



# **Public Utilities Commission**

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Entity:	Maui Electric Company, Limited
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SHARON M. SUZUKI President

October 28, 2015

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 November 2015

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2015 energy cost adjustment factor for our Maui Division is -8.651 cents per kilowatt-hour ("kWh"), a decrease of 1.180 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$141.57, a decrease of \$7.31 compared to rates effective October 1, 2015. The decrease in the typical residential bill is due to the decrease in the energy cost adjustment factor (-\$5.90) and the decrease in the Purchased Power Adjustment Clause rate (-\$1.41).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 87.69 cents per million BTU to 1,168.17 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.565 cents per kWh to 17.427 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for November 2015 is -12.177 cents per kWh, an increase of 0.082 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$138.86, an increase of \$0.33 compared to rates effective October 1, 2015.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 10.67 cents per million BTU to 1,593.56 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 November 2015 is -10.149 cents per kWh, a decrease of 0.253 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$132.73, a decrease of \$1.02 compared to rates effective October 1, 2015.

The Company's Moloka'i Division fuel composite cost of generation, central station and other decreased 13.50 cents per million BTU to 1,322.33 cents per million BTU. The composite

The Honorable Chair and Members of the Hawai'i Public Utilities Commission October 28, 2015 Page 2

cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 21.80 cents per kWh.

The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning November 1, 2015.

Sincerely,

/s/ Sharon M. Suzuki

Sharon M. Suzuki President

Attachments

cc: Division of Consumer Advocacy

# ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		
	<u>10-01-15</u>	<u>11-01-15</u>	<u>Change</u>
<u>COMPOSITE COSTS</u> Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,582.89 0.00 27.00	1,593.56 0.00 27.00	10.67 0.00 0.00
Residential Schedule "R"			
Energy Cost Adjustment, ¢/kWh	(12.259)	(12.177)	0.082
Others - "G,P,F"			
Energy Cost Adjustment, ¢/kWh	(12.259)	(12.177)	0.082
Residential Customer with			
400 KWH Consumption, \$/Bill	138.53	138.86	0.33
500 KWH Consumption, \$/Bill	172.23	172.64	0.41

Supersedes Sheet Effective: October 1, 2015

#### ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - November 1, 2015 (page 1 of 2)

Line

- November 1, 2015
- 1 Effective Date
  2 Supercedes Factors of October 1, 2015

#### **GENERATION COMPONENT**

CENTRAL STATION			
FUEL PRICES, ¢/mmbtu			
3 Industrial	0.00		
4 Diesel - Miki Basin	1,593.56		
5 Diesel - Manele Bay	0.00		
6 Other	0.00		
BTU MIX, %	0.000/		
7 Industrial	0.00%	25 COMPOSITE COST OF DG	
8 Diesel - Miki Basin	100.00%	ENERGY, ¢/kWh	0.000
9 Diesel - Manele Bay <sup>1</sup>	0.00%		
10 Other	0.00%	26 % Input to System kWh Mix	0.00%
	100.00%		
		27 WEIGHTED COMPOSITE DG ENERGY	
11 COMPOSITE COST OF GENERATION,		COST, ¢/kWh (Lines 25 x 26)	0.00000
CENTRAL STATION + OTHER ¢/mmbt			
(Lines $(3 \times 7) + (4 \times 8) + (5 \times 9) + (6 \times 10)$	· ·		
12 % Input to System kWh Mix	94.07%	28 BASE DG ENERGY COMP COST	0.000
		29 Base % Input to System kWh Mix	0.00%
EFFICIENCY FACTOR, mmbtu/kWh	(=)	30 WEIGHTED BASE DG ENERGY COST,	
(A) (B) (C)	(D)	¢/kWh (Line 28 x 29)	0.00000
Percent of			0 00000
Eff Factor Centrl Stn +	0	31 Cost Less Base (Line 27 - 30)	0.00000
Fuel Type mmbtu/kwh Other	Eff Factor	32 Loss Factor	1.0510
13 Industrial 0.000000 0.00		33 Revenue Tax Req Multiplier	1.0975
14 Diesel 0.011151 100.00		34 DG FACTOR,	0.00000
15 Other 0.011151 0.00		¢/kWh (Line 31 x 32 x 33)	0.00000
(Lines 13, 14, 15): Col(B) x Col(C) = Col	DI(D)		
16 Weighted Efficiency Factor, mmbtu/kWh [lines 13(D) + 14(D) + 15(D)]	0.011151		
	0.011131		
17 WEIGHTED COMPOSITE CENTRAL ST	ATION +		
OTHER GEN COST, ¢/kWh			
(lines (11 x 12 x 16))	16.71604		
18 BASE CENTRAL STATION + OTHER GE			
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	26.46322		
(lines (18 x 19 x 20))	20.40322	SUMMARY OF	
22 COST LESS BASE (line(17 - 21))	(9.74718)	TOTAL GENERATION FACTOR, ¢/kWh	
23 Revenue Tax Reg Multiplier	1.0975		10.69753)
24 CENTRAL STATION + OTHER GENERA		36 DG (line 34)	-
FACTOR, ¢/kWh (line (22 x 23))	-10.69753	37 TOTAL GENERATION FACTOR,	-
	10.00700	,	10.69753)

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

#### ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - November 1, 2015 (page 2 of 2)

Line 1 Ef 2 Su

ffective Date	November 1, 2015
unercedes Eactors of	October 1, 2015

~	Supercedes racions of	

40    Sch Q    0.000      PURCHASED ENERGY KWH MIX, %    100.009      41    LANAI SOLAR RESEARCH - On Peak    100.009      42    - Off Peak    0.009      43    Sch Q    0.009      43    Sch Q    0.009      44    COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh    27.000      (Lines (38 x 41) + (39 x 42) + (40 x 43))    5.939      45    % Input to System kWh Mix    5.939      46    WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))    1.60110      47    BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh    27.000      48    Base % Input to Sys kWh Mix    10.35      49    WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))    2.79450      50    COST LESS BASE(lines (46 - 49))    (1.19340)	Line	PURCHASED ENERGY COMPON	NENT
39- Off Peak27.00040Sch Q0.000PURCHASED ENERGY KWH MIX, %141LANAI SOLAR RESEARCH - On Peak100.00%42- Off Peak0.00%43Sch Q0.00%44COMPOSITE COST OF PURCHASED ENERGY, $\phi/kWh$ (Lines (38 x 41) + (39 x 42) + (40 x 43))27.00045% Input to System kWh Mix5.93%46WEIGHTED COMP. PURCH. ENERGY COST, $\phi/kWh$ (lines (44 x 45))1.6011047BASE PURCHASED ENERGY COMPOSITE COST, $\phi/kWh$ 27.00048Base % Input to Sys kWh Mix10.3549WEIGHTED BASE PURCHASED ENERGY COST, $\phi/kWh$ (lines (47 x 48))2.7945050COST LESS BASE(lines (46 - 49))(1.19340)			07.000
PURCHASED ENERGY KWH MIX, %41LANAI SOLAR RESEARCH - On Peak $100.00\%$ 42- Off Peak $0.00\%$ 43Sch Q $0.00\%$ 44COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh $27.000$ (Lines (38 x 41) + (39 x 42) + (40 x 43))45% Input to System kWh Mix $5.93\%$ 46WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45)) $1.60110$ 47BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh $27.000$ 48Base % Input to Sys kWh Mix $10.35$ 49WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48)) $2.79450$ 50COST LESS BASE(lines (46 - 49)) $(1.19340)$			27.000 27.000
41LANAI SOLAR RESEARCH - On Peak $100.009$ 42- Off Peak $0.009$ 43Sch Q $0.009$ 44COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh $27.000$ (Lines (38 x 41) + (39 x 42) + (40 x 43)) $27.000$ 45% Input to System kWh Mix $5.939$ 46WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45)) $1.60110$ 47BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh $27.000$ 48Base % Input to Sys kWh Mix $10.35$ 49WEIGHTED BASE PURCHASED ENERGY 	40	Sch Q	0.000
44    COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh    27.000      (Lines (38 x 41) + (39 x 42) + (40 x 43))    45      45    % Input to System kWh Mix    5.93%      46    WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))    1.60110      47    BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh    27.000      48    Base % Input to Sys kWh Mix    10.35      49    WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))    2.79450      50    COST LESS BASE(lines (46 - 49))    (1.19340)		LANAI SOLAR RESEARCH - On Peak	100.00% 0.00%
ENERGY, ¢/kWh      27.000        (Lines (38 x 41) + (39 x 42) + (40 x 43))      5        45      % Input to System kWh Mix      5.93%        46      WEIGHTED COMP. PURCH. ENERGY      5000        47      BASE PURCHASED ENERGY      1.60110        47      BASE PURCHASED ENERGY      27.000        48      Base % Input to Sys kWh Mix      10.35        49      WEIGHTED BASE PURCHASED ENERGY      2.79450        50      COST LESS BASE(lines (46 - 49))      (1.19340)	43	Sch Q	0.00%
46      WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))      1.60110        47      BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh      27.000        48      Base % Input to Sys kWh Mix      10.35        49      WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))      2.79450        50      COST LESS BASE(lines (46 - 49))      (1.19340)	44	ENERGY, ¢/kWh	27.000
COST, ¢/kWh (lines (44 x 45))      1.60110        47      BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh      27.000        48      Base % Input to Sys kWh Mix      10.35        49      WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))      2.79450        50      COST LESS BASE(lines (46 - 49))      (1.19340)		% Input to System kWh Mix	5.93%
COMPOSITE COST, ¢/kWh      27.000        48 Base % Input to Sys kWh Mix      10.35        49 WEIGHTED BASE PURCHASED ENERGY      2.79450        50 COST LESS BASE(lines (46 - 49))      (1.19340)	46		1.60110
COST, ¢/kWh (lines (47 x 48))      2.79450        50 COST LESS BASE(lines (46 - 49))      (1.19340)	48	COMPOSITE COST, ¢/kWh Base % Input to Sys kWh Mix	27.000 10.35
			2.79450
	51 52	Loss Factor Revenue Tax Req Multiplier PURCHASED ENERGY FACTOR,	(1.19340) 1.051 1.0975 (1.37655)

#### Line SYSTEM COMPOSITE CALCULATIONS

54	4 GENERATION AND PURCHASED ENERGY				
	FACTOR, ¢/kWh	(12.07408)			
	(lines (37 + 53))				
55	Adjustment, ¢/kWh	0.000			
56	ECA Reconciliation Adjustment	(0.103)			
57	ECA FACTOR, ¢/kWh	(12.177)			
	(lines (54 + 55 + 56))				

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

# MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	Barrels	MBTU	\$
10/22/2015	3,279.00	18,788.61	295,137.26
Estimated Use	1,145.95	6,566.29	103,937.20
Estimated Received	-	-	-
Estimated Additional	1,369.05	7,844.68	128,580.58
Estimated End	3,502.10	20,067.00	319,780.64

Next Month's Combined Miki Expense (\$/bbl) = \$ 91.3111 /bbl

Manele CHP	Barrels	MBTU	\$
10/22/2015	-	-	0.00
Estimated Use	-	-	-
Estimated Received	-	-	-
Estimated Additional	-	-	-
Estimated End	-	-	0.00
Next Month's Manele Expense (\$/b	bl) =	-	

#### FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	Price	Conversion Factor	Prices ¢/MBTU
Diesel - Miki Basin	\$ 91.3111	5.73 BTU/BBL	1,593.56
Diesel - Manele Bay	\$ -	5.73 BTU/BBL	-

# **Contract Prices effective October 1, 2015**

TYPE OF OIL BURNED	\$/BBL	¢/MBTU

<u> MIKI BASIN - ULTRA LOW SULFUR DIESEL (DYED)</u>				
Tax *	1.9320	33.72		
Ocean Transportation	0.0000	0.00		
Storage	0.0000	0.00		

o courr rranoportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

# MIKI BASIN - ULTRA LOW SULFUR DIESEL

Tax *	1.9320	33.72
Ocean Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

# MANELE BAY - ULTRA LOW SULFUR DIESEL

Tax *	5.7185	99.80
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

# November 2015

1. Amount to be refunded	(\$6,200)
2. Monthly amount (1/3 X Line 1)	(\$2,067)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$2,269)
5. Estimated Sales (November 2015)	2,194 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.103 ¢/kwh

#### MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION 2015 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY (Thousand \$)

	(Thou	sand \$)			
<u>Line</u>		Without Deadband 3rd Quarter <u>YTD Total</u>	collectn by <u>company*</u>	Basis for Recon With Deadband 3rd Quarter <u>YTD Total</u>	collectn by <u>company*</u>
	ACTUAL COSTS:				
1	Generation	\$3,728.6		\$3,728.6	
2	Distributed Generation	\$0.0		\$0.0	
3	Purch Power	\$442.3		\$442.3	
4	TOTAL	\$4,170.9		\$4,170.9	
	FUEL FILING COST (1)				
5	Generation	\$3,740.4		\$3,729.0	
6	Distributed Generation	\$0.0		\$0.0	
7	Purch Power	\$442.3		\$442.3	
8	TOTAL	\$4,182.7		\$4,171.3	
	BASE FUEL COST				
9	Generation	\$5,146.0		\$5,146.0	
10	Distributed Generation	\$0.0		\$0.0	
11	Purch Power	\$460.5		\$460.5	
12	TOTAL	\$5,606.5		\$5,606.5	
13	FUEL-BASE COST (Line 8-12)	-\$1,423.8		-\$1,435.2	
14	ACTUAL FOA LESS TAX	-\$1,405.3		-\$1,405.3	
15	FOA reconciliation adj for prior year	\$20.6		\$20.6	
16	ADJUSTED FOA LESS TAX	-\$1,425.9		-\$1,425.9	
17	FOA-(FUEL-BASE) (Line 16-13)	-\$2.1	Under	\$9.3	Over
	ADJUSTMENTS				
18	Current year FOA accrual reversal	\$20.1		\$20.1	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	\$0.0		\$0.0	
21	3rd QUARTERLY FOA RECONCILIATION (Lines 17+18+19+20	) \$18.0	Over	\$29.4	Over
22	2nd QUARTERLY YTD 2015 YTD FOA Reconciliation Recognize	ed in FOA Rates		\$23.2	Over
23	FOA Reconciliation to be Refunded November 2015 to January	2016 (Line 22- 21)		-\$6.2	Refunded
* •					

 $^{\star}\,$  Over means an over-collection by the company.

Under means an under-collection by the company.

# MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION DEADBAND CALCULATION

Determination of Efficiency Factor to use for Cost-Recovery Purposes Period: January 1, 2015 through September 30, 2015

	Notes	<u>Jan 1 - Sep 30</u>
Diesel		_
Diesel Efficiency Factor (TY2009), BTU/kWh	f	11,151
Diesel Deadband Definition, +/- BTU/kWh	d	50
Diesel Portion of Recorded Sales, MWh	а	17,503
Diesel Consumption (Recorded), MMBTU	b	194,584
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,117
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	11,101
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	11,201
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	11,117

#### MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND 2015

	Without Deadband	With Deadband - AS FILED
	<u>Jan 1 - Sep 30</u>	<u>Jan 1 - Sep 30</u>
Diesel Portion of Recorded Sales, MWH	17,503	17,503
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.011151	0.011117
Mmbtu adjusted for Sales Efficiency Factor	195,180	194,584
\$/mmbtu	<u>\$19.1640</u>	<u>\$19.1640</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$3,740.4	\$3,729.0
TOTAL GENERATION FUEL FILING COST, \$000s	\$3,740.4	\$3,729.0
TOTAL GENERATION BASE FUEL COST , \$000s YTD	\$5,146.0	\$5,146.0
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$3,740.4	\$3,729.0
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$5,146.0	\$5,146.0

# MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION 2015 Cumulative Reconciliation Balance

<u>Month</u>	(1) YTD FOA <u>Reconciliation</u> Q	(2) FOA Rec Adjust <u>tr Variance</u>	(3) FOA Rec Less <u>Variance</u>	(4) Try to <u>Collect</u>	(5) Actual <u>Collect</u>	(6) Month-end Cumulative <u>Balance</u>
December '14				(2,500)	(2,753)	1,349
January '15				(2,500)	(2,402)	(1,053)
February	(23,000) (4	) (1,149)	(21,851)	7,667	7,298	(15,606)
March				7,667	7,286	(8,320)
April				7,667	7,591	(729)
May	13,400 (1	) (652)	14,052	(4,467)	(4,312)	9,011
June				(4,467)	(4,077)	4,934
July				(4,467)	(4,382)	552
August	9,800 (2	.) 469	9,331	(3,267)	(3,156)	6,727
September				(3,267)	(3,340)	3,387
October				(3,267)		
November	6,200 (3	) 123	6,077	(2,067)		

# NOTES:

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

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

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

	Rate			Charge (\$) at 400 K		00 Kwh
		10-01-15	11-01-15	10-01-15	11-01-15	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	1.5987	1.5987	6.39	6.39	0.00
PBF Surcharge	¢/kWh	0.4749	0.4749	1.90	1.90	0.00
Renewable Energy Infrastructure Cost	,					
Recovery Provision	¢/kWh	0.0103	0.0103	0.04	0.04	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
•	'	-	_			
Energy Cost Adjustment	¢/kWh	-12.259	-12.177	-49.04	-48.71	0.33
Green Infrastructure Fee	, \$	1.42	1.42	1.42	1.42	0.00
	· · · ·					

Avg Residential Bill at 400 kwh

Increase (Decrease -)	
% Change	

138.86

138.53

	0.33
(	0.24%

	Rate		
		10-01-15	11-01-15
Base Rates	effective date:	08/01/13	08/01/13
Base Fuel/Energy Charge	¢/kWh	32.2668	32.2668
Non-fuel Fuel Energy Charge			
First 250 kWhr per month	¢/kWh	9.1240	9.1240
Next 500 kWhr per month	¢/kWh	11.6240	11.6240
Customer Charge	\$	8.50	8.50
Total Base Charges			
IRP Refund	% on base	0.0000	0.0000
Revenue Balancing Rate Adjustment	¢/kWh	1.5987	1.5987
PBF Surcharge	¢/kWh	0.4749	0.4749
Renewable Energy Infrastructure Cost			
Recovery Provision	¢/kWh	0.0103	0.0103
SolarSaver Adjustment	¢/kWh	0.0000	0.0000
Energy Cost Adjustment	¢/kWh	-12.259	-12.177
Green Infrastructure Fee	\$	1.420	1.420

Avg Residential Bill at 500 kwh

Charge (\$) at 500 Kwh			
10-01-15	11-01-15	Difference	
161.33	161.33	0.00	
22.81	22.81	0.00	
29.06	29.06	0.00	
8.50	8.50	0.00	
221.70	221.70	0.00	
0.00	0.00	0.00	
7.99	7.99	0.00	
2.37	2.37	0.00	
0.05	0.05	0.00	
0.00	0.00	0.00	
-61.30	-60.89	0.41	
1.42	1.42	0.00	
172.23	172.64		

Increase (Decrease -) % Change

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

EFFECTIVE DATE	FUEL FACTOR CENTS / KWH RESIDENTIAL & <u>COMMERCIAL</u>	RESIDENTI. @ 400 KWH	
January 1, 2012 February 1, 2012 March 1, 2012 April 1, 2012 May 1, 2012 May 4, 2012 June 1, 2012 June 1, 2012 July 1, 2012 August 1, 2012 September 1, 2012 October 1, 2012 December 1, 2012	9.260 9.134 9.355 10.438 11.637 12.284 11.897 11.230 8.352 9.038 10.621 12.828 12.174	182.11 181.61 182.49 185.86 191.62 190.23 194.24 191.57 180.06 182.80 189.13 197.96 195.35	226.46 225.83 226.94 231.15 238.35 237.21 242.21 238.87 224.48 227.91 235.83 246.86 243.59
January 1, 2013 February 1, 2013 March 1, 2013 April 1, 2013 May 1, 2013 June 1, 2013 July 1, 2013 August 1, 2013 September 1, 2013 October 1, 2013 November 1, 2013 December 1, 2013	10.379 8.902 12.189 12.132 10.815 10.222 9.996 0.662 1.722 1.784 2.188 1.934	188.60 182.69 195.84 194.79 190.34 191.20 190.47 187.02 191.26 191.51 193.12 192.11	235.17 227.78 244.22 242.90 237.35 238.42 237.52 233.21 238.51 238.82 240.84 239.57
January 1, 2014 February 1, 2014 March 1, 2014 April 1, 2014 May 1, 2014 June 1, 2014 July 1, 2014 August 1, 2014 September 1, 2014 October 1, 2014 November 1, 2014	0.693 1.420 1.370 1.854 -1.036 0.013 0.208 -0.179 -0.244 -3.591 -1.766 -3.365	187.14 190.05 189.85 190.81 180.23 187.69 189.21 187.66 187.40 174.02 181.32 175.18	233.37 237.00 236.75 237.94 224.72 234.05 235.94 234.00 233.68 216.94 226.07 218.07
January 1, 2015 February 1, 2015 March 1, 2015 April 1, 2015 May 1, 2015 June 8, 2015 July 1, 2015 August 1, 2015 September 1, 2015 November 1, 2015	-4.698 -7.361 -8.793 -6.831 -9.750 -8.842 -7.314 -8.457 -10.465 -12.259 -12.177	169.85 159.20 153.47 160.22 149.64 153.16 158.27 153.70 145.71 138.53 138.86	211.41 198.09 190.93 199.37 186.15 190.56 196.91 191.19 181.20 172.23 172.64

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

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
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
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
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
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 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH
06/01/15 - 06/07/15 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT 0.0000 CENTS/KWH
06/08/15 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT 1.5987 CENTS/KWH
07/01/15 RESID. PBF SURCHARGE ADJUSTMENT 0.4749 CENTS/KWH
07/01/15 GREEN INFRASTRUCTURE FEE 1.42 DOLLARS/MONTH
08/17/15 RENEWABLE ENERGY INFRASTRUCTURE COST 0.0103 CENTS/KWH
RECOVERY PROVISION

~ Surcharges currently in effect are in bold.

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