

March 29, 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 April 2021

Maui Electric Company, Limited's ("Maui Electric" or "Company") April 2021 Energy Cost Recovery factor for our Maui Division is 16.378 cents per kilowatt-hour ("kWh"), an increase of 0.210 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$163.32, an increase of \$0.83 compared to rates effective March 1, 2021. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$1.05), partially offset by the credit for the Solar Saver Adjustment (-\$0.22).

The Company's Maui Division fuel composite cost of generation, central station and other increased 84.100 cents per million BTU to 1,234.29 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.320 cents per kWh to 19.566 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for April 2021 is 24.018 cents per kWh, an increase of 1.915 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$165.34, an increase of \$7.48 compared to rates effective March 1, 2021. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$7.66), partially offset by the credit for the Solar Saver Adjustment (-\$0.18).

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 168.65 cents per million BTU to 2,051.93 cents per million BTU. The composite cost DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 30.00 cents per kWh.

The Energy Cost Recovery factor for our Moloka'i Division for April 2021 is 17.823 cents per kWh, an increase of 2.660 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$147.71, an increase of \$10.46 compared to rates effective March 1, 2021. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery (+\$10.64), partially offset by the credit for the Solar Saver Adjustment (-\$0.18).

The Honorable Chair and Members of the Hawai'i Public Utilities Commission March 29, 2021 Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 222.34 cents per million BTU to 1,471.02 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 21.80 cents per kWh.

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

Sincerely,

/s/ Dean K. Matsuura

Dean K. Matsuura
Director, Regulatory Rate Proceedings

Attachments

cc: Division of Consumer Advocacy

## MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

#### **ENERGY COST RECOVERY FACTOR**

	EFFECTIVE DATES		
	03-01-21	<u>04-01-21</u>	<u>Change</u>
COMPOSITE COSTS			
Generation, Central Station & Other, ¢/mbtu	1,248.68	1,471.02	222.34
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	21.80	21.80	0.00
Residential Schedule "R"			
Energy Cost Recovery, ¢/kWh	15.163	17.823	2.660
Others - "G,P,F"			
Energy Cost Recovery, ¢/kWh	15.163	17.823	2.660
Residential Customer with			
400 KWH Consumption, \$/Bill	137.25	147.71	10.46
500 KWH Consumption, \$/Bill	170.05	183.13	13.08
222 : : : : : : 2 2::23:::: p :: 2:: ;			

Supersedes Sheet Effective: March 1, 2021

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

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

Line 1 Effective Date April 1, 2021 2 Supercedes Factors March 1, 2021

#### **GENERATION COMPONENT**

	CENTRAL STATION		
	FUEL PRICES, ¢/mmbtu		
3	Industrial	0.00	
4	Diesel	1.471.02	
	Other	0.00	
	BTU MIX, %		DG ENERGY COMPONENT
-	Industrial	0.00	23 COMPOSITE COST OF DG
	Diesel	100.00	ENERGY, ¢/kWh 0.000
8	Other	0.00	24 % Input to System kWh Mix 0.00
		<u>100.00</u>	
			25 WEIGHTED COMPOSITE DG ENERGY COST,
9	COMPOSITE COST OF GENERATION,		¢/kWh (Lines 23 x 24) 0.00000
	CENTRAL STATION + OTHER ¢/mmbtu	1,471.02	
	(Lines $(3 \times 6) + (4 \times 7) + (5 \times 8)$ )		
10	% Input to System kWh Mix	99.98	26 BASE DG ENERGY COMP COST 0.000
			27 Base % Input to System kWh Mix 0.00
	EFFICIENCY FACTOR, mmbtu/kWh		28 WEIGHTED BASE DG ENERGY COST,
	(A) (B) (C)	(D)	¢/kWh (Line 26 x 27) 0.00000
	Percent of Eff Factor Centrl Stn +	10/0:00400	20 Coot Loop Book (Line 25, 28) 0.00000
		Weighted	29 Cost Less Base (Line 25 - 28) 0.00000 30 Loss Factor 1.098
11	Fuel Type mmbtu/kwh Other	Eff Factor	
12		0.000000 0.011127	31 Revenue Tax Req Multiplier 1.0975 32 DG FACTOR,
13		0.000000	%/kWh (Line 29 x 30 x 31) 0.00000
13	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)	0.000000	\$/KVVII (Lilie 29 X 30 X 31) 0.00000
11	Weighted Efficiency Factor, mmbtu/kWh		
14	[lines 11(D) + 12(D) + 13(D)]	0.011127	
	[liftes  11(D) + 12(D) + 13(D)]	0.011121	
15	WEIGHTED COMPOSITE CENTRAL STATION	+	
	OTHER GENERATION COST, ¢/kWh		
	(lines (9 x 10 x 14))	16.36482	
16	BASE CENTRAL STATION + OTHER		
	GENERATION COST, ¢/mmbtu	0.00	
	Base % Input to Sys kWh Mix	0.00	
	Efficiency Factor, mmbtu/kwh	0.011127	
19	WEIGHTED BASE CENTRAL STATION + OTH	ER	
	GENERATION COST ¢/kWh		
	(lines (16 x 17 x 18))	0.00000	
	00071500 0405 (1: - /45 - 40))	10.00155	SUMMARY OF
	COST LESS BASE (line(15 - 19))	16.36482	TOTAL GENERATION FACTOR, ¢/kWh
	Revenue Tax Req Multiplier	1.0975	33 CNTRL STN + OTHER (line 22) 17.96039
22	CENTRAL STATION + OTHER GENERATION	47.00000	34 DG (line 32) 0.00000
	FACTOR, ¢/kWh (line (20 x 21))	17.96039	35 TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34) 17.96039
			φ/πτντι (IIIIe3 σσ + σ <del>+</del> ) 17.30039

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

Line
1 Effective Date
2 Supercedes Factors April 1, 2021 March 1, 2021

Line	PURCHASED ENERGY COMPONENT	
37	PURCHASED ENERGY PRICE, ¢/kWh - Fossil PURCHASED ENERGY PRICE, ¢/kWh - Renewab Unused CBRE FIT	le 0.000 22.500 21.800
40	Sch Q	0.000
42	PURCHASED ENERGY KWH MIX, % - Fossil PURCHASED ENERGY KWH MIX, % - Renewable Unused CBRE FIT	0.00% 0.00% 100.00%
45	Sch Q	0.00%
45B 45C	Fossil Purch. Energy % Renewable Purch. Energy % Comp. Cost, Fossil Purch. Energy, ¢/kWh Comp. Cost, Renewable Purch. Energy,¢/kWh	0.00% 100.00% N/A 21.800
47	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 41) + (37 x 42) + (38 x 43) + (39 x 44) % Input to System kWh Mix WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (46 x 47))	0.02
	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh Base % Input to Sys kWh Mix WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (49 x 50))	0.000 0.00 0.00000
53 54	COST LESS BASE (lines (48 - 51)) Loss Factor Revenue Tax Req Multiplier PURCHASED ENERGY FACTOR, ¢/kWh (lines (52 x 53 x 54))	0.00429 1.098 1.0975 0.00517

<u>Line</u>	Calculation of Monthly Fossil Fuel Cost Risk Sharing Compone	<u>nt</u>
	Baseline Diesel	
56	Diesel \$, baseline month	\$312,097
57	Diesel mmbtu, baseline	27,102
58	Baseline Diesel, c/mmbtu	1,151.57
	Month Diesel	
59	Diesel mmbtu, budget	25,564
60	Diesel Cost, ¢/mmbtu	1,471.02
61	Diesel ECRC Fossil Cost	\$376,052
62	Diesel Base ECRC Recovery Target	\$294,388
63	Diesel differential	\$81,664
64	Total Fossil	\$81,664
65	2% of above	\$1,633
66	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$1,316
67	Maximum Annual Cap (bi-directional)	\$31,500
68	Number of Days in year from implementation	365
69	Fossil Risk % Proration (based on 365 day year)	100.00%
70	Maximum Annual Cap (bi-directional) prorated	\$31,500
71	Applicable Monthly Fossil Fuel Cost Risk Sharing	\$1,633
72	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$2,949
73	Fossil Cost Risk Sharing before taxes	\$1,633
74	Revenue Tax Adjustment	1.097514
75	Fossil Cost Risk Sharing w/revenue tax	\$1,793
76	Forecasted Month MWh Sales	2,275
77	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	(0.0788)

<u>Line</u>	SYSTEM COMPOSITE CALCULATIONS	
78	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 55))	17.96556
79	Adjustment, ¢/kWh	0.000
80	Fossil Fuel Cost Risk Sharing Component	(0.079)
81	ECR Reconciliation Adjustment	(0.064)
82	ECR FACTOR, ¢/kWh	17.823
	(lines (78 + 79 + 80 + 81))	

### Maui Electric Company, Ltd. Molokai Division

#### MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
3/19/2021	6,094.00	34,918.62	491,323.17
Estimated Use	1,728.65	9,905.16	123,683.70
Estimated Received	-	-	-
Estimated Additional	96.08	550.54	8,413.13
Estimated End	4,461.43	25,564.00	376,052.60

Next Months Expense = \$ 84.2897 /bbl

#### FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>	Conversion Factor	Prices ¢/MBTU
Diesel	\$ 84.2897	5.73 BTU/BBL	1471.02

# MAUI ELECTRIC COMPANY, LTD. Molokai Division ECR Reconciliation Adjustment

### April 2021

1. Amount to be refunded	(\$4,000)
2. Monthly amount (1/3 x Line 1)	(\$1,333)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$1,463)
5. Estimated Sales (April 2021)	2,275 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.064 ¢/kwh

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

	(1)		(2) FOA Rec	(3) FOA Rec	(4)	(5)	(6) Month-end
	YTD FOA		Adjust	Less	Try to	Actual	Cumulative
<u>Month</u>	Reconciliation	<u>Qtr</u>	<u>Variance</u>	<u>Variance</u>	Collect	<u>Collect</u>	<u>Balance</u>
December '19					(9,667)	(10,289)	7,910
January '20	<i>(</i> -,,)		====		(9,667)	(10,240)	(2,330)
February	(31,000)	(4)	(1,752)	(29,248)	10,333	9,207	(22,371)
March					10,333	10,125	(12,246)
April					10,333	9,676	(2,570)
May	(400)	(1)	(1,907)	1,507	133	156	(907)
June					133	132	(775)
July					133	140	(635)
August	23,000	(2)	(635)	23,635	(7,667)	(7,490)	15,510
September					(7,667)	(7,964)	7,546
October					(7,667)	(7,901)	(355)
November	700	(3)	(113)	813	(233)	(238)	220
December					(233)	(252)	(32)
January '21					(233)	(241)	(273)
February	4,000	(4)	(258)	4,258	(1,333)	(1,290)	2,695
March	·	,	,	•	(1,333)	,	
April					(1,333)		
•					. , ,		

#### 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

Base Rates Base Fuel/Energy Charge Non-fuel Energy Charge First 250 kWhr per month Next 500 kWhr per month Customer Charge Total Base Charges
IRP Refund
Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision SolarSaver Adjustment Refund of 2018 Interim Purchased Power Adjustment Energy Cost Recovery Green Infrastructure Fee

Avg Residential Bill at 400 kwh

Rate					
03-01-21 04-01-21					
effective date:	09/01/19	09/01/19			
¢/kWh	0.0000	0.0000			
¢/kWh	14.0459	14.0459			
¢/kWh	16.6959	16.6959			
\$	11.50	11.50			
•	11.00	11.00			
% on base	0.000	0.000			
¢/kWh	0.3383	0.3383			
¢/kWh	0.5882	0.5882			
¢/kWh	0.0000	0.0000			
¢/kWh	0.0000	-0.0445			
% on base	0.00	0.00			
¢/kWh	0.0000	0.0000			
¢/kWh	15.163	17.823			
\$	1.25	1.25			

Charge (\$) at 400 Kwh					
03-01-21	04-01-21 Difference				
0.00	0.00	0.00			
35.11	35.11	0.00			
25.04	25.04	0.00			
11.50	11.50	0.00			
71.65	71.65	0.00			
0.00	0.00	0.00			
0.00	0.00	0.00			
1.35	1.35	0.00			
2.35	2.35	0.00			
2.00	2.00	0.00			
0.00	0.00	0.00			
0.00	-0.18	-0.18			
0.00	0.00	0.00			
0.00	0.00	0.00			
60.65	71.29	10.64			
1.25	1.25	0.00			
137.25	147.71				

Increase (Decrease -) % Change

10.46 7.62%

Base Rates Base Fuel/Energy Charge Non-fuel Energy Charge First 250 kWhr per month Next 500 kWhr per month Customer Charge Total Base Charges
IRP Refund
Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision SolarSaver Adjustment Refund of 2018 Interim Purchased Power Adjustment Energy Cost Recovery Green Infrastructure Fee

Avg Residential Bill at 500 kwh

Rate			
	03-01-21	04-01-21	
effective date:	09/01/19	09/01/19	
¢/kWh	0.0000	0.0000	
¢/kWh	14.0459	14.0459	
¢/kWh	16.6959	16.6959	
\$	11.50	11.50	
% on base	0.000	0.000	
¢/kWh	0.3383	0.3383	
¢/kWh	0.5882	0.5882	
¢/kWh	0.0000	0.0000	
¢/kWh	0.0000	-0.0445	
% on base	0.00	0.00	
¢/kWh	0.0000	0.0000	
¢/kWh	15.163	17.823	
\$	1.25	1.25	

Charge (\$) at 500 Kwh				
03-01-21	04-01-21			
0.00	0.00	0.00		
35.11	35.11	0.00		
41.74	41.74	0.00		
11.50	11.50	0.00		
88.35	88.35	0.00		
0.00	0.00	0.00		
1.69	1.69	0.00		
2.94	2.94	0.00		
0.00	0.00	0.00		
0.00	-0.22	-0.22		
0.00	0.00	0.00		
0.00	0.00	0.00		
75.82	89.12	13.30		
1.25	1.25	0.00		
170.05	183.13			

Increase (Decrease -) % Change

13.08
7.69%

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

FUEL FA	CTOR
CENTS /	KWH

	CENTS / KWH		
	RESIDENTIAL &	RESIDENT	TAL BILL (\$)
<b>EFFECTIVE DATE</b>	<b>COMMERCIAL</b>	@ 400 KWH	<u>@ 500 KWH</u>
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
April 1, 2020	19.555	157.34	195.16
May 1, 2020	18.231	151.00	187.24
June 1, 2020	12.810	127.13	157.40
July 1, 2020	10.471	118.42	146.53
August 1, 2020	12.013	125.55	155.44
September 1, 2020	14.463	135.41	167.76
October 1, 2020	10.877	121.03	149.78
November 1, 2020	14.096	132.92	164.65
December 1, 2020	13.337	129.89	160.86
January 1, 2021	14.116	133.06	164.81
February 1, 2021	16.108	141.03	174.77
March 1, 2021	15.163	137.25	170.05
April 1, 2021	17.823	147.71	183.13

### MAUI ELECTRIC COMPANY, LTD. -- Molokai Division RESIDENTIAL SURCHARGE DATA

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE		RATE
06/01/11 08/17/17	IRP RECOVERY REFUND RENEWABLE ENERGY INFRASTRUCTURE COST		PERCENT ON BASE CENTS/KWH
	RECOVERY PROVISION		
07/01/17 - 06/30/18	RESID. PBF SURCHARGE ADJUSTMENT	_	CENTS/KWH
01/01/18 - 06/30/18	GREEN INFRASTRUCTURE FEE	-	DOLLARS/MONTH
04/01/18 - 04/30/18	SOLARSAVER ADJUSTMENT		CENTS/KWH
05/01/18 - 03/31/19	SOLARSAVER ADJUSTMENT		CENTS/KWH
06/01/18 - 08/22/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH
07/01/18 - 06/30/19	RESID. PBF SURCHARGE ADJUSTMENT		CENTS/KWH
07/01/18 - 12/31/18	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
08/23/18 - 05/31/19	INTERIM RATE INCREASE 2018 TEST YEAR		PERCENT ON BASE
08/23/18 - 05/31/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH
01/01/19 / 06/30/19	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
04/01/19 - 04/30/19	SOLARSAVER ADJUSTMENT		CENTS/KWH
5/1/2019 - 03/31/20	SOLARSAVER ADJUSTMENT		CENTS/KWH
06/01/19	FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2		
06/01/19 - 06/30/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR	-2.00	PERCENT ON BASE
06/01/19 - 05/31/20	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT		CENTS/KWH
07/01/19 - 12/31/19	RESID. PBF SURCHARGE ADJUSTMENT		CENTS/KWH
07/01/19 - 12/31/19	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
08/01/19 - 08/31/19	PURCHASED POWER ADJUSTMENT		CENTS/KWH
09/01/19 - 09/30/19	PURCHASED POWER ADJUSTMENT	-0.7820	CENTS/KWH
10/01/19 - 10/31/19	PURCHASED POWER ADJUSTMENT		CENTS/KWH
11/01/19 - 11/30/19	PURCHASED POWER ADJUSTMENT		CENTS/KWH
12/01/19 - 12/31/19	PURCHASED POWER ADJUSTMENT		CENTS/KWH
01/01/20 - 01/31/20	PURCHASED POWER ADJUSTMENT		CENTS/KWH
01/01/20 - 06/30/20	RESID. PBF SURCHARGE ADJUSTMENT	0.7437	CENTS/KWH
01/01/20 - 06/30/20	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
02/01/20 - 04/30/20	PURCHASED POWER ADJUSTMENT		CENTS/KWH
04/01/20 - 04/30/20	SOLARSAVER ADJUSTMENT	-0.0592	CENTS/KWH
05/01/20 - 05/31/20	PURCHASED POWER ADJUSTMENT		CENTS/KWH
05/01/20 - 03/31/21	SOLARSAVER ADJUSTMENT		CENTS/KWH
06/01/20 - 06/30/20	PURCHASED POWER ADJUSTMENT	-0.3325	CENTS/KWH
06/01/20	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3383	CENTS/KWH
07/01/20 - 07/31/20	PURCHASED POWER ADJUSTMENT		CENTS/KWH
07/01/20	RESID. PBF SURCHARGE ADJUSTMENT	0.5882	CENTS/KWH
07/01/20 - 12/31/20	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
08/01/20 - 08/31/20	PURCHASED POWER ADJUSTMENT	0.2408	CENTS/KWH
09/01/20 - 09/30/20	PURCHASED POWER ADJUSTMENT		CENTS/KWH
10/01/20 -10/31/20	PURCHASED POWER ADJUSTMENT		CENTS/KWH
11/01/20	PURCHASED POWER ADJUSTMENT		CENTS/KWH
01/01/21	GREEN INFRASTRUCTURE FEE	_	DOLLARS/MONTH
04/01/21	SOLARSAVER ADJUSTMENT	-0.0445	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.