



March 29, 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 April 2023

Maui Electric Company, Limited's ("Maui Electric" or "Company") April 2023 Energy Cost Recovery factor for our Maui Division is 24.536 cents per kilowatt-hour ("kWh"), a decrease of 0.919 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$212.37, a decrease of \$4.61 compared to rates effective March 1, 2023. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor (-\$4.59) and Solar Saver Adjustment credit (-\$0.02).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 125.490 cents per million BTU to 2,084.50 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.687 cents per kWh to 20.403 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for April 2023 is 33.234 cents per kWh, a decrease of 1.427 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$208.87, a decrease of \$5.72 compared to rates effective March 1, 2023. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor (-\$5.70) and Solar Saver Adjustment credit (-\$0.02).

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 128.06 cents per million BTU to 2,883.35 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 April 2023 is 29.562 cents per kWh, a decrease of 4.410 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$201.33, a decrease of \$17.66 compared to rates effective March 1, 2023. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery (-\$17.64) and Solar Saver Adjustment credit (-\$0.02).

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 368.57 cents per million BTU to 2,411.82 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 April 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.
MOLOKAI DIVISION**

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>3/01/2023</u>	<u>4/01/2023</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	2,780.39	2,411.82	(368.57)
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	33.972	29.562	(4.410)
<u>Others - "G,J,P,F"</u>			
Energy Cost Recovery, ¢/kWh	33.972	29.562	(4.410)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	218.99	201.33	(17.66)
500 KWH Consumption, \$/Bill	272.20	250.13	(22.07)

Supersedes Sheet Effective:

3/01/2023

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

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

Line

1 Effective Date April 1, 2023
2 Supercedes Factors March 1, 2023

GENERATION COMPONENT

CENTRAL STATION						DG ENERGY COMPONENT	
FUEL PRICES, ¢/mmbtu							
3	Industrial						
				0.00			
4	Diesel				2,411.82		
5	Other				0.00		
BTU MIX, %							
6	Industrial			0.00		23	COMPOSITE COST OF DG ENERGY, ¢/kWh
7	Diesel			100.00			0.000
8	Other			0.00		24	% Input to System kWh Mix
				100.00			0.00
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))			2,411.82		25	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24)
10	% Input to System kWh Mix			99.98			0.00000
EFFICIENCY FACTOR, mmbtu/kWh						26	BASE DG ENERGY COMP COST
	(A)	(B)	(C)	(D)		27	Base % Input to System kWh Mix
			Percent of				0.00
			Centri Stn +	Weighted		28	WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27)
	Fuel Type	Eff Factor	Other	Eff Factor			0.00000
		mmbtu/kWh				29	Cost Less Base (Line 25 - 28)
11	Industrial	0.000000	0.00	0.000000		30	Loss Factor
12	Diesel	0.011127	100.00	0.011127			1.098
13	Other	0.011127	0.00	0.000000		31	Revenue Tax Req Multiplier
	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)					32	DG FACTOR, ¢/kWh (Line 29 x 30 x 31)
14	Weighted Efficiency Factor, mmbtu/kWh [lines 11(D) + 12(D) + 13(D)]			0.011127			0.00000
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))			26.83081			
16	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			0.00			
17	Base % Input to Sys kWh Mix			0.00			
18	Efficiency Factor, mmbtu/kWh			0.011127			
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18))			0.00000			
20	COST LESS BASE (line(15 - 19))			26.83081			
21	Revenue Tax Req Multiplier			1.0975			
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))			29.44681			
						SUMMARY OF	
						TOTAL GENERATION FACTOR, ¢/kWh	
						33	CNTRL STN + OTHER (line 22)
							29.44681
						34	DG (line 32)
							0.00000
						35	TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)
							29.44681

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

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

Line	Effective Date	April 1, 2023
2	Supercedes Factors	March 1, 2023

Line	PURCHASED ENERGY COMPONENT	
	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	0.02
48	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (46 x 47))	0.00447
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))	0.00447
53	Loss Factor	1.098
54	Revenue Tax Req Multiplier	1.0975
55	PURCHASED ENERGY FACTOR, ¢/kWh (lines (52 x 53 x 54))	0.00539

Line	Calculation of Monthly Fossil Fuel Cost Risk Sharing Component	
	Baseline Diesel	
56	Diesel \$, baseline month	\$727,962
57	Diesel mmbtu, baseline	26,128
58	Baseline Diesel, ¢/mmbtu	2,786.15
	Month Diesel	
59	Diesel mmbtu, budget	24,303
60	Diesel Cost, ¢/mmbtu	2,411.82
61	Diesel ECRC Fossil Cost	\$586,140
62	Diesel Base ECRC Recovery Target	\$677,113
63	Diesel differential	-\$90,973
64	Total Fossil	-\$90,973
65	2% of above	-\$1,819
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	-\$923
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	-\$1,819
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$2,743
73	Fossil Cost Risk Sharing before taxes	-\$1,819
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	-\$1,997
76	Forecasted Month MWh Sales	2,179
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.0916

Line	SYSTEM COMPOSITE CALCULATIONS	
78	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 55))	29.45220
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	0.092
81	ECR Reconciliation Adjustment	0.018
82	ECR FACTOR, ¢/kWh (lines (78 + 79 + 80 + 81))	29.562

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
3/22/2023	6,558.38	37,579.52	936,494.34
Estimated Use	1,427.34	8,178.66	227,398.38
Estimated Received	-	-	-
Estimated Additional	-	-	-
Estimated End	<u>5,131.04</u>	<u>29,400.86</u>	<u>709,095.96</u>

Next Months Expense = \$ 138.1973 /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	\$ 138.1973	5.73 BTU/BBL	2411.82

MAUI ELECTRIC COMPANY, LTD.
Molokai Division
ECR Reconciliation Adjustment

April 2023

1. Amount to be collected	\$1,100
2. Monthly amount (1/3 x Line 1)	\$367
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	\$403
5. Estimated Sales (April 2023)	2,179 mwh
6. Adjustment (Line 4 ÷ Line 5)	0.018 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI 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 '20					(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)	(7,699)	(549)
November	20,200	(3)	(379)	20,579	(6,733)	(7,024)	13,006
December					(6,733)	(6,702)	6,304
January '22					(6,733)	(6,879)	(575)
February	11,500	(4)	(426)	11,926	(3,833)	(3,909)	7,442
March					(3,833)	(3,831)	3,611
April					(3,833)	(3,991)	(380)
May	16,100	(1)	(220)	16,320	(5,367)	(6,014)	9,926
June					(5,367)	(5,428)	4,498
July					(5,367)	(5,680)	(1,182)
August	40,800	(2)	(866)	41,666	(13,600)	(14,372)	26,112
September					(13,600)	(13,983)	12,129
October					(13,600)	(14,488)	(2,359)
November	34,500	(3)	(1,468)	35,968	(11,500)	(11,296)	22,313
December					(11,500)	(11,026)	11,287
January '23					(11,500)	(11,414)	(127)
February	(1,100)	(4)	(210)	(890)	367	345	(672)
March					367		
April					367		

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		
		3/01/23	4/01/23	3/01/23	4/01/23	Difference
Base Rates	effective date:	09/01/19	09/01/19			
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Non-fuel Energy Charge						
First 250 kWhr per month	¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWhr 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	1.9048	1.9048	7.62	7.62	0.00
PBF Surcharge	¢/kWh	0.6488	0.6488	2.60	2.60	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	-0.0038	0.00	-0.02	-0.02
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	33.972	29.562	135.89	118.25	-17.64
Green Infrastructure Fee	\$	1.23	1.23	1.23	1.23	0.00
Avg Residential Bill at 400 kwh				218.99	201.33	

Increase (Decrease -)	-17.66
% Change	-8.06%

	Rate			Charge (\$) at 500 Kwh		
		3/01/23	4/01/23	3/01/23	4/01/23	Difference
Base Rates	effective date:	09/01/19	09/01/19			
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Non-fuel Energy Charge						
First 250 kWhr per month	¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWhr 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	1.9048	1.9048	9.52	9.52	0.00
PBF Surcharge	¢/kWh	0.6488	0.6488	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	-0.0038	0.00	-0.02	-0.02
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	33.972	29.562	169.86	147.81	-22.05
Green Infrastructure Fee	\$	1.23	1.23	1.23	1.23	0.00
Avg Residential Bill at 500 kwh				272.20	250.13	

Increase (Decrease -)	-22.07
% Change	-8.11%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH</u>		
	<u>RESIDENTIAL & COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$) @ 400 KWH</u>	<u>@ 500 KWH</u>
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
December 1, 2021	20.186	160.27	198.83
January 1, 2022	21.781	170.50	211.61
February 1, 2022	23.569	177.66	220.55
March 1, 2022	24.300	180.58	224.20
April 1, 2022	25.193	184.02	228.51
May 1, 2022	30.431	205.10	254.86
June 1, 2022	34.241	218.92	272.14
July 1, 2022	39.900	241.50	300.36
August 1, 2022	40.687	244.65	304.30
September 1, 2022	32.195	210.68	261.84
October 1, 2022	36.404	227.52	282.88
November 1, 2022	31.953	209.71	260.63
December 1, 2022	33.316	215.16	267.44
January 1, 2023	32.969	214.98	267.19
February 1, 2023	31.231	208.02	258.50
March 1, 2023	33.972	218.99	272.20
April 1, 2023	29.562	201.33	250.13

**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
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	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 - 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 - 06/30/22	RESID. PBF SURCHARGE ADJUSTMENT	0.6478 CENTS/KWH
07/01/21 - 12/31/21	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH
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
5/1/2022 - 03/31/23	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
04/01/23	SOLARSAVER ADJUSTMENT	-0.0038 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.