



January 27, 2016

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PUBLIC UTILITIES  
COMMISSION

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: Hawaiian Electric Energy Cost Adjustment Factor for February 2016

Hawaiian Electric Company Inc.'s ("Hawaiian Electric" or "Company") February 2016 energy cost adjustment factor is -4.637 cents per kilowatt-hour ("kWh"), a decrease of 0.889 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$127.47, a decrease of \$1.87 compared to rates effective January 1, 2016. The decrease in the typical residential bill is due to the decrease in the energy cost adjustment factor (-\$4.45), and the increase in the Purchased Power Adjustment Clause rate (+\$2.58).

The Company's fuel composite cost of generation decreased 57.02 cents per million BTU to 771.33 cents per million BTU. The Company's Distributed Generation ("DG") energy component increased 0.004 cents per kWh to 0.004 cents per kWh. The composite cost of purchased energy decreased 0.337 cents per kWh to 6.496 cents per kWh.

The attached sheets set forth the energy cost adjustment factor in cents per kWh for each rate schedule that is applicable for prorata use beginning February 1, 2016.

Very truly yours,

Dean K. Matsuura  
Manager, Regulatory Rate Proceedings

Attachments

cc: Division of Consumer Advocacy

**Hawaiian Electric Company, Inc.**  
**ENERGY COST ADJUSTMENT FACTOR**

	<u>Effective Dates</u>		<u>Change</u>
	<u>1/1/16</u>	<u>02/01/16</u>	
Composite Cost Of Generation, ¢/mmbtu	828.35	771.33	(57.02)
DG Energy Component, ¢/kWh	-	0.004	0.004
Composite Cost Of Purchased Energy, ¢/kWh	6.833	6.496	(0.337)
 <u>Residential, Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(3.748)	(4.637)	(0.889)
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(3.748)	(4.637)	(0.889)
 <u>Residential Customer with:</u>			
600 kWh Consumption, \$/bill	153.97	151.74	(2.23)
500 kWh Consumption, \$/bill	129.34	127.47	(1.87)

Supersedes Sheet Effective:                      January 1, 2016

**Hawaiian Electric Company, Inc.**  
**ENERGY COST ADJUSTMENT FILING**

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

Line  
1 **Effective Date** - February 1, 2016  
2 **Supersedes Factor** - January 1, 2016

**GENERATION COMPONENT**

<b>CENTRAL STATION</b>							
FUEL PRICES, ¢/MBTU							
3	Honolulu			746.20			
4	Kahe			746.52			
5	Waiau-Steam			746.20			
6	Waiau-Diesel			1,269.30			
7	CIP-Diesel			N/A			
8	CIP-Biodiesel			2,871.25			
9	Other			0			
BTU MIX, %							
10	Honolulu			0.00			
11	Kahe			65.10			
12	Waiau-Steam			32.80			
13	Waiau-Diesel			1.23			
14	CIP-Diesel			N/A			
15	CIP-Biodiesel			0.87			
16	Other			0.00			
				100.00			
17	COMPOSITE COST OF GENERATION, CNTRL STN + OTHER ¢/mmbtu			771.33			
18	% Input to system kWh Mix			59.81			
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
		Eff Factor	Percent of	Weighted			
	Fuel Type	mmbtu/kwh	Centrl Stn +	Eff Factor			
			Other				
19	LSFO	<b>0.011079</b>	98.96	0.010964			
20	Diesel	<b>0.019721</b>	0.59	0.000116			
21	Biodiesel	<b>0.020169</b>	0.45	0.000091			
22	Other	<b>0.011143</b>	0.00	0.000000			
	(Lines 19 through 22): Col(B) x Col(C) = Col(D)						
23	Weighted Efficiency Factor, mmbtu/kWh [(lines 19(D) + 20(D) + 21(D) + 22(D))]			0.011171			
24	WGTD. COMPOSITE CNTRL STN + OTHER GEN COST, ¢/kWh (lines 17 x 18 x 23)			5.15355			
25	BASE CNTRL STN + OTHER GEN. COST, ¢/Mbtu			1,354.58			
26	Base % Input to System kWh Mix			57.59			
27	Efficiency Factor, Mbtu/kWh			0.011142			
28	WEIGHTED BASE CNTRL STN + OTHER GEN COST ¢/KWH (lines 25 x 26 x 27)			8.69190			
29	Cost Less Base (Line 24 - 28)			(3.53835)			
30	Revenue Tax Req Multiplier			1.0975			
31	CNTRL STN + OTHER GENERATION FACTOR, ¢/KWH (Line 29 x 30)			(3.88334)			
					<b>DG ENERGY COMPONENT</b>		
					32	COMPOSITE COST OF DG ENERGY, ¢/kWh	7.360
					33	% Input to System kWh Mix	0.05
					34	WTD COMP DG ENRGY COST, ¢/kWh (Lines 32 x 33)	0.00368
					35	BASE DG ENERGY COMP COST	0.000
					36	Base % Input to System kWh Mix	0.00
					37	WTD BASE DG ENERGY COST, ¢/kWh (Line 35 x 36)	0.00000
					38	Cost Less Base (Line 34 - 37)	0.00368
					39	Loss Factor	1.053
					40	Revenue Tax Req Multiplier	1.0975
					41	DG FACTOR, ¢/kWh (Line 38 x 39 x 40)	0.00425
					<b>SUMMARY OF</b>		
					<b>TOTAL GENERATION FACTOR, ¢/kWh</b>		
					42	CNTRL STN + OTHER (line 31)	(3.88334)
					43	DG (line 41)	0.00425
					44	TOTAL GENERATION FACTOR, ¢/KWH (lines 42 + 43)	(3.87909)

Hawaiian Electric Company, Inc.  
ENERGY COST ADJUSTMENT FILING

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

<u>Line</u>		
1	Effective Date	- February 1, 2016
2	Supersedes Factor	- January 1, 2016

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>		
	PURCHASED ENERGY PRICE - ¢/KWH		
45	THC	- On Peak	7.904
46		- Off Peak	7.723
47	HRRV	- On Peak	16.65
48		- Off Peak	16.17
49	HRRV	- On Peak (excess)	10.60
50		- Off Peak (excess)	6.36
51	Chevron	- On Peak	7.904
52		- Off Peak	7.723
53	Kalaeloa		6.138
54	AES-HI		3.135
55	Kawailoa		21.417
56	Kahuku Wind		19.273
57	As Available I		21.398
58	FIT		19.003
	PURCHASED ENERGY KWH MIX, %		
59	THC	- On Peak	0.32
60		- Off Peak	0.22
61	HRRV	- On Peak	7.43
62		- Off Peak	3.52
63	HRRV	- On Peak (excess)	0.00
64		- Off Peak (excess)	1.09
65	Chevron	- On Peak	0.00
66		- Off Peak	0.00
67	Kalaeloa		24.32
68	AES-HI		56.81
69	Kawailoa		3.75
70	Kahuku Wind		1.11
71	As Available I		0.67
72	FIT		0.76
			100.00
73	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH		6.496
74	% Input to System kWh Mix		40.14
75	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 73 x 74)		2.60749
76	BASE PURCH ENERGY COMP COST		8.328
77	Base % Input to System kWh Mix		42.41
78	WEIGHTED COMP. PURCH. ENERGY COST, ¢/KWH (lines 76 x 77)		3.53190
79	Cost Less Base (Line 75 - 78)		(0.92441)
80	Loss Factor		1.053
81	Revenue Tax Req Multiplier		1.0975
82	PURCHASED ENERGY FACTOR, ¢/KWH (lines 79 x 80 x 81)		(1.06831)

<u>Line</u>	<u>SYSTEM COMPOSITE</u>	
83	GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 44 + 82)	(4.94740)
84	Adjustment, ¢/kWh	0.000
85	ECA Reconciliation Adjustment	0.310
86	ECA FACTOR, ¢/kWh (lines 83 + 84 + 85)	(4.637)

**Hawaiian Electric Company, Inc.**  
**FUEL OIL INVENTORY PRICES FOR 12-01-15**

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	746.20	746.20	746.20
Kahe Fuel Additive, ¢/Mbtu	-	0.32	-
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	746.20	746.52	746.20

	Waiau	CIP
Average Diesel / Biodiesel Oil, ¢/Mbtu	1,269.30	2,871.25
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	1,269.30	2,871.25

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	47.01	47.01	47.01
Kahe Fuel Additive, \$/bbl	-	0.02	-
Honolulu Trucking Cost, \$/bbl	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	47.01	47.03	47.01

	Waiau	CIP
Average Diesel / Biodiesel Oil, \$/bbl	72.97	151.50
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	72.97	151.50

Distributed Generation Fuel Prices Used for Filing, ¢/kWh 7.360

**FOAC February 2016**

<b><u>LSFO</u></b>	<b>BARRELS</b>	<b>MBTU</b>	<b>AMOUNT</b>	<b>AVE \$/MBTU</b>
Per FOAC run	906,235	5,708,719.48	42,598,451.73	7.461998
Additional	-	-	-	-
Forecast Amt	906,235	5,708,719.48	42,598,451.73	7.461998
	-	6.20	-	ADD'L BBL
	5,708,719	906,235	6.2994	MBTU / BBL
	42,598,452	906,235	47.01	DOLLARS / BBL
<b><u>WAIU DIESEL</u></b>	22,111	127,104.27	1,613,336.99	12.693020
	1,613,337	22,111	72.97	DOLLARS / BBL
<b><u>CIP BIODIESEL</u></b>	40,596	214,197.05	6,150,129.18	28.712484
	6,150,129	40,596	151.50	DOLLARS / BBL
<b>KAHE FUEL ADDITIVE *</b>				
Additional	-	-	-	0.003194
Forecast Amt	-	-	-	0.003194
\$ / BBL =		-	0.02	DOLLARS / BBL
<b>HONOLULU TRUCKING COST</b>				
Per FOAC run	-	-	-	-
Additional	-	-	-	-
Forecast Amt	-	-	-	-
\$ / BBL =	-	-	-	DOLLARS / BBL

\* Annualized amount per HECO T-4 in Docket No. 2010-0080

**Hawaiian Electric Company, Inc.**

**CONTRACT PRICES EFFECTIVE 1-1-16**

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
<b>LOW SULFUR FUEL OIL</b>		
Tax *	3.1922	51.50
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
<b>DIESEL</b>		
Tax *	4.8325	82.47
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
<b>BIODIESEL</b>		
Tax *	0.0000	0.00
Ocean Transportation	0.0000	0.00
Land 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, Federal Oil Spill Recovery Fee, and Environmental Response, Energy and FS 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.

HAWAIIAN ELECTRIC COMPANY, INC.

DETERMINATION OF DISTRIBUTED GENERATION EXPENSE

<u>Line No.</u>		
L1	Estimated Distributed Generation Fuel Cost (\$/mbtu)	\$7.34
L2	Estimated Distributed Generation Fuel Transport Cost (\$/mbtu)	\$0.00
L3 = L1+ L2	Estimated Total Fuel and Transportation Cost (\$/mbtu)	\$7.34
L4	Estimated Mbtu Generation for month (February 2016)	2,600
L5 = L3 x L4	Estimated Distributed Generation Total Fuel Cost (\$)	\$19,075
L6	Estimated Distributed Generation kWh Produced (February 2016)	259,000
L7 = (L5 ÷ L6) x 100	Distributed Generation Fuel Prices Used for Filing, (¢/kWh)	<b>7.3600</b>



**Hawaiian Electric Company, Inc.**  
**ECA RECONCILIATION ADJUSTMENT**  
**February 2016**

1.	Amount to be collected	\$	4,371,700
2.	Monthly Amount (Line 1 x 1/3)	\$	1,457,233
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	1,599,334
5.	Estimated MWh Sales (February 2016)		515,200
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>0.310</u></u>

**Hawaiian Electric Company, Inc.**  
**2015 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY**  
**(Thousand \$)**

<u>Line</u>	<u>Description</u>	<b>Info Only</b>		<b>Basis for Recon</b>	
		W/O DeadBand December 2015 Cumulative <u>YTD Total</u>	collection by <u>company*</u>	W/ DeadBand December 2015 Cumulative <u>YTD Total</u>	collectn by <u>company*</u>
ACTUAL COSTS:					
1	Generation	\$449,601.8		\$449,601.8	
2	Distributed Generation	\$6.0		\$6.0	
3	Purch Power	\$282,480.9		\$282,480.9	
4	TOTAL	\$732,088.7		\$732,088.7	
FUEL FILING COST					
5	Generation	\$451,148.6		\$451,470.3	
6	Distributed Generation	\$6.0		\$6.0	
7	Purch Power	\$282,480.9		\$282,480.9	
8	TOTAL	\$733,635.6		\$733,957.2	
BASE FUEL COST					
9	Generation	\$441,126.7		\$441,126.7	
10	Distributed Generation	\$0.0		\$0.0	
11	Purch Power	\$396,141.2		\$396,141.2	
12	TOTAL	\$837,267.9		\$837,267.9	
13	FUEL-BASE COST (Line 8-12)	-\$103,632.3		-\$103,310.7	
14	ACTUAL FOA LESS TAX	-\$102,926.1		-\$102,926.1	
15	Less: FOA reconciliation adj for prior year	\$9,272.1		\$9,272.1	
16	ADJUSTED FOA LESS TAX	-\$112,198.2		-\$112,198.2	
17	FOA-(FUEL-BASE) (Line 16-13)	-\$8,565.9	under	-\$8,887.5	under
ADJUSTMENTS:					
18	Current year FOA accrual reversal	-\$17,779.3		-\$17,779.3	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	\$0.0		\$0.0	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	-\$26,345.2	under	-\$26,666.8	under
22	3rd Quarter Reconciliation YTD			-\$22,295.1	
23	Amount to be collected			-\$4,371.7	

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

**Hawaiian Electric Company, Inc.  
DEADBAND CALCULATION  
2015**

	Notes	YTD
<b>Industrial</b>		
Industrial Efficiency Factor (per D&O), BTU/kWh*	f	11,079
Industrial Deadband Definition, +/- BTU/kWh	d	50
Industrial Portion of Recorded Sales, kWh	a	3,493,571,850
Industrial Consumption (Recorded), MMBTU	b	38,738,927
Industrial Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,089
Lower limit of Industrial Deadband, BTU/kWh	e = f-d	11,029
Higher limit of Industrial Deadband, BTU/kWh	g = f+d	11,129
Industrial Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	<b>11,089</b>
<b>Diesel</b>		
Diesel Efficiency Factor (per D&O), BTU/kWh*	f	19,721
Diesel Deadband Definition, +/- BTU/kWh	d	50
Diesel Portion of Recorded Sales, MWh	a	14,921,135
Diesel Consumption (Recorded), MMBTU	b	421,598
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	28,255
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	19,671
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	19,771
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	<b>19,771</b>
<b>Biodiesel</b>		
Biodiesel Efficiency Factor (per D&O), BTU/kWh*	f	20,169
Biodiesel Deadband Definition, +/- BTU/kWh	d	50
Biodiesel Portion of Recorded Sales, MWh	a	49,993,520
Biodiesel Consumption (Recorded), MMBTU	b	852,123
Biodiesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	17,045
Lower limit of Biodiesel Deadband, BTU/kWh	e = f-d	20,119
Higher limit of Biodiesel Deadband, BTU/kWh	g = f+d	20,219
Biodiesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	<b>20,119</b>
<b>Hydro</b>		
Hydro Efficiency Factor (per D&O), BTU/kWh*	f	0
Hydro Deadband Definition, +/- BTU/kWh	d	50
Hydro Portion of Recorded Sales, MWh	a	0
Hydro Consumption (Recorded), MMBTU	b	0
Hydro Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Hydro Deadband, BTU/kWh	e = f-d	-50
Higher limit of Hydro Deadband, BTU/kWh	g = f+d	50
Hydro Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	0
Recorded BTU/kWh vs. Deadband		<b>Neutral</b>
<b>Other</b>		
Other Efficiency Factor (per D&O), BTU/kWh*	f	0
Other Deadband Definition, +/- BTU/kWh	d	50
Other Portion of Recorded Sales, MWh	a	0
Other Consumption (Recorded), MMBTU	b	0
Other Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Other Deadband, BTU/kWh	e = f-d	-50
Higher limit of Other Deadband, BTU/kWh	g = f+d	50
Other Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	<b>0</b>

\* YTD Efficiency Factor (per D&O) is actual YTD & projected to the end of the year weighted by calendar days in the year.

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST,**  
**December 2015 Year-to-Date**

	<u>Without Deadband</u>	<u>With Deadband - As Filed</u>
<b><u>INDUSTRIAL FUEL FILING COST</u></b>		
LSFO Portion of Recorded Sales , MWH	3,493,571,850	3,493,571,850
LSFO Sales Efficiency Factor (mmbtu/kwh)	0.011079	0.011089
Mmbtu adjusted for Sales Efficiency Factor	38,705,282,526	38,740,218,245
\$/mmbtu	<u>\$10.8211</u>	<u>\$10.8211</u>
TOTAL LSFO \$ TO BE RECOVERED	\$418,833,458	\$419,211,500
<b><u>DIESEL FUEL FILING COST</u></b>		
Diesel Portion of Recorded Sales, MWH	14,921,135	14,921,135
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.019721	0.019771
Mmbtu adjusted for Sales Efficiency Factor	294,259,703	295,005,760
\$/mmbtu	<u>\$16.0610</u>	<u>\$16.0610</u>
TOTAL DIESEL \$ TO BE RECOVERED	\$4,726,107	\$4,738,090
<b><u>BIODIESEL FUEL FILING COST</u></b>		
Biodiesel Portion of Recorded Sales , MWH	49,993,520	49,993,520
Biodiesel Sales Efficiency Factor (mmbtu/kwh)	0.020169	0.020119
Mmbtu adjusted for Sales Efficiency Factor	1,008,319,305	1,005,819,629
\$/mmbtu	<u>\$27.3614</u>	<u>\$27.3614</u>
TOTAL BIODIESEL \$ TO BE RECOVERED	\$27,589,078	\$27,520,683
<b><u>TOTAL GENERATION FUEL FILING COST</u></b>		
Generation Portion of Recorded Sales , MWH		
Sales Efficiency Factor (mmbtu/kwh)		
Mmbtu adjusted for Sales Efficiency Factor		
\$/mmbtu		
TOTAL GENERATION FUEL FILING COST \$	\$451,148,643	\$451,470,272
<b><u>GENERATION BASE FUEL COST</u></b>		
TOTAL GENERATION BASE FUEL COST	\$441,126,711	\$441,126,711
TOTAL GENERATION FUEL FILING COST \$ YTD	\$451,148,643	\$451,470,272
TOTAL GENERATION BASE FUEL COST YTD	\$441,126,711	\$441,126,711

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**2015 Cumulative Reconciliation Balance**

<u>Month</u>	<u>(1)</u> YTD FOA Reconciliation	<u>Qtr</u>	<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
December '14					1,544,441	1,608,085	(1,335,668)
January '15					1,544,441	1,409,471	73,803
February	(7,727,500)	(4)	208,767	(7,936,267)	2,575,833	2,444,436	(5,418,028)
March					2,575,833	2,384,363	(3,033,665)
April					2,575,833	2,515,163	(518,502)
May	(3,773,048)	(1)	(457,838)	(3,315,210)	1,257,683	1,168,222	(2,665,490)
June					1,257,683	1,211,890	(1,453,600)
July					1,257,683	1,294,671	(158,929)
August	(4,973,852)	(2)	(195,924)	(4,777,928)	1,657,951	1,756,932	(3,179,926)
September					1,657,951	1,761,129	(1,418,797)
October					1,657,951	1,610,966	192,169
November	(13,548,200)	(3)	239,148	(13,787,348)	4,516,067	4,656,965	(8,938,214)
December '15					4,516,067	4,466,182	(4,472,032)
January '16					4,516,067		
February	(4,371,700)	(4)	44,029	(4,415,729)	1,457,233		

**NOTES:**

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 4)  
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))

**Hawaiian Electric Company, Inc.**  
**FUEL OIL ADJUSTMENT FACTOR DATA**

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR</u> <u>CENTS / KWH</u>		<u>RESIDENTIAL BILL (\$)</u>	
	<u>RESIDENTIAL &amp; COMMERCIAL</u>		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
January 1, 2012	11.428		171.04	204.17
February 1, 2012	10.924		167.64	200.11
March 1, 2012	11.530		170.67	203.74
April 1, 2012	11.600		170.71	203.79
May 1, 2012	13.122		180.63	215.69
June 1, 2012	13.274		183.06	218.60
July 1, 2012	12.917		181.60	216.85
August 1, 2012	12.332		180.60	215.65
September 1, 2012	7.083		175.67	209.82
October 1, 2012	7.023		176.13	210.37
November 1, 2012	5.828		167.64	200.18
December 1, 2012	5.029		163.64	195.38
January 1, 2013	5.885		168.27	200.91
February 1, 2013	7.674		180.93	216.11
March 1, 2013	8.113		183.12	218.75
April 1, 2013	5.602		170.09	203.11
May 1, 2013	5.631		167.15	199.59
June 1, 2013	5.502		171.23	204.47
July 1, 2013	5.422		171.06	204.27
August 1, 2013	5.844		175.95	210.14
September 1, 2013	4.640		170.05	203.06
October 1, 2013	5.521		174.43	208.32
November 1, 2013	5.406		174.29	208.15
December 1, 2013	5.087		172.67	206.20
January 1, 2014	5.946		176.84	211.22
February 1, 2014	7.338		181.96	217.36
March 1, 2014	5.978		176.41	210.70
April 1, 2014	6.057		177.55	212.05
May 1, 2014	5.541		176.07	210.28
June 1, 2014	5.685		180.90	216.08
July 1, 2014	5.721		181.86	217.24
August 1, 2014	5.901		182.65	218.17
September 1, 2014	5.988		183.30	218.96
October 1, 2014	5.155		179.10	213.91
November 1, 2014	3.694		170.67	203.79
December 1, 2014	2.659		165.48	197.32
January 1, 2015	1.065		157.06	187.22
February 1, 2015	-0.755		148.91	177.45
March 1, 2015	-1.863		142.92	170.25
April 1, 2015	-1.151		140.96	167.91
May 1, 2015	-1.931		140.48	167.34
June 8, 2015	-1.624		144.54	172.20
July 1, 2015	-0.997		146.21	174.20
August 1, 2015	-1.673		142.51	169.75
September 1, 2015	-1.343		144.33	171.94
October 1, 2015	-2.793		136.95	163.07
November 1, 2015	-3.179		132.36	157.57
December 1, 2015	-3.353		131.47	156.51
January 1, 2016	-3.748		129.34	153.97
February 1, 2016	-4.637		127.47	151.74

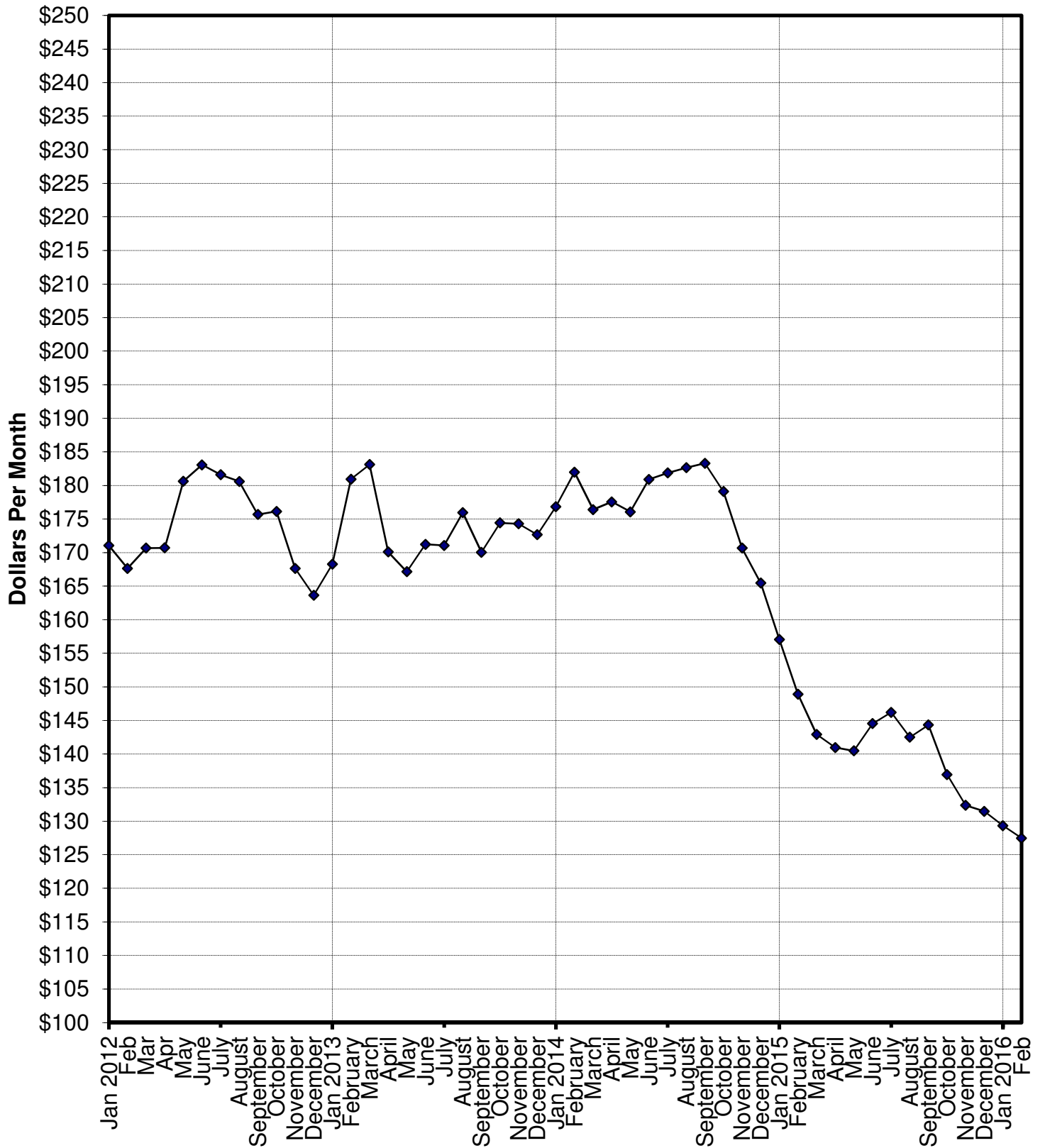
**Hawaiian Electric Company, Inc.  
RESIDENTIAL SURCHARGE DATA**

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
<b>09/01/12</b>	<b>FINAL RATE INCREASE (TY2011) 3.39% EFFECTIVE 09/01/12, DOCKET NO. 2010-0080</b>	
9/1/2012 - 09/30/2012	REFUND OF 2011 INTERIM RATE INCREASE	-0.64 PERCENT ON BASE
10/1/2012 - 12/31/2012	REFUND OF 2011 INTERIM RATE INCREASE	0.00 PERCENT ON BASE
11/1/2012 - 01/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.6960 CENTS/KWH
1/1/2013 - 01/31/2013	REFUND OF 2011 INTERIM RATE INCREASE	-0.18 PERCENT ON BASE
1/1/2013 - 6/30/2013	RESID. PBF SURCHARGE ADJUSTMENT	0.7850 CENTS/KWH
<b>2/1/2013</b>	<b>REFUND OF 2011 INTERIM RATE INCREASE</b>	<b>0.00 PERCENT ON BASE</b>
2/1/2013 - 4/30/2013	PURCHASED POWER ADJUSTMENT CLAUSE	3.3989 CENTS/KWH
4/1/2013 - 4/30/2013	SOLARSAVER ADJUSTMENT	-0.1196 CENTS/KWH
4/1/2013 - 3/31/2014	RESIDENTIAL DSM ADJUSTMENT	0.1067 CENTS/KWH
5/1/2013 - 3/31/2014	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
5/1/2013 - 7/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.6617 CENTS/KWH
5/15/2013 - 2/28/2014	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0211 CENTS/KWH
6/1/2013 - 5/31/2014	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.3119 CENTS/KWH
7/1/2013 - 6/30/2014	RESID. PBF SURCHARGE ADJUSTMENT	0.8312 CENTS/KWH
8/1/2013 - 8/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	3.2174 CENTS/KWH
9/1/2013 - 9/30/2013	PURCHASED POWER ADJUSTMENT CLAUSE	3.2422 CENTS/KWH
10/1/2013 - 10/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	3.2377 CENTS/KWH
11/1/2013 - 11/30/2013	PURCHASED POWER ADJUSTMENT CLAUSE	3.3246 CENTS/KWH
12/1/2013 - 12/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	3.3179 CENTS/KWH
1/1/2014 - 1/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.2943 CENTS/KWH
2/1/2014 - 2/28/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.9263 CENTS/KWH
3/1/2014 - 3/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.1754 CENTS/KWH
3/1/2014 - 7/6/2014	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0226 CENTS/KWH
4/1/2014 - 4/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.4058 CENTS/KWH
4/1/2014 - 3/31/2015	RESIDENTIAL DSM ADJUSTMENT	0.1423 CENTS/KWH
4/1/2014 - 4/30/2014	SOLARSAVER ADJUSTMENT	-0.1177 CENTS/KWH
5/1/2014 - 5/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.4058 CENTS/KWH
5/1/2014 - 3/31/2015	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
6/1/2014 - 6/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.5152 CENTS/KWH
6/1/2014 - 5/31/2015	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	2.1269 CENTS/KWH
7/1/2014 - 7/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.4876 CENTS/KWH
7/1/2014 - 11/30/2014	RESID. PBF SURCHARGE ADJUSTMENT	1.0157 CENTS/KWH
7/7/2014 - 02/28/2015	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0223 CENTS/KWH
8/1/2014 - 8/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.4655 CENTS/KWH
9/1/2014 - 9/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.5100 CENTS/KWH
10/1/2014 - 10/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.5018 CENTS/KWH
11/1/2014 - 11/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.2773 CENTS/KWH
12/1/2014 - 12/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	3.2747 CENTS/KWH
12/1/2014 - 06/30/2015	GREEN INFRASTRUCTURE FEE	1.2900 DOLLARS/MONTH
12/1/2014 - 6/30/2015	RESID. PBF SURCHARGE ADJUSTMENT	0.7583 CENTS/KWH
01/1/2015 - 01/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.1849 CENTS/KWH
02/1/2015 - 02/28/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.3760 CENTS/KWH
03/1/2015 - 03/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.2873 CENTS/KWH
3/1/2015 - 08/16/2015	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0204 CENTS/KWH
04/1/2015 - 04/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.4105 CENTS/KWH
4/1/2015 - 4/30/2015	SOLARSAVER ADJUSTMENT	-0.1178 CENTS/KWH
<b>4/1/2015</b>	<b>RESIDENTIAL DSM ADJUSTMENT</b>	<b>0.0348 CENTS/KWH</b>
05/1/2015 - 05/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.9760 CENTS/KWH
<b>5/1/2015</b>	<b>SOLAR SAVER ADJUSTMENT</b>	<b>0.00 CENTS/KWH</b>
06/1/2015 - 06/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.4972 CENTS/KWH
06/1/2015 - 06/7/2015	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.00 CENTS/KWH
<b>6/8/2015</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>2.1078 CENTS/KWH</b>
07/1/2015 - 07/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.4646 CENTS/KWH
<b>7/1/2015</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.4749 CENTS/KWH</b>
7/1/2015 - 12/31/2015	GREEN INFRASTRUCTURE FEE	1.4200 DOLLARS/MONTH
08/1/2015 - 08/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.4002 CENTS/KWH
8/17/2015 - 12/16/2015	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0304 CENTS/KWH
09/1/2015 - 09/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.4246 CENTS/KWH
10/1/2015 - 10/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.3971 CENTS/KWH
11/1/2015 - 11/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.8651 CENTS/KWH
12/1/2015 - 12/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.8628 CENTS/KWH
01/1/2016 - 01/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	2.8642 CENTS/KWH
<b>12/17/2015</b>	<b>RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION</b>	<b>0.0204 CENTS/KWH</b>
<b>01/01/2016 - 06/30/2016</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.3000 DOLLARS/MONTH</b>
<b>02/1/2016 - 02/29/2016</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>3.3809 CENTS/KWH</b>

~ Surcharges currently in effect are in bold.

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

## Hawaiian Electric Company, Inc. Residential Bill at 500 KWH/Month Consumption





**Hawaiian Electric Company, Inc.**  
**CALCULATIONS OF THE AVERAGE RESIDENTIAL CUSTOMER BILL**

	Rate		Charge (\$) at 500 kWh			
	1/1/2016	2/1/2016	1/1/2016	2/1/2016	Difference	
<b>Base Rates</b>	effective date:	09/01/12	09/01/12			
Base Fuel/Energy Charge	¢/kWh	13.6062	13.6062	68.03	68.03	0.00
Non-fuel Fuel Energy Charge						
First 350 kWh per month	¢/kWh	8.1034	8.1034	28.36	28.36	0.00
Next 850 kWh per month	¢/kWh	9.2569	9.2569	13.89	13.89	0.00
Customer Charge	\$	9.00	9.00	9.00	9.00	0.00
<b>Total Base Charges</b>				119.28	119.28	0.00
<b>Purchase Power Adjustment</b>	¢/kWh	2.8642	3.3809	14.32	16.90	2.58
<b>RBA Rate Adjustment</b>	¢/kWh	2.1078	2.1078	10.54	10.54	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0348	0.0348	0.17	0.17	0.00
<b>Interim Rate Increase (TY 2011)</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>Refund of 2011 Interim</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>PBF Surcharge</b>	¢/kWh	0.4749	0.4749	2.37	2.37	0.00
<b>Renewable Energy Infrastructure Cost</b>						
<b>Recovery Provision</b>	¢/kWh	0.0204	0.0204	0.10	0.10	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Adjustment</b>	¢/kWh	-3.748	-4.637	-18.74	-23.19	-4.45
<b>Green Infrastructure Fee</b>	\$	1.30	1.30	1.30	1.30	0.00
<b>Avg Residential Bill at 500 kWh</b>				129.34	127.47	
				Increase / (Decrease -)		-1.87
				% Change		-1.45%

	Rate		Charge (\$) at 600 kWh			
	1/1/2016	2/1/2016	1/1/2016	2/1/2016	Difference	
<b>Base Rates</b>	effective date:	09/01/12	09/01/12			
Base Fuel/Energy Charge	¢/kWh	13.6062	13.6062	81.64	81.64	0.00
Non-fuel Fuel Energy Charge						
First 350 kWh per month	¢/kWh	8.1034	8.1034	28.36	28.36	0.00
Next 850 kWh per month	¢/kWh	9.2569	9.2569	23.14	23.14	0.00
Customer Charge	\$	9.00	9.00	9.00	9.00	0.00
<b>Total Base Charges</b>				142.14	142.14	0.00
<b>Purchase Power Adjustment</b>	¢/kWh	2.8642	3.3809	17.19	20.29	3.10
<b>RBA Rate Adjustment</b>	¢/kWh	2.1078	2.1078	12.65	12.65	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0348	0.0348	0.21	0.21	0.00
<b>Interim Rate Increase (TY 2011)</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>Refund of 2011 Interim</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>PBF Surcharge</b>	¢/kWh	0.4749	0.4749	2.85	2.85	0.00
<b>Renewable Energy Infrastructure Cost</b>						
<b>Recovery Provision</b>	¢/kWh	0.0204	0.0204	0.12	0.12	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Adjustment</b>	¢/kWh	-3.748	-4.637	-22.49	-27.82	-5.33
<b>Green Infrastructure Fee</b>	\$	1.30	1.30	1.30	1.30	0.00
<b>Avg Residential Bill at 600 kWh</b>				153.97	151.74	
				Increase / (Decrease -)		-2.23
				% Change		-1.45%