

FILED

September 26, 2018

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PUBLIC UTILITIES

COMMISSION

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 Adjustment Factor for October 2018

Maui Electric Company, Limited's ("Maui Electric" or "Company") October 2018 Energy Cost Adjustment factor for our Maui Division is -3.282 cents per kilowatt-hour ("kWh"), an increase of 0.163 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$174.90, an increase of \$0.84 compared to rates effective September 1, 2018. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor (+\$0.82) and Purchased Power Adjustment (+\$0.02).

The Company's Maui Division fuel composite cost of generation, central station and other increased 39.41 cents per million BTU to 1,583.49 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.500 cents per kWh to 19.147 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for October 2018 is -6.372 cents per kWh, an increase of 0.363 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$167.98, an increase of \$1.45 compared to rates effective September 1, 2018. The increase in the typical residential bill is due to the Energy Cost Adjustment factor.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 36.06 cents per million BTU to 2,107.38 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 Adjustment factor for our Moloka'i Division for October 2018 is -4.054 cents per kWh, a decrease of 0.611 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$162.63, a decrease of \$2.45 compared to rates effective September 1, 2018. The increase in the typical residential bill is due to the Energy Cost Adjustment factor.

The Honorable Chair and Members of the Hawai'i Public Utilities Commission September 26, 2018 Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 50.25 cents per million BTU to 1,833.69 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 October 1, 2018.

Sincerely,

Ahann M. Anglei

Sharon M. Suzuki President

Attachments

cc: Division of Consumer Advocacy

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIV	E DATES	
	<u>09-01-18</u>	<u>10-01-18</u>	<u>Change</u>
<u>COMPOSITE COSTS</u> Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh	1,883.94 0.00	1,833.69 0.00	(50.25) 0.00
Purchased Energy, ¢/kWh	21.80	21.80	0.00
Residential Schedule "R"			
Energy Cost Adjustment, ¢/kWh	(3.443)	(4.054)	(0.611)
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(3.443)	(4.054)	(0.611)
Residential Customer with			
400 KWH Consumption, \$/Bill	165.08	162.63	(2.45)
500 KWH Consumption, \$/Bill	205.53	202.48	(3.05)

Supersedes Sheet Effective: September 1, 2018

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - October 1, 2018 (page 1 of 2)

Line

1	Effective Date	October 1, 2018
	Lifective Date	October 1, 2010

2 Supercedes Factors September 1, 2018

GENERATION COMPONENT

	CENTRAL STATION		1
	FUEL PRICES, ¢/mmbtu		
3	Industrial	0.00	
4	Diesel	1,833.69	
5	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	<u>0.00</u>	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	1,833.69	
40	(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) Percent of	(D)	¢/kWh (Line 26 x 27) 0.00000
	Eff Factor Centrl Stn +	Weighted	29 Cost Less Base (Line 25 - 28) 0.00000
	Fuel Type mmbtu/kwh Other	Eff Factor	30 Loss Factor 1.095
11	Industrial 0.000000 0.00	0.000000	31 Revenue Tax Req Multiplier 1.095
12		0.000000	32 DG FACTOR,
13		0.000000	¢/kWh (Line 29 x 30 x 31) 0.00000
10	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)	0.000000	¢/
14	Weighted Efficiency Factor, mmbtu/kWh		
	[lines $11(D) + 12(D) + 13(D)$]	0.011194	
15	WEIGHTED COMPOSITE CENTRAL STATION	l +	
	OTHER GENERATION COST, ¢/kWh		
	(lines (9 x 10 x 14))	20.52317	
	DAGE OFNITDAL OTATION OTUGO		
16	BASE CENTRAL STATION + OTHER	0 4 4 4 5 7	
47	GENERATION COST, ¢/mmbtu	2,144.57	
	Base % Input to Sys kWh Mix	99.91	
	Efficiency Factor, mmbtu/kwh WEIGHTED BASE CENTRAL STATION + OTH	0.011194	
19	GENERATION COST ¢/kWh		
	(lines (16 x 17 x 18))	23.98471	
		20.00471	SUMMARY OF
20	COST LESS BASE (line(15 - 19))	(3.46154)	
	Revenue Tax Req Multiplier	1.0975	33 CNTRL STN + OTHER (line 22) -3.79904
	CENTRAL STATION + OTHER GENERATION		34 DG (line 32) 0.00000
	FACTOR, ¢/kWh (line (20 x 21))	(3.79904)	
		、 - <i>'</i>	¢/kWh (lines 33 + 34) -3.79904
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MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - October 1, 2018 (page 2 of 2)

Line

1	Effective Date	October 1, 2018
2	Supercedes Factors	September 1, 2018

Line	PURCHASED ENERGY COMPONENT	
20	PURCHASED ENERGY PRICE, ¢/kWh	04.000
36 37	FIT	21.800 0.000
57		0.000
38	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, %	
	FIT	100.00
40		0.00
41	Sch Q	0.000
		0.000
42	COMPOSITE COST OF PURCHASED	
	ENERGY, ¢/kWh	21.800
	(Lines (36 x 39) + (37 x 40) + (38 x 41))	
	% Input to System kWh Mix	0.02
44	WEIGHTED COMPOSITE PURCHASED ENER	GY 0.00336
	COST, ¢/kWh (lines (42 x 43))	0.00330
45	BASE PURCHASED ENERGY	
	COMPOSITE COST, ¢/kWh	21.800
46	Base % Input to Sys kWh Mix	0.09
47	WEIGHTED BASE PURCHASED ENERGY	
	COST, ¢/kWh (lines (45 x 46))	0.01962
48	COST LESS BASE (lines (44 - 47))	(0.01626)
	Loss Factor	1.095
	Revenue Tax Reg Multiplier	1.0975
	PURCHASED ENERGY FACTOR, ¢/kWh	(0.01954)
	(lines (48 x 49 x 50))	. ,

Line

SYSTEM COMPOSITE CALCULATIONS

52	GENERATION AND PURCHASE	ED ENERGY
	FACTOR, ¢/kWh	(3.81858)
	(lines (35 + 51))	
53	Adjustment, ¢/kWh	0.000
54	ECA Reconciliation Adjustment	(0.235)

- 55 ECA FACTOR, ¢/kWh(4.054)
 - (lines (52 + 53 + 54))

Maui Electric Company, Ltd. Molokai Division

MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
9/18/2018	3,770.38	21,604.28	432,807.79
Estimated Use	1,883.00	10,789.59	203,268.91
Estimated Received	5,800.00	33,234.00	578,179.10
Estimated Additional	-	-	-
Estimated End	7,687.38	44,048.69	807,717.98

Next Months Expense = \$ 105.0706 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	Price	Conversion Factor	Prices ¢/MBTU
Diesel	\$ 105.0706	5.73 BTU/BBL	1833.69

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

Contract Prices effective September 1, 2018

TYPE OF OIL BURNED	\$/BBL	¢/MBTU
ULTRA LOW SULFUR DIESE	L	
Tax *	2.1861	38.15
Ocean Transportation	1.6519	28.83
Storage	4.8063	83.88
Wharfage	0.2900	5.06

- * 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 ECA Reconciliation Adjustment

October 2018

1. Amount to be refunded	(\$15,400)
2. Monthly amount (1/3 x Line 1)	(\$5,133)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$5,634)
5. Estimated Sales (October 2018)	2,396 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.235 ¢/kwh

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION 2018 Cumulative Reconciliation Balance

<u>Month</u>	(1) YTD FOA <u>Reconciliation</u>	<u>Qtr</u>	(2) FOA Rec Adjust <u>Variance</u>	(3) FOA Rec Less <u>Variance</u>	(4) Try to <u>Collect</u>	(5) Actual <u>Collect</u>	(6) Month-end Cumulative <u>Balance</u>
December '17 January '18 February March April	10,400	(4)	-	10,400	(533) (533) (3,467) (3,467) (3,467)	(534) (550) (3,397) (3,553) (3,687)	528 (22) 6,981 3,428 (259)
April May June July	4,000	(1)	(33)	4,033	(1,333) (1,333) (1,333)	(3,887) (1,344) (1,426) (1,444)	(239) 2,430 1,004 (440)
August September October	15,400	(2)	(324)	15,724	(5,133) (5,133) (5,133)	(5,673)	9,611
NOTES:							
Col(1):	Quarterly FOA r			`	,	a undar collo	otion
Col(2):	A positive numb FOA reconciliation	on adju	stment variar	nce accumulat		last three mo	onths,

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			
		09-01-18	10-01-18		
Base Rates	effective date:	08/01/13	08/01/13		
Base Fuel/Energy Charge	¢/kWh	26.3468	26.3468		
Non-fuel Fuel Energy Charge					
First 250 kWhr per month	¢/kWh	11.4278	11.4278		
Next 500 kWhr per month	¢/kWh	14.0778	14.0778		
Customer Charge	\$	8.50	8.50		
Total Base Charges	Ť				
IRP Refund	% on base	0.000	0.000		
Revenue Balancing Rate Adjustment	¢/kWh	0.3183	0.3183		
PBF Surcharge	¢/kWh	0.4658	0.4658		
Renewable Energy Infrastructure Cost					
Recovery Provision	¢/kWh	0.0000	0.0000		
SolarSaver Adjustment	¢/kWh	0.0000	0.0000		
Interim Rate Increase (Test Year 2018)	% on base	6.68	6.68		
Energy Cost Adjustment	¢/kWh	-3.443	-4.054		
Green Infrastructure Fee	\$	1.21	1.21		

Avg Residential Bill at 400 kwh

Avg Residential Bill at 500 kwh

Charge (\$) at 400 Kwh			
09-01-18	10-01-18		
105.39	105.39	0.00	
28.57	28.57	0.00	
21.12	21.12	0.00	
8.50	8.50	0.00	
163.58	163.58	0.00	
0.00	0.00	0.00	
1.27	1.27	0.00	
1.86	1.86	0.00	
0.00	0.00	0.00	
0.00	0.00	0.00	
10.93	10.93	0.00	
-13.77	-16.22	-2.45	
1.21	1.21	0.00	
165.08	162.63		

Increase (Decrease -) % Change

-2.45 -1.48%

		Rate		
		09-01-18	10-01-18	
Base Rates	effective date:	08/01/13	08/01/13	
Base Fuel/Energy Charge	¢/kWh	26.3468	26.3468	
Non-fuel Fuel Energy Charge				
First 250 kWhr per month	¢/kWh	11.4278	11.4278	
Next 500 kWhr per month	¢/kWh	14.0778	14.0778	
Customer Charge	\$	8.50	8.50	
Total Base Charges				
IRP Refund	% on base	0.000	0.000	
Revenue Balancing Rate Adjustment	¢/kWh	0.3183	0.3183	
PBF Surcharge	¢/kWh	0.4658	0.4658	
Renewable Energy Infrastructure Cost				
Recovery Provision	¢/kWh	0.0000	0.0000	
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	
Interim Rate Increase (Test Year 2018)	% on base	6.68	6.68	
Energy Cost Adjustment	¢/kWh	-3.443	-4.054	
Green Infrastructure Fee	\$	1.21	1.21	

09-01-18	10-01-18	Difference
131.73	131.73	0.00
28.57	28.57	0.00
35.19	35.19	0.00
8.50	8.50	0.00
203.99	203.99	0.00
0.00	0.00	0.00
1.59	1.59	0.00
2.33	2.33	0.00
0.00	0.00	0.00
0.00	0.00	0.00
13.63	13.63	0.00
-17.22	-20.27	-3.05
1.21	1.21	0.00
205.53	202.48	

Charge (\$) at 500 Kwh

Increase (Decrease -)

% Change

-3.05 -1.48%

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

EFFECTIVE DATE	FUEL FACTOR CENTS / KWH RESIDENTIAL & <u>COMMERCIAL</u>	RESIDENTIA @ 400 KWH @	L BILL (\$) 2 500 KWH
January 1, 2016	-9.942	133.44	165.99
February 1, 2016	-11.270	128.13	159.35
March 1, 2016	-12.649	122.61	152.45
April 1, 2016	-13.391	118.92	147.82
May 1, 2016	-13.226	120.31	149.57
June 1, 2016	-13.376	118.95	147.87
July 1, 2016	-12.675	122.03	151.76
August 1, 2016	-9.906	133.11	165.61
September 1, 2016	-9.794	133.55	166.17
October 1, 2016	-11.131	128.21	159.48
November 1, 2016	-9.970	132.85	165.29
December 1, 2016	-9.244	135.75	168.92
January 1, 2017	-8.940	137.11	170.58
February 1, 2017	-8.792	137.70	171.32
March 1, 2017	-8.066	140.61	174.95
April 1, 2017	-8.432	138.59	172.43
May 1, 2017	-8.851	137.47	171.02
June 1, 2017	-8.516	139.44	173.49
July 1, 2017	-8.482	138.83	172.76
August 1, 2017	-9.670	134.08	166.82
September 1, 2017	-10.692	129.95	161.66
October 1, 2017	-9.093	136.35	169.65
November 1, 2017	-4.912	153.07	190.56
December 1, 2017	-5.591	150.36	187.16
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

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	ESCRIPTION OF SURCHARGE RATE	
06/01/11 08/01/13	IRP RECOVERY REFUND FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (201		PERCENT ON BASE
01/01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE		DOLLARS/MONTH
03/01/16 - 02/28/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0099	CENTS/KWH
04/01/16 - 04/30/16	SOLARSAVER ADJUSTMENT	-0.1835	CENTS/KWH
05/01/16 - 03/31/17	SOLARSAVER ADJUSTMENT		CENTS/KWH
06/01/16 - 05/31/17	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.4082	CENTS/KWH
07/01/16 - 06/30/17	RESID. PBF SURCHARGE ADJUSTMENT	0.5865	CENTS/KWH
07/01/16 - 12/31/16	GREEN INFRASTRUCTURE FEE	1.13	DOLLARS/MONTH
01/01/17 - 06/30/17	GREEN INFRASTRUCTURE FEE	1.27	DOLLARS/MONTH
03/01/17 - 08/16/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0098	CENTS/KWH
04/01/17 - 04/30/17	SOLARSAVER ADJUSTMENT	-0.1378	CENTS/KWH
05/01/17 - 03/31/18	SOLARSAVER ADJUSTMENT	0.0000	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
08/17/17		0.0000	CENTS/KWH
07/01/17 - 06/30/18	RECOVERY PROVISION 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	SOLARSAVER ADJUSTMENT	0.0000	CENTS/KWH
06/01/18 - 08/22/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.8954	CENTS/KWH
07/01/18	RESID. PBF SURCHARGE ADJUSTMENT	0.4658	CENTS/KWH
07/01/18	GREEN INFRASTRUCTURE FEE	1.21	DOLLARS/MONTH
08/23/18	INTERIM RATE INCREASE 2018 TEST YEAR	6.68	PERCENT ON BASE
08/23/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3183	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.