



September 28, 2021

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 October 2021

Maui Electric Company, Limited's ("Maui Electric" or "Company") October 2021 Energy Cost Recovery factor for our Maui Division is 18.225 cents per kilowatt-hour ("kWh"), a decrease of 0.353 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$176.02, a decrease of \$1.75 compared to rates effective September 1, 2021. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor (-\$1.77) partially offset by the increase in the Purchase Power Adjustment (+\$0.02).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 40.930 cents per million BTU to 1,488.83 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.378 cents per kWh to 18.619 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for October 2021 is 24.342 cents per kWh, a decrease of 1.003 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$169.75, a decrease of \$4.01 compared to rates effective September 1, 2021. 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 decreased 91.79 cents per million BTU to 2,096.79 cents per million BTU. The composite cost of 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 October 2021 is 20.326 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 \$160.83, an increase of \$3.57 compared to rates effective September 1, 2021. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor.

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 73.94 cents per million BTU to 1,702.12 cents per million BTU. The composite cost

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of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 21.80 cents per kWh.

The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning October 1, 2021.

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>09-01-21</u>	<u>10-01-21</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	2,188.58	2,096.79	(91.79)
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	25.345	24.342	(1.003)
<u>Others - "G,P,F"</u>			
Energy Cost Recovery, ¢/kWh	25.345	24.342	(1.003)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	173.76	169.75	(4.01)
500 KWH Consumption, \$/Bill	215.59	210.57	(5.02)

Supersedes Sheet Effective:

September 1, 2021

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

ENERGY COST RECOVERY (ECR) FILING - October 1, 2021 (page 1 of 2)

Line

1 Effective Date October 1, 2021
2 Supercedes Factors of September 1, 2021

GENERATION COMPONENT

CENTRAL STATION				DG ENERGY COMPONENT		
FUEL PRICES, ¢/mmbtu						
3	Industrial		0.00			
4	Diesel - Miki Basin		2,096.79			
5						
6	Other		0.00			
BTU MIX, %						
7	Industrial		0.00%	25 COMPOSITE COST OF DG ENERGY, ¢/kWh	0.000	
8	Diesel - Miki Basin		100.00%			
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))		2,096.79	27 WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26)	0.00000	
12	% Input to System kWh Mix		96.54%	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
	Fuel Type	Eff Factor mmbtu/kwh	Percent of Centrl Stn + Other	Weighted Eff Factor	31 Cost Less Base (Line 27 - 30)	0.00000
13	Industrial	0.000000	0.00	0.000000	32 Loss Factor	1.0500
14	Diesel	0.010810	100.00	0.010810	33 Revenue Tax Req Multiplier	1.0975
15	Other	0.010810	0.00	0.000000	34 DG FACTOR, ¢/kWh (Line 31 x 32 x 33)	0.00000
	(Lines 13, 14, 15): Col(B) x Col(C) = Col(D)					
16	Weighted Efficiency Factor, mmbtu/kWh (lines 13(D) + 14(D) + 15(D))		0.010810			
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))		21.88205			
18	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu		-			
19	Base % Input to Sys kWh Mix		0.00%			
20	Efficiency Factor, mmbtu/kwh		0.010810			
21	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (18 x 19 x 20))		-			
22	COST LESS BASE (line(17 - 21))		21.88205	SUMMARY OF TOTAL GENERATION FACTOR, ¢/kWh		
23	Revenue Tax Req Multiplier		1.0975	35 CNTRL STN + OTHER (line 24)	24.01555	
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))		24.01555	36 DG (line 34)	-	
				37 TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)	24.01555	

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

ENERGY COST RECOVERY (ECR) FILING - October 1, 2021 (page 2 of 2)

Line

- 1 Effective Date October 1, 2021
- 2 Supercedes Factors of September 1, 2021

<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	3.46%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	1.03800
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))	1.03800
51	Loss Factor	1.050
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	1.19617

Calculation of Monthly Fossil Fuel Cost Risk Sharing Component		
Baseline Diesel		
54	Diesel \$, baseline month	\$492,321
55	Diesel mmbtu, baseline	29,347
56	Baseline Diesel, ¢/mmbtu	1,677.61
Month Diesel		
57	Diesel mmbtu, budget	33,974
58	Diesel Cost, ¢/mmbtu	2,096.79
59	Diesel ECRC Fossil Cost	\$712,373
60	Diesel Base ECRC Recovery Target	\$569,958
61	Diesel differential	\$142,415
62	Total Fossil	\$142,415
63	2% of above	\$2,848
64	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$19,893
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	\$2,848
70	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$22,741
71	Fossil Cost Risk Sharing before taxes	\$2,848
72	Revenue Tax Adjustment	1.097514
73	Fossil Cost Risk Sharing w/revenue tax	\$3,126
74	Forecasted Month MWh Sales	3,292
75	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	-0.0950

Line **SYSTEM COMPOSITE CALCULATIONS**

76	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (37 + 53))	25.21172
77	Adjustment, ¢/kWh	0.000
78	Fossil Fuel Cost Risk Sharing Component	(0.095)
79	ECR Reconciliation Adjustment	(0.775)
80	ECR FACTOR, ¢/kWh (lines (76 + 77 + 78 + 79))	24.342

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

MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
9/20/2021	3,044.14	17,442.92	383,721.30
Estimated Use	1,803.69	10,335.14	226,192.89
Estimated Received	3,142.86	18,008.59	377,120.89
Estimated Additional	1,545.31	8,854.63	177,650.44
Estimated End	5,928.62	33,971.00	712,299.74

Next Month's Combined Miki Expense (\$/bbl) = \$ 120.1460 /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	\$ 120.1460	5.73 BTU/BBL	2,096.79

MAUI ELECTRIC COMPANY, LTD.
Lanai Division
ECR Reconciliation Adjustment

October 2021

1. Amount to be refunded	(\$69,700)
2. Monthly amount (1 / 3 X Line 1)	(\$23,233)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$25,499)
5. Estimated Sales (October 2021)	3,292 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.775 ¢/kwh

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

<u>Month</u>	<u>(1)</u> YTD FOA Reconciliation		<u>(2)</u> Adjust Variance	<u>(3)</u> FOA Rec Less Variance	<u>(4)</u> Try to Collect	<u>(5)</u> Actual Collect	<u>(6)</u> Month-end Cumulative Balance
December '19					7,933	8,627	(7,003)
January '20					7,933	8,106	1,103
February	83,900	(4)	938	82,962	(27,967)	(28,222)	55,843
March					(27,967)	(27,038)	28,805
April					(27,967)	(21,694)	7,111
May	78,000	(1)	847	77,153	(26,000)	(28,250)	56,014
June					(26,000)	(27,227)	28,787
July					(26,000)	(29,208)	(421)
August	70,400	(2)	2,796	67,604	(23,467)	(22,814)	44,369
September					(23,467)	(18,781)	25,588
October					(23,467)	(21,969)	3,619
November	85,200	(3)	2,131	83,069	(28,400)	(25,719)	60,969
December					(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)		
October					(23,233)		

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.
(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		
	09-01-21	10-01-21		09-01-21	10-01-21	Difference
Base Rates	effective date:	09/01/19	09/01/19			
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Non-fuel Energy Charge						
First 250 kWh per month	¢/kWh	12.3123	12.3123	30.78	30.78	0.00
Next 500 kWh per month	¢/kWh	14.8123	14.8123	22.22	22.22	0.00
Customer Charge	\$	11.50	11.50	11.50	11.50	0.00
Total Base Charges				64.50	64.50	0.00
IRP Refund	% on base	0.0000	0.0000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	1.0242	1.0242	4.10	4.10	0.00
PBF Surcharge	¢/kWh	0.6478	0.6478	2.59	2.59	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Recovery	¢/kWh	25.345	24.342	101.38	97.37	-4.01
Green Infrastructure Fee	\$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 400 kwh				173.76	169.75	

Increase (Decrease -)	-4.01
% Change	-2.31%

	Rate			Charge (\$) at 500 Kwh		
	09-01-21	10-01-21		09-01-21	10-01-21	Difference
Base Rates	effective date:	09/01/19	09/01/19			
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Non-fuel Energy Charge						
First 250 kWh per month	¢/kWh	12.3123	12.3123	30.78	30.78	0.00
Next 500 kWh per month	¢/kWh	14.8123	14.8123	37.03	37.03	0.00
Customer Charge	\$	11.50	11.50	11.50	11.50	0.00
Total Base Charges				79.31	79.31	0.00
IRP Refund	% on base	0.0000	0.0000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	1.0242	1.0242	5.12	5.12	0.00
PBF Surcharge	¢/kWh	0.6478	0.6478	3.24	3.24	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Recovery	¢/kWh	25.345	24.342	126.73	121.71	-5.02
Green Infrastructure Fee	\$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 500 kwh				215.59	210.57	

Increase (Decrease -)	-5.02
% Change	-2.33%

**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 & COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$)</u> <u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 1, 2019	-6.950	165.81	206.32
February 1, 2019	-8.789	158.45	197.12
March 1, 2019	-6.041	169.45	210.86
April 1, 2019	-6.801	166.07	206.63
May 1, 2019	-7.864	162.15	201.75
June 1, 2019	4.196	172.73	214.30
July 1, 2019	3.088	171.26	212.48
August 1, 2019	3.232	171.84	213.20
September 1, 2019	24.278	168.18	208.62
October 1, 2019	24.957	170.90	212.02
November 1, 2019	26.088	175.42	217.67
December 1, 2019	26.449	176.87	219.48
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

**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
01/01/18 - 06/30/18	GREEN INFRASTRUCTURE FEE	1.34 DOLLARS/MONTH
04/01/18 - 04/30/18	SOLARSAVER ADJUSTMENT	1.3400 CENTS/KWH
05/01/18 - 03/31/19	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/18 - 08/22/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.8954 CENTS/KWH
07/01/18 - 06/30/19	RESID. PBF SURCHARGE ADJUSTMENT	0.4658 CENTS/KWH
07/01/18 - 12/31/18	GREEN INFRASTRUCTURE FEE	1.21 DOLLARS/MONTH
08/23/18 - 05/31/19	INTERIM RATE INCREASE 2018 TEST YEAR	6.36 PERCENT ON BASE
08/23/18 - 05/31/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3183 CENTS/KWH
01/01/19 - 06/30/19	GREEN INFRASTRUCTURE FEE	1.35 DOLLARS/MONTH
04/01/19 - 04/30/19	SOLARSAVER ADJUSTMENT	-0.0855 CENTS/KWH
05/01/19 - 03/31/20	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/19	FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2018 TEST YEAR)	
06/01/19 - 06/30/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR	-2.03 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
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	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/21	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.0242 CENTS/KWH
07/01/21	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH
07/01/21	RESID. PBF SURCHARGE ADJUSTMENT	0.6478 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.