



June 26, 2019

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

FILED

2019 JUN 26 P 3:07

PUBLIC UTILITIES  
COMMISSION

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for July 2019

Maui Electric Company, Limited's ("Maui Electric" or "Company") July 2019 Energy Cost Adjustment factor for our Maui Division is 3.059 cents per kilowatt-hour ("kWh"), a decrease of 0.840 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$178.60, a decrease of \$1.16 compared to rates effective June 1, 2019. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor (-\$4.20) and the decrease in the Green Infrastructure Fee (-\$0.18), partially offset by the termination of the Refund of 2018 Interim credit (+\$3.15), increase in the Public Benefits Fund Surcharge (+\$0.06) and increase in the Purchase Power Adjustment (+\$0.01).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 63.99 cents per million BTU to 1,507.74 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.035 cents per kWh to 19.474 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for July 2019 is 3.088 cents per kWh, a decrease of 1.108 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$171.26, a decrease of \$1.47 compared to rates effective June 1, 2019. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor (-\$4.43) and decrease in the Green Infrastructure Fee (-\$0.18), partially offset by the termination of the Refund of 2018 Interim credit (+\$3.09) and increase in the Public Benefits Fund Surcharge (+\$0.05).

The Company's Lāna'i Division fuel composite cost of generation, central station and other decreased 96.62 cents per million BTU to 2,124.33 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 30.00 cents per kWh.

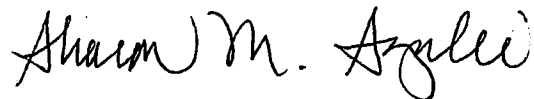
The Honorable Chair and Members  
of the Hawai'i Public Utilities Commission  
June 26, 2019  
Page 2

The Energy Cost Adjustment factor for our Moloka'i Division for July 2019 is 3.171 cents per kWh, a decrease of 1.925 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$161.65, a decrease of \$4.98 compared to rates effective June 1, 2019. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor (-\$7.70) and decrease in the Green Infrastructure Fee (-\$0.18), partially offset by the termination of the Refund of 2018 Interim credit (+\$2.85) and increase in the Public Benefits Fund Surcharge (+\$0.05).

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 157.35 cents per million BTU to 1,703.25 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 July 1, 2019.

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>06-01-19</u> | <u>07-01-19</u> |               |
| <u>COMPOSITE COSTS</u>                      |                 |                 |               |
| Generation, Central Station & Other, ¢/mbtu | 2,220.95        | 2,124.33        | (96.62)       |
| 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               | 4.196           | 3.088           | (1.108)       |
| <u>Others - "G,P,F"</u>                     |                 |                 |               |
| Energy Cost Adjustment, ¢/kWh               | 4.196           | 3.088           | (1.108)       |
| <u>Residential Customer with</u>            |                 |                 |               |
| 400 KWH Consumption, \$/Bill                | 172.73          | 171.26          | (1.47)        |
| 500 KWH Consumption, \$/Bill                | 214.30          | 212.48          | (1.82)        |

Supersedes Sheet Effective:

June 1, 2019

MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - July 1, 2019 (page 1 of 2)

Line

- 1 Effective Date July 1, 2019
- 2 Supercedes Factors of June 1, 2019

**GENERATION COMPONENT**

| <b>CENTRAL STATION</b>                       |  |                      |                    |                     |                                |  |         |
|--|--|----------------------|--------------------|---------------------|--------------------------------|--|---------|
| FUEL PRICES, ¢/mmbtu                         |  |                      |                    |                     |                                |  |         |
| 3  | Industrial   |                      |                    | 0.00                |                                |  |         |
| 4  | Diesel - Miki Basin  |                      |                    | 2,119.36            |                                |  |         |
| 5  | Diesel - Manele Bay  |                      |                    | 2,214.16            |                                |  |         |
| 6  | Other  |                      |                    | 0.00                |                                |  |         |
| BTU MIX, %                                   |  |                      |                    |                     | <b>DG ENERGY COMPONENT</b>     |  |         |
| 7  | Industrial   |                      |                    | 0.00%               | 25                             | COMPOSITE COST OF DG ENERGY, ¢/kWh                       | 0.000   |
| 8  | Diesel - Miki Basin  |                      |                    | 94.76%              | 26                             | % Input to System kWh Mix                                | 0.00%   |
| 9  | Diesel - Manele Bay  |                      |                    | 5.24%               | 27                             | WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26) | 0.00000 |
| 10   | Other  |                      |                    | 0.00%               | 28                             | BASE DG ENERGY COMP COST                                 | 0.000   |
|  |  |                      |                    | 100.00%             | 29                             | Base % Input to System kWh Mix                           | 0.00%   |
| 11   | COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10)) |                      |                    | 2,124.33            | 30                             | WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 28 x 29)       | 0.00000 |
| 12   | % Input to System kWh Mix  |                      |                    | 94.11%              | 31                             | Cost Less Base (Line 27 - 30)                            | 0.00000 |
| EFFICIENCY FACTOR, mmbtu/kWh                 |  |                      |                    |                     | 32                             | Loss Factor  | 1.0500  |
|  | (A)  | (B)                  | (C)                | (D)                 | 33                             | Revenue Tax Req Multiplier                               | 1.0975  |
|  |  |                      | Percent of         |                     | 34                             | DG FACTOR, ¢/kWh (Line 31 x 32 x 33)                     | 0.00000 |
|  | Fuel Type  | Eff Factor mmbtu/kwh | Centrl Stn + Other | Weighted Eff Factor |                                |  |         |
| 13   | Industrial   | 0.000000             | 0.00               | 0.000000            |                                |  |         |
| 14   | Diesel   | 0.011017             | 100.00             | 0.011017            |                                |  |         |
| 15   | Other  | 0.011017             | 0.00               | 0.000000            |                                |  |         |
| (Lines 13, 14, 15): Col(B) x Col(C) = Col(D) |  |                      |                    |                     |                                |  |         |
| 16   | Weighted Efficiency Factor, mmbtu/kWh [lines 13(D) + 14(D) + 15(D)]  |                      |                    | 0.011017            |                                |  |         |
| 17   | WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16))                            |                      |                    | 22.02526            |                                |  |         |
| 18   | BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu  |                      |                    | 1,740.36            |                                |  |         |
| 19   | Base % Input to Sys kWh Mix  |                      |                    | 93.21%              |                                |  |         |
| 20   | Efficiency Factor, mmbtu/kwh   |                      |                    | 0.011017            |                                |  |         |
| 21   | WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (18 x 19 x 20))                           |                      |                    | 17.87166            |                                |  |         |
| 22   | COST LESS BASE (line(17 - 21))   |                      |                    | 4.15360             | SUMMARY OF                     |  |         |
| 23   | Revenue Tax Req Multiplier   |                      |                    | 1.0975              | TOTAL GENERATION FACTOR, ¢/kWh |  |         |
| 24   | CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))  |                      |                    | 4.55858             | 35                             | CNTRL STN + OTHER (line 24)                              | 4.55858 |
|  |  |                      |                    |                     | 36                             | DG (line 34)   | -       |
|  |  |                      |                    |                     | 37                             | TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)           | 4.55858 |

MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - July 1, 2019 (page 2 of 2)

Line

- 1 Effective Date July 1, 2019
- 2 Supercedes Factors of June 1, 2019

| <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<br>(Lines (38 x 41) + (39 x 42) + (40 x 43)) | 30.000    |
| 45          | % Input to System kWh Mix  | 5.89%     |
| 46          | WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))                             | 1.76700   |
| 47          | BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh  | 30.000    |
| 48          | Base % Input to Sys kWh Mix  | 6.79      |
| 49          | WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))                           | 2.03700   |
| 50          | COST LESS BASE(lines (46 - 49))  | (0.27000) |
| 51          | Loss Factor  | 1.050     |
| 52          | Revenue Tax Req Multiplier   | 1.0975    |
| 53          | PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))                                  | (0.31114) |

Line      SYSTEM COMPOSITE CALCULATIONS

|    |  |         |
|----|--|---------|
| 54 | GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh<br>(lines (37 + 53)) | 4.24744 |
| 55 | Adjustment, ¢/kWh  | 0.000   |
| 56 | ECA Reconciliation Adjustment                                      | (1.159) |
| 57 | ECA FACTOR, ¢/kWh<br>(lines (54 + 55 + 56))                        | 3.088   |

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

**MONTH END FUEL OIL ESTIMATE**

| <b><u>Miki Basin - ULSD</u></b> | <u>Barrels</u>  | <u>MBTU</u>      | <u>\$</u>         |
|---------------------------------|-----------------|------------------|-------------------|
| 6/18/2019                       | 3,189.81        | 18,277.61        | 427,174.99        |
| Estimated Use                   | 1,643.50        | 9,417.26         | 206,758.66        |
| Estimated Received              | 857.14          | 4,911.41         | 111,531.57        |
| Estimated Additional            | <u>2,527.62</u> | <u>14,483.24</u> | <u>266,876.87</u> |
| Estimated End                   | 4,931.07        | 28,255.00        | 598,824.77        |

Next Month's Combined Miki Expense (\$/bbl) = \$ 121.4391 /bbl

| <b><u>Manele CHP</u></b> | <u>Barrels</u> | <u>MBTU</u>   | <u>\$</u>        |
|--------------------------|----------------|---------------|------------------|
| 6/18/2019                | 196.07         | 1,123.48      | 31,290.62        |
| Estimated Use            | 378.40         | 2,168.23      | 55,556.17        |
| Estimated Received       | 285.71         | 1,637.12      | 39,676.26        |
| Estimated Additional     | <u>169.22</u>  | <u>969.63</u> | <u>19,174.43</u> |
| Estimated End            | 272.60         | 1,562.00      | 34,585.14        |

Next Month's Manele Expense (\$/bbl) = \$ 126.8714 /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       | \$ 121.4391  | 5.73 BTU/BBL             | 2,119.36             |
| Diesel - Manele Bay       | \$ 126.8714  | 5.73 BTU/BBL             | 2,214.16             |

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

**Contract Prices effective June 1, 2019**

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

**MIKI BASIN - ULTRA LOW SULFUR DIESEL (DYED)**

|                      |        |       |
|----------------------|--------|-------|
| Tax *                | 1.5120 | 26.39 |
| Ocean Transportation | 0.0000 | 0.00  |
| Storage              | 0.0000 | 0.00  |
| Wharfage             | 0.0000 | 0.00  |

**MIKI BASIN - ULTRA LOW SULFUR DIESEL**

|                      |         |        |
|----------------------|---------|--------|
| Tax *                | 17.2114 | 300.37 |
| Ocean Transportation | 0.0000  | 0.00   |
| Storage              | 0.0000  | 0.00   |
| Wharfage             | 0.0000  | 0.00   |

**MANELE BAY - ULTRA LOW SULFUR DIESEL**

|                      |         |        |
|----------------------|---------|--------|
| Tax *                | 17.2114 | 300.37 |
| 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**

**July 2019**

|                                    |              |
|------------------------------------|--------------|
| 1. Amount to be refunded           | (\$91,900)   |
| 2. Monthly amount (1 / 3 X Line 1) | (\$30,633)   |
| 3. Revenue Tax Divisor             | 0.91115      |
| 4. Total (Line 2 / Line 3)         | (\$33,620)   |
| 5. Estimated Sales (July 2019)     | 2,901 mwh    |
| 6. Adjustment (Line 4 ÷ Line 5)    | -1.159 ¢/kwh |



**MAUI ELECTRIC COMPANY, LTD.  
LANAI DIVISION  
2019 Cumulative Reconciliation Balance**

| <u>Month</u> | (1)<br><u>YTD FOA</u> | <u>Qtr</u> | (2)<br><u>FOA Rec</u><br><u>Adjust</u><br><u>Variance</u> | (3)<br><u>FOA Rec</u><br><u>Less</u><br><u>Variance</u> | (4)<br><u>Try to</u><br><u>Collect</u> | (5)<br><u>Actual</u><br><u>Collect</u> | (6)<br><u>Month-end</u><br><u>Cumulative</u><br><u>Balance</u> |
|--------------|-----------------------|------------|---|---|--|--|--|
| December '18 |                       |            |   |   | (11,867)                               | (11,797)                               | 11,475   |
| January '19  |                       |            |   |   | (11,867)                               | (11,150)                               | 325  |
| February     | 8,600                 | (4)        | (386)   | 8,986   | (2,867)                                | (2,721)                                | 6,590  |
| March        |                       |            |   |   | (2,867)                                | (2,728)                                | 3,862  |
| April        |                       |            |   |   | (2,867)                                | (2,599)                                | 1,263  |
| May          | 91,900                | (1)        | 1,002   | 90,898  | (30,633)                               | (28,551)                               | 63,610   |
| June         |                       |            |   |   | (30,633)                               |  |  |
| July         |                       |            |   |   | (30,633)                               |  |  |

## 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 |          |            |       |
|--|-----------------|----------|------------------------|----------|------------|-------|
|  | 06-01-19        | 07-01-19 | 06-01-19               | 07-01-19 | Difference |       |
| <b>Base Rates</b>  | effective date: | 06/01/19 | 06/01/19               |          |            |       |
| Base Fuel/Energy Charge  | ¢/kWh           | 21.9611  | 21.9611                | 87.84    | 87.84      | 0.00  |
| Non-fuel Fuel Energy Charge                                    |                 |          |                        |          |            |       |
| First 250 kWhr per month                                       | ¢/kWh           | 12.3123  | 12.3123                | 30.78    | 30.78      | 0.00  |
| Next 500 kWhr per month  | ¢/kWh           | 14.8123  | 14.8123                | 22.22    | 22.22      | 0.00  |
| Customer Charge  | \$              | 11.50    | 11.50                  | 11.50    | 11.50      | 0.00  |
| <b>Total Base Charges</b>                                      |                 |          |                        | 152.34   | 152.34     | 0.00  |
| <b>IRP Refund</b>  | % on base       | 0.0000   | 0.0000                 | 0.00     | 0.00       | 0.00  |
| <b>Revenue Balancing Rate Adjustment</b>                       | ¢/kWh           | 0.8716   | 0.8716                 | 3.49     | 3.49       | 0.00  |
| <b>PBF Surcharge</b>   | ¢/kWh           | 0.4658   | 0.4775                 | 1.86     | 1.91       | 0.05  |
| <b>Renewable Energy Infrastructure Cost Recovery Provision</b> | ¢/kWh           | 0.0000   | 0.0000                 | 0.00     | 0.00       | 0.00  |
| <b>SolarSaver Adjustment</b>                                   | ¢/kWh           | 0.0000   | 0.0000                 | 0.00     | 0.00       | 0.00  |
| <b>Refund of 2018 Interim</b>                                  | % on Base       | -2.03    | 0.00                   | -3.09    | 0.00       | 3.09  |
| <b>Energy Cost Adjustment</b>                                  | ¢/kWh           | 4.196    | 3.088                  | 16.78    | 12.35      | -4.43 |
| <b>Green Infrastructure Fee</b>                                | \$              | 1.35     | 1.17                   | 1.35     | 1.17       | -0.18 |
| <b>Avg Residential Bill at 400 kwh</b>                         |                 |          |                        | 172.73   | 171.26     |       |

|                       |        |
|-----------------------|--------|
| Increase (Decrease -) | -1.47  |
| % Change              | -0.85% |

|  | Rate            |          | Charge (\$) at 500 Kwh |          |            |       |
|--|-----------------|----------|------------------------|----------|------------|-------|
|  | 06-01-19        | 07-01-19 | 06-01-19               | 07-01-19 | Difference |       |
| <b>Base Rates</b>  | effective date: | 06/01/19 | 06/01/19               |          |            |       |
| Base Fuel/Energy Charge  | ¢/kWh           | 21.9611  | 21.9611                | 109.81   | 109.81     | 0.00  |
| Non-fuel Fuel Energy Charge                                    |                 |          |                        |          |            |       |
| First 250 kWhr per month                                       | ¢/kWh           | 12.3123  | 12.3123                | 30.78    | 30.78      | 0.00  |
| Next 500 kWhr per month  | ¢/kWh           | 14.8123  | 14.8123                | 37.03    | 37.03      | 0.00  |
| Customer Charge  | \$              | 11.50    | 11.50                  | 11.50    | 11.50      | 0.00  |
| <b>Total Base Charges</b>                                      |                 |          |                        | 189.12   | 189.12     | 0.00  |
| <b>IRP Refund</b>  | % on base       | 0.0000   | 0.0000                 | 0.00     | 0.00       | 0.00  |
| <b>Revenue Balancing Rate Adjustment</b>                       | ¢/kWh           | 0.8716   | 0.8716                 | 4.36     | 4.36       | 0.00  |
| <b>PBF Surcharge</b>   | ¢/kWh           | 0.4658   | 0.4775                 | 2.33     | 2.39       | 0.06  |
| <b>Renewable Energy Infrastructure Cost Recovery Provision</b> | ¢/kWh           | 0.0000   | 0.0000                 | 0.00     | 0.00       | 0.00  |
| <b>SolarSaver Adjustment</b>                                   | ¢/kWh           | 0.0000   | 0.0000                 | 0.00     | 0.00       | 0.00  |
| <b>Refund of 2018 Interim</b>                                  | % on Base       | -2.03    | 0.00                   | -3.84    | 0.00       | 3.84  |
| <b>Energy Cost Adjustment</b>                                  | ¢/kWh           | 4.196    | 3.088                  | 20.98    | 15.44      | -5.54 |
| <b>Green Infrastructure Fee</b>                                | \$              | 1.35     | 1.17                   | 1.35     | 1.17       | -0.18 |
| <b>Avg Residential Bill at 500 kwh</b>                         |                 |          |                        | 214.30   | 212.48     |       |

|                       |        |
|-----------------------|--------|
| Increase (Decrease -) | -1.82  |
| % Change              | -0.85% |

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

| <u>EFFECTIVE DATE</u> | FUEL FACTOR<br>CENTS / KWH              |                  | RESIDENTIAL BILL (\$) |
|-----------------------|---|------------------|-----------------------|
|                       | <u>RESIDENTIAL &amp;<br/>COMMERCIAL</u> | <u>@ 400 KWH</u> | <u>@ 500 KWH</u>      |
| 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                                 | 172.73           | 214.30                |
| 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                |
| December 1, 2018      | -5.396                                  | 171.89           | 213.95                |
|                       |   |                  |                       |
| January 1, 2019       | -6.950                                  | 165.81           | 206.32                |
| February 1, 2019      | -8.789                                  | 158.45           | 197.12                |
| March 1, 2019         | -6.041                                  | 169.45           | 210.86                |
| April 1, 2019         | -6.801                                  | 166.07           | 206.63                |
| May 1, 2019           | -7.864                                  | 162.15           | 201.75                |
| June 1, 2019          | 4.196                                   | 172.73           | 214.30                |
| July 1, 2019          | 3.088                                   | 171.26           | 212.48                |

**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             |
| <b>06/01/11</b>     | <b>IRP RECOVERY REFUND</b>  | <b>0.000 PERCENT ON BASE</b> |
| 08/01/13 - 05/31/19 | 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<br>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<br>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             |
| <b>08/17/17</b>     | <b>RENEWABLE ENERGY INFRASTRUCTURE COST<br/>RECOVERY PROVISION</b>        | <b>0.0000 CENTS/KWH</b>      |
| 01/01/18 - 06/30/18 | GREEN INFRASTRUCTURE FEE  | 1.34 DOLLARS/MONTH           |
| 04/01/18 - 04/30/18 | SOLARSAVER ADJUSTMENT   | 1.3400 CENTS/KWH             |
| 05/01/18 - 03/31/19 | SOLARSAVER ADJUSTMENT   | 0.0000 CENTS/KWH             |
| 06/01/18 - 08/22/18 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT                                 | 1.8954 CENTS/KWH             |
| 07/01/18 - 06/30/19 | RESID. PBF SURCHARGE ADJUSTMENT   | 0.4658 CENTS/KWH             |
| 07/01/18 - 12/31/18 | GREEN INFRASTRUCTURE FEE  | 1.21 DOLLARS/MONTH           |
| 08/23/18 - 05/31/19 | INTERIM RATE INCREASE 2018 TEST YEAR                                      | 6.36 PERCENT ON BASE         |
| 08/23/18 - 05/31/19 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT                                 | 0.3183 CENTS/KWH             |
| 01/01/19 - 06/30/19 | GREEN INFRASTRUCTURE FEE  | 1.35 DOLLARS/MONTH           |
| 04/01/19 - 04/30/19 | SOLARSAVER ADJUSTMENT   | -0.0855 CENTS/KWH            |
| <b>05/01/19</b>     | <b>SOLARSAVER ADJUSTMENT</b>  | <b>0.0000 CENTS/KWH</b>      |
| <b>06/01/19</b>     | <b>FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2018 TEST YEAR)</b> |                              |
| 06/01/19 - 06/30/19 | REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR                            | -2.03 PERCENT ON BASE        |
| <b>06/01/19</b>     | <b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>                          | <b>0.8716 CENTS/KWH</b>      |
| <b>07/01/19</b>     | <b>RESID. PBF SURCHARGE ADJUSTMENT</b>                                    | <b>0.4775 CENTS/KWH</b>      |
| <b>07/01/19</b>     | <b>GREEN INFRASTRUCTURE FEE</b>   | <b>1.17 DOLLARS/MONTH</b>    |

~ Surcharges currently in effect are in bold.

~ Base charges include customer charge, demand charge, energy charge, power factor adjustment, voltage discount and minimum charge.