



October 28, 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

Dear Commissioners:

Subject: Maui Electric Energy Cost Recovery Factor for November 2020

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2020 Energy Cost Recovery factor for our Maui Division is 13.830 cents per kilowatt-hour ("kWh"), an increase of 0.441 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$150.47, an increase of \$2.73 compared to rates effective October 1, 2020. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$2.20) and increase in the DSM Adjustment (+\$0.54), slightly offset by the decrease in the Purchase Power Adjustment (-\$0.01).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 58.80 cents per million BTU to 939.69 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.187 cents per kWh to 17.880 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for November 2020 is 17.881 cents per kWh, a decrease of 0.195 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$140.91, a decrease of \$0.78 compared to rates effective October 1, 2020. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor.

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 5.79 cents per million BTU to 1,516.48 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 November 2020 is 14.096 cents per kWh, an increase of 3.219 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$132.92, an increase of \$11.89 compared to rates effective October 1, 2020. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$12.87) and termination of the Purchase Power Adjustment (-\$0.98).

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
October 28, 2020
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 243.82 cents per million BTU to 1,141.88 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 22.48 cents per kWh.

To streamline the filing, the Company has excluded the contract prices that were previously included in Attachment 3 Page 3 of 3, Attachment 12 Page 2 of 2, and Attachment 19 Page 2 of 2 from this filing. Those values do not affect the filed Energy Cost Recovery Factors.

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

Sincerely,

/s/ Sharon M. Suzuki _____
Sharon M. Suzuki
President
Maui County and Hawai'i Island Utilities

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>10-01-20</u>	<u>11-01-20</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	898.06	1,141.88	243.82
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	22.48	22.48	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	10.877	14.096	3.219
<u>Others - "G,P,F"</u>			
Energy Cost Recovery, ¢/kWh	10.877	14.096	3.219
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	121.03	132.92	11.89
500 KWH Consumption, \$/Bill	149.78	164.65	14.87

Supersedes Sheet Effective:

October 1, 2020

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

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

Line

1 Effective Date November 1, 2020
2 Supercedes Factors October 1, 2020

GENERATION COMPONENT

CENTRAL STATION				DG ENERGY COMPONENT	
FUEL PRICES, ϕ /mmbtu					
3	Industrial				
				0.00	
4	Diesel			1,141.88	
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 ϕ /mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))		1,141.88		
10	% Input to System kWh Mix		99.56		
EFFICIENCY FACTOR, mmbtu/kWh					
	(A)	(B)	(C)	(D)	
			Percent of		
			Centrl Stn +		
			Other		
	Fuel Type	Eff Factor	Centrl Stn +	Weighted	
		mmbtu/kWh	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, ϕ /kWh (lines (9 x 10 x 14))			12.65024	
16	BASE CENTRAL STATION + OTHER GENERATION COST, ϕ /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 ϕ /kWh (lines (16 x 17 x 18))			0.00000	
20	COST LESS BASE (line(15 - 19))			12.65024	
21	Revenue Tax Req Multiplier			1.0975	
22	CENTRAL STATION + OTHER GENERATION FACTOR, ϕ /kWh (line (20 x 21))			13.88364	
23	COMPOSITE COST OF DG ENERGY, ϕ /kWh				0.000
24	% Input to System kWh Mix				0.00
25	WEIGHTED COMPOSITE DG ENERGY COST, ϕ /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, ϕ /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, ϕ /kWh (Line 29 x 30 x 31)				0.00000
SUMMARY OF					
TOTAL GENERATION FACTOR, ϕ /kWh					
33	CNTRL STN + OTHER (line 22)				13.88364
34	DG (line 32)				0.00000
35	TOTAL GENERATION FACTOR, ϕ /kWh (lines 33 + 34)				13.88364

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

Line

1	Effective Date	November 1, 2020
2	Supersedes Factors	October 1, 2020

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>	
	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	96.90%
43	FIT	3.10%
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	22.478
46	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 41) + (37 x 42) + (38 x 43) + (39 x 44))	22.478
47	% Input to System kWh Mix	0.44
48	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (46 x 47))	0.09811
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))	0.09811
53	Loss Factor	1.098
54	Revenue Tax Req Multiplier	1.0975
55	PURCHASED ENERGY FACTOR, ¢/kWh (lines (52 x 53 x 54))	0.11823

<u>Line</u>	<u>Calculation of Monthly Fossil Fuel Cost Risk Sharing Component</u>	
	Baseline Diesel	
56	Diesel \$, baseline month	\$415,672
57	Diesel mmbtu, baseline	26,195
58	Baseline Diesel, c/mmbtu	1,586.84
	Month Diesel	
59	Diesel mmbtu, budget	25,582
60	Diesel Cost, ¢/mmbtu	1,141.88
61	Diesel ECRC Fossil Cost	\$292,116
62	Diesel Base ECRC Recovery Target	\$405,947
63	Diesel differential	-\$113,831
64	Total Fossil	-\$113,831
65	2% of above	-\$2,277
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	-\$15,290
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	-\$2,277
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$17,566
73	Fossil Cost Risk Sharing before taxes	-\$2,277
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	-\$2,499
76	Forecasted Month MWh Sales	2,375
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.1052

<u>Line</u>	<u>SYSTEM COMPOSITE CALCULATIONS</u>	
78	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 55))	14.00187
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	0.105
81	ECR Reconciliation Adjustment	(0.011)
82	ECR FACTOR, ¢/kWh (lines (78 + 79 + 80 + 81))	14.096

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
10/20/2020	5,884.14	33,716.14	224,697.18
Estimated Use	1,848.64	10,592.71	95,129.35
Estimated Received	2,970.00	17,018.10	328,798.62
Estimated Additional	-	-	-
Estimated End	<u>7,005.50</u>	<u>40,141.53</u>	<u>458,366.45</u>

Next Months Expense = \$ 65.4295 /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	\$ 65.4295	5.73 BTU/BBL	1141.88

MAUI ELECTRIC COMPANY, LTD.
Molokai Division
ECR Reconciliation Adjustment

November 2020

1. Amount to be refunded	(\$700)
2. Monthly amount (1/3 x Line 1)	(\$233)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$256)
5. Estimated Sales (November 2020)	2,375 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.011 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
2020 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)**

<u>Line</u>	<u>Description</u>	Without Deadband 3rd Quarter <u>YTD Total</u>	collection by company*	Basis for Recon With Deadband 3rd Quarter <u>YTD Total</u>	collection by company*
	Actual Costs				
1	Generation	\$3,200.4		\$3,200.4	
2	Distributed Generation	\$0.0		\$0.0	
3	Purch Power	<u>\$0.9</u>		<u>\$0.9</u>	
4	Total	\$3,201.3		\$3,201.3	
	Fuel Filing Cost				
5	Generation	\$3,200.9		\$3,206.1	
6	Distributed Generation	\$0.0		\$0.0	
7	Purch Power	<u>\$0.9</u>		<u>\$0.9</u>	
8	Total	\$3,201.8		\$3,206.9	
	Base Fuel Cost				
9	Generation	\$0.0		\$0.0	
10	Distributed Generation	\$0.0		\$0.0	
11	Purch Power	<u>\$0.0</u>		<u>\$0.0</u>	
12	Total	\$0.0		\$0.0	
13	FUEL - BASE COST (Line 8-12)	\$3,201.8		\$3,206.9	
14	ACTUAL FOA REVENUE LESS TAX	\$3,248.3		\$3,248.3	
15	FOA reconciliation adj for prior years	<u>\$21.2</u>		<u>\$21.2</u>	
16	ADJUSTED FOA LESS TAX	\$3,227.1		\$3,227.1	
17	FOA-(FUEL-BASE) (Line 16-13)	\$25.3		\$20.2	
	ADJUSTMENTS				
18	Current year FOA accrual reversal	\$15.1		\$15.1	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	<u>\$0.0</u>		<u>\$0.0</u>	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	\$40.4	Over	\$35.3	Over
21A	Fossil Fuel YTD Cost Risk Sharing Adjustment	<u>-\$11.9</u>		<u>-\$11.9</u>	
21B	YTD QUARTERLY FOA RECON w/Fossil Risk Adj (Line 21+Line 21A)	<u><u>\$28.5</u></u>		<u><u>\$23.3</u></u>	
22	2nd Quarter Reconciliation YTD			<u>\$22.6</u>	Over
23	FOA Reconciliation to be Refunded November 2020 to January 2021 (Line 22- 21B)			<u><u>-\$0.7</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.
MOLOKAI DIVISION
DEADBAND CALCULATION**

Determination of Efficiency Factor to use for Cost-Recovery Purposes
Period: January 1, 2020 through September 30, 2020

	<u>Notes</u>	<u>YTD</u>
<u>Palaau Diesel</u>		
.	f	11,127
Palaau Diesel Deadband Definition, +/- BTU/kWh	d	50
Palaau Diesel Portion of Recorded Sales, MWh	a	21,498
Palaau Diesel Consumption (Recorded), MMBTU	b	239,601
Palaau Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,145
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	11,145

MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION

GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND
2020

	Without Deadband Jan 1 - Sep 30	With Deadband AS FILED Jan 1 - Sep 30
<u>DIESEL FUEL FILING COST</u>		
Diesel Portion of Recorded Sales, MWH	21,498	21,498
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.011127	0.011145
Mmbtu adjusted for Sales Efficiency Factor	239,204	239,591
\$/mmbtu	<u>\$13.3813</u>	<u>\$13.3813</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$3,200.9	\$3,206.1
TOTAL GENERATION FUEL FILING COST, \$000s	\$3,200.9	\$3,206.1
TOTAL GENERATION BASE FUEL COST , \$000s	\$0.0	\$0.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$3,200.9	\$3,206.1
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$0.0	\$0.0

Fossil Fuel Cost Risk Sharing Mechanism, September 2020, Molokai
Jan-20, Baseline

YTD Subject to Fossil Risk

		Diesel Fossil Fuel Cost Risk Sharing	
AA	MMBtu	26,195	239,601
BB	\$ cost, actuals	415,672	3,200,359
CC = BB / AA (Baseline Column)	Jan 2020 baseline \$/mmbtu	15.8684499	15.8684499
DD	Diesel Gen kWh		23,624,885
EE	Total kWh, Gen, Purch Pwr, DG		23,676,656
FF	Sales kWh		21,544,752
GG = (DD / EE) x FF	Diesel kWh-sales		21,497,643
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)		11,145
II	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		11,145
JJ = BB/AA (YTD Column)	Actual Cost \$/MMbtu		13.3570298
KK = CC x HH x GG / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$3,795,801
LL = II x JJ x GG / 1,000,000	Fuel Filing Cost Recovery		\$3,200,227
MM = 2% x (LL-KK)	Diesel Cost Risk Sharing		-\$11,911
NN	Annual Cap (non-prorated)		\$31,500
OO	# Days		366
PP	Annual Cap (pro-rated)		\$31,500
QQ = MM, up to cap	Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$31500 cap		-\$11,911

**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)	(10,240)	(2,330)
February	(31,000)	(4)	(1,752)	(29,248)	10,333	9,207	(22,371)
March					10,333	10,125	(12,246)
April					10,333	9,676	(2,570)
May	(400)	(1)	(1,907)	1,507	133	156	(907)
June					133	132	(775)
July					133	140	(635)
August	23,000	(2)	(635)	23,635	(7,667)	(7,490)	15,510
September					(7,667)	(7,964)	7,546
October					(7,667)		
November	700	(3)	(113)	813	(233)		

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		
	10-01-20	11-01-20	10-01-20	11-01-20	Difference
Base Rates					
effective date:	09/01/19	09/01/19			
Base Fuel/Energy Charge ¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Non-fuel Energy Charge					
First 250 kWhr per month ¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWhr per month ¢/kWh	16.6959	16.6959	25.04	25.04	0.00
Customer Charge \$	11.50	11.50	11.50	11.50	0.00
Total Base Charges			71.65	71.65	0.00
IRP Refund					
% on base	0.000	0.000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment ¢/kWh	0.3383	0.3383	1.35	1.35	0.00
PBF Surcharge ¢/kWh	0.5882	0.5882	2.35	2.35	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	0.2449	0.0000	0.98	0.00	-0.98
Energy Cost Recovery ¢/kWh	10.877	14.096	43.51	56.38	12.87
Green Infrastructure Fee \$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 400 kwh			121.03	132.92	

Increase (Decrease -)	11.89
% Change	9.82%

	Rate		Charge (\$) at 500 Kwh		
	10-01-20	11-01-20	10-01-20	11-01-20	Difference
Base Rates					
effective date:	09/01/19	09/01/19			
Base Fuel/Energy Charge ¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Non-fuel Energy Charge					
First 250 kWhr per month ¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWhr per month ¢/kWh	16.6959	16.6959	41.74	41.74	0.00
Customer Charge \$	11.50	11.50	11.50	11.50	0.00
Total Base Charges			88.35	88.35	0.00
IRP Refund					
% on base	0.000	0.000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment ¢/kWh	0.3383	0.3383	1.69	1.69	0.00
PBF Surcharge ¢/kWh	0.5882	0.5882	2.94	2.94	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	0.2449	0.0000	1.22	0.00	-1.22
Energy Cost Recovery ¢/kWh	10.877	14.096	54.39	70.48	16.09
Green Infrastructure Fee \$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 500 kwh			149.78	164.65	

Increase (Decrease -)	14.87
% Change	9.93%

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

<u>EFFECTIVE DATE</u>	FUEL FACTOR CENTS / KWH <u>RESIDENTIAL & COMMERCIAL</u>	RESIDENTIAL BILL (\$)	
		<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
March 1, 2020	21.967	167.23	207.52
April 1, 2020	19.555	157.34	195.16
May 1, 2020	18.231	151.00	187.24
June 1, 2020	12.810	127.13	157.40
July 1, 2020	10.471	118.42	146.53
August 1, 2020	12.013	125.55	155.44
September 1, 2020	14.463	135.41	167.76
October 1, 2020	10.877	121.03	149.78
November 1, 2020	14.096	132.92	164.65

**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
08/17/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 CENTS/KWH
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
5/1/2019 - 03/31/20	SOLARSAVER ADJUSTMENT	0.0000 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	-2.00 PERCENT ON BASE
06/01/19 - 05/31/20	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.8716 CENTS/KWH
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
01/01/20 - 06/30/20	RESID. PBF SURCHARGE ADJUSTMENT	0.7437 CENTS/KWH
01/01/20 - 06/30/20	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
02/01/20 - 04/30/20	PURCHASED POWER ADJUSTMENT	0.00 CENTS/KWH
04/01/20 - 04/30/20	SOLARSAVER ADJUSTMENT	-0.0592 CENTS/KWH
05/01/20 - 05/31/20	PURCHASED POWER ADJUSTMENT	-0.3200 CENTS/KWH
05/01/20	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/20 - 06/30/20	PURCHASED POWER ADJUSTMENT	-0.3325 CENTS/KWH
06/01/20	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3383 CENTS/KWH
07/01/20 - 07/31/20	PURCHASED POWER ADJUSTMENT	0.0000 CENTS/KWH
07/01/20	RESID. PBF SURCHARGE ADJUSTMENT	0.5882 CENTS/KWH
07/01/20	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH
08/01/20 - 08/31/20	PURCHASED POWER ADJUSTMENT	0.2408 CENTS/KWH
09/01/20 - 09/30/20	PURCHASED POWER ADJUSTMENT	0.2542 CENTS/KWH
10/01/20 -10/31/20	PURCHASED POWER ADJUSTMENT	0.2449 CENTS/KWH
11/01/20	PURCHASED POWER ADJUSTMENT	0.0000 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.