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

**ENERGY COST RECOVERY FACTOR**

	EFFECTIVE DATES		<u>Change</u>
	<u>01-01-20</u>	<u>02-01-20</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,552.69	1,693.58	140.89
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	22.46	22.46	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	18.533	21.165	2.632
<u>Others - "G,P,F"</u>			
Energy Cost Recovery, ¢/kWh	18.533	21.165	2.632
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	153.75	164.02	10.27
500 KWH Consumption, \$/Bill	190.67	203.51	12.84

Supersedes Sheet Effective:

January 1, 2020

**MAUI ELECTRIC COMPANY, LTD.  
MOLOKAI DIVISION  
ENERGY COST RECOVERY (ECR) FILING**

ENERGY COST RECOVERY (ECR) FILING - February 1, 2020 (page 1 of 2)

Line

- 1 Effective Date February 1, 2020
- 2 Supercedes Factors January 1, 2020

**GENERATION COMPONENT**

<b>CENTRAL STATION</b>					
FUEL PRICES, ¢/mmbtu					
3	Industrial			0.00	
4	Diesel			1,693.58	
5	Other			0.00	
BTU MIX, %					
6	Industrial			0.00	
7	Diesel			100.00	
8	Other			0.00	
				<u>100.00</u>	
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))			1,693.58	
10	% Input to System kWh Mix			99.77	
EFFICIENCY FACTOR, mmbtu/kWh					
	(A)	(B)	(C)	(D)	
		Eff Factor	Percent of	Weighted	
	Fuel Type	mmbtu/kwh	Centrl Stn + Other	Eff Factor	
11	Industrial	0.000000	0.00	0.000000	
12	Diesel	0.011127	100.00	0.011127	
13	Other	0.011127	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)]			0.011127	
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))			18.80115	
16	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			0.00	
17	Base % Input to Sys kWh Mix			0.00	
18	Efficiency Factor, mmbtu/kwh			0.011127	
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18))			0.00000	
20	COST LESS BASE (line(15 - 19))			18.80115	
21	Revenue Tax Req Multiplier			1.0975	
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))			20.63426	
				<b>DG ENERGY COMPONENT</b>	
	23 COMPOSITE COST OF DG ENERGY, ¢/kWh			0.000	
	24 % Input to System kWh Mix			0.00	
	25 WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24)			0.00000	
	26 BASE DG ENERGY COMP COST			0.000	
	27 Base % Input to System kWh Mix			0.00	
	28 WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27)			0.00000	
	29 Cost Less Base (Line 25 - 28)			0.00000	
	30 Loss Factor			1.098	
	31 Revenue Tax Req Multiplier			1.0975	
	32 DG FACTOR, ¢/kWh (Line 29 x 30 x 31)			0.00000	
				<b>SUMMARY OF TOTAL GENERATION FACTOR, ¢/kWh</b>	
	33 CNTRL STN + OTHER (line 22)			20.63426	
	34 DG (line 32)			0.00000	
	35 TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)			20.63426	

**MAUI ELECTRIC COMPANY, LTD.  
MOLOKAI DIVISION  
ENERGY COST RECOVERY (ECR) FILING**

ENERGY COST RECOVERY (ECR) FILING - February 1, 2020 (page 2 of 2)

Line

- 1 Effective Date February 1, 2020  
2 Supercedes Factors January 1, 2020

Line	<b>PURCHASED ENERGY COMPONENT</b>	
	PURCHASED ENERGY PRICE, ¢/kWh - Fossil	
	PURCHASED ENERGY PRICE, ¢/kWh - Renewable	
36	Unused	0.000
37	CBRE	22.500
38	FIT	21.800
39		
40	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, % - Fossil	
	PURCHASED ENERGY KWH MIX, % - Renewable	
41	Unused	0.00%
42	CBRE	93.64%
43	FIT	6.36%
44		
45	Sch Q	0.00%
45A	Fossil Purch. Energy %	0.00%
45B	Renewable Purch. Energy %	100.00%
45C	Comp. Cost, Fossil Purch. Energy, ¢/kWh	N/A
45D	Comp. Cost, Renewable Purch. Energy, ¢/kWh	22.455
46	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 41) + (37 x 42) + (38 x 43) + (39 x 44))	22.455
47	% Input to System kWh Mix	0.23
48	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (46 x 47))	0.05161
49	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	0.000
50	Base % Input to Sys kWh Mix	0.00
51	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (49 x 50))	0.00000
52	COST LESS BASE (lines (48 - 51))	0.05161
53	Loss Factor	1.098
54	Revenue Tax Req Multiplier	1.0975
55	PURCHASED ENERGY FACTOR, ¢/kWh (lines (52 x 53 x 54))	0.06219

Line	<b>Calculation of Monthly Fossil Fuel Cost Risk Sharing Component</b>	
	<b>Baseline Diesel</b>	
56	Diesel \$, baseline month	\$401,775
57	Diesel mmbtu, baseline	25,876
58	Baseline Diesel, ¢/mmbtu	1,552.69
	<b>Month Diesel</b>	
59	Diesel mmbtu, budget	24,635
60	Diesel Cost, ¢/mmbtu	1,693.58
61	Diesel ECRC Fossil Cost	\$417,212
62	Diesel Base ECRC Recovery Target	\$382,504
63	Diesel differential	\$34,708
64	Total Fossil	\$34,708
65	2% of above	\$694
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$0
67	Maximum Annual Cap (bi-directional)	\$31,500
68	Number of Days in year from implementation	366
69	Fossil Risk % Proration (based on 366 day year)	100.00%
70	Maximum Annual Cap (bi-directional) prorated	\$31,500
71	Applicable Monthly Fossil Fuel Cost Risk Sharing	\$694
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$694
73	Fossil Cost Risk Sharing before taxes	\$694
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	\$762
76	Forecasted Month MWh Sales	2,259
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	(0.0337)

Line	<b>SYSTEM COMPOSITE CALCULATIONS</b>	
78	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 55))	20.69645
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	(0.034)
81	ECR Reconciliation Adjustment	0.502
82	ECR FACTOR, ¢/kWh (lines (78 + 79 + 80 + 81))	21.165

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

**MONTH END FUEL OIL ESTIMATE**

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
1/20/2020	8,464.05	48,498.99	413,450.66
Estimated Use	-	-	-
Estimated Received	-	-	407,916.61
Estimated Additional	-	-	-
Estimated End	<u>8,464.05</u>	<u>48,498.99</u>	<u>821,367.27</u>

Next Months Expense = \$ 97.0419 /bbl

**FUEL OIL INVENTORY PRICE USED FOR FILING**

<u>Type of Oil Burned</u>	<u>Price</u>	<u>Conversion Factor</u>	<u>Prices ¢/MBTU</u>
Diesel	\$ 97.0419	5.73 BTU/BBL	1693.58

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

**Contract Prices effective January 1, 2020**

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
<b>ULTRA LOW SULFUR DIESEL</b>		
Tax *	5.1100	89.17
Ocean Transportation	1.6374	28.58
Storage	5.0658	88.41
Wharfage	0.4000	6.98

\* 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.

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**  
**ECR Reconciliation Adjustment**

**February 2020**

1. Amount to be Collected	\$31,000
2. Monthly amount (1/3 x Line 1)	\$10,333
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	\$11,341
5. Estimated Sales (February 2020)	2,259 mwh
6. Adjustment (Line 4 ÷ Line 5)	0.502 ¢/kwh



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

<u>Line</u>	<u>Description</u>	Without Deadband 4th Quarter <u>YTD Total</u>	collection by <u>company*</u>	Basis for Recon With Deadband 4th Quarter <u>YTD Total</u>	collection by <u>company*</u>
Actual Costs					
1	Generation	\$5,672.4		\$5,672.4	
2	Distributed Generation	\$0.0		\$0.0	
3	Purch Power	\$1.2		\$1.2	
4	Total	\$5,673.6		\$5,673.6	
Fuel Filing Cost					
5	Generation	\$5,648.2		\$5,673.6	
6	Distributed Generation	\$0.0		\$0.0	
7	Purch Power	\$1.2		\$1.2	
8	Total	\$5,649.5		\$5,674.8	
Base Fuel Cost					
9	Generation	\$4,070.8		\$4,070.8	
10	Distributed Generation	\$0.0		\$0.0	
11	Purch Power	\$0.8		\$0.8	
12	Total	\$4,071.6		\$4,071.6	
13	FUEL - BASE COST (Line 8-12)	\$1,577.9		\$1,603.3	
14	ACTUAL FOA REVENUE LESS TAX	\$1,587.5		\$1,587.5	
15	FOA reconciliation adj for prior years	\$5.7		\$5.7	
16	ADJUSTED FOA LESS TAX	\$1,581.8		\$1,581.8	
17	FOA-(FUEL-BASE) (Line 16-13)	\$3.9		-\$21.5	
ADJUSTMENTS					
18	Current year FOA accrual reversal	\$58.1		\$58.1	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	\$0.0		\$0.0	
21	4th QUARTER FOA RECONCILIATION (Lines 17+18+19+20)	\$62.0	Over	\$36.6	Over
21A	Fossil Fuel Cost Risk Sharing Adjustment	\$0.1		\$0.1	
21B	Quarterly FOA Reconciliation with Fossil Risk Adjustment (21+21A)	\$62.1		\$36.7	
22	3rd QUARTERLY FOA Reconciliation Recognized in FOA Rates			\$67.7	Over
23	FOA Reconciliation to be Collected February 2020 to April 2020 (Line 22- 21B)			\$31.0	To Be Collected

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

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

Determination of Efficiency Factor to use for Cost-Recovery Purposes  
Period: January 1, 2019 through Dec 31, 2019

	<u>Notes</u>	<u>YTD</u>
<b><u>Palaau Diesel</u></b>		
.	f	11,127
Palaau Diesel Deadband Definition, +/- BTU/kWh	d	<b>50</b>
Palaau Diesel Portion of Recorded Sales, MWh	a	29,606
Palaau Diesel Consumption (Recorded), MMBTU	b	331,169
Palaau Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,186
Lower limit of Palaau Diesel Deadband, BTU/kWh	e = f-d	11,077
Higher limit of Palaau Diesel Deadband, BTU/kWh	g = f+d	11,177
Palaau Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	<b>11,177</b>

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

	2019	
	Without Deadband	With Deadband AS FILED
	<u>Jan 1 - Dec 31</u>	<u>Jan 1 - Dec 31</u>
<b>DIESEL FUEL FILING COST</b>		
Diesel Portion of Recorded Sales, MWH	29,606	29,606
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.011127	0.011177
Mmbtu adjusted for Sales Efficiency Factor	329,431	330,911
\$/mmbtu	<u>\$17.1453</u>	<u>\$17.1453</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$5,648.2	\$5,673.6
TOTAL GENERATION FUEL FILING COST, \$000s	\$5,648.2	\$5,673.6
TOTAL GENERATION BASE FUEL COST , \$000s	\$4,070.8	\$4,070.8
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$5,648.2	\$5,673.6
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$4,070.8	\$4,070.8

**Fossil Fuel Cost Risk Sharing Mechanism, December 2019, Molokai**

Sep-19, Baseline YTD Subject to Fossil Risk

		Sep-19, Baseline	YTD Subject to Fossil Risk
<b>Diesel Fossil Fuel Cost Risk Sharing</b>			
AA	MMBtu	31,010	117,417
BB	\$ cost, actuals	\$512,910	\$1,936,433
CC = BB / AA (Baseline Column)	Sep 2019 baseline \$/mmbtu	16.5400867	16.5400867
DD	Diesel Gen kWh		11,361,115
EE	Total kWh, Gen, Purch Pwr, DG		11,362,988
FF	Sales kWh		10,386,971
GG = (DD / EE) x FF	Diesel kWh-sales		10,385,259
HH	Target Heat Rate		11,127
II1	Upper limit w/deadband		11,177
II2	Lower limit w/deadband		11,077
II3	Calculated Heat Rate (YTD subject to fossil risk, before deadband)		11,306
II	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		11,177
JJ = BB/AA (YTD Column)	Actual Cost \$/MMbtu		16.4919059
KK = CC x HH x GG / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$1,911,319
LL = II x JJ x GG / 1,000,000	Fuel Filing Cost Recovery		\$1,914,315
<b>MM = 2% x (LL-KK)</b>	<b>Diesel Cost Risk Sharing</b>		\$60
NN	Annual Cap (non-prorated)		\$31,500
OO	# Days		122
PP	Annual Cap (pro-rated)		\$10,529
QQ = MM, up to cap	Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$10529 cap		\$60

**MAUI ELECTRIC COMPANY, LTD.  
MOLOKAI DIVISION  
2020 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 '18					(3,033)	(3,133)	2,348
January '19					(3,033)	(3,259)	(911)
February	(8,800)	(4)	(682)	(8,118)	2,933	2,637	(6,392)
March					2,933	2,879	(3,513)
April					2,933	2,976	(537)
May	(4,000)	(1)	(576)	(3,424)	1,333	1,340	(2,621)
June					1,333	1,450	(1,171)
July					1,333	1,381	210
August	42,700	(2)	167	42,533	(14,233)	(15,411)	27,332
September					(14,233)	(15,604)	11,728
October					(14,233)	(14,999)	(3,271)
November	29,000	(3)	(2,501)	31,501	(9,667)	(10,031)	18,199
December '19					(9,667)	(10,289)	7,910
January '20					(9,667)		
February	(31,000)	(4)	(1,752)	(29,248)	10,333		

## 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))

**Maui Electric Company, Ltd.  
Molokai Division  
Calculations of the Average Residential Customer Bill**

	Rate		Charge (\$) at 400 Kwh		
	01-01-20	02-01-20	01-01-20	02-01-20	Difference
<b>Base Rates</b>	effective date:	09/01/19	09/01/19		
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00
Non-fuel Energy Charge					
First 250 kWh per month	¢/kWh	14.0459	14.0459	35.11	35.11
Next 500 kWh per month	¢/kWh	16.6959	16.6959	25.04	25.04
Customer Charge	\$	11.50	11.50	11.50	11.50
<b>Total Base Charges</b>			71.65	71.65	0.00
<b>IRP Refund</b>	% on base	0.000	0.000	0.00	0.00
<b>Revenue Balancing Rate Adjustment</b>	¢/kWh	0.8716	0.8716	3.49	3.49
<b>PBF Surcharge</b>	¢/kWh	0.7437	0.7437	2.97	2.97
<b>Renewable Energy Infrastructure Cost Recovery Provision</b>	¢/kWh	0.0000	0.0000	0.00	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00
<b>Refund of 2018 Interim</b>	% on base	0.00	0.00	0.00	0.00
<b>Purchased Power Adjustment</b>	¢/kWh	0.0648	0.0000	0.26	0.00
<b>Energy Cost Recovery</b>	¢/kWh	18.533	21.165	74.13	84.66
<b>Green Infrastructure Fee</b>	\$	1.25	1.25	1.25	1.25
<b>Avg Residential Bill at 400 kwh</b>			153.75	164.02	

Increase (Decrease -)	10.27
% Change	6.68%

	Rate		Charge (\$) at 500 Kwh		
	01-01-20	02-01-20	01-01-20	02-01-20	Difference
<b>Base Rates</b>	effective date:	09/01/19	09/01/19		
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00
Non-fuel Energy Charge					
First 250 kWh per month	¢/kWh	14.0459	14.0459	35.11	35.11
Next 500 kWh per month	¢/kWh	16.6959	16.6959	41.74	41.74
Customer Charge	\$	11.50	11.50	11.50	11.50
<b>Total Base Charges</b>			88.35	88.35	0.00
<b>IRP Refund</b>	% on base	0.000	0.000	0.00	0.00
<b>Revenue Balancing Rate Adjustment</b>	¢/kWh	0.8716	0.8716	4.36	4.36
<b>PBF Surcharge</b>	¢/kWh	0.7437	0.7437	3.72	3.72
<b>Renewable Energy Infrastructure Cost Recovery Provision</b>	¢/kWh	0.0000	0.0000	0.00	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00
<b>Refund of 2018 Interim</b>	% on base	0.00	0.00	0.00	0.00
<b>Purchased Power Adjustment</b>	¢/kWh	0.0648	0.0000	0.32	0.00
<b>Energy Cost Recovery</b>	¢/kWh	18.533	21.165	92.67	105.83
<b>Green Infrastructure Fee</b>	\$	1.25	1.25	1.25	1.25
<b>Avg Residential Bill at 500 kwh</b>			190.67	203.51	

Increase (Decrease -)	12.84
% Change	6.73%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH RESIDENTIAL &amp; COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$)</u>	
		<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
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
July 1, 2018	-1.354	168.81	210.24
August 1, 2018	-4.992	154.26	192.05
September 1, 2018	-3.443	165.08	205.53
October 1, 2018	-4.054	162.63	202.48
November 1, 2018	-3.697	164.06	204.26
December 1, 2018	-1.431	173.13	215.59
January 1, 2019	-3.771	163.91	204.03
February 1, 2019	-7.208	150.16	186.85
March 1, 2019	-4.872	159.50	198.53
April 1, 2019	-5.034	158.51	197.29
May 1, 2019	-3.503	164.98	205.37
June 1, 2019	5.096	166.63	206.77
July 1, 2019	3.171	161.65	200.57
August 1, 2019	2.259	155.00	192.25
September 1, 2019	19.349	152.49	189.11
October 1, 2019	19.071	151.51	187.89
November 1, 2019	20.907	162.13	201.16
December 1, 2019	18.365	151.94	188.43
January 1, 2020	18.533	153.75	190.67
February 1, 2020	21.165	164.02	203.51

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
<b>06/01/11</b>	<b>IRP RECOVERY REFUND</b>	<b>0.000 PERCENT ON BASE</b>
<b>08/17/17</b>	<b>RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION</b>	<b>0.0000 CENTS/KWH</b>
07/01/17 - 06/30/18	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
01/01/18 - 06/30/18	GREEN INFRASTRUCTURE FEE	1.34 DOLLARS/MONTH
04/01/18 - 04/30/18	SOLARSAVER ADJUSTMENT	1.3400 CENTS/KWH
05/01/18 - 03/31/19	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/18 - 08/22/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.8954 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	1.21 DOLLARS/MONTH
08/23/18 - 05/31/19	INTERIM RATE INCREASE 2018 TEST YEAR	6.68 PERCENT ON BASE
08/23/18 - 05/31/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3183 CENTS/KWH
01/01/19 / 06/30/19	GREEN INFRASTRUCTURE FEE	1.35 DOLLARS/MONTH
04/01/19 - 04/30/19	SOLARSAVER ADJUSTMENT	-0.0855 CENTS/KWH
<b>05/01/19</b>	<b>SOLARSAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
<b>06/01/19</b>	<b>FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2018 TEST YEAR)</b>	
06/01/19 - 06/30/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR	-2.00 PERCENT ON BASE
<b>06/01/19</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>0.8716 CENTS/KWH</b>
07/01/19 - 12/31/19	RESID. PBF SURCHARGE ADJUSTMENT	0.4775 CENTS/KWH
07/01/19 - 12/31/19	GREEN INFRASTRUCTURE FEE	1.17 DOLLARS/MONTH
08/01/19 - 08/31/19	PURCHASED POWER ADJUSTMENT	-0.7518 CENTS/KWH
09/01/19 - 09/30/19	PURCHASED POWER ADJUSTMENT	-0.7820 CENTS/KWH
10/01/19 - 10/31/19	PURCHASED POWER ADJUSTMENT	-0.7475 CENTS/KWH
11/01/19 - 11/30/19	PURCHASED POWER ADJUSTMENT	0.0692 CENTS/KWH
12/01/19 - 12/31/19	PURCHASED POWER ADJUSTMENT	0.0655 CENTS/KWH
01/01/20 - 01/31/20	PURCHASED POWER ADJUSTMENT	0.0648 CENTS/KWH
<b>01/01/20</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.7437 CENTS/KWH</b>
<b>01/01/20</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.25 DOLLARS/MONTH</b>
<b>02/01/20</b>	<b>PURCHASED POWER ADJUSTMENT</b>	<b>0.00 CENTS/KWH</b>

~ Surcharges currently in effect are in bold.

~ Base charges include customer charge, demand charge, energy charge, power factor adjustment, voltage discount and minimum charge.