



November 25, 2020

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 December 2020

Maui Electric Company, Limited's ("Maui Electric" or "Company") December 2020 Energy Cost Recovery factor for our Maui Division is 14.923 cents per kilowatt-hour ("kWh"), an increase of 1.092 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$155.93, an increase of \$5.46 compared to rates effective November 1, 2020. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor.

The Company's Maui Division fuel composite cost of generation, central station and other increased 13.300 cents per million BTU to 952.99 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.541 cents per kWh to 18.421 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for December 2020 is 17.874 cents per kWh, a decrease of 0.007 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$140.89, a decrease of \$0.02 compared to rates effective November 1, 2020. 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 26.77 cents per million BTU to 1,543.25 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 December 2020 is 13.337 cents per kWh, a decrease of 0.759 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$129.89, a decrease of \$3.03 compared to rates effective November 1, 2020. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery factor.

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
November 25, 2020
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 63.25 cents per million BTU to 1,078.63 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 22.48 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 December 1, 2020.

Sincerely,

/s/ Sharon M. Suzuki
Sharon M. Suzuki
President
Maui County and Hawai'i Island Utilities

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>11-01-20</u>	<u>12-01-20</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,516.48	1,543.25	26.77
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	17.881	17.874	(0.007)
<u>Others - "G,P,F"</u>			
Energy Cost Recovery, ¢/kWh	17.881	17.874	(0.007)
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	140.91	140.89	(0.02)
500 KWH Consumption, \$/Bill	174.54	174.50	(0.04)

Supersedes Sheet Effective:

November 1, 2020

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

ENERGY COST RECOVERY (ECR) FILING - December 1, 2020 (page 1 of 2)

Line

1 Effective Date December 1, 2020
2 Supercedes Factors of November 1, 2020

GENERATION COMPONENT

CENTRAL STATION				DG ENERGY COMPONENT		
FUEL PRICES, ¢/mmbtu						
3	Industrial		0.00			
4	Diesel - Miki Basin		1,543.25			
5	Diesel - Manele Bay		1,801.59			
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	Diesel - Manele Bay		0.00%	26 % Input to System kWh Mix	0.00%	
10	Other		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))		1,543.25	27 WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26)	0.00000	
12	% Input to System kWh Mix		97.34%	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	0.010872	100.00	0.010872	33 Revenue Tax Req Multiplier	1.0975
15	Other	0.010872	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))		0.010872			
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))		16.33191			
18	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu		-			
19	Base % Input to Sys kWh Mix		0.00%			
20	Efficiency Factor, mmbtu/kwh		0.010872			
21	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (18 x 19 x 20))		-			
22	COST LESS BASE (line(17 - 21))		16.33191	SUMMARY OF TOTAL GENERATION FACTOR, ¢/kWh		
23	Revenue Tax Req Multiplier		1.0975	35 CNTRL STN + OTHER (line 24)	17.92427	
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))		17.92427	36 DG (line 34)	-	
				37 TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)	17.92427	

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST RECOVERY (ECR) FILING

ENERGY COST RECOVERY (ECR) FILING - December 1, 2020 (page 2 of 2)

Line

1 Effective Date December 1, 2020
2 Supercedes Factors of November 1, 2020

<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	2.66%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	0.79800
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))	0.79800
51	Loss Factor	1.050
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	0.91960

Calculation of Monthly Fossil Fuel Cost Risk Sharing Component

Baseline Diesel		
54	Diesel \$, baseline month	\$616,461
55	Diesel mmbtu, baseline	30,215
56	Baseline Diesel, ¢/mmbtu	2,040.28
Month Diesel		
57	Diesel mmbtu, budget	30,615
58	Diesel Cost, ¢/mmbtu	1,543.25
59	Diesel ECRC Fossil Cost	\$472,469
60	Diesel Base ECRC Recovery Target	\$624,636
61	Diesel differential	-\$152,167
62	Total Fossil	-\$152,167
63	2% of above	-\$3,043
64	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	-\$26,477
65	Maximum Annual Cap (bi-directional)	\$31,500
66	Number of Days in year from implementation	366
67	Fossil Risk % Proration (based on 366 day year)	100.00%
68	Maximum Annual Cap (bi-directional) prorated	\$31,500
69	Applicable Monthly Fossil Fuel Cost Risk Sharing	-\$3,043
70	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$29,520
71	Fossil Cost Risk Sharing before taxes	-\$3,043
72	Revenue Tax Adjustment	1.097514
73	Fossil Cost Risk Sharing w/revenue tax	-\$3,340
74	Forecasted Month MWh Sales	2,867
75	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.1165

Line **SYSTEM COMPOSITE CALCULATIONS**

76	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (37 + 53))	18.84387
77	Adjustment, ¢/kWh	0.000
78	Fossil Fuel Cost Risk Sharing Component	0.117
79	ECR Reconciliation Adjustment	(1.087)
80	ECR FACTOR, ¢/kWh (lines (76 + 77 + 78 + 79))	17.874

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

MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
11/18/2020	4,634.83	26,557.64	405,186.81
Estimated Use	1,922.71	11,017.13	164,750.14
Estimated Received	1,142.86	6,548.59	100,022.99
Estimated Additional	925.29	5,301.90	82,249.97
Estimated End	4,780.27	27,391.00	422,709.63

Next Month's Combined Miki Expense (\$/bbl) = \$ 88.4280 /bbl

<u>Manele CHP</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
11/18/2020	160.67	920.64	19,525.50
Estimated Use	(0.02)	(0.11)	(2.18)
Estimated Received	-	-	-
Estimated Additional	401.96	2,303.25	38,555.71
Estimated End	562.65	3,224.00	58,083.39

Next Month's Manele Expense (\$/bbl) = \$ 103.2312 /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	\$ 88.4280	5.73 BTU/BBL	1,543.25
Diesel - Manele Bay	\$ 103.2312	5.73 BTU/BBL	1,801.59

MAUI ELECTRIC COMPANY, LTD.
Lanai Division
ECR Reconciliation Adjustment

December 2020

1. Amount to be refunded	(\$85,200)
2. Monthly amount (1 / 3 X Line 1)	(\$28,400)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$31,169)
5. Estimated Sales (December 2020)	2,867 mwh
6. Adjustment (Line 4 ÷ Line 5)	-1.087 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
2020 Cumulative Reconciliation Balance**

<u>Month</u>	<u>(1)</u> YTD FOA Reconciliation	<u>Qtr</u>	<u>(2)</u> FOA Rec 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)		
December					(28,400)		

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		
	11-01-20	12-01-20	11-01-20	12-01-20	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 kWhr per month ¢/kWh	12.3123	12.3123	30.78	30.78	0.00
Next 500 kWhr 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	0.3383	0.3383	1.35	1.35	0.00
PBF Surcharge ¢/kWh	0.5882	0.5882	2.35	2.35	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
Refund of 2018 Interim	0.00	0.00	0.00	0.00	0.00
Energy Cost Recovery ¢/kWh	17.881	17.874	71.52	71.50	-0.02
Green Infrastructure Fee \$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 400 kwh			140.91	140.89	

Increase (Decrease -)	-0.02
% Change	-0.01%

	Rate		Charge (\$) at 500 Kwh		
	11-01-20	12-01-20	11-01-20	12-01-20	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 kWhr per month ¢/kWh	12.3123	12.3123	30.78	30.78	0.00
Next 500 kWhr 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	0.3383	0.3383	1.69	1.69	0.00
PBF Surcharge ¢/kWh	0.5882	0.5882	2.94	2.94	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
Refund of 2018 Interim	% on Base	0.00	0.00	0.00	0.00
Energy Cost Recovery ¢/kWh	17.881	17.874	89.41	89.37	-0.04
Green Infrastructure Fee \$	1.19	1.19	1.19	1.19	0.00
Avg Residential Bill at 500 kwh			174.54	174.50	

Increase (Decrease -)	-0.04
% Change	-0.02%

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

<u>EFFECTIVE DATE</u>	FUEL FACTOR		RESIDENTIAL BILL (\$)
	CENTS / KWH		
	<u>RESIDENTIAL & COMMERCIAL</u>	<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 1, 2018	-8.358	153.69	191.20
February 1, 2018	-8.395	153.54	191.01
March 1, 2018	-7.868	155.65	193.65
April 1, 2018	-9.141	150.05	186.64
May 1, 2018	-7.716	156.26	194.41
June 1, 2018	-6.144	163.86	203.92
July 1, 2018	-5.753	165.46	205.95
August 1, 2018	-7.005	160.45	199.69
September 1, 2018	-6.735	166.53	207.25
October 1, 2018	-6.372	167.98	209.07
November 1, 2018	-6.037	169.32	210.74
December 1, 2018	-5.396	171.89	213.95
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

**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	#REF! 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	-0.06 CENTS/KWH
05/01/20	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/20	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3383 CENTS/KWH
07/01/20	RESID. PBF SURCHARGE ADJUSTMENT	0.5882 CENTS/KWH
07/01/20	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH

~ Surcharges currently in effect are in bold.

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