



FILED

October 29, 2018

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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 Adjustment Factor for November 2018

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2018 Energy Cost Adjustment factor for our Maui Division is -2.358 cents per kilowatt-hour ("kWh"), an increase of 0.924 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$179.87, an increase of \$4.97 compared to rates effective October 1, 2018. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor (+\$4.62) and Purchased Power Adjustment (+\$0.35).

The Company's Maui Division fuel composite cost of generation, central station and other increased 151.04 cents per million BTU to 1,734.53 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.924 cents per kWh to 18.223 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for November 2018 is -6.037 cents per kWh, an increase of 0.335 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$169.32, an increase of \$1.34 compared to rates effective October 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 42.72 cents per million BTU to 2,150.10 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.

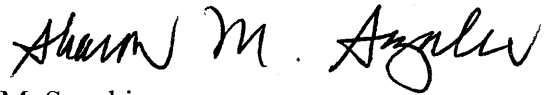
The Energy Cost Adjustment factor for our Moloka'i Division for November 2018 is -3.697 cents per kWh, an increase of 0.357 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$164.06, an increase of \$1.43 compared to rates effective October 1, 2018. 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
October 29, 2018
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 21.58 cents per million BTU to 1,855.27 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 November 1, 2018.

Sincerely,



Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST ADJUSTMENT FACTOR

| | EFFECTIVE DATES | | <u>Change</u> |
|---|-----------------|-----------------|---------------|
| | <u>10-01-18</u> | <u>11-01-18</u> | |
| <u>COMPOSITE COSTS</u> | | | |
| Generation, Central Station & Other, ¢/mbtu | 2,107.38 | 2,150.10 | 42.72 |
| DG Energy, ¢/kWh | 0.00 | 0.00 | 0.00 |
| Purchased Energy, ¢/kWh | 30.00 | 30.00 | 0.00 |
| <u>Residential Schedule "R"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (6.372) | (6.037) | 0.335 |
| <u>Others - "G,P,F"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (6.372) | (6.037) | 0.335 |
| <u>Residential Customer with</u> | | | |
| 400 KWH Consumption, \$/Bill | 167.98 | 169.32 | 1.34 |
| 500 KWH Consumption, \$/Bill | 209.07 | 210.74 | 1.67 |

Supersedes Sheet Effective:

October 1, 2018

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line

1 Effective Date November 1, 2018
2 Supercedes Factors of October 1, 2018

| <u>Line</u> | <u>PURCHASED ENERGY COMPONENT</u> | |
|-------------|--|-----------|
| | PURCHASED ENERGY PRICE, ¢/kWh | |
| 38 | LANAI SOLAR RESEARCH - On Peak | 30.000 |
| 39 | - Off Peak | 30.000 |
| 40 | Sch Q | 0.000 |
| | PURCHASED ENERGY KWH MIX, % | |
| 41 | LANAI SOLAR RESEARCH - On Peak | 100.00% |
| 42 | - Off Peak | 0.00% |
| 43 | Sch Q | 0.00% |
| 44 | COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43)) | 30.000 |
| 45 | % Input to System kWh Mix | 5.70% |
| 46 | WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45)) | 1.71000 |
| 47 | BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh | 27.000 |
| 48 | Base % Input to Sys kWh Mix | 10.35 |
| 49 | WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48)) | 2.79450 |
| 50 | COST LESS BASE(lines (46 - 49)) | (1.08450) |
| 51 | Loss Factor | 1.051 |
| 52 | Revenue Tax Req Multiplier | 1.0975 |
| 53 | PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52)) | (1.25094) |

Line SYSTEM COMPOSITE CALCULATIONS

54 GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (5.48078)
(lines (37 + 53))
55 Adjustment, ¢/kWh 0.000
56 ECA Reconciliation Adjustment (0.556)
57 ECA FACTOR, ¢/kWh (6.037)
(lines (54 + 55 + 56))

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

MONTH END FUEL OIL ESTIMATE

| <u>Miki Basin - ULSD</u> | <u>Barrels</u> | <u>MBTU</u> | <u>\$</u> |
|---------------------------------|----------------|-------------|------------|
| 10/15/2018 | 2,853.93 | 16,353.02 | 343,255.88 |
| Estimated Use | 2,340.29 | 13,409.86 | 282,398.28 |
| Estimated Received | 2,571.43 | 14,734.29 | 317,373.60 |
| Estimated Additional | 1,216.85 | 6,972.55 | 154,278.82 |
| Estimated End | 4,301.92 | 24,650.00 | 532,510.02 |

Next Month's Combined Miki Expense (\$/bbl) = \$ 123.7843 /bbl

| <u>Manele CHP</u> | <u>Barrels</u> | <u>MBTU</u> | <u>\$</u> |
|--------------------------|----------------|-------------|-----------|
| 10/15/2018 | 193.81 | 1,110.53 | 23,464.78 |
| Estimated Use | - | - | - |
| Estimated Received | - | - | - |
| Estimated Additional | - | - | - |
| Estimated End | 193.81 | 1,110.53 | 23,464.78 |

Next Month's Manele Expense (\$/bbl) = \$ 121.0710 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

| <u>Type of Oil Burned</u> | <u>Price</u> | <u>Conversion Factor</u> | <u>Prices ¢/MBTU</u> |
|---------------------------|--------------|--------------------------|----------------------|
| Diesel - Miki Basin | \$ 123.7843 | 5.73 BTU/BBL | 2,160.28 |
| Diesel - Manele Bay | \$ 121.0710 | 5.73 BTU/BBL | 2,112.93 |

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

Contract Prices effective October 1, 2018

| <u>TYPE OF OIL BURNED</u> | <u>\$/BBL</u> | <u>¢/MBTU</u> |
|---------------------------|---------------|---------------|
|---------------------------|---------------|---------------|

MIKI BASIN - ULTRA LOW SULFUR DIESEL (DYED)

| | | |
|----------------------|--------|-------|
| Tax * | 1.6020 | 27.96 |
| Ocean Transportation | 0.0000 | 0.00 |
| Storage | 0.0000 | 0.00 |
| Wharfage | 0.0000 | 0.00 |

MIKI BASIN - ULTRA LOW SULFUR DIESEL

| | | |
|----------------------|---------|--------|
| Tax * | 11.8080 | 206.07 |
| Ocean Transportation | 0.0000 | 0.00 |
| Storage | 0.0000 | 0.00 |
| Wharfage | 0.0000 | 0.00 |

MANELE BAY - ULTRA LOW SULFUR DIESEL

| | | |
|----------------------|---------|--------|
| Tax * | 17.0187 | 297.01 |
| Ocean Transportation | 0.0000 | 0.00 |
| Storage | 0.0000 | 0.00 |
| Wharfage | 0.0000 | 0.00 |

* Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST tax, Environmental Response Tax, Customs Duty Fee, Fed Oil Spill Recovery Fee, Federal Oil Spill Liability Tax, 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.
Lanai Division
ECA Reconciliation Adjustment

November 2018

| | |
|------------------------------------|--------------|
| 1. Amount to be refunded | (\$35,600) |
| 2. Monthly amount (1 / 3 X Line 1) | (\$11,867) |
| 3. Revenue Tax Divisor | 0.91115 |
| 4. Total (Line 2 / Line 3) | (\$13,024) |
| 5. Estimated Sales (November 2018) | 2,342 mwh |
| 6. Adjustment (Line 4 ÷ Line 5) | -0.556 ¢/kwh |

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
2018 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)**

| <u>Line</u> | 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> |
|------------------|---|-------------------------------------|---|-------------------------------------|
| ACTUAL COSTS: | | | | |
| 1 | Generation | \$4,633.2 | \$4,633.2 | |
| 2 | Distributed Generation | \$0.0 | \$0.0 | |
| 3 | Purch Power | <u>\$296.5</u> | <u>\$296.5</u> | |
| 4 | TOTAL | \$4,929.7 | \$4,929.7 | |
| FUEL FILING COST | | | | |
| 5 | Generation | \$4,723.5 | \$4,702.3 | |
| 6 | Distributed Generation | \$0.0 | \$0.0 | |
| 7 | Purch Power | <u>\$296.5</u> | <u>\$296.5</u> | |
| 8 | TOTAL | \$5,020.0 | \$4,998.8 | |
| BASE FUEL COST | | | | |
| 9 | Generation | \$6,195.1 | \$6,195.1 | |
| 10 | Distributed Generation | \$0.0 | \$0.0 | |
| 11 | Purch Power | <u>\$277.3</u> | <u>\$277.3</u> | |
| 12 | TOTAL | \$6,472.4 | \$6,472.4 | |
| 13 | FUEL-BASE COST (Line 8-12) | -\$1,452.4 | -\$1,473.6 | |
| 14 | ACTUAL FOA LESS TAX | -\$1,489.4 | -\$1,489.4 | |
| 15 | FOA reconciliation adj for prior year | <u>-\$61.2</u> | <u>-\$61.2</u> | |
| 16 | ADJUSTED FOA LESS TAX | -\$1,428.2 | -\$1,428.2 | |
| 17 | FOA-(FUEL-BASE) (Line 16-13) | \$24.2 Over | \$45.4 Over | |
| ADJUSTMENTS | | | | |
| 18 | Current year FOA accrual reversal | \$64.9 | \$64.9 | |
| 19 | Other prior year FOA | \$0.0 | \$0.0 | |
| 20 | Other | <u>\$0.0</u> | <u>\$0.0</u> | |
| 21 | 3rd QUARTER FOA RECONCILIATION (Lines 17+18+19+20) | \$89.1 Over | \$110.3 Over | |
| 22 | 2nd QUARTERLY YTD 2018 FOA Reconciliation Recognized in FOA Rates | | <u>\$74.7</u> Over | |
| 23 | FOA Reconciliation to be Refunded November 2018 to January 2019 (Line 22- 21) | | <u><u>-\$35.6</u></u> Refunded | |

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

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
DEADBAND CALCULATION**

Determination of Efficiency Factor to use for Cost-Recovery Purposes

Period: January 1, 2018 through August 22, 2018

| | <u>Notes</u> | <u>YTD</u> |
|---|----------------|---------------|
| <u>Diesel</u> | | |
| Diesel Efficiency Factor (TY2012), BTU/kWh | f | 11,151 |
| Diesel Deadband Definition, +/- BTU/kWh | d | 50 |
| | | |
| Diesel Portion of Recorded Sales, MWh | a | 18,022 |
| Diesel Consumption (Recorded), MMBTU | b | 197,224 |
| Diesel Efficiency Factor (Recorded), BTU/kWh | c = (b/a)*1000 | 10,943 |
| | | |
| Lower limit of Diesel Deadband, BTU/kWh | e = f-d | 11,101 |
| Higher limit of Diesel Deadband, BTU/kWh | g = f+d | 11,201 |
| | | |
| Diesel Efficiency Factor for cost-recovery, BTU/kWh | h = c, e, or g | 11,101 |

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
DEADBAND CALCULATION**

Determination of Efficiency Factor to use for Cost-Recovery Purposes

Period: August 23, 2018 through September 30, 2018

| | <u>Notes</u> | <u>YTD</u> |
|---|----------------|---------------|
| <u>Diesel</u> | | |
| Diesel Efficiency Factor (TY2018), BTU/kWh | f | 11,017 |
| Diesel Deadband Definition, +/- BTU/kWh | d | 50 |
| | | |
| Diesel Portion of Recorded Sales, MWh | a | 3,049 |
| Diesel Consumption (Recorded), MMBTU | b | 32,968 |
| Diesel Efficiency Factor (Recorded), BTU/kWh | c = (b/a)*1000 | 10,812 |
| | | |
| Lower limit of Diesel Deadband, BTU/kWh | e = f-d | 10,967 |
| Higher limit of Diesel Deadband, BTU/kWh | g = f+d | 11,067 |
| | | |
| Diesel Efficiency Factor for cost-recovery, BTU/kWh | h = c, e, or g | 10,967 |

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND
2018**

| | <u>Without Deadband</u> | <u>With Deadband - AS FILED</u> |
|---|-------------------------|---------------------------------|
| | <u>Jan 1 - Sep 30</u> | <u>Jan 1 - Sep 30</u> |
| Diesel Portion of Recorded Sales, MWH | 21,072 | 21,072 |
| Diesel Sales Efficiency Factor (mmbtu/kwh) | 0.011151 | 0.011101 |
| Mmbtu adjusted for Sales Efficiency Factor | 234,970 | 233,916 |
| \$/mmbtu | <u>\$20.1027</u> | <u>\$20.1026</u> |
| TOTAL DIESEL \$000s TO BE RECOVERED | \$4,723.5 | \$4,702.3 |
| TOTAL GENERATION FUEL FILING COST, \$000s | \$4,723.5 | \$4,702.3 |
| TOTAL GENERATION BASE FUEL COST , \$000s YTD | \$6,195.1 | \$6,195.1 |
| TOTAL GENERATION FUEL FILING COST, \$000s YTD | \$4,723.5 | \$4,702.3 |
| TOTAL GENERATION BASE FUEL COST, \$000s YTD | \$6,195.1 | \$6,195.1 |

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
2018 Cumulative Reconciliation Balance**

| <u>Month</u> | <u>(1)</u> YTD FOA Reconciliation | <u>Qtr</u> | <u>(2)</u> FOA Rec Adjust Variance | <u>(3)</u> FOA Rec Less Variance | <u>(4)</u> Try to Collect | <u>(5)</u> Actual Collect | <u>(6)</u> Month-end Cumulative Balance |
|--------------|---|------------|---|---|---------------------------------|---------------------------------|--|
| December '17 | | | | | (14,700) | (15,711) | 12,481 |
| January '18 | | | | | (14,700) | (16,163) | (3,682) |
| February | 46,500 | (4) | (2,214) | 48,714 | (15,500) | (16,173) | 28,859 |
| March | | | | | (15,500) | (17,469) | 11,390 |
| April | | | | | (15,500) | (15,859) | (4,469) |
| May | 46,000 | (1) | (4,105) | 50,105 | (15,333) | (17,181) | 28,455 |
| June | | | | | (15,333) | (17,213) | 11,242 |
| July | | | | | (15,333) | (15,832) | (4,590) |
| August | 28,700 | (2) | (4,087) | 32,787 | (9,567) | (10,519) | 17,678 |
| September | | | | | (9,567) | (9,882) | 7,796 |
| October | | | | | (9,567) | | |
| November | 35,600 | (3) | (1,766) | 37,366 | (11,867) | | |

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 13)
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.
Lanai Division
Calculations of the Average Residential Customer Bill

| | Rate | | Charge (\$) at 400 Kwh | | | |
|--|-----------------|----------|------------------------|----------|------------|------|
| | 10-01-18 | 11-01-18 | 10-01-18 | 11-01-18 | Difference | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | | |
| Base Fuel/Energy Charge | ¢/kWh | 32.2668 | 32.2668 | 129.07 | 129.07 | 0.00 |
| Non-fuel Fuel Energy Charge | | | | | | |
| First 250 kWh per month | ¢/kWh | 9.1240 | 9.1240 | 22.81 | 22.81 | 0.00 |
| Next 500 kWh per month | ¢/kWh | 11.6240 | 11.6240 | 17.44 | 17.44 | 0.00 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0.00 |
| Total Base Charges | | | | 177.82 | 177.82 | 0.00 |
| IRP Refund | % on base | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Revenue Balancing Rate Adjustment | ¢/kWh | 0.3183 | 0.3183 | 1.27 | 1.27 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4658 | 0.4658 | 1.86 | 1.86 | 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 |
| Interim Rate Increase (Test Year 2018) | % on Base | 6.36 | 6.36 | 11.31 | 11.31 | 0.00 |
| Energy Cost Adjustment | ¢/kWh | -6.372 | -6.037 | -25.49 | -24.15 | 1.34 |
| Green Infrastructure Fee | \$ | 1.21 | 1.21 | 1.21 | 1.21 | 0.00 |
| Avg Residential Bill at 400 kwh | | | | 167.98 | 169.32 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 1.34 |
| % Change | 0.80% |

| | Rate | | Charge (\$) at 500 Kwh | | | |
|--|-----------------|----------|------------------------|----------|------------|------|
| | 10-01-18 | 11-01-18 | 10-01-18 | 11-01-18 | Difference | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | | |
| Base Fuel/Energy Charge | ¢/kWh | 32.2668 | 32.2668 | 161.33 | 161.33 | 0.00 |
| Non-fuel Fuel Energy Charge | | | | | | |
| First 250 kWh per month | ¢/kWh | 9.1240 | 9.1240 | 22.81 | 22.81 | 0.00 |
| Next 500 kWh per month | ¢/kWh | 11.6240 | 11.6240 | 29.06 | 29.06 | 0.00 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0.00 |
| Total Base Charges | | | | 221.70 | 221.70 | 0.00 |
| IRP Refund | % on base | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Revenue Balancing Rate Adjustment | ¢/kWh | 0.3183 | 0.3183 | 1.59 | 1.59 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4658 | 0.4658 | 2.33 | 2.33 | 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 |
| Interim Rate Increase (Test Year 2018) | % on Base | 6.36 | 6.36 | 14.10 | 14.10 | 0.00 |
| Energy Cost Adjustment | ¢/kWh | -6.372 | -6.037 | -31.86 | -30.19 | 1.67 |
| Green Infrastructure Fee | \$ | 1.21 | 1.21 | 1.21 | 1.21 | 0.00 |
| Avg Residential Bill at 500 kwh | | | | 209.07 | 210.74 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 1.67 |
| % Change | 0.80% |

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

| <u>EFFECTIVE DATE</u> | FUEL FACTOR CENTS / KWH | | RESIDENTIAL BILL (\$) |
|-----------------------|---|----------------------------|-----------------------|
| | <u>RESIDENTIAL & COMMERCIAL</u> | <u>@ 400 KWH @ 500 KWH</u> | |
| January 1, 2016 | -12.957 | 135.62 | 168.62 |
| February 1, 2016 | -14.236 | 130.51 | 162.23 |
| March 1, 2016 | -15.833 | 124.12 | 154.24 |
| April 1, 2016 | -15.204 | 125.90 | 156.47 |
| May 1, 2016 | -13.856 | 132.03 | 164.13 |
| June 1, 2016 | -12.617 | 136.22 | 169.37 |
| July 1, 2016 | -11.833 | 139.64 | 173.68 |
| August 1, 2016 | -12.201 | 138.17 | 171.84 |
| September 1, 2016 | -12.634 | 136.43 | 169.68 |
| October 1, 2016 | -12.723 | 136.08 | 169.23 |
| November 1, 2016 | -12.595 | 136.59 | 169.87 |
| December 1, 2016 | -11.160 | 142.33 | 177.05 |
| | | | |
| January 1, 2017 | -11.861 | 139.67 | 173.68 |
| February 1, 2017 | -11.218 | 142.24 | 176.90 |
| March 1, 2017 | -10.975 | 143.21 | 178.11 |
| April 1, 2017 | -10.875 | 143.06 | 177.92 |
| May 1, 2017 | -11.993 | 139.14 | 173.02 |
| June 1, 2017 | -11.149 | 143.14 | 178.03 |
| July 1, 2017 | -11.181 | 142.28 | 176.97 |
| August 1, 2017 | -11.659 | 140.36 | 174.58 |
| September 1, 2017 | -10.389 | 145.40 | 180.88 |
| October 1, 2017 | -10.059 | 167.98 | 209.07 |
| November 1, 2017 | -8.264 | 153.90 | 191.51 |
| December 1, 2017 | -9.353 | 149.55 | 186.06 |
| | | | |
| January 1, 2018 | -8.358 | 153.69 | 191.20 |
| February 1, 2018 | -8.395 | 153.54 | 191.01 |
| March 1, 2018 | -7.868 | 155.65 | 193.65 |
| April 1, 2018 | -9.141 | 150.05 | 186.64 |
| May 1, 2018 | -7.716 | 156.26 | 194.41 |
| June 1, 2018 | -6.144 | 163.86 | 203.92 |
| July 1, 2018 | -5.753 | 165.46 | 205.95 |
| August 1, 2018 | -7.005 | 160.45 | 199.69 |
| September 1, 2018 | -6.735 | 166.53 | 207.25 |
| October 1, 2018 | -6.372 | 167.98 | 209.07 |
| November 1, 2018 | -6.037 | 169.32 | 210.74 |

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

| EFFECTIVE DATE | DESCRIPTION OF SURCHARGE | RATE |
|---------------------|---|------------------------------|
| 01/01/11 - 12/31/11 | RESID. PBF SURCHARGE ADJUSTMENT | 0.5944 CENTS/KWH |
| 06/01/11 | IRP RECOVERY REFUND | 0.000 PERCENT ON BASE |
| 08/01/13 | FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR) | |
| 01/01/16 - 06/30/16 | GREEN INFRASTRUCTURE FEE | 1.3000 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 | 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 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 |
| 06/01/17 - 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 - 06/30/18 | RESID. PBF SURCHARGE ADJUSTMENT | 0.4244 CENTS/KWH |
| 08/17/17 | RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION | 0.0000 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 | 6.36 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.