



August 29, 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 September 2022

Maui Electric Company, Limited's ("Maui Electric" or "Company") September 2022 Energy Cost Recovery factor for our Maui Division is 27.993 cents per kilowatt-hour ("kWh"), a decrease of 2.209 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$228.34, a decrease of \$11.11 compared to rates effective August 1, 2022. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor (-\$11.05) and a decrease in the Purchase Power Adjustment (-\$0.06).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 402.240 cents per million BTU to 2,541.13 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.002 cents per kWh to 20.566 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for September 2022 is 37.630 cents per kWh, a decrease of 5.453 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$225.27, a decrease of \$21.81 compared to rates effective August 1, 2022. 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 484.54 cents per million BTU to 3,235.49 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 September 2022 is 32.195 cents per kWh, a decrease of 8.492 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$210.68, a decrease of \$33.97 compared to rates effective August 1, 2022. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor.

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The Honorable Chair and Members  
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August 29, 2022  
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The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 712.52 cents per million BTU to 2,700.24 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 September 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.  
LANAI DIVISION**

**ENERGY COST RECOVERY FACTOR**

	EFFECTIVE DATES		
	<u>08/01/2022</u>	<u>09/01/2022</u>	<u>Change</u>
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	3,720.03	3,235.49	(484.54)
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	30.00	30.00	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	43.083	37.630	(5.453)
<u>Others - "G,J,P,F"</u>			
Energy Cost Recovery, ¢/kWh	43.083	37.630	(5.453)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	247.08	225.27	(21.81)
500 KWH Consumption, \$/Bill	307.24	279.97	(27.27)

Supersedes Sheet Effective: 08/01/2022

MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

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

Line

1 Effective Date September 1, 2022  
2 Supercedes Factors of August 1, 2022

**GENERATION COMPONENT**

<b>CENTRAL STATION</b>						<b>DG ENERGY COMPONENT</b>	
FUEL PRICES, ¢/mmbtu							
3	Industrial						0.00
4	Diesel - Miki Basin						3,235.49
5							
6	Other						0.00
BTU MIX, %							
7	Industrial						0.00%
8	Diesel - Miki Basin						100.00%
9							
10	Other						0.00%
							100.00%
11	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))						3,235.49
12	% Input to System kWh Mix						97.43%
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
			Percent of				
		Eff Factor	Centrl Stn +	Weighted			
	<u>Fuel Type</u>	<u>mmbtu/kwh</u>	<u>Other</u>	<u>Eff Factor</u>			
13	Industrial	0.000000	0.00	0.000000			
14	Diesel	0.010809	100.00	0.010809			
15	Other	0.010809	0.00	0.000000			
	(Lines 13, 14, 15): Col(B) x Col(C) = Col(D)						
16	Weighted Efficiency Factor, mmbtu/kWh [(lines 13(D) + 14(D) + 15(D))]						0.010809
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))						34.07362
18	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu						-
19	Base % Input to Sys kWh Mix						0.00%
20	Efficiency Factor, mmbtu/kwh						0.010809
21	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (18 x 19 x 20))						-
22	COST LESS BASE (line(17 - 21))						34.07362
23	Revenue Tax Req Multiplier						1.0975
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))						37.39580
SUMMARY OF							
TOTAL GENERATION FACTOR, ¢/kWh							
35	CNTRL STN + OTHER (line 24)						37.39580
36	DG (line 34)						-
37	TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)						37.39580

MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

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

Line

1 Effective Date September 1, 2022  
2 Supercedes Factors of August 1, 2022

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>	
	PURCHASED ENERGY PRICE, ¢/kWh - FOSSIL	
	PURCHASED ENERGY PRICE, ¢/kWh - RENEWABLE	
38	LANAI SOLAR RESEARCH - On Peak	30.000
39	- Off Peak	30.000
40	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, %, FOSSIL	
	PURCHASED ENERGY KWH MIX, %, RENEWABLE	
41	LANAI SOLAR RESEARCH - On Peak	100.00%
42	- Off Peak	0.00%
43	Sch Q	0.00%
43A	Total Fossil %	0.00%
43B	Total Renewable %	100.00%
43C	Comp. cost of purch. energy, fossil ¢/kWh	N/A
43D	Comp. cost of purch. energy, renewable ¢/kWh	30.00
44	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43))	30.000
45	% Input to System kWh Mix	2.57%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	0.77100
47	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	0.000
48	Base % Input to Sys kWh Mix	0.00
49	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))	0.00000
50	COST LESS BASE (lines (46 - 49))	0.77100
51	Loss Factor	1.050
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	0.88848

Calculation of Monthly Fossil Fuel Cost Risk Sharing Component

<u>Baseline Diesel</u>		
54	Diesel \$, baseline month	\$708,879
55	Diesel mmbtu, baseline	29,161
56	Baseline Diesel, ¢/mmbtu	2,430.88
<u>Month Diesel</u>		
57	Diesel mmbtu, budget	32,130
58	Diesel Cost, ¢/mmbtu	3,235.49
59	Diesel ECRC Fossil Cost	\$1,039,547
60	Diesel Base ECRC Recovery Target	\$781,031
61	Diesel differential	\$258,516
62	Total Fossil	\$258,516
63	2% of above	\$5,170
64	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$31,500
65	Maximum Annual Cap (bi-directional)	\$31,500
66	Number of Days in year from implementation	365
67	Fossil Risk % Proration (based on 365 day year)	100.00%
68	Maximum Annual Cap (bi-directional) prorated	\$31,500
69	Applicable Monthly Fossil Fuel Cost Risk Sharing	\$0
70	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$31,500
71	Fossil Cost Risk Sharing before taxes	\$0
72	Revenue Tax Adjustment	1.097514
73	Fossil Cost Risk Sharing w/revenue tax	\$0
74	Forecasted Month MWh Sales	3,091
75	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.0000

Line SYSTEM COMPOSITE CALCULATIONS

76	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (37 + 53))	38.28428
77	Adjustment, ¢/kWh	0.000
78	Fossil Fuel Cost Risk Sharing Component	0.000
79	ECR Reconciliation Adjustment	(0.654)
80	ECR FACTOR, ¢/kWh (lines (76 + 77 + 78 + 79))	37.630

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

**MONTH END FUEL OIL ESTIMATE**

<b><u>Miki Basin - ULSD</u></b>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
8/18/2022	3,504.69	20,081.87	706,071.38
Estimated Use	2,469.95	14,152.81	526,488.91
Estimated Received	3,428.57	19,645.71	651,929.56
Estimated Additional	1,143.67	6,553.23	207,987.07
Estimated End	5,606.98	32,128.00	1,039,499.10

Next Month's Combined Miki Expense (\$/bbl) = \$ 185.3938 /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 - Miki Basin	\$ 185.3938	5.73 BTU/BBL	3,235.49

**MAUI ELECTRIC COMPANY, LTD.**  
**Lanai Division**  
**ECR Reconciliation Adjustment**

**September 2022**

1. Amount to be refunded	(\$55,300)
2. Monthly amount (1 / 3 X Line 1)	(\$18,433)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$20,230)
5. Estimated Sales (September 2022)	3,091 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.654 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION  
2022 Cumulative Reconciliation Balance**

<u>Month</u>	(1) <u>YTD FOA Reconciliation</u>	<u>Qtr</u>	(2) <u>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					(28,400)	(28,503)	32,466
January '21					(28,400)	(25,647)	6,819
February	70,000	(4)	4,076	65,924	(23,333)	(20,929)	51,814
March					(23,333)	(21,960)	29,854
April					(23,333)	(21,452)	8,402
May	80,200	(1)	6,530	73,670	(26,733)	(25,485)	56,587
June					(26,733)	(25,141)	31,446
July					(26,733)	(25,403)	6,043
August	69,700	(2)	4,721	64,979	(23,233)	(22,228)	48,794
September					(23,233)	(20,522)	28,272
October					(23,233)	(21,136)	7,136
November	67,100	(3)	5,046	62,054	(22,367)	(20,580)	48,610
December					(22,367)	(20,800)	27,810
January '22					(22,367)	(20,722)	7,088
February	55,600	(4)	5,451	50,149	(18,533)	(16,329)	40,908
March					(18,533)	(18,196)	22,712
April					(18,533)	(17,076)	5,636
May	68,500	(1)	4,186	64,314	(22,833)	(23,687)	46,263
June					(22,833)	(22,948)	23,315
July					(22,833)	(22,368)	947
August	55,300	(2)	488	54,812	(18,433)		
September					(18,433)		

## NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 13)  
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.  
Lanai Division  
Calculations of the Average Residential Customer Bill**

	Rate		Charge (\$) at 400 Kwh		
	08/01/22	09/01/22	08/01/22	09/01/22	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 250 kWhr per month	¢/kWh	12.3123	12.3123	30.78	30.78
Next 500 kWhr per month	¢/kWh	14.8123	14.8123	22.22	22.22
Customer Charge	\$	11.50	11.50	11.50	11.50
<b>Total Base Charges</b>			64.50	64.50	0.00
<b>IRP Refund</b>	% on base	0.0000	0.0000	0.00	0.00
<b>Revenue Balancing Rate Adjustment</b>	¢/kWh	1.6175	1.6175	6.47	6.47
<b>PBF Surcharge</b>	¢/kWh	0.6488	0.6488	2.60	2.60
<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>Energy Cost Recovery</b>	¢/kWh	43.083	37.630	172.33	150.52
<b>Green Infrastructure Fee</b>	\$	1.18	1.18	1.18	1.18
<b>Avg Residential Bill at 400 kwh</b>			247.08	225.27	

Increase (Decrease -)	-21.81
% Change	-8.83%

	Rate		Charge (\$) at 500 Kwh		
	08/01/22	09/01/22	08/01/22	09/01/22	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 250 kWhr per month	¢/kWh	12.3123	12.3123	30.78	30.78
Next 500 kWhr per month	¢/kWh	14.8123	14.8123	37.03	37.03
Customer Charge	\$	11.50	11.50	11.50	11.50
<b>Total Base Charges</b>			79.31	79.31	0.00
<b>IRP Refund</b>	% on base	0.0000	0.0000	0.00	0.00
<b>Revenue Balancing 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>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>Energy Cost Recovery</b>	¢/kWh	43.083	37.630	215.42	188.15
<b>Green Infrastructure Fee</b>	\$	1.18	1.18	1.18	1.18
<b>Avg Residential Bill at 500 kwh</b>			307.24	279.97	

Increase (Decrease -)	-27.27
% Change	-8.88%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH</u>		
	<u>RESIDENTIAL &amp; COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$) @ 400 KWH</u>	<u>RESIDENTIAL BILL (\$) @ 500 KWH</u>
January 1, 2020	25.369	173.69	215.49
February 1, 2020	24.109	168.65	209.19
March 1, 2020	23.379	165.73	205.54
April 1, 2020	19.794	151.15	187.31
May 1, 2020	18.958	148.04	183.43
June 1, 2020	15.429	131.79	163.12
July 1, 2020	16.335	134.73	166.81
August 1, 2020	17.755	140.41	173.91
September 1, 2020	18.135	141.93	175.81
October 1, 2020	18.076	141.69	175.51
November 1, 2020	17.881	140.91	174.54
December 1, 2020	17.874	140.89	174.50
January 1, 2021	19.498	147.44	182.68
February 1, 2021	20.640	152.01	188.39
March 1, 2021	22.103	157.86	195.71
April 1, 2021	24.018	165.34	205.06
May 1, 2021	24.354	166.87	206.96
June 1, 2021	23.796	167.38	207.60
July 1, 2021	24.680	171.10	212.26
August 1, 2021	25.269	173.46	215.21
September 1, 2021	25.345	173.76	215.59
October 1, 2021	24.342	169.75	210.57
November 1, 2021	29.191	189.14	234.82
December 1, 2021	29.254	189.40	235.13
January 1, 2022	28.241	189.19	234.87
February 1, 2022	28.361	189.67	235.47
March 1, 2022	31.445	202.01	250.89
April 1, 2022	33.341	209.46	260.21
May 1, 2022	37.529	226.35	281.31
June 1, 2022	41.508	240.84	299.43
July 1, 2022	43.106	247.17	307.35
August 1, 2022	43.083	247.08	307.24
September 1, 2022	37.630	225.27	279.97

**MAUI ELECTRIC COMPANY, LTD. -- Lanai 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 - 12/31/19	RESID. PBF SURCHARGE ADJUSTMENT	0.4775 CENTS/KWH
07/01/19 - 12/31/19	GREEN INFRASTRUCTURE FEE	1.17 DOLLARS/MONTH
01/01/20 - 06/30/20	RESID. PBF SURCHARGE ADJUSTMENT	0.7437 CENTS/KWH
01/01/20 - 06/30/20	GREEN INFRASTRUCTURE FEE	1.2500 DOLLARS/MONTH
04/01/20 - 04/30/20	SOLARSAVER ADJUSTMENT	-0.0592 CENTS/KWH
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
07/01/20 - 12/31/20	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH
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 - 03/31/22	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/21 - 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
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
04/01/22 - 04/30/22	SOLARSAVER ADJUSTMENT	-0.0315 CENTS/KWH
<b>05/01/22</b>	<b>SOLARSAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
<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>

~ Surcharges currently in effect are in bold.

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