



FILED

November 26, 2019

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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

PUBLIC UTILITIES
COMMISSION

Dear Commissioners:

Subject: Maui Electric Energy Cost Recovery Factor for December 2019

Maui Electric Company, Limited's ("Maui Electric" or "Company") December 2019 Energy Cost Recovery factor for our Maui Division is 16.191 cents per kilowatt-hour ("kWh"), a decrease of 0.870 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$164.37, a decrease of \$4.33 compared to rates effective November 1, 2019. The decrease in the typical residential bill is due to the decrease in the Energy Cost Recovery Factor (-\$4.34), partially offset by the increase in the Purchase Power Adjustment (+\$0.01).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 16.02 cents per million BTU to 1,382.43 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.504 cents per kWh to 16.938 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for December 2019 is 26.449 cents per kWh, an increase of 0.361 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$176.87, an increase of \$1.45 compared to rates effective November 1, 2019. The increase in the typical residential bill is due to the increase of the Energy Cost Recovery factor (+1.45).

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 39.70 cents per million BTU to 2,136.87 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.

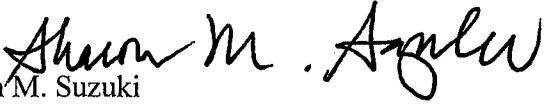
The Energy Cost Recovery factor for our Moloka'i Division for December 2019 is 18.365 cents per kWh, a decrease of 2.542 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$151.94, a decrease of \$10.19 compared to rates effective November 1, 2019. The decrease in the typical residential bill is due to the decrease of the Energy Cost Recovery Factor (-\$10.17), and the decrease in the Purchase Power Adjustment (-\$0.02).

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
November 26, 2019
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The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 211.79 cents per million BTU to 1,538.42 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 December 1, 2019.

Sincerely,


Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST RECOVERY FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>11/01/2019</u>	<u>12/01/2019</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,398.45	1,382.43	(16.02)
DG Energy, ¢/kWh	0.00	0.00	0.000
Purchased Energy, ¢/kWh	17.442	16.938	(0.504)
<u>Residential Schedule "R"</u>			
Energy Cost Recovery Factor, ¢/kWh	17.061	16.191	(0.870)
<u>Others - "G,P,F"</u>			
Energy Cost Recovery Factor, ¢/kWh	17.061	16.191	(0.870)
<u>Residential Customer with</u>			
500 KWH Consumption, \$/Bill	168.70	164.37	(4.33)
600 KWH Consumption, \$/Bill	201.48	196.28	(5.20)

Supersedes Sheet Effective:

November 1, 2019

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

ENERGY COST RECOVERY (ECR) FILING - December 1, 2019 (page 1 of 2)

Line

1 Effective Date December 1, 2019
2 Supercedes Factors of November 1, 2019

GENERATION COMPONENT

CENTRAL STATION							DG ENERGY COMPONENT	
FUEL PRICES, ¢/mmbtu								
3	Industrial			830.22				
4	Diesel			1,564.84				
5	Other							
BTU MIX, %								
6	Industrial			24.83%	23	COMPOSITE COST OF DG		
7	Diesel			75.17%		ENERGY, ¢/kWh	0.000	
8	Other			0.00%	24	% Input to System kWh Mix	0.00%	
				100.00%				
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8))			1,382.43	25	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24)		-
10	% Input to System kWh Mix			79.33%	26	BASE DG ENERGY COMP COST	0.000	
EFFICIENCY FACTOR, mmbtu/kWh						27	Base % Input to System kWh Mix	0.00
	(A)	(B)	(C)	(D)	28	WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27)	0.00000	
			Percent of	Weighted	29	Cost Less Base (Line 25 - 28)	0.00000	
	Fuel Type	Eff Factor	Centrl Stn + Other	Eff Factor	30	Loss Factor	1.057	
		mmbtu/kwh			31	Revenue Tax Req Multiplier	1.0975	
11	Industrial	0.015892	17.38	0.002762	32	DG FACTOR, ¢/kWh (Line 29 x 30 x 31)	0.00000	
12	Diesel	0.009950	82.62	0.008221				
13	Other	0.011102	0.00	-				
	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)							
14	Weighted Efficiency Factor, mmbtu/kWh [lines 11(D) + 12(D) + 13(D)]			0.010983				
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))			12.04486				
16	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			0.00				
17	Base % Input to Sys kWh Mix			0.00				
18	Efficiency Factor, mmbtu/kwh			0.011102				
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18))			-				
20	COST LESS BASE (line(15 - 19))			12.04486				
21	Revenue Tax Req Multiplier			1.0975				
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))			13.21923				
					SUMMARY OF			
					TOTAL GENERATION FACTOR, ¢/kWh			
					33	CNTRL STN + OTHER (line 22)	13.21923	
					34	DG (line 32)	-	
					35	TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)	13.21923	

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

ENERGY COST RECOVERY (ECR) FILING - December 1, 2019 (page 2 of 2)

Line		
1	Effective Date	December 1, 2019
2	Supercedes Factors of	November 1, 2019

Line	PURCHASED ENERGY COMPONENT	
	PURCHASED ENERGY PRICE - FOSSIL ¢/kWh	
	PURCHASED ENERGY PRICE - RENEWABLE, ¢/kWh	
36	Kaheawa Wind I - On Peak	13.783
37	- Off Peak	12.935
38	Kaheawa Wind II	19.826
39	Sempre Wind	22.197
40	Hydro & Other - On Peak	14.275
41	- Off Peak	13.516
42	South Maui RR	11.060
43	Ku'ia Solar	11.060
44	CBRE PV	16.500
45		
46	FIT	21.458
	PURCHASED ENERGY KWH MIX- FOSSIL, %	
46A	Subtotal Fossil %	0%
	PURCHASED ENERGY KWH MIX - RENEWABLE, %	
47	Kaheawa Wind I - On Peak	23.24%
48	- Off Peak	19.26%
49	Kaheawa Wind II	34.47%
50	Sempre Wind - On Peak	12.79%
51	Hydro & Other - On Peak	0.29%
52	- Off Peak	0.09%
53	South Maui RR	2.76%
54	Ku'ia Solar	2.72%
55	CBRE PV	0.58%
56		
57	FIT	3.80%
57A	Subtotal Renewable %	100.00%
57B	Total Purchased Energy %	100.00%
57C	Composite Cost of Purchased Energy, Fossil	N/A
57D	Composite Cost of Purchased Energy, Renewable	16.938
58	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh	16.938
	(Lines (36 x 47) + (37 x 48) + (38 x 49) + (39 x 50) + (40 x 51) + (41 x 52) + (42 x 53) + (43 x 54) + (44 x 55) + (46 x 57))	
59	% Input to System kWh Mix	20.67%
60	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (58 x 59))	3.50108
61	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	0.000
62	Base % Input to Sys kWh Mix	0.00
63	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (61 x 62))	0.00000
64	COST LESS BASE (lines (60 - 63))	3.50108
65	Loss Factor	1.057
66	Revenue Tax Req Multiplier	1.0975
67	PURCHASED ENERGY FACTOR, ¢/kWh (lines (64 x 65 x 66))	4.06145

Line	Calculation of Monthly Fossil Fuel Cost Risk Sharing Component	
	Baseline IFO	
68	IFO \$, baseline month	\$1,995,065
69	IFO mmbtu, baseline	214,724
70	Baseline IFO, ¢/mmbtu	929.13
	Baseline Diesel	
71	Diesel \$, baseline month	\$8,885,935
72	Diesel mmbtu, baseline	561,665
73	Baseline Diesel, ¢/mmbtu	1,582.07
	Month IFO	
74	IFO mmbtu, budget	182,870
75	IFO Cost, ¢/mmbtu	830.22
76	IFO ECRC Fossil Cost	\$1,518,225
77	IFO Base ECRC Recovery Target	\$1,699,102
78	IFO differential	-\$180,877
	Month Diesel	
79	Diesel mmbtu, budget	553,659
80	Diesel Cost, ¢/mmbtu	1,564.84
81	Diesel ECRC Fossil Cost	\$8,663,873
82	Diesel Base ECRC Recovery Target	\$8,759,273
83	Diesel differential	-\$95,400
84	Total Fossil	-\$276,277
85	2% of above	-\$5,526
86	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	-\$6,140
87	Maximum Annual Cap (bi-directional)	\$570,000
88	Number of Days in year from implementation	122
89	Fossil Risk % Proration (based on 365 day year)	33.42%
90	Maximum Annual Cap (bi-directional) prorated	\$190,521
91	Applicable Monthly Fossil Fuel Cost Risk Sharing	-\$5,526
92	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$11,665
93	Fossil Cost Risk Sharing before taxes	-\$5,526
94	Revenue Tax Adjustment	1.097514
95	Fossil Cost Risk Sharing w/revenue tax	-\$6,064
96	Forecasted Month MWh Sales	84,676
97	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.0072
	Derivation of Non-Adjustable Component:	
98	Maalaea Biodiesel (\$000s)	\$511.3
99	Hana (\$000s)	\$19.2
100	Ignition Startup (\$000s)	\$37.6
	Total	\$568.1
	Final Settlement, MECO-602, p1 and MECO-603, p1	
101	Revenue Tax Adjustment	1.097514
102	Non-Adj Revenues, \$000	\$623.5
103	2018 TY Sales, MWh	1,017,968
	Final Tariffs submitted 4/17/2019, Docket No. 2017-0150, Exhibit 2, Att 1, p361	
104	Non-Adj Revenues, ¢/kWh	0.06125
105	Generation and Purchased Energy Factors	17.28068
106	ECR Reconciliation Adjustment	(1.158)
107	Non-Adjustable Component	0.061
108	Fossil Fuel Cost Risk Sharing Component	0.0072
109	ECR FACTOR, ¢/kWh (lines (105 + 106 + 107 + 108))	16.1911

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

Fuel Oil Inventory Prices for December 2019

<u>TYPE OF OIL BURNED</u>	<u>PRICES \$/BBL</u>	<u>CONVERSION FACTORS</u>		<u>PRICES ¢/MBTU</u>
INDUSTRIAL	52.3038	6.30	MBTU/BBL	830.22
DIESEL/ULSD	91.6410	5.86	MBTU/BBL	1,564.84

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

Month End Fuel Oil Estimate

<u>Kahului</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
11/18/2019	38,293.24	241,247.41	2,047,898.29
Estimated Use	16,397.51	103,304.30	927,173.37
Estimated Received	18,000.00	113,400.00	965,972.74
Estimated Additional	0.00	0.00	0.00
Estimated End	<u>39,895.73</u>	<u>251,343.11</u>	<u>2,086,697.66</u>

Next month's expense (\$/bbl) = \$ 52.3038

<u>Maalaea</u>	<u>Barrels</u>	<u>MBTU</u>	<u>(\$)</u>
11/18/2019	87,098.59	510,070.17	8,058,187.80
Estimated Use	43,756.13	256,246.33	4,072,413.31
Estimated Received	31,000.00	181,543.41	2,846,440.83
Estimated Additional	22,898.63	134,185.97	2,079,051.34
Estimated End	<u>97,241.10</u>	<u>569,553.22</u>	<u>8,911,266.66</u>

Next month's expense (\$/bbl) = \$ 91.6410

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

Contract Prices effective November 1, 2019

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
INDUSTRIAL		
Tax *	3.0760	48.83
Ocean Transportation	1.5710	24.94
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.4000	6.35
DIESEL		
Tax *	4.8912	83.48
Ocean Transportation	1.5710	26.81
Land Transportation	0.9694	16.54
Storage	2.9010	49.51
Wharfage	0.4000	6.83

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

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.
MAUI DIVISION**

PURCHASED POWER PRICE CALCULATIONS

KAHEAWA WIND POWER ENERGY RATE:

Kaheawa Wind - On Peak, ¢/kWh	13.783
- Off Peak, ¢/kWh	12.935

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 2019:

On-peak, ¢/kwh	10.261
Off-peak, ¢/kwh	9.050

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

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

On-Peak Rate = $10.2610 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 13.783 \text{ ¢/kwh}$

Off-Peak Rate = $9.05 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 12.935 \text{ ¢/kwh}$

MAUI ELECTRIC COMPANY, LTD.
Maui Division
ECR Reconciliation Adjustment
December 2019

1. Amount to be Refunded	(\$2,679,900)
2. Monthly amount (1 / 3 X Line 1)	(\$893,300)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$980,409)
5. Estimated Sales (December 2019)	84,676 mwh
6. Adjustment (Line 4 ÷ Line 5)	(1.158) ¢/kwh

MAUI ELECTRIC COMPANY, LTD.
MAUI DIVISION
2019 Cumulative Reconciliation Balance

Month	(1) YTD FOA Reconciliation	Qtr	(2) FOA Rec Adjust Variance	(3) FOA Rec Less Variance	(4) Try to Collect	(5) Actual Collect	(6) Month-end Cumulative Balance
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)		
December					(893,300)		

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		
	11/01/19	12/01/19	11/01/19	12/01/19	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 350 kWhr per month ¢/kWh	12.1240	12.1240	42.43	42.43	0.00
Next 850 kWhr per month ¢/kWh	14.3840	14.3840	21.58	21.58	0.00
Customer Charge \$	11.50	11.50	11.50	11.50	0.00
Total Base Charges			75.51	75.51	0.00
RBA Rate Adjustment ¢/kWh	0.8716	0.8716	4.36	4.36	0.00
PBF Surcharge ¢/kWh	0.4775	0.4775	2.39	2.39	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	0.00
Purchased Power Adjustment ¢/kWh	-0.0063	-0.0047	-0.03	-0.02	0.01
Energy Cost Recovery ¢/kWh	17.061	16.191	85.30	80.96	-4.34
Green Infrastructure Fee \$	1.17	1.17	1.17	1.17	0.00
Avg Residential Bill at 500 kwh			168.70	164.37	
			Increase (Decrease -)		-4.33
			% Change		-2.57%

	Rate		Charge (\$) at 600 Kwh		
	11/01/19	12/01/19	11/01/19	12/01/19	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 350 kWhr per month ¢/kWh	12.1240	12.1240	42.43	42.43	0.00
Next 850 kWhr per month ¢/kWh	14.3840	14.3840	35.96	35.96	0.00
Customer Charge \$	11.50	11.50	11.50	11.50	0.00
Total Base Charges			89.89	89.89	0.00
RBA Rate Adjustment ¢/kWh	0.8716	0.8716	5.23	5.23	0.00
PBF Surcharge ¢/kWh	0.4775	0.4775	2.87	2.87	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	0.00
Purchased Power Adjustment ¢/kWh	-0.0063	-0.0047	-0.04	-0.03	0.01
Energy Cost Recovery ¢/kWh	17.061	16.191	102.36	97.15	-5.21
Green Infrastructure Fee \$	1.17	1.17	1.17	1.17	0.00
Avg Residential Bill at 600 kwh			201.48	196.28	
			Increase (Decrease -)		-5.20
			% Change		-2.58%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH</u>		<u>RESIDENTIAL BILL (\$)</u>	
	<u>RESIDENTIAL & COMMERCIAL</u>		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
January 1, 2017	-7.659		146.59	175.55
February 1, 2017	-8.247		143.65	172.02
March 1, 2017	-7.314		148.32	177.61
April 1, 2017	-5.770		155.35	186.05
May 1, 2017	-7.998		144.79	173.38
June 1, 2017	-5.191		159.61	191.16
July 1, 2017	-5.635		157.32	188.42
August 1, 2017	-7.867		145.30	174.01
September 1, 2017	-9.278		138.19	165.47
October 1, 2017	-7.391		147.64	176.80
November 1, 2017	-5.305		158.18	189.46
December 1, 2017	-7.839		145.51	174.26
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

**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
04/01/13 - 04/30/13	SOLARSAVER ADJUSTMENT	-0.2053 CENTS/KWH
8/1/2013 - 5/31/19	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR)	
04/01/17 - 04/30/17	SOLARSAVER ADJUSTMENT	-0.1378 CENTS/KWH
05/01/17 - 3/31/18	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/17 - 05/31/17	PURCHASED POWER ADJUSTMENT	-0.0224 CENTS/KWH
06/01/17 - 06/30/17	PURCHASED POWER ADJUSTMENT	-0.0218 CENTS/KWH
6/1/2017 - 05/31/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.5654 CENTS/KWH
07/01/17 - 12/31/17	GREEN INFRASTRUCTURE FEE	1.18 DOLLARS/MONTH
07/01/17 - 07/31/17	PURCHASED POWER ADJUSTMENT	-0.0202 CENTS/KWH
07/01/17 - 06/30/18	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
08/01/17 - 08/31/17	PURCHASED POWER ADJUSTMENT	-0.0286 CENTS/KWH
08/17/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 CENTS/KWH
09/01/17 - 09/30/17	PURCHASED POWER ADJUSTMENT	-0.0307 CENTS/KWH
10/01/17 - 10/31/17	PURCHASED POWER ADJUSTMENT	-0.0275 CENTS/KWH
11/01/17 - 11/30/17	PURCHASED POWER ADJUSTMENT	-0.0058 CENTS/KWH
12/01/17 - 12/31/17	PURCHASED POWER ADJUSTMENT	-0.0054 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
05/01/19	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	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	RESID. PBF SURCHARGE ADJUSTMENT	0.4775 CENTS/KWH
07/01/19	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	PURCHASED POWER ADJUSTMENT	-0.0047 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**

