

SHARON M. SUZUKI President

July 27, 2017

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2017 JUL 27 P 2: 49

PUBLIC UTILIFIES 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 August 2017

Maui Electric Company, Limited's ("Maui Electric" or "Company") August 2017 Energy Cost Adjustment factor for our Maui Division is -7.867 cents per kilowatt-hour ("kWh"), a decrease of 2.232 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$145.30, a decrease of \$11.21 compared to rates effective July 1, 2017. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor (-\$11.17) and the decrease in the Purchased Power Adjustment Clause rate (-\$0.04).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 98.01 cents per million BTU to 1,073.23 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.220 cents per kWh to 19.081 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for August 2017 is -11.659 cents per kWh, a decrease of 0.478 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$140.36, a decrease of \$1.92 compared to rates effective July 1, 2017. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor.

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 66.01 cents per million BTU to 1,609.10 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 August 2017 is -9.670 cents per kWh, a decrease of 1.188 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$134.08, a decrease of \$4.75 compared to rates effective July 1, 2017. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor.

The Honorable Chair and Members of the Hawai'i Public Utilities Commission July 27, 2017 Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 96.48 cents per million BTU to 1,351.20 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 August 1, 2017.

Sincerely,

Aharm m. Arali

Sharon M. Suzuki President

Attachments

cc: Division of Consumer Advocacy

### ENERGY COST ADJUSTMENT FACTOR

|  | EFFECTIVE DATES           |                           |                         |
|--|---------------------------|---------------------------|-------------------------|
|  | <u>07-01-17</u>           | <u>08-01-17</u>           | <u>Change</u>           |
| <u>COMPOSITE COSTS</u><br>Generation, Central Station & Other, ¢/mbtu<br>DG Energy, ¢/kWh<br>Purchased Energy, ¢/kWh | 1,675.11<br>0.00<br>27.00 | 1,609.10<br>0.00<br>27.00 | (66.01)<br>0.00<br>0.00 |
| ·  |                           |                           |                         |
| Residential Schedule "R"   |                           |                           |                         |
| Energy Cost Adjustment, ¢/kWh  | (11.181)                  | (11.659)                  | (0.478)                 |
| Others - "G,P,F"   |                           |                           |                         |
| Energy Cost Adjustment, ¢/kWh  | (11.181)                  | (11.659)                  | (0.478)                 |
| Residential Customer with  |                           |                           |                         |
| 400 KWH Consumption, \$/Bill   | 142.28                    | 140.36                    | (1.92)                  |
| 500 KWH Consumption, \$/Bill   | 176.97                    | 174.58                    | (2.39)                  |

Supersedes Sheet Effective: July 1, 2017

#### ENERGY COST ADJUSTMENT (ECA) FILING

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

- Line 1 Effective Date August 1, 2017 July 1, 2017
  - 2 Supercedes Factors of

#### **GENERATION COMPONENT**

|    | CENTRAL STATION                                     |            |  |           |
|----|---|------------|--|-----------|
|    | FUEL PRICES, ¢/mmbtu                                |            |  |           |
| -  | Industrial  | 0.00       |  |           |
| -  | Diesel - Miki Basin                                 | 1,549.86   |  |           |
|    | Diesel - Manele Bay                                 | 1,815.64   |  |           |
| 6  | Other   | 0.00       |  |           |
|    | BTU MIX, %  |            | DG ENERGY COMPONENT                                  |           |
| 7  | Industrial  | 0.00%      | 25 COMPOSITE COST OF DG                              |           |
|    | Diesel - Miki Basin                                 | 77.71%     | ENERGY, ¢/kWh  | 0.000     |
|    | Diesel - Manele Bay                                 | 22.29%     |  |           |
|    | Other   | 0.00%      | 26 % Input to System kWh Mix                         | 0.00%     |
| -  |   | 100.00%    |  |           |
|    |   |            | 27 WEIGHTED COMPOSITE DG ENERGY                      |           |
| 11 | COMPOSITE COST OF GENERATION,                       |            | COST, ¢/kWh (Lines 25 x 26)                          | 0.00000   |
|    | CENTRAL STATION + OTHER ¢/mmbtu                     | 1,609.10   |  |           |
|    | (Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))      |            |  |           |
| 12 | % Input to System kWh Mix                           | 91.22%     | 28 BASE DG ENERGY COMP COST                          | 0.000     |
|    |   |            | 29 Base % Input to System kWh Mix                    | 0.00%     |
|    | EFFICIENCY FACTOR, mmbtu/kWh                        |            | 30 WEIGHTED BASE DG ENERGY COST,                     |           |
|    | (A) (B) (C)   | (D)        | ¢/kWh (Line 28 x 29)                                 | 0.00000   |
|    | Percent of  |            |  |           |
|    | Eff Factor Centrl Stn +                             | Weighted   | 31 Cost Less Base (Line 27 - 30)                     | 0.00000   |
| 10 | Fuel Type mmbtu/kwh Other                           | Eff Factor | 32 Loss Factor                                       | 1.0510    |
| 13 | Industrial 0.000000 0.00                            | 0.000000   | 33 Revenue Tax Req Multiplier                        | 1.0975    |
| 14 | Diesel 0.011151 100.00                              | 0.011151   | 34 DG FACTOR,  | 0.00000   |
| 15 | Other 0.011151 0.00                                 | 0.000000   | ¢/kWh (Line 31 x 32 x 33)                            | 0.00000   |
| 40 | (Lines 13, 14, 15): $Col(B) \times Col(C) = Col(C)$ | (D)        |  |           |
| 16 | Weighted Efficiency Factor, mmbtu/kWh               | 0 044454   |  |           |
|    | [lines 13(D) + 14(D) + 15(D)]                       | 0.011151   |  |           |
| 17 | WEIGHTED COMPOSITE CENTRAL STAT                     | ΓΙΟN +     |  |           |
|    | OTHER GEN COST, ¢/kWh                               |            |  |           |
|    | (lines (11 x 12 x 16))                              | 16.36767   |  |           |
|    |   |            |  |           |
| 18 | BASE CENTRAL STATION + OTHER GEN                    | -          |  |           |
|    | COST, ¢/mmbtu                                       | 2,647.15   |  |           |
|    | Base % Input to Sys kWh Mix                         | 89.65%     |  |           |
|    | Efficiency Factor, mmbtu/kwh                        | 0.011151   |  |           |
| 21 | WEIGHTED BASE CENTRAL STATION +                     |            |  |           |
|    | OTHER GENERATION COST ¢/kWh                         | 00 40000   |  |           |
|    | (lines (18 x 19 x 20))                              | 26.46322   |  |           |
|    |   | (10 00555) |  |           |
|    | COST LESS BASE (line(17 - 21))                      | (10.09555) |  |           |
|    | Revenue Tax Req Multiplier                          | 1.0975     |  | 11.07987) |
| 24 | CENTRAL STATION + OTHER GENERAT                     |            | 36 DG (line 34)                                      | -         |
|    | FACTOR, ¢/kWh (line (22 x 23))                      | -11.07987  | 37 TOTAL GENERATION FACTOR,<br>¢/kWh (lines 35 + 36) | 11.07987) |
|    |   |            |  | 11.01907) |

#### ENERGY COST ADJUSTMENT (ECA) FILING

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

Line 1 Effe

| ective Date | August 1, 2017 |
|-------------|----------------|
|             | 1 1 4 0047     |

2 Supercedes Factors of July 1, 2017

| Line     | PURCHASED ENERGY COMPO   | NENT                                      |
|----------|--|---|
| 38<br>39 | PURCHASED ENERGY PRICE, ¢/kWh<br>LANAI SOLAR RESEARCH - On Peak<br>- Off Peak  | 27.000<br>27.000                          |
| 40       | Sch Q  | 0.000                                     |
| 41<br>42 | PURCHASED ENERGY KWH MIX, %<br>LANAI SOLAR RESEARCH - On Peak<br>- Off Peak  | 100.00%<br>0.00%                          |
| 43       | Sch Q  | 0.00%                                     |
| 44       | COMPOSITE COST OF PURCHASED<br>ENERGY, ¢/kWh<br>(Lines (38 x 41) + (39 x 42) + (40 x 43))  | 27.000                                    |
|          | % Input to System kWh Mix<br>WEIGHTED COMP. PURCH. ENERGY<br>COST, ¢/kWh (lines (44 x 45))   | 8.78%<br>2.37060                          |
| 48       | BASE PURCHASED ENERGY<br>COMPOSITE COST, ¢/kWh<br>Base % Input to Sys kWh Mix<br>WEIGHTED BASE PURCHASED ENERGY                          | 27.000<br>10.35                           |
|          | COST, ¢/kWh (lines (47 x 48))  | 2.79450                                   |
| 51<br>52 | COST LESS BASE(lines (46 - 49))<br>Loss Factor<br>Revenue Tax Req Multiplier<br>PURCHASED ENERGY FACTOR,<br>¢/kWh (lines (50 x 51 x 52)) | (0.42390)<br>1.051<br>1.0975<br>(0.48896) |

#### Line SYSTEM COMPOSITE CALCULATIONS

| 54 | 4 GENERATION AND PURCHASED ENERGY |            |  |
|----|-----------------------------------|------------|--|
|    | FACTOR, ¢/kWh                     | (11.56883) |  |
|    | (lines (37 + 53))                 |            |  |
| 55 | Adjustment, ¢/kWh                 | 0.000      |  |
| 56 | ECA Reconciliation Adjustment     | (0.090)    |  |
| 57 | ECA FACTOR, ¢/kWh                 | (11.659)   |  |
|    |                                   |            |  |

57 ECA FACTOR, ¢/kWh (lines (54 + 55 + 56))

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

#### MONTH END FUEL OIL ESTIMATE

| <u> Miki Basin - ULSD</u>       | Barrels       |   | MBTU            | \$         |
|---------------------------------|---------------|---|-----------------|------------|
| 7/20/2017                       | 4,473.24      |   | 25,631.67       | 406,195.50 |
| Estimated Use                   | 1,581.40      |   | 9,061.42        | 149,953.85 |
| Estimated Received              | 1,000.00      |   | 5,730.00        | 89,381.50  |
| Estimated Additional            | -             |   |                 | -          |
| Estimated End                   | 3,891.84      |   | 22,300.25       | 345,623.15 |
| Next Month's Combined Miki Expe | ense (\$/bbl) | = | \$ 88.8071 /bbl |            |

| Manele CHP                      | Barrels |   | MBTU             | \$        |
|---------------------------------|---------|---|------------------|-----------|
| 7/20/2017                       | 180.90  |   | 1,036.56         | 20,925.97 |
| Estimated Use                   | -       |   | -                | -         |
| Estimated Received              | -       |   | -                | -         |
| Estimated Additional            | 749.82  |   | 4,296.44         | 75,902.20 |
| Estimated End                   | 930.72  |   | 5,333.00         | 96,828.17 |
|                                 |         |   |                  |           |
| Next Month's Manele Expense (\$ | S/bbl)  | = | \$ 104.0363 /bbl |           |

#### FUEL OIL INVENTORY PRICE USED FOR FILING

| Type of Oil Burned  | Price       | Conversion Factor | Prices ¢/MBTU |
|---------------------|-------------|-------------------|---------------|
| Diesel - Miki Basin | \$ 88.8071  | 5.73 BTU/BBL      | 1,549.86      |
| Diesel - Manele Bay | \$ 104.0363 | 5.73 BTU/BBL      | 1,815.64      |

#### **Contract Prices effective July 1, 2017**

| TYPE OF OIL BURNED     | \$/BBL       | ¢/MBTU          |
|------------------------|--------------|-----------------|
|                        |              |                 |
| MIKI BASIN - ULTRA LOW | SULFUR DIESE | <u>L (DYED)</u> |
| Tax *                  | 1.6002       | 27.93           |
| 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   |

#### MANELE BAY - ULTRA LOW SULFUR DIESEL

| Tax *                | 15.5988 | 272.23 |
|----------------------|---------|--------|
| 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

# August 2017

| 1. Amount to be refunded           | (\$5,800)    |
|------------------------------------|--------------|
| 2. Monthly amount (1 / 3 X Line 1) | (\$1,933)    |
| 3. Revenue Tax Divisor             | 0.91115      |
| 4. Total (Line 2 / Line 3)         | (\$2,121)    |
| 5. Estimated Sales (August 2017)   | 2,355 mwh    |
| 6. Adjustment (Line 4 ÷ Line 5)    | -0.090 ¢/kwh |

# MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION 2017 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY (Thousand \$)

| (Thousand \$)<br>Basis for Recon |  |                  |            |               |                 |  |  |  |
|----------------------------------|--|------------------|------------|---------------|-----------------|--|--|--|
|                                  |  | Without Deadband | collection | With Deadband | collection      |  |  |  |
|                                  |  | 2nd Quarter      | by         | 2nd Quarter   | by              |  |  |  |
| Line                             |  | YTD Total        | company*   | YTD Total     | <u>company*</u> |  |  |  |
|                                  | ACTUAL COSTS:  |                  |            |               |                 |  |  |  |
| 1                                | Generation   | \$2,380.9        |            | \$2,380.9     |                 |  |  |  |
| 2                                | Distributed Generation                                       | \$0.0            |            | \$0.0         |                 |  |  |  |
| 3                                | Purch Power  | \$311.2          |            | \$311.2       |                 |  |  |  |
| 4                                | TOTAL  | \$2,692.1        |            | \$2,692.1     |                 |  |  |  |
|                                  | FUEL FILING COST   |                  |            |               |                 |  |  |  |
| 5                                | Generation   | \$2,509.3        |            | \$2,498.1     |                 |  |  |  |
| 6                                | Distributed Generation                                       | \$0.0            |            | \$0.0         |                 |  |  |  |
| 7                                | Purch Power  | \$311.2          |            | \$311.2       |                 |  |  |  |
| 8                                | TOTAL  | \$2,820.5        |            | \$2,809.2     |                 |  |  |  |
|                                  | BASE FUEL COST   |                  |            |               |                 |  |  |  |
| 9                                | Generation   | \$3,996.3        |            | \$3,996.3     |                 |  |  |  |
| 10                               | Distributed Generation                                       | \$0.0            |            | \$0.0         |                 |  |  |  |
| 11                               | Purch Power  | \$324.6          |            | \$324.6       |                 |  |  |  |
| 12                               | TOTAL  | \$4,320.9        |            | \$4,320.9     |                 |  |  |  |
| 13                               | FUEL-BASE COST (Line 8-12)                                   | -\$1,500.4       |            | -\$1,511.7    |                 |  |  |  |
| 14                               | ACTUAL FOA LESS TAX  | -\$1,520.2       |            | -\$1,520.2    |                 |  |  |  |
| 15                               | FOA reconciliation adj for prior year                        | -\$20.9          |            | -\$20.9       |                 |  |  |  |
| 16                               | ADJUSTED FOA LESS TAX  | -\$1,499.3       |            | -\$1,499.3    |                 |  |  |  |
| 17                               | FOA-(FUEL-BASE) (Line 16-13)                                 | \$1.1            | Over       | \$12.4        | Over            |  |  |  |
|                                  | ADJUSTMENTS  |                  |            |               |                 |  |  |  |
| 18                               | Current year FOA accrual reversal                            | \$13.2           |            | \$13.2        |                 |  |  |  |
| 19                               | Other prior year FOA   | \$0.0            |            | \$0.0         |                 |  |  |  |
| 20                               | Other  | \$0.0            |            | \$0.0         |                 |  |  |  |
| 21                               | 2nd QUARTER FOA RECONCILIATION (Lines 17+18+19+20)           | \$14.3           | Over       | \$25.6        | Over            |  |  |  |
| 22                               | 1st QUARTERLY YTD 2017 FOA Reconciliation Recognized in I    | FOA Rates        |            | \$19.8        | Over            |  |  |  |
| 23                               | FOA Reconciliation to be Refunded August 2017 to October 201 | 7 (Line 22- 21)  |            | -\$5.8        | Refunded        |  |  |  |
| * •                              | ar maana an awar collection by the company                   |                  |            |               |                 |  |  |  |

\* 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, 2017 through June 30, 2017

|   | Notes             | <u>Jan 1 - Jun 30</u> |
|---|-------------------|-----------------------|
| Diesel  |                   | -                     |
| Diesel Efficiency Factor (TY2009), BTU/kWh          | f                 | 11,151                |
| Diesel Deadband Definition, +/- BTU/kWh             | d                 | 50                    |
| Diesel Portion of Recorded Sales, MWh               | а                 | 13,593                |
| Diesel Consumption (Recorded), MMBTU                | b                 | 143,795               |
| Diesel Efficiency Factor (Recorded), BTU/kWh        | $c = (b/a)^*1000$ | 10,579                |
| 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 GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND 2017

|   | Without Deadband      | With Deadband - AS FILED |
|---|-----------------------|--------------------------|
| -   | <u>Jan 1 - Jun 30</u> | <u>Jan 1 - Jun 30</u>    |
| Diesel Portion of Recorded Sales, MWH         | 13,593                | 13,593                   |
| Diesel Sales Efficiency Factor (mmbtu/kwh)    | 0.011151              | 0.011101                 |
| Mmbtu adjusted for Sales Efficiency Factor    | 151,572               | 150,892                  |
| \$/mmbtu                                      | <u>\$16.5552</u>      | <u>\$16.5552</u>         |
| TOTAL DIESEL \$000s TO BE RECOVERED           | \$2,509.3             | \$2,498.1                |
| TOTAL GENERATION FUEL FILING COST, \$000s     | \$2,509.3             | \$2,498.1                |
| TOTAL GENERATION BASE FUEL COST , \$000s YTD  | \$3,996.3             | \$3,996.3                |
|   |                       |                          |
| TOTAL GENERATION FUEL FILING COST, \$000s YTD | \$2,509.3             | \$2,498.1                |
| TOTAL GENERATION BASE FUEL COST, \$000s YTD   | \$3,996.3             | \$3,996.3                |

#### MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION 2017 Cumulative Reconciliation Balance

| Month          | (1)<br>YTD FOA<br><u>Reconciliation</u> | Otr       | (2)<br>FOA Rec<br>Adjust<br>Variance | (3)<br>FOA Rec<br>Less<br><u>Variance</u> | (4)<br>Try to<br><u>Collect</u> | (5)<br>Actual<br>Collect | (6)<br>Month-end<br>Cumulative<br><u>Balance</u> |
|----------------|---|-----------|--------------------------------------|---|---------------------------------|--------------------------|--|
| <u>Inontri</u> |   | <u>uu</u> | vanance                              | vanance                                   | 001000                          |                          | Dalance  |
| December '16   |   |           |                                      |   | (3,767)                         | (4,443)                  | 1,351  |
| January '17    |   |           |                                      |   | (3,767)                         | (3,949)                  | (2,598)  |
| February       | 17,200                                  | (4)       | (2,409)                              | 19,609                                    | (5,733)                         | (6,375)                  | 10,636   |
| March          |   |           |                                      |   | (5,733)                         | (6,727)                  | 3,909  |
| April          |   |           |                                      |   | (5,733)                         | (6,537)                  | (2,628)  |
| May            | 19,800                                  | (1)       | (1,818)                              | 21,618                                    | (6,600)                         | (7,182)                  | 11,808   |
| June           |   |           |                                      |   | (6,600)                         | (7,559)                  | 4,249  |
| July           |   |           |                                      |   | (6,600)                         |                          |  |
| August         | 5,800                                   | (2)       | (2,345)                              | 8,145                                     | (1,933)                         |                          |  |
| 8              |   | ( )       |                                      | ,   |                                 |                          |  |

NOTES:

Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 13)

Col(2): A positive number is an over-collection. A negative number is an under-collection. 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  |            |
|--------------------------------------|-----------------|----------|----------------|----------|----------|------------|
|                                      |                 | 07-01-17 | 08-01-17       | 07-01-17 | 08-01-17 | 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 kWhr per month             | ¢/kWh           | 9.1240   | 9.1240         | 22.81    | 22.81    | 0.00       |
| Next 500 kWhr 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           | 1.5654   | 1.5654         | 6.26     | 6.26     | 0.00       |
| PBF Surcharge                        | ¢/kWh           | 0.4244   | 0.4244         | 1.70     | 1.70     | 0.00       |
| Renewable Energy Infrastructure Cost |                 | -        | -              | -        | _        |            |
| Recovery Provision                   | ¢/kWh           | 0.0098   | 0.0098         | 0.04     | 0.04     | 0.00       |
| SolarSaver Adjustment                | ¢/kWh           | 0.0000   | 0.0000         | 0.00     | 0.00     | 0.00       |
|                                      |                 |          |                |          |          |            |
| Energy Cost Adjustment               | ¢/kWh           | -11.181  | -11.659        | -44.72   | -46.64   | -1.92      |
| Green Infrastructure Fee             | \$              | 1.18     | 1.18           | 1.18     | 1.18     | 0.00       |
|                                      | , ,             | _        |                |          |          |            |

Avg Residential Bill at 400 kwh

Increase (Decrease -) % Change

142.28

140.36

-1.92 -1.35%

|  | Rate   |  | Charge (\$) at 5                                 |                                  | 500 Kwh                          |              |
|--|--|--|--|----------------------------------|----------------------------------|--------------|
|  |  | 07-01-17   | 08-01-17   | 07-01-17                         | 08-01-17                         | Difference   |
| Base Rates<br>Base Fuel/Energy Charge<br>Non-fuel Fuel Energy Charge<br>First 250 kWhr per month<br>Next 500 kWhr per month<br>Customer Charge | effective date:<br>¢/kWh<br>¢/kWh<br>¢/kWh<br>\$ | 08/01/13<br>32.2668<br>9.1240<br>11.6240<br>8.50 | 08/01/13<br>32.2668<br>9.1240<br>11.6240<br>8.50 | 161.33<br>22.81<br>29.06<br>8.50 | 161.33<br>22.81<br>29.06<br>8.50 | 0.00<br>0.00 |
| Total Base Charges   | ÷  | 0.00   | 0.00   | 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  | 1.5654   | 1.5654   | 7.83                             | 7.83                             | 0.00         |
| PBF Surcharge  | ¢/kWh  | 0.4244   | 0.4244   | 2.12                             | 2.12                             | 0.00         |
| Renewable Energy Infrastructure Cost   |  |  |  |                                  |                                  |              |
| Recovery Provision   | ¢/kWh  | 0.0098   | 0.0098   | 0.05                             | 0.05                             | 0.00         |
| SolarSaver Adjustment  | ¢/kWh  | 0.0000   | 0.0000   | 0.00                             | 0.00                             | 0.00         |
| -  |  |  |  |                                  |                                  |              |
| Energy Cost Adjustment   | ¢/kWh  | -11.181  | -11.659  | -55.91                           | -58.30                           | -2.39        |
| Green Infrastructure Fee   | \$   | 1.18   | 1.18   | 1.18                             | 1.18                             | 0.00         |
| Avg Residential Bill at 500 kwh  |  |  |  | 176.97                           | 174.58                           |              |

Increase (Decrease -) % Change

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

| EFFECTIVE DATE   | FUEL FACTOR<br>CENTS / KWH<br>RESIDENTIAL &<br>COMMERCIAL  |  | IAL BILL (\$)<br><u>@ 500 KWH</u>  |
|--|--|--|--|
| January 1, 2015<br>February 1, 2015<br>March 1, 2015<br>April 1, 2015<br>May 1, 2015<br>June 8, 2015<br>July 1, 2015<br>August 1, 2015<br>September 1, 2015<br>October 1, 2015<br>November 1, 2015 | -4.698<br>-7.361<br>-8.793<br>-6.831<br>-9.750<br>-8.842<br>-7.314<br>-8.457<br>-10.465<br>-12.259<br>-12.177<br>-11.304         | 169.85<br>159.20<br>153.47<br>160.22<br>149.64<br>153.16<br>158.27<br>153.70<br>145.71<br>138.53<br>138.86<br>142.35 | 211.41<br>198.09<br>190.93<br>199.37<br>186.15<br>190.56<br>196.91<br>191.19<br>181.20<br>172.23<br>172.64<br>177.01 |
| January 1, 2016<br>February 1, 2016<br>March 1, 2016<br>May 1, 2016<br>June 1, 2016<br>July 1, 2016<br>July 1, 2016<br>August 1, 2016<br>September 1, 2016<br>October 1, 2016<br>November 1, 2016  | -12.957<br>-14.236<br>-15.833<br>-15.204<br>-13.856<br>-12.617<br>-11.833<br>-12.201<br>-12.634<br>-12.723<br>-12.595<br>-11.160 | 135.62<br>130.51<br>124.12<br>125.90<br>132.03<br>136.22<br>139.64<br>138.17<br>136.43<br>136.08<br>136.59<br>142.33 | 168.62<br>162.23<br>154.24<br>156.47<br>164.13<br>169.37<br>173.68<br>171.84<br>169.68<br>169.23<br>169.87<br>177.05 |
| January 1, 2017<br>February 1, 2017<br>March 1, 2017<br>April 1, 2017<br>May 1, 2017<br>June 1, 2017<br>July 1, 2017<br>August 1, 2017   | -11.861<br>-11.218<br>-10.975<br>-10.875<br>-11.993<br>-11.149<br>-11.181<br>-11.659   | 139.67<br>142.24<br>143.21<br>143.06<br>139.14<br>143.14<br>142.28<br>140.36   | 173.68<br>176.90<br>178.11<br>177.92<br>173.02<br>178.03<br>176.97<br>174.58   |

#### 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 (20       | 12 TEST Y | EAR)                           |
| 04/01/15 - 04/30/15                        | SOLARSAVER ADJUSTMENT                                       | -0.2744   | CENTS/KWH                      |
| 05/01/15 - 03/31/16                        | SOLARSAVER ADJUSTMENT                                       | 0.0000    | CENTS/KWH                      |
| 06/01/15 - 06/07/15                        | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT                   | 0.0000    | CENTS/KWH                      |
| 06/08/15 - 05/31/16                        | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT                   | 1.5987    | CENTS/KWH                      |
| 07/01/15 - 06/30/16                        | RESID. PBF SURCHARGE ADJUSTMENT                             | 0.4749    | CENTS/KWH                      |
| 07/01/15 - 12/31/15                        | GREEN INFRASTRUCTURE FEE                                    | 1.42      | DOLLARS/MONTH                  |
| 08/17/15 - 02/29/16                        | RENEWABLE ENERGY INFRASTRUCTURE COST                        | 0.0103    | CENTS/KWH                      |
|  | RECOVERY PROVISION  |           |                                |
| 01/01/16 - 06/30/16                        | GREEN INFRASTRUCTURE FEE                                    |           | 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                                       |           | CENTS/KWH                      |
| 05/01/16 - 03/31/17                        | SOLARSAVER ADJUSTMENT                                       |           | CENTS/KWH                      |
| 06/01/16 - 05/31/17                        | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT                   |           | CENTS/KWH                      |
| 07/01/16 - 06/30/17                        | RESID. PBF SURCHARGE ADJUSTMENT<br>GREEN INFRASTRUCTURE FEE |           | CENTS/KWH                      |
| 07/01/16 - 12/31/16<br>01/01/17 - 06/30/17 | GREEN INFRASTRUCTURE FEE                                    | -         | DOLLARS/MONTH<br>DOLLARS/MONTH |
| 01/01/17 - 00/30/17<br>03/01/17            | RENEWABLE ENERGY INFRASTRUCTURE COST                        |           | CENTS/KWH                      |
| 03/01/17                                   | RECOVERY PROVISION  | 0.0098    | CENTS/RWH                      |
| 04/01/17 - 04/30/17                        | SOLARSAVER ADJUSTMENT                                       | -0 1378   | CENTS/KWH                      |
| 04/01/17 - 04/30/17<br>05/01/17            | SOLARSAVER ADJUSTMENT                                       |           | CENTS/KWH                      |
| 06/01/17                                   | REVENUE BALANCING ACCOUNT RATE ADJUSTMEN1                   |           | CENTS/KWH                      |
| 07/01/17                                   | GREEN INFRASTRUCTURE FEE                                    |           | DOLLARS/MONTH                  |
| 07/01/17                                   | RESID. PBF SURCHARGE ADJUSTMENT                             |           | CENTS/KWH                      |
| 0.70171                                    |   | 0.7277    |                                |

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