

February 24, 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 March 2022

Maui Electric Company, Limited's ("Maui Electric" or "Company") March 2022 Energy Cost Recovery factor for our Maui Division is 22.118 cents per kilowatt-hour ("kWh"), an increase of 1.525 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$200.46, an increase of \$7.63 compared to rates effective February 1, 2022. 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 166.720 cents per million BTU to 1,803.25 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.705 cents per kWh to 20.255 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for March 2022 is 31.445 cents per kWh, an increase of 3.084 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$202.01, an increase of \$12.34 compared to rates effective February 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 271.13 cents per million BTU to 2,701.73 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 2022 is 24.300 cents per kWh, an increase of 0.731 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$180.58, an increase of \$2.92 compared to rates effective February 1, 2022. 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 59.00 cents per million BTU to 2,008.07 cents per million BTU. The composite cost

The Honorable Chair and Members of the Hawai'i Public Utilities Commission February 24, 2022 Page 2

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, 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. MOLOKAI DIVISION

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		
	02/01/2022	03/01/2022	<u>Change</u>
COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,949.07 0.00 21.80	2,008.07 0.00 21.80	59.00 0.00 0.00
Residential Schedule "R"			
Energy Cost Recovery, ¢/kWh	23.569	24.300	0.731
Others - "G,J,P,F"			
Energy Cost Recovery, ¢/kWh	23.569	24.300	0.731
Residential Customer with			
400 KWH Consumption, \$/Bill 500 KWH Consumption, \$/Bill	177.66 220.55	180.58 224.20	2.92 3.65

Supersedes Sheet Effective: 02/01/2022

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

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

Line
1 Effective Date
2 Supercedes Factors March 1, 2022 February 1, 2022

GENERATION COMPONENT

	CENTRAL STATION		1
	FUEL PRICES, ¢/mmbtu		
3	Industrial	0.00	
4	Diesel	2,008.07	
5	Other	0.00	
	BTU MIX, %	0.00	DG ENERGY COMPONENT
	Industrial Diesel	0.00	23 COMPOSITE COST OF DG
	Other	100.00	ENERGY, ¢/kWh 0.000 24 % Input to System kWh Mix 0.00
ľ	Other	100.00	24 % input to System kwin with 0.00
		100.00	25 WEIGHTED COMPOSITE DG ENERGY COST,
9	COMPOSITE COST OF GENERATION,		¢/kWh (Lines 23 x 24) 0.00000
	CENTRAL STATION + OTHER ¢/mmbtu	2,008.07	, , ,
	(Lines (3 x 6) + (4 x 7) + (5 x 8))		
10	% Input to System kWh Mix	99.98	26 BASE DG ENERGY COMP COST 0.000
			27 Base % Input to System kWh Mix 0.00
	EFFICIENCY FACTOR, mmbtu/kWh	(D)	28 WEIGHTED BASE DG ENERGY COST,
	(A) (B) (C) Percent of	(D)	¢/kWh (Line 26 x 27) 0.00000
	Eff Factor Centrl Stn +	Weighted	29 Cost Less Base (Line 25 - 28) 0.00000
	Fuel Type mmbtu/kwh Other	Eff Factor	30 Loss Factor 1.098
11	Industrial 0.000000 0.00	0.000000	31 Revenue Tax Reg Multiplier 1.0975
12	Diesel 0.011127 100.00	0.011127	32 DG FACTOR,
13	Other 0.011127 0.00	0.000000	¢/kWh (Line 29 x 30 x 31) 0.00000
	(Lines 11, 12, 13): $Col(B) \times Col(C) = Col(D)$		
14	Weighted Efficiency Factor, mmbtu/kWh		
	[lines 11(D) + 12(D) + 13(D)]	0.011127	
15	WEIGHTED COMPOSITE CENTRAL STATION	+	
10	OTHER GENERATION COST, ¢/kWh	•	
	(lines (9 x 10 x 14))	22.33984	
	, , , , , , , , , , , , , , , , , , , ,		
16	BASE CENTRAL STATION + OTHER		
	GENERATION COST, ¢/mmbtu	0.00	
	Base % Input to Sys kWh Mix	0.00	
	Efficiency Factor, mmbtu/kwh	0.011127	
19	WEIGHTED BASE CENTRAL STATION + OTHE GENERATION COST ¢/kWh	EK	
	(lines (16 x 17 x 18))	0.00000	
	(11100 (10 x 11 x 10))	0.00000	SUMMARY OF
20	COST LESS BASE (line(15 - 19))	22.33984	TOTAL GENERATION FACTOR, ¢/kWh
21	Revenue Tax Req Multiplier	1.0975	33 CNTRL STN + OTHER (line 22) 24.51797
22	CENTRAL STATION + OTHER GENERATION		34 DG (line 32) 0.00000
	FACTOR, ¢/kWh (line (20 x 21))	24.51797	35 TOTAL GENERATION FACTOR,
			¢/kWh (lines 33 + 34) 24.51797

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

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

Line
1 Effective Date
2 Supercedes Factors March 1, 2022 February 1, 2022

Line	PURCHASED ENERGY COMPONENT	
37	PURCHASED ENERGY PRICE, ¢/kWh - Fossil PURCHASED ENERGY PRICE, ¢/kWh - Renewabl Unused CBRE FIT	e 0.000 22.500 21.800
40	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, % - Fossil PURCHASED ENERGY KWH MIX, % - Renewable Unused CBRE FIT	0.00% 0.00% 100.00%
45	Sch Q	0.00%
45B 45C	Fossil Purch. Energy % Renewable Purch. Energy % Comp. Cost, Fossil Purch. Energy, ¢/kWh Comp. Cost, Renewable Purch. Energy,¢/kWh	0.00% 100.00% N/A 21.800
		0.02
40	COST, ¢/kWh (lines (46 x 47))	0.00386
	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh Base % Input to Sys kWh Mix WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (49 x 50))	0.000 0.00 0.00000
53 54	COST LESS BASE (lines (48 - 51)) Loss Factor Revenue Tax Req Multiplier PURCHASED ENERGY FACTOR, ¢/kWh (lines (52 x 53 x 54))	0.00386 1.098 1.0975 0.00465

<u>Line</u>	Calculation of Monthly Fossil Fuel Cost Risk Sharing Compone	<u>nt</u>
	Baseline Diesel	
56	Diesel \$, baseline month	\$457,657
57	Diesel mmbtu, baseline	24,780
58	Baseline Diesel, c/mmbtu	1,846.89
	Month Diesel	
59	Diesel mmbtu, budget	25,849
60	Diesel Cost, ¢/mmbtu	2,008.07
61	Diesel ECRC Fossil Cost	\$519,073
62	Diesel Base ECRC Recovery Target	\$477,410
63	Diesel differential	\$41,663
64	Total Fossil	\$41,663
65	2% of above	\$833
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$661
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	\$833
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$1,494
73	Fossil Cost Risk Sharing before taxes	\$833
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	\$915
76	Forecasted Month MWh Sales	2,297
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	(0.0398)

<u>Line</u>	SYSTEM COMPOSITE CALCULATIONS	
78	GENERATION AND PURCHASED ENERGY	
	FACTOR, ¢/kWh	24.52262
	(lines (35 + 55))	
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	(0.040)
81	ECR Reconciliation Adjustment	(0.183)
82	ECR FACTOR, ¢/kWh	24.300
	(lines (78 + 79 + 80 + 81))	
1		

Maui Electric Company, Ltd. Molokai Division

MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
2/17/2022	5,782.48	33,133.59	670,206.32
Estimated Use	1,586.05	9,088.07	177,132.60
Estimated Received	4,554.00	26,094.42	513,770.18
Estimated Additional			
Estimated End	8,750.43	50,139.94	1,006,843.90

Next Months Expense = \$ 115.0622 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>	Conversion Factor	Prices ¢/MBTU
Diesel	\$ 115.0622	5.73 BTU/BBL	2008.07

MAUI ELECTRIC COMPANY, LTD. Molokai Division ECR Reconciliation Adjustment

March 2022

1.	Amount to be refunded	(\$11,500)	
2.	Monthly amount (1/3 x Line 1)	(\$3,833)	
3.	Revenue Tax Divisor	0.91115	
4.	Total (Line 2 / Line 3)	(\$4,207)	
5.	Estimated Sales (March 2022)	2,297	mwh
6.	Adjustment (Line 4 ÷ Line 5)	-0.183	¢/kwh

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION 2021 Cumulative Reconciliation Balance

<u>Month</u>	(1) YTD FOA Reconciliation	<u>Qtr</u>	(2) FOA Rec Adjust Variance	(3) FOA Rec Less Variance	(4) Try to Collect	(5) Actual <u>Collect</u>	(6) Month-end Cumulative <u>Balance</u>
<u></u>	<u></u>	<u> </u>		<u>, , , , , , , , , , , , , , , , , , , </u>	<u> </u>	<u> </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)		
March					(3,833)		
NOTES:							
Col(1):	Quarterly FOA r	econcili	ation amount	s (Refer to Δt	ttachment 20)		

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

Base Rates
Base Fuel/Energy Charge
Non-fuel Energy Charge
First 250 kWhr per month
Next 500 kWhr per month
Customer Charge
Total Base Charges

IRP Refund

Revenue Balancing Rate Adjustment
PBF Surcharge
Renewable Energy Infrastructure Cost Recovery
Provision
SolarSaver Adjustment
Refund of 2018 Interim
Purchased Power Adjustment
Energy Cost Recovery
Green Infrastructure Fee

Avg Residential Bill at 400 kwh

Rate					
02/01/22 03/01/22					
effective date:	09/01/19	09/01/19			
¢/kWh	0.0000	0.0000			
¢/kWh	14.0459	14.0459			
¢/kWh	16.6959	16.6959			
\$	11.50	11.50			
Φ	11.50	11.50			
% on base	0.000	0.000			
¢/kWh	1.9714	1.9714			
¢/kWh	0.6478	0.6478			
9,,,,,,,,,	0.0170	0.0170			
¢/kWh	0.0000	0.0000			
¢/kWh	0.0000	0.0000			
% on base	0.00	0.00			
¢/kWh	0.0000	0.0000			
¢/kWh	23.569	24.300			
\$	1.25	1.25			

Charge (\$) at 400 Kwh				
02/01/22	03/01/22			
0.00	0.00	0.00		
35.11	35.11	0.00		
25.04	25.04	0.00		
11.50	11.50	0.00		
71.65	71.65	0.00		
0.00	0.00	0.00		
7.00	7.00	0.00		
7.89	7.89	0.00		
2.59	2.59	0.00		
0.00	0.00	0.00		
0.00	0.00	0.00		
0.00	0.00	0.00		
0.00	0.00	0.00		
94.28	97.20	2.92		
1.25	1.25	0.00		
1.23	1.23	0.00		
177.66	180.58			

Increase (Decrease -) % Change

2.92 1.64%

Base Rates

Base Fuel/Energy Charge Non-fuel Energy Charge First 250 kWhr per month Next 500 kWhr per month Customer Charge Total Base Charges

IRP Refund

Revenue Balancing Rate Adjustment
PBF Surcharge
Renewable Energy Infrastructure Cost Recovery
Provision
SolarSaver Adjustment
Refund of 2018 Interim
Purchased Power Adjustment
Energy Cost Recovery
Green Infrastructure Fee

Avg Residential Bill at 500 kwh

Rate			
	02/01/22	03/01/22	
effective date:	09/01/19	09/01/19	
¢/kWh	0.0000	0.0000	
¢/kWh	14.0459	14.0459	
¢/kWh	16.6959	16.6959	
\$	11.50	11.50	
% on base	0.000	0.000	
¢/kWh	1.9714	1.9714	
¢/kWh	0.6478	0.6478	
¢/kWh	0.0000	0.0000	
,	0.0000	0.0000	
¢/kWh			
% on base	0.00	0.00	
¢/kWh	0.0000	0.0000	
¢/kWh	23.569	24.300	
\$	1.25	1.25	

Charge (\$) at 500 Kwh			
02/01/22	03/01/22	Difference	
0.00	0.00	0.00	
35.11	35.11	0.00	
41.74	41.74	0.00	
11.50	11.50	0.00	
88.35	88.35	0.00	
0.00	0.00	0.00	
9.86	9.86	0.00	
3.24	3.24	0.00	
0.00	0.00	0.00	
0.00	0.00	0.00	
0.00	0.00	0.00	
0.00	0.00	0.00	
117.85	121.50	3.65	
1.25	1.25	0.00	
220.55	224.20		

Increase (Decrease -) % Change

3.65
1.65%

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

FUEL FACTOR	
CENTS / KWH	

	CENTS / KWH	DECIDENT	IAI DIII (#)
	RESIDENTIAL &		IAL BILL (\$)
EFFECTIVE DATE	COMMERCIAL	<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 4, 2020	40 500	450.75	400.07
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

MAUI ELECTRIC COMPANY, LTD. -- Molokai Division RESIDENTIAL SURCHARGE DATA

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE		RATE
06/01/11 08/17/17	IRP RECOVERY REFUND RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION		PERCENT ON BASE CENTS/KWH
06/01/19	FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (20	18 TEST YEAR	
06/01/19 - 06/30/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR		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
08/01/19 - 08/31/19	PURCHASED POWER ADJUSTMENT	-0.7518	CENTS/KWH
09/01/19 - 09/30/19	PURCHASED POWER ADJUSTMENT	-0.7820	CENTS/KWH
10/01/19 - 10/31/19	PURCHASED POWER ADJUSTMENT	-0.7475	CENTS/KWH
11/01/19 - 11/30/19	PURCHASED POWER ADJUSTMENT	0.0692	CENTS/KWH
12/01/19 - 12/31/19	PURCHASED POWER ADJUSTMENT	0.0655	CENTS/KWH
01/01/20 - 01/31/20	PURCHASED POWER ADJUSTMENT		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 - 04/30/20	PURCHASED POWER ADJUSTMENT	0.00	CENTS/KWH
04/01/20 - 04/30/20	SOLARSAVER ADJUSTMENT	-0.0592	CENTS/KWH
05/01/20 - 05/31/20	PURCHASED POWER ADJUSTMENT	-0.3200	CENTS/KWH
05/01/20 - 03/31/21	SOLARSAVER ADJUSTMENT	0.0000	CENTS/KWH
06/01/20 - 06/30/20	PURCHASED POWER ADJUSTMENT	-0.3325	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	0.0000	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 - 08/31/20	PURCHASED POWER ADJUSTMENT	0.2408	CENTS/KWH
09/01/20 - 09/30/20	PURCHASED POWER ADJUSTMENT	0.2542	CENTS/KWH
10/01/20 - 10/31/20	PURCHASED POWER ADJUSTMENT	0.2449	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	SOLARSAVER ADJUSTMENT	0.0000	CENTS/KWH
06/01/21 - 12/31/21	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.0242	CENTS/KWH
07/01/21	RESID. PBF SURCHARGE ADJUSTMENT	0.6478	CENTS/KWH
07/01/21 - 12/31/21	GREEN INFRASTRUCTURE FEE	1.19	DOLLARS/MONTH
01/01/22	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9714	CENTS/KWH
01/01/22	GREEN INFRASTRUCTURE FEE	1.25	DOLLARS/MONTH

[~] Surcharges currently in effect are in bold.

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