



October 26, 2022

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 2022

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2022 Energy Cost Recovery factor for our Maui Division is 24.488 cents per kilowatt-hour ("kWh"), a decrease of 3.659 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$210.08, a decrease of \$19.08 compared to rates effective October 1, 2022. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor (-\$18.30) and decrease in the residential DSM Adjustment (-\$1.08), partially offset by an increase in the Purchase Power Adjustment (+\$0.30).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 273.400 cents per million BTU to 2,207.68 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.991 cents per kWh to 18.615 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for November 2022 is 37.960 cents per kWh, an increase of 0.145 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$226.59, an increase of \$0.58 compared to rates effective October 1, 2022. 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 16.64 cents per million BTU to 3,269.87 cents per million BTU. The composite cost 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 2022 is 31.953 cents per kWh, a decrease of 4.451 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$209.71, a decrease of \$17.81 compared to rates effective October 1, 2022. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor.

.

The Honorable Chair and Members  
of the Hawai'i Public Utilities Commission  
October 26, 2022  
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 369.66 cents per million BTU to 2,661.77 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 November 1, 2022.

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.  
MAUI DIVISION**

**ENERGY COST RECOVERY FACTOR**

	EFFECTIVE DATES		<u>Change</u>
	<u>10/01/2022</u>	<u>11/01/2022</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	2,481.08	2,207.68	(273.400)
DG Energy, ¢/kWh	0.00	0.00	0.000
Purchased Energy, ¢/kWh	19.606	18.615	(0.991)
<u>Residential Schedule "R"</u>			
Energy Cost Recovery Factor, ¢/kWh	28.147	24.488	(3.659)
<u>Others - "G,J,P,F"</u>			
Energy Cost Recovery Factor, ¢/kWh	28.147	24.488	(3.659)
<u>Residential Customer with</u>			
500 KWH Consumption, \$/Bill	229.16	210.08	(19.08)
600 KWH Consumption, \$/Bill	274.04	251.14	(22.90)

Supersedes Sheet Effective:

10/01/2022

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

ENERGY COST RECOVERY (ECR) FILING - November 1, 2022 (page 1 of 2)

Line

1 Effective Date November 1, 2022  
2 Supercedes Factors of October 1, 2022

**GENERATION COMPONENT**

<u>CENTRAL STATION</u>				<u>DG ENERGY COMPONENT</u>	
FUEL PRICES, ¢/mmbtu					
3	Industrial				
			1,273.80		
4	Diesel				
			2,458.32		
5	Other				
BTU MIX, %					
6	Industrial			23	COMPOSITE COST OF DG
			21.16%		ENERGY, ¢/kWh
7	Diesel				0.000
			78.84%	24	% Input to System kWh Mix
8	Other				0.00%
			0.00%		
			100.00%		
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))		2,207.68	25	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24)
10	% Input to System kWh Mix		65.69%		-
EFFICIENCY FACTOR, mmbtu/kWh				26	BASE DG ENERGY COMP COST
	(A)	(B)	(C)	(D)	0.000
			Percent of	27	Base % Input to System kWh Mix
			Centrl Stn +		0.00
			Other	28	WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27)
			Weighted		0.00000
			Eff Factor	29	Cost Less Base (Line 25 - 28)
					0.00000
				30	Loss Factor
					1.057
				31	Revenue Tax Req Multiplier
					1.0975
				32	DG FACTOR, ¢/kWh (Line 29 x 30 x 31)
					0.00000
11	Industrial	0.015786	14.03		
12	Diesel	0.009938	85.97		
13	Other	0.011072	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))]		0.010758		
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))		15.60152		
16	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu		0.00		
17	Base % Input to Sys kWh Mix		0.00		
18	Efficiency Factor, mmbtu/kwh		0.011072		
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18))		-		
20	COST LESS BASE (line(15 - 19))		15.60152		
21	Revenue Tax Req Multiplier		1.0975		
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))		17.12267		
				SUMMARY OF	
				TOTAL GENERATION FACTOR, ¢/kWh	
				33 CNTRL STN + OTHER (line 22)	17.12267
				34 DG (line 32)	-
				35 TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)	17.12267

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

ENERGY COST RECOVERY (ECR) FILING - November 1, 2022 (page 2 of 2)

Line	Effective Date	November 1, 2022
1	Effective Date	November 1, 2022
2	Supercedes Factors of	October 1, 2022

Line	<b>PURCHASED ENERGY COMPONENT</b>	
	PURCHASED ENERGY PRICE - FOSSIL ¢/kWh	
	PURCHASED ENERGY PRICE - RENEWABLE, ¢/kWh	
36	Kaheawa Wind I - On Peak	14.000
37	- Off Peak	13.126
38	Kaheawa Wind II	20.325
39	Sempra Wind	23.211
40	Unused - On Peak	0.000
41	- Off Peak	0.000
42	South Maui RR	11.060
43	Ku'ia Solar	11.060
44	Unused	0.000
45	Unused	0.000
46	CBRE PV	16.500
47		
48	FIT	21.934
	PURCHASED ENERGY KWH MIX- FOSSIL, %	
48A	Subtotal Fossil %	0%
	PURCHASED ENERGY KWH MIX - RENEWABLE, %	
49	Kaheawa Wind I - On Peak	20.13%
50	- Off Peak	15.67%
51	Kaheawa Wind II	29.93%
52	Sempra Wind - On Peak	29.62%
53	Unused - On Peak	0.00%
54	- Off Peak	0.00%
55	South Maui RR	1.11%
56	Ku'ia Solar	1.08%
57	Unused	0.00%
58	Unused	0.00%
59	CBRE PV	0.00%
60		
61	FIT	2.46%
61A	Subtotal Renewable %	100.00%
61B	Total Purchased Energy %	100.00%
61C	Composite Cost of Purchased Energy, Fossil	N/A
61D	Composite Cost of Purchased Energy, Renewable	18.615
62	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh	18.615
	(Lines (36 x 49) + (37 x 51) + (38 x 51) + (39 x 52) + (40 x 53) + (41 x 54) + (42 x 55) + (43 x 56) + (44 x 57) + (45 x 58) + (46 x 59) + (48 x 61))	
63	% Input to System kWh Mix	34.31%
64	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (62 x 63))	6.38681
65	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	0.000
66	Base % Input to Sys kWh Mix	0.00
67	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (65 x 66))	0.00000
68	COST LESS BASE (lines (64 - 67))	6.38681
69	Loss Factor	1.057
70	Revenue Tax Req Multiplier	1.0975
71	PURCHASED ENERGY FACTOR, ¢/kWh (lines (68 x 69 x 70))	7.40907

Line	<b>Calculation of Monthly Fossil Fuel Cost Risk Sharing Component</b>	
	<b>Baseline IFO</b>	
72	IFO \$, baseline month	\$3,463,288
73	IFO mmbtu, baseline	258,043
74	Baseline IFO, ¢/mmbtu	1342.14
	<b>Baseline Diesel</b>	
75	Diesel \$, baseline month	\$10,115,419
76	Diesel mmbtu, baseline	557,967
77	Baseline Diesel, ¢/mmbtu	1812.91
	<b>Month IFO</b>	
78	IFO mmbtu, budget	126,197
79	IFO Cost, ¢/mmbtu	1,273.80
80	IFO ECRC Fossil Cost	\$1,607,493
81	IFO Base ECRC Recovery Target	\$1,693,730
82	IFO differential	-\$86,237
	<b>Month Diesel</b>	
83	Diesel mmbtu, budget	470,217
84	Diesel Cost, ¢/mmbtu	2,458.32
85	Diesel ECRC Fossil Cost	\$11,559,449
86	Diesel Base ECRC Recovery Target	\$8,524,609
87	Diesel differential	\$3,034,841
88	Total Fossil	\$2,948,604
89	2% of above	\$58,972
90	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$570,000
91	Maximum Annual Cap (bi-directional)	\$570,000
92	Number of Days in year from implementation	365
93	Fossil Risk % Proration (based on 365 day year)	100.00%
94	Maximum Annual Cap (bi-directional) prorated	\$570,000
95	Applicable Monthly Fossil Fuel Cost Risk Sharing	\$0
96	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$570,000
97	Fossil Cost Risk Sharing before taxes	\$0
98	Revenue Tax Adjustment	1.097514
99	Fossil Cost Risk Sharing w/revenue tax	\$0
100	Forecasted Month MWh Sales	82,887
101	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.0000

<b>Derivation of Non-Adjustable Component:</b>		
102	Maalaea Biodiesel (\$000s)	\$511.3
103	Hana (\$000s)	\$19.2
104	Ignition Startup (\$000s)	\$37.6
	Total	\$568.1
	Final Settlement, MECO-602, p1 and MECO-603, p1	
105	Revenue Tax Adjustment	1.097514
106	Non-Adj Revenues, \$000	\$623.5
107	2018 TY Sales, MWh	1,017,968
	Final Tariffs submitted 4/17/2019, Docket No. 2017-0150, Exhibit 2, Att 1, p361	
108	Non-Adj Revenues, ¢/kWh	0.06125
109	Generation and Purchased Energy Factors	24.53174
110	ECR Reconciliation Adjustment	(0.105)
111	Non-Adjustable Component	0.0612
112	Fossil Fuel Cost Risk Sharing Component	0.0000
113	ECR FACTOR, ¢/kWh (lines (109 + 110 + 111 + 112))	24.488

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

**Fuel Oil Inventory Prices for November 2022**

<u>TYPE OF OIL BURNED</u>	<u>PRICES \$/BBL</u>	<u>CONVERSION FACTORS</u>		<u>PRICES ¢/MBTU</u>
INDUSTRIAL	80.2496	6.30	MBTU/BBL	1,273.80
DIESEL/ULSD	143.9240	5.85	MBTU/BBL	2,458.32

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

**Month End Fuel Oil Estimate**

<u><b>Kahului</b></u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/19/2022	30,579.63	192,651.67	2,735,826.14
Estimated Use	16,545.64	104,237.50	1,616,315.95
Estimated Received	14,400.00	90,720.00	1,162,306.22
Estimated Additional	0.00	0.00	0.00
Estimated End	<u>28,433.99</u>	<u>179,134.17</u>	<u>2,281,816.41</u>
<b>Next month's expense (\$/bbl) =</b>		<b>\$ 80.2496</b>	

<u><b>Maalaea</b></u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/19/2022	76,220.65	446,238.57	11,454,737.75
Estimated Use	44,144.36	258,445.93	7,019,262.51
Estimated Received	44,300.00	259,357.12	6,477,396.44
Estimated Additional	6,857.98	40,187.75	1,066,535.87
Estimated End	<u>83,234.27</u>	<u>487,337.51</u>	<u>11,979,407.54</u>
<b>Next month's expense (\$/bbl) =</b>		<b>\$ 143.9240</b>	

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

**PURCHASED POWER PRICE CALCULATIONS**

KAHEAWA WIND POWER ENERGY RATE:

Kaheawa Wind - On Peak, ¢/kWh	14.000
- Off Peak, ¢/kWh	13.126

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 2022:

On-peak, ¢/kwh	10.571
Off-peak, ¢/kwh	9.323

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

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

On-Peak Rate =  $10.5710 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 14 \text{ ¢/kwh}$

Off-Peak Rate =  $9.323 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 13.126 \text{ ¢/kwh}$



**MAUI ELECTRIC COMPANY, LTD.**  
**Maui Division**  
**ECR Reconciliation Adjustment**  
**November 2022**

1. Amount to be Refunded	(\$238,800)
2. Monthly amount (1 / 3 X Line 1)	(\$79,600)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$87,362)
5. Estimated Sales (November 2022)	82,887 mwh
6. Adjustment (Line 4 ÷ Line 5)	(0.105) ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.**  
**MAUI DIVISION**  
**2022 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY**  
(Thousand \$)

<u>Line</u>	W/O Deadband 3rd Quarter <u>YTD Total</u>	collection by <u>company*</u>	Basis for Recon With Deadband 3rd Quarter <u>YTD Total</u>	collection by <u>company*</u>
ACTUAL COSTS:				
1	\$141,458.6		\$141,458.6	
2	\$24.1		\$24.1	
3	<u>\$38,612.4</u>		<u>\$38,612.4</u>	
4	\$180,095.1		\$180,095.1	
FUEL FILING COST				
5	\$140,647.3		\$141,117.1	
6	\$0.0		\$0.0	
7	<u>\$38,612.4</u>		<u>\$38,612.4</u>	
8	\$179,259.7		\$179,729.5	
BASE FUEL COST				
9	\$0.0		\$0.0	
10	\$0.0		\$0.0	
11	<u>\$0.0</u>		<u>\$0.0</u>	
12	\$0.0		\$0.0	
13	\$179,259.7		\$179,729.5	
14	\$180,087.6		\$180,087.6	
15	\$184.4		\$184.4	
15A	<u>\$423.7</u>		<u>\$423.7</u>	
16	\$179,479.5		\$179,479.5	
17	\$219.8	Over	-\$250.0	Under
ADJUSTMENTS				
18	\$1,243.9		\$1,243.9	
19	\$0.0		\$0.0	
20	<u>\$0.0</u>		<u>\$0.0</u>	
21	\$1,463.7	Over	\$993.9	Over
21A	<u>\$570.0</u>		<u>\$570.0</u>	
21B	\$2,033.7		\$1,563.9	
22			<u>\$1,325.1</u>	Over
23			<u><u>-\$238.8</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, 2022 Through September 30, 2022

	<u>Notes</u>	<u>YTD</u>
<b><u>Industrial Fuel Oil</u></b>		
Industrial Fuel Oil Efficiency Factor, BTU/kWh	f	15,786
Industrial Fuel Oil Deadband Definition, - BTU/kWh	d	<b>100</b>
Industrial Fuel Oil Portion of Recorded Sales, MWh	a	110,509
Industrial Fuel Oil Consumption (Recorded), MMBTU	b	1,766,483
Industrial Fuel Oil Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	15,985
Lower limit of Industrial Fuel Oil Deadband, BTU/kWh	e = f-d	15,686
Higher limit of Industrial Fuel Oil Deadband, BTU/kWh	g = f+d	15,886
Industrial Fuel Oil Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	<b>15,886</b>
<b><u>Diesel</u></b>		
Diesel Efficiency Factor, BTU/kWh	f	9,938
Diesel Deadband Definition, - BTU/kWh	d	<b>100</b>
Diesel Portion of Recorded Sales, MWh	a	466,334
Diesel Consumption (Recorded), MMBTU	b	4,646,439
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	9,964
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	9,838
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	10,038
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	<b>9,964</b>

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

2022

	<b>Without Deadband</b>	<b>With Deadband AS FILED</b>
	<u>Jan 1 - Sep 30</u>	<u>Jan 1 - Sep 30</u>
<b><u>INDUSTRIAL</u></b>		
Industrial Portion of Recorded Sales , MWH	110,509	110,509
Industrial Sales Efficiency Factor (mmbtu/kwh)	0.015786	0.015886
Mmbtu adjusted for Sales Efficiency Factor	1,744,488	1,755,538
\$/mmbtu	<u>\$15.6881</u>	<u>\$15.6881</u>
TOTAL Industrial \$000s TO BE RECOVERED	\$27,367.7	\$27,541.0
<b><u>DIESEL FUEL FILING COST</u></b>		
Diesel Portion of Recorded Sales, MWH	466,334	466,334
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.009938	0.009964
Mmbtu adjusted for Sales Efficiency Factor	4,634,430	4,646,555
\$/mmbtu	<u>\$24.4431</u>	<u>\$24.4431</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$113,279.7	\$113,576.0
TOTAL GENERATION FUEL FILING COST, \$000s	\$140,647.3	\$141,117.1
TOTAL GENERATION BASE FUEL COST , \$000s	\$0.0	\$0.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$140,647.3	\$141,117.1
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$0.0	\$0.0

**Fossil Fuel Cost Risk Sharing Mechanism and Non-Adjustable Component, September 2022, Maui**

		Jan-22, Baseline	YTD Subject to Fossil Risk
A	IFO Fossil Fuel Cost Risk Sharing		
	MMBtu	258043.0939	1,766,483
B	\$ cost, actuals	\$3,463,288	\$27,764,731
C = B / A (Baseline Column)	Jan 2022 baseline \$/mmbtu	13.421356	13.421356
D	IFO Gen kWh		116,819,408
E	Total kWh, Gen, Purch Pwr, DG		802,003,602
F	Sales kWh		759,172,854
G = (D / E) x F	IFO kWh-sales		110,580,705
H	Target Heat Rate		15,786
I1	Upper limit w/deadband		15,886
I2	Lower limit w/deadband		15,686
I3	Calculated Heat Rate (YTD subject to fossil risk, before deadband)		15,985
I	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		15,886
J = B / A ytd	Actual Cost \$/MMBtu		15.7175203
K = C x H x G / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$23,428,681
L = I x J x G / 1,000,000	Fuel Filing Cost Recovery		\$27,610,733
<b>M = 2% x (L-K)</b>	<b>IFO Cost Risk Sharing</b>		<b>\$83,641</b>
	<b>Diesel Fossil Fuel Cost Risk Sharing</b>		
AA	MMBtu	557,967	4,646,439
BB	\$ cost, actuals	\$10,115,419	\$113,693,904
CC = BB / AA (Baseline Column)	Jan 2022 baseline \$/mmbtu	18.1290779	18.1290779
DD	Diesel Gen kWh		492,744,800
EE	Total kWh, Gen, Purch Pwr, DG		802,003,602
FF	Sales kWh		759,172,854
GG = (DD / EE) x FF	Diesel kWh-sales		466,429,920
HH	Target Heat Rate		9,938
I11	Upper limit w/deadband		10,038
I12	Lower limit w/deadband		9,838
I13	Calculated Heat Rate (YTD subject to fossil risk, before deadband)		9,964
I1	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		9,964
JJ = BB/AA (YTD Column)	Actual Cost \$/MMBtu		24.4690387
KK = CC x HH x GG / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$84,035,175
LL = I1 x JJ x GG / 1,000,000	Fuel Filing Cost Recovery		\$113,720,046
<b>MM = 2% x (LL-KK)</b>	<b>Diesel Cost Risk Sharing</b>		<b>\$593,697</b>
NN	Annual Cap (non-prorated)		\$570,000
OO	# Days		365
PP	Annual Cap (pro-rated)		\$570,000
QQ = M + MM, up to cap	Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$570000 cap		\$570,000
AAA = F	Non-Adjustable Component		759,172,854
BBB	YTD kWh under ECRC		0.06125
CCC	Non-Adjustable Component, cents/kWh		\$464,993
DDD	Non-Adjustable Component Revenues w/tax		\$423,679
	Non-Adjustable Component Revenues less tax		

**MAUI ELECTRIC COMPANY, LTD.**  
**MAUI DIVISION**  
**2022 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 '20					306,167	296,112	(301,415)
January '21					306,167	307,102	5,687
February	1,455,500	(4)	4,747	1,450,753	(485,167)	(467,035)	989,405
March					(485,167)	(490,384)	499,021
April					(485,167)	(484,285)	14,736
May	401,000	(1)	13,850	387,150	(133,667)	(145,125)	256,761
June					(133,667)	(146,388)	110,373
July					(133,667)	(143,212)	(32,839)
August	1,210,000	(2)	(23,297)	1,233,297	(403,333)	(422,230)	778,228
September					(403,333)	(417,364)	360,864
October					(403,333)	(407,780)	(46,916)
November	731,900	(3)	(42,473)	774,373	(243,967)	(249,394)	478,063
December					(243,967)	(253,989)	224,074
January '22					(243,967)	(255,810)	(31,736)
February	(428,500)	(4)	(19,896)	(408,604)	142,833	139,468	(300,872)
March					142,833	163,965	(136,907)
April					142,833	157,268	20,361
May	1,081,500	(1)	5,924	1,075,576	(360,500)	(408,035)	687,902
June					(360,500)	(403,811)	284,091
July					(360,500)	(391,575)	(107,484)
August	243,600	(2)	(76,411)	320,011	(81,200)	(88,227)	124,300
September					(81,200)	(91,938)	32,362
October					(81,200)		
November	238,800	(3)	(48,840)	287,640	(79,600)		

## 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		
	10/01/22	11/01/22	10/01/22	11/01/22	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 350 kWh per month	¢/kWh	12.1240	12.1240	42.43	42.43
Next 850 kWh per month	¢/kWh	14.3840	14.3840	21.58	21.58
Customer Charge	\$	11.50	11.50	11.50	11.50
<b>Total Base Charges</b>				75.51	75.51
<b>RBA Rate Adjustment</b>	¢/kWh	1.6175	1.6175	8.09	8.09
<b>PBF Surcharge</b>	¢/kWh	0.6488	0.6488	3.24	3.24
<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	-0.0772	-0.0177	-0.39	-0.09
<b>Energy Cost Recovery</b>	¢/kWh	28.147	24.488	140.74	122.44
<b>DSM Adjustment</b>	¢/kWh	0.1587	-0.0584	0.79	-0.29
<b>Green Infrastructure Fee</b>	\$	1.18	1.18	1.18	1.18
<b>Avg Residential Bill at 500 kwh</b>				229.16	210.08
				Increase (Decrease -)	-19.08
				% Change	-8.33%

	Rate		Charge (\$) at 600 Kwh		
	10/01/22	11/01/22	10/01/22	11/01/22	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 350 kWh per month	¢/kWh	12.1240	12.1240	42.43	42.43
Next 850 kWh per month	¢/kWh	14.3840	14.3840	35.96	35.96
Customer Charge	\$	11.50	11.50	11.50	11.50
<b>Total Base Charges</b>				89.89	89.89
<b>RBA Rate Adjustment</b>	¢/kWh	1.6175	1.6175	9.71	9.71
<b>PBF Surcharge</b>	¢/kWh	0.6488	0.6488	3.89	3.89
<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	-0.0772	-0.0177	-0.46	-0.11
<b>Energy Cost Recovery</b>	¢/kWh	28.147	24.488	168.88	146.93
<b>DSM Adjustment</b>	¢/kWh	0.1587	-0.0584	0.95	-0.35
<b>Green Infrastructure Fee</b>	\$	1.18	1.18	1.18	1.18
<b>Avg Residential Bill at 600 kwh</b>				274.04	251.14
				Increase (Decrease -)	-22.90
				% Change	-8.36%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH</u>		<u>RESIDENTIAL BILL (\$)</u>	
	<u>RESIDENTIAL &amp; COMMERCIAL</u>		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
January 1, 2020	16.751		168.57	201.30
February 1, 2020	17.482		172.82	206.40
March 1, 2020	17.800		174.41	208.31
April 1, 2020	17.503		172.62	206.17
May 1, 2020	16.260		166.06	198.28
June 1, 2020	15.145		157.82	188.40
July 1, 2020	14.702		154.77	184.77
August 1, 2020	13.780		149.70	178.68
September 1, 2020	13.659		149.08	177.94
October 1, 2020	13.390		147.74	176.34
November 1, 2020	13.830		150.47	179.61
December 1, 2020	14.923		155.93	186.17
January 1, 2021	14.967		156.21	186.48
February 1, 2021	14.338		153.34	183.04
March 1, 2021	16.168		162.49	194.03
April 1, 2021	16.378		163.32	195.01
May 1, 2021	17.615		170.84	204.05
June 1, 2021	17.873		175.55	209.70
July 1, 2021	19.391		183.27	218.98
August 1, 2021	18.648		178.15	212.83
September 1, 2021	18.578		177.77	212.38
October 1, 2021	18.225		176.02	210.28
November 1, 2021	19.019		180.07	215.12
December 1, 2021	17.109		170.52	203.66
January 1, 2022	20.790		193.72	231.49
February 1, 2022	20.593		192.83	230.42
March 1, 2022	22.118		200.46	239.58
April 1, 2022	24.483		212.12	253.57
May 1, 2022	26.433		223.53	267.26
June 1, 2022	28.248		230.80	276.00
July 1, 2022	27.953		229.02	273.87
August 1, 2022	30.202		239.45	286.38
September 1, 2022	27.993		228.34	273.06
October 1, 2022	28.147		229.16	274.04
November 1, 2022	24.488		210.08	251.14



**MAUI ELECTRIC COMPANY, LTD. -- Maui 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>
<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	-2.03 PERCENT ON BASE
06/01/19 - 05/31/20	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 - 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	0.0023 CENTS/KWH
09/01/19 - 09/30/19	PURCHASED POWER ADJUSTMENT	0.0005 CENTS/KWH
10/01/19 - 10/31/19	PURCHASED POWER ADJUSTMENT	0.0023 CENTS/KWH
11/01/19 - 11/30/19	PURCHASED POWER ADJUSTMENT	-0.0063 CENTS/KWH
12/01/19 - 12/31/19	PURCHASED POWER ADJUSTMENT	-0.0047 CENTS/KWH
01/01/20 - 01/31/20	PURCHASED POWER ADJUSTMENT	-0.0069 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 - 02/29/20	PURCHASED POWER ADJUSTMENT	-0.0126 CENTS/KWH
02/01/20 - 04/30/20	RESID. DSM ADJUSTMENT	0.1268 CENTS/KWH
03/01/20 - 03/31/20	PURCHASED POWER ADJUSTMENT	-0.0127 CENTS/KWH
04/01/20 - 04/30/20	PURCHASED POWER ADJUSTMENT	-0.0138 CENTS/KWH
04/01/20 - 04/30/20	SOLARSAVER ADJUSTMENT	-0.0592 CENTS/KWH
05/01/20 - 03/31/21	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/20 - 05/31/20	PURCHASED POWER ADJUSTMENT	-0.0128 CENTS/KWH
05/01/20 - 07/31/20	RESID. DSM ADJUSTMENT	-0.0048 CENTS/KWH
06/01/20 - 06/30/20	PURCHASED POWER ADJUSTMENT	-0.0124 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	-0.0091 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 - 10/31/20	RESID. DSM ADJUSTMENT	-0.1104 CENTS/KWH
08/01/20 - 08/31/20	PURCHASED POWER ADJUSTMENT	0.0033 CENTS/KWH
09/01/20 - 09/30/20	PURCHASED POWER ADJUSTMENT	0.0016 CENTS/KWH
10/01/20 - 10/31/20	PURCHASED POWER ADJUSTMENT	0.0027 CENTS/KWH
11/01/20 - 11/30/20	PURCHASED POWER ADJUSTMENT	-0.0006 CENTS/KWH
11/01/20 - 01/31/21	RESID. DSM ADJUSTMENT	-0.0022 CENTS/KWH
12/01/20 - 12/31/20	PURCHASED POWER ADJUSTMENT	0.0001 CENTS/KWH
01/01/21 - 01/31/21	PURCHASED POWER ADJUSTMENT	-0.0013 CENTS/KWH
01/01/21 - 06/30/21	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
02/01/21	RESID. DSM ADJUSTMENT	0.0563 CENTS/KWH
02/01/21 - 02/28/21	PURCHASED POWER ADJUSTMENT	-0.0042 CENTS/KWH
03/01/21 - 03/31/21	PURCHASED POWER ADJUSTMENT	-0.0030 CENTS/KWH
04/01/21 - 04/30/21	PURCHASED POWER ADJUSTMENT	-0.0044 CENTS/KWH
04/01/21 - 04/30/21	SOLARSAVER ADJUSTMENT	-0.0445 CENTS/KWH
05/01/21 - 07/31/21	RESID. DSM ADJUSTMENT	0.0658 CENTS/KWH
05/01/21 - 03/31/22	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/21 - 05/31/21	PURCHASED POWER ADJUSTMENT	0.2109 CENTS/KWH
06/01/21 - 06/30/21	PURCHASED POWER ADJUSTMENT	0.2076 CENTS/KWH
6/1/2021 - 12/31/21	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.0242 CENTS/KWH
07/01/21 - 12/31/21	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH
07/01/21 - 06/30/22	RESID. PBF SURCHARGE ADJUSTMENT	0.6478 CENTS/KWH
07/01/21 - 07/31/21	PURCHASED POWER ADJUSTMENT	0.1862 CENTS/KWH
08/01/21 - 08/31/21	PURCHASED POWER ADJUSTMENT	-0.0296 CENTS/KWH
08/01/21 - 10/31/21	RESID. DSM ADJUSTMENT	0.0003 CENTS/KWH
09/01/21 - 09/30/21	PURCHASED POWER ADJUSTMENT	-0.0350 CENTS/KWH
10/01/21 - 10/31/21	PURCHASED POWER ADJUSTMENT	-0.0314 CENTS/KWH
11/01/21 - 11/30/21	PURCHASED POWER ADJUSTMENT	-0.0107 CENTS/KWH
11/01/21 - 01/31/22	RESID. DSM ADJUSTMENT	-0.0084 CENTS/KWH
12/01/21 - 12/31/21	PURCHASED POWER ADJUSTMENT	-0.0096 CENTS/KWH
01/01/22 - 05/31/22	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9714 CENTS/KWH
01/01/22 - 06/30/22	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
01/01/22 - 01/31/22	PURCHASED POWER ADJUSTMENT	-0.0100 CENTS/KWH
02/01/22 - 02/28/22	PURCHASED POWER ADJUSTMENT	-0.0009 CENTS/KWH
02/01/22 - 04/30/22	RESID. DSM ADJUSTMENT	0.0022 CENTS/KWH
03/01/22 - 03/31/22	PURCHASED POWER ADJUSTMENT	0.0002 CENTS/KWH
04/01/22 - 04/30/22	SOLARSAVER ADJUSTMENT	-0.0315 CENTS/KWH
04/01/22 - 04/30/22	PURCHASED POWER ADJUSTMENT	-0.0011 CENTS/KWH
05/01/22 - 07/31/22	RESID. DSM ADJUSTMENT	-0.1288 CENTS/KWH
<b>05/01/22</b>	<b>SOLARSAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
05/01/22 - 05/31/22	PURCHASED POWER ADJUSTMENT	0.4283 CENTS/KWH
06/01/22 - 06/30/22	PURCHASED POWER ADJUSTMENT	0.4226 CENTS/KWH
<b>06/01/22</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>1.6175 CENTS/KWH</b>
<b>07/01/22</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.6488 CENTS/KWH</b>
<b>07/01/22</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.18 DOLLARS/MONTH</b>
07/01/22 - 07/31/22	PURCHASED POWER ADJUSTMENT	0.3747 CENTS/KWH
08/01/22 - 08/31/22	PURCHASED POWER ADJUSTMENT	-0.0742 CENTS/KWH
08/01/22 - 10/31/22	RESID. DSM ADJUSTMENT	0.1587 CENTS/KWH
09/01/22 - 09/30/22	PURCHASED POWER ADJUSTMENT	-0.0862 CENTS/KWH
10/01/22 - 10/31/22	PURCHASED POWER ADJUSTMENT	-0.0772 CENTS/KWH
<b>11/01/22</b>	<b>RESID. DSM ADJUSTMENT</b>	<b>-0.0584 CENTS/KWH</b>
<b>11/01/22</b>	<b>PURCHASED POWER ADJUSTMENT</b>	<b>-0.0177 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.

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

