



February 26, 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

FILED

2020 FEB 26 P 3:33

PUBLIC UTILITIES
COMMISSION

Dear Commissioners:

Subject: Maui Electric Energy Cost Recovery Factor for March 2020

Maui Electric Company, Limited's ("Maui Electric" or "Company") March 2020 Energy Cost Recovery factor for our Maui Division is 17.800 cents per kilowatt-hour ("kWh"), an increase of 0.318 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$174.41, an increase of \$1.59 compared to rates effective February 1, 2020. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery Factor (+\$1.59).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 44.99 cents per million BTU to 1,426.35 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.510 cents per kWh to 19.747 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for March 2020 is 23.379 cents per kWh, a decrease of 0.730 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$165.73, a decrease of \$2.92 compared to rates effective February 1, 2020. The decrease in the typical residential bill is due to the decrease of the Energy Cost Recovery Factor (-\$2.92).

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 83.71 cents per million BTU to 1,999.84 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 March 2020 is 21.967 cents per kWh, an increase of 0.802 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$167.23, an increase of \$3.21 compared to rates effective February 1, 2020. The increase in the typical residential bill is due to the increase of the Energy Cost Recovery Factor (+\$3.21).

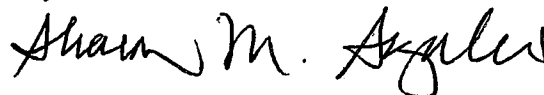
The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 67.42 cents per million BTU to 1,761.00 cents per million BTU. The composite

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
February 26, 2020
Page 2

cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 22.46 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 March 1, 2020.

Sincerely,

A handwritten signature in black ink that reads "Sharon M. Suzuki". The signature is written in a cursive style with a large, sweeping initial 'S'.

Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>02-01-20</u>	<u>03-01-20</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,693.58	1,761.00	67.42
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	22.46	22.46	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	21.165	21.967	0.802
<u>Others - "G,P,F"</u>			
Energy Cost Recovery, ¢/kWh	21.165	21.967	0.802
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	164.02	167.23	3.21
500 KWH Consumption, \$/Bill	203.51	207.52	4.01

Supersedes Sheet Effective:

February 1, 2020

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

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

Line

- 1 Effective Date March 1, 2020
2 Supercedes Factors February 1, 2020

GENERATION COMPONENT

CENTRAL STATION					
FUEL PRICES, ¢/mmbtu					
3	Industrial			0.00	
4	Diesel			1,761.00	
5	Other			0.00	
BTU MIX, %					
6	Industrial			0.00	
7	Diesel			100.00	
8	Other			<u>0.00</u>	
				<u>100.00</u>	
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))			1,761.00	
10	% Input to System kWh Mix			99.72	
EFFICIENCY FACTOR, mmbtu/kWh					
	(A)	(B)	(C)	(D)	
		Eff Factor	Percent of	Weighted	
	Fuel Type	mmbtu/kwh	Centrl Stn + Other	Eff Factor	
11	Industrial	0.000000	0.00	0.000000	
12	Diesel	0.011127	100.00	0.011127	
13	Other	0.011127	0.00	0.000000	
	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)				
14	Weighted Efficiency Factor, mmbtu/kWh [lines 11(D) + 12(D) + 13(D)]			0.011127	
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))			19.53925	
16	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			0.00	
17	Base % Input to Sys kWh Mix			0.00	
18	Efficiency Factor, mmbtu/kwh			0.011127	
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18))			0.00000	
20	COST LESS BASE (line(15 - 19))			19.53925	
21	Revenue Tax Req Multiplier			1.0975	
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))			21.44433	
				DG ENERGY COMPONENT	
	23 COMPOSITE COST OF DG ENERGY, ¢/kWh			0.000	
	24 % Input to System kWh Mix			0.00	
	25 WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24)			0.00000	
	26 BASE DG ENERGY COMP COST			0.000	
	27 Base % Input to System kWh Mix			0.00	
	28 WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27)			0.00000	
	29 Cost Less Base (Line 25 - 28)			0.00000	
	30 Loss Factor			1.098	
	31 Revenue Tax Req Multiplier			1.0975	
	32 DG FACTOR, ¢/kWh (Line 29 x 30 x 31)			0.00000	
				SUMMARY OF	
				TOTAL GENERATION FACTOR, ¢/kWh	
	33 CNTRL STN + OTHER (line 22)			21.44433	
	34 DG (line 32)			0.00000	
	35 TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)			21.44433	

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

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

Line

- 1 Effective Date March 1, 2020
- 2 Supercedes Factors February 1, 2020

Line	PURCHASED ENERGY COMPONENT	
	PURCHASED ENERGY PRICE, ¢/kWh - Fossil	
	PURCHASED ENERGY PRICE, ¢/kWh - Renewable	
36	Unused	0.000
37	CBRE	22.500
38	FIT	21.800
39		
40	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, % - Fossil	
	PURCHASED ENERGY KWH MIX, % - Renewable	
41	Unused	0.00%
42	CBRE	93.71%
43	FIT	6.29%
44		
45	Sch Q	0.00%
45A	Fossil Purch. Energy %	0.00%
45B	Renewable Purch. Energy %	100.00%
45C	Comp. Cost, Fossil Purch. Energy, ¢/kWh	N/A
45D	Comp. Cost, Renewable Purch. Energy, ¢/kWh	22.456
46	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh	22.456
	(Lines (36 x 41) + (37 x 42) + (38 x 43) + (39 x 44))	
47	% Input to System kWh Mix	0.28
48	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (46 x 47))	0.06349
49	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	0.000
50	Base % Input to Sys kWh Mix	0.00
51	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (49 x 50))	0.00000
52	COST LESS BASE (lines (48 - 51))	0.06349
53	Loss Factor	1.098
54	Revenue Tax Req Multiplier	1.0975
55	PURCHASED ENERGY FACTOR, ¢/kWh (lines (52 x 53 x 54))	0.07651

Line	Calculation of Monthly Fossil Fuel Cost Risk Sharing Component	
	Baseline Diesel	
56	Diesel \$, baseline month	\$415,672
57	Diesel mmbtu, baseline	26,195
58	Baseline Diesel, ¢/mmbtu	1,586.84
	Month Diesel	
59	Diesel mmbtu, budget	25,340
60	Diesel Cost, ¢/mmbtu	1,761.00
61	Diesel ECRC Fossil Cost	\$446,230
62	Diesel Base ECRC Recovery Target	\$402,100
63	Diesel differential	\$44,130
64	Total Fossil	\$44,130
65	2% of above	\$883
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$694
67	Maximum Annual Cap (bi-directional)	\$31,500
68	Number of Days in year from implementation	366
69	Fossil Risk % Proration (based on 366 day year)	100.00%
70	Maximum Annual Cap (bi-directional) prorated	\$31,500
71	Applicable Monthly Fossil Fuel Cost Risk Sharing	\$883
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$1,577
73	Fossil Cost Risk Sharing before taxes	\$883
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	\$969
76	Forecasted Month MWh Sales	2,324
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	(0.0417)

Line	SYSTEM COMPOSITE CALCULATIONS	
78	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 55))	21.52084
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	(0.042)
81	ECR Reconciliation Adjustment	0.488
82	ECR FACTOR, ¢/kWh (lines (78 + 79 + 80 + 81))	21.967

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
2/19/2020	7,813.45	44,771.08	783,288.04
Estimated Use	1,328.24	7,610.82	128,894.93
Estimated Received	-	-	-
Estimated Additional	-	-	-
Estimated End	<u>6,485.21</u>	<u>37,160.26</u>	<u>654,393.11</u>

Next Months Expense = \$ 100.9055 /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	\$ 100.9055	5.73 BTU/BBL	1761.00

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

Contract Prices effective February 1, 2020

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
ULTRA LOW SULFUR DIESEL		
Tax *	4.9971	87.20
Ocean Transportation	1.7494	30.53
Storage	5.0658	88.41
Wharfage	0.4000	6.98

* Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST tax, Environmental Response Tax, Customs Duty Fee, Federal Oil Spill Recovery Fee, and Federal Excise Tax.

Note: Since these components are not accounted for separately in inventory, contract prices for the current month are being provided. Contract prices are considered accurate pending actual delivery of the fuel.

Reference: Decision and Order No. 16134, Docket No. 96-0040.

MAUI ELECTRIC COMPANY, LTD.
Molokai Division
ECR Reconciliation Adjustment

March 2020

1. Amount to be Collected	\$31,000
2. Monthly amount (1/3 x Line 1)	\$10,333
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	\$11,341
5. Estimated Sales (March 2020)	2,324 mwh
6. Adjustment (Line 4 ÷ Line 5)	0.488 ¢/kwh

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

<u>Month</u>	(1) <u>YTD FOA Reconciliation</u>	<u>Qtr</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</u>
December '18					(3,033)	(3,133)	2,348
January '19					(3,033)	(3,259)	(911)
February	(8,800)	(4)	(682)	(8,118)	2,933	2,637	(6,392)
March					2,933	2,879	(3,513)
April					2,933	2,976	(537)
May	(4,000)	(1)	(576)	(3,424)	1,333	1,340	(2,621)
June					1,333	1,450	(1,171)
July					1,333	1,381	210
August	42,700	(2)	167	42,533	(14,233)	(15,411)	27,332
September					(14,233)	(15,604)	11,728
October					(14,233)	(14,999)	(3,271)
November	29,000	(3)	(2,501)	31,501	(9,667)	(10,031)	18,199
December '19					(9,667)	(10,289)	7,910
January '20					(9,667)	(10,240)	(2,330)
February	(31,000)	(4)	(1,752)	(29,248)	10,333		
March					10,333		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 20)
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.
Molokai Division
Calculations of the Average Residential Customer Bill**

	Rate		Charge (\$) at 400 Kwh		
	02-01-20	03-01-20	02-01-20	03-01-20	Difference
Base Rates	effective date:	09/01/19	09/01/19		
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00
Non-fuel Energy Charge					
First 250 kWh per month	¢/kWh	14.0459	14.0459	35.11	35.11
Next 500 kWh per month	¢/kWh	16.6959	16.6959	25.04	25.04
Customer Charge	\$	11.50	11.50	11.50	11.50
Total Base Charges			71.65	71.65	0.00
IRP Refund	% on base	0.000	0.000	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	0.8716	0.8716	3.49	3.49
PBF Surcharge	¢/kWh	0.7437	0.7437	2.97	2.97
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
Refund of 2018 Interim	% on base	0.00	0.00	0.00	0.00
Purchased Power Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00
Energy Cost Recovery	¢/kWh	21.165	21.967	84.66	87.87
Green Infrastructure Fee	\$	1.25	1.25	1.25	1.25
Avg Residential Bill at 400 kwh			164.02	167.23	

Increase (Decrease -)	3.21
% Change	1.96%

	Rate		Charge (\$) at 500 Kwh		
	02-01-20	03-01-20	02-01-20	03-01-20	Difference
Base Rates	effective date:	09/01/19	09/01/19		
Base Fuel/Energy Charge	¢/kWh	0.0000	0.0000	0.00	0.00
Non-fuel Energy Charge					
First 250 kWh per month	¢/kWh	14.0459	14.0459	35.11	35.11
Next 500 kWh per month	¢/kWh	16.6959	16.6959	41.74	41.74
Customer Charge	\$	11.50	11.50	11.50	11.50
Total Base Charges			88.35	88.35	0.00
IRP Refund	% on base	0.000	0.000	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	0.8716	0.8716	4.36	4.36
PBF Surcharge	¢/kWh	0.7437	0.7437	3.72	3.72
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
Refund of 2018 Interim	% on base	0.00	0.00	0.00	0.00
Purchased Power Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00
Energy Cost Recovery	¢/kWh	21.165	21.967	105.83	109.84
Green Infrastructure Fee	\$	1.25	1.25	1.25	1.25
Avg Residential Bill at 500 kwh			203.51	207.52	

Increase (Decrease -)	4.01
% Change	1.97%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH RESIDENTIAL & COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$)</u>	
		<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 1, 2018	-6.300	147.68	183.78
February 1, 2018	-6.275	147.78	183.90
March 1, 2018	-4.937	153.13	190.59
April 1, 2018	-5.975	148.47	184.76
May 1, 2018	-5.031	152.76	190.12
June 1, 2018	-3.490	160.24	199.48
July 1, 2018	-1.354	168.81	210.24
August 1, 2018	-4.992	154.26	192.05
September 1, 2018	-3.443	165.08	205.53
October 1, 2018	-4.054	162.63	202.48
November 1, 2018	-3.697	164.06	204.26
December 1, 2018	-1.431	173.13	215.59
January 1, 2019	-3.771	163.91	204.03
February 1, 2019	-7.208	150.16	186.85
March 1, 2019	-4.872	159.50	198.53
April 1, 2019	-5.034	158.51	197.29
May 1, 2019	-3.503	164.98	205.37
June 1, 2019	5.096	166.63	206.77
July 1, 2019	3.171	161.65	200.57
August 1, 2019	2.259	155.00	192.25
September 1, 2019	19.349	152.49	189.11
October 1, 2019	19.071	151.51	187.89
November 1, 2019	20.907	162.13	201.16
December 1, 2019	18.365	151.94	188.43
January 1, 2020	18.533	153.75	190.67
February 1, 2020	21.165	164.02	203.51
March 1, 2020	21.967	167.23	207.52

**MAUI ELECTRIC COMPANY, LTD. -- Molokai 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
07/01/17 - 06/30/18	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 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	6.68 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	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	-2.00 PERCENT ON BASE
06/01/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.8716 CENTS/KWH
07/01/19 - 12/31/19	RESID. PBF SURCHARGE ADJUSTMENT	0.4775 CENTS/KWH
07/01/19 - 12/31/19	GREEN INFRASTRUCTURE FEE	1.17 DOLLARS/MONTH
08/01/19 - 08/31/19	PURCHASED POWER ADJUSTMENT	-0.7518 CENTS/KWH
09/01/19 - 09/30/19	PURCHASED POWER ADJUSTMENT	-0.7820 CENTS/KWH
10/01/19 - 10/31/19	PURCHASED POWER ADJUSTMENT	-0.7475 CENTS/KWH
11/01/19 - 11/30/19	PURCHASED POWER ADJUSTMENT	0.0692 CENTS/KWH
12/01/19 - 12/31/19	PURCHASED POWER ADJUSTMENT	0.0655 CENTS/KWH
01/01/20 - 01/31/20	PURCHASED POWER ADJUSTMENT	0.0648 CENTS/KWH
01/01/20	RESID. PBF SURCHARGE ADJUSTMENT	0.7437 CENTS/KWH
01/01/20	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
02/01/20	PURCHASED POWER ADJUSTMENT	0.00 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.