



January 27, 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 February 2023

Maui Electric Company, Limited's ("Maui Electric" or "Company") February 2023 Energy Cost Recovery factor for our Maui Division is 24.501 cents per kilowatt-hour ("kWh"), a decrease of 0.833 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$212.21, a decrease of \$3.61 compared to rates effective January 1, 2023. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor (-\$4.17), partially offset by an increase in the Demand-Side Management Adjustment rate (+\$0.45) and increase in the Purchase Power Adjustment (+\$0.11).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 80.570 cents per million BTU to 2,081.14 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.158 cents per kWh to 20.304 cents per kWh.

Maui Electric has determined that the target sales heat rates for Maui Division's industrial fuel and diesel fuel sources will remain unchanged from the target sales heat rates of 0.015786 million BTU per kilowatt-hour for industrial fuel and 0.009938 million BTU per kilowatt-hour for diesel fuel that were in effect at the end of 2022. Attachment 24 provides a calculation of the applicable target sales heat rates for 2023 for each division. As shown in Attachment 24, the Maui Division actual sales heat rates for industrial and diesel fuel in 2022 were higher than the respective target sales heat rates in 2022, resulting in no adjustments to the respective target heat rates that were in effect at the end of 2022.

The Energy Cost Recovery factor for our Lāna'i Division for February 2023 is 36.012 cents per kWh, a decrease of 0.102 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$220.00, a decrease of \$0.41 compared to rates effective January 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 increased 23.44 cents per million BTU to 3,137.56 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.

Maui Electric has determined that the target sales heat rate will change from the target sales heat rates of 0.010809 million BTU per kilowatt-hour to 0.010722 million BTU per kilowatt-hour for Lāna'i Division's diesel fuel. As shown in Attachment 24, the actual sales heat rate for Lāna'i Division's diesel in 2022 was lower than the target sales heat rate for Lāna'i Division's diesel fuel in 2022, resulting in an adjustment to the target heat rate for Lāna'i Division's diesel fuel that was in effect at the end of 2022 to establish the target heat rate for 2023 for diesel fuel. A revised Lāna'i Division ECRC tariff reflecting the revised target sales heat rate for 2023 is included as Attachment 25. A blackline of the Lāna'i Division ECRC tariff is included as Attachment 26. The Company files the Lāna'i Division ECRC tariff sheets in accordance with the Lāna'i Division ECRC tariff, which states:

2. The target heat rates for diesel may be reestablished each calendar year, beginning at January 1, 2020. If the prior year's actual sales heat rate for a fuel type is greater than or equal to the target sales heat rate applicable in that year, the target sales heat rate for that fuel type remains unchanged. If the prior year's actual sales heat rate for a fuel type is less than the target sales heat rate applicable in that year, the target sales heat rate for that fuel type shall be reduced by one-half of the difference between the prior year's actual sales heat rate and the target sales heat rate applicable in that year.¹

The Energy Cost Recovery factor for our Moloka'i Division for February 2023 is 31.231 cents per kWh, a decrease of 1.738 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$208.02, a decrease of \$6.96 compared to rates effective January 1, 2023. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery.

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 193.34 cents per million BTU to 2,552.04 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.

Maui Electric has determined that the target sales heat rates for Moloka'i Division's diesel fuel source will remain unchanged from the target sales heat rate of 0.011127 million BTU per kilowatt-hour for diesel fuel that was in effect at the end of 2022. As shown in Attachment 24, the actual sales heat rate for diesel fuel in 2022 was higher than the target sales heat rate in 2022, resulting in no adjustments to the Moloka'i Division target heat rate for diesel fuel that was in effect at the end of 2022.

¹ See Maui Electric Lāna'i Division ECRC tariff, Revised Sheet No. 88B.

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
January 27, 2023
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The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning February 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>1/01/2023</u>	<u>2/01/2023</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	3,114.12	3,137.56	23.44
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	36.114	36.012	(0.102)
<u>Others - "G,J,P,F"</u>			
Energy Cost Recovery, ¢/kWh	36.114	36.012	(0.102)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	220.41	220.00	(0.41)
500 KWH Consumption, \$/Bill	273.87	273.36	(0.51)

Supersedes Sheet Effective:

1/01/2023

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

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

Line

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

GENERATION COMPONENT

CENTRAL STATION						DG ENERGY COMPONENT	
FUEL PRICES, ¢/mmbtu							
3	Industrial		0.00				
4	Diesel - Miki Basin		3,137.56				
5							
6	Other		0.00				
BTU MIX, %							
7	Industrial		0.00%	25	COMPOSITE COST OF DG		
8	Diesel - Miki Basin		100.00%		ENERGY, ¢/kWh	0.000	
9							
10	Other		0.00%	26	% Input to System kWh Mix	0.00%	
			100.00%				
11	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))		3,137.56	27	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26)	0.00000	
12	% Input to System kWh Mix		97.76%	28	BASE DG ENERGY COMP COST	0.000	
	EFFICIENCY FACTOR, mmbtu/kWh			29	Base % Input to System kWh Mix	0.00%	
	(A)	(B)	(C)	(D)	30	WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 28 x 29)	0.00000
			Percent of				
			Centrl Stn +		31	Cost Less Base (Line 27 - 30)	0.00000
	Fuel Type	Eff Factor	Other	Weighted	32	Loss Factor	1.0500
		mmbtu/kwh		Eff Factor	33	Revenue Tax Req Multiplier	1.0975
13	Industrial	0.000000	0.00	0.000000	34	DG FACTOR,	
14	Diesel	0.010722	100.00	0.010722		¢/kWh (Line 31 x 32 x 33)	0.00000
15	Other	0.010722	0.00	0.000000			
	(Lines 13, 14, 15): Col(B) x Col(C) = Col(D)						
16	Weighted Efficiency Factor, mmbtu/kWh [lines 13(D) + 14(D) + 15(D)]		0.010722				
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))		32.88736				
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))		32.88736				
23	Revenue Tax Req Multiplier		1.0975				
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))		36.09388				
					SUMMARY OF		
					TOTAL GENERATION FACTOR, ¢/kWh		
					35	CNTRL STN + OTHER (line 24)	36.09388
					36	DG (line 34)	-
					37	TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)	36.09388

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

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

Line

- 1 Effective Date February 1, 2023
- 2 Supercedes Factors of January 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	2.24%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	0.67200
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))	0.67200
51	Loss Factor	1.050
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	0.77440

Calculation of Monthly Fossil Fuel Cost Risk Sharing Component		
Baseline Diesel		
54	Diesel \$, baseline month	\$910,144
55	Diesel mmbtu, baseline	29,226
56	Baseline Diesel, ¢/mmbtu	3,114.12
Month Diesel		
57	Diesel mmbtu, budget	26,139
58	Diesel Cost, ¢/mmbtu	3,137.56
59	Diesel ECRC Fossil Cost	\$820,124
60	Diesel Base ECRC Recovery Target	\$813,997
61	Diesel differential	\$6,127
62	Total Fossil	\$6,127
63	2% of above	\$123
64	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$0
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	\$123
70	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$123
71	Fossil Cost Risk Sharing before taxes	\$123
72	Revenue Tax Adjustment	1.097514
73	Fossil Cost Risk Sharing w/revenue tax	\$134
74	Forecasted Month MWh Sales	2,507
75	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	-0.0054

Line **SYSTEM COMPOSITE CALCULATIONS**

76	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (37 + 53))	36.86828
77	Adjustment, ¢/kWh	0.000
78	Fossil Fuel Cost Risk Sharing Component	(0.005)
79	ECR Reconciliation Adjustment	(0.851)
80	ECR FACTOR, ¢/kWh (lines (76 + 77 + 78 + 79))	36.012

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

MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
1/20/2023	2,880.14	16,503.26	538,700.17
Estimated Use	1,847.90	10,588.47	329,737.57
Estimated Received	1,571.43	9,004.29	257,425.85
Estimated Additional	1,958.10	11,219.92	353,736.03
Estimated End	4,561.77	26,139.00	820,124.48

Next Month's Combined Miki Expense (\$/bbl) = \$ 179.7821 /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	\$ 179.7821	5.73 BTU/BBL	3,137.56

MAUI ELECTRIC COMPANY, LTD.
Lanai Division
ECR Reconciliation Adjustment

February 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 (February 2023)	2,507 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.851 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
2022 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)**

<u>Line</u>	Without Deadband 4th Quarter <u>YTD Total</u>	collection by <u>company*</u>	Basis for Recon With Deadband 4th Quarter <u>YTD Total</u>	collection by <u>company*</u>
ACTUAL COSTS:				
1	Generation		\$11,647.6	\$11,647.6
2	Distributed Generation		\$0.0	\$0.0
3	Purch Power		<u>-\$118.6</u>	<u>-\$118.6</u>
4	TOTAL		\$11,529.0	\$11,529.0
FUEL FILING COST				
5	Generation		\$11,828.0	\$11,773.3
6	Distributed Generation		\$0.0	\$0.0
7	Purch Power		<u>-\$118.6</u>	<u>-\$118.6</u>
8	TOTAL		\$11,709.4	\$11,654.6
BASE FUEL COST				
9	Generation		\$0.0	\$0.0
10	Distributed Generation		\$0.0	\$0.0
11	Purch Power		<u>\$0.0</u>	<u>\$0.0</u>
12	TOTAL		\$0.0	\$0.0
13	FUEL-BASE COST (Line 8-12)		\$11,709.4	\$11,654.6
14	ACTUAL FOA LESS TAX		\$11,623.4	\$11,623.4
15	FOA reconciliation adj for prior year		<u>-\$77.9</u>	<u>-\$77.9</u>
16	ADJUSTED FOA LESS TAX		\$11,701.3	\$11,701.3
17	FOA-(FUEL-BASE) (Line 16-13)		-8.1 Under	\$46.7 Over
ADJUSTMENTS				
18	Current year FOA accrual reversal		\$162.8	\$162.8
19	Other prior year FOA		\$0.0	\$0.0
20	Other		<u>\$0.0</u>	<u>\$0.0</u>
21	3rd QUARTER FOA RECONCILIATION (Lines 17+18+19+20)		\$154.7 Over	\$209.5 Over
21A	YTD Fossil Fuel Cost Risk Sharing Adjustment		<u>\$31.5</u>	<u>\$31.5</u>
21B	Quarterly FOA Recon w/Fossil Risk Adj (Line 21 + Line 21A)		<u>\$186.2</u>	<u>\$241.0</u>
22	3rd Quarter FOA Reconciliation YTD			<u>\$182.7</u> Over
23	FOA Reconciliation to be Refunded February 2023 to April 2023 (Line 22- 21B)			<u><u>-\$58.3</u></u> Refunded

* Over means an over-collection by the company.
Under means an under-collection by the company.

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
DEADBAND CALCULATION**

Determination of Efficiency Factor to use for Cost-Recovery Purposes

Period: January 1, 2022 Through December 31, 2022

	<u>Notes</u>	<u>YTD</u>
<u>Diesel</u>		
Diesel Efficiency Factor, BTU/kWh	f	10,809
Diesel Deadband Definition, +/- BTU/kWh	d	50
Diesel Portion of Recorded Sales, MWh	a	34,528
Diesel Consumption (Recorded), MMBTU	b	367,176
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	10,634
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	10,759
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	10,859
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	10,759

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND**

	2022	
	Without Deadband	With Deadband AS FILED
	<u>Jan 1 - Dec 31</u>	<u>Jan 1 - Dec 31</u>
Diesel Portion of Recorded Sales, MWH	34,528	34,528
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.010809	0.010759
Mmbtu adjusted for Sales Efficiency Factor	373,210	371,483
\$/mmbtu	<u>\$31.6926</u>	<u>\$31.6926</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$11,828.0	\$11,773.3
TOTAL GENERATION FUEL FILING COST, \$000s	\$11,828.0	\$11,773.3
TOTAL GENERATION BASE FUEL COST , \$000s	\$0.0	\$0.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$11,828.0	\$11,773.3
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$0.0	\$0.0

Fossil Fuel Cost Risk Sharing Mechanism, December 2022, Lanai

Jan-22, Baseline YTD Subject to Fossil Risk

Diesel Fossil Fuel Cost Risk Sharing			
AA	MMBtu	29,161	367,176
BB	\$ cost, actuals	\$708,879	\$11,647,553
CC = BB / AA (Baseline Column)	Jan 2022 baseline \$/mmbtu	24.3088441	24.3088441
DD	Diesel Gen kWh		36,175,798
EE	Total kWh, Gen, Purch Pwr, DG		36,402,988
FF	Sales kWh		34,744,653
GG = (DD / EE) x FF	Diesel kWh-sales		34,527,813
HH	Target Heat Rate		10,809
II1	Upper limit w/deadband		10,859
II2	Lower limit w/deadband		10,759
II3	Calculated Heat Rate (YTD subject to fossil risk, before deadband)		10,634
II	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		10,759
JJ = BB/AA (YTD Column)	Actual Cost \$/MMbtu		31.7219477
KK = CC x HH x GG / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$9,072,331
LL = II x JJ x GG / 1,000,000	Fuel Filing Cost Recovery		\$11,784,219
MM = 2% x (LL-KK)	Diesel Cost Risk Sharing		\$54,238
NN	Annual Cap (non-prorated)		\$31,500
OO	# Days		365
PP	Annual Cap (pro-rated)		\$31,500
QQ = MM, up to cap	Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$31500 cap		\$31,500

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
2022 Cumulative Reconciliation Balance

<u>Month</u>	(1) <u>YTD FOA</u> <u>Reconciliation</u>	<u>Qtr</u>	(2) <u>Adjust</u> <u>Variance</u>	(3) <u>FOA Rec</u> <u>Less</u> <u>Variance</u>	(4) <u>Try to</u> <u>Collect</u>	(5) <u>Actual</u> <u>Collect</u>	(6) <u>Month-end</u> <u>Cumulative</u> <u>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)		
February	58,300	(4)	2,740	55,560	(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		
	1/01/23	2/01/23	1/01/23	2/01/23	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	36.114	36.012	144.46	144.05
Green Infrastructure Fee	\$	1.23	1.23	1.23	1.23
Avg Residential Bill at 400 kwh				220.41	220.00

Increase (Decrease -)	-0.41
% Change	-0.19%

	Rate		Charge (\$) at 500 Kwh		
	1/01/23	2/01/23	1/01/23	2/01/23	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	36.114	36.012	180.57	180.06
Green Infrastructure Fee	\$	1.23	1.23	1.23	1.23
Avg Residential Bill at 500 kwh				273.87	273.36

Increase (Decrease -)	-0.51
% Change	-0.19%

**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 BILL (\$)</u>
	<u>RESIDENTIAL & COMMERCIAL</u>	<u>@ 400 KWH @ 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

**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.

Lanai Annual ECRC Adjustment, Based on Recorded Statistics for : 2022

	Industrial	Diesel	Notes
	A	B	
1 Target Heat Rate, 2022	N/A	0.010809	MBTU/kWh Sales
2			
3 Fuel consumed during 2022	N/A	367,176	MBTU
4 Allocated Sales during 2022	N/A	34,527,694	kWh
5 2022 Sales Heat Rate, Recorded	N/A	0.010634	MBTU/kWh Sales
6			
7 Difference: 2022 Recorded less Start of Year	N/A	(0.000175)	MBTU/kWh Sales
8 Adjustment: One-half the difference, downward	N/A	(0.000087)	MBTU/kWh Sales
9			
10 Target Heat Rate, Start of 2023	N/A	0.010722	MBTU/kWh Sales

Superseding Revised Sheet No. 88
Effective June 1, 2019

REVISED SHEET NO. 88
Effective September 1, 2019

LANAI DIVISION

ENERGY COST RECOVERY CLAUSE

Applicable To

Schedule "R"	- Residential Service
Schedule "G"	- General Service Non-Demand
Schedule "J"	- General Service - Demand
Schedule "P"	- Large Power Service
Schedule "F"	- Public Street Lighting
Schedule "TOU EV"	- Residential Time-of-Use Service with Electric Vehicle
Schedule "TOU-R"	- Residential Time-of-Use Service
Schedule "TOU-G"	- Small Commercial Time-of-Use Service
Schedule "TOU-J"	- Medium Commercial Time-of-Use Service
Schedule "TOU-P"	- Large Power Time-of-Use Service
Schedule "SS"	- Standby Service
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI	- Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules are applicable, except that the Monthly Energy Cost Recovery Factor described below will be multiplied by the billed kWh and added to the customer bill.

All base rate schedule discounts, surcharges, and all other adjustments will not apply to the Energy Cost Recovery Clause.

The Energy Cost Recovery Clause shall be consistent with the terms of fuel contracts, distributed generation contracts, and purchased energy contracts. Changes to the Energy Cost Recovery Clause may be proposed by application to the Commission.

Monthly Energy Cost Recovery Factor

The Monthly Energy Cost Recovery Factor shall be the sum of the Company Composite Central Station With Other Generation Component, the Purchased Energy Component, the Distributed Generation Energy Component, and the Monthly Fossil Fuel Cost Risk Sharing Component.

The Monthly Energy Cost Recovery Factor shall normally be effective on the 1st day of the month. When a customer's billing period includes more than one applicable Monthly Energy Cost Recovery Factor, each Monthly Energy Cost Recovery Factor will be prorated to the customer bill for the number of days each factor was in effect.

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.
Transmittal Letter Dated April 17, 2019.

Superseding Revised Sheet No. 88A
Effective February 1, 2022

REVISED SHEET NO. 88A
Effective February 1, 2023

LANAI DIVISION

Energy Cost Recovery Clause (Continued)

COMPANY COMPOSITE CENTRAL STATION WITH OTHER GENERATION COMPONENT - The Company Composite Central Station With Other Generation Component shall be the current Weighted Composite Central Station + Other Generation Cost, weighted by the proportion of current company-owned central station + Other generation to total system net energy, multiplied by the 2023 efficiency factors of 0.000000 million BTU per kilowatthour for industrial fuel, 0.010722 million BTU per kilowatthour for diesel fuel, and 0.010722 million BTU per kilowatthour for other company generation sources, weighted by the current proportion of generation produced by each generation source to the total company-owned generation, and adjusted for revenue taxes.

PURCHASED ENERGY COMPONENT - The Purchased Energy Component shall be the current Composite Cost of Purchased Energy, in cents per kWh, weighted by the proportion of current purchased energy to total system net energy, adjusted to the sales delivery level, and adjusted for revenue taxes. The Company shall also show the composite cost of fossil fuel purchased energy and the composite cost of renewable purchased energy that comprise the composite cost of purchased energy.

DISTRIBUTED GENERATION ENERGY COMPONENT - The Distributed Generation Energy Component shall be the current Composite Cost of DG Energy weighted by the proportion of current DG energy to total system net energy, adjusted to the sales delivery level, and adjusted for revenue taxes.

MONTHLY FOSSIL FUEL COST RISK SHARING COMPONENT - The Monthly Fossil Fuel Cost Risk Sharing Component shall equal 2% of the difference of the Monthly Fossil Cost for all fossil fuel types less the Monthly Base Fossil Recovery Target for all fossil fuel types, divided by the forecast sales for the month, multiplied by negative one (-1), and adjusted for revenue taxes. The year-to-date sum of the Monthly Fossil Fuel Cost Risk Sharing Components shall be subject to a calendar year maximum of ±\$31,500, provided that if this provision first becomes effective on a day other than January 1, the above maximum shall be pro-rated for the remainder of the initial calendar year based on the number of days remaining in the calendar year from the date this section becomes effective.

The Monthly Fossil Cost for each fossil fuel type shall equal the forecasted million Btu for that fossil fuel type for the month multiplied by the forecasted cost per million Btu for that fossil fuel type.

The Monthly Base Fossil Recovery Target for each fossil fuel type shall equal the forecasted million Btu for that fossil fuel type for the month multiplied by the Fossil Fuel Baseline Cost for that fossil fuel type.

MAUI ELECTRIC COMPANY, LIMITED

Transmittal Letter Dated January 27, 2023.

Superseding Revised Sheet No. 88B
Effective February 1, 2022

REVISED SHEET NO. 88B
Effective February 1, 2023

LANAI DIVISION

Energy Cost Recovery Clause (Continued)

The Fossil Fuel Baseline Cost for each fossil fuel type for the year shall equal the actual fossil fuel costs for the fossil fuel type in the first applicable month of the year divided by the actual million Btu for the fossil fuel type in the first applicable month of the year, provided that if actual fossil fuel costs in the first applicable month of the year are not yet known, forecasted fossil fuel costs may be used in the above calculation, and provided that if actual million Btu in the first applicable month of the year are not yet known, forecasted million Btu may be used in the above calculation. The first applicable month shall be January of each year, provided that when this provision first becomes effective, the month this provision becomes effective shall be used as the first applicable month for the calculation of the Fossil Fuel Baseline Cost for the initial calendar year.

Revenue taxes shall be calculated using current rates of the Franchise Tax, Public Service Company Tax, and Public Utility Commission Fee.

TARGET HEAT RATES AND DEADBANDS

Target Heat Rates:

1. The target heat rates shall be the 2023 efficiency factors of 0.000000 million BTU per kWh for industrial fuel, 0.010722 million BTU per kWh for diesel fuel, and 0.010722 million BTU per kWh for other company generation sources. The overall target heat rate shall be the weighted average efficiency factor of all sources.
2. The target heat rates for diesel may be reestablished each calendar year, beginning at January 1, 2020. If the prior year's actual sales heat rate for a fuel type is greater than or equal to the target sales heat rate applicable in that year, the target sales heat rate for that fuel type remains unchanged. If the prior year's actual sales heat rate for a fuel type is less than the target sales heat rate applicable in that year, the target sales heat rate for that fuel type shall be reduced by one-half of the difference between the prior year's actual sales heat rate and the target sales heat rate applicable in that year.

MAUI ELECTRIC COMPANY, LIMITED

Transmittal Letter Dated January 27, 2023.

Superseding Revised SHEET NO.88C
Effective June 1, 2019

REVISED SHEET NO. 88C
Effective September 1, 2019

LANAI DIVISION

Energy Cost Recovery Clause - (Continued)

Deadbands:

3. Application of the Deadbands

- a. The deadbands shall be applied around its respective target heat rate beginning with the implementation of the interim decision and order in Docket No. 2017-0150. The deadband shall be ± 50 Btu/kWh-sales. This deadband will apply to all fuel types used by the Company.
- b. If target heat rates are modified, the deadband levels described in Sections 3.a above shall apply around the modified target heat rate.

Modifications to Target Heat Rates and Deadbands:

4. Modifications to target heat rates and/or deadbands may be determined in a rate case.
5. Modifications to target heat rates and/or deadbands may be made outside of a rate case proceeding by application by the Company or the Consumer Advocate, or by an investigation by the Commission on its own motion.
 - a. An applicant must make a separate request to the Commission, and provide appropriate justification and support.
 1. Sufficient basis for justification of a change in target heat rate and/or deadband may include but not be limited to the following:
 - a. Addition or retirement of non-utility firm or non-utility non-firm renewable resources (such as wind or photovoltaics) from which the utility will purchase capacity and/or energy under a Power Purchase Agreement that exceed 500 kW;

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.

Transmittal Letter Dated April 17, 2019.

Superseding Revised SHEET NO. 88D
Effective June 1, 2019

REVISED SHEET NO. 88D
Effective September 1, 2019

LANAI DIVISION

Energy Cost Recovery Clause - (Continued)

- b. Addition or retirement of utility firm and non-firm renewable resources (such as wind or photovoltaics) that exceed 500 kW. Modifications to the target heat rate and/or deadband may be determined as part of the application for approval to expend funds (in accordance with General Order No. 7) for the resource that would cause the change;
 - c. Additions, retirements or modifications to the generating systems, or modifications to the generating system operating procedures, that are expected to increase or decrease the target heat rates by more than the deadband amount; or
 - d. The recorded heat rate is outside of the deadband around the target heat rate and is expected to remain outside of the deadband.
- b. Any proposed modification to target heat rates and/or deadbands under this provision shall not take effect until approved by the Commission.

YEAR-TO-DATE FOSSIL FUEL COST RISK SHARING ADJUSTMENT

The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be subject to an annual maximum of ±\$31,500 in aggregate across all Lanai Division company-generation fossil fuel types subject to fossil fuel cost risk sharing. This section shall take effect as of September 1, 2019, and the Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be included in the Reconciliation Adjustment, beginning with the Reconciliation Adjustment for the Third Quarter of 2019. The annual maximum sharing for the initial year shall be pro-rated based on the number of days remaining in the calendar year from the date this section becomes effective in the initial calendar year. The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be excluded from the determination of Earnings Sharing Revenue Credits provided for in the Rate Adjustment Mechanism Provision.

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.

Transmittal Letter Dated April 17, 2019.

Superseding Revised Sheet No. 88E
Effective June 1, 2019

Revised Sheet No. 88E
Effective September 1, 2019

LANAI DIVISION
Energy Cost Recovery Clause - (Continued)

The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall equal 2% of the difference between the sum of the Year-To-Date Fuel Filing Cost Recovery Amount across all fossil fuel types and the sum of the Year-To-Date Base Cost Recovery Target across all fossil fuel types.

The Year-To-Date Fuel Filing Cost Recovery Amount for a fossil fuel type shall be the sum of the Eligible Revenue for fuel for that fossil fuel type for all months, as determined in the Reconciliation Adjustment section below.

The Year-To-Date Base Cost Recovery Target for a fossil fuel type shall equal the applicable target heat rate, multiplied by the sales kWh for that fossil fuel type, multiplied by the Reconciliation Fossil Fuel Baseline Cost for that fossil fuel type. The first applicable month of the year for the initial calendar year shall be the month in which this provision takes effect.

The Reconciliation Fossil Fuel Baseline Cost for each fossil fuel type for the year shall equal the actual fossil fuel costs for the fossil fuel type in the first applicable month of the year divided by the actual million Btu for the fossil fuel type in the first applicable month of the year.

RECONCILIATION ADJUSTMENT:

In order to reconcile any differences that may occur between recorded revenue and eligible revenue from the Energy Cost Recovery Clause, the year-to-date recorded revenue from the Energy Cost Recovery Clause will be compared with the year-to-date eligible revenue from the Energy Cost Recovery Clause on a quarterly basis. If there is a variance between the year-to-date recorded revenue from the Energy Cost Recovery Clause and the year-to-date eligible revenue from the Energy Cost Recovery Clause, a reconciliation adjustment shall be added to the rate calculated under the Energy Cost Recovery Clause to reconcile the revenue variance. This reconciliation adjustment shall be applied at the beginning of the second month after the end of the quarter, and shall be set to recover the revenue variance over the estimated sales for the subsequent three months.

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.

Transmittal Letter Dated April 17, 2019.

Superseding Sheet No. 88F
Effective August 23, 2018

Revised Sheet No. 88F
Effective September 1, 2019

LANAI DIVISION

Energy Cost Recovery Clause - (Continued)

The eligible revenue from the Energy Cost Recovery Clause shall be equal to the eligible revenue for fuel, DG, and purchased energy expenses, adjusted by the Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment.

The eligible revenue for fuel is calculated for each fuel type each month as:

The sales kWh for that fuel type
multiplied by the adjusted target heat rate for that fuel type
multiplied by the average fuel cost per million Btu
and then summed across all fuel types.

The adjusted target heat rate for each fuel type is established by comparing the applicable target heat rate, adjusted by a plus or minus 50 BTU/kWh sales heat rate deadband versus the year-to-date actual heat rate. The year-to-date actual heat rate is derived by dividing the fuel type's year-to-date MMBtu consumption by the fuel type's share of year-to-date recorded sales. If the year-to-date actual heat rate is greater than the applicable target heat rate plus 50 BTU/kWh, then the adjusted target heat rate is the applicable target heat rate plus 50 BTU/kWh. If the year-to-date actual heat rate is less than the applicable target heat rate less 50 BTU/kWh, then the adjusted target heat rate is the applicable target heat rate less 50 BTU/kWh. If the year-to-date actual heat rate falls between the applicable target heat rate adjusted by a plus or minus 50 BTU/kWh, then the adjusted target heat rate is the year-to-date actual heat rate.

The eligible revenue for DG and purchased energy expenses is equal to the amount of their respective expenses.

Revenue from the Energy Cost Recovery Clause excludes revenue taxes for the purpose of this reconciliation.

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.

Transmittal Letter Dated April 17, 2019.

Superseding Revised Sheet No. 88
Effective June 1, 2019

REVISED SHEET NO. 88
Effective September 1, 2019

LANAI DIVISION

ENERGY COST RECOVERY CLAUSE

Applicable To

Schedule "R"	- Residential Service
Schedule "G"	- General Service Non-Demand
Schedule "J"	- General Service - Demand
Schedule "P"	- Large Power Service
Schedule "F"	- Public Street Lighting
Schedule "TOU EV"	- Residential Time-of-Use Service with Electric Vehicle
Schedule "TOU-R"	- Residential Time-of-Use Service
Schedule "TOU-G"	- Small Commercial Time-of-Use Service
Schedule "TOU-J"	- Medium Commercial Time-of-Use Service
Schedule "TOU-P"	- Large Power Time-of-Use Service
Schedule "SS"	- Standby Service
Schedule EV-F	- Commercial Public Electric Vehicle Charging Facility Service Pilot
Schedule TOU-RI	- Residential Interim Time-of-Use Service

All terms and provisions of the above listed rate schedules are applicable, except that the Monthly Energy Cost Recovery Factor described below will be multiplied by the billed kWh and added to the customer bill.

All base rate schedule discounts, surcharges, and all other adjustments will not apply to the Energy Cost Recovery Clause.

The Energy Cost Recovery Clause shall be consistent with the terms of fuel contracts, distributed generation contracts, and purchased energy contracts. Changes to the Energy Cost Recovery Clause may be proposed by application to the Commission.

Monthly Energy Cost Recovery Factor

The Monthly Energy Cost Recovery Factor shall be the sum of the Company Composite Central Station With Other Generation Component, the Purchased Energy Component, the Distributed Generation Energy Component, and the Monthly Fossil Fuel Cost Risk Sharing Component.

The Monthly Energy Cost Recovery Factor shall normally be effective on the 1st day of the month. When a customer's billing period includes more than one applicable Monthly Energy Cost Recovery Factor, each Monthly Energy Cost Recovery Factor will be prorated to the customer bill for the number of days each factor was in effect.

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.
Transmittal Letter Dated April 17, 2019.

Superseding Revised Sheet No. 88A
Effective February 1, ~~2021~~2022

REVISED SHEET NO. 88A
Effective February 1,
~~2022~~2023

LANAI DIVISION

Energy Cost Recovery Clause (Continued)

COMPANY COMPOSITE CENTRAL STATION WITH OTHER GENERATION COMPONENT - The Company Composite Central Station With Other Generation Component shall be the current Weighted Composite Central Station + Other Generation Cost, weighted by the proportion of current company-owned central station + Other generation to total system net energy, multiplied by the ~~2022-2023~~ efficiency factors of 0.000000 million BTU per kilowatthour for industrial fuel, 0.010722~~809~~ million BTU per kilowatthour for diesel fuel, and 0.~~010809-010722~~ million BTU per kilowatthour for other company generation sources, weighted by the current proportion of generation produced by each generation source to the total company-owned generation, and adjusted for revenue taxes.

PURCHASED ENERGY COMPONENT - The Purchased Energy Component shall be the current Composite Cost of Purchased Energy, in cents per kWh, weighted by the proportion of current purchased energy to total system net energy, adjusted to the sales delivery level, and adjusted for revenue taxes. The Company shall also show the composite cost of fossil fuel purchased energy and the composite cost of renewable purchased energy that comprise the composite cost of purchased energy.

DISTRIBUTED GENERATION ENERGY COMPONENT - The Distributed Generation Energy Component shall be the current Composite Cost of DG Energy weighted by the proportion of current DG energy to total system net energy, adjusted to the sales delivery level, and adjusted for revenue taxes.

MONTHLY FOSSIL FUEL COST RISK SHARING COMPONENT - The Monthly Fossil Fuel Cost Risk Sharing Component shall equal 2% of the difference of the Monthly Fossil Cost for all fossil fuel types less the Monthly Base Fossil Recovery Target for all fossil fuel types, divided by the forecast sales for the month, multiplied by negative one (-1), and adjusted for revenue taxes. The year-to-date sum of the Monthly Fossil Fuel Cost Risk Sharing Components shall be subject to a calendar year maximum of ±\$31,500, provided that if this provision first becomes effective on a day other than January 1, the above maximum shall be pro-rated for the remainder of the initial calendar year based on the number of days remaining in the calendar year from the date this section becomes effective.

The Monthly Fossil Cost for each fossil fuel type shall equal the forecasted million Btu for that fossil fuel type for the month multiplied by the forecasted cost per million Btu for that fossil fuel type.

The Monthly Base Fossil Recovery Target for each fossil fuel type shall equal the forecasted million Btu for that fossil fuel type for the month multiplied by the Fossil Fuel Baseline Cost for that fossil fuel type.

Transmittal Letter Dated January 27, ~~2022~~2023.

Superseding Revised Sheet No. 88B
Effective February 1, 202~~2~~1

REVISED SHEET NO. 88B
Effective February 1, 202~~2~~3

LANAI DIVISION

Energy Cost Recovery Clause (Continued)

The Fossil Fuel Baseline Cost for each fossil fuel type for the year shall equal the actual fossil fuel costs for the fossil fuel type in the first applicable month of the year divided by the actual million Btu for the fossil fuel type in the first applicable month of the year, provided that if actual fossil fuel costs in the first applicable month of the year are not yet known, forecasted fossil fuel costs may be used in the above calculation, and provided that if actual million Btu in the first applicable month of the year are not yet known, forecasted million Btu may be used in the above calculation. The first applicable month shall be January of each year, provided that when this provision first becomes effective, the month this provision becomes effective shall be used as the first applicable month for the calculation of the Fossil Fuel Baseline Cost for the initial calendar year.

Revenue taxes shall be calculated using current rates of the Franchise Tax, Public Service Company Tax, and Public Utility Commission Fee.

TARGET HEAT RATES AND DEADBANDS

Target Heat Rates:

1. The target heat rates shall be the ~~2022-2023~~ efficiency factors of 0.000000 million BTU per kWh for industrial fuel, 0.~~010809-010722~~ million BTU per kWh for diesel fuel, and 0.~~010809-010722~~ million BTU per kWh for other company generation sources. The overall target heat rate shall be the weighted average efficiency factor of all sources.
2. The target heat rates for diesel may be reestablished each calendar year, beginning at January 1, 2020. If the prior year's actual sales heat rate for a fuel type is greater than or equal to the target sales heat rate applicable in that year, the target sales heat rate for that fuel type remains unchanged. If the prior year's actual sales heat rate for a fuel type is less than the target sales heat rate applicable in that year, the target sales heat rate for that fuel type shall be reduced by one-half of the difference between the prior year's actual sales heat rate and the target sales heat rate applicable in that year.

Superseding Revised SHEET NO.88C
Effective June 1, 2019

REVISED SHEET NO. 88C
Effective September 1, 2019

LANAI DIVISION

Energy Cost Recovery Clause - (Continued)

Deadbands:

3. Application of the Deadbands

- a. The deadbands shall be applied around its respective target heat rate beginning with the implementation of the interim decision and order in Docket No. 2017-0150. The deadband shall be ± 50 Btu/kWh-sales. This deadband will apply to all fuel types used by the Company.
- b. If target heat rates are modified, the deadband levels described in Sections 3.a above shall apply around the modified target heat rate.

Modifications to Target Heat Rates and Deadbands:

4. Modifications to target heat rates and/or deadbands may be determined in a rate case.
5. Modifications to target heat rates and/or deadbands may be made outside of a rate case proceeding by application by the Company or the Consumer Advocate, or by an investigation by the Commission on its own motion.
 - a. An applicant must make a separate request to the Commission, and provide appropriate justification and support.
 1. Sufficient basis for justification of a change in target heat rate and/or deadband may include but not be limited to the following:
 - a. Addition or retirement of non-utility firm or non-utility non-firm renewable resources (such as wind or photovoltaics) from which the utility will purchase capacity and/or energy under a Power Purchase Agreement that exceed 500 kW;

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.

Transmittal Letter Dated April 17, 2019.

Superseding Revised SHEET NO. 88D
Effective June 1, 2019

REVISED SHEET NO. 88D
Effective September 1, 2019

LANAI DIVISION

Energy Cost Recovery Clause - (Continued)

- b. Addition or retirement of utility firm and non-firm renewable resources (such as wind or photovoltaics) that exceed 500 kW. Modifications to the target heat rate and/or deadband may be determined as part of the application for approval to expend funds (in accordance with General Order No. 7) for the resource that would cause the change;
 - c. Additions, retirements or modifications to the generating systems, or modifications to the generating system operating procedures, that are expected to increase or decrease the target heat rates by more than the deadband amount; or
 - d. The recorded heat rate is outside of the deadband around the target heat rate and is expected to remain outside of the deadband.
- b. Any proposed modification to target heat rates and/or deadbands under this provision shall not take effect until approved by the Commission.

YEAR-TO-DATE FOSSIL FUEL COST RISK SHARING ADJUSTMENT

The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be subject to an annual maximum of ±\$31,500 in aggregate across all Lanai Division company-generation fossil fuel types subject to fossil fuel cost risk sharing. This section shall take effect as of September 1, 2019, and the Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be included in the Reconciliation Adjustment, beginning with the Reconciliation Adjustment for the Third Quarter of 2019. The annual maximum sharing for the initial year shall be pro-rated based on the number of days remaining in the calendar year from the date this section becomes effective in the initial calendar year. The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall be excluded from the determination of Earnings Sharing Revenue Credits provided for in the Rate Adjustment Mechanism Provision.

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.

Transmittal Letter Dated April 17, 2019.

Superseding Revised Sheet No. 88E
Effective June 1, 2019

Revised Sheet No. 88E
Effective September 1, 2019

LANAI DIVISION
Energy Cost Recovery Clause - (Continued)

The Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment shall equal 2% of the difference between the sum of the Year-To-Date Fuel Filing Cost Recovery Amount across all fossil fuel types and the sum of the Year-To-Date Base Cost Recovery Target across all fossil fuel types.

The Year-To-Date Fuel Filing Cost Recovery Amount for a fossil fuel type shall be the sum of the Eligible Revenue for fuel for that fossil fuel type for all months, as determined in the Reconciliation Adjustment section below.

The Year-To-Date Base Cost Recovery Target for a fossil fuel type shall equal the applicable target heat rate, multiplied by the sales kWh for that fossil fuel type, multiplied by the Reconciliation Fossil Fuel Baseline Cost for that fossil fuel type. The first applicable month of the year for the initial calendar year shall be the month in which this provision takes effect.

The Reconciliation Fossil Fuel Baseline Cost for each fossil fuel type for the year shall equal the actual fossil fuel costs for the fossil fuel type in the first applicable month of the year divided by the actual million Btu for the fossil fuel type in the first applicable month of the year.

RECONCILIATION ADJUSTMENT:

In order to reconcile any differences that may occur between recorded revenue and eligible revenue from the Energy Cost Recovery Clause, the year-to-date recorded revenue from the Energy Cost Recovery Clause will be compared with the year-to-date eligible revenue from the Energy Cost Recovery Clause on a quarterly basis. If there is a variance between the year-to-date recorded revenue from the Energy Cost Recovery Clause and the year-to-date eligible revenue from the Energy Cost Recovery Clause, a reconciliation adjustment shall be added to the rate calculated under the Energy Cost Recovery Clause to reconcile the revenue variance. This reconciliation adjustment shall be applied at the beginning of the second month after the end of the quarter, and shall be set to recover the revenue variance over the estimated sales for the subsequent three months.

MAUI ELECTRIC COMPANY, LIMITED

Docket No. 2017-0150; Decision and Order No. 36219, issued March 18, 2019.

Transmittal Letter Dated April 17, 2019.

Superseding Sheet No. 88F
Effective August 23, 2018

Revised Sheet No. 88F
Effective September 1, 2019

LANAI DIVISION

Energy Cost Recovery Clause - (Continued)

The eligible revenue from the Energy Cost Recovery Clause shall be equal to the eligible revenue for fuel, DG, and purchased energy expenses, adjusted by the Year-To-Date Fossil Fuel Cost Risk Sharing Adjustment.

The eligible revenue for fuel is calculated for each fuel type each month as:

The sales kWh for that fuel type
multiplied by the adjusted target heat rate for that fuel type
multiplied by the average fuel cost per million Btu
and then summed across all fuel types.

The adjusted target heat rate for each fuel type is established by comparing the applicable target heat rate, adjusted by a plus or minus 50 BTU/kWh sales heat rate deadband versus the year-to-date actual heat rate. The year-to-date actual heat rate is derived by dividing the fuel type's year-to-date MMBtu consumption by the fuel type's share of year-to-date recorded sales. If the year-to-date actual heat rate is greater than the applicable target heat rate plus 50 BTU/kWh, then the adjusted target heat rate is the applicable target heat rate plus 50 BTU/kWh. If the year-to-date actual heat rate is less than the applicable target heat rate less 50 BTU/kWh, then the adjusted target heat rate is the applicable target heat rate less 50 BTU/kWh. If the year-to-date actual heat rate falls between the applicable target heat rate adjusted by a plus or minus 50 BTU/kWh, then the adjusted target heat rate is the year-to-date actual heat rate.

The eligible revenue for DG and purchased energy expenses is equal to the amount of their respective expenses.

Revenue from the Energy Cost Recovery Clause excludes revenue taxes for the purpose of this reconciliation.

MAUI ELECTRIC COMPANY, LIMITED

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