

A Court Care Care

January 27, 2017

2017 JAN 27 P 4: 14

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 February 2017

Maui Electric Company, Limited's ("Maui Electric" or "Company") February 2017 energy cost adjustment factor for our Maui Division is -8.247 cents per kilowatt-hour ("kWh"), a decrease of 0.588 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$143.65, a decrease of \$2.94 compared to rates effective January 1, 2017.

The Company's Maui Division fuel composite cost of generation, central station and other decreased 58.93 cents per million BTU to 1,186.79 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 1.017 cents per kWh to 20.057 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for February 2017 is -11.218 cents per kWh, an increase of 0.643 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$142.24, an increase of \$2.57 compared to rates effective January 1, 2017.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 64.04 cents per million BTU to 1,659.13 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 February 2017 is -8.792 cents per kWh, an increase of 0.148 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$137.70, an increase of \$0.59 compared to rates effective January 1, 2017.

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 28.12 cents per million BTU to 1,406.21 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 January 27, 2017 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 February 1, 2017.

Sincerely,

Sharon M. Suzuki

President

Attachments

cc: Division of Consumer Advocacy

ENERGY COST ADJUSTMENT FACTOR

| | EFFECTIV | | |
|---|------------------------------------|------------------------------------|-----------------------|
| | <u>01-01-17</u> | <u>02-01-17</u> | <u>Change</u> |
| COMPOSITE COSTS Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh | 1,595.09 0.00 2 7 .00 | 1,659.13 0.00 2 7 .00 | 64.04 0.00 0.00 |
| Residential Schedule "R" | | | |
| Energy Cost Adjustment, ¢/kWh | (11.861) | (11.218) | 0.643 |
| Others - "G,P,F" | | | |
| Energy Cost Adjustment, ¢/kWh | (11.861) | (11.218) | 0.643 |
| Residential Customer with | | | |
| 400 KWH Consumption, \$/Bill | 139.6 7 | 142.24 | 2.57 |
| 500 KWH Consumption, \$/Bill | 1 7 3.68 | 1 7 6.90 | 3.22 |

Supersedes Sheet Effective: January 1, 2017

ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - February 1, 2017 (page 1 of 2)

Line

1 Effective Date February 1, 2017 2 Supercedes Factors of January 1, 2017

GENERATION COMPONENT

| | 1 | CENTRAL | STATION | | | |
|-----|-----------------|---|------------------|--|-----------------------------------|-----------|
| | FUEL PRICES | S, ¢/mmbtu | | | | |
| 3 | Industrial | | | 0.00 | | |
| 4 | Diesel - Miki B | lasin | | 1,659.13 | | |
| 5 | Diesel - Manel | le Bay | | 0.00 | | |
| 6 | Other | | | 0.00 | | |
| | BTU MIX, % | | | - | DG ENERGY COMPONENT | |
| 7 | Industrial | | | 0.00% | 25 COMPOSITE COST OF DG | |
| | Diesel - Miki B | lasin | | 100.00% | ENERGY, ¢/kWh | 0.000 |
| | Diesel - Manel | | | 0.00% | | *:*** |
| | Other | C Day | | 0.00% | 26 % Input to System kWh Mix | 0.00% |
| 10 | Other | | - | 100.00% | 20 % input to dystem RVVII with | 0.0070 |
| | | | | 100.0070 | 27 WEIGHTED COMPOSITE DG ENERGY | |
| 11 | COMPOSITE | COST OF GE | NERATION | | COST, ¢/kWh (Lines 25 x 26) | 0.00000 |
| 4.5 | | | HER ¢/mmbtu | 1,659.13 | 0001, prikitii (Eines 20 x 20) | 0.00000 |
| | | | x 9) + (6 x 10)) | | | |
| 12 | % Input to Sys | | , (o, 10) | 90.22% | 28 BASE DG ENERGY COMP COST | 0.000 |
| | io input to eye | AGIII KI III KIM | | 00.2270 | 29 Base % Input to System kWh Mix | 0.00% |
| | EFFICIENCY | FACTOR mm | btu/kWh | | 30 WEIGHTED BASE DG ENERGY COST, | 0.00.0 |
| | (A) | (B) | (C) | (D) | ¢/kWh (Line 28 x 29) | 0.00000 |
| | V 7 | 1-7 | Percent of | (-) | <i>y</i> | .,, |
| | | Eff Factor | Centrl Stn + | Weighted | 31 Cost Less Base (Line 27 - 30) | 0.00000 |
| | Fuel Type | mmbtu/kwh | Other | Eff Factor | 32 Loss Factor | 1.0510 |
| 13 | Industrial | 0.000000 | 0.00 | 0.000000 | 33 Revenue Tax Reg Multiplier | 1.0975 |
| 14 | Diesel | 0.011151 | 100.00 | 0.011151 | 34 DG FACTOR, | |
| 15 | Other | 0.011151 | 0.00 | 0.000000 | ¢/kWh (Line 31 x 32 x 33) | 0.00000 |
| | (Lines 13, 1 | 4, 15); Col(B) | x Col(C) = Col | (D) | | |
| 16 | Weighted Effic | | | , | | |
| | | 14(D) + 15(D | | 0.011151 | | |
| 17 | WEIGHTED C | OMPOSITE O | ENTRAL STA | TION + | | |
| | | COST, ¢/kW | | IIIOIT I | | |
| | (lines (11 x 1 | 2 x 16)) | | 16.69156 | | |
| 18 | BASE CENTR | AL STATION | + OTHER GEN | NERATION | | |
| | COST, ¢/mn | | | 2,647,15 | | |
| 19 | Base % Input | | ix | 89.65% | | |
| | Efficiency Fac | | | 0.011151 | | |
| | WEIGHTED B | | | / | | |
| | OTHER GEN | IERATION CO | OST ¢/kWh | | | |
| | (lines (18 x | 19 x 20)) | | 26.46322 | | |
| 00 | 000715005 | NA OF # # # # # # # # # # # # # # # # # # | 0455 | (0.771.00) | SUMMARY OF | |
| | COSTLESS | | 11 | (9.77166) | TOTAL GENERATION FACTOR, ¢/kWh | |
| | Revenue Tax | | | 1.0975 | | 10.72440) |
| 24 | CENTRAL ST | | | Comment of the Commen | 36 DG (line 34) | - |
| | FAUTUR, ¢/ | Wh (line (22 | x 23)) | -10.72440 | 37 TOTAL GENERATION FACTOR. | 40.704405 |
| | | | | | ¢/kWh (lines 35 + 36) (| 10.72440) |

¹ The Manele CHP experienced a catastrophic fire on March 6, 2015. Its return to service is undetermined at this time,

ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - February 1, 2017 (page 2 of 2)

Line 1 Effective Date 1 Effective Date February 1, 2017
2 Supercedes Factors of January 1, 2017

| Line | PURCHASED ENERGY COMPON | <u>NENT</u> |
|----------|--|---|
| 38 39 | PURCHASED ENERGY PRICE, ¢/kWh LANAI SOLAR RESEARCH - On Peak - Off Peak | 27.000 27.000 |
| 40 | Sch Q | 0.000 |
| 41 42 | PURCHASED ENERGY KWH MIX. % LANAI SOLAR RESEARCH - On Peak - Off Peak | 100.00% 0.00% |
| 43 | Sch Q | 0.00% |
| | COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43)) % Input to System kWh Mix | 27.000 9.78% |
| 46 | WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45)) | 2.64060 |
| 48 | BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh Base % Input to Sys kWh Mix | 27.000 10.35 |
| 49 | WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48)) | 2.79450 |
| 51 52 | COST LESS BASE(lines (46 - 49)) Loss Factor Revenue Tax Req Multiplier PURCHASED ENERGY FACTOR, ### ### ### ### ### ### ### ### ### # | (0.15390) 1.051 1.0975 (0.17752) |

SYSTEM COMPOSITE CALCULATIONS Line

| 54 | GENERATION AND PURCHASED | ENERGY |
|----|-------------------------------|------------|
| | FACTOR, ¢/kWh | (10.90192) |
| | (lines (37 + 53)) | |
| 55 | Adjustment, ¢/kWh | 0.000 |
| 56 | ECA Reconciliation Adjustment | (0.316) |
| 57 | ECA FACTOR, ¢/kWh | (11.218) |
| | (lines (54 + 55 + 56)) | |

Maui Electric Company, Ltd. Lanai Division

MONTH END FUEL OIL ESTIMATE

| <u> Miki Basin - ULSD</u> | Barrels | | MBTU | | \$ | 47 |
|------------------------------|------------------|---|---------|---------------|----------------|----|
| 1/19/201 7 | 4,470.62 | | 25,610 | 6. 7 1 | 418,430.2 | 5 |
| Estimated Use | 1,628.6 7 | | 9,332 | 2.28 | 148,858.2 | 5 |
| Estimated Received | 1,142.86 | | 6,548 | 8.59 | 109,257.4 | 2 |
| Estimated Additional | (- | | | <u></u> | (- | |
| Estimated End | 3,984.81 | | 22,833 | 3.02 | 378,829.4 | 2 |
| | | | | | | |
| Next Month's Combined Miki E | xpense (\$/bbl) | = | \$ 95.0 | 0684 /bbl | | |

FUEL OIL INVENTORY PRICE USED FOR FILING

| Type of Oil Burned | <u>Price</u> | Conversion Factor | Prices ¢/MBTU | |
|---------------------|---------------|-----------------------|---------------|--|
| Diesel - Miki Basin | \$ 95.0684 | 5. 7 3 BTU/BBL | 1,659.13 | |

Contract Prices effective January 1, 2017

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

MIKI BASIN - ULTRA LOW SULFUR DIESEL (DYED)

| Tax * | 1.6002 | 2 7 .93 |
|----------------------|--------|----------------|
| Ocean Transportation | 0.0000 | 0.00 |
| Storage | 0.0000 | 0.00 |
| Wharfage | 0.0000 | 0.00 |

MIKI BASIN - ULTRA LOW SULFUR DIESEL

| Tax * | 11.8062 | 206.04 |
|----------------------|---------|--------|
| 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

February 2017

| Amount to be refunded | (\$1 7 ,200) |
|------------------------------------|-----------------------------|
| 2. Monthly amount (1 / 3 X Line 1) | (\$5,733) |
| 3. Revenue Tax Divisor | 0.91115 |
| 4. Total (Line 2 / Line 3) | (\$6,292) |
| 5. Estimated Sales (February 2017) | 1,989 mwh |
| 6. Adjustment (Line 4 ÷ Line 5) | -0.316 ¢/kwh |

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

| Line | · · | Without Deadband 4th Quarter <u>YTD Total</u> | collection by company* | Basis for Recon With Deadband 4th Quarter <u>YTD Total</u> | collection by company* |
|----------------|--|---|------------------------------|---|------------------------------|
| 1 2 3 | ACTUAL COSTS: Generation Distributed Generation Purch Power | \$4,454.6 \$0.0 \$632.5 | | \$4,454.6 \$0.0 \$632.5 | |
| 4 | TOTAL | \$5,087.1 | | \$5,087.1 | |
| 5 6 7 | FUEL FILING COST Generation Distributed Generation Purch Power | \$4,586.3 \$0.0 \$632.5 | | \$4,565.8 \$0.0 \$632.5 | |
| 8 | TOTAL | \$5,218.8 | | \$5.198.3 | |
| 9 10 11 | BASE FUEL COST Generation Distributed Generation Purch Power | \$8,161.4 \$0.0 \$657.8 | | \$8,161.4 \$0.0 \$657.8 | |
| 12 | TOTAL | \$8,819.3 | | \$8,819.3 | |
| 13 | FUEL-BASE COST (Line 8-12) | -\$3,600.5 | | -\$3,621.0 | |
| 14 15 | ACTUAL FOA LESS TAX FOA reconciliation adj for prior year | -\$3,589.1 \$11.1 | | -\$3,589.1 \$11.1 | |
| 16 | ADJUSTED FOA LESS TAX | -\$3,600.2 | | -\$3,600.2 | |
| 17 | FOA-(FUEL-BASE) (Line 16-13) | \$0.3 | Over | \$20.8 | Over |
| 18 19 20 | ADJUSTMENTS Current year FOA accrual reversal Other prior year FOA Other | \$44.2 \$0.0 \$0.0 | | \$44.2 \$0.0 \$0.0 | |
| 21 | 4th QUARTER FOA RECONCILIATION (Lines 17+18+19+20) | \$44.5 | Over | \$65.0 | Over |
| 22 | 3rd QUARTERLY YTD 2016 YTD FOA Reconciliation Recogniz | zed in FOA Rates | | \$47.8 | Over |
| 23 | FOA Reconciliation to be Refunded February 2017 to April 201 | 7 (Line 22- 21) | | -\$17.2 | 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, 2016 through December 31, 2016

| | Notes | Jan 1 - Dec 31 |
|---|--------------------------|-----------------------------|
| <u>Diesel</u> Diesel Efficiency Factor (TY2009), BTU/kWh Diesel Deadband Definition, +/- BTU/kWh | f d | 11,151 50 |
| Diesel Portion of Recorded Sales, MWh Diesel Consumption (Recorded), MMBTU Diesel Efficiency Factor (Recorded), BTU/kWh | a b c = (b/a)*1000 | 27,760 300,985 10,842 |
| Lower limit of Diesel Deadband, BTU/kWh Higher limit of Diesel Deadband, BTU/kWh | e = f-d g = f+d | 11,101 11,201 |
| Diesel Efficiency Factor for cost-recovery, BTU/kWh | h = c, e, or g | 11,101 |

GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND 2016

| _ | Without Deadband | With Deadband - AS FILED |
|---|-------------------|--------------------------|
| · | Jan 1 - Dec 31 | Jan 1 - Dec 31 |
| Diesel Portion of Recorded Sales, MWH | 27,760 | 27,760 |
| Diesel Sales Efficiency Factor (mmbtu/kwh) | 0.011151 | 0.011101 |
| Mmbtu adjusted for Sales Efficiency Factor | 309,549 | 308, 161 |
| \$/mmbtu | \$ 14.8162 | \$ 14.8162 |
| TOTAL DIESEL \$000s TO BE RECOVERED | \$4,586.3 | \$4,565.8 |
| TOTAL GENERATION FUEL FILING COST, \$000s | \$ 4,586.3 | \$4,565.8 |
| TOTAL GENERATION BASE FUEL COST, \$000s YTD | \$8,161.4 | \$8,161.4 |
| | | |
| TOTAL GENERATION FUEL FILING COST, \$000s YTD | \$4,586.3 | \$4,565.8 |
| TOTAL GENERATION BASE FUEL COST, \$000s YTD | \$8,161.4 | \$8,161.4 |

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

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--|---|-------------------|-------------------|-------------------------------|----------------|-------------------------|
| | YTD FOA | FOA Rec Adjust | FOA Rec Less | Try to | Actual | Month-end Cumulative |
| <u>Month</u> | Reconciliation Qtr | | Variance Variance | <u>Collect</u> | <u>Collect</u> | Balance |
| December '16 January '17 February | 17,200 (4) | (2,409) | 19,609 | (3,767) (3,767) (5,733) | (4,443) | 1,351 |
| NOTES: | | | | | | |
| Col(1): | Quarterly FOA rec | | • | | | nder-collectio |
| A positive number is an over-collection. A negative number is an under-collection FOA reconciliation adjustment variance accumulated during the last three month starting with the fourth prior month; the difference between the estimated records 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): Col(5): Col(6): | Amount that the FO Actual collected ar Cumulative balance | nount. (reco | rded sales * \$ | 5/kwh adjustr | ment/1.097 | 51) |

Maui Electric Company, Ltd. Lanai Division Calculations of the Average Residential Customer Bill

| Base Rates Base Fuel/Energy Charge Non-fuel Fuel Energy Charge First 250 kWhr per month Next 500 kWhr per month Customer Charge Total Base Charges |
|--|
| IRP Refund |
| Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision SolarSaver Adjustment |
| Energy Cost Adjustment Green Infrastructure Fee |
| Avg Residential Bill at 400 kwh |

| Rate | | | |
|-----------------|----------|----------|--|
| | 01-01-17 | 02-01-17 | |
| | | | |
| effective date: | 08/01/13 | 08/01/13 | |
| ¢/kWh | 32.2668 | 32.2668 | |
| ¢/kWh | 9.1240 | 9.1240 | |
| ¢/kWh | 11.6240 | 11.6240 | |
| \$ | 8.50 | 8.50 | |
| | | | |
| % on base | 0.0000 | 0.0000 | |
| ¢/kWh | 1.4082 | 1.4082 | |
| ¢/kWh | 0.5865 | 0.5865 | |
| ¢/kWh | 0.0099 | 0.0099 | |
| ¢/kWh | 0.0000 | 0.0000 | |
| | 44.054 | 44.045 | |
| ¢/kWh | -11.861 | -11.218 | |
| \$ | 1.27 | 1.27 | |

| Charg | e (\$) at 4 | 00 Kwh |
|----------|-------------|------------|
| 01-01-17 | 02-01-17 | Difference |
| | | |
| 129.07 | 129.07 | 0.00 |
| 22.81 | 22.81 | 0.00 |
| 17.44 | 17.44 | 0.00 |
| 8.50 | 8.50 | 0.00 |
| 177.82 | 177.82 | 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 |
| -47.44 | -44.87 | 2.57 |
| 1.27 | 1.27 | 0.00 |
| 139.67 | 142.24 | |

Increase (Decrease -) % Change

2.57 1.84%

| Base Rates Base Fuel/Energy Charge Non-fuel Fuel Energy Charge First 250 kWhr per month Next 500 kWhr per month Customer Charge Total Base Charges |
|--|
| IRP Refund |
| Revenue Balancing Rate Adjustment PBF Surcharge Renewable Energy Infrastructure Cost Recovery Provision SolarSaver Adjustment |
| Energy Cost Adjustment Green Infrastructure Fee |
| Avg Residential Bill at 500 kwh |

| Rate | | | |
|-----------------|----------|----------|--|
| | 01-01-17 | 02-01-17 | |
| | | | |
| effective date: | 08/01/13 | 08/01/13 | |
| ¢/kWh | 32.2668 | 32.2668 | |
| ¢/kWh | 9.1240 | 9.1240 | |
| ¢/kWh | 11.6240 | 11.6240 | |
| \$ | 8.50 | 8.50 | |
| | | | |
| % on base | 0.0000 | 0.0000 | |
| ¢/kWh | 1.4082 | 1.4082 | |
| ¢/kWh | 0.5865 | 0.5865 | |
| ¢/kWh | 0.0099 | 0.0099 | |
| ¢/kWh | 0.0000 | 0.0000 | |
| ¢/kWh | -11.861 | -11.218 | |
| \$ | 1.27 | 1.27 | |

| Charge (\$) at 500 Kwh | | | |
|------------------------|----------------|--------------|--|
| 01-01-17 | 02-01-17 | Difference | |
| | | | |
| 161.33 | 161.33 | 0.00 | |
| 22.81 | 22.81 | 0.00 | |
| 29.06 | 29.06 | 0.00 | |
| 8.50 | 8.50 | 0.00 | |
| 221.70 | 221.70 | 0.00 | |
| 0.00 | 0.00 | 0.00 | |
| 7.04 | 7.04 | 0.00 | |
| 2.93 | 2.93 | 0.00 | |
| 0.05 0.00 | 0.05 0.00 | 0.00 0.00 | |
| -59.31 1.27 | -56.09 1.27 | 3.22 0.00 | |
| 173.68 | 176.90 | | |

Increase (Decrease -) % Change

| 3.22 |
|-------|
| 1.85% |

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

FUEL FACTOR

| | FUEL FACTOR | | |
|-------------------|---------------|-----------------|-----------------|
| | CENTS / KWH | | |
| | RESIDENTIAL & | | TAL BILL (\$) |
| EFFECTIVE DATE | COMMERCIAL | @ 400 KWH | @ 500 KWH |
| | | | |
| January 1, 2014 | 0.693 | 187.14 | 233.37 |
| February 1, 2014 | 1.420 | 190.05 | 237.00 |
| March 1, 2014 | 1.370 | 189.85 | 236.75 |
| April 1, 2014 | 1.854 | 190.81 | 237.94 |
| May 1, 2014 | -1.036 | 180.23 | 224.72 |
| June 1, 2014 | 0.013 | 187.69 | 234.05 |
| July 1, 2014 | 0.208 | 189. 2 1 | 235.94 |
| August 1, 2014 | -0.179 | 187.66 | 234.00 |
| September 1, 2014 | -0.244 | 187.40 | 233.68 |
| October 1, 2014 | -3.591 | 174.02 | 216.94 |
| November 1, 2014 | -1.766 | 181.32 | 226.07 |
| December 1, 2014 | -3.365 | 175.18 | 218.07 |
| January 1, 2015 | -4.698 | 169.85 | 211.41 |
| February 1, 2015 | -7.361 | 159.20 | 198.09 |
| March 1, 2015 | -8.793 | 153.47 | 190.93 |
| April 1, 2015 | -6.831 | 160.22 | 199.37 |
| May 1, 2015 | -9.750 | 149.64 | 186.15 |
| June 8, 2015 | -8.842 | 153.16 | 190.56 |
| July 1, 2015 | -7.314 | 158. 27 | 196.91 |
| August 1, 2015 | -8.457 | 153.70 | 191.19 |
| September 1, 2015 | -10.465 | 145.71 | 181. 2 0 |
| October 1, 2015 | -12.259 | 138.53 | 172.23 |
| November 1, 2015 | -12.177 | 138.86 | 172.64 |
| December 1, 2015 | -11.304 | 142.35 | 177.01 |
| | | | |
| 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 |

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

| EFFECTIVE DATE | DESCRIPTION OF SURCHARGE | <u> </u> | RATE |
|--|---|----------|---------------------------|
| | | | |
| 01/01/11 - 12/31/11 | RESID, PBF SURCHARGE ADJUSTMENT | | CENTS/KWH |
| 01/12/11 - 05/03/12 | FINAL RATE INCREASE (3.65%), DOCKET NO. 2006-0387 (| | |
| 01/12/11 - 05/03/12 | INTERIM RATE INCREASE 2010 TEST YEAR | | PERCENT ON BASE |
| 02/01/11 - 02/28/11 | IRP RECOVERY REFUND | | PERCENT ON BASE |
| 03/01/11 - 04/30/11 | IRP RECOVERY REFUND | | PERCENT ON BASE |
| 04/01/11 - 04/30/11 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 05/01/11 - 03/31/12 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 05/01/11 - 05/31/11 | IRP RECOVERY REFUND | | PERCENT ON BASE |
| 06/01/11 | IRP RECOVERY REFUND | | PERCENT ON BASE |
| 01/01/12 - 12/31/12 | RESID. PBF SURCHARGE ADJUSTMENT | | CENTS/KWH |
| 04/01/12 - 04/30/12 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 05/01/12 - 03/31/13 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 5/4/2012 - 07/31/13 | FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (INTERIM RATE INCREASE 2012 TEST YEAR | | |
| 6/1/2012 - 07/31/13 01/01/13 - 06/30/13 | RESID. PBF SURCHARGE ADJUSTMENT | | PERCENT ON BASE CENTS/KWH |
| | | | CENTS/KWH |
| 04/01/13 - 04/30/13 | SOLARSAVER ADJUSTMENT | | |
| 05/01/13 - 03/31/14 | SOLARSAVER ADJUSTMENT REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | | CENTS/KWH |
| 06/01/13 - 05/31/14 | | | CENTS/KWH CENTS/KWH |
| 07/01/13 - 06/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | | |
| 08/01/13 | FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 | • | • |
| 04/01/14 - 04/30/14 05/01/14 - 03/31/15 | SOLARSAVER ADJUSTMENT | | CENTS/KWH |
| 06/01/14 - 05/31/15 | SOLARSAVER ADJUSTMENT REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | | CENTS/KWH CENTS/KWH |
| 07/01/14 - 03/31/15 | 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 | | CENTS/KWH |
| 00/1//13 - 02/29/10 | RECOVERY PROVISION | 0.0103 | CENTS/RVVII |
| 01/01/16 - 06/30/16 | GREEN INFRASTRUCTURE FEE | 1.3000 | DOLLARS/MONTH |
| 03/01/16 | 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 | SOLARSAVER ADJUSTMENT | 0.0000 | CENTS/KWH |
| 06/01/16 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 1.4082 | CENTS/KWH |
| 07/01/16 | RESID. PBF SURCHARGE ADJUSTMENT | 0.5865 | CENTS/KWH |
| 07/01/16 - 12/31/16 | GREEN INFRASTRUCTURE FEE | | DOLLARS/MONTH |
| 01/01/17 | GREEN INFRASTRUCTURE FEE | 1.27 | 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.