



February 24, 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 March 2023

Maui Electric Company, Limited's ("Maui Electric" or "Company") March 2023 Energy Cost Recovery factor for our Maui Division is 25.455 cents per kilowatt-hour ("kWh"), an increase of 0.954 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$216.98, an increase of \$4.77 compared to rates effective February 1, 2023. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor.

The Company's Maui Division fuel composite cost of generation, central station and other increased 128.850 cents per million BTU to 2,209.99 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.588 cents per kWh to 19.716 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for March 2023 is 34.661 cents per kWh, a decrease of 1.351 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$214.59, a decrease of \$5.41 compared to rates effective February 1, 2023. 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 126.15 cents per million BTU to 3,011.41 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 March 2023 is 33.972 cents per kWh, an increase of 2.741 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$218.99, an increase of \$10.97 compared to rates effective February 1, 2023. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery.

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 228.35 cents per million BTU to 2,780.39 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 March 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.
LANAI DIVISION**

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>2/01/2023</u>	<u>3/01/2023</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	3,137.56	3,011.41	(126.15)
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	36.012	34.661	(1.351)
<u>Others - "G,J,P,F"</u>			
Energy Cost Recovery, ¢/kWh	36.012	34.661	(1.351)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	220.00	214.59	(5.41)
500 KWH Consumption, \$/Bill	273.36	266.61	(6.75)

Supersedes Sheet Effective:

2/01/2023

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

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

Line

1 Effective Date March 1, 2023
2 Supercedes Factors of February 1, 2023

GENERATION COMPONENT

CENTRAL STATION				DG ENERGY COMPONENT	
FUEL PRICES, ¢/mmbtu					
3	Industrial		0.00		
4	Diesel - Miki Basin		3,011.41		
5					
6	Other		0.00		
BTU MIX, %					
7	Industrial		0.00%	25	COMPOSITE COST OF DG ENERGY, ¢/kWh
8	Diesel - Miki Basin		100.00%		0.000
9					
10	Other		0.00%	26	% Input to System kWh Mix
			100.00%		0.00%
11	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))		3,011.41	27	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26)
12	% Input to System kWh Mix		96.70%		0.00000
EFFICIENCY FACTOR, mmbtu/kWh					
	(A)	(B)	(C)	(D)	
			Percent of		
			Centrl Stn +		
			Other		
	Fuel Type	Eff Factor	Weighted		
		mmbtu/kwh	Eff Factor		
13	Industrial	0.000000	0.00	31	Cost Less Base (Line 27 - 30)
14	Diesel	0.010722	100.00	32	Loss Factor
15	Other	0.010722	0.00	33	Revenue Tax Req Multiplier
	(Lines 13, 14, 15): Col(B) x Col(C) = Col(D)			34	DG FACTOR, ¢/kWh (Line 31 x 32 x 33)
16	Weighted Efficiency Factor, mmbtu/kWh [(lines 13(D) + 14(D) + 15(D))]		0.010722		0.00000
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))		31.22282		
18	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu		-		
19	Base % Input to Sys kWh Mix		0.00%		
20	Efficiency Factor, mmbtu/kwh		0.010722		
21	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (18 x 19 x 20))		-		
22	COST LESS BASE (line(17 - 21))		31.22282		
23	Revenue Tax Req Multiplier		1.0975		
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))		34.26704		
				SUMMARY OF	
				TOTAL GENERATION FACTOR, ¢/kWh	
				35	CNTRL STN + OTHER (line 24)
				36	DG (line 34)
				37	TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)
					34.26704

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

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

Line

1 Effective Date March 1, 2023
2 Supercedes Factors of February 1, 2023

<u>Line</u>	PURCHASED ENERGY COMPONENT	
	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	3.30%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	0.99000
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))	0.99000
51	Loss Factor	1.050
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	1.14085

Calculation of Monthly Fossil Fuel Cost Risk Sharing Component		
Baseline Diesel		
54	Diesel \$, baseline month	\$936,167
55	Diesel mmbtu, baseline	30,062
56	Baseline Diesel, ¢/mmbtu	3,114.12
Month Diesel		
57	Diesel mmbtu, budget	28,786
58	Diesel Cost, ¢/mmbtu	3,011.41
59	Diesel ECRC Fossil Cost	\$866,867
60	Diesel Base ECRC Recovery Target	\$896,432
61	Diesel differential	-\$29,565
62	Total Fossil	-\$29,565
63	2% of above	-\$591
64	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$123
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	-\$591
70	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$469
71	Fossil Cost Risk Sharing before taxes	-\$591
72	Revenue Tax Adjustment	1.097514
73	Fossil Cost Risk Sharing w/revenue tax	-\$649
74	Forecasted Month MWh Sales	2,770
75	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.0234

Line **SYSTEM COMPOSITE CALCULATIONS**

76	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (37 + 53))	35.40789
77	Adjustment, ¢/kWh	0.000
78	Fossil Fuel Cost Risk Sharing Component	0.023
79	ECR Reconciliation Adjustment	(0.770)
80	ECR FACTOR, ¢/kWh (lines (76 + 77 + 78 + 79))	34.661

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

MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
2/17/2023	3,751.33	21,495.12	659,947.15
Estimated Use	1,875.31	10,745.53	337,147.33
Estimated Received	1,428.57	8,185.71	258,075.88
Estimated Additional	1,719.14	9,850.70	285,988.48
Estimated End	5,023.73	28,786.00	866,864.18

Next Month's Combined Miki Expense (\$/bbl) = \$ 172.5539 /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	\$ 172.5539	5.73 BTU/BBL	3,011.41

MAUI ELECTRIC COMPANY, LTD.
Lanai Division
ECR Reconciliation Adjustment

March 2023

1. Amount to be refunded	(\$58,300)
2. Monthly amount (1 / 3 X Line 1)	(\$19,433)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$21,328)
5. Estimated Sales (March 2023)	2,770 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.770 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
2023 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 '21					(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)	(17,864)	37,895
September					(18,433)	(17,494)	20,401
October					(18,433)	(18,331)	2,070
November	58,900	(3)	1,973	56,927	(19,633)	(18,575)	40,422
December					(19,633)	(18,053)	22,369
January '23					(19,633)	(20,368)	2,001
February	58,300	(4)	2,740	55,560	(19,433)		
March					(19,433)		

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.
0.00 (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		
	2/01/23	3/01/23	2/01/23	3/01/23	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 250 kWh per month	¢/kWh	12.3123	12.3123	30.78	30.78
Next 500 kWh per month	¢/kWh	14.8123	14.8123	22.22	22.22
Customer Charge	\$	11.50	11.50	11.50	11.50
Total Base Charges				64.50	64.50
IRP Refund	% on base	0.0000	0.0000	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	1.9048	1.9048	7.62	7.62
PBF Surcharge	¢/kWh	0.6488	0.6488	2.60	2.60
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
Energy Cost Recovery	¢/kWh	36.012	34.661	144.05	138.64
Green Infrastructure Fee	\$	1.23	1.23	1.23	1.23
Avg Residential Bill at 400 kwh				220.00	214.59
				Increase (Decrease -)	-5.41
				% Change	-2.46%

	Rate		Charge (\$) at 500 Kwh		
	2/01/23	3/01/23	2/01/23	3/01/23	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 250 kWh per month	¢/kWh	12.3123	12.3123	30.78	30.78
Next 500 kWh per month	¢/kWh	14.8123	14.8123	37.03	37.03
Customer Charge	\$	11.50	11.50	11.50	11.50
Total Base Charges				79.31	79.31
IRP Refund	% on base	0.0000	0.0000	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	1.9048	1.9048	9.52	9.52
PBF Surcharge	¢/kWh	0.6488	0.6488	3.24	3.24
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
Energy Cost Recovery	¢/kWh	36.012	34.661	180.06	173.31
Green Infrastructure Fee	\$	1.23	1.23	1.23	1.23
Avg Residential Bill at 500 kwh				273.36	266.61
				Increase (Decrease -)	-6.75
				% Change	-2.47%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR</u> <u>CENTS / KWH</u>		
	<u>RESIDENTIAL & 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
October 1, 2022	37.815	226.01	280.90
November 1, 2022	37.960	226.59	281.62
December 1, 2022	38.346	228.13	283.55
January 1, 2023	36.114	220.41	273.87
February 1, 2023	36.012	220.00	273.36
March 1, 2023	34.661	214.59	266.61

**MAUI ELECTRIC COMPANY, LTD. -- Lanai 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
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
05/01/22	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/22 - 12/31/22	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.6175 CENTS/KWH
07/01/22	RESID. PBF SURCHARGE ADJUSTMENT	0.6488 CENTS/KWH
07/01/22 - 12/31/22	GREEN INFRASTRUCTURE FEE	1.18 DOLLARS/MONTH
01/01/23	GREEN INFRASTRUCTURE FEE	1.23 DOLLARS/MONTH
01/01/23	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9048 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.