

August 28, 2019

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## 2019 AUG 28 P 3: 22

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 Recovery Factor for September 2019

Maui Electric Company, Limited's ("Maui Electric" or "Company") September 2019 Energy Cost Recovery factor for our Maui Division is 18.068 cents per kilowatt-hour ("kWh"), an increase of 15.130 cents per kWh from last month. The Energy Cost Recovery Factor includes recovery of base fuel beginning September 1, 2019. A residential customer consuming 500 kWh of electricity will be paying \$173.77, a decrease of \$4.25 compared to rates effective August 1, 2019. The decrease in the typical residential bill is due to the termination of the base fuel energy charge (-\$79.89) from the implementation of the Energy Cost Recovery Factor, decrease in the Purchase Power Adjustment (-\$0.01), partially offset by the implementation of the Energy Cost Recovery Factor (+\$75.65).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 8.06 cents per million BTU to 1,420.47 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.188 cents per kWh to 19.514 cents per kWh.

The Energy Cost Recovery factor for our Lāna'i Division for September 2019 is 24.278 cents per kWh, an increase of 21.046 cents per kWh from last month. The Energy Cost Recovery Factor includes recovery of base fuel beginning September 1, 2019. A residential customer consuming 400 kWh of electricity will be paying \$168.18, a decrease of \$3.66 compared to rates effective August 1, 2019. The decrease in the typical residential bill is due to the termination of the base fuel energy charge (-\$87.84) from the implementation of the Energy Cost Recovery Factor, partially offset by the implementation of the Energy Cost Recovery factor (+\$84.18).

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 76.72 cents per million BTU to 1,945.33 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 Honorable Chair and Members of the Hawai'i Public Utilities Commission August 28, 2019 Page 2

The Energy Cost Recovery factor for our Moloka'i Division for September 2019 is 19.349 cents per kWh, an increase of 17.090 cents per kWh from last month. The Energy Cost Recovery Factor includes recovery of base fuel beginning September 1, 2019. A residential customer consuming 400 kWh of electricity will be paying \$152.49, a decrease of \$2.51 compared to rates effective August 1, 2019. The decrease in the typical residential bill is due to the termination of the base fuel energy charge (-\$70.75) from the implementation of the Energy Cost Recovery Factor, decrease in the Purchase Power Adjustment (-\$0.12), partially offset by the implementation of the Energy Cost Recovery Factor (+\$68.36).

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 47.46 cents per million BTU to 1,635.74 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 September 1, 2019.

Sincerely,

Shain m. Agale Sharon M. Suzuki

Sharon M. Suzu President

Attachments

cc: Division of Consumer Advocacy

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

## ENERGY COST RECOVERY FACTOR

	EFFECTIV	/E DATES		
	<u>08-01-19</u>	<u>09-01-19</u>	<u>Change</u>	
<u>COMPOSITE COSTS</u> Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,683.20 0.00 21.80	1,635.74 0.00 21.80	(47.46) 0.00 0.00	
Residential Schedule "R"				
Energy Cost Recovery, ¢/kWh	2.259	19.349	17.090	
<u>Others - "G,P,F"</u>				
Energy Cost Recovery, ¢/kWh	2.259	19.349	17.090	
Residential Customer with				
400 KWH Consumption, \$/Bill 500 KWH Consumption, \$/Bill	155.00 192.25	152.49 189.11	(2.51) (3.14)	

Supersedes Sheet Effective:	August 1, 2019
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## MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION ENERGY COST RECOVERY (ECR) FILING

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

#### Line

- 1 Effective Date September 1, 2019
- 2 Supercedes Factors August 1, 2019

## **GENERATION COMPONENT**

FUEL PRICES, e/mmbu           3 industrial         0.00           4 Diesel         1,635.74           5 Other         0.00           BTU MX, %         0.00           6 industrial         0.00           8 Other         0.00           8 Other         0.00           8 Other         0.00           9 COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER e/mmbu         1,635.74           (Lines (3 x 6) + (4 x 7) + (5 x 8))         1,635.74           10 % Input to System kWh Mix         99.88           EFFICIENCY FACTOR, mmbu/kWh         26 BASE DG ENERGY COMP COST           (A) (B) (C) (D)         Percent of           Percent of         1.0000           11 Industrial         0.00000           12 Diesel         0.011127           13 Other         0.011127           13 Other         0.011127           14 Industrial         0.00000           (Lines 11, 12, 13): Col(B) × Col(C) = Col(D)           14 Weighted Efficiency Factor, mmbu/wh         0.011127           15 WEIGHTED COMPOSITE CENTRAL STATION +           16 BASE CENTRAL STATION + OTHER           GENERATION COST, e/mmbu         0.001127           16 BASE CENTRAL STATION + OTHER           GENERAT		CENTRAL STATION		
4         Diesel         1,635.74           5         Other         0.00           BTU MIX, %         DG ENERGY_COMPONENT           6         Industrial         0.00           7         Diesel         100.00           8         Other         0.00           9         COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmblu         1,635.74           (Lines (3 x 6) + (4 x 7) + (5 x 8))         1,635.74           10         % Input to System kWh Mix         9.98           EFFICIENCY FACTOR, mmblu/kWh         (C)         (D)           Factor         Centri Stn + Weighted           Fuel Type mmblu/kwh         0.00         0.00000           11         Industrial         0.00000         29 Cost Less Base (Line 25 - 28)         0.00000           21         Diesel         0.011127         0.00         0.00000         29 Cost Less Base (Line 25 - 28)         0.00000           11         Industrial         0.00000         0.00000         20 Cost Set Set Set Contract Station + Weighted         1.0975           12         Diesel         0.011127         0.00000         0.00000         20 Set Set Set Set Contract Station + Other Efficator         e/kWh (Line 29 x 30 x 31)         0.000000           14		FUEL PRICES, ¢/mmbtu		
5 Other         0.00           BTU MIX, %         0.00           6 Industrial         0.00           7 Diesel         100.00           8 Other         0.00           9 COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbu         1,635,74           (Lines (3 x 6) + (4 x 7) + (5 x 8))         1,635,74           10 % Input to System kWh Mix         99,98           EFFICIENCY FACTOR, mmbtu/kWh         26 BASE DG ENERGY COMP COST         0.000           28 WEIGHTED BASE DG ENERGY COST, (A) (B) (C) (D) Percent of         28 WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27)         0.00000           10 Industrial         0.00000         0.00         0.00003         20 cost Less Base (Line 25 - 28)         0.00000           11 Industrial         0.00000         0.00         0.00000         30 Loss Factor         1.098           11 Industrial         0.00000         0.00         0.00000         30 Loss Factor         1.0975           12 Diesel         0.011127         10.00         0.011127         0.00000           14 Weighted Efficiency Factor, mmbtu/kWh (lines (9 x 10 x 14))         18.19792         16 BASE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (14 x 17 x 18))         0.00000           10         VEIGHTED DASE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines 21)	3	Industrial	0.00	
BTU MIX, %         DG ENERGY_COMPONENT           6 Industrial         0.00           7 Diesel         100.00           8 Other         0.00           9 COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu         1.635.74           (Lines (3 × 6) + (4 × 7) + (5 × 8))         1.655.74           10 % Input to System kWh Mix         99.98           EFFICIENCY FACTOR, mmbtu/kWh         26 BASE DG ENERGY COMP COST         0.000           27 Base % Input to System kWh Mix         0.00           10 % Input to System kWh Mix         99.98           EFFICIENCY FACTOR, mmbtu/kWh         26 BASE DG ENERGY COMP COST         0.000           (A) (B) (C) (D)         Percent of           Eucl Type mmbtu/kwh         Other         Eff Eactor           11 Industrial         0.00000         0.00         0.000000           (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)         1.0975         32 DG FACTOR,           12 Diesel         0.011127         0.00         0.000000           (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)         0.011127         0.000000           14 Weighted Efficiency Factor, mmbtu/kWh         (Line 29 x 30 x 31)         0.000000           15 WEIGHTED DASE CENTRAL STATION + OTHER         GENERATION COST, ¢/kWh         0.00000	4		1,635.74	
6         Industrial         0.00           7         Diesel         100.00           8         Other         0.00           9         COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu         1,635.74           (Lines (3 × 6) + (4 × 7) + (5 × 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           28         WEIGHTED BASE DG ENERGY COMP COST         0.0000           27         Base % Input to System kWh Mix         0.00           28         WEIGHTED BASE DG ENERGY COMP COST         0.0000           29         Cost Less Base (Line 25 - 28)         0.00000           30         Loss Factor         1.098           11         Industrial         0.000000         0.00         0.000000           11         Industrial         0.000000         0.0000000         0.000000           11         Industrial         0.000000         0.000000         0.000000           11         Industrial         0.000000         0.000000         0.000000           11         Industrial         0.0011127         0.000000         0.000000	5	Other	0.00	
6         Industrial         0.00           7         Diesel         100.00           8         Other         0.00           9         COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu         1,635.74           (Lines (3 × 6) + (4 × 7) + (5 × 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           28         WEIGHTED BASE DG ENERGY COMP COST         0.0000           27         Base % Input to System kWh Mix         0.00           28         WEIGHTED BASE DG ENERGY COMP COST         0.0000           29         Cost Less Base (Line 25 - 28)         0.00000           30         Loss Factor         1.098           11         Industrial         0.000000         0.00         0.000000           11         Industrial         0.000000         0.0000000         0.000000           11         Industrial         0.000000         0.000000         0.000000           11         Industrial         0.000000         0.000000         0.000000           11         Industrial         0.0011127         0.000000         0.000000		RTILMIX %		
7       Diesel       100.00         8       Other       0.00         9       COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER #/mmbtu       1,635.74         (Lines (3 × 6) + (4 × 7) + (5 × 8))       25         10       % Input to System kWh Mix       99.98         26       BASE DG ENERGY COMP COST       0.0000         27       Base % Input to System kWh Mix       0.00         20       Percent of       Eff-ICIENCY FACTOR, mmbtu/kWh       26         (A)       (B)       (C)       (D)         Percent of       Eff-Factor       Centr Stn +       Weighted         Euel Type       mmbtu/kwh       Other       1.098         11       Industrial       0.000000       0.00       0.000000         12       Diesel       0.011127       0.00       0.011127         13       Other       0.011127       0.00       0.000000         14       Weighted Efficiency Factor, mmbtu/kWh       [lines 11, 12, 13): Col(B) × Col(C) = Col(D)       29       Cost Less Base (Line 25 - 28)       0.00000         14       Weighted Efficiency Factor, mmbtu/kWh       [lines 11, 12, 13): Col(B) × Col(C) = Col(D)       0.011127       32       DG FACTOR,       #kWh (Line 29 x 30 x 31)       0.00000 </td <td>6</td> <td>-</td> <td>0.00</td> <td></td>	6	-	0.00	
8         Other         0.00 100.00           9         COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu         1,635.74 (Lines (3 x 6) + (4 x 7) + (5 x 8))         25         WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24)         0.00000           10         % Input to System kWh Mix         99.98         26         BASE DG ENERGY COMP COST         0.000           10         % Input to System kWh Mix         99.98         26         BASE DG ENERGY COMP COST         0.000           10         % Input to System kWh Mix         0.00         28         WEIGHTED BASE DG ENERGY COMP COST         0.000           10         % Input to System kWh Mix         0.00         28         WEIGHTED BASE DG ENERGY COMP COST         0.000           10         % Input to System kWh Mix         0.00         29         Cost Less Base (Line 25 - 28)         0.00000           29         Cost Less Base (Line 25 - 28)         0.00000         30         Loss Factor         1.098           11         Industrial         0.001127         0.00         0.0011127         32         DG FACTOR,         1.0975           12         Diesel         0.011127         0.00         0.011127         1.027         1.027         1.027           14         Weighted Efficiency Factor, mmbtu/kWh <td>Ū</td> <td></td> <td></td> <td></td>	Ū			
100.00         25 WEIGHTED COMPOSITE DG ENERGY COST, e/kWh (Lines 23 x 24)         0.00000           CENTRAL STATION + OTHER e/mmbtu         1,635.74         (Lines (3 x 6) + (4 x 7) + (5 x 8))         26 BASE DG ENERGY COMP COST         0.000           10 % Input to System kWh Mix         99.98         26 BASE DG ENERGY COMP COST         0.000           EFFICIENCY FACTOR, mmbtu/kWh         (A)         (B)         (C)         (D)           Percent of         Eff Factor         Centrl Stn +         Weighted           11 Industrial         0.00000         0.00         0.00000         30 Loss Factor         1.098           12 Diesel         0.011127         100.00         0.011127         32 DG FACTOR,         32 DG FACTOR,           13 Other         0.011127         100.00         0.000000         (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)         4Weighted Efficiency Factor, mmbtu/kWh         (Line 29 x 30 x 31)         0.00000           14 Weighted Efficiency Factor, mmbtu/kWh         0.011127         0.0011127         0.0011127         0.00         0.0011127           15 WEIGHTED COMPOSITE CENTRAL STATION + OTHER         GENERATION COST, e/kWh         0.011127         0.00000         0.00000           17 Base % Input to Sys kWh Mix         0.001         0.001127         0.00000         0.00000         0.00000	-			
9       COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu       1,635.74 (Lines (3 x 6) + (4 x 7) + (5 x 8))         10       % Input to System kWh Mix       99.98         26       BASE DG ENERGY COMP COST       0.0000         27       Base % Input to System kWh Mix       0.00000         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         11       Industrial       0.00000       0.000000         12       Diesel       0.011127       10.00       0.000000         12       Diesel       0.011127       0.00       0.000000         13       Other       0.011127       0.00       0.000000         14       Weighted Efficiency Factor, mmbtu/kWh       [ines 11, 12, 13): Col(B) x Col(C) = Col(D)       14       Weighted Efficiency Factor, mmbtu/kWh       [ines 19 x 30 x 31)       0.00000         15       WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh       0.0011127       0.00       0.011127         16       BASE CENTRAL STATION + OTHER       0.011127       0.00       0.00000       0.011127         17       Base % Input to SyskWh Mix       0.00       0.00000	_			
CENTRAL STATION + OTHER ¢/mmbtu         1,635.74 (Lines (3 x 6) + (4 x 7) + (5 x 8))           10 % Input to System kWh Mix         99.98           26 BASE DG ENERGY COMP COST         0.000           EFFICIENCY FACTOR, mmbtu/kWh         0.0           (A)         (B)         (C)         (D)           Percent of         Eff Factor         Centrl Stn +         Weighted           Eucl Type         mmbtu/kwh         Other         1.098           11         Industrial         0.00000         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         18.19792           16         BASE CENTRAL STATION + OTHER         GENERATION COST, ¢/kWh         0.00         0.00000           17         Base % Input to Sys kWh Mix         0.00         0.00000         0.00000           18         Efficiency Factor, mmbtu/kwh         0.011127         0.00000           19         WEIGHTED COMPOSITE CENTRAL STATION + OTHER         GENERATION COST, ¢/kWh         0.00000           18         Efficiency Factor, mmbtu/kwh         0.011127 </td <td></td> <td></td> <td></td> <td>25 WEIGHTED COMPOSITE DG ENERGY COST,</td>				25 WEIGHTED COMPOSITE DG ENERGY COST,
(Lines (3 x 6) + (4 x 7) + (5 x 8))         10 % Input to System kWh Mix       99.98         EFFICIENCY FACTOR, mmbtu/kWh       26 BASE DG ENERGY COMP COST       0.000         EFFICIENCY FACTOR, mmbtu/kWh       (b)       (C)       (D)         Percent of       Eff Factor       Centrl Stn +       Weighted         EuelType mmbtu/kwh       Other       Eff Eactor       29 Cost Less Base (Line 25 - 28)       0.00000         11 Industrial       0.000000       0.00       0.0011127       10.98       31 Revenue Tax Req Multiplier       1.0975         12 Diesel       0.011127       100.00       0.011127       32 DG FACTOR,       26 Cost Less Base (Line 25 - 28)       0.00000         14 Weighted Efficiency Factor, mmbtu/kWh       Eines 11, 12, 13): Col(B) x Col(C) = Col(D)       29 Cost Less Dase (Line 29 x 30 x 31)       0.00000         14 Weighted Efficiency Factor, mmbtu/kWh       0.011127       6 kWh (Line 29 x 30 x 31)       0.00000         15 WEIGHTED COMPOSITE CENTRAL STATION +       0.011127       6 kWh (Line 29 x 30 x 31)       0.00000         16 BASE CENTRAL STATION + OTHER       GENERATION COST, g/kWh       0.0011127       5 kUMMARY OF       0.00000         18 Efficiency Factor, mmbu/kwh       0.011127       18 uMARY OF       TOTAL GENERATION FACTOR, g/kWh       33 CNTRL STN + OTHER (line 22)       <	9	COMPOSITE COST OF GENERATION,		¢/kWh (Lines 23 x 24) 0.00000
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         27       Base % Input to System kWh Mix       0.00         28       WEIGHTED BASE DG ENERGY COST,       0.00000         28       WEIGHTED BASE Line 25 - 28       0.00000         11       Industrial       0.000000       0.00       0.000000         12       Diesel       0.011127       100.00       0.011127         13       Other       0.01127       0.00       0.000000         (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)       14       Weighted Efficiency Factor, mmbtu/kWh       1.0975         14       Weighted Efficiency Factor, mmbtu/kWh       0.011127       32 DG FACTOR,       \$29 Cost Less Base (Line 29 x 30 x 31)       0.00000         14       Weighted Efficiency Factor, mmbtu/kWh       0.011127       32 DG FACTOR,       \$26 KWh (Line 29 x 30 x 31)       0.00000         15       WEIGHTED COMPOSITE CENTRAL STATION +       0.011127       15       \$26 Sentral Station + OTHER       \$27 Sentral Station + OTHER       \$28 Sentral Station + OTHER       \$28 Sentral Station + OTHER         16       BASE CENTRAL STATION + OTHER       \$29 Cost Less BASE (line (15 - 19))       18.		CENTRAL STATION + OTHER ¢/mmbtu	1,635.74	
EFFICIENCY FACTOR, mmbtu/kWh       27 Base % Input to System kWh Mix       0.00         EFFICIENCY FACTOR, mmbtu/kWh       (C)       (D)         Percent of       Eff Factor       Centrl Stn +       Weighted         Euel Type       mmbtu/kwh       Other       Eff Eactor       Centrl Stn +         11       Industrial       0.000000       0.00       0.000000         12       Diesel       0.011127       10.00       0.011127         13       Other       0.011127       0.00       0.000000         (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)       32 DG FACTOR,       #Wh (Line 29 x 30 x 31)       0.00000         14       Weighted Efficiency Factor, mmbtu/kWh       0.011127       #Wh (Line 29 x 30 x 31)       0.00000         15       WEIGHTED COMPOSITE CENTRAL STATION +       0.011127       #Wh (Line 29 x 30 x 31)       0.00000         16       BASE CENTRAL STATION + OTHER       GENERATION COST, #/kWh       0.001127       #Wh (Line 29 x 30 x 31)       0.00000         17       Base % Input to Sys kWh Mix       0.00       0.00000       0.011127         18       BASE CENTRAL STATION + OTHER       GENERATION COST, #/kWh       0.011127         19       WEIGHTED BASE CENTRAL STATION + OTHER       GENERATION COST #/kWh       0.0000		(Lines (3 x 6) + (4 x 7) + (5 x 8))		
EFFICIENCY FACTOR, mmbtu/kWh       28 WEIGHTED BASE DG ENERGY COST, (A) (B) (C) (D) Percent of Eff Factor Centrl Stn + Weighted Fuel Type mmbtu/kwh Other Eff Factor 1.098 30 Loss Factor 1.098 31 Revenue Tax Req Multiplier 1.0975 32 DFACTOR, (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)         14 Weighted Efficiency Factor, mmbtu/kWh [lines 11, 12, 13): Col(B) x Col(C) = Col(D)         14 Weighted Efficiency Factor, mmbtu/kWh [lines 11, 12, 13): Col(B) x Col(C) = Col(D)         15 WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))       0.011127         16 BASE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (16 x 17 x 18))       0.00000         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         17 Revenue Tax Req Multiplier       1.0975         20 COST LESS BASE (line(15 - 19))       18.19792         21 Revenue Tax Req Multiplier       1.0975         22 CENTRAL STATION + OTHER GENERATION       1.0975         23 CNTRL STN + OTHER (line 22)       19.97222         24 COST LESS BASE (line(15 - 19))       18.19792         25 COST LESS BASE (line(15 - 19))       18.19792         26 COST LESS BASE (line(15 - 19))       18.19792         27 Revenue Tax Req Multiplier       1.0975         28 CENTRAL STATION + OTHER GENERAT	10	% Input to System kWh Mix	99.98	26 BASE DG ENERGY COMP COST 0.000
(A)       (B)       (C)       (D)       \$\end{v}\$/kWh (Line 26 x 27)\$       0.00000         Percent of       Eff Factor       Centrl Stn +       Weighted       29 Cost Less Base (Line 25 - 28)       0.00000         11       Industrial       0.000000       0.00       0.000000       30 Loss Factor       1.098         12       Diesel       0.011127       100.00       0.000000       \$20 Cost Less Base (Line 25 - 28)       0.000000         12       Diesel       0.011127       100.00       0.000000       \$20 Cost Less Base (Line 25 - 28)       0.000000         12       Diesel       0.011127       100.00       0.000000       \$20 Cost Less Base (Line 25 - 28)       0.000000         13       Other       0.011127       0.00       0.000000       \$20 Cost Less Base (Line 25 - 28)       0.00000         14       Weighted Efficiency Factor, mmbtu/kWh       [lines 11(D) + 12(D) + 13(D)]       0.011127       32 DG FACTOR,       0.00000         15       WEIGHTED COMPOSITE CENTRAL STATION +       OTHER       GENERATION COST, \$\end{v}\$kWh       0.001         16       BASE CENTRAL STATION + OTHER       0.0011127       0.00000       SUMMARY OF       TOTAL GENERATION FACTOR, \$\end{v}\$kWh         18       Efficiency Factor, mmbtu/kwh       0.00000				27 Base % Input to System kWh Mix 0.00
Percent of         Eff Factor         Centrl Stn +         Weighted           Euel Type         mmbtu/kwh         Other         Eff Eactor         30 closs Factor         1.098           11         Industrial         0.00000         0.00         0.0010000         31 Revenue Tax Req Multiplier         1.0975           12         Diesel         0.011127         100.00         0.0010000         29 Cost Less Base (Line 25 - 28)         0.00000           11         Industrial         0.000000         0.0010127         31 Revenue Tax Req Multiplier         1.0975           12         Diesel         0.011127         0.00         0.001000         #evenue Tax Req Multiplier         1.0975           13         Other         0.011127         0.00         0.0011127         32 DG FACTOR,         #evenue Tax Req Multiplier         1.0975           14         Weighted Efficiency Factor, mmbtu/kWh         [lines 11(D) + 12(D) + 13(D)]         0.011127         #evenue Tax Req Multiplier         0.00000           15         WEIGHTED COMPOSITE CENTRAL STATION + 0THER         GENERATION COST, ¢/kWh         0.0011127           16         BASE CENTRAL STATION + OTHER         0.0011127         0.00000         SUMMARY OF           17         Base % Input to Sys kWh Mix         0.00 <td< td=""><td></td><td></td><td></td><td>28 WEIGHTED BASE DG ENERGY COST,</td></td<>				28 WEIGHTED BASE DG ENERGY COST,
Eff Factor         Centrl Stn +         Weighted         29 Cost Less Base (Line 25 - 28)         0.00000           11         Industrial         0.000000         0.00         0.000000         30 Loss Factor         1.098           11         Industrial         0.0001127         100.00         0.011127         32 DG FACTOR,         32 DG FACTOR,           13         Other         0.011127         100.00         0.00000         ¢/kWh (Line 29 x 30 x 31)         0.00000           (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)         4         Weighted Efficiency Factor, mmbtu/kWh         0.011127         0.0011127           14         Weighted Efficiency Factor, mmbtu/kWh         0.011127         0.011127         0.00000           15         WEIGHTED COMPOSITE CENTRAL STATION +         0.011127         0.00000         0.00000           16         BASE CENTRAL STATION + OTHER         GENERATION COST, ¢/kWh         0.001127         0.00000           18         Efficiency Factor, mmbtu/kwh         0.011127         0.00000         SUMMARY OF           19         WEIGHTED BASE CENTRAL STATION + OTHER         GENERATION COST ¢/kWh         0.00000           18         Efficiency Factor, mmbtu/kwh         0.00000         SUMMARY OF           20         COST LESS BASE (line(15 - 19)) <td></td> <td></td> <td>(D)</td> <td>¢/kWh (Line 26 x 27) 0.00000</td>			(D)	¢/kWh (Line 26 x 27) 0.00000
Euel Type         mmbtu/kwh         Other         Eff Eactor         30 Loss Factor         1.098           11         Industrial         0.000000         0.00         0.000000         31 Revenue Tax Req Multiplier         1.0975           12         Diesel         0.011127         100.00         0.011127         32 DG FACTOR,         32 DG FACTOR,           13         Other         0.011127         0.00         0.000000         ¢/kWh (Line 29 x 30 x 31)         0.000000           14         Weighted Efficiency Factor, mmbtu/kWh         [ines 11(D) + 12(D) + 13(D)]         0.011127         0.00         0.00000           15         WEIGHTED COMPOSITE CENTRAL STATION +         OTHER GENERATION COST, ¢/kWh         0.00         0.00           16         BASE CENTRAL STATION + OTHER         0.00         0.00         0.011127           19         WEIGHTED BASE CENTRAL STATION + OTHER         0.00         0.00000           18         Efficiency Factor, mmbtu/kwh         0.011127         0.00000           19         WEIGHTED BASE CENTRAL STATION + OTHER         GENERATION COST ¢/kWh         0.00000           20         COST LESS BASE (line(15 - 19))         18.19792         33 CNTRL STN + OTHER (line 22)         19.97222           22         CENTRAL STATION + OTHER GENERATIO				
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)       (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))       18.19792         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       0.0011127         19       WEIGHTED BASE CENTRAL STATION + OTHER         GENERATION COST ¢/kWh       0.00000         12       Revenue Tax Req Multiplier       1.0975         20       COST LESS BASE (line(15 - 19))       18.19792         21       Revenue Tax Req Multiplier       1.0975         22       CENTRAL STATION + OTHER GENERATION       33 CNTRL STN + OTHER (line 22)			•	
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)       4       Weighted Efficiency Factor, mmbtu/kWh       (Lines 11, 12, 13): Col(B) x Col(C) = Col(D)         14       Weighted Efficiency Factor, mmbtu/kWh       0.011127       0.011127         15       WEIGHTED COMPOSITE CENTRAL STATION +       0.011127         16       BASE CENTRAL STATION + OTHER       0.000         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))       18.19792         21       Revenue Tax Req Multiplier       1.0975         22       CENTRAL STATION + OTHER GENERATION       33 CNTRL STN + OTHER (line 22)       19.97222         22       CENTRAL STATION + OTHER GENERATION       34 DG (line 32)       0.00000		, , , , , , , , , , , , , , , , , , ,		
13       Other       0.011127       0.00       0.000000       ¢/kWh (Line 29 x 30 x 31)       0.00000         (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))       18.19792         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       0.001000         18       Efficiency Factor, mmbtu/kwh       0.00000         20       COST LESS BASE (line(15 - 19))       18.19792         21       Revenue Tax Req Multiplier       1.0975         22       CENTRAL STATION + OTHER GENERATION       33 CNTRL STN + OTHER (line 22)       19.97222         22       CENTRAL STATION + OTHER GENERATION       34 DG (line 32)       0.000000				· ·
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<ul> <li>15 WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14))</li> <li>18.19792</li> <li>16 BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu</li> <li>0.00</li> <li>17 Base % Input to Sys kWh Mix</li> <li>0.01</li> <li>18 Efficiency Factor, mmbtu/kwh</li> <li>0.011127</li> <li>19 WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18))</li> <li>0.00000</li> <li>SUMMARY OF</li> <li>20 COST LESS BASE (line(15 - 19))</li> <li>18.19792</li> <li>21 Revenue Tax Req Multiplier</li> <li>1.0975</li> <li>22 CENTRAL STATION + OTHER GENERATION</li> </ul>			0 011127	
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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))       18.19792         21       Revenue Tax Req Multiplier       1.0975         22       CENTRAL STATION + OTHER GENERATION       33 CNTRL STN + OTHER (line 22)       19.97222         23       ADG (line 32)       0.00000		OTHER GENERATION COST, ¢/kWh		
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21 Revenue Tax Req Multiplier       1.0975       33 CNTRL STN + OTHER (line 22)       19.97222         22 CENTRAL STATION + OTHER GENERATION       34 DG (line 32)       0.00000	20	COST LESS BASE (line(15 - 19))	18.19792	
22 CENTRAL STATION + OTHER GENERATION34 DG (line 32)0.00000				
		FACTOR, ¢/kWh (line (20 x 21))	19.97222	
¢/kWh (lines 33 + 34) 19.97222				¢/kWh (lines 33 + 34) 19.97222

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

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

#### Line

September 1, 2019 1 Effective Date

2 Supercedes Factors August 1, 2019

Line **PURCHASED ENERGY COMPONENT** 

#### PURCHASED ENERGY PRICE, ¢/kWh - Fossil PURCHASED ENERGY PRICE, ¢/kWh - Renewable 36 FIT 21.800 0.000 37 38 Sch Q 0.000 PURCHASED ENERGY KWH MIX, % - Fossil PURCHASED ENERGY KWH MIX, % - Renewable 100.00 39 FIT 40 0.00 41 Sch Q 0.000 0.000 41A Fossil Purch. Energy % 100.000 41B Renewable Purch. Energy % 41C Comp. Cost, Fossil Purch. Energy, ¢/kWh N/A 41D Comp. Cost, Renewable Purch. Energy,¢/kWh 21.800 42 COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh 21.800 (Lines (36 x 39) + (37 x 40) + (38 x 41)) 43 % Input to System kWh Mix 0.02 44 WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (42 x 43)) 0.00354 45 BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh 0.000 46 Base % Input to Sys kWh Mix 0.00 47 WEIGHTED BASE PURCHASED ENERGY 0.00000 COST, ¢/kWh (lines (45 x 46)) 0.00354 48 COST LESS BASE (lines (44 - 47)) 49 Loss Factor 1.098 50 Revenue Tax Req Multiplier 1.0975

Line	Calculation of Monthly Fossil Fuel Cost Risk Sharing Compone	nt
	Baseline Diesel (Actual)	
52	Diesel \$, baseline month	\$453,198
53	Diesel mmbtu, baseline	27,706
54	Baseline Diesel, c/mmbtu	1,635.74
	Month Diesel	
55	Diesel mmbtu, budget	27,706
56	Diesel Cost, ¢/mmbtu	1,635.74
57	Diesel ECRC Fossil Cost	\$453,198
58	Diesel Base ECRC Recovery Target	\$453,198
59	Diesel differential	\$0
60	Total Fossil	\$0
61	2% of above	\$0
62	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$0
63	Maximum Annual Cap (bi-directional)	\$31,500
64	Number of Days in year from implementation	122
65	Fossil Risk % Proration (based on 365 day year)	33.42%
66	Maximum Annual Cap (bi-directional) prorated	\$10,529
67	Applicable Monthly Fossil Fuel Cost Risk Sharing	\$0
68	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	\$0
69	Fossil Cost Risk Sharing before taxes	\$0
70	Revenue Tax Adjustment	1.097514
71	Fossil Cost Risk Sharing w/revenue tax	\$0
72	Forecasted Month MWh Sales	2,490
73	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.00

SYSTEM COMPOSITE CALCULATIONS

Line

74 GENERATION AND PURCHASED ENERGY	
FACTOR, ¢/kWh	19.97649
(lines (35 + 51))	
75 Adjustment, ¢/kWh	0.000
76 Fossil Fuel Cost Risk Sharing Component	0.00
77 ECR Reconciliation Adjustment	(0.627)
78 ECR FACTOR, ¢/kWh	19.349
(lines (74 + 75 + 76 + 77))	

51	PURCHASED ENERGY FACTOR, ¢/kWh	0.00427
	(lines (48 x 49 x 50))	

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

## MONTH END FUEL OIL ESTIMATE

	Barrels	MBTU	\$
8/20/2019	3,540.83	20,288.98	352,798.56
Estimated Use	1,912.12	10,956.44	184,419.10
Estimated Received	5,742.00	32,901.66	522,461.48
Estimated Additional	-	-	-
Estimated End	7,370.71	42,234.20	690,840.94

Next Months Expense = \$ 93.7279 /bbl

#### FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	<u>Price</u>	Conversion Factor	Prices ¢/MBTU
Diesel	\$ 93.7279	5.73 BTU/BBL	1635.74

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

#### **Contract Prices effective August 1, 2019**

TYPE OF OIL BURNED	\$/BBL	¢/MBTU
ULTRA LOW SULFUR DIE	SEL	
Tax *	4.9916	87.11
Ocean Transportation	1.7997	31.41
Storage	5.0658	88.41
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 ECR Reconciliation Adjustment

## September 2019

1. Amount to be refunded	(\$42,700)
2. Monthly amount (1/3 x Line 1)	(\$14,233)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$15,621)
5. Estimated Sales (September 2019)	2,490 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.627 ¢/kwh

#### MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION 2019 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>	Variance	<u>Collect</u>	<u>Collect</u>	<u>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)		
September		. ,			(14,233)		
NOTES:							
Col(1):	Quarterly FOA r	econcili	ation amount	s. (Refer to At	tachment 20)		

Col(1): 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			Charg	00 Kwh	
		08-01-19	09-01-19	08-01-19	09-01-19	Difference
Base Rates	effective date:	06/01/19	09/01/19			
Base Fuel/Energy Charge	¢/kWh	17.6887	0.0000	70.75	0.00	-70.75
Non-fuel Energy Charge						
First 250 kWhr per month	¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWhr per month	¢/kWh	16.6959	16.6959	25.04	25.04	0.00
Customer Charge	\$	11.50	11.50	11.50	11.50	0.00
Total Base Charges				142.40	71.65	-70.75
		0.000	0.000			
IRP Refund	% on base	0.000	0.000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	0.8716	0.8716	3.49	3.49	0.00
PBF Surcharge	¢/kWh	0.4775	0.4775	1.91	1.91	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	-0.7518	-0.7820	-3.01	-3.13	-0.12
Energy Cost Adjustment/Recovery	¢/kWh	2.259	19.349	9.04	77.40	68.36
Green Infrastructure Fee	\$	1.17	1.17	1.17	1.17	0.00

Avg Residential Bill at 400 kwh

155.00 152.49

Increase (Decrease -) % Change

-2.51 -1.62%

	Rate		Charge (\$) at 500 Kwh			
		08-01-19	09-01-19	08-01-19	09-01-19	Difference
Base Rates	effective date:	06/01/19	09/01/19			
Base Fuel/Energy Charge	¢/kWh	17.6887	0.0000	88.44	0.00	-88.44
Non-fuel Energy Charge						
First 250 kWhr per month	¢/kWh	14.0459	14.0459	35.11	35.11	0.00
Next 500 kWhr per month	¢/kWh	16.6959	16.6959	41.74	41.74	0.00
Customer Charge	\$	11.50	11.50	11.50	11.50	0.00
Total Base Charges				176.79	88.35	-88.44
IRP Refund	% on base	0.000	0.000	0.00	0.00	0.00
Revenue Balancing 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
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	-0.7518	-0.7820	-3.76	-3.91	-0.15
Energy Cost Adjustment/Recovery	¢/kWh	2.259	19.349	11.30	96.75	85.45
Green Infrastructure Fee	\$	1.17	1.17	1.17	1.17	

Avg	Residential	Bill at	500 kwh	
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Increase (Decrease -) -3.14 % Change -1.63%

189.11

192.25

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

	FUEL FACTOR CENTS / KWH		
EFFECTIVE DATE	RESIDENTIAL & COMMERCIAL		( )
EFFECTIVE DATE		<u>@ 400 KWH</u>	<u>© 500 KWH</u>
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
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

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE RATE		RATE
06/01/11	IRP RECOVERY REFUND	0.000	PERCENT ON BASE
08/01/13 - 05/31/19	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (207	12 TEST YEAR	.)
01/01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE	1.30	DOLLARS/MONTH
03/01/16 - 02/28/17	RENEWABLE ENERGY INFRASTRUCTURE COST	0.0099	CENTS/KWH
	RECOVERY PROVISION		
04/01/16 - 04/30/16	SOLARSAVER ADJUSTMENT	-0.1835	CENTS/KWH
05/01/16 - 03/31/17	SOLARSAVER ADJUSTMENT	0.0000	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	0.0098	CENTS/KWH
	RECOVERY PROVISION		
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	RENEWABLE ENERGY INFRASTRUCTURE COST	0.0000	CENTS/KWH
	RECOVERY PROVISION		
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	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	-0.7518	CENTS/KWH
09/01/19	PURCHASED POWER ADJUSTMENT	-0.7820	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.