

SHARON M. SUZUKI President

2016 OCT 27 P 3:02

October 27, 2016

PUBLIC UTILITIES COMMISSION

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

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for November 2016

Maui Electric Company, Limited's ("Maui Electric" or "Company") November 2016 energy cost adjustment factor for our Maui Division is -9.782 cents per kilowatt-hour ("kWh"), a decrease of 1.620 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$135.84, a decrease of \$8.10 compared to rates effective October 1, 2016.

The Company's Maui Division fuel composite cost of generation, central station and other increased 56.36 cents per million BTU to 1,104.01 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 4.259 cents per kWh to 13.360 cents per kWh.

The energy cost adjustment factor for our Lāna'i Division for November 2016 is -12.595 cents per kWh, an increase of 0.128 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$136.59, an increase of \$0.51 compared to rates effective October 1, 2016.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 3.32 cents per million BTU to 1,547.13 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 27.000 cents per kWh.

The energy cost adjustment factor for our Moloka'i Division for November 2016 is -9.970 cents per kWh, an increase of 1.161 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$132.85, an increase of \$4.64 compared to rates effective October 1, 2016.

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 72.79 cents per million BTU to 1,294.97 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 21.80 cents per kWh.

The Honorable Chair and Members of the Hawai'i Public Utilities Commission October 27, 2016 Page 2

The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning November 1, 2016.

Sincerely,

Ahan M. Aglei

Attachments

cc: Division of Consumer Advocacy

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		
	<u>10-01-16</u>	<u>11-01-16</u>	<u>Change</u>
<u>COMPOSITE COSTS</u> Generation, Central Station & Other, ¢/mbtu DG Energy, ¢/kWh Purchased Energy, ¢/kWh	1,543.81 0.00 27.00	1,547.13 0.00 27.00	3.32 0.00 0.00
Residential Schedule "R"			
Energy Cost Adjustment, ¢/kWh	(12.723)	(12.595)	0.128
Others - "G,P,F"			
Energy Cost Adjustment, ¢/kWh	(12.723)	(12.595)	0.128
Residential Customer with			
400 KWH Consumption, \$/Bill	136.08	136.59	0.51
500 KWH Consumption, \$/Bill	169.23	169.87	0.64

Supersedes Sheet Effective:

October 1, 2016

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

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

Line

- November 1, 2016
- 1 Effective Date
 2 Supercedes Factors of October 1, 2016

GENERATION COMPONENT

	CENTRAL STATION			
	FUEL PRICES, ¢/mmbtu			
3	Industrial	0.00		
4	Diesel - Miki Basin	1,547.13		
5	Diesel - Manele Bay	0.00		
6	Other	0.00		
	BTU MIX, %		DG ENERGY COMPONENT	
7	Industrial	0.00%	25 COMPOSITE COST OF DG	
8	Diesel - Miki Basin	100.00%	ENERGY, ¢/kWh	0.000
9	Diesel - Manele Bay ¹	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 ¢/mmbtu	1,547.13		
	(Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))			
12	% Input to System kWh Mix	92.46%	28 BASE DG ENERGY COMP COST	0.000
			29 Base % Input to System kWh Mix	0.00%
	EFFICIENCY FACTOR, mmbtu/kWh		30 WEIGHTED BASE DG ENERGY COST,	
	(A) (B) (C)	(D)	¢/kWh (Line 28 x 29)	0.00000
	Percent of			
	Eff Factor Centrl Stn +	Weighted	31 Cost Less Base (Line 27 - 30)	0.00000
	Fuel Type mmbtu/kwh Other	Eff Factor	32 Loss Factor	1.0510
13	Industrial 0.000000 0.00	0.000000	33 Revenue Tax Req Multiplier	1.0975
14	Diesel 0.011151 100.00	0.011151	34 DG FACTOR,	
15	Other 0.011151 0.00	0.000000	¢/kWh (Line 31 x 32 x 33)	0.00000
	(Lines 13, 14, 15): Col(B) x Col(C) = Col	(D)		
16	Weighted Efficiency Factor, mmbtu/kWh			
	[lines 13(D) + 14(D) + 15(D)]	0.011151		
17	WEIGHTED COMPOSITE CENTRAL STAT	HON +		
	OTHER GEN COST, ¢/kWh	45 05404		
	(lines (11 x 12 x 16))	15.95124		
10	BASE CENTRAL STATION + OTHER GEN			
10	COST, ¢/mmbtu	2,647.15		
10	Base % Input to Sys kWh Mix	89.65%		
	Efficiency Factor, mmbtu/kwh	0.011151		
	WEIGHTED BASE CENTRAL STATION +	0.011101		
21	OTHER GENERATION COST ¢/kWh			
	(lines (18 x 19 x 20))	26.46322		
			SUMMARY OF	
22	COST LESS BASE (line(17 - 21))	(10.51198)		l
	Revenue Tax Reg Multiplier	1.0975		11.53690)
	CENTRAL STATION + OTHER GENERAT	ION	36 DG (line 34)	- '
	FACTOR, ¢/kWh (line (22 x 23))	-11.53690	37 TOTAL GENERATION FACTOR,	
				11.53690)
				,

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 - November 1, 2016 (page 2 of 2)

<u>Line</u> 1 Eff 2 Su

ffective Date	November 1, 2016
upprovides Easters of	Octobor 1, 2016

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Line	PURCHASED ENERGY COMPON	NENT
	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		100.00%
42	- Off Peak	0.00%
43	Sch Q	0.00%
44	COMPOSITE COST OF PURCHASED	
	ENERGY, ¢/kWh	27.000
	(Lines (38 x 41) + (39 x 42) + (40 x 43))	
	% Input to System kWh Mix	7.54%
46	WEIGHTED COMP. PURCH. ENERGY	
	COST, ¢/kWh (lines (44 x 45))	2.03580
47	BASE PURCHASED ENERGY	
- 1	COMPOSITE COST, ¢/kWh	27.000
48	Base % Input to Sys kWh Mix	10.35
	WEIGHTED BASE PURCHASED ENERGY	
	COST, ¢/kWh (lines (47 x 48))	2.79450
		(0.75070)
	COST LESS BASE(lines (46 - 49))	(0.75870)
	Loss Factor	1.051
	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	(0.87514)

Line SYSTEM COMPOSITE CALCULATIONS

54	GENERATION AND PURCHASE	D ENERGY
	FACTOR, ¢/kWh	(12.41204)
	(lines (37 + 53))	
55	Adjustment, ¢/kWh	0.000
56	ECA Reconciliation Adjustment	(0.183)
57	ECA FACTOR, ¢/kWh	(12.595)
	(lines (54 + 55 + 56))	

Maui Electric Company, Ltd. Lanai Division

MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	Barrels		MBTU	\$
10/20/2016	4,415.45		25,300.59	390,137.59
Estimated Use	1,621.95		9,293.77	143,478.20
Estimated Received	1,000.00		5,730.00	87,980.76
Estimated Additional	249.22		1,428.01	23,748.52
Estimated End	4,042.72		23,164.83	358,388.67
Next Month's Combined Miki Exp	bense (\$/bbl)	=	\$ 88.6504 /bbl	

FUEL OIL INVENTORY PRICE USED FOR FILING

Type of Oil Burned	Price	Conversion Factor	Prices ¢/MBTU
Diesel - Miki Basin	\$ 88.6504	5.73 BTU/BBL	1,547.13

0.00

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION

Contract Prices effective November 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	

0.0000

MIKI BASIN - ULTRA LOW SULFUR DIESEL

Wharfage

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

November 2016

1. Amount to be refunded	(\$11,300)
2. Monthly amount (1/3 X Line 1)	(\$3,767)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$4,134)
5. Estimated Sales (November 2016)	2,260 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.183 ¢/kwh

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

(Thousand \$)								
Line		Without Deadband 3rd Quarter <u>YTD Total</u>	collection by <u>company*</u>	Basis for Recon With Deadband 3rd Quarter <u>YTD Total</u>	collection by <u>company*</u>			
1 2 3	ACTUAL COSTS: Generation Distributed Generation Purch Power	\$3,203.1 \$0.0 \$499.8		\$3,203.1 \$0.0 \$499.8				
4	TOTAL	\$3,702.9		\$3,702.9				
5 6 7	FUEL FILING COST Generation Distributed Generation Purch Power	\$3,285.0 \$0.0 \$499.8		\$3,270.3 \$0.0 \$499.8				
8	TOTAL	\$3,784.8		\$3,770.1				
9 10 11	BASE FUEL COST Generation Distributed Generation Purch Power	\$6,002.4 \$0.0 \$519.5		\$6,002.4 \$0.0 \$519.5				
12	TOTAL	\$6,521.9		\$6,521.9				
13	FUEL-BASE COST (Line 8-12)	-\$2,737.1		-\$2,751.8				
14 15	ACTUAL FOA LESS TAX FOA reconciliation adj for prior year	-\$2,722.3 \$11.1_		-\$2,722.3 \$11.1_				
16	ADJUSTED FOA LESS TAX	-\$2,733.4		-\$2,733.4				
17	FOA-(FUEL-BASE) (Line 16-13)	\$3.7	Over	\$18.4	Over			
18 19 20	ADJUSTMENTS Current year FOA accrual reversal Other prior year FOA Other	\$29.4 \$0.0 \$0.0		\$29.4 \$0.0 \$0.0				
21	3rd QUARTER FOA RECONCILIATION (Lines 17+18+19+20)	\$33.1	Over	\$47.8	Over			
22	2nd QUARTERLY YTD 2016 YTD FOA Reconciliation Recogniz	zed in FOA Rates		\$36.5	Over			
23	FOA Reconciliation to be Refunded November 2016 to January	2017 (Line 22- 21)		-\$11.3	Refunded			
* •	or means an over collection by the company							

* Over means an over-collection by the company. Under means an under-collection by the company.

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION DEADBAND CALCULATION

Determination of Efficiency Factor to use for Cost-Recovery Purposes Period: January 1, 2016 through September 30, 2016

	Notes	<u>Jan 1 - Sep 30</u>
<u>Diesel</u> Diesel Efficiency Factor (TY2009), BTU/kWh Diesel Deadband Definition, +/- BTU/kWh	f	- 11,151 50
Diesel Portion of Recorded Sales, MWh Diesel Consumption (Recorded), MMBTU	a b	20,416 222,236
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	10,885
Lower limit of Diesel Deadband, BTU/kWh Higher limit of Diesel Deadband, BTU/kWh	e = f-d g = f+d	11,101 11,201
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	11,101

MAUI ELECTRIC COMPANY, LTD. LANAI DIVISION GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND 2016

	Without Deadband	With Deadband - AS FILED
	<u>Jan 1 - Sep 30</u>	<u>Jan 1 - Sep 30</u>
Diesel Portion of Recorded Sales, MWH	20,416	20,416
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.011151	0.011101
Mmbtu adjusted for Sales Efficiency Factor	227,659	226,638
\$/mmbtu	<u>\$14.4294</u>	<u>\$14.4294</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$3,285.0	\$3,270.3
TOTAL GENERATION FUEL FILING COST, \$000s	\$3,285.0	\$3,270.3
TOTAL GENERATION BASE FUEL COST , \$000s YTD	\$6,002.4	\$6,002.4
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$3,285.0	\$3,270.3
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$6,002.4	\$6,002.4

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

<u>Month</u>	(1) YTD FOA <u>Reconciliation</u> <u>G</u>	(2) FOA Rec Adjust <u>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 '15	5			(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)	(5,492)	4,404
July				(4,967)	(5,749)	(1,345)
August	21,600 (2	2) (557)	22,157	(7,200)	(8,334)	12,478
September				(7,200)	(8,147)	4,331
October				(7,200)		
November	11,300 (3) (2,863)	14,163	(3,767)		

NOTES:

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

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

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

	Rate			Charge (\$) at 400 Kwh		00 Kwh
		10-01-16	11-01-16	10-01-16	11-01-16	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	0.5865	0.5865	2.35	2.35	0.00
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	-12.723	-12.595	-50.89	-50.38	0.51
Green Infrastructure Fee	\$	1.13	1.13	1.13	1.13	0.00

Avg Residential Bill at 400 kwh

Avg Residential Bill at 500 kwh

Increase (Decrease -) % Change

136.59

136.08

0.51 0.37%

	Rate			
		10-01-16	11-01-16	
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	1.4082	1.4082	
PBF Surcharge	¢/kWh	0.5865	0.5865	
Renewable Energy Infrastructure Cost	¢/KVVII	0.5605	0.5605	
Recovery Provision	¢/kWh	0.0099	0.0099	
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	
oolaroaver Aujustinent	ψ/Κνντι	0.0000	0.0000	
Energy Cost Adjustment	¢/kWh	-12.723	-12.595	
Green Infrastructure Fee	\$	1.13	1.13	
	-			

Charge (\$) at 500 Kwh						
10-01-16	11-01-16	Difference				
161.33	161.33	0.00				
22.81	22.81	0.00				
29.06 8.50	29.06 8.50	0.00 0.00				
221.70	221.70	0.00				
0.00	0.00	0.00				
7.04 2.93	7.04 2.93	0.00 0.00				
0.05 0.00	0.05 0.00	0.00 0.00				
-63.62 1.13	-62.98 1.13	0.64 0.00				
169.23	169.87					

Increase (Decrease -) % Change

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

FUEL FACTOR CENTS / KWH RESIDENTIAL & RESIDENTIAL BILL (\$)						
EFFECTIVE DATE	RESIDENTIAL & COMMERCIAL		()			
January 1, 2014	0.693	187.14	233.37			
February 1, 2014 March 1, 2014	1.420 1.370	190.05 189.85	237.00 236.75			
April 1, 2014	1.854	190.81	230.75			
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			
August 1, 2016 September 1, 2016	-12.201 -12.634	138.17 136.43	171.84 169.68			
October 1, 2016	-12.034	136.43	169.08			
November 1, 2016	-12.595	136.59	169.23			
	-12.090	130.39	109.07			

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) 11/12/11 - 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 01/01/12 - 12/31/12 RESID. PBF SURCHARGE ADJUSTMENT 0.6766 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT -0.2392 CENTS/KWH 04/01/12 - 04/30/12 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 07/31/13 FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR) 6/1/2012 - 07/31/13 INTERIM RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR)	EFFECTIVE DATE	DESCRIPTION OF SURCHARGE		RATE
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 -0.356 PERCENT ON BASE 01/01/12 - 12/31/12 RESID. PBF SURCHARGE ADJUSTMENT 0.6000 PERCENT ON BASE 01/01/12 - 04/30/12 SOLARSAVER ADJUSTMENT 0.6766 CENTS/KWH 05/01/11 - 05/31/11 IRP RECOVERY REFUND -0.2392 CENTS/KWH 04/01/12 - 04/30/12 SOLARSAVER ADJUSTMENT -0.2392 CENTS/KWH 05/01/12 - 07/31/13 SOLARSAVER ADJUSTMENT -0.2392 CENTS/KWH 05/01/12 - 07/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 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/KW				
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 05/01/12 - 12/31/12 RESID. PBF SURCHARGE ADJUSTMENT 0.6766 CENTS/KWH 01/01/12 - 12/31/12 RESID. PBF SURCHARGE ADJUSTMENT 0.6766 CENTS/KWH 04/01/12 - 04/30/12 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 07/31/13 FINAL RATE INCREASE 2012 TEST YEAR 4.02 PERCENT ON BASE 01/01/13 - 06/30/13 RESID. PBF SURCHARGE ADJUSTMENT 0.7850 CENTS/KWH				
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 -0.356 PERCENT ON BASE 01/01/12 - 12/31/12 RESID. PBF SURCHARGE ADJUSTMENT 0.60766 CENTS/KWH 04/01/12 - 04/30/12 SOLARSAVER ADJUSTMENT 0.6766 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/2 - 07/31/13 FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR) (1/2012 - 07/31/13 01/01/13 - 06/30/13 RESID. PBF SURCHARGE ADJUSTMENT 0.7850 CENTS/KWH 04/01/13 - 04/30/13 SOLARSAVER ADJUSTMENT 0.7850 CENTS/KWH				
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 -0.356 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 0.6766 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT -0.2392 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT -0.2392 CENTS/KWH 05/01/12 - 07/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 07/31/13 FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 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 ADJUS				
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 0.0000 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 0.6766 CENTS/KWH 05/01/11 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 04/01/12 - 04/30/12 SOLARSAVER ADJUSTMENT 0.6766 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 07/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 07/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 6/1/2012 - 07/31/13 FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR) 10/01/01/01/01/01/01/01/01/01/01/01/01/0				
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 0.6000 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.6766 CENTS/KWH 05/01/12 - 03/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 07/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 05/01/12 - 07/31/13 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH 6/1/2012 - 07/31/13 FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163 (2010 TEST YEAR) 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				
05/01/11 - 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) 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 0.7850 CENTS/KWH				
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				
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) 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				
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) 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				
05/01/12 - 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				
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				
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	5/4/2012 - 07/31/13	FINAL RATE INCREASE (1.51%), DOCKET NO. 2009-0163	(2010 TEST YI	EAR)
04/01/13 - 04/30/13 SOLARSAVER ADJUSTMENT -0.2053 CENTS/KWH	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		
06/01/13 - 05/31/14 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT 0.8071 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	07/01/13 - 06/30/14			
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 - 06/07/15REVENUE BALANCING ACCOUNT RATE ADJUSTMENT0.0000CENTS/KWH06/08/15 - 05/31/16REVENUE BALANCING ACCOUNT RATE ADJUSTMENT1.5987CENTS/KWH				
07/01/15 - 06/30/16 RESID. PBF SURCHARGE ADJUSTMENT 0.4749 CENTS/KWH				
07/01/15 - 12/31/15 GREEN INFRASTRUCTURE FEE 1.42 DOLLARS/MONTH				
08/17/15 - 02/29/16 RENEWABLE ENERGY INFRASTRUCTURE COST 0.0103 CENTS/KWH				
RECOVERY PROVISION	00/17/13 - 02/23/10		0.0105	
01/01/16 - 06/30/16 GREEN INFRASTRUCTURE FEE 1.3000 DOLLARS/MONTH	01/01/16 - 06/30/16		1 3000	DOLLARS/MONTH
03/01/16 RENEWABLE ENERGY INFRASTRUCTURE COST 0.0099 CENTS/KWH				
RECOVERY PROVISION				
04/01/16 - 04/30/16 SOLARSAVER ADJUSTMENT -0.1835 CENTS/KWH	04/01/16 - 04/30/16		-0.1835	CENTS/KWH
05/01/16 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH			0.0000	CENTS/KWH
06/01/16 REVENUE BALANCING ACCOUNT RATE ADJUSTMENT 1.4082 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	RESID. PBF SURCHARGE ADJUSTMENT	0.5865	CENTS/KWH
07/01/16 GREEN INFRASTRUCTURE FEE 1.13 DOLLARS/MONTH	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.