

March 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 April 2022

Maui Electric Company, Limited's ("Maui Electric" or "Company") April 2022 Energy Cost Recovery factor for our Maui Division is 24.483 cents per kilowatt-hour ("kWh"), an increase of 2.365 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$212.12, an increase of \$11.66 compared to rates effective March 1, 2022. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$11.83), partially offset by the SolarSaver Adjustment credit (-\$0.16) and decline in the Purchase Power Adjustment (\$-0.01).

The Company's Maui Division fuel composite cost of generation, central station and other increased 276.730 cents per million BTU to 2,079.98 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.207 cents per kWh to 20.048 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for April 2022 is 33.341 cents per kWh, an increase of 1.896 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$209.46, an increase of \$7.45 compared to rates effective March 1, 2022. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$7.58), partially offset by the SolarSaver Adjustment credit (-\$0.13).

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 170.31 cents per million BTU to 2,872.04 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 2022 is 25.193 cents per kWh, an increase of 0.893 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$184.02, an increase of \$3.44 compared to rates effective March 1, 2022. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery (+\$3.57), partially offset by the SolarSaver Adjustment credit (-\$0.13).

The Honorable Chair and Members of the Hawai'i Public Utilities Commission March 29, 2022 Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 74.80 cents per million BTU to 2,082.87 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 April 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		
	03/01/2022	04/01/2022	<u>Change</u>
COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu	2,008.07	2,082.87	74.80
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	21.80	21.80	0.00
Residential Schedule "R"			
Energy Cost Recovery, ¢/kWh	24.300	25.193	0.893
Others - "G,J,P,F"			
Energy Cost Recovery, ¢/kWh	24.300	25.193	0.893
Residential Customer with			
400 KWH Consumption, \$/Bill	180.58	184.02	3.44
500 KWH Consumption, \$/Bill	224.20	228.51	4.31

Supersedes Sheet Effective: 03/01/2022

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

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

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

GENERATION COMPONENT

	CENTRAL STATION		1
	FUEL PRICES, ¢/mmbtu		
3	Industrial	0.00	
	Diesel	2,082.87	
	Other	0.00	
3	Ottlei	0.00	
	BTU MIX, %		DG ENERGY COMPONENT
6	Industrial	0.00	23 COMPOSITE COST OF DG
7	Diesel	100.00	ENERGY, ¢/kWh 0.000
8	Other	0.00	24 % Input to System kWh Mix 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	2,082.87	, , ,
	(Lines $(3 \times 6) + (4 \times 7) + (5 \times 8)$)		
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		28 WEIGHTED BASE DG ENERGY COST,
	(A) (B) (C)	(D)	¢/kWh (Line 26 x 27) 0.00000
	Percent of		
	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 Req 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) x Col(C) = Col(D)		
14	Weighted Efficiency Factor, mmbtu/kWh		
	[lines 11(D) + 12(D) + 13(D)]	0.011127	
15	WEIGHTED COMPOSITE CENTRAL STATION	+	
	OTHER GENERATION COST, ¢/kWh		
	(lines (9 x 10 x 14))	23.17154	
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 + OTH	ER	
	GENERATION COST ¢/kWh		
	(lines (16 x 17 x 18))	0.00000	CUMMA DV OF
200	COST FCC DACE (lime(4F 40))	00 47454	SUMMARY OF
	COST LESS BASE (line(15 - 19))	23.17154	TOTAL GENERATION FACTOR, ¢/kWh
	Revenue Tax Req Multiplier	1.0975	33 CNTRL STN + OTHER (line 22) 25.43077
22	CENTRAL STATION + OTHER GENERATION	25 42077	34 DG (line 32) 0.00000 35 TOTAL GENERATION FACTOR.
	FACTOR, ¢/kWh (line (20 x 21))	25.43077	¢/kWh (lines 33 + 34) 25.43077
L			ψ/ΝΨΙΙ (IIIIes 33 ± 34) 23.430//

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

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

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

<u>Line</u>	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
42	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
47	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 41) + (37 x 42) + (38 x 43) + (39 x 44) % Input to System kWh Mix WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (46 x 47))	21.800) 0.02 0.00429
	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))	0.00429 1.098 1.0975 0.00517

<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	25,564
60	Diesel Cost, ¢/mmbtu	2,082.87
61	Diesel ECRC Fossil Cost	\$532,465
62	Diesel Base ECRC Recovery Target	\$472,140
63	Diesel differential	\$60,325
64	Total Fossil	\$60,325
65	2% of above	\$1,206
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$1,494
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	\$1,206
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$2,701
73	Fossil Cost Risk Sharing before taxes	\$1,206
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	\$1,324
76	Forecasted Month MWh Sales	2,275
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	(0.0582)
	- ········ -········· -······· , , , , ,	(/

<u>Line</u>	SYSTEM COMPOSITE CALCULATIONS	
78	GENERATION AND PURCHASED ENERGY	
	FACTOR, ¢/kWh	25.43594
	(lines (35 + 55))	
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	(0.058)
81	ECR Reconciliation Adjustment	(0.185)
82	ECR FACTOR, ¢/kWh	25.193
	(lines (78 + 79 + 80 + 81))	

Maui Electric Company, Ltd. Molokai Division

MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
3/21/2022	5,536.31	31,723.05	678,099.71
Estimated Use	1,487.45	8,523.09	171,149.27
Estimated Received	4,558.14	26,118.14	520,280.58
Estimated Additional			
Estimated End	8,607.00	49,318.10	1,027,231.02

Next Months Expense = \$ 119.3483 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>	Conversion Factor	Prices ¢/MBTU
Diesel	\$ 119.3483	5.73 BTU/BBL	2082.87

MAUI ELECTRIC COMPANY, LTD. Molokai Division ECR Reconciliation Adjustment

April 2022

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 (April 2022)	2,275 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.185 ¢/kwh

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

	(1)		(2) FOA Rec	(3) FOA Rec	(4)	(5)	(6) Month-end
	YTD FOA		Adjust	Less	Try to	Actual	Cumulative
<u>Month</u>	<u>Reconciliation</u>	<u>Qtr</u>	<u>Variance</u>	<u>Variance</u>	<u>Collect</u>	<u>Collect</u>	<u>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)		
April					(3,833)		
NOTES:							
Col(1):	Quarterly FOA re	econcili	ation amount	s. (Refer to A	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. 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(2):

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				
	03/01/22	04/01/22		
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		
¢/kWh	0.0000	-0.0315		
% on base	0.00	0.00		
¢/kWh	0.0000	0.0000		
¢/kWh	24.300	25.193		
\$	1.25	1.25		

Charge (\$) at 400 Kwh				
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		
7.89	7.89	0.00		
2.59	2.59	0.00		
2.59	2.59	0.00		
0.00	0.00	0.00		
0.00	-0.13	-0.13		
0.00	0.00	0.00		
0.00	0.00	0.00		
97.20	100.77	3.57		
1.25	1.25	0.00		
180.58	184.02			

Increase (Decrease -) % Change

3.44 1.90%

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					
	03/01/22	04/01/22			
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			
70 011 5030	0.000	0.000			
¢/kWh	1.9714	1.9714			
¢/kWh	0.6478	0.6478			
¢/kWh	0.0000	0.0000			
¢/kWh	0.0000	-0.0315			
% on base	0.00	0.00			
¢/kWh	0.0000	0.0000			
¢/kWh	24.300	25.193			
\$	1.25	1.25			

Charge (\$) at 500 Kwh						
03/01/22	04/01/22	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	-0.16	-0.16				
0.00	0.00	0.00				
0.00	0.00	0.00				
121.50	125.97	4.47				
1.25	1.25	0.00				
224.20	228.51					

Increase (Decrease -) % Change

4.31 1.92%

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

EFFECTIVE DATE	FUEL FACTOR CENTS / KWH RESIDENTIAL & COMMERCIAL		TAL BILL (\$) @ 500 KWH
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
	_000		
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

25.193 184.02

228.51

April 1, 2022

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE RATE		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 (201	8 TEST YEAR	
06/01/19 - 06/30/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR REVENUE BALANCING ACCOUNT RATE ADJUSTMENT RESID. PBF SURCHARGE ADJUSTMENT	-2.00	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		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	0.0648	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 - 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	RESID. PBF SURCHARGE ADJUSTMENT	0.6478	CENTS/KWH
07/01/21 - 12/31/21	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
01/01/22	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9714	CENTS/KWH
01/01/22	GREEN INFRASTRUCTURE FEE	1.25	DOLLARS/MONTH
04/01/22	SOLARSAVER ADJUSTMENT	-0.0315	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.