



October 27, 2023

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 2023

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2023 Energy Cost Recovery factor for our Maui Division is 25.685 cents per kilowatt-hour ("kWh"), an increase of 1.389 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$218.94, an increase of \$6.99 compared to rates effective October 1, 2023. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$6.95) and the increase in the Residential DSM Adjustment (+\$0.05) partially 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 increased 175.070 cents per million BTU to 2,271.85 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.593 cents per kWh to 20.755 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for November 2023 is 36.864 cents per kWh, an increase of 0.440 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$224.16, an increase of \$1.76 compared to rates effective October 1, 2023. 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 decreased 55.17 cents per million BTU to 3,190.01 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 2023 is 30.861 cents per kWh, an increase of 2.513 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$208.14, an increase of \$10.05 compared to rates effective October 1, 2023. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor.

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The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 187.77 cents per million BTU to 2,555.63 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, 2023.

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>10/01/2023</u>	<u>11/01/2023</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	2,096.78	2,271.85	175.070
DG Energy, ¢/kWh	0.00	0.00	0.000
Purchased Energy, ¢/kWh	20.162	20.755	0.593
<u>Residential Schedule "R"</u>			
Energy Cost Recovery Factor, ¢/kWh	24.296	25.685	1.389
<u>Others - "G,J,P,F"</u>			
Energy Cost Recovery Factor, ¢/kWh	24.296	25.685	1.389
<u>Residential Customer with</u>			
500 KWH Consumption, \$/Bill	211.95	218.94	6.99
600 KWH Consumption, \$/Bill	253.26	261.66	8.40

Supersedes Sheet Effective:

10/01/2023

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

ENERGY COST RECOVERY (ECR) FILING - November 1, 2023 (page 2 of 2)

Line		
1	Effective Date	November 1, 2023
2	Supercedes Factors of	October 1, 2023

Line	PURCHASED ENERGY COMPONENT	
	PURCHASED ENERGY PRICE - FOSSIL ϕ /kWh	
	PURCHASED ENERGY PRICE - RENEWABLE, ϕ /kWh	
36	Kaheawa Wind I - On Peak	14.000
37	- Off Peak	13.126
38	Kaheawa Wind II	26.462
39	Sempra Wind	23.559
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	15.15%
50	- Off Peak	12.92%
51	Kaheawa Wind II	22.61%
52	Sempra Wind	40.31%
53	Unused - On Peak	0.00%
54	- Off Peak	0.00%
55	South Maui RR	2.39%
56	Ku'ia Solar	2.37%
57	Unused	0.00%
58	Unused	0.00%
59	CBRE PV	0.00%
60		
61	FIT	4.25%
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	20.755
62	COMPOSITE COST OF PURCHASED ENERGY, ϕ /kWh	20.755
	(Lines (36 x 49) + (37 x 50) + (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	20.73%
64	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ϕ /kWh (lines (62 x 63))	4.30251
65	BASE PURCHASED ENERGY COMPOSITE COST, ϕ /kWh	0.000
66	Base % Input to Sys kWh Mix	0.00
67	WEIGHTED BASE PURCHASED ENERGY COST, ϕ /kWh (lines (65 x 66))	0.00000
68	COST LESS BASE (lines (64 - 67))	4.30251
69	Loss Factor	1.057
70	Revenue Tax Req Multiplier	1.0975
71	PURCHASED ENERGY FACTOR, ϕ /kWh (lines (68 x 69 x 70))	4.99116

Line	Calculation of Monthly Fossil Fuel Cost Risk Sharing Component	
	Baseline IFO	
72	IFO \$, baseline month	\$2,734,780
73	IFO mmbtu, baseline	211,787
74	Baseline IFO, ϕ /mmbtu	1291.29
	Baseline Diesel	
75	Diesel \$, baseline month	\$15,546,536
76	Diesel mmbtu, baseline	629,682
77	Baseline Diesel, ϕ /mmbtu	2468.95
	Month IFO	
78	IFO mmbtu, budget	179,798
79	IFO Cost, ϕ /mmbtu	1,609.53
80	IFO ECRC Fossil Cost	\$2,893,901
81	IFO Base ECRC Recovery Target	\$2,321,707
82	IFO differential	\$572,194
	Month Diesel	
83	Diesel mmbtu, budget	539,874
84	Diesel Cost, ϕ /mmbtu	2,492.39
85	Diesel ECRC Fossil Cost	\$13,455,767
86	Diesel Base ECRC Recovery Target	\$13,329,220
87	Diesel differential	\$126,547
88	Total Fossil	\$698,741
89	2% of above	\$13,975
90	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	-\$187,582
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	\$13,975
96	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$173,607
97	Fossil Cost Risk Sharing before taxes	\$13,975
98	Revenue Tax Adjustment	1.097514
99	Fossil Cost Risk Sharing w/revenue tax	\$15,338
100	Forecasted Month MWh Sales	83,246
101	Fossil Fuel Cost Risk Sharing Component, ϕ /kWh	-0.0184

Derivation of Non-Adjustable Component:		
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, ϕ /kWh	0.06125
109	Generation and Purchased Energy Factors	26.62376
110	ECR Reconciliation Adjustment	(0.982)
111	Non-Adjustable Component	0.0612
112	Fossil Fuel Cost Risk Sharing Component	-0.0184
113	ECR FACTOR, ϕ /kWh (lines (109 + 110 + 111 + 112))	25.685

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

Fuel Oil Inventory Prices for November 2023

<u>TYPE OF OIL BURNED</u>	<u>PRICES \$/BBL</u>	<u>CONVERSION FACTORS</u>		<u>PRICES ¢/MBTU</u>
INDUSTRIAL	101.4002	6.30	MBTU/BBL	1,609.53
DIESEL/ULSD	145.8695	5.85	MBTU/BBL	2,492.39

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

Month End Fuel Oil Estimate

<u>Kahului</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/20/2023	50,629.37	318,965.03	5,029,683.67
Estimated Use	8,225.25	51,819.07	813,249.39
Estimated Received	14,400.00	90,720.00	1,543,514.94
Estimated Additional	0.00	0.00	0.00
Estimated End	<u>56,804.12</u>	<u>357,865.96</u>	<u>5,759,949.22</u>
Next month's expense (\$/bbl) =		\$ 101.4002	

<u>Maalaea</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/20/2023	97,830.93	572,564.08	13,733,703.08
Estimated Use	40,203.29	235,293.24	5,381,346.57
Estimated Received	38,000.00	222,398.32	5,595,598.95
Estimated Additional	1,273.53	7,462.88	186,972.07
Estimated End	<u>96,901.18</u>	<u>567,132.04</u>	<u>14,134,927.53</u>
Next month's expense (\$/bbl) =		\$ 145.8695	

**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 2023:

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 2023

1. Amount to be Refunded	(\$2,234,900)
2. Monthly amount (1 / 3 X Line 1)	(\$744,967)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$817,612)
5. Estimated Sales (November 2023)	83,246 mwh
6. Adjustment (Line 4 ÷ Line 5)	(0.982) ¢/kwh

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2023 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)

<u>Line</u>	<u>W/O Deadband 3rd Quarter YTD Total</u>	<u>collection by company*</u>	<u>Basis for Recon With Deadband 3rd Quarter YTD Total</u>	<u>collection by company*</u>
ACTUAL COSTS:				
1	\$125,645.7		\$125,645.7	
2	\$26.9		\$26.9	
3	<u>\$35,247.8</u>		<u>\$35,247.8</u>	
4	\$160,920.4		\$160,920.4	
FUEL FILING COST				
5	\$124,499.6		\$125,268.3	
6	\$0.0		\$0.0	
7	<u>\$35,247.8</u>		<u>\$35,247.8</u>	
8	\$159,747.4		\$160,516.1	
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	\$159,747.4		\$160,516.1	
14	\$163,087.3		\$163,087.3	
15	-\$733.3		-\$733.3	
15A	<u>\$410.5</u>		<u>\$410.5</u>	
16	\$163,410.1		\$163,410.1	
17	\$3,662.7	Over	\$2,894.0	Over
ADJUSTMENTS				
18	\$831.2		\$831.2	
19	\$0.0		\$0.0	
20	<u>\$0.0</u>		<u>\$0.0</u>	
21	\$4,493.9	Over	\$3,725.2	Over
21A	<u>-\$180.4</u>		<u>-\$180.4</u>	
21B	\$4,313.5		\$3,544.8	
22			<u>\$1,309.9</u>	Over
23			<u><u>-\$2,234.9</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, 2023 Through September 30, 2023

	<u>Notes</u>	<u>YTD</u>
<u>Industrial Fuel Oil</u>		
Industrial Fuel Oil Efficiency Factor, BTU/kWh	f	15,786
Industrial Fuel Oil Deadband Definition, - BTU/kWh	d	100
Industrial Fuel Oil Portion of Recorded Sales, MWh	a	101,879
Industrial Fuel Oil Consumption (Recorded), MMBTU	b	1,645,549
Industrial Fuel Oil Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	16,152
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	15,886
<u>Diesel</u>		
Diesel Efficiency Factor, BTU/kWh	f	9,938
Diesel Deadband Definition, - BTU/kWh	d	100
Diesel Portion of Recorded Sales, MWh	a	462,606
Diesel Consumption (Recorded), MMBTU	b	4,625,822
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	9,999
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	9,999

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

2023

	Without Deadband	With Deadband AS FILED
	<u>Jan 1 - Sep 30</u>	<u>Jan 1 - Sep 30</u>
<u>INDUSTRIAL</u>		
Industrial Portion of Recorded Sales , MWH	101,879	101,879
Industrial Sales Efficiency Factor (mmbtu/kwh)	0.015786	0.015886
Mmbtu adjusted for Sales Efficiency Factor	1,608,258	1,618,445
\$/mmbtu	<u>\$14.2848</u>	<u>\$14.2848</u>
TOTAL Industrial \$000s TO BE RECOVERED	\$22,973.6	\$23,119.2
<u>DIESEL FUEL FILING COST</u>		
Diesel Portion of Recorded Sales, MWH	462,606	462,606
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.009938	0.009999
Mmbtu adjusted for Sales Efficiency Factor	4,597,383	4,625,602
\$/mmbtu	<u>\$22.0834</u>	<u>\$22.0834</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$101,526.0	\$102,149.1
TOTAL GENERATION FUEL FILING COST, \$000s	\$124,499.6	\$125,268.3
TOTAL GENERATION BASE FUEL COST , \$000s	\$0.0	\$0.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$124,499.6	\$125,268.3
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$0.0	\$0.0

Fossil Fuel Cost Risk Sharing Mechanism and Non-Adjustable Component, September 2023, Maui

		Jan-23, Baseline	YTD Subject to Fossil Risk
A	IFO Fossil Fuel Cost Risk Sharing		
	MMBtu	211787.1453	1,645,549
B	\$ cost, actuals	\$2,734,780	\$23,519,920
C = B / A (Baseline Column)	Jan 2023 baseline \$/mmbtu	12.912872	12.912872
D	IFO Gen kWh		107,364,901
E	Total kWh, Gen, Purch Pwr, DG		774,380,482
F	Sales kWh		735,526,631
G = (D / E) x F	IFO kWh-sales		101,977,963
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)		16,152
I	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		15,886
J = B / A ytd	Actual Cost \$/MMBtu		14.2930578
K = C x H x G / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$20,787,452
L = I x J x G / 1,000,000	Fuel Filing Cost Recovery		\$23,155,067
M = 2% x (L-K)	IFO Cost Risk Sharing		\$47,352
	Diesel Fossil Fuel Cost Risk Sharing		
AA	MMBtu	629,682	4,625,822
BB	\$ cost, actuals	\$15,546,536	\$102,125,772
CC = BB / AA (Baseline Column)	Jan 2023 baseline \$/mmbtu	24.6894989	24.6894989
DD	Diesel Gen kWh		487,114,740
EE	Total kWh, Gen, Purch Pwr, DG		774,380,482
FF	Sales kWh		735,526,631
GG = (DD / EE) x FF	Diesel kWh-sales		462,674,191
HH	Target Heat Rate		9,938
II1	Upper limit w/deadband		10,038
II2	Lower limit w/deadband		9,838
II3	Calculated Heat Rate (YTD subject to fossil risk, before deadband)		9,999
II	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		9,999
JJ = BB/AA (YTD Column)	Actual Cost \$/MMBtu		22.0773233
KK = CC x HH x GG / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$113,523,702
LL = II x JJ x GG / 1,000,000	Fuel Filing Cost Recovery		\$102,135,862
MM = 2% x (LL-KK)	Diesel Cost Risk Sharing		-\$227,757
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		-\$180,404
AAA = F	Non-Adjustable Component		
	YTD kWh under ECRC		735,526,631
BBB	Non-Adjustable Component, cents/kWh		0.06125
CCC	Non-Adjustable Component Revenues w/tax		\$450,510
DDD	Non-Adjustable Component Revenues less tax		\$410,482

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2023 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 '21					(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)	(90,765)	(58,403)
November	238,800	(3)	(48,840)	287,640	(79,600)	(83,469)	145,768
December					(79,600)	(81,834)	63,934
January '23					(79,600)	(83,279)	(19,345)
February	653,600	(4)	(15,668)	669,268	(217,867)	(221,715)	428,208
March					(217,867)	(225,886)	202,322
April					(217,867)	(234,572)	(32,250)
May	(126,000)	(1)	(15,546)	(110,454)	42,000	44,399	(98,305)
June					42,000	44,093	(54,212)
July					42,000	43,306	(10,906)
August	1,435,900	(2)	(12,213)	1,448,113	(478,633)	(458,084)	979,123
September					(478,633)	(442,113)	537,010
October					(478,633)		
November	2,234,900	(3)	58,375	2,176,525	(744,967)		

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		
	10/01/23	11/01/23	10/01/23	11/01/23	Difference
Base Rates	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
Total Base Charges			75.51	75.51	0.00
RBA Rate Adjustment	% of bill excluding ECRC	11.88%	11.88%	9.61	9.61
PBF Surcharge	¢/kWh	0.7195	0.7195	3.60	3.60
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00
Refund of 2018 Interim	% on Base	0.00	0.00	0.00	0.00
Purchased Power Adjustment	¢/kWh	0.0022	0.0002	0.01	0.00
Energy Cost Recovery	¢/kWh	24.296	25.685	121.48	128.43
DSM Adjustment	¢/kWh	0.1119	0.1228	0.56	0.61
Green Infrastructure Fee	\$	1.18	1.18	1.18	1.18
Avg Residential Bill at 500 kwh			211.95	218.94	

Increase (Decrease -)	6.99
% Change	3.30%

	Rate		Charge (\$) at 600 Kwh		
	10/01/23	11/01/23	10/01/23	11/01/23	Difference
Base Rates	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
Total Base Charges			89.89	89.89	0.00
RBA Rate Adjustment	% of bill excluding ECRC	11.88%	11.88%	11.41	11.42
PBF Surcharge	¢/kWh	0.7195	0.7195	4.32	4.32
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0000	0.0000	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00
Refund of 2018 Interim	% on Base	0.00	0.00	0.00	0.00
Purchased Power Adjustment	¢/kWh	0.0022	0.0002	0.01	0.00
Energy Cost Recovery	¢/kWh	24.296	25.685	145.78	154.11
DSM Adjustment	¢/kWh	0.1119	0.1228	0.67	0.74
Green Infrastructure Fee	\$	1.18	1.18	1.18	1.18
Avg Residential Bill at 600 kwh			253.26	261.66	

Increase (Decrease -)	8.40
% Change	3.32%

Note: Effective June 1, 2023, the RBA Rate Adjustment is billed based on the total billed amount before the RBA rate adjustment excluding the Energy Cost Recovery.

**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 & 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
December 1, 2022	24.119		208.25	248.95
January 1, 2023	25.334		215.82	258.03
February 1, 2023	24.501		212.21	253.70
March 1, 2023	25.455		216.98	259.42
April 1, 2023	24.536		212.37	253.88
May 1, 2023	24.180		210.60	251.76
June 1, 2023	23.396		206.70	246.95
July 1, 2023	23.122		205.68	245.74
August 1, 2023	21.982		200.38	239.37
September 1, 2023	22.664		203.77	243.46
October 1, 2023	24.296		211.95	253.26
November 1, 2023	25.685		218.94	261.66

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
06/01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
08/17/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 CENTS/KWH
06/01/19	FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2018 TEST YEAR)	
05/01/20 - 03/31/21	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/20 - 05/31/21	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3383 CENTS/KWH
07/01/20 - 06/30/21	RESID. PBF SURCHARGE ADJUSTMENT	0.5882 CENTS/KWH
11/01/20 - 01/31/21	RESID. DSM ADJUSTMENT	-0.0022 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
05/01/22 - 03/31/23	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
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
06/01/22 - 12/31/22	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.6175 CENTS/KWH
07/01/22 - 06/30/23	RESID. PBF SURCHARGE ADJUSTMENT	0.6488 CENTS/KWH
07/01/22 - 12/31/22	GREEN INFRASTRUCTURE FEE	1.18 DOLLARS/MONTH
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
11/01/22 - 01/31/23	RESID. DSM ADJUSTMENT	-0.0584 CENTS/KWH
11/01/22 - 11/30/22	PURCHASED POWER ADJUSTMENT	-0.0177 CENTS/KWH
12/01/22 - 12/31/22	PURCHASED POWER ADJUSTMENT	-0.0155 CENTS/KWH
01/01/23 - 01/31/23	PURCHASED POWER ADJUSTMENT	-0.0120 CENTS/KWH
01/01/23 - 05/31/23	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9048 CENTS/KWH
01/01/23 - 06/30/23	GREEN INFRASTRUCTURE FEE	1.23 DOLLARS/MONTH
02/01/23 - 04/30/23	RESID. DSM ADJUSTMENT	0.0323 CENTS/KWH
02/01/23 - 02/28/23	PURCHASED POWER ADJUSTMENT	0.0092 CENTS/KWH
03/01/23 - 03/31/23	PURCHASED POWER ADJUSTMENT	0.0096 CENTS/KWH
04/01/23 - 04/30/23	PURCHASED POWER ADJUSTMENT	0.0090 CENTS/KWH
04/01/23 - 04/30/23	SOLARSAVER ADJUSTMENT	-0.0038 CENTS/KWH
05/01/23	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/23 - 07/31/23	RESID. DSM ADJUSTMENT	0.0395 CENTS/KWH
05/01/23 - 05/31/23	PURCHASED POWER ADJUSTMENT	0.0006 CENTS/KWH
06/01/23 - 06/30/23	PURCHASED POWER ADJUSTMENT	0.0012 CENTS/KWH
06/01/23	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	11.88% PERCENT OF ALL RATE SCHEDULE CHARGES, EXCLUDING ECRC and RBA
07/01/23	RESID. PBF SURCHARGE ADJUSTMENT	0.7195 CENTS/KWH
07/01/23	GREEN INFRASTRUCTURE FEE	1.18 DOLLARS/MONTH
07/01/23 - 07/31/23	PURCHASED POWER ADJUSTMENT	0.0032 CENTS/KWH
08/01/23 - 10/31/23	RESID. DSM ADJUSTMENT	0.1119 CENTS/KWH
08/01/23 - 08/31/23	PURCHASED POWER ADJUSTMENT	0.0023 CENTS/KWH
09/01/23 - 09/30/23	PURCHASED POWER ADJUSTMENT	0.0008 CENTS/KWH
10/01/23 - 10/31/23	PURCHASED POWER ADJUSTMENT	0.0022 CENTS/KWH
11/01/23	RESID. DSM ADJUSTMENT	0.1228 CENTS/KWH
11/01/23	PURCHASED POWER ADJUSTMENT	0.0002 CENTS/KWH

~ Surcharges currently in effect are in bold.

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

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

