

State of Hawaii



Public Utilities Commission

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| | |
|----------------------------|--------------------------------|
| Form: | Hawaii PUC eFile Non-Docketed |
| Entity: | Maui Electric Company, Limited |
| Confirmation Number: | LYND16135350600 |
| Date and Time Received: | Jun 28 2016 01:53 PM |
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SHARON M. SUZUKI
President

June 28, 2016

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
Kekuanaoa Building, First Floor
465 South King Street
Honolulu, Hawai'i 96813

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for July 2016

Maui Electric Company, Limited's ("Maui Electric" or "Company") July 2016 energy cost adjustment factor for our Maui Division is -7.334 cents per kilowatt-hour ("kWh"), an increase of 0.836 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$148.08, an increase of \$4.61 compared to rates effective June 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$4.18), the increase in the Public Benefits Fund Surcharge (+\$0.56), the setting to zero of the Purchased Power Adjustment Clause rate (+\$0.04), and the decrease in the Green Infrastructure Fee (-\$0.17).

The Company's Maui Division fuel composite cost of generation, central station and other increased 114.17 cents per million BTU to 996.44 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy increased 0.173 cents per kWh to 18.955 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for July 2016 is -11.833 cents per kWh, an increase of 0.784 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$139.64, an increase of \$3.42 compared to rates effective June 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$3.14), the increase in the Public Benefits Fund Surcharge (+\$0.45), and the decrease in the Green Infrastructure Fee (-\$0.17).

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 73.98 cents per million BTU to 1,606.96 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 July 2016 is -12.675 cents per kWh, an increase of 0.701 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$122.03, an increase of \$3.08 compared to rates effective June 1, 2016. The increase in the typical residential bill is due to the

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
June 28, 2016
Page 2

increase in the energy cost adjustment factor (+\$2.80), the increase in the Public Benefits Fund Surcharge (+\$0.45), and the decrease in the Green Infrastructure Fee (-\$0.17).

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 57.79 cents per million BTU to 1,102.77 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, 2016.

Sincerely,

/s/ Sharon M. Suzuki

Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST ADJUSTMENT FACTOR

| | EFFECTIVE DATES | | |
|---|-------------------|-------------------|--------|
| | <u>06/01/2016</u> | <u>07/01/2016</u> | |
| <u>COMPOSITE COSTS</u> | | | |
| Generation, Central Station & Other, ¢/mbtu | 882.27 | 996.44 | 114.17 |
| DG Energy, ¢/kWh | 0.00 | 0.00 | 0.000 |
| Purchased Energy, ¢/kWh | 18.782 | 18.955 | 0.173 |
| <u>Residential Schedule "R"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (8.170) | (7.334) | 0.836 |
| <u>Others - "G,H,P,F"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (8.170) | (7.334) | 0.836 |
| <u>Residential Customer with</u> | | | |
| 500 KWH Consumption, \$/Bill | 143.47 | 148.08 | 4.61 |
| 600 KWH Consumption, \$/Bill | 171.79 | 177.36 | 5.57 |

Supersedes Sheet Effective:

June 1, 2016

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

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

Line

1 Effective Date July 1, 2016
2 Supercedes Factors of June 1, 2016

GENERATION COMPONENT

| CENTRAL STATION | | | | | | DG ENERGY COMPONENT | |
|------------------------------|---|-------------------|--------------|-------------------|---|----------------------------|------------|
| FUEL PRICES, €/mmbtu | | | | | | | |
| 3 | Industrial | | | 518.84 | | | |
| 4 | Diesel | | | 1,164.77 | | | |
| 5 | Other | | | | | | |
| BTU MIX, % | | | | | | | |
| 6 | Industrial | | | 26.06% | 23 COMPOSITE COST OF DG | | |
| 7 | Diesel | | | 73.94% | ENERGY, €/kWh | | 0.000 |
| 8 | Other | | | 0.00% | 24 % Input to System kWh Mix | | 0.00% |
| | | | | 100.00% | | | |
| 9 | COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER €/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8)) | | | 996.44 | 25 WEIGHTED COMPOSITE DG ENERGY COST, €/kWh (Lines 23 x 24) | | - |
| 10 | % Input to System kWh Mix | | | 59.55% | 26 BASE DG ENERGY COMP COST | | 0.000 |
| EFFICIENCY FACTOR, mmbtu/kWh | | | | | 27 Base % Input to System kWh Mix | | 0.01 |
| | (A) | (B) | (C) | (D) | 28 WEIGHTED BASE DG ENERGY COST, €/kWh (Line 26 x 27) | | 0.00000 |
| | | | Percent of | | | | |
| | | | Centrl Stn + | | 29 Cost Less Base (Line 25 - 28) | | 0.00000 |
| | <u>Fuel Type</u> | <u>Eff Factor</u> | <u>Other</u> | <u>Weighted</u> | 30 Loss Factor | | 1.063 |
| | | <u>mmbtu/kWh</u> | | <u>Eff Factor</u> | 31 Revenue Tax Req Multiplier | | 1.0975 |
| 11 | Industrial | 0.015126 | 18.57 | 0.002809 | 32 DG FACTOR, €/kWh (Line 29 x 30 x 31) | | 0.00000 |
| 12 | Diesel | 0.010026 | 81.43 | 0.008164 | | | |
| 13 | Other | 0.010951 | 0.00 | - | | | |
| | (Lines 11, 12, 13): Col(B) x Col(C) = Col(D) | | | | | | |
| 14 | Weighted Efficiency Factor, mmbtu/kWh [(lines 11(D) + 12(D) + 13(D))] | | | 0.010973 | | | |
| 15 | WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, €/kWh (lines (9 x 10 x 14)) | | | 6.51116 | | | |
| 16 | BASE CENTRAL STATION + OTHER GENERATION COST, €/mmbtu | | | 2,019.39 | | | |
| 17 | Base % Input to Sys kWh Mix | | | 78.09 | | | |
| 18 | Efficiency Factor, mmbtu/kWh | | | 0.010951 | | | |
| 19 | WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST €/kWh (lines (16 x 17 x 18)) | | | 17.26909 | | | |
| 20 | COST LESS BASE (line(15 - 19)) | | | (10.75793) | SUMMARY OF | | |
| 21 | Revenue Tax Req Multiplier | | | 1.0975 | TOTAL GENERATION FACTOR, €/kWh | | |
| 22 | CENTRAL STATION + OTHER GENERATION FACTOR, €/kWh (line (20 x 21)) | | | (11.80683) | 33 CNTRL STN + OTHER (line 22) | | (11.80683) |
| | | | | | 34 DG (line 32) | | - |
| | | | | | 35 TOTAL GENERATION FACTOR, €/kWh (lines 33 + 34) | | (11.80683) |

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

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

Line

1 Effective Date July 1, 2016
2 Supercedes Factors of June 1, 2016

| <u>Line</u> | <u>PURCHASED ENERGY COMPONENT</u> | |
|-------------|---|----------------|
| | PURCHASED ENERGY PRICE, ¢/kWh | |
| 36 | HC&S - Regular Energy - On Peak | 19.100 |
| 37 | - Off Peak | 19.100 |
| 38 | | |
| 39 | | |
| 40 | Kaheawa Wind I - On Peak | 13.469 |
| 41 | - Off Peak | 12.659 |
| 42 | Kaheawa Wind II | 24.562 |
| 43 | Sempra Wind | 21.227 |
| 44 | Hydro & Other - On Peak | 11.653 |
| 45 | - Off Peak | 10.239 |
| 46 | FIT | 21.523 |
| | PURCHASED ENERGY KWH MIX, % | |
| 47 | HC&S - Regular Energy - On Peak | 0.00% |
| 48 | - Off Peak | 0.00% |
| 49 | | |
| 50 | | |
| 51 | Kaheawa Wind I - On Peak | 21.14% |
| 52 | - Off Peak | 17.61% |
| 53 | Kaheawa Wind II | 26.82% |
| 54 | Sempra Wind | 32.44% |
| 55 | Hydro & Other - On Peak | 0.13% |
| 56 | - Off Peak | 0.09% |
| 57 | FIT | 1.77% |
| | | <u>100.00%</u> |
| 58 | COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh | 18.955 |
| | (Lines (36 x 49) + (37 x 50) + (38 x 51) + (39 x 52) + (40 x 53) + (41 x 54) + (42 x 55) + (43 x 54) + (44 x 55) + (45 x 56) + (46 x 57)) | |
| 59 | % Input to System kWh Mix | 40.45% |
| 60 | WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (58 x 59)) | 7.66730 |
| 61 | BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh | 15.847 |
| 62 | Base % Input to Sys kWh Mix | 21.90 |
| 63 | WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (61 x 62)) | 3.47049 |
| 64 | COST LESS BASE (lines (60 - 63)) | 4.19681 |
| 65 | Loss Factor | 1.063 |
| 66 | Revenue Tax Req Multiplier | 1.0975 |
| 67 | PURCHASED ENERGY FACTOR, ¢/kWh (lines (64 x 65 x 66)) | 4.89618 |

Line SYSTEM COMPOSITE CALCULATIONS

| | | |
|----|---|-----------|
| 68 | GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 67)) | (6.91065) |
| 69 | ADJUSTMENT, ¢/kWh | |
| 70 | ECA Reconciliation Adjustment | (0.423) |
| 71 | ECA FACTOR, ¢/kWh (lines (68 + 69 + 70)) | (7.334) |

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

Fuel Oil Inventory Prices for July 2016

| <u>TYPE OF OIL BURNED</u> | <u>PRICES \$/BBL</u> | <u>CONVERSION FACTORS</u> | <u>PRICES ¢/MBTU</u> |
|-------------------------------|--------------------------|-------------------------------|--------------------------|
| INDUSTRIAL | 32.6868 | 6.30 MBTU/BBL | 518.84 |
| DIESEL/ULSD | 68.2558 | 5.86 MBTU/BBL | 1,164.77 |

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

Month End Fuel Oil Estimate

| <u>Kahului</u> | <u>Barrels</u> | <u>MBTU</u> | <u>(\$)</u> |
|-----------------------|-------------------|-------------------|---------------------|
| 6/21/2016 | 25,230.550 | 158,431.71 | 772,604.83 |
| Estimated Use | 7,524.273 | 47,181.23 | 220,880.06 |
| Estimated Received | 16,000.000 | 100,800.00 | 550,026.48 |
| Estimated Additional | 0.000 | 0.00 | 0.00 |
| Estimated End | <u>33,706.277</u> | <u>212,050.47</u> | <u>1,101,751.25</u> |

Next month's expense (\$/bbl) = \$ 32.6868

| <u>Maalaea</u> | <u>Barrels</u> | <u>MBTU</u> | <u>(\$)</u> |
|-----------------------|--------------------|-------------------|---------------------|
| 6/21/2016 | 107,492.303 | 629,563.73 | 7,090,559.01 |
| Estimated Use | 19,787.144 | 115,889.86 | 1,198,810.04 |
| Estimated Received | 29,000.000 | 169,847.96 | 2,074,060.58 |
| Estimated Additional | 0.000 | 0.00 | 0.00 |
| Estimated End | <u>116,705.159</u> | <u>683,521.83</u> | <u>7,965,809.56</u> |

Next month's expense (\$/bbl) = \$ 68.2558

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

Contract Prices effective June 1, 2016

| <u>TYPE OF OIL BURNED</u> | <u>\$/BBL</u> | <u>¢/MBTU</u> |
|---------------------------|---------------|---------------|
| INDUSTRIAL | | |
| Tax * | 2.3881 | 37.91 |
| Ocean Transportation | 1.9186 | 30.45 |
| Land Transportation | 0.0000 | 0.00 |
| Storage | 0.0000 | 0.00 |
| Wharfage | 0.2400 | 3.81 |
| DIESEL | | |
| Tax * | 4.2228 | 72.06 |
| Ocean Transportation | 1.9186 | 32.74 |
| Land Transportation | 0.9168 | 15.64 |
| Storage | 2.0417 | 34.84 |
| Wharfage | 0.2400 | 4.10 |

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

Note: Since these components are not accounted for separately in inventory, contract prices for the current month are being provided. Contract prices are considered accurate pending actual delivery of the fuel.

Reference: Decision and Order No. 16134, Docket No. 96-0040.

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

PURCHASED POWER PRICE CALCULATIONS

| <u>HC&S PRICE DETERMINATION:</u> | <u>Cost</u> |
|--------------------------------------|-------------|
| HC&S Regular Energy, ¢/kWh | 19.100 |

| <u>KAHEAWA WIND POWER ENERGY RATE:</u> | |
|--|--------|
| Kaheawa Wind - On Peak, ¢/kWh | 13.469 |
| - Off Peak, ¢/kWh | 12.659 |

Kaheawa Wind Energy Rate Calculations:

Percent of Energy Payment Rate:

| | |
|---------------------------|-------------|
| Fixed energy payment rate | 70% |
| Flat payment rate | <u>30%</u> |
| | <u>100%</u> |

Fixed Energy Payment Rate (Table D-1) for 2016:

| | |
|-----------------|-------|
| On-peak, ¢/kwh | 9.813 |
| Off-peak, ¢/kwh | 8.655 |

Flat Payment Rate Per Docket No. 2011-0192 D&O 30331:

| | |
|-----------------|--------|
| On-peak, ¢/kwh | 22.000 |
| Off-peak, ¢/kwh | 22.000 |

On-Peak Rate = $9.813 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 13.4691 \text{ ¢/kwh}$

Off-Peak Rate = $8.655 \text{ ¢/kwh} \times 0.7 + 22.000 \text{ ¢/kwh} \times 0.3 = 12.6585 \text{ ¢/kwh}$

MAUI ELECTRIC COMPANY, LTD.
Maui Division
ECA Reconciliation Adjustment
July 2016

| | |
|------------------------------------|---------------|
| 1. Amount to be Refunded | (\$1,051,300) |
| 2. Monthly amount (1 / 3 X Line 1) | (\$350,433) |
| 3. Revenue Tax Divisor | 0.91115 |
| 4. Total (Line 2 / Line 3) | (\$384,605) |
| 5. Estimated Sales (July 2016) | 90,920 mwh |
| 6. Adjustment (Line 4 ÷ Line 5) | (0.423) ¢/kwh |

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

| <u>Month</u> | (1) <u>YTD FOA Reconciliation</u> | <u>Qtr</u> | (2) <u>FOA Rec Adjust Variance</u> | (3) <u>FOA Rec Less Variance</u> | (4) <u>Try to Collect</u> | (5) <u>Actual Collect</u> | (6) <u>Month-end Cumulative Balance</u> |
|--------------|--------------------------------------|------------|---------------------------------------|-------------------------------------|------------------------------|------------------------------|--|
| December '15 | | | | | (518,067) | (518,422) | 480,292 |
| January '16 | | | | | (518,067) | (499,925) | (19,633) |
| February | 200,100 | (4) | (37,780) | 237,880 | (66,700) | (64,342) | 153,905 |
| March | | | | | (66,700) | (64,142) | 89,763 |
| April | | | | | (66,700) | (66,051) | 23,712 |
| May | 1,051,300 | (1) | 23,058 | 1,028,242 | (350,433) | (350,448) | 701,506 |
| June | | | | | (350,433) | | |
| July | | | | | (350,433) | | |

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 5)
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.
Maui Division
Calculations of the Average Residential Customer Bill

| | Rate | | Charge (\$) at 500 Kwh | | | |
|--|-----------------|----------|------------------------|----------|------------|-------|
| | 06/01/16 | 07/01/16 | 06/01/16 | 07/01/16 | Difference | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | | |
| Base Fuel/Energy Charge | ¢/kWh | 23.0016 | 23.0016 | 115.01 | 115.01 | 0.00 |
| Non-fuel Fuel Energy Charge | | | | | | |
| First 350 kWh per month | ¢/kWh | 9.3393 | 9.3393 | 32.69 | 32.69 | 0.00 |
| Next 850 kWh per month | ¢/kWh | 11.5993 | 11.5993 | 17.40 | 17.40 | 0.00 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0.00 |
| Total Base Charges | | | | 173.60 | 173.60 | 0.00 |
| RBA Rate Adjustment | ¢/kWh | 1.4082 | 1.4082 | 7.04 | 7.04 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4749 | 0.5865 | 2.37 | 2.93 | 0.56 |
| Renewable Energy Infrastructure Cost Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | 0.05 | 0.05 | 0.00 |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Purchased Power Adjustment | ¢/kWh | -0.0081 | 0.0000 | -0.04 | 0.00 | 0.04 |
| Energy Cost Adjustment | ¢/kWh | -8.170 | -7.334 | -40.85 | -36.67 | 4.18 |
| Green Infrastructure Fee | \$ | 1.30 | 1.13 | 1.30 | 1.13 | -0.17 |
| Avg Residential Bill at 500 kwh | | | | 143.47 | 148.08 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 4.61 |
| % Change | 3.21% |

| | Rate | | Charge (\$) at 600 Kwh | | | |
|--|-----------------|----------|------------------------|----------|------------|-------|
| | 06/01/16 | 07/01/16 | 06/01/16 | 07/01/16 | Difference | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | | |
| Base Fuel/Energy Charge | ¢/kWh | 23.0016 | 23.0016 | 138.01 | 138.01 | 0.00 |
| Non-fuel Fuel Energy Charge | | | | | | |
| First 350 kWh per month | ¢/kWh | 9.3393 | 9.3393 | 32.69 | 32.69 | 0.00 |
| Next 850 kWh per month | ¢/kWh | 11.5993 | 11.5993 | 29.00 | 29.00 | 0.00 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0.00 |
| Total Base Charges | | | | 208.20 | 208.20 | 0.00 |
| RBA Rate Adjustment | ¢/kWh | 1.4082 | 1.4082 | 8.45 | 8.45 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4749 | 0.5865 | 2.85 | 3.52 | 0.67 |
| Renewable Energy Infrastructure Cost Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | 0.06 | 0.06 | 0.00 |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Purchased Power Adjustment | ¢/kWh | -0.0081 | 0.0000 | -0.05 | 0.00 | 0.05 |
| Energy Cost Adjustment | ¢/kWh | -8.170 | -7.334 | -49.02 | -44.00 | 5.02 |
| Green Infrastructure Fee | \$ | 1.30 | 1.13 | 1.30 | 1.13 | -0.17 |
| Avg Residential Bill at 600 kwh | | | | 171.79 | 177.36 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 5.57 |
| % Change | 3.24% |

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

| <u>EFFECTIVE DATE</u> | <u>FUEL FACTOR CENTS / KWH</u> | | <u>RESIDENTIAL BILL (\$)</u> | |
|-----------------------|---|--|------------------------------|------------------|
| | <u>RESIDENTIAL & COMMERCIAL</u> | | <u>@ 500 KWH</u> | <u>@ 600 KWH</u> |
| January 1, 2014 | 1.733 | | 190.94 | 229.00 |
| February 1, 2014 | 2.238 | | 193.25 | 231.77 |
| March 1, 2014 | 1.978 | | 192.02 | 230.29 |
| April 1, 2014 | 1.754 | | 189.62 | 227.42 |
| May 1, 2014 | 2.175 | | 193.66 | 232.25 |
| June 1, 2014 | 1.675 | | 195.24 | 234.15 |
| July 1, 2014 | 1.679 | | 196.18 | 235.28 |
| August 1, 2014 | 1.134 | | 193.54 | 232.12 |
| September 1, 2014 | 0.855 | | 192.16 | 230.46 |
| October 1, 2014 | 0.880 | | 192.27 | 230.60 |
| November 1, 2014 | 1.135 | | 193.01 | 231.48 |
| December 1, 2014 | 0.325 | | 188.98 | 226.39 |
| | | | | |
| January 1, 2015 | -0.702 | | 183.85 | 220.24 |
| February 1, 2015 | -4.255 | | 165.96 | 198.78 |
| March 1, 2015 | -7.740 | | 148.62 | 177.96 |
| April 1, 2015 | -6.921 | | 151.30 | 181.18 |
| May 1, 2015 | -6.092 | | 157.06 | 188.10 |
| June 8, 2015 | -4.794 | | 163.43 | 195.74 |
| July 1, 2015 | -4.336 | | 164.44 | 196.93 |
| August 1, 2015 | -4.415 | | 164.11 | 196.54 |
| September 1, 2015 | -5.820 | | 157.12 | 188.14 |
| October 1, 2015 | -7.471 | | 148.88 | 178.26 |
| November 1, 2015 | -8.651 | | 141.57 | 169.49 |
| December 1, 2015 | -8.557 | | 142.07 | 170.10 |
| | | | | |
| January 1, 2016 | -8.649 | | 141.54 | 169.48 |
| February 1, 2016 | -10.511 | | 132.58 | 158.73 |
| March 1, 2016 | -9.196 | | 139.17 | 166.62 |
| April 1, 2016 | -8.768 | | 140.37 | 168.08 |
| May 1, 2016 | -10.483 | | 132.89 | 159.10 |
| June 1, 2016 | -8.170 | | 143.47 | 171.79 |
| July 1, 2016 | -7.334 | | 148.08 | 177.36 |

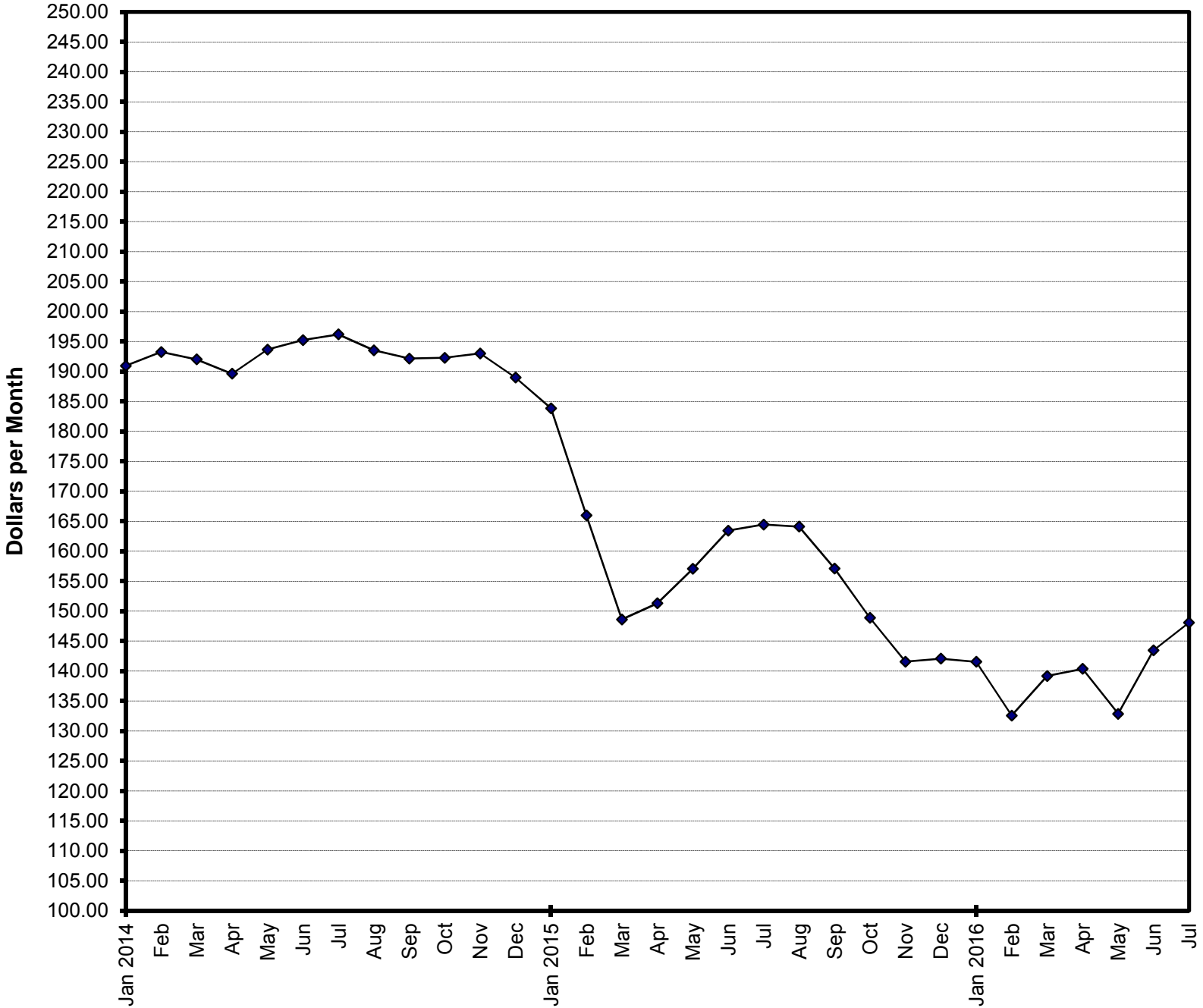
MAUI ELECTRIC COMPANY, LTD. -- Maui Division
RESIDENTIAL SURCHARGE DATA

| EFFECTIVE DATE | DESCRIPTION OF SURCHARGE | RATE |
|----------------------|---|------------------------------|
| 01/01/11 - 12/31-11 | RESID. PBF SURCHARGE ADJUSTMENT | 0.5944 CENTS/KWH |
| 01/12/11 - 05/03/12 | FINAL RATE INCREASE (3.65%), DOCKET NO. 2006-0387 (2007 TEST YEAR) | |
| 01/12/11 - 05/03/12 | INTERIM RATE INCREASE 2010 TEST YEAR | 2.44 PERCENT ON BASE |
| 01/12/11 - 01/31/11 | FIRM CAP SURCHARGE | 0.081 PERCENT ON BASE |
| 02/01/11 - 04/30/11 | FIRM CAP SURCHARGE | 0.0515 PERCENT ON BASE |
| 02/01/11 - 02/28/11 | IRP RECOVERY REFUND | -3.630 PERCENT ON BASE |
| 03/01/11 - 04/30/11 | IRP RECOVERY REFUND | 0.000 PERCENT ON BASE |
| 04/01/11 - 04/30/11 | SOLARSAVER ADJUSTMENT | -0.0888 CENTS/KWH |
| 05/01/11 - 03/31/12 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 05/01/11 - 05/31/11 | IRP RECOVERY REFUND | -0.339 PERCENT ON BASE |
| 05/01/11 - 07/31/11 | FIRM CAP SURCHARGE | -0.0180 PERCENT ON BASE |
| 06/01/11 | IRP RECOVERY REFUND | 0.000 PERCENT ON BASE |
| 08/01/11 - 10/31/11 | FIRM CAP SURCHARGE | -0.0056 PERCENT ON BASE |
| 11/01/11 - 01/31/12 | FIRM CAP SURCHARGE | 0.0047 PERCENT ON BASE |
| 01/01/12 - 12/31/12 | RESID. PBF SURCHARGE ADJUSTMENT | 0.6766 CENTS/KWH |
| 02/01/12 - 05/03/12 | FIRM CAP SURCHARGE | 0.0000 PERCENT ON BASE |
| 04/01/12 - 04/30/12 | SOLARSAVER ADJUSTMENT | -0.2392 CENTS/KWH |
| 05/01/12 - 03/31/13 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 05/4/2012 - 07/31/13 | FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR) | |
| 05/04/12 - 07/31/12 | PURCHASED POWER ADJUSTMENT | 0.1889 CENTS/KWH |
| 06/1/2012 - 07/31/13 | INTERIM RATE INCREASE 2012 TEST YEAR | 4.14 PERCENT ON BASE |
| 08/01/12 - 10/31/12 | PURCHASED POWER ADJUSTMENT | 0.1747 CENTS/KWH |
| 11/1/2012 - 01/31/13 | PURCHASED POWER ADJUSTMENT | 0.1427 CENTS/KWH |
| 01/01/13 - 06/30/13 | RESID. PBF SURCHARGE ADJUSTMENT | 0.7850 CENTS/KWH |
| 02/01/13 - 04/30/13 | PURCHASED POWER ADJUSTMENT | 0.1530 CENTS/KWH |
| 04/01/13 - 04/30/13 | SOLARSAVER ADJUSTMENT | -0.2053 CENTS/KWH |
| 05/01/13 - 03/31/14 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 05/01/13 - 07/31/13 | PURCHASED POWER ADJUSTMENT | 0.1530 CENTS/KWH |
| 06/01/13 - 05/31/14 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 0.8071 CENTS/KWH |
| 07/01/13 - 06/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | 0.8312 CENTS/KWH |
| 08/01/13 | FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR) | |
| 08/01/13 - 08/31/13 | PURCHASED POWER ADJUSTMENT | 0.1892 CENTS/KWH |
| 09/01/13 - 09/30/13 | PURCHASED POWER ADJUSTMENT | 0.1865 CENTS/KWH |
| 10/01/13 - 10/31/13 | PURCHASED POWER ADJUSTMENT | 0.1877 CENTS/KWH |
| 11/01/13 - 11/30/13 | PURCHASED POWER ADJUSTMENT | 0.0808 CENTS/KWH |
| 12/01/13 - 12/31/13 | PURCHASED POWER ADJUSTMENT | 0.0861 CENTS/KWH |
| 01/01/14 - 01/31/14 | PURCHASED POWER ADJUSTMENT | 0.0943 CENTS/KWH |
| 02/01/14 - 02/28/14 | PURCHASED POWER ADJUSTMENT | 0.0514 CENTS/KWH |
| 03/01/14 - 03/31/14 | PURCHASED POWER ADJUSTMENT | 0.0650 CENTS/KWH |
| 04/01/14 - 04/30/14 | PURCHASED POWER ADJUSTMENT | 0.0560 CENTS/KWH |
| 04/01/14 - 04/30/14 | SOLARSAVER ADJUSTMENT | -0.2453 CENTS/KWH |
| 05/01/14 - 03/31/15 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 05/01/14 - 06/30/14 | PURCHASED POWER ADJUSTMENT | 0.1957 CENTS/KWH |
| 06/01/14 - 05/31/15 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 1.6239 CENTS/KWH |
| 07/01/14 - 07/31/14 | PURCHASED POWER ADJUSTMENT | 0.1960 CENTS/KWH |
| 07/01/14 - 11/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | 1.0157 CENTS/KWH |
| 08/01/14 - 08/31/14 | PURCHASED POWER ADJUSTMENT | 0.2145 CENTS/KWH |
| 09/01/14 - 09/30/14 | PURCHASED POWER ADJUSTMENT | 0.2159 CENTS/KWH |
| 10/01/14 - 10/31/14 | PURCHASED POWER ADJUSTMENT | 0.2149 CENTS/KWH |
| 11/01/14 - 11/30/14 | PURCHASED POWER ADJUSTMENT | 0.1066 CENTS/KWH |
| 12/01/14 - 12/31/14 | PURCHASED POWER ADJUSTMENT | 0.1108 CENTS/KWH |
| 12/01/14 - 06/30/15 | RESID. PBF SURCHARGE ADJUSTMENT | 0.7583 CENTS/KWH |
| 12/01/14 - 06/30/15 | GREEN INFRASTRUCTURE FEE | 1.29 DOLLARS/MONTH |
| 01/01/15 - 01/31/15 | PURCHASED POWER ADJUSTMENT | 0.1117 CENTS/KWH |
| 02/01/15 - 02/28/15 | PURCHASED POWER ADJUSTMENT | 0.0875 CENTS/KWH |
| 03/01/15 - 03/31/15 | PURCHASED POWER ADJUSTMENT | 0.1036 CENTS/KWH |
| 04/01/15 - 04/30/15 | PURCHASED POWER ADJUSTMENT | 0.0963 CENTS/KWH |
| 04/01/15 - 04/30/15 | SOLARSAVER ADJUSTMENT | -0.2744 CENTS/KWH |
| 05/01/15 - 05/31/15 | PURCHASED POWER ADJUSTMENT | 0.1444 CENTS/KWH |
| 05/01/15 - 03/31/16 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 06/01/15 - 06/30/15 | PURCHASED POWER ADJUSTMENT | 0.1453 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 - 07/31/15 | PURCHASED POWER ADJUSTMENT | 0.1482 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 |
| 08/01/15 - 08/31/15 | PURCHASED POWER ADJUSTMENT | 0.1613 CENTS/KWH |
| 08/17/15 - 02/29/16 | RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION | 0.0103 CENTS/KWH |
| 09/01/15 - 09/30/15 | PURCHASED POWER ADJUSTMENT | 0.1573 CENTS/KWH |
| 10/01/15 - 10/31/15 | PURCHASED POWER ADJUSTMENT | 0.1612 CENTS/KWH |
| 11/01/15 - 11/30/15 | PURCHASED POWER ADJUSTMENT | -0.1207 CENTS/KWH |
| 12/01/15 - 12/31/15 | PURCHASED POWER ADJUSTMENT | -0.1139 CENTS/KWH |
| 01/01/16 - 01/31/16 | PURCHASED POWER ADJUSTMENT | -0.1055 CENTS/KWH |
| 01/01/16 - 06/30/16 | GREEN INFRASTRUCTURE FEE | 1.30 DOLLARS/MONTH |
| 02/01/16 - 02/29/16 | PURCHASED POWER ADJUSTMENT | -0.0338 CENTS/KWH |
| 03/01/16 - 03/31/16 | PURCHASED POWER ADJUSTMENT | -0.0325 CENTS/KWH |
| 03/01/16 | RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION | 0.0099 CENTS/KWH |
| 04/01/16 - 04/30/16 | PURCHASED POWER ADJUSTMENT | -0.0355 CENTS/KWH |
| 04/01/16 - 04/30/16 | SOLARSAVER ADJUSTMENT | -0.1835 CENTS/KWH |
| 05/01/16 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 05/01/16 - 05/31/16 | PURCHASED POWER ADJUSTMENT | 0.0000 CENTS/KWH |
| 06/01/16 - 06/30/16 | PURCHASED POWER ADJUSTMENT | -0.0081 CENTS/KWH |
| 06/01/16 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 1.4082 CENTS/KWH |
| 07/01/16 | PURCHASED POWER ADJUSTMENT | 0.0000 CENTS/KWH |
| 07/01/16 | GREEN INFRASTRUCTURE FEE | 1.13 DOLLARS/MONTH |
| 07/01/16 | RESID. PBF SURCHARGE ADJUSTMENT | 0.5865 CENTS/KWH |

~ Surcharges currently in effect are in bold.

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

**Maui Electric Company, Ltd. - Maui Division
Residential Bill at 500 kWh/Month Consumption**



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

ENERGY COST ADJUSTMENT FACTOR

| | EFFECTIVE DATES | | <u>Change</u> |
|---|-----------------|-----------------|---------------|
| | <u>06-01-16</u> | <u>07-01-16</u> | |
| <u>COMPOSITE COSTS</u> | | | |
| Generation, Central Station & Other, ¢/mbtu | 1,532.98 | 1,606.96 | 73.98 |
| DG Energy, ¢/kWh | 0.00 | 0.00 | 0.00 |
| Purchased Energy, ¢/kWh | 27.00 | 27.00 | 0.00 |
| <u>Residential Schedule "R"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (12.617) | (11.833) | 0.784 |
| <u>Others - "G,P,F"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (12.617) | (11.833) | 0.784 |
| <u>Residential Customer with</u> | | | |
| 400 KWH Consumption, \$/Bill | 136.22 | 139.64 | 3.42 |
| 500 KWH Consumption, \$/Bill | 169.37 | 173.68 | 4.31 |

Supersedes Sheet Effective:

June 1, 2016

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line

- 1 Effective Date July 1, 2016
- 2 Supercedes Factors of June 1, 2016

GENERATION COMPONENT

| <u>CENTRAL STATION</u> | | | | | | <u>DG ENERGY COMPONENT</u> | |
|-------------------------------|--|-------------------|--------------|-------------------|----|--|--|
| FUEL PRICES, ¢/mmbtu | | | | | | | |
| 3 | Industrial | | | 0.00 | | | |
| 4 | Diesel - Miki Basin | | | 1,606.96 | | | |
| 5 | Diesel - Manele Bay | | | 0.00 | | | |
| 6 | Other | | | 0.00 | | | |
| BTU MIX, % | | | | | | | |
| 7 | Industrial | | | 0.00% | | 25 | COMPOSITE COST OF DG ENERGY, ¢/kWh |
| 8 | Diesel - Miki Basin | | | 100.00% | | | 0.000 |
| 9 | Diesel - Manele Bay ¹ | | | 0.00% | | 26 | % Input to System kWh Mix |
| 10 | Other | | | 0.00% | | | 0.00% |
| | | | | 100.00% | | | |
| 11 | COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10)) | | | 1,606.96 | | 27 | WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26) |
| 12 | % Input to System kWh Mix | | | 91.25% | | | 0.00000 |
| EFFICIENCY FACTOR, mmbtu/kWh | | | | | | 28 | BASE DG ENERGY COMP COST |
| | (A) | (B) | (C) | (D) | | 29 | Base % Input to System kWh Mix |
| | | | Percent of | | | | 0.00% |
| | | | Centrl Stn + | Weighted | | 30 | WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 28 x 29) |
| | <u>Fuel Type</u> | <u>Eff Factor</u> | <u>Other</u> | <u>Eff Factor</u> | | | 0.00000 |
| | | <u>mmbtu/kwh</u> | | | | 31 | Cost Less Base (Line 27 - 30) |
| 13 | Industrial | 0.000000 | 0.00 | 0.000000 | | 32 | Loss Factor |
| 14 | Diesel | 0.011151 | 100.00 | 0.011151 | | 33 | Revenue Tax Req Multiplier |
| 15 | Other | 0.011151 | 0.00 | 0.000000 | | 34 | DG FACTOR, ¢/kWh (Line 31 x 32 x 33) |
| | (Lines 13, 14, 15): Col(B) x Col(C) = Col(D) | | | | | | 0.00000 |
| 16 | Weighted Efficiency Factor, mmbtu/kWh [lines 13(D) + 14(D) + 15(D)] | | | 0.011151 | | | |
| 17 | WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh (lines (11 x 12 x 16)) | | | 16.35128 | | | |
| 18 | BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu | | | 2,647.15 | | | |
| 19 | Base % Input to Sys kWh Mix | | | 89.65% | | | |
| 20 | Efficiency Factor, mmbtu/kwh | | | 0.011151 | | | |
| 21 | WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (18 x 19 x 20)) | | | 26.46322 | | | |
| 22 | COST LESS BASE (line(17 - 21)) | | | (10.11194) | | | |
| 23 | Revenue Tax Req Multiplier | | | 1.0975 | | | |
| 24 | CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23)) | | | -11.09785 | | | |
| | | | | | | SUMMARY OF | |
| | | | | | | TOTAL GENERATION FACTOR, ¢/kWh | |
| | | | | | 35 | CNTRL STN + OTHER (line 24) | (11.09785) |
| | | | | | 36 | DG (line 34) | - |
| | | | | | 37 | TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36) | (11.09785) |

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

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line

1 Effective Date July 1, 2016
2 Supercedes Factors of June 1, 2016

| <u>Line</u> | <u>PURCHASED ENERGY COMPONENT</u> | |
|-------------|--|-----------|
| | PURCHASED ENERGY PRICE, ¢/kWh | |
| 38 | LANAI SOLAR RESEARCH - On Peak | 27.000 |
| 39 | - Off Peak | 27.000 |
| 40 | Sch Q | 0.000 |
| | PURCHASED ENERGY KWH MIX, % | |
| 41 | LANAI SOLAR RESEARCH - On Peak | 100.00% |
| 42 | - Off Peak | 0.00% |
| 43 | Sch Q | 0.00% |
| 44 | COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43)) | 27.000 |
| 45 | % Input to System kWh Mix | 8.75% |
| 46 | WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45)) | 2.36250 |
| 47 | BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh | 27.000 |
| 48 | Base % Input to Sys kWh Mix | 10.35 |
| 49 | WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48)) | 2.79450 |
| 50 | COST LESS BASE(lines (46 - 49)) | (0.43200) |
| 51 | Loss Factor | 1.051 |
| 52 | Revenue Tax Req Multiplier | 1.0975 |
| 53 | PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52)) | (0.49830) |

Line SYSTEM COMPOSITE CALCULATIONS

54 GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (11.59615)
(lines (37 + 53))
55 Adjustment, ¢/kWh 0.000
56 ECA Reconciliation Adjustment (0.237)
57 ECA FACTOR, ¢/kWh (11.833)
(lines (54 + 55 + 56))

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

MONTH END FUEL OIL ESTIMATE

| <u>Miki Basin - ULSD</u> | <u>Barrels</u> | <u>MBTU</u> | <u>\$</u> |
|---------------------------------|----------------|-------------|------------|
| 6/21/2016 | 2,982.48 | 17,089.62 | 271,314.10 |
| Estimated Use | 1,327.29 | 7,605.37 | 116,588.83 |
| Estimated Received | 2,142.86 | 12,278.59 | 195,229.97 |
| Estimated Additional | 264.43 | 1,515.16 | 24,113.92 |
| Estimated End | 4,062.48 | 23,278.00 | 374,069.16 |

Next Month's Combined Miki Expense (\$/bbl) = \$ 92.0790 /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 | \$ 92.0790 | 5.73 BTU/BBL | 1,606.96 |

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

Contract Prices effective June 1, 2016

TYPE OF OIL BURNED \$/BBL ¢/MBTU

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 * | 1.5120 | 26.39 |
| 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 and Environmental Response Tax.

Note: Since these components are not accounted for separately in inventory, contract prices for the current month are being provided. Contract prices are considered accurate pending actual delivery of the fuel.

Reference: Decision and Order No. 16134, Docket No. 96-0040.

MAUI ELECTRIC COMPANY, LTD.
Lanai Division
ECA Reconciliation Adjustment

July 2016

| | |
|------------------------------------|--------------|
| 1. Amount to be refunded | (\$14,900) |
| 2. Monthly amount (1 / 3 X Line 1) | (\$4,967) |
| 3. Revenue Tax Divisor | 0.91115 |
| 4. Total (Line 2 / Line 3) | (\$5,451) |
| 5. Estimated Sales (July 2016) | 2,301 mwh |
| 6. Adjustment (Line 4 ÷ Line 5) | -0.237 ¢/kwh |

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

| <u>Month</u> | (1) <u>YTD FOA Reconciliation</u> | <u>Qtr</u> | (2) <u>FOA Rec Adjust Variance</u> | (3) <u>FOA Rec Less Variance</u> | (4) <u>Try to Collect</u> | (5) <u>Actual Collect</u> | (6) <u>Month-end Cumulative Balance</u> |
|--------------|--------------------------------------|------------|---------------------------------------|-------------------------------------|------------------------------|------------------------------|--|
| December '15 | | | | | (2,067) | (2,151) | 1,855 |
| January '16 | | | | | (2,067) | (2,194) | (339) |
| February | (13,300) | (4) | (208) | (13,092) | 4,433 | 4,591 | (8,840) |
| March | | | | | 4,433 | 4,930 | (3,910) |
| April | | | | | 4,433 | 5,061 | 1,151 |
| May | 14,900 | (1) | 528 | 14,372 | (4,967) | (5,627) | 9,896 |
| June | | | | | (4,967) | | |
| July | | | | | (4,967) | | |

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 | | | |
|---|-----------------|----------|------------------------|----------|------------|-------|
| | 06-01-16 | 07-01-16 | 06-01-16 | 07-01-16 | 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 | 1.4082 | 1.4082 | 5.63 | 5.63 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4749 | 0.5865 | 1.90 | 2.35 | 0.45 |
| Renewable Energy Infrastructure Cost | | | | | | |
| Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | 0.04 | 0.04 | 0.00 |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Energy Cost Adjustment | ¢/kWh | -12.617 | -11.833 | -50.47 | -47.33 | 3.14 |
| Green Infrastructure Fee | \$ | 1.30 | 1.13 | 1.30 | 1.13 | -0.17 |
| Avg Residential Bill at 400 kwh | | | | 136.22 | 139.64 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 3.42 |
| % Change | 2.51% |

| | Rate | | Charge (\$) at 500 Kwh | | | |
|---|-----------------|----------|------------------------|----------|------------|-------|
| | 06-01-16 | 07-01-16 | 06-01-16 | 07-01-16 | Difference | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | | |
| Base Fuel/Energy Charge | ¢/kWh | 32.2668 | 32.2668 | 161.33 | 161.33 | 0.00 |
| Non-fuel Fuel Energy Charge | | | | | | |
| First 250 kWhr per month | ¢/kWh | 9.1240 | 9.1240 | 22.81 | 22.81 | 0.00 |
| Next 500 kWhr per month | ¢/kWh | 11.6240 | 11.6240 | 29.06 | 29.06 | 0.00 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0.00 |
| Total Base Charges | | | | 221.70 | 221.70 | 0.00 |
| IRP Refund | % on base | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Revenue Balancing Rate Adjustment | ¢/kWh | 1.4082 | 1.4082 | 7.04 | 7.04 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4749 | 0.5865 | 2.37 | 2.93 | 0.56 |
| Renewable Energy Infrastructure Cost | | | | | | |
| Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | 0.05 | 0.05 | 0.00 |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Energy Cost Adjustment | ¢/kWh | -12.617 | -11.833 | -63.09 | -59.17 | 3.92 |
| Green Infrastructure Fee | \$ | 1.30 | 1.13 | 1.30 | 1.13 | -0.17 |
| Avg Residential Bill at 500 kwh | | | | 169.37 | 173.68 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 4.31 |
| % Change | 2.54% |

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

| <u>EFFECTIVE DATE</u> | FUEL FACTOR CENTS / KWH | | RESIDENTIAL BILL (\$) |
|-----------------------|---|--|-----------------------|
| | <u>RESIDENTIAL & COMMERCIAL</u> | <u>RESIDENTIAL BILL (\$) @ 400 KWH @ 500 KWH</u> | |
| 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 | 189.21 | 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 | 181.20 |
| 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 |

**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 |
| 01/12/11 - 05/03/12 | FINAL RATE INCREASE (3.65%), DOCKET NO. 2006-0387 (2007 TEST YEAR) | |
| 01/12/11 - 05/03/12 | INTERIM RATE INCREASE 2010 TEST YEAR | 2.68 PERCENT ON BASE |
| 02/01/11 - 02/28/11 | IRP RECOVERY REFUND | -4.332 PERCENT ON BASE |
| 03/01/11 - 04/30/11 | IRP RECOVERY REFUND | 0.000 PERCENT ON BASE |
| 04/01/11 - 04/30/11 | SOLARSAVER ADJUSTMENT | -0.0888 CENTS/KWH |
| 05/01/11 - 03/31/12 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 05/01/11 - 05/31/11 | IRP RECOVERY REFUND | -0.356 PERCENT ON BASE |
| 06/01/11 | IRP RECOVERY REFUND | 0.000 PERCENT ON BASE |
| 01/01/12 - 12/31/12 | RESID. PBF SURCHARGE ADJUSTMENT | 0.6766 CENTS/KWH |
| 04/01/12 - 04/30/12 | SOLARSAVER ADJUSTMENT | -0.2392 CENTS/KWH |
| 05/01/12 - 03/31/13 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 5/4/2012 - 07/31/13 | FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR) | |
| 6/1/2012 - 07/31/13 | INTERIM RATE INCREASE 2012 TEST YEAR | 4.02 PERCENT ON BASE |
| 01/01/13 - 06/30/13 | RESID. PBF SURCHARGE ADJUSTMENT | 0.7850 CENTS/KWH |
| 04/01/13 - 04/30/13 | SOLARSAVER ADJUSTMENT | -0.2053 CENTS/KWH |
| 05/01/13 - 03/31/14 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 06/01/13 - 05/31/14 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 0.8071 CENTS/KWH |
| 07/01/13 - 06/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | 0.8312 CENTS/KWH |
| 08/01/13 | FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR) | |
| 04/01/14 - 04/30/14 | SOLARSAVER ADJUSTMENT | -0.2453 CENTS/KWH |
| 05/01/14 - 03/31/15 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 06/01/14 - 05/31/15 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 1.6239 CENTS/KWH |
| 07/01/14 - 11/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | 1.0157 CENTS/KWH |
| 12/01/14 - 06/30/15 | RESID. PBF SURCHARGE ADJUSTMENT | 0.7583 CENTS/KWH |
| 12/01/14 - 06/30/15 | GREEN INFRASTRUCTURE FEE | 1.29 DOLLARS/MONTH |
| 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 RECOVERY PROVISION | 0.0103 CENTS/KWH |
| 01/01/16 - 06/30/16 | GREEN INFRASTRUCTURE FEE | 1.3000 DOLLARS/MONTH |
| 03/01/16 | RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION | 0.0099 CENTS/KWH |
| 04/01/16 - 04/30/16 | SOLARSAVER ADJUSTMENT | -0.1835 CENTS/KWH |
| 05/01/16 | 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 | GREEN INFRASTRUCTURE FEE | 1.13 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.

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

ENERGY COST ADJUSTMENT FACTOR

| | EFFECTIVE DATES | | <u>Change</u> |
|---|-----------------|-----------------|---------------|
| | <u>06-01-16</u> | <u>07-01-16</u> | |
| <u>COMPOSITE COSTS</u> | | | |
| Generation, Central Station & Other, ¢/mbtu | 1,044.98 | 1,102.77 | 57.79 |
| DG Energy, ¢/kWh | 0.00 | 0.00 | 0.00 |
| Purchased Energy, ¢/kWh | 21.80 | 21.80 | 0.00 |
| <u>Residential Schedule "R"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (13.376) | (12.675) | 0.701 |
| <u>Others - "G,P,F"</u> | | | |
| Energy Cost Adjustment, ¢/kWh | (13.376) | (12.675) | 0.701 |
| <u>Residential Customer with</u> | | | |
| 400 KWH Consumption, \$/Bill | 118.95 | 122.03 | 3.08 |
| 500 KWH Consumption, \$/Bill | 147.87 | 151.76 | 3.89 |

Supersedes Sheet Effective:

June 1, 2016

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

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

Line

1 Effective Date July 1, 2016
2 Supercedes Factors June 1, 2016

GENERATION COMPONENT

| <u>CENTRAL STATION</u> | | | | | | | <u>DG ENERGY COMPONENT</u> | |
|-------------------------------|---|------------|--------------------|---------------|--------------------------------|--|-----------------------------------|------|
| FUEL PRICES, ¢/mmbtu | | | | | | | | |
| 3 | Industrial | | | 0.00 | | | | |
| 4 | Diesel | | | 1,102.77 | | | | |
| 5 | Other | | | 0.00 | | | | |
| BTU MIX, % | | | | | | | | |
| 6 | Industrial | | | 0.00 | 23 | COMPOSITE COST OF DG | | |
| 7 | Diesel | | | 100.00 | | ENERGY, ¢/kWh | 0.000 | |
| 8 | Other | | | 0.00 | 24 | % Input to System kWh Mix | 0.00 | |
| | | | | <u>100.00</u> | | | | |
| 9 | COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines (3 x 6) + (4 x 7) + (5 x 8)) | | | 1,102.77 | 25 | WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24) | 0.00000 | |
| 10 | % Input to System kWh Mix | | | 99.76 | 26 | BASE DG ENERGY COMP COST | 0.000 | |
| EFFICIENCY FACTOR, mmbtu/kWh | | | | | | 27 | Base % Input to System kWh Mix | 0.00 |
| | (A) | (B) | (C) | (D) | 28 | WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27) | 0.00000 | |
| | | | Percent of | Weighted | 29 | Cost Less Base (Line 25 - 28) | 0.00000 | |
| | Fuel Type | Eff Factor | Centrl Stn + Other | Eff Factor | 30 | Loss Factor | 1.095 | |
| 11 | Industrial | 0.000000 | 0.00 | 0.000000 | 31 | Revenue Tax Req Multiplier | 1.0975 | |
| 12 | Diesel | 0.011194 | 100.00 | 0.011194 | 32 | DG FACTOR, ¢/kWh (Line 29 x 30 x 31) | 0.00000 | |
| 13 | Other | 0.011194 | 0.00 | 0.000000 | | | | |
| | (Lines 11, 12, 13): Col(B) x Col(C) = Col(D) | | | | | | | |
| 14 | Weighted Efficiency Factor, mmbtu/kWh [lines 11(D) + 12(D) + 13(D)] | | | 0.011194 | | | | |
| 15 | WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines (9 x 10 x 14)) | | | 12.31524 | | | | |
| 16 | BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu | | | 2,144.57 | | | | |
| 17 | Base % Input to Sys kWh Mix | | | 99.91 | | | | |
| 18 | Efficiency Factor, mmbtu/kwh | | | 0.011194 | | | | |
| 19 | WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines (16 x 17 x 18)) | | | 23.98471 | | | | |
| 20 | COST LESS BASE (line(15 - 19)) | | | (11.66947) | | | | |
| 21 | Revenue Tax Req Multiplier | | | 1.0975 | | | | |
| 22 | CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21)) | | | (12.80724) | | | | |
| | | | | | SUMMARY OF | | | |
| | | | | | TOTAL GENERATION FACTOR, ¢/kWh | | | |
| | | | | | 33 | CNTRL STN + OTHER (line 22) | -12.80724 | |
| | | | | | 34 | DG (line 32) | 0.00000 | |
| | | | | | 35 | TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34) | -12.80724 | |

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

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

Line

1 Effective Date July 1, 2016
2 Supercedes Factors June 1, 2016

| <u>Line</u> | <u>PURCHASED ENERGY COMPONENT</u> | |
|-------------|--|---------|
| | PURCHASED ENERGY PRICE, ¢/kWh | |
| 36 | FIT | 21.800 |
| 37 | | 0.000 |
| 38 | Sch Q | 0.000 |
| | PURCHASED ENERGY KWH MIX, % | |
| 39 | FIT | 100.00 |
| 40 | | 0.00 |
| 41 | Sch Q | 0.000 |
| 42 | COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 39) + (37 x 40) + (38 x 41)) | 21.800 |
| 43 | % Input to System kWh Mix | 0.24 |
| 44 | WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (42 x 43)) | 0.05150 |
| 45 | BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh | 21.800 |
| 46 | Base % Input to Sys kWh Mix | 0.09 |
| 47 | WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (45 x 46)) | 0.01962 |
| 48 | COST LESS BASE (lines (44 - 47)) | 0.03188 |
| 49 | Loss Factor | 1.095 |
| 50 | Revenue Tax Req Multiplier | 1.0975 |
| 51 | PURCHASED ENERGY FACTOR, ¢/kWh (lines (48 x 49 x 50)) | 0.03831 |

Line

SYSTEM COMPOSITE CALCULATIONS

52 GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (12.76893)
(lines (35 + 51))

53 Adjustment, ¢/kWh 0.000

54 ECA Reconciliation Adjustment 0.094

55 ECA FACTOR, ¢/kWh (12.675)
(lines (52 + 53 + 54))

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

MONTH END FUEL OIL ESTIMATE

| | <u>Barrels</u> | <u>MBTU</u> | <u>\$</u> |
|----------------------|-----------------|------------------|-------------------|
| 6/21/2016 | 7,779.40 | 44,575.99 | 487,523.63 |
| Estimated Use | 1,222.52 | 7,005.04 | 73,201.56 |
| Estimated Received | - | - | - |
| Estimated Additional | - | - | - |
| Estimated End | <u>6,556.88</u> | <u>37,570.95</u> | <u>414,322.07</u> |

Next Months Expense = \$ 63.1889 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

| <u>Type of Oil Burned</u> | <u>Price</u> | <u>Prices ¢/MBTU</u> |
|---------------------------|----------------------------|----------------------|
| Diesel | \$ 63.1889 5.73 BTU/BBL | 1102.77 |

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

Contract Prices effective June 1, 2016

| <u>TYPE OF OIL BURNED</u> | <u>\$/BBL</u> | <u>¢/MBTU</u> |
|--------------------------------|---------------|---------------|
| ULTRA LOW SULFUR DIESEL | | |
| Tax * | 1.4700 | 25.65 |
| Ocean Transportation | 1.9186 | 33.48 |
| Storage | 4.7171 | 82.32 |
| Wharfage | 0.2400 | 4.19 |

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

Note: Since these components are not accounted for separately in inventory, contract prices for the current month are being provided. Contract prices are considered accurate pending actual delivery of the fuel.

Reference: Decision and Order No. 16134, Docket No. 96-0040.

MAUI ELECTRIC COMPANY, LTD.
Molokai Division
ECA Reconciliation Adjustment

July 2016

| | |
|----------------------------------|-------------|
| 1. Amount to be Collected | \$5,900 |
| 2. Monthly amount (1/3 x Line 1) | \$1,967 |
| 3. Revenue Tax Divisor | 0.91115 |
| 4. Total (Line 2 / Line 3) | \$2,159 |
| 5. Estimated Sales (July 2016) | 2,286 mwh |
| 6. Adjustment (Line 4 ÷ Line 5) | 0.094 ¢/kwh |

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

| <u>Month</u> | (1) <u>YTD FOA Reconciliation</u> | <u>Qtr</u> | (2) <u>FOA Rec Adjust Variance</u> | (3) <u>FOA Rec Less Variance</u> | (4) <u>Try to Collect</u> | (5) <u>Actual Collect</u> | (6) <u>Month-end Cumulative Balance</u> |
|--------------|--|------------|---|---|----------------------------------|----------------------------------|--|
| December '15 | | | | | (1,433) | (1,450) | 1,370 |
| January '16 | | | | | (1,433) | (1,417) | (47) |
| February | 4,000 | (4) | (55) | 4,055 | (1,333) | (1,321) | 2,687 |
| March | | | | | (1,333) | (1,326) | 1,361 |
| April | | | | | (1,333) | (1,381) | (20) |
| May | (5,900) | (1) | 35 | (5,935) | 1,967 | 1,994 | (3,961) |
| June | | | | | 1,967 | | |
| July | | | | | 1,967 | | |

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 20)
A positive number is an over-collection. A negative number is an under-collection.
- Col(2): FOA reconciliation adjustment variance accumulated during the last three months, starting with the fourth prior month; the difference between the estimated recorded sales used to derive the \$/kwh adjustment and the actual recorded sales.
(Col(5) - Col(4))
- Col(3): FOA reconciliation generated in the current quarter. The YTD FOA reconciliation difference minus the adjustment variance. Col(1) - Col(2)
- Col(4): Amount that the FOA reconciliation adjustment is trying to collect. (Col(1) * 1/3)
- Col(5): Actual collected amount. (recorded sales * \$/kwh adjustment/1.09751)
- Col(6): Cumulative balance of the FOA reconciliation (Previous balance + Col(3) + Col(5))

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

| | Rate | | Charge (\$) at 400 Kwh | | | |
|--|-----------------|----------|------------------------|----------|------------|-------|
| | 06-01-16 | 07-01-16 | 06-01-16 | 07-01-16 | Difference | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | | |
| Base Fuel/Energy Charge | ¢/kWh | 26.3468 | 26.3468 | 105.39 | 105.39 | 0.00 |
| Non-fuel Fuel Energy Charge | | | | | | |
| First 250 kWh per month | ¢/kWh | 11.4278 | 11.4278 | 28.57 | 28.57 | 0.00 |
| Next 500 kWh per month | ¢/kWh | 14.0778 | 14.0778 | 21.12 | 21.12 | 0.00 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0.00 |
| Total Base Charges | | | | 163.58 | 163.58 | 0.00 |
| IRP Refund | % on base | 0.000 | 0.000 | 0.00 | 0.00 | 0.00 |
| Revenue Balancing Rate Adjustment | ¢/kWh | 1.4082 | 1.4082 | 5.63 | 5.63 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4749 | 0.5865 | 1.90 | 2.35 | 0.45 |
| Renewable Energy Infrastructure Cost Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | 0.04 | 0.04 | 0.00 |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Energy Cost Adjustment | ¢/kWh | -13.376 | -12.675 | -53.50 | -50.70 | 2.80 |
| Green Infrastructure Fee | \$ | 1.30 | 1.13 | 1.30 | 1.13 | -0.17 |
| Avg Residential Bill at 400 kwh | | | | 118.95 | 122.03 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 3.08 |
| % Change | 2.59% |

| | Rate | | Charge (\$) at 500 Kwh | | | |
|--|-----------------|----------|------------------------|----------|------------|-------|
| | 06-01-16 | 07-01-16 | 06-01-16 | 07-01-16 | Difference | |
| Base Rates | effective date: | 08/01/13 | 08/01/13 | | | |
| Base Fuel/Energy Charge | ¢/kWh | 26.3468 | 26.3468 | 131.73 | 131.73 | 0.00 |
| Non-fuel Fuel Energy Charge | | | | | | |
| First 250 kWh per month | ¢/kWh | 11.4278 | 11.4278 | 28.57 | 28.57 | 0.00 |
| Next 500 kWh per month | ¢/kWh | 14.0778 | 14.0778 | 35.19 | 35.19 | 0.00 |
| Customer Charge | \$ | 8.50 | 8.50 | 8.50 | 8.50 | 0.00 |
| Total Base Charges | | | | 203.99 | 203.99 | 0.00 |
| IRP Refund | % on base | 0.000 | 0.000 | 0.00 | 0.00 | 0.00 |
| Revenue Balancing Rate Adjustment | ¢/kWh | 1.4082 | 1.4082 | 7.04 | 7.04 | 0.00 |
| PBF Surcharge | ¢/kWh | 0.4749 | 0.5865 | 2.37 | 2.93 | 0.56 |
| Renewable Energy Infrastructure Cost Recovery Provision | ¢/kWh | 0.0099 | 0.0099 | 0.05 | 0.05 | 0.00 |
| SolarSaver Adjustment | ¢/kWh | 0.0000 | 0.0000 | 0.00 | 0.00 | 0.00 |
| Energy Cost Adjustment | ¢/kWh | -13.376 | -12.675 | -66.88 | -63.38 | 3.50 |
| Green Infrastructure Fee | \$ | 1.30 | 1.13 | 1.30 | 1.13 | -0.17 |
| Avg Residential Bill at 500 kwh | | | | 147.87 | 151.76 | |

| | |
|-----------------------|-------|
| Increase (Decrease -) | 3.89 |
| % Change | 2.63% |

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

| <u>EFFECTIVE DATE</u> | <u>FUEL FACTOR CENTS / KWH</u> | | <u>RESIDENTIAL BILL (\$)</u> | |
|-----------------------|---|--|------------------------------|------------------|
| | <u>RESIDENTIAL & COMMERCIAL</u> | | <u>@ 400 KWH</u> | <u>@ 500 KWH</u> |
| January 1, 2014 | 3.885 | | 185.67 | 231.62 |
| February 1, 2014 | 4.590 | | 188.49 | 235.14 |
| March 1, 2014 | 4.652 | | 188.74 | 235.45 |
| April 1, 2014 | 4.585 | | 187.49 | 233.89 |
| May 1, 2014 | 4.690 | | 188.89 | 235.64 |
| June 1, 2014 | 4.779 | | 192.52 | 240.17 |
| July 1, 2014 | 5.145 | | 194.72 | 242.92 |
| August 1, 2014 | 4.697 | | 192.93 | 240.68 |
| September 1, 2014 | -2.835 | | 162.80 | 203.01 |
| October 1, 2014 | 1.864 | | 181.60 | 226.51 |
| November 1, 2014 | 2.683 | | 184.87 | 230.61 |
| December 1, 2014 | 1.266 | | 179.46 | 223.52 |
| | | | | |
| January 1, 2015 | -0.141 | | 173.84 | 216.48 |
| February 1, 2015 | -3.412 | | 160.75 | 200.13 |
| March 1, 2015 | -6.056 | | 150.18 | 186.91 |
| April 1, 2015 | -6.122 | | 148.81 | 185.21 |
| May 1, 2015 | -6.727 | | 147.49 | 183.55 |
| June 8, 2015 | -7.453 | | 144.48 | 179.79 |
| July 1, 2015 | -6.185 | | 148.55 | 184.84 |
| August 1, 2015 | -5.864 | | 149.83 | 186.45 |
| September 1, 2015 | -5.935 | | 149.59 | 186.14 |
| October 1, 2015 | -9.896 | | 133.75 | 166.34 |
| November 1, 2015 | -10.149 | | 132.73 | 165.07 |
| December 1, 2015 | -9.676 | | 134.63 | 167.44 |
| | | | | |
| January 1, 2016 | -9.942 | | 133.44 | 165.99 |
| February 1, 2016 | -11.270 | | 128.13 | 159.35 |
| March 1, 2016 | -12.649 | | 122.61 | 152.45 |
| April 1, 2016 | -13.391 | | 118.92 | 147.82 |
| May 1, 2016 | -13.226 | | 120.31 | 149.57 |
| June 1, 2016 | -13.376 | | 118.95 | 147.87 |
| July 1, 2016 | -12.675 | | 122.03 | 151.76 |

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

| EFFECTIVE DATE | DESCRIPTION OF SURCHARGE | RATE |
|---------------------|---|------------------------------|
| 01/01/11 - 12/31/11 | RESID. PBF SURCHARGE ADJUSTMENT | 0.5944 CENTS/KWH |
| 01/12/11 - 05/03/12 | FINAL RATE INCREASE (3.66%), DOCKET NO. 2006-0387 (2007 TEST YEAR) | |
| 01/12/11 - 05/03/12 | INTERIM RATE INCREASE 2010 TEST YEAR | 2.38 PERCENT ON BASE |
| 02/01/11 - 02/28/11 | IRP RECOVERY REFUND | -3.472 PERCENT ON BASE |
| 03/01/11 - 04/30/11 | IRP RECOVERY REFUND | 0.000 PERCENT ON BASE |
| 04/01/11 - 04/30/11 | SOLARSAVER ADJUSTMENT | -0.0888 CENTS/KWH |
| 05/01/11 - 03/31/12 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 05/01/11 - 05/31/11 | IRP RECOVERY REFUND | -0.204 PERCENT ON BASE |
| 06/01/11 | IRP RECOVERY REFUND | 0.000 PERCENT ON BASE |
| 01/01/12 - 12/31/12 | RESID. PBF SURCHARGE ADJUSTMENT | 0.6766 CENTS/KWH |
| 04/01/12 - 04/30/12 | SOLARSAVER ADJUSTMENT | -0.2392 CENTS/KWH |
| 05/01/12 - 03/31/13 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 5/4/2012 - 7/31/13 | FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR) | |
| 6/1/2012- 7/31/13 | INTERIM RATE INCREASE 2012 TEST YEAR | 4.11 PERCENT ON BASE |
| 01/01/13 - 06/30/13 | RESID. PBF SURCHARGE ADJUSTMENT | 0.7850 CENTS/KWH |
| 04/01/13 - 04/30/13 | SOLARSAVER ADJUSTMENT | -0.205 CENTS/KWH |
| 05/01/13 - 03/31/14 | SOLARSAVER ADJUSTMENT | 0.000 CENTS/KWH |
| 06/01/13 - 05/31/14 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 0.8071 CENTS/KWH |
| 07/01/13 - 06/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | 0.8312 CENTS/KWH |
| 08/01/13 | FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR) | |
| 04/01/14 - 04/30/14 | SOLARSAVER ADJUSTMENT | -0.2453 CENTS/KWH |
| 05/01/14 - 03/31/15 | SOLARSAVER ADJUSTMENT | 0.0000 CENTS/KWH |
| 06/01/14 - 05/31/15 | REVENUE BALANCING ACCOUNT RATE ADJUSTMENT | 1.6239 CENTS/KWH |
| 07/01/14 - 11/30/14 | RESID. PBF SURCHARGE ADJUSTMENT | 1.0157 CENTS/KWH |
| 12/01/14 - 06/30/15 | RESID. PBF SURCHARGE ADJUSTMENT | 0.7583 CENTS/KWH |
| 12/01/14 - 06/30/15 | GREEN INFRASTRUCTURE FEE | 1.29 DOLLARS/MONTH |
| 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 RECOVERY PROVISION | 0.0103 CENTS/KWH |
| 01/01/16 - 06/30/16 | GREEN INFRASTRUCTURE FEE | 1.30 DOLLARS/MONTH |
| 03/01/16 | RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION | 0.0099 CENTS/KWH |
| 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 | GREEN INFRASTRUCTURE FEE | 1.13 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.