



October 26, 2021

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 2021

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2021 Energy Cost Recovery factor for our Maui Division is 19.019 cents per kilowatt-hour ("kWh"), an increase of 0.794 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$180.07, an increase of \$4.05 compared to rates effective October 1, 2021. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$3.98) and increase in the Purchase Power Adjustment (+\$0.11) partially offset by the decrease in the DSM Adjustment (-\$0.04).

The Company's Maui Division fuel composite cost of generation, central station and other increased 72.280 cents per million BTU to 1,561.11 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.141 cents per kWh to 18.478 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for November 2021 is 29.191 cents per kWh, an increase of 4.849 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$189.14, an increase of \$19.39 compared to rates effective October 1, 2021. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 435.78 cents per million BTU to 2,532.57 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 2021 is 20.133 cents per kWh, a decrease of 0.193 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$160.06, a decrease of \$0.77 compared to rates effective October 1, 2021. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor.

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 17.40 cents per million BTU to 1,684.72 cents per million BTU. The composite cost

The Honorable Chair and Members
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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 November 1, 2021.

Sincerely,

/s/ Dean K. Matsuura
Dean K. Matsuura
Director, Regulatory Rate Proceedings
Hawaiian Electric Company, Inc.

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>10-01-21</u>	<u>11-01-21</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,702.12	1,684.72	(17.40)
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	21.80	21.80	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	20.326	20.133	(0.193)
<u>Others - "G,P,F"</u>			
Energy Cost Recovery, ¢/kWh	20.326	20.133	(0.193)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	160.83	160.06	(0.77)
500 KWH Consumption, \$/Bill	199.53	198.57	(0.96)

Supersedes Sheet Effective:

October 1, 2021

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

ENERGY COST RECOVERY (ECR) FILING - November 1, 2021 (page 1 of 2)

Line

1 Effective Date November 1, 2021
2 Supercedes Factors October 1, 2021

GENERATION COMPONENT

CENTRAL STATION						DG ENERGY COMPONENT	
FUEL PRICES, ϕ /mmbtu							
3	Industrial						
4	Diesel						
5	Other						
BTU MIX, %							
6	Industrial			23	COMPOSITE COST OF DG ENERGY, ϕ /kWh		0.000
7	Diesel			24	% Input to System kWh Mix		0.00
8	Other			25	WEIGHTED COMPOSITE DG ENERGY COST, ϕ /kWh (Lines 23 x 24)		0.00000
				26	BASE DG ENERGY COMP COST		0.000
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ϕ /mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))		1,684.72	27	Base % Input to System kWh Mix		0.00
10	% Input to System kWh Mix		99.99	28	WEIGHTED BASE DG ENERGY COST, ϕ /kWh (Line 26 x 27)		0.00000
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
			Percent of				
			Centrl Stn +	Weighted			
	Fuel Type	Eff Factor	Other	Eff Factor			
		mmbtu/kWh					
11	Industrial	0.000000	0.00	0.000000	29	Cost Less Base (Line 25 - 28)	0.00000
12	Diesel	0.011127	100.00	0.011127	30	Loss Factor	1.098
13	Other	0.011127	0.00	0.000000	31	Revenue Tax Req Multiplier	1.0975
	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)				32	DG FACTOR, ϕ /kWh (Line 29 x 30 x 31)	0.00000
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))		18.74337				
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))		18.74337				
21	Revenue Tax Req Multiplier		1.0975				
22	CENTRAL STATION + OTHER GENERATION FACTOR, ϕ /kWh (line (20 x 21))		20.57085				
				SUMMARY OF			
				TOTAL GENERATION FACTOR, ϕ /kWh			
				33	CNTRL STN + OTHER (line 22)		20.57085
				34	DG (line 32)		0.00000
				35	TOTAL GENERATION FACTOR, ϕ /kWh (lines 33 + 34)		20.57085

ENERGY COST RECOVERY (ECR) FILING - November 1, 2021 (page 2 of 2)

Line

1	Effective Date	November 1, 2021
2	Supersedes Factors	October 1, 2021

<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	0.00%
43	FIT	100.00%
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	21.800
46	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 41) + (37 x 42) + (38 x 43) + (39 x 44))	21.800
47	% Input to System kWh Mix	0.01
48	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (46 x 47))	0.00291
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))	0.00291
53	Loss Factor	1.098
54	Revenue Tax Req Multiplier	1.0975
55	PURCHASED ENERGY FACTOR, ¢/kWh (lines (52 x 53 x 54))	0.00351

<u>Line</u>	<u>Calculation of Monthly Fossil Fuel Cost Risk Sharing Component</u>	
	Baseline Diesel	
56	Diesel \$, baseline month	\$312,097
57	Diesel mmbtu, baseline	27,102
58	Baseline Diesel, c/mmbtu	1,151.57
	Month Diesel	
59	Diesel mmbtu, budget	26,521
60	Diesel Cost, ¢/mmbtu	1,684.72
61	Diesel ECRC Fossil Cost	\$446,802
62	Diesel Base ECRC Recovery Target	\$305,407
63	Diesel differential	\$141,395
64	Total Fossil	\$141,395
65	2% of above	\$2,828
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$18,061
67	Maximum Annual Cap (bi-directional)	\$31,500
68	Number of Days in year from implementation	365
69	Fossil Risk % Proration (based on 365 day year)	100.00%
70	Maximum Annual Cap (bi-directional) prorated	\$31,500
71	Applicable Monthly Fossil Fuel Cost Risk Sharing	\$2,828
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$20,889
73	Fossil Cost Risk Sharing before taxes	\$2,828
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	\$3,104
76	Forecasted Month MWh Sales	2,373
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	(0.1308)

<u>Line</u>	<u>SYSTEM COMPOSITE CALCULATIONS</u>	
78	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 55))	20.57436
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	(0.131)
81	ECR Reconciliation Adjustment	(0.311)
82	ECR FACTOR, ¢/kWh (lines (78 + 79 + 80 + 81))	20.133

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
10/20/2021	6,336.38	36,307.46	615,260.98
Estimated Use	1,765.52	10,116.43	172,193.81
Estimated Received	3,663.00	20,988.99	351,784.38
Estimated Additional	-	-	-
Estimated End	<u>8,233.86</u>	<u>47,180.02</u>	<u>794,851.55</u>

Next Months Expense = \$ 96.5345 /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	\$ 96.5345	5.73 BTU/BBL	1684.72

MAUI ELECTRIC COMPANY, LTD.
Molokai Division
ECR Reconciliation Adjustment

November 2021

1. Amount to be refunded	(\$20,200)
2. Monthly amount (1/3 x Line 1)	(\$6,733)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$7,390)
5. Estimated Sales (November 2021)	2,373 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.311 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
2021 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	\$3,548.1		\$3,548.1	
2	Distributed Generation	\$0.0		\$0.0	
3	Purch Power	\$1.0		\$1.0	
4	Total	\$3,549.1		\$3,549.1	
	Fuel Filing Cost				
5	Generation	\$3,517.1		\$3,532.9	
6	Distributed Generation	\$0.0		\$0.0	
7	Purch Power	\$1.0		\$1.0	
8	Total	\$3,518.1		\$3,533.9	
	Base Fuel Cost				
9	Generation	\$0.0		\$0.0	
10	Distributed Generation	\$0.0		\$0.0	
11	Purch Power	\$0.0		\$0.0	
12	Total	\$0.0		\$0.0	
13	FUEL - BASE COST (Line 8-12)	\$3,518.1		\$3,533.9	
14	ACTUAL FOA REVENUE LESS TAX	\$3,542.2		\$3,542.2	
15	FOA reconciliation adj for prior years	-\$4.1		-\$4.1	
16	ADJUSTED FOA LESS TAX	\$3,546.3		\$3,546.3	
17	FOA-(FUEL-BASE) (Line 16-13)	\$28.2		\$12.4	
	ADJUSTMENTS				
18	Current year FOA accrual reversal	\$22.5		\$22.5	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	\$0.0		\$0.0	
21	2nd QUARTER FOA RECONCILIATION (Lines 17+18+19+20)	\$50.7	Over	\$34.9	Over
21A	YTD Fossil Fuel Cost Risk Sharing Adjustment	\$15.5		\$15.5	
21B	Quarterly FOA Recon w/Fossil Risk Adj (Line 21 + Line 21A)	\$66.2		\$50.4	
22	2nd Quarter FOA Reconciliation YTD			\$30.2	Over
23	FOA Reconciliation to be Refunded November 2021 to January 2022 (Line 22- 21B)			-\$20.2	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, 2021 through September 30, 2021

	<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	21,489
Palaau Diesel Consumption (Recorded), MMBTU	b	241,519
Palaau Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,239
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	11,177

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

	2021	
	Without Deadband	With Deadband AS FILED
	<u>Jan 1 - Sep 30</u>	<u>Jan 1 - Sep 30</u>
<u>DIESEL FUEL FILING COST</u>		
Diesel Portion of Recorded Sales, MWH	21,489	21,489
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.011127	0.011177
Mmbtu adjusted for Sales Efficiency Factor	239,105	240,179
\$/mmbtu	<u>\$14.7095</u>	<u>\$14.7095</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$3,517.1	\$3,532.9
TOTAL GENERATION FUEL FILING COST, \$000s	\$3,517.1	\$3,532.9
TOTAL GENERATION BASE FUEL COST , \$000s	\$0.0	\$0.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$3,517.1	\$3,532.9
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$0.0	\$0.0

Fossil Fuel Cost Risk Sharing Mechanism, September 2021, Molokai
Jan-21, Baseline

YTD Subject to Fossil Risk

		Diesel Fossil Fuel Cost Risk Sharing	
AA	MMBtu	27,102	241,519
BB	\$ cost, actuals	312,097	3,548,119
CC = BB / AA (Baseline Column)	Jan 2021 baseline \$/mmbtu	11.5157188	11.5157188
DD	Diesel Gen kWh		23,570,780
EE	Total kWh, Gen, Purch Pwr, DG		23,656,926
FF	Sales kWh		21,567,200
GG = (DD / EE) x FF	Diesel kWh-sales		21,488,664
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)		11,239
II	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		11,177
JJ = BB/AA (YTD Column)	Actual Cost \$/MMbtu		14.6908230
KK = CC x HH x GG / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$2,753,459
LL = II x JJ x GG / 1,000,000	Fuel Filing Cost Recovery		\$3,528,424
MM = 2% x (LL-KK)	Diesel Cost Risk Sharing		\$15,499
NN	Annual Cap (non-prorated)		\$31,500
OO	# Days		365
PP	Annual Cap (pro-rated)		\$31,500
QQ = MM, up to cap	Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$31500 cap		\$15,499

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
2021 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 '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)	(7,901)	(355)
November	700	(3)	(113)	813	(233)	(238)	220
December					(233)	(252)	(32)
January '21					(233)	(241)	(273)
February	4,000	(4)	(258)	4,258	(1,333)	(1,290)	2,695
March					(1,333)	(1,302)	1,393
April					(1,333)	(1,311)	82
May	7,600	(1)	66	7,534	(2,533)	(2,667)	4,949
June					(2,533)	(2,707)	2,242
July					(2,533)	(2,630)	(388)
August	22,600	(2)	(286)	22,886	(7,533)	(7,735)	14,763
September					(7,533)	(7,613)	7,150
October					(7,533)		
November	20,200	(3)	(379)	20,579	(6,733)		

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		
		10-01-21	11-01-21	10-01-21	11-01-21	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 kWh per month	¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWh 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	1.0242	1.0242	4.10	4.10	0.00
PBF Surcharge	¢/kWh	0.6478	0.6478	2.59	2.59	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	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Recovery	¢/kWh	20.326	20.133	81.30	80.53	-0.77
Green Infrastructure Fee	\$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 400 kwh				160.83	160.06	

Increase (Decrease -)	-0.77
% Change	-0.48%

	Rate			Charge (\$) at 500 Kwh		
		10-01-21	11-01-21	10-01-21	11-01-21	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 kWh per month	¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWh 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	1.0242	1.0242	5.12	5.12	0.00
PBF Surcharge	¢/kWh	0.6478	0.6478	3.24	3.24	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	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Recovery	¢/kWh	20.326	20.133	101.63	100.67	-0.96
Green Infrastructure Fee	\$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 500 kwh				199.53	198.57	

Increase (Decrease -)	-0.96
% Change	-0.48%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH</u>		<u>RESIDENTIAL BILL (\$)</u>	
	<u>RESIDENTIAL & COMMERCIAL</u>		<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
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
December 1, 2020	13.337		129.89	160.86
January 1, 2021	14.116		133.06	164.81
February 1, 2021	16.108		141.03	174.77
March 1, 2021	15.163		137.25	170.05
April 1, 2021	17.823		147.71	183.13
May 1, 2021	18.313		149.85	185.80
June 1, 2021	17.544		149.53	185.38
July 1, 2021	18.749		154.53	191.65
August 1, 2021	21.572		165.82	205.76
September 1, 2021	19.433		157.26	195.07
October 1, 2021	20.326		160.83	199.53
November 1, 2021	20.133		160.06	198.57

**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 - 03/31/21	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/20 - 06/30/20	PURCHASED POWER ADJUSTMENT	-0.3325 CENTS/KWH
06/01/20 - 05/31/21	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 - 06/30/21	RESID. PBF SURCHARGE ADJUSTMENT	0.5882 CENTS/KWH
07/01/20 - 12/31/20	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
01/01/21 - 06/30/21	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
04/01/21 - 04/30/21	SOLARSAVER ADJUSTMENT	-0.0445 CENTS/KWH
05/01/21	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/21	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.0242 CENTS/KWH
07/01/21	RESID. PBF SURCHARGE ADJUSTMENT	0.6478 CENTS/KWH
07/01/21	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH

~ Surcharges currently in effect are in bold.

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