



October 28, 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 November 2020

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2020 Energy Cost Recovery factor for our Maui Division is 13.830 cents per kilowatt-hour ("kWh"), an increase of 0.441 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$150.47, an increase of \$2.73 compared to rates effective October 1, 2020. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$2.20) and increase in the DSM Adjustment (+\$0.54), slightly offset by the decrease in the Purchase Power Adjustment (-\$0.01).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 58.80 cents per million BTU to 939.69 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.187 cents per kWh to 17.880 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for November 2020 is 17.881 cents per kWh, a decrease of 0.195 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$140.91, a decrease of \$0.78 compared to rates effective October 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 decreased 5.79 cents per million BTU to 1,516.48 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 November 2020 is 14.096 cents per kWh, an increase of 3.219 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$132.92, an increase of \$11.89 compared to rates effective October 1, 2020. The increase in the typical residential bill is due to the increase in the Energy Cost Recovery factor (+\$12.87) and termination of the Purchase Power Adjustment (-\$0.98).

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
October 28, 2020
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 243.82 cents per million BTU to 1,141.88 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.

To streamline the filing, the Company has excluded the contract prices that were previously included in Attachment 3 Page 3 of 3, Attachment 12 Page 2 of 2, and Attachment 19 Page 2 of 2 from this filing. Those values do not affect the filed Energy Cost Recovery Factors.

The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning November 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.
MAUI DIVISION**

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>10/01/2020</u>	<u>11/01/2020</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ϕ /mbtu	998.49	939.69	(58.800)
DG Energy, ϕ /kWh	0.00	0.00	0.000
Purchased Energy, ϕ /kWh	18.067	17.880	(0.187)
<u>Residential Schedule "R"</u>			
Energy Cost Recovery Factor, ϕ /kWh	13.390	13.830	0.441
<u>Others - "G,P,F"</u>			
Energy Cost Recovery Factor, ϕ /kWh	13.390	13.830	0.441
<u>Residential Customer with</u>			
500 KWH Consumption, \$/Bill	147.74	150.47	2.73
600 KWH Consumption, \$/Bill	176.34	179.61	3.27

Supersedes Sheet Effective:

October 1, 2020

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

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

Line	1 Effective Date	November 1, 2020
	2 Supercedes Factors of	October 1, 2020

Line	PURCHASED ENERGY COMPONENT	
	PURCHASED ENERGY PRICE - FOSSIL ϕ /kWh	
	PURCHASED ENERGY PRICE - RENEWABLE, ϕ /kWh	
36	Kaheawa Wind I - On Peak	13.891
37	- Off Peak	13.030
38	Kaheawa Wind II	20.124
39	Sempre Wind	22.530
40	Unused - On Peak	0.000
41	- Off Peak	0.000
42	South Maui RR	11.060
43	Ku'ia Solar	11.060
44	Unused	0.000
45	Unused	0.000
46	CBRE PV	16.500
47		
48	FIT	22.490
	PURCHASED ENERGY KWH MIX- FOSSIL, %	
48A	Subtotal Fossil %	0%
	PURCHASED ENERGY KWH MIX - RENEWABLE, %	
49	Kaheawa Wind I - On Peak	22.39%
50	- Off Peak	17.18%
51	Kaheawa Wind II	26.86%
52	Sempre Wind - On Peak	26.13%
53	Unused - On Peak	0.00%
54	- Off Peak	0.00%
55	South Maui RR	1.86%
56	Ku'ia Solar	1.89%
57	Unused	0.00%
58	Unused	0.00%
59	CBRE PV	0.10%
60		
61	FIT	3.59%
61A	Subtotal Renewable %	100.00%
61B	Total Purchased Energy %	100.00%
61C	Composite Cost of Purchased Energy, Fossil	N/A
61D	Composite Cost of Purchased Energy, Renewable	17.880
62	COMPOSITE COST OF PURCHASED ENERGY, ϕ /kWh	17.880
	(Lines (36 x 49) + (37 x 50) + (38 x 51) + (39 x 52) + (40 x 53) + (41 x 54) + (42 x 55) + (43 x 56) + (44 x 57) + (45 x 58) + (46 x 59) + (48 x 61))	
63	% Input to System kWh Mix	23.20%
64	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ϕ /kWh (lines (62 x 63))	4.14816
65	BASE PURCHASED ENERGY COMPOSITE COST, ϕ /kWh	0.000
66	Base % Input to Sys kWh Mix	0.00
67	WEIGHTED BASE PURCHASED ENERGY COST, ϕ /kWh (lines (65 x 66))	0.00000
68	COST LESS BASE (lines (64 - 67))	4.14816
69	Loss Factor	1.057
70	Revenue Tax Req Multiplier	1.0975
71	PURCHASED ENERGY FACTOR, ϕ /kWh (lines (68 x 69 x 70))	4.81210

Line	Calculation of Monthly Fossil Fuel Cost Risk Sharing Component	
	Baseline IFO	
72	IFO \$, baseline month	\$1,709,027
73	IFO mmbtu, baseline	193,384
74	Baseline IFO, ϕ /mmbtu	883.75
	Baseline Diesel	
75	Diesel \$, baseline month	\$7,688,936
76	Diesel mmbtu, baseline	503,889
77	Baseline Diesel, ϕ /mmbtu	1,525.92
	Month IFO	
78	IFO mmbtu, budget	136,457
79	IFO Cost, ϕ /mmbtu	768.57
80	IFO ECRC Fossil Cost	\$1,048,769
81	IFO Base ECRC Recovery Target	\$1,205,940
82	IFO differential	-\$157,170
	Month Diesel	
83	Diesel mmbtu, budget	563,443
84	Diesel Cost, ϕ /mmbtu	981.14
85	Diesel ECRC Fossil Cost	\$5,528,161
86	Diesel Base ECRC Recovery Target	\$8,597,685
87	Diesel differential	-\$3,069,524
88	Total Fossil	-\$3,226,694
89	2% of above	-\$64,534
90	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	-\$330,556
91	Maximum Annual Cap (bi-directional)	\$570,000
92	Number of Days in year from implementation	366
93	Fossil Risk % Proration (based on 366 day year)	100.00%
94	Maximum Annual Cap (bi-directional) prorated	\$570,000
95	Applicable Monthly Fossil Fuel Cost Risk Sharing	-\$64,534
96	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$395,090
97	Fossil Cost Risk Sharing before taxes	-\$64,534
98	Revenue Tax Adjustment	1.097514
99	Fossil Cost Risk Sharing w/revenue tax	-\$70,827
100	Forecasted Month MWh Sales	83,546
101	Fossil Fuel Cost Risk Sharing Component, ϕ /kWh	0.0848

Derivation of Non-Adjustable Component:		
102	Maalaea Biodiesel (\$000s)	\$511.3
103	Hana (\$000s)	\$19.2
104	Ignition Startup (\$000s)	\$37.6
	Total	\$568.1
	Final Settlement, MECO-602, p1 and MECO-603, p1	
105	Revenue Tax Adjustment	1.097514
106	Non-Adj Revenues, \$000	\$623.5
107	2018 TY Sales, MWh	1,017,968
	Final Tariffs submitted 4/17/2019, Docket No. 2017-0150, Exhibit 2, Att 1, p361	
108	Non-Adj Revenues, ϕ /kWh	0.06125
109	Generation and Purchased Energy Factors	13.28224
110	ECR Reconciliation Adjustment	0.402
111	Non-Adjustable Component	0.0612
112	Fossil Fuel Cost Risk Sharing Component	0.0848
113	ECR FACTOR, ϕ /kWh (lines (109 + 110 + 111 + 112))	13.830

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

Fuel Oil Inventory Prices for November 2020

<u>TYPE OF OIL BURNED</u>	<u>PRICES \$/BBL</u>	<u>CONVERSION FACTORS</u>		<u>PRICES ¢/MBTU</u>
INDUSTRIAL	48.4202	6.30	MBTU/BBL	768.57
DIESEL/ULSD	57.4331	5.85	MBTU/BBL	981.14

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

Month End Fuel Oil Estimate

<u>Kahului</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/20/2020	71,890.95	452,912.99	3,428,063.50
Estimated Use	11,771.72	74,161.84	551,664.72
Estimated Received	0.00	0.00	34,584.01
Estimated Additional	0.00	0.00	0.00
Estimated End	<u>60,119.23</u>	<u>378,751.15</u>	<u>2,910,982.79</u>

Next month's expense (\$/bbl) = \$ 48.4202

<u>Maalaea</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
10/20/2020	85,826.03	502,400.67	5,132,058.57
Estimated Use	37,591.10	220,047.41	2,320,457.43
Estimated Received	60,200.00	352,393.33	3,416,154.10
Estimated Additional	0.00	0.00	0.00
Estimated End	<u>108,434.93</u>	<u>634,746.59</u>	<u>6,227,755.24</u>

Next month's expense (\$/bbl) = \$ 57.4331

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

PURCHASED POWER PRICE CALCULATIONS

KAHEAWA WIND POWER ENERGY RATE:

Kaheawa Wind - On Peak, ¢/kWh	13.891
- Off Peak, ¢/kWh	13.030

Kaheawa Wind Energy Rate Calculations:

Percent of Energy Payment Rate:

Fixed energy payment rate	70%
Flat payment rate	<u>30%</u>
	<u>100%</u>

Fixed Energy Payment Rate (Table D-1) for 2020:

On-peak, ¢/kwh	10.415
Off-peak, ¢/kwh	9.186

Flat Payment Rate Per Docket No. 2011-0192 D&O 30331:

On-peak, ¢/kwh	22.000
Off-peak, ¢/kwh	22.000

On-Peak Rate = $10.4150 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 13.891 \text{ ¢/kwh}$

Off-Peak Rate = $9.186 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 13.03 \text{ ¢/kwh}$

MAUI ELECTRIC COMPANY, LTD.
Maui Division
ECR Reconciliation Adjustment
November 2020

1. Amount to be Collected	\$918,500
2. Monthly amount (1 / 3 X Line 1)	\$306,167
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	\$336,023
5. Estimated Sales (November 2020)	83,546 mwh
6. Adjustmnet (Line 4 ÷ Line 5)	0.402 ¢/kwh

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2020 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)

<u>Line</u>	<u>W/O Deadband 3rd Quarter YTD Total</u>	<u>collection by company*</u>	<u>Basis for Recon With Deadband 3rd Quarter YTD Total</u>	<u>collection by company*</u>
ACTUAL COSTS:				
1	Generation	\$58,974.8	\$58,974.8	
2	Distributed Generation	\$20.1	\$20.1	
3	Purch Power	\$39,445.2	\$39,445.2	
4	TOTAL	\$98,440.1	\$98,440.1	
FUEL FILING COST				
5	Generation	\$58,238.7	\$58,763.1	
6	Distributed Generation	\$0.0	\$0.0	
7	Purch Power	\$39,445.2	\$39,445.2	
8	TOTAL	\$97,683.9	\$98,208.3	
BASE FUEL COST				
9	Generation	\$0.0	\$0.0	
10	Distributed Generation	\$0.0	\$0.0	
11	Purch Power	\$0.0	\$0.0	
12	TOTAL	\$0.0	\$0.0	
13	FUEL-BASE COST (Line 8-12)	\$97,683.9	\$98,208.3	
14	ACTUAL FOA LESS TAX	\$96,359.7	\$96,359.7	
15	FOA reconciliation adj for prior year	-\$1,924.7	-\$1,924.7	
15A	Less: Non-Adjustable Component Revenues less tax	\$365.3	\$365.3	
16	ADJUSTED FOA LESS TAX	\$97,919.1	\$97,919.1	
17	FOA-(FUEL-BASE) (Line 16-13)	\$235.2 Over	-\$289.2 Under	
ADJUSTMENTS				
18	Current year FOA accrual reversal	\$1,429.3	\$1,429.3	
19	Other prior year FOA	\$0.0	\$0.0	
20	Other	\$0.0	\$0.0	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	\$1,664.5 Over	\$1,140.1 Over	
21A	Fossil Fuel YTD Cost Risk Sharing Adjustment	-\$192.0	-\$192.0	
21B	YTD QUARTERLY FOA RECON w/Fossil Risk Adj (Line 21+Line 21A)	\$1,472.5	\$948.1	
22	2nd Quarter Reconciliation YTD		\$1,866.6 Over	
23	FOA Reconciliation to be Refunded November 2020 to January 2021 (Line 22- 21B)		\$918.5 To Be Collected	

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

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

Determination of Efficiency Factor to use for Cost-Recovery Purposes

Period: January 1, 2020 through September 30, 2020

	<u>Notes</u>	<u>YTD</u>
<u>Industrial Fuel Oil</u>		
Industrial Fuel Oil Efficiency Factor, BTU/kWh	f	15,786
Industrial Fuel Oil Deadband Definition, - BTU/kWh	d	100
Industrial Fuel Oil Portion of Recorded Sales, MWh	a	87,291
Industrial Fuel Oil Consumption (Recorded), MMBTU	b	1,428,265
Industrial Fuel Oil Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	16,362
Lower limit of Industrial Fuel Oil Deadband, BTU/kWh	e = f-d	15,686
Higher limit of Industrial Fuel Oil Deadband, BTU/kWh	g = f+d	15,886
Industrial Fuel Oil Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	15,886
<u>Diesel</u>		
Diesel Efficiency Factor, BTU/kWh	f	9,938
Diesel Deadband Definition, - BTU/kWh	d	100
Diesel Portion of Recorded Sales, MWh	a	369,635
Diesel Consumption (Recorded), MMBTU	b	3,708,766
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	10,034
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	9,838
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	10,038
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	10,034

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

2020

	Without Deadband	With Deadband AS FILED
	<u>Jan 1 - Sep 30</u>	<u>Jan 1 - Sep 30</u>
<u>INDUSTRIAL</u>		
Industrial Portion of Recorded Sales , MWH	87,291	87,291
Industrial Sales Efficiency Factor (mmbtu/kwh)	0.015786	0.015886
Mmbtu adjusted for Sales Efficiency Factor	1,377,981	1,386,710
\$/mmbtu	<u>\$8.3283</u>	<u>\$8.3283</u>
TOTAL Industrial \$000s TO BE RECOVERED	\$11,476.2	\$11,548.9
<u>DIESEL FUEL FILING COST</u>		
Diesel Portion of Recorded Sales, MWH	369,635	369,635
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.009938	0.010034
Mmbtu adjusted for Sales Efficiency Factor	3,673,428	3,708,913
\$/mmbtu	<u>\$12.7299</u>	<u>\$12.7299</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$46,762.4	\$47,214.2
TOTAL GENERATION FUEL FILING COST, \$000s	\$58,238.7	\$58,763.1
TOTAL GENERATION BASE FUEL COST , \$000s	\$0.0	\$0.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$58,238.7	\$58,763.1
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$0.0	\$0.0

Fossil Fuel Cost Risk Sharing Mechanism and Non-Adjustable Component, September 2020, Maui

		Jan-20, Baseline	YTD Subject to Fossil Risk
A	IFO Fossil Fuel Cost Risk Sharing		
	MMBtu	193383,6849	1,428,265
B	\$ cost, actuals	\$1,709,027	11,877,540
C = B / A (Baseline Column)	Jan 2020 baseline \$/mmbtu	8.837492	8.837492
D	IFO Gen kWh		92,088,769
E	Total kWh, Gen, Purch Pwr, DG		690,135,944
F	Sales kWh		654,577,496
G = (D / E) x F	IFO kWh-sales		87,344,003
H	Target Heat Rate		15,786
I1	Upper limit w/deadband		15,886
I2	Lower limit w/deadband		15,686
I3	Calculated Heat Rate (YTD subject to fossil risk, before deadband)		16,362
I	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		15,886
J = B / A ytd	Actual Cost \$/MMBtu		8.3160611
K = C x H x G / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$12,185,244
L = I x J x G / 1,000,000	Fuel Filing Cost Recovery		\$11,538,924
M = 2% x (L-K)	IFO Cost Risk Sharing		-\$12,926
	Diesel Fossil Fuel Cost Risk Sharing		
AA	MMBtu	503,889	3,708,766
BB	\$ cost, actuals	\$7,688,936	\$47,097,291
CC = BB / AA (Baseline Column)	Jan 2020 baseline \$/mmbtu	15.2592017	15.2592017
DD	Diesel Gen kWh		389,759,520
EE	Total kWh, Gen, Purch Pwr, DG		690,135,944
FF	Sales kWh		654,577,496
GG = (DD / EE) x FF	Diesel kWh-sales		369,677,616
HH	Target Heat Rate		9,938
II1	Upper limit w/deadband		10,038
II2	Lower limit w/deadband		9,838
II3	Calculated Heat Rate (YTD subject to fossil risk, before deadband)		10,034
II	Recovery Heat Rate (YTD subject to fossil risk, after deadband)		10,034
JJ = BB/AA (YTD Column)	Actual Cost \$/MMBtu		12.6989101
KK = CC x HH x GG / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$56,060,112
LL = II x JJ x GG / 1,000,000	Fuel Filing Cost Recovery		\$47,104,641
MM = 2% x (LL-KK)	Diesel Cost Risk Sharing		-\$179,109
NN	Annual Cap (non-prorated)		\$570,000
OO	# Days		366
PP	Annual Cap (pro-rated)		\$570,000
QQ = M + MM, up to cap	Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$570000 cap		-\$192,036
	Non-Adjustable Component		
AAA = F	YTD kWh under ECRC		654,577,496
BBB	Non-Adjustable Component, cents/kWh		0.06125
CCC	Non-Adjustable Component Revenues w/tax		\$400,929
DDD	Non-Adjustable Component Revenues less tax		\$365,306

MAUI ELECTRIC COMPANY, LTD.
MAUI 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					(327,700)	(323,073)	279,528
January '19					(327,700)	(345,025)	(65,497)
February	1,886,900	(4)	(48,178)	1,935,078	(628,967)	(587,149)	1,282,432
March					(628,967)	(591,146)	691,286
April					(628,967)	(657,008)	34,278
May	1,531,500	(1)	62,314	1,469,186	(510,500)	(538,146)	965,318
June					(510,500)	(580,323)	384,995
July					(510,500)	(585,791)	(200,796)
August	1,306,700	(2)	(125,510)	1,432,210	(435,567)	(484,194)	747,220
September					(435,567)	(495,890)	251,330
October					(435,567)	(480,697)	(229,367)
November	2,679,900	(3)	(184,241)	2,864,141	(893,300)	(987,633)	1,647,141
December '19					(893,300)	(950,248)	696,893
January '20					(893,300)	(961,281)	(264,388)
February	1,031,400	(4)	(196,411)	1,227,811	(343,800)	(327,089)	636,334
March					(343,800)	(344,340)	291,994
April					(343,800)	(255,361)	36,633
May	554,800	(1)	(51,810)	606,610	(184,933)	(181,950)	461,293
June					(184,933)	(182,971)	278,322
July					(184,933)	(181,695)	96,627
August	1,311,800	(2)	93,384	1,218,416	(437,267)	(375,529)	939,514
September					(437,267)	(397,379)	542,135
October					(437,267)		
November	(918,500)	(3)	104,864	(1,023,364)	306,167		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 5)
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.
Maui Division
Calculations of the Average Residential Customer Bill

	Rate		Charge (\$) at 500 Kwh		
	10/01/20	11/01/20	10/01/20	11/01/20	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 350 kWh per month	¢/kWh	12.1240	12.1240	42.43	42.43
Next 850 kWh per month	¢/kWh	14.3840	14.3840	21.58	21.58
Customer Charge	\$	11.50	11.50	11.50	11.50
Total Base Charges			75.51	75.51	0.00
RBA Rate Adjustment	¢/kWh	0.3383	0.3383	1.69	1.69
PBF Surcharge	¢/kWh	0.5882	0.5882	2.94	2.94
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	0.0027	-0.0006	0.01	0.00
Energy Cost Recovery	¢/kWh	13.390	13.830	66.95	69.15
DSM Adjustment	¢/kWh	-0.1104	-0.0022	-0.55	-0.01
Green Infrastructure Fee	\$	1.19	1.19	1.19	1.19
Avg Residential Bill at 500 kwh			147.74	150.47	
					Increase (Decrease -)
					% Change
					2.73
					1.85%

	Rate		Charge (\$) at 600 Kwh		
	10/01/20	11/01/20	10/01/20	11/01/20	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 350 kWh per month	¢/kWh	12.1240	12.1240	42.43	42.43
Next 850 kWh per month	¢/kWh	14.3840	14.3840	35.96	35.96
Customer Charge	\$	11.50	11.50	11.50	11.50
Total Base Charges			89.89	89.89	0.00
RBA Rate Adjustment	¢/kWh	0.3383	0.3383	2.03	2.03
PBF Surcharge	¢/kWh	0.5882	0.5882	3.53	3.53
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	0.0027	-0.0006	0.02	0.00
Energy Cost Recovery	¢/kWh	13.390	13.830	80.34	82.98
DSM Adjustment	¢/kWh	-0.1104	-0.0022	-0.66	-0.01
Green Infrastructure Fee	\$	1.19	1.19	1.19	1.19
Avg Residential Bill at 600 kwh			176.34	179.61	
					Increase (Decrease -)
					% Change
					3.27
					1.85%

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

<u>EFFECTIVE DATE</u>	FUEL FACTOR CENTS / KWH		RESIDENTIAL BILL (\$)	
	<u>RESIDENTIAL & COMMERCIAL</u>		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
January 1, 2018	-6.115		154.28	184.75
February 1, 2018	-5.747		156.16	187.00
March 1, 2018	-4.402		162.88	195.07
April 1, 2018	-4.914		159.68	191.23
May 1, 2018	-4.510		162.34	194.42
June 1, 2018	-2.402		174.53	209.05
July 1, 2018	-1.259		180.32	216.01
August 1, 2018	-3.848		167.07	200.11
September 1, 2018	-3.445		174.06	208.51
October 1, 2018	-3.282		174.90	209.51
November 1, 2018	-2.358		179.87	215.47
December 1, 2018	-2.401		179.65	215.21
January 1, 2019	-3.405		174.77	209.33
February 1, 2019	-5.987		161.69	193.64
March 1, 2019	-5.839		162.44	194.54
April 1, 2019	-5.441		163.99	196.39
May 1, 2019	-4.041		171.40	205.29
June 1, 2019	3.899		179.76	214.71
July 1, 2019	3.059		178.60	213.35
August 1, 2019	2.938		178.02	212.67
September 1, 2019	18.068		173.77	207.57
October 1, 2019	17.098		168.93	201.76
November 1, 2019	17.061		168.70	201.48
December 1, 2019	16.191		164.37	196.28
January 1, 2020	16.751		168.57	201.30
February 1, 2020	17.482		172.82	206.40
March 1, 2020	17.800		174.41	208.31
April 1, 2020	17.503		172.62	206.17
May 1, 2020	16.260		166.06	198.28
June 1, 2020	15.145		157.82	188.40
July 1, 2020	14.702		154.77	184.77
August 1, 2020	13.780		149.70	178.68
September 1, 2020	13.659		149.08	177.94
October 1, 2020	13.390		147.74	176.34
November 1, 2020	13.830		150.47	179.61

**MAUI ELECTRIC COMPANY, LTD. -- Maui 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 - 01/31/18	PURCHASED POWER ADJUSTMENT	-0.0060 CENTS/KWH
01/01/18 - 06/30/18	GREEN INFRASTRUCTURE FEE	1.3400 DOLLARS/MONTH
02/01/18 - 04/30/18	PURCHASED POWER ADJUSTMENT	0.0003 CENTS/KWH
04/01/18 - 04/30/18	SOLARSAVER ADJUSTMENT	-0.1278 CENTS/KWH
05/01/18 - 03/31/19	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/18 - 06/30/18	PURCHASED POWER ADJUSTMENT	0.0004 CENTS/KWH
06/01/18 - 08/22/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.8954 CENTS/KWH
07/01/18 - 07/31/18	PURCHASED POWER ADJUSTMENT	0.0003 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	1.2100 DOLLARS/MONTH
08/01/18 - 08/31/18	PURCHASED POWER ADJUSTMENT	-0.0618 CENTS/KWH
09/01/18 - 09/30/18	PURCHASED POWER ADJUSTMENT	-0.0635 CENTS/KWH
08/23/18 - 05/31/19	INTERIM RATE INCREASE 2018 TEST YEAR	7.42 PERCENT ON BASE
08/23/18 - 05/31/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3183 CENTS/KWH
10/01/18 - 10/31/18	PURCHASED POWER ADJUSTMENT	-0.0602 CENTS/KWH
11/01/18 - 11/30/19	PURCHASED POWER ADJUSTMENT	0.0108 CENTS/KWH
12/01/18 - 12/31/18	PURCHASED POWER ADJUSTMENT	0.0099 CENTS/KWH
01/01/19 - 01/31/19	PURCHASED POWER ADJUSTMENT	0.0094 CENTS/KWH
01/01/19 - 06/30/19	GREEN INFRASTRUCTURE FEE	1.35 DOLLARS/MONTH
02/01/19 - 02/28/19	PURCHASED POWER ADJUSTMENT	-0.0241 CENTS/KWH
03/01/19 - 03/31/19	PURCHASED POWER ADJUSTMENT	-0.0224 CENTS/KWH
04/01/19 - 04/30/19	PURCHASED POWER ADJUSTMENT	-0.0244 CENTS/KWH
04/01/19 - 04/30/19	SOLARSAVER ADJUSTMENT	-0.0855 CENTS/KWH
05/01/19 - 05/31/19	PURCHASED POWER ADJUSTMENT	-0.0274 CENTS/KWH
5/1/2019 - 03/31/20	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/19 - 06/30/19	PURCHASED POWER ADJUSTMENT	-0.0067 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 - 07/31/19	PURCHASED POWER ADJUSTMENT	-0.0045 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	0.0023 CENTS/KWH
09/01/19 - 09/30/19	PURCHASED POWER ADJUSTMENT	0.0005 CENTS/KWH
10/01/19 - 10/31/19	PURCHASED POWER ADJUSTMENT	0.0023 CENTS/KWH
11/01/19 - 11/30/19	PURCHASED POWER ADJUSTMENT	-0.0063 CENTS/KWH
12/01/19 - 12/31/19	PURCHASED POWER ADJUSTMENT	-0.0047 CENTS/KWH
01/01/20 - 01/31/20	PURCHASED POWER ADJUSTMENT	-0.0069 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	1.25 DOLLARS/MONTH
02/01/20 - 02/29/20	PURCHASED POWER ADJUSTMENT	-0.0126 CENTS/KWH
02/01/20 - 04/30/20	RESID. DSM ADJUSTMENT	0.1268 CENTS/KWH
03/01/20 - 03/31/20	PURCHASED POWER ADJUSTMENT	-0.0127 CENTS/KWH
04/01/20 - 04/30/20	PURCHASED POWER ADJUSTMENT	-0.0138 CENTS/KWH
04/01/20 - 04/30/20	SOLARSAVER ADJUSTMENT	-0.0592 CENTS/KWH
05/01/20	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/20 - 05/31/20	PURCHASED POWER ADJUSTMENT	-0.0128 CENTS/KWH
05/01/20 - 07/31/20	RESID. DSM ADJUSTMENT	-0.0048 CENTS/KWH
06/01/20 - 06/30/20	PURCHASED POWER ADJUSTMENT	-0.0124 CENTS/KWH
06/01/20	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3383 CENTS/KWH
07/01/20 - 07/31/20	PURCHASED POWER ADJUSTMENT	-0.0091 CENTS/KWH
07/01/20	RESID. PBF SURCHARGE ADJUSTMENT	0.5882 CENTS/KWH
07/01/20	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH
08/01/20 - 10/31/20	RESID. DSM ADJUSTMENT	-0.1104 CENTS/KWH
08/01/20 - 08/31/20	PURCHASED POWER ADJUSTMENT	0.0033 CENTS/KWH
09/01/20 - 09/30/20	PURCHASED POWER ADJUSTMENT	0.0016 CENTS/KWH
10/01/20 - 10/31/20	PURCHASED POWER ADJUSTMENT	0.0027 CENTS/KWH
11/01/20	PURCHASED POWER ADJUSTMENT	-0.0006 CENTS/KWH
11/01/20	RESID. DSM ADJUSTMENT	-0.0022 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.

**Maui Electric Company, Ltd. - Maui Division
Residential Bill at 500 kWh/Month Consumption**

