

SHARON M. SUZUKI President

2016 OCT 27 P 3:02

October 27, 2016

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 November 2016

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2016 energy cost adjustment factor for our Maui Division is -9.782 cents per kilowatt-hour ("kWh"), a decrease of 1.620 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$135.84, a decrease of \$8.10 compared to rates effective October 1, 2016.

The Company's Maui Division fuel composite cost of generation, central station and other increased 56.36 cents per million BTU to 1,104.01 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 4.259 cents per kWh to 13.360 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for November 2016 is -12.595 cents per kWh, an increase of 0.128 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$136.59, an increase of \$0.51 compared to rates effective October 1, 2016.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 3.32 cents per million BTU to 1,547.13 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 27.000 cents per kWh.

The energy cost adjustment factor for our Moloka'i Division for November 2016 is -9.970 cents per kWh, an increase of 1.161 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$132.85, an increase of \$4.64 compared to rates effective October 1, 2016.

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 72.79 cents per million BTU to 1,294.97 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 Honorable Chair and Members of the Hawai'i Public Utilities Commission October 27, 2016 Page 2

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, 2016.

Sincerely,

Ahan M. Aglei

Attachments

cc: Division of Consumer Advocacy

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

ENERGY COST ADJUSTMENT FACTOR

| | EFFECTIVE DATES | | |
|--|---------------------------|---------------------------|-----------------------|
| | <u>10-01-16</u> | <u>11-01-16</u> | <u>Change</u> |
| <u>COMPOSITE COSTS</u> Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh | 1,222.18 0.00 21.80 | 1,294.97 0.00 21.80 | 72.79 0.00 0.00 |
| Residential Schedule "R" | | | |
| Energy Cost Adjustment, ¢/kWh | (11.131) | (9.970) | 1.161 |
| Others - "G,P,F" | | | |
| Energy Cost Adjustment, ¢/kWh | (11.131) | (9.970) | 1.161 |
| Residential Customer with | | | |
| 400 KWH Consumption, \$/Bill 500 KWH Consumption, \$/Bill | 128.21 159.48 | 132.85 165.29 | 4.64 5.81 |

| Supersedes Sheet Effective: 0 | October 1, 2016 |
|-------------------------------|-----------------|
|-------------------------------|-----------------|

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

ENERGY COST ADJUSTMENT (ECA) FILING - November 1, 2016 (page 1 of 2)

Line

| 1 | Effective Date | November 1, 2016 |
|---|--------------------|------------------|
| 2 | Supercedes Factors | October 1, 2016 |

GENERATION COMPONENT

| | CENTRAL STATION | | 1 |
|----------|---|----------------------|--|
| | FUEL PRICES, ¢/mmbtu | | |
| - | Industrial | 0.00 | |
| - | Diesel | 1,294.97 | |
| 5 | Other | 0.00 | |
| | BTU MIX, % | | DG ENERGY COMPONENT |
| 6 | Industrial | 0.00 | 23 COMPOSITE COST OF DG |
| 7 | Diesel | 100.00 | ENERGY, ¢/kWh 0.000 |
| 8 | Other | 0.00 | 24 % Input to System kWh Mix 0.00 |
| | | <u>100.00</u> | |
| | | | 25 WEIGHTED COMPOSITE DG ENERGY COST, |
| 9 | COMPOSITE COST OF GENERATION, | | ¢/kWh (Lines 23 x 24) 0.00000 |
| | CENTRAL STATION + OTHER ¢/mmbtu | 1,294.97 | |
| | (Lines (3 x 6) + (4 x 7) + (5 x 8)) | | |
| 10 | % Input to System kWh Mix | 99.79 | 26 BASE DG ENERGY COMP COST 0.000 |
| | | | 27 Base % Input to System kWh Mix 0.00 |
| | EFFICIENCY FACTOR, mmbtu/kWh | (=) | 28 WEIGHTED BASE DG ENERGY COST, |
| | (A) (B) (C) | (D) | ¢/kWh (Line 26 x 27) 0.00000 |
| | Percent of | | |
| | Eff Factor Centrl Stn + | Weighted | 29 Cost Less Base (Line 25 - 28) 0.00000 |
| 44 | Fuel Type mmbtu/kwh Other | Eff Factor | 30 Loss Factor 1.095 |
| 11 12 | Industrial 0.000000 0.00 Diesel 0.011194 100.00 | 0.000000 0.011194 | 31 Revenue Tax Req Multiplier 1.0975 |
| 12 | Other 0.011194 0.00 | 0.0000000 | 32 DG FACTOR, |
| 15 | (Lines 11, 12, 13): Col(B) x Col(C) = Col(D) | 0.000000 | ¢/kW11 (Line 29 x 30 x 31) 0.00000 |
| 14 | Weighted Efficiency Factor, mmbtu/kWh | | |
| 14 | [lines $11(D) + 12(D) + 13(D)$] | 0.011194 | |
| | | 0.011101 | |
| 15 | WEIGHTED COMPOSITE CENTRAL STATION | + | |
| | OTHER GENERATION COST, ¢/kWh | | |
| | (lines (9 x 10 x 14)) | 14.46553 | |
| 40 | | | |
| 16 | BASE CENTRAL STATION + OTHER | 0 1 4 4 57 | |
| 17 | GENERATION COST, ¢/mmbtu Base % Input to Sys kWh Mix | 2,144.57 99.91 | |
| | Efficiency Factor, mmbtu/kwh | 0.011194 | |
| | WEIGHTED BASE CENTRAL STATION + OTH | | |
| | GENERATION COST ¢/kWh | | |
| | (lines (16 x 17 x 18)) | 23.98471 | |
| | | | SUMMARY OF |
| 20 | COST LESS BASE (line(15 - 19)) | (9.51918) | TOTAL GENERATION FACTOR, ¢/kWh |
| 21 | Revenue Tax Req Multiplier | 1.0975 | 33 CNTRL STN + OTHER (line 22) -10.44730 |
| 22 | CENTRAL STATION + OTHER GENERATION | | 34 DG (line 32) 0.00000 |
| | FACTOR, ¢/kWh (line (20 x 21)) | (10.44730) | 35 TOTAL GENERATION FACTOR, |
| | | | ¢/kWh (lines 33 + 34) -10.44730 |
| | | | |

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

ENERGY COST ADJUSTMENT (ECA) FILING - November 1, 2016 (page 2 of 2)

Line

| 1 | Effective Date | November 1, 2016 |
|---|----------------|------------------|
| ~ | | 0.1.1.1.0040 |

2 Supercedes Factors October 1, 2016

| 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 |
| 11 | Sch Q | 0.000 |
| 41 | 301 Q | 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 | 0.21 |
| 44 | WEIGHTED COMPOSITE PURCHASED ENERG COST, ¢/kWh (lines (42 x 43)) | 0.04566 |
| | $(1031, \psi/kwill (111es (42 x 43)))$ | 0.04500 |
| 45 | BASE PURCHASED ENERGY | |
| | COMPOSITE COST, ¢/kWh | 21.800 |
| | 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)) | 0.02604 |
| | Loss Factor | 1.095 |
| 50 | Revenue Tax Req Multiplier | 1.0975 |
| 51 | · · · · · · · · · · · · · · · · · · · | 0.03129 |
| | (lines (48 x 49 x 50)) | |

Line

SYSTEM COMPOSITE CALCULATIONS

| 52 | GENERATION AND PURCHASE | ED ENERGY |
|----|-------------------------------|------------|
| | FACTOR, ¢/kWh | (10.41601) |
| | (lines (35 + 51)) | |
| 53 | Adjustment, ¢/kWh | 0.000 |
| 54 | ECA Reconciliation Adjustment | 0.446 |
| 55 | ECA FACTOR, ¢/kWh | (9.970) |
| | | |

(lines (52 + 53 + 54))

Maui Electric Company, Ltd. Molokai Division

MONTH END FUEL OIL ESTIMATE

| | Barrels | MBTU | \$ |
|----------------------|----------|-----------|------------|
| 10/20/2016 | 8,030.62 | 46,015.45 | 588,362.67 |
| Estimated Use | 1,803.86 | 10,336.12 | 126,326.48 |
| Estimated Received | - | - | - |
| Estimated Additional | - | - | - |
| Estimated End | 6,226.76 | 35,679.33 | 462,036.19 |

Next Months Expense = \$ 74.2017 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

| Type of Oil Burned | Price | | Prices ¢/MBTU |
|--------------------|---------------|--------------|---------------|
| Diesel | \$ 74.2017 | 5.73 BTU/BBL | 1294.97 |

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION

Contract Prices effective October 1, 2016

| TYPE OF OIL BURNED | \$/BBL | ¢/MBTU_ |
|------------------------|--------|---------|
| ULTRA LOW SULFUR DIESI | EL | |
| Tax * | 1.4700 | 25.65 |
| Ocean Transportation | 2.0256 | 35.35 |
| Storage | 4.7171 | 82.32 |
| Wharfage | 0.2500 | 4.36 |

- * Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST tax and Environmental Response 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.

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MAUI ELECTRIC COMPANY, LTD. Molokai Division ECA Reconciliation Adjustment

November 2016

| 1. | Amount to be Collected | \$27,900 | |
|----|---------------------------------|----------|-------|
| 2. | Monthly amount (1/3 x Line 1) | \$9,300 | |
| 3. | Revenue Tax Divisor | 0.91115 | |
| 4. | Total (Line 2 / Line 3) | \$10,207 | |
| 5. | Estimated Sales (November 2016) | 2,288 | mwh |
| 6. | Adjustment (Line 4 ÷ Line 5) | 0.446 | ¢/kwh |

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION 2016 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY (Thousand \$)

| Line | Description | Without Deadband 3rd Quarter <u>YTD Total</u> | collection by <u>company*</u> | Basis for Recon With Deadband 3rd Quarter <u>YTD Total</u> | collection by <u>company*</u> |
|----------------|---|---|-------------------------------------|---|-------------------------------------|
| 1 2 3 | Actual Costs Generation Distributed Generation Purch Power | \$2,787.0 \$0.0 \$0.9 | | \$2,787.0 \$0.0 \$0.9 | |
| 4 | Total | \$2,787.9 | | \$2,787.9 | |
| 5 6 7 | Fuel Filing Cost Generation Distributed Generation Purch Power | \$2,772.5 \$0.0 \$0.9 | | \$2,784.9 \$0.0 \$0.9 | |
| 8 | Total | \$2,773.3 | | \$2,785.7 | |
| 9 10 11 | Base Fuel Cost Generation Distributed Generation Purch Power | \$5,025.4 \$0.0 \$0.9 | | \$5,025.4 \$0.0 \$0.9 | |
| 12 | Total | \$5,026.3 | | \$5,026.3 | |
| 13 | FUEL - BASE COST (Line 8-12) | -\$2,252.9 | | -\$2,240.5 | |
| 14 15 | ACTUAL FOA REVENUE LESS TAX FOA reconciliation adj for prior years | -\$2,277.5 \$5.4 | | -\$2,277.5 _\$5.4 | |
| 16 | ADJUSTED FOA LESS TAX | -\$2,272.1 | | -\$2,272.1 | |
| 17 | FOA-(FUEL-BASE) (Line 16-13) | -\$19.2 | | -\$31.6 | |
| 18 19 20 | ADJUSTMENTS Current year FOA accrual reversal Other prior year FOA Other | -\$13.6 \$0.0 \$0.0 | | -\$13.6 \$0.0 \$0.0 | |
| 21 | 3rd QUARTER FOA RECONCILIATION (Lines 17+18+19+20) | -\$32.8 | Under | -\$45.2 | Under |
| 22 | 2nd QUARTERLY YTD 2016 YTD FOA Reconciliation Recogniz | ed in FOA Rates | | -\$17.3 | Under |
| 23 | FOA Reconciliation to be Refunded November 2016 to January | 2017 (Line 22- 21) | | \$27.9 | To Be Collected |
| + 0. | | | | | |

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

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION DEADBAND CALCULATION

Determination of Efficiency Factor to use for Cost-Recovery Purposes Period: January 1, 2016 through September 30, 2016

| Notes | <u> Jan 1 - Sep 30</u> |
|----------------|--|
| | |
| f | 11,194 |
| d | 50 |
| | 00.004 |
| а | 20,934 |
| b | 235,475 |
| c = (b/a)*1000 | 11,249 |
| e = f-d | 11.144 |
| g = f+d | 11,244 |
| h = c, e, or g | 11,244 |
| | f d a b c = (b/a)*1000 e = f-d g = f+d |

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND 2016

| - | Without Deadband Jan 1 - Sep 30 | With Deadband - AS FILED Jan 1 - Sep 30 |
|--|------------------------------------|--|
| | <u>Jan 1 - Sep 30</u> | <u>Jan 1 - 360 Jo</u> |
| DIESEL FUEL FILING COST | | |
| Diesel Portion of Recorded Sales, MWH | 20,934 | 20,934 |
| Diesel Sales Efficiency Factor (mmbtu/kwh) | 0.011194 | 0.011244 |
| Mmbtu adjusted for Sales Efficiency Factor | 234,332 | 235,379 |
| \$/mmbtu | <u>\$11.8314</u> | <u>\$11.8314</u> |
| TOTAL DIESEL \$000s TO BE RECOVERED | \$2,772.5 | \$2,784.9 |
| TOTAL GENERATION FUEL FILING COST, \$000s | \$2,772.5 | \$2,784.9 |
| TOTAL GENERATION BASE FUEL COST , \$000s YTI | D \$5,025.4 | \$5,025.4 |
| TOTAL GENERATION FUEL FILING COST, \$000s YT | . , | \$2,784.9 |
| TOTAL GENERATION BASE FUEL COST, \$000s YTE | \$5,025.4 | \$5,025.4 |

MAUI ELECTRIC COMPANY, LTD. MOLOKAI DIVISION 2016 Cumulative Reconciliation Balance

| Month | (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 '15 January '16 February March | 4,000 | (4) | (55) | 4,055 | (1,433) (1,433) (1,333) (1,333) | (1,450) (1,417) (1,321) (1,326) | 1,370 (47) 2,687 1,361 |
| April May June | (5,900) | (1) | 35 | (5,935) | (1,333) 1,967 1,967 | (1,381) 1,994 2,099 | (20) (3,961) (1,862) |
| July August September October | (11,400) | (2) | 111 | (11,511) | 1,967 3,800 3,800 3,800 | 2,103 4,201 3,753 | 241 (7,069) (3,316) |
| November NOTES: | (27,900) | (3) | 490 | (28,390) | 9,300 | | |
| Col(1): | Quarterly FOA re A positive numb | | | | , | n under-colle | ction. |

| | 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 | | | C | |
|--------------------------------------|-----------------|----------|----------|-------|--|
| | | 10-01-16 | 11-01-16 | 10-01 | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | |
| Base Fuel/Energy Charge | ¢/kWh | 26.3468 | 26.3468 | 10 | |
| Non-fuel Fuel Energy Charge | | | | | |
| First 250 kWhr per month | ¢/kWh | 11.4278 | 11.4278 | 2 | |
| Next 500 kWhr per month | ¢/kWh | 14.0778 | 14.0778 | 2 | |
| Customer Charge | \$ | 8.50 | 8.50 | | |
| Total Base Charges | | | | 16 | |
| IRP Refund | % on base | 0.000 | 0.000 | | |
| Revenue Balancing Rate Adjustment | ¢/kWh | 1.4082 | 1.4082 | | |
| PBF Surcharge | ¢/kWh | 0.5865 | 0.5865 | | |
| Renewable Energy Infrastructure Cost | | | | | |
| Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | C | |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | | |
| Energy Cost Adjustment | ¢/kWh | -11.131 | -9.970 | -4 | |
| Green Infrastructure Fee | \$ | 1.13 | | | |
| | · · · · · | | 1 | | |

Charge (\$) at 400 Kwh 1-16 11-01-16 Difference 05.39 105.39 0.00 28.57 28.57 0.00 21.12 21.12 0.00 8.50 8.50 0.00 63.58 163.58 0.00 0.00 0.00 0.00 5.63 5.63 0.00 2.35 2.35 0.00 0.04 0.04 0.00 0.00 0.00 0.00 44.52 -39.88 4.64 1.13 1.13 0.00 128.21 132.85

Increase (Decrease -) % Change

4.64 3.62%

ence

0.00

0.00 0.00 0.00 0.00

0.00

0.00 0.00

0.00 0.00

5.81 0.00

| | Rate | | | Charge (\$) at 500 Kw | | |
|--|--------------------------|---------------------|---------------------|-----------------------|----------------|----------|
| | | 10-01-16 | 11-01-16 | 10-01-16 | • • • • | Differen |
| Base Rates Base Fuel/Energy Charge Non-fuel Fuel Energy Charge | effective date: ¢/kWh | 08/01/13 26.3468 | 08/01/13 26.3468 | 131.73 | 3 131.73 | 0 |
| First 250 kWhr per month | ¢/kWh | 11.4278 | 11.4278 | 28.5 | | - |
| Next 500 kWhr per month | ¢/kWh | 14.0778 | 14.0778 | 35.19 | 35.19 | 0 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0 |
| Total Base Charges | | | | 203.99 | 203.99 | 0 |
| IRP Refund | % on base | 0.000 | 0.000 | 0.0 | 0.00 | 0 |
| Revenue Balancing Rate Adjustment | ¢/kWh | 1.4082 | 1.4082 | 7.04 | 7.04 | 0 |
| PBF Surcharge | ¢/kWh | 0.5865 | 0.5865 | 2.93 | 3 2.93 | 0 |
| Renewable Energy Infrastructure Cost | | | | | | |
| Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | 0.0 | 5 0.05 | 0 |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | 0.00 | 0.00 | 0 |
| Energy Cost Adjustment | ¢/kWh | -11.131 | -9.970 | -55.60 | | |
| Green Infrastructure Fee | \$ | 1.13 | 1.13 | 1.13 | 3 1.13 | 0 |

Avg Residential Bill at 500 kwh

Avg Residential Bill at 400 kwh

Increase (Decrease -) 5.81 % Change

165.29

159.48

3.64%

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

| EFFECTIVE DATE | FUEL FACTOR CENTS / KWH RESIDENTIAL & <u>COMMERCIAL</u> | RESIDENT @ 400 KWH | IAL BILL (\$) <u>@ 500 KWH</u> |
|-------------------|--|-----------------------|-----------------------------------|
| January 1, 2014 | 3.885 | 185.67 | 231.62 |
| February 1, 2014 | 4.590 | 188.49 | 235.14 |
| March 1, 2014 | 4.652 | 188.74 | 235.45 |
| April 1, 2014 | 4.585 | 187.49 | 233.89 |
| May 1, 2014 | 4.690 | 188.89 | 235.64 |
| June 1, 2014 | 4.779 | 192.52 | 240.17 |
| July 1, 2014 | 5.145 | 194.72 | 242.92 |
| August 1, 2014 | 4.697 | 192.93 | 240.68 |
| September 1, 2014 | -2.835 | 162.80 | 203.01 |
| October 1, 2014 | 1.864 | 181.60 | 226.51 |
| November 1, 2014 | 2.683 | 184.87 | 230.61 |
| December 1, 2014 | 1.266 | 179.46 | 223.52 |
| | | | |
| January 1, 2015 | -0.141 | 173.84 | 216.48 |
| February 1, 2015 | -3.412 | 160.75 | 200.13 |
| March 1, 2015 | -6.056 | 150.18 | 186.91 |
| April 1, 2015 | -6.122 | 148.81 | 185.21 |
| May 1, 2015 | -6.727 | 147.49 | 183.55 |
| June 8, 2015 | -7.453 | 144.48 | 179.79 |
| July 1, 2015 | -6.185 | 148.55 | 184.84 |
| August 1, 2015 | -5.864 | 149.83 | 186.45 |
| September 1, 2015 | -5.935 | 149.59 | 186.14 |
| October 1, 2015 | -9.896 | 133.75 | 166.34 |
| November 1, 2015 | -10.149 | 132.73 | 165.07 |
| December 1, 2015 | -9.676 | 134.63 | 167.44 |
| | | | |
| 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 |

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

| EFFECTIVE DATE | DESCRIPTION OF SURCHARGE | | RATE |
|---------------------|---|------------|-----------------|
| | | | |
| 01/01/11 - 12/31/11 | RESID. PBF SURCHARGE ADJUSTMENT | | CENTS/KWH |
| 01/12/11 - 05/03/12 | FINAL RATE INCREASE (3.66%), DOCKET NO. 2006-0387 | (2007 TEST | YEAR) |
| 01/12/11 - 05/03/12 | INTERIM RATE INCREASE 2010 TEST YEAR | 2.38 | PERCENT ON BASE |
| 02/01/11 - 02/28/11 | IRP RECOVERY REFUND | -3.472 | PERCENT ON BASE |
| 03/01/11 - 04/30/11 | IRP RECOVERY REFUND | 0.000 | PERCENT ON BASE |
| 04/01/11 - 04/30/11 | SOLARSAVER ADJUSTMENT | -0.0888 | CENTS/KWH |
| 05/01/11 - 03/31/12 | SOLARSAVER ADJUSTMENT | 0.0000 | CENTS/KWH |
| 05/01/11 - 05/31/11 | FINAL RATE INCREASE (3.66%), DOCKET NO. 2006-0387 INTERIM RATE INCREASE 2010 TEST YEAR IRP RECOVERY REFUND IRP RECOVERY REFUND SOLARSAVER ADJUSTMENT SOLARSAVER ADJUSTMENT IRP RECOVERY REFUND IRP RECOVERY REFUND RESID. PBF SURCHARGE ADJUSTMENT SOLARSAVER ADJUSTMENT | -0.204 | PERCENT ON BASE |
| 06/01/11 | IRP RECOVERY REFUND | 0.000 | PERCENT ON BASE |
| 01/01/12 - 12/31/12 | RESID. PBF SURCHARGE ADJUSTMENT | 0.6766 | CENTS/KWH |
| 04/01/12 - 04/30/12 | | | CENTS/KWH |
| 05/01/12 - 03/31/13 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 5/4/2012 - 7/31/13 | FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 | (2010 TEST | |
| 6/1/2012- 7/31/13 | INTERIM RATE INCREASE 2012 TEST YEAR | 4.11 | PERCENT ON BASE |
| 01/01/13 - 06/30/13 | RESID. PBF SURCHARGE ADJUSTMENT | 0.7850 | CENTS/KWH |
| 04/01/13 - 04/30/13 | INTERIM RATE INCREASE 2012 TEST YEAR RESID. PBF SURCHARGE ADJUSTMENT SOLARSAVER ADJUSTMENT | -0.205 | CENTS/KWH |
| 05/01/13 - 03/31/14 | SOLARSAVER ADJUSTMENT | 0.000 | CENTS/KWH |
| 06/01/13 - 05/31/14 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 0.8071 | CENTS/KWH |
| 07/01/13 - 06/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | 0.8312 | CENTS/KWH |
| 08/01/13 | FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 | (2012 TES | ΓYEAR) |
| 04/01/14 - 04/30/14 | SOLARSAVER ADJUSTMENT | -0.2453 | CENTS/KWH |
| 05/01/14 - 03/31/15 | SOLARSAVER ADJUSTMENT | 0.0000 | CENTS/KWH |
| 06/01/14 - 05/31/15 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | | CENTS/KWH |
| 07/01/14 -11/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | | CENTS/KWH |
| 12/01/14 - 06/30/15 | RESID. PBF SURCHARGE ADJUSTMENT | | CENTS/KWH |
| 12/01/14 - 06/30/15 | GREEN INFRASTRUCTURE FEE | | DOLLARS/MONTH |
| 04/01/15 - 04/30/15 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 05/01/15 - 03/31/16 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 06/01/15 - 06/07/15 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | | CENTS/KWH |
| 06/08/15 - 05/31/16 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | | CENTS/KWH |
| 07/01/15 - 06/30/16 | RESID. PBF SURCHARGE ADJUSTMENT | | CENTS/KWH |
| 07/01/15 - 12/31/15 | GREEN INFRASTRUCTURE FEE | | DOLLARS/MONTH |
| 08/17/15 - 02/29/16 | RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION | 0.0103 | CENTS/KWH |
| 01/01/16 - 06/30/16 | GREEN INFRASTRUCTURE FEE | 1.30 | DOLLARS/MONTH |
| 03/01/16 | RENEWABLE ENERGY INFRASTRUCTURE COST | | CENTS/KWH |
| | RECOVERY PROVISION | | |
| 04/01/16 - 04/30/16 | SOLARSAVER ADJUSTMENT | -0.1835 | CENTS/KWH |
| 05/01/16 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 06/01/16 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | | CENTS/KWH |
| 07/01/16 | RESID. PBF SURCHARGE ADJUSTMENT | | CENTS/KWH |
| 07/01/16 | GREEN INFRASTRUCTURE FEE | | DOLLARS/MONTH |
| | | | |

Surcharges currently in effect are in bold.
Base charges include customer charge, demand charge, energy charge, power factor adjustment, voltage discount and minimum charge.