

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. LANAI DIVISION

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		
	03/01/2022	04/01/2022	<u>Change</u>
COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	2,701.73 0.00 30.00	2,872.04 0.00 30.00	170.31 0.00 0.00
Residential Schedule "R"			
Energy Cost Recovery, ¢/kWh	31.445	33.341	1.896
Others - "G,J,P,F"			
Energy Cost Recovery, ¢/kWh	31.445	33.341	1.896
Residential Customer with			
400 KWH Consumption, \$/Bill	202.01	209.46	7.45
500 KWH Consumption, \$/Bill	250.89	260.21	9.32

Supersedes Sheet Effective: 03/01/2022

MAUI ELECTRIC COMPANY, LTD. LANAI 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 of April 1, 2022 March 1, 2022

GENERATION COMPONENT

	CENTRAL CTATION			
	CENTRAL STATION FUEL PRICES, ¢/mmbtu			
3	Industrial	0.00		
	Diesel - Miki Basin	2,872.04		
5		,-		
6	Other	0.00		
_	BTU MIX, % Industrial	0.00%	<u>DG ENERGY COMPONENT</u> 25 COMPOSITE COST OF DG	
8	Diesel - Miki Basin	100.00%	ENERGY, ¢/kWh	0.000
9	Diesei - Wiki Dasiii	100.00 %	ENERGT, ¢/KWII	0.000
	Other	0.00%	26 % Input to System kWh Mix	0.00%
	•	100.00%	,	
			27 WEIGHTED COMPOSITE DG ENERGY	
11	COMPOSITE COST OF GENERATION,	0.070.04	COST, ¢/kWh (Lines 25 x 26)	0.00000
	CENTRAL STATION + OTHER ¢/mmbtu	2,872.04		
12	(Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10)) % Input to System kWh Mix	94.23%	28 BASE DG ENERGY COMP COST	0.000
12	70 Input to System KWII WIIX	94.2370	29 Base % Input to System kWh Mix	0.00%
	EFFICIENCY FACTOR, mmbtu/kWh		30 WEIGHTED BASE DG ENERGY COST,	0.0070
	(A) (B) (C)	(D)	¢/kWh (Line 28 x 29)	0.00000
	Percent of			
	Eff Factor Centrl Stn +	Weighted	31 Cost Less Base (Line 27 - 30)	0.00000
1 40	Fuel Type mmbtu/kwh Other	Eff Factor	32 Loss Factor	1.0500
13	Industrial 0.000000 0.00 Diesel 0.010809 100.00	0.000000 0.010809	33 Revenue Tax Req Multiplier 34 DG FACTOR,	1.0975
15	Other 0.010809 0.00	0.000000	¢/kWh (Line 31 x 32 x 33)	0.00000
'	(Lines 13, 14, 15): Col(B) x Col(C) = Col(D)	0.000000	pricer (Enio of X oz X oo)	0.00000
16	Weighted Efficiency Factor, mmbtu/kWh			
	[lines 13(D) + 14(D) + 15(D)]	0.010809		
l				
17	WEIGHTED COMPOSITE CENTRAL STATION	+		
	OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))	29.25265		
	(IIIIes (11 X 12 X 10))	29.25205		
18	BASE CENTRAL STATION + OTHER GENERA	TION		
"	COST, ¢/mmbtu	-		
	Base % Input to Sys kWh Mix	0.00%		
	Efficiency Factor, mmbtu/kwh	0.010809		
21	WEIGHTED BASE CENTRAL STATION +			
	OTHER GENERATION COST ¢/kWh			
	(lines (18 x 19 x 20))	-	SUMMARY OF	
22	COST LESS BASE (line(17 - 21))	29.25265	TOTAL GENERATION FACTOR, ¢/kWh	
	Revenue Tax Req Multiplier	1.0975	35 CNTRL STN + OTHER (line 24)	32.10478
	CENTRAL STATION + OTHER GENERATION		36 DG (line 34)	-
	FACTOR, ¢/kWh (line (22 x 23))	32.10478	37 TOTAL GENERATION FACTOR,	
oxdot			¢/kWh (lines 35 + 36)	32.10478

MAUI ELECTRIC COMPANY, LTD. LANAI 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 of April 1, 2022 March 1, 2022

1:	DUDCHACED ENERGY COMPONE	NT
<u>Line</u>	PURCHASED ENERGY COMPONE	<u>:N I</u>
	PURCHASED ENERGY PRICE, ϕ/kWh - FOSSIL PURCHASED ENERGY PRICE, ϕ/kWh - RENEW	
38 39	LANAI SOLAR RESEARCH - On Peak - Off Peak	30.000 30.000
40	Sch Q	0.000
41 42	PURCHASED ENERGY KWH MIX, %, FOSSIL PURCHASED ENERGY KWH MIX, %, RENEWA LANAI SOLAR RESEARCH - On Peak - Off Peak	BLE 100.00% 0.00%
43A 43B 43C	Sch Q Total Fossil % Total Renewable % Comp. cost of purch. energy, fossil ¢/kWh Comp. cost of purch. energy, renewable ¢/kWh	0.00% 0.00% 100.00% N/A 30.00
44	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43))	30.000
	% Input to System kWh Mix	5.77%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	1.73100
48	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh Base % Input to Sys kWh Mix	0.000
49	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))	0.00000
51 52	COST LESS BASE(lines (46 - 49)) Loss Factor Revenue Tax Req Multiplier PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	1.73100 1.050 1.0975 1.99476

Calculatio	n of Monthly Fossil Fuel Cost Risk Sharing Component	
Calculatio	II OF MOREITY FOSSII FUEL COSERISK SHAFING COMPONENT	
	Baseline Diesel	
54	Diesel \$, baseline month	\$708,879
55	Diesel mmbtu, baseline	29,161
56	Baseline Diesel, c/mmbtu	2,430.88
	Month Diesel	
57	Diesel mmbtu, budget	31,133
58	Diesel Cost, ¢/mmbtu	2,872.04
59	Diesel ECRC Fossil Cost	\$894,160
60	Diesel Base ECRC Recovery Target	\$756,814
61	Diesel differential	\$137,346
62	Total Fossil	\$137,346
63	2% of above	\$2,747
64	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$1,755
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	\$2,747
70	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$4,501
71	Fossil Cost Risk Sharing before taxes	\$2,747
72	Revenue Tax Adjustment	1.097514
73	Fossil Cost Risk Sharing w/revenue tax	\$3,015
74	Forecasted Month MWh Sales	3,075
75	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	-0.0980
	- '	

ine	SYSTEM COMPOSITE CALCULATIONS	
76	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh	34.09954
77	(lines (37 + 53)) Adjustment, ¢/kWh	0.000
	Fossil Fuel Cost Risk Sharing Component	(0.098)
79	ECR Reconciliation Adjustment	(0.661)
80	ECR FACTOR, ¢/kWh (lines (76 + 77 + 78 + 79))	33.341

Maui Electric Company, Ltd. Lanai Division

MONTH END FUEL OIL ESTIMATE

Miki Basin - ULSD	Barrels	MBTU	\$
3/21/2022	2,743.71	15,721.45	442,056.79
Estimated Use	1,719.81	9,854.51	266,242.29
Estimated Received	2,714.29	15,552.88	429,704.95
Estimated Additional	1,183.98	6,784.18	204,511.14
Estimated End	4,922.17	28,204.00	810,030.59

Next Month's Combined Miki Expense (\$/bbl) = \$ 164.5678 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>	Conversion Factor	Prices ¢/MBTU
Diesel - Miki Basin	\$ 164.5678	5.73 BTU/BBL	2,872.04

MAUI ELECTRIC COMPANY, LTD. Lanai Division ECR Reconciliation Adjustment

April 2022

Amount to be refunded	(\$55,600)
2. Monthly amount (1 / 3 X Line 1)	(\$18,533)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$20,340)
5. Estimated Sales (April 2022)	3,075 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.661 ¢/kwh

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

	(1)	(2)	(3) FOA Rec	(4)	(5)	(6) Month-end
	YTD FOA	Adjust	Less	Try to	Actual	Cumulative
<u>Month</u>	Reconciliation Qtr	<u>Variance</u>	<u>Variance</u>	<u>Collect</u>	<u>Collect</u>	<u>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)		
April				(18,533)		
NOTES:						
0-1/4).	O	:	one counts (Def	4 - A44 l	t 40\	
Col(1):	Quarterly FOA rec A positive number		•		•	or collection
Col(2):	FOA reconciliation			_		
OOI(2).	starting with the fo	•			•	
	sales used to deri					
	(Col(5) - Col(4))		,			
Col(3):	FOA reconciliation	generated	in the current	quarter. The `	YTD FOA red	conciliation
	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 a	,		•	,	
Col(6):	Cumulative balance	ce of the FO	A reconciliation	on (Previous b	parance + Co	i(3) + Col(5))

Maui Electric Company, Ltd. **Lanai 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
IRP Refund Revenue Balancing Rate Adjustment
Revenue Balancing Rate Adjustment
Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cos
Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cos Recovery Provision
Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cos Recovery Provision SolarSaver Adjustment
Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cos Recovery Provision

Avg Residential Bill at 400 kwh

Cost

Rate				
	03/01/22	04/01/22		
effective date:	09/01/19	09/01/19		
¢/kWh	0.0000	0.0000		
¢/kWh	12.3123	12.3123		
¢/kWh	14.8123	14.8123		
, \$	11.50	11.50		
% on base	0.0000	0.0000		
¢/kWh	1.9714	1.9714		
¢/kWh	0.6478	0.6478		
¢/kWh	0.0000	0.0000		
¢/kWh	0.0000	-0.0315		
¢/kWh	31.445	33.341		
\$	1.25	1.25		

Charge (\$) at 400 Kwh					
03/01/22	04/01/22	Difference			
0.00	0.00	0.00			
30.78	30.78	0.00			
22.22	22.22	0.00			
11.50	11.50	0.00			
64.50	64.50	0.00			
0.00	0.00	0.00			
7.89	7.89	0.00			
2.59	2.59	0.00			
0.00	0.00	0.00			
0.00	-0.13	-0.13			
125.78	133.36	7.58			
1.25	1.25	0.00			
202.01	209.46				

Increase (Decrease -) % Change

7.45 3.69%

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 **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	12.3123	12.3123			
¢/kWh	14.8123	14.8123			
\$	11.50	11.50			
% on base	0.0000	0.0000			
¢/kWh	1.9714	1.9714			
¢/kWh	0.6478	0.6478			
¢/kWh	0.0000	0.0000			
¢/kWh	0.0000	-0.0315			
¢/kWh	31.445	33.341			
\$	1.25	1.25			

Charge (\$) at 500 Kwh					
03/01/22	04/01/22	Difference			
0.00	0.00	0.00			
30.78	30.78	0.00			
37.03	37.03	0.00			
11.50	11.50	0.00			
79.31	79.31	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			
157.23	166.71	9.48			
1.25	1.25	0.00			
	222 - 1				
250.89	260.21				

Increase (Decrease -) % Change

9.32
3.71%

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

FUEL FACTOR CENTS / KWH

	RESIDENTIAL &	RESIDENT	IAL BILL (\$)
EFFECTIVE DATE	COMMERCIAL		<u>@ 500 KWH</u>
<u> </u>	OOMINIE! (OI) (E	<u>@ 100 144411</u>	(a) 000 1(VVII
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 25.345	173.46 173.76	215.21 215.59
September 1, 2021 October 1, 2021	25.345 24.342	169.75	210.59
November 1, 2021	29.191	189.14	234.82
December 1, 2021	29.254	189.40	235.13
D000111001 1, 2021	20.204	100.40	200.10
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	202.01	260.21
April 1, 2022	33.3 4 I	209.40	200.21

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

EFFECTIVE DATE	EFFECTIVE DATE DESCRIPTION OF SURCHARGE		RATE
06/01/11 08/17/17	IRP RECOVERY REFUND RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.000	PERCENT ON BASE CENTS/KWH
06/01/19	FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2	2018 TEST YE	AR)
06/01/19 - 06/30/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR		PÉRCENT 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	RESID. PBF SURCHARGE ADJUSTMENT	0.6478	CENTS/KWH
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.