



December 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 January 2017

Hawaiian Electric Company Inc.'s ("Hawaiian Electric" or "Company") January 2017 energy cost adjustment factor is -2.091 cents per kilowatt-hour ("kWh"), an increase of 1.487 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$135.39, an increase of \$3.07 compared to rates effective December 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$7.43), increase in the Green Infrastructure Fee (+\$0.14), and the decrease in the Purchased Power Adjustment Clause rate (-\$4.50).

The Company's fuel composite cost of generation increased 43.42 cents per million BTU to 956.37 cents per million BTU. The Company's Distributed Generation ("DG") energy component increased 0.003 cents per kWh to 0.007 cents per kWh. The composite cost of purchased energy increased 1.588 cents per kWh to 9.525 cents per kWh.

In accordance with Decision and Order No. 33745, filed in Docket No. 2014-0086 on June 6, 2016, the Company is collecting the Commission-approved D-VAR adder True-up for the Kahuku Wind Farm purchased power expense through the energy cost adjustment clause ("ECAC") over the twelve-month period from August 2016 through July 2017. The adjustment to the ECAC for this item will be shown separately each month on Attachment 2, page 2, at line 84. The calculation of the rate adjustment for January 2017 is shown on Attachment 4, pages 2-3.

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 January 1, 2017.

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>12/1/16</u>	<u>01/01/17</u>	
Composite Cost Of Generation, ¢/mmbtu	912.95	956.37	43.42
DG Energy Component, ¢/kWh	0.004	0.007	0.003
Composite Cost Of Purchased Energy, ¢/kWh	7.937	9.525	1.588
 <u>Residential, Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(3.578)	(2.091)	1.487
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(3.578)	(2.091)	1.487
 <u>Residential Customer with:</u>			
600 kWh Consumption, \$/bill	157.56	161.22	3.66
500 kWh Consumption, \$/bill	132.32	135.39	3.07

Supersedes Sheet Effective: December 1, 2016

Hawaiian Electric Company, Inc.  
ENERGY COST ADJUSTMENT FILING

ENERGY COST ADJUSTMENT (ECA) FILING - January 1, 2017 (page 1 of 2)

Line		
1	<b>Effective Date</b>	- January 1, 2017
2	<b>Supersedes Factor</b>	- December 1, 2016

**GENERATION COMPONENT**

<b>CENTRAL STATION</b>					<b>DG ENERGY COMPONENT</b>		
FUEL PRICES, ¢/MBTU							
3	Honolulu			930.37			
4	Kahe			930.69			
5	Waiau-Steam			930.37			
6	Waiau-Diesel			1,212.97			
7	CIP-Diesel			N/A			
8	CIP-Biodiesel			1,220.43			
9	Other			0			
BTU MIX, %							
10	Honolulu			0.00	32 COMPOSITE COST OF DG ENERGY, ¢/kWh 7.580		
11	Kahe			67.39	33 % Input to System kWh Mix 0.09		
12	Waiau-Steam			23.51			
13	Waiau-Diesel			8.17			
14	CIP-Diesel			N/A	34 WTD COMP DG ENRGY COST, ¢/kWh (Lines 32 x 33) 0.00682		
15	CIP-Biodiesel			0.93			
16	Other			0.00			
				100.00	35 BASE DG ENERGY COMP COST 0.000		
17	COMPOSITE COST OF GENERATION, CNTRL STN + OTHER ¢/mmbtu			956.37	36 Base % Input to System kWh Mix 0.00		
18	% Input to system kWh Mix			51.26	37 WTD BASE DG ENERGY COST, ¢/kWh (Line 35 x 36) 0.00000		
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)	38 Cost Less Base (Line 34 - 37) 0.00682		
	Fuel Type	Eff Factor mmbtu/kWh	Percent of Centrl Stn + Other	Weighted Eff Factor	39 Loss Factor 1.053		
19	LSFO	0.011079	95.46	0.010576	40 Revenue Tax Req Multiplier 1.0975		
20	Diesel	0.019721	4.03	0.000795	41 DG FACTOR, ¢/kWh (Line 38 x 39 x 40) 0.00788		
21	Biodiesel	0.020169	0.51	0.000103			
22	Other	0.011143	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))]			0.011474			
24	WGTD. COMPOSITE CNTRL STN + OTHER GEN COST, ¢/kWh (lines 17 x 18 x 23)			5.62496			
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)			(3.06694)	SUMMARY OF TOTAL GENERATION FACTOR, ¢/kWh		
30	Revenue Tax Req Multiplier			1.0975	42 CNTRL STN + OTHER (line 31) (3.36597)		
31	CNTRL STN + OTHER GENERATION FACTOR, ¢/KWH (Line 29 x 30)			(3.36597)	43 DG (line 41) 0.00788		
					44 TOTAL GENERATION FACTOR, ¢/KWH (lines 42 + 43) (3.35809)		

Hawaiian Electric Company, Inc.  
ENERGY COST ADJUSTMENT FILING

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

<u>Line</u>		
1	Effective Date	- January 1, 2017
2	Supercedes Factor	- December 1, 2016

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>		
	PURCHASED ENERGY PRICE - ¢/KWH		
45	THC	- On Peak	9.541
46		- Off Peak	9.614
47	HRRV	- On Peak	16.89
48		- Off Peak	16.41
49	HRRV	- On Peak (excess)	10.76
50		- Off Peak (excess)	6.46
51	Chevron	- On Peak	9.541
52		- Off Peak	9.614
53	Kalaeloa		9.974
54	AES-HI		3.321
55	Kawailoa		21.738
56	Kahuku Wind		20.401
57	As Available I		21.714
58	FIT		19.218
	PURCHASED ENERGY KWH MIX, %		
59	THC	- On Peak	0.26
60		- Off Peak	0.18
61	HRRV	- On Peak	9.37
62		- Off Peak	2.78
63	HRRV	- On Peak (excess)	0.00
64		- Off Peak (excess)	1.18
65	Chevron	- On Peak	0.01
66		- Off Peak	0.01
67	Kalaeloa		50.66
68	AES-HI		29.11
69	Kawailoa		3.18
70	Kahuku Wind		1.28
71	As Available I		0.55
72	FIT		1.43
			100.00
73	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH		9.525
74	% Input to System kWh Mix		48.65
75	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 73 x 74)		4.63391
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)		1.10201
80	Loss Factor		1.053
81	Revenue Tax Req Multiplier		1.0975
82	PURCHASED ENERGY FACTOR, ¢/KWH (lines 79 x 80 x 81)		1.27356

<u>Line</u>	<u>SYSTEM COMPOSITE</u>	
83	GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 44 + 82)	(2.08453)
84	Kahuku Wind D-VAR Adjustment, ¢/kWh	0.023
85	ECA Reconciliation Adjustment	(0.029)
86	ECA FACTOR, ¢/kWh (lines 83 + 84 + 85)	(2.091)

**Hawaiian Electric Company, Inc.**  
**FUEL OIL INVENTORY PRICES FOR 01-01-17**

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	930.37	930.37	930.37
Kahe Fuel Additive, ¢/Mbtu	-	0.32	-
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
<hr/>			
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	930.37	930.69	930.37
<hr/>			
	Waiau	CIP	
Average Diesel / Biodiesel Oil, ¢/Mbtu	1,212.97	1,220.43	
Thruput Charges, ¢/Mbtu	-	-	
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Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	1,212.97	1,220.43	
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	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	58.37	58.37	58.37
Kahe Fuel Additive, \$/bbl	-	0.02	-
Honolulu Trucking Cost, \$/bbl	-	-	-
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Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	58.37	58.39	58.37
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	Waiau	CIP	
Average Diesel / Biodiesel Oil, \$/bbl	69.57	64.45	
Thruput Charges, ¢/Mbtu	-	-	
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Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	69.57	64.45	
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Distributed Generation Fuel Prices Used for Filing, ¢/kWh			7.580

**FOAC January 2017**

<b><u>LSFO</u></b>	<b>BARRELS</b>	<b>MBTU</b>	<b>AMOUNT</b>	<b>AVE \$/MBTU</b>
Per FOAC run	807,508	5,065,948.68	47,132,198.99	9.303726
Additional	-	-	-	-
Forecast Amt	807,508	5,065,948.68	47,132,198.99	9.303726
	-	6.20	-	ADD'L BBL
	5,065,949	807,508	6.2736	MBTU / BBL
	47,132,199	807,508	58.37	DOLLARS / BBL
<b><u>WAIKU DIESEL</u></b>	25,678	147,272.87	1,786,369.58	12.129658
	1,786,370	25,678	69.57	DOLLARS / BBL
<b><u>CIP BIODIESEL</u></b>	47,047	248,454.76	3,032,205.16	12.204255
	3,032,205	47,047	64.45	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 12-1-16**

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
<b>LOW SULFUR FUEL OIL</b>		
Tax *	4.0172	64.81
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 *	5.1022	87.08
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 (January 2017)	5,300
L5 = L3 x L4	Estimated Distributed Generation Total Fuel Cost (\$)	\$38,884
L6	Estimated Distributed Generation kWh Produced (January 2017)	513,000
L7 = (L5 ÷ L6) x 100	Distributed Generation Fuel Prices Used for Filing, (¢/kWh)	<b>7.5800</b>



**Hawaiian Electric Company, Inc.**  
**ECA RECONCILIATION ADJUSTMENT**  
**January 2017**

1.	Amount to be returned	\$	(435,211)
2.	Monthly Amount (Line 1 x 1/3)	\$	(145,070)
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	(159,217)
5.	Estimated MWh Sales (January 2017)		547,500
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>(0.029)</u></u>

**Hawaiian Electric Company, Inc.**  
**D-VAR TRUE-UP RECONCILIATION ADJUSTMENT**  
**January 2017**

1.	Amount to be collected	\$	1,369,958
2.	Monthly Amount (Line 1 x 1/12)	\$	114,163
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	125,296
5.	Estimated MWh Sales (January 2017)		547,500
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>0.023</u></u>



**HAWAIIAN ELECTRIC COMPANY, INC.**  
**2016 Cumulative Reconciliation Balance**

	(1)		(2)	(3)	(4)	(5)	(6)
<u>Month</u>	<u>YTD FOA Reconciliation</u>	<u>Qtr</u>	<u>FOA Rec Adjust Variance</u>	<u>FOA Rec Less Variance</u>	<u>Try to Collect</u>	<u>Actual Collect</u>	<u>Month-end Cumulative Balance</u>
December '15					4,516,067	4,466,182	(4,472,032)
January '16					4,516,067	4,450,144	(21,888)
February	(4,371,700)	(4)	44,029	(4,415,729)	1,457,233	1,422,190	(3,015,427)
March					1,457,233	1,420,558	(1,594,869)
April					1,457,233	1,463,268	(131,601)
May	(2,067,034)	(1)	(137,641)	(1,929,393)	689,011	687,091	(1,373,903)
June					689,011	708,113	(665,790)
July					689,011	721,298	55,508
August	(4,207,200)	(2)	23,216	(4,230,416)	1,402,400	1,513,131	(2,661,776)
September					1,402,400	1,483,222	(1,178,554)
October					1,402,400	1,420,418	241,864
November	435,211	(3)	223,840	211,371	(145,070)	(146,824)	306,411
December					(145,070)		
January'17					(145,070)		

**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;</u> <u>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
March 1, 2016	-5.498		123.06	146.43
April 1, 2016	-5.393		123.34	146.76
May 1, 2016	-5.527		124.85	148.58
June 1, 2016	-4.651		129.34	153.95
July 1, 2016	-3.854		133.43	158.90
August 1, 2016	-3.176		134.73	160.45
September 1, 2016	-3.345		133.98	159.57
October 1, 2016	-3.964		130.77	155.71
November 1, 2016	-3.848		131.04	156.03
December 1, 2016	-3.578		132.32	157.56
January 1, 2017	-2.091		135.39	161.22

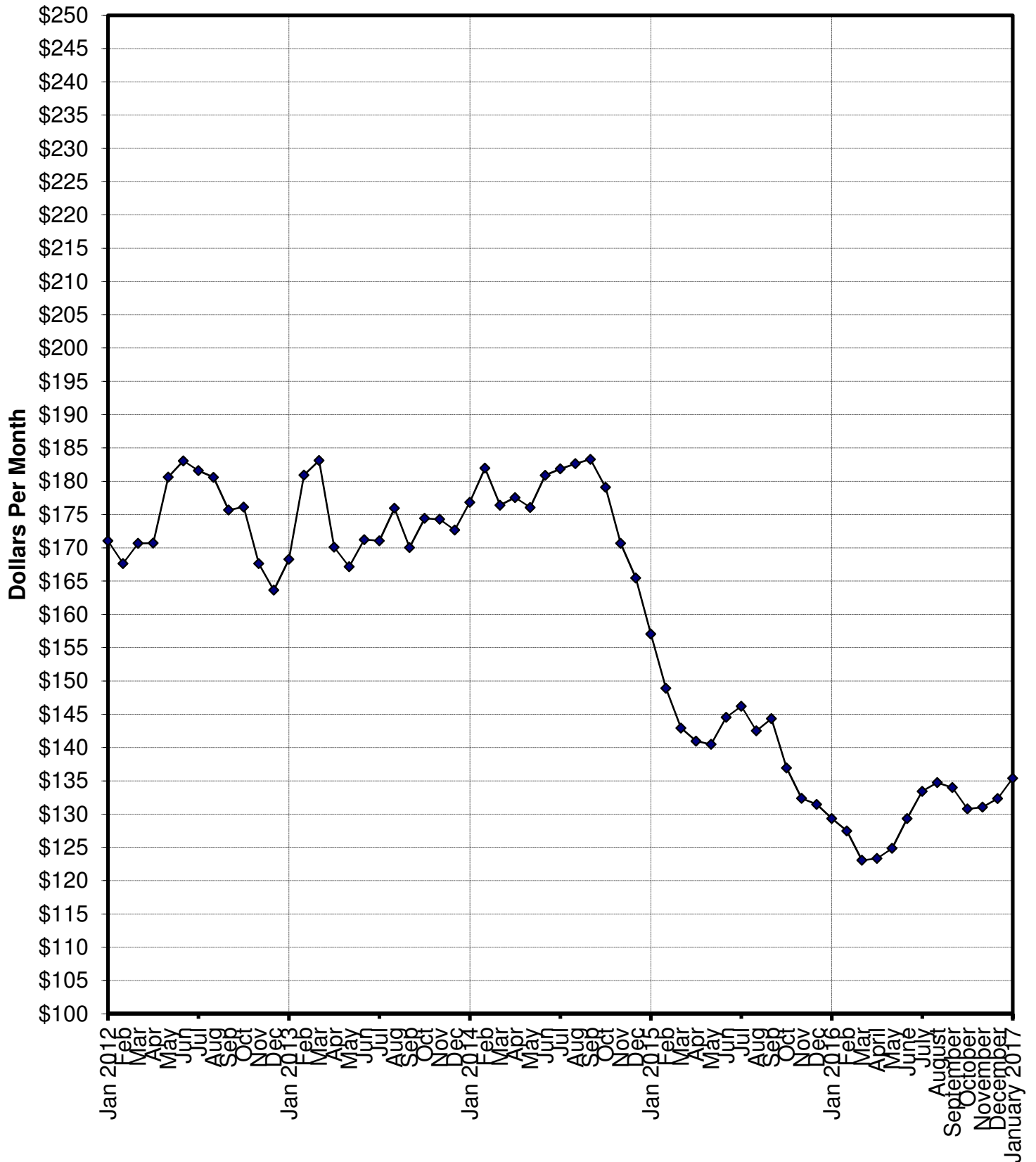
**Hawaiian Electric Company, Inc.**  
**RESIDENTIAL SURCHARGE DATA**

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
4/1/2015 - 03/31/2016	RESIDENTIAL DSM ADJUSTMENT	0.0348 CENTS/KWH
05/1/2015 - 05/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.9760 CENTS/KWH
5/1/2015 - 03/31/2016	SOLAR SAVER ADJUSTMENT	0.00 CENTS/KWH
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
6/8/2015 - 5/31/2016	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	2.1078 CENTS/KWH
07/1/2015 - 07/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	3.4646 CENTS/KWH
7/1/2015 - 6/30/2016	RESID. PBF SURCHARGE ADJUSTMENT	0.4749 CENTS/KWH
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
12/17/2015 - 02/29/2016	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0204 CENTS/KWH
01/01/2016 - 06/30/2016	GREEN INFRASTRUCTURE FEE	1.3000 DOLLARS/MONTH
02/1/2016 - 02/29/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.3809 CENTS/KWH
03/1/2016 - 03/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.3578 CENTS/KWH
3/1/2016 - 05/14/2016	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0204 CENTS/KWH
04/1/2016 - 04/30/2016	SOLAR SAVER ADJUSTMENT	-0.1223 CENTS/KWH
04/1/2016 - 04/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.3834 CENTS/KWH
<b>4/1/2016</b>	<b>RESIDENTIAL DSM ADJUSTMENT</b>	<b>0.0811 CENTS/KWH</b>
<b>5/1/2016</b>	<b>SOLAR SAVER ADJUSTMENT</b>	<b>0.00 CENTS/KWH</b>
05/1/2016 - 05/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.6989 CENTS/KWH
<b>5/15/2016</b>	<b>RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION</b>	<b>0.0000 CENTS/KWH</b>
06/1/2016 - 06/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.7373 CENTS/KWH
<b>6/1/2016</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>2.1098 CENTS/KWH</b>
07/1/2016 - 07/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.6808 CENTS/KWH
7/1/2016 - 12/31/2016	GREEN INFRASTRUCTURE FEE	1.1300 DOLLARS/MONTH
<b>7/1/2016</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.5865 CENTS/KWH</b>
08/1/2016 - 08/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.2621 CENTS/KWH
09/1/2016 - 09/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.2827 CENTS/KWH
10/1/2016 - 10/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.2576 CENTS/KWH
11/1/2016 - 11/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.1959 CENTS/KWH
12/1/2016 - 12/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.1815 CENTS/KWH
<b>01/1/2017 - 01/31/2017</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>2.2812 CENTS/KWH</b>
<b>1/01/2017 - 06/30/2017</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.2700 DOLLARS/MONTH</b>

~ Surcharges currently in effect are in bold.

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

## 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			
	12/1/2016	1/1/2017	12/1/2016	1/1/2017	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	3.1815	2.2812	15.91	11.41	-4.50
<b>RBA Rate Adjustment</b>	¢/kWh	2.1098	2.1098	10.55	10.55	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0811	0.0811	0.41	0.41	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	0.5865	0.5865	2.93	2.93	0.00
<b>Renewable Energy Infrastructure Cost Recovery Provision</b>	¢/kWh	-	-	0.00	0.00	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Adjustment</b>	¢/kWh	-3.578	-2.091	-17.89	-10.46	7.43
<b>Green Infrastructure Fee</b>	\$	1.13	1.27	1.13	1.27	0.14
<b>Avg Residential Bill at 500 kWh</b>				132.32	135.39	

Increase / (Decrease -) 3.07  
% Change 2.32%

	Rate		Charge (\$) at 600 kWh			
	12/1/2016	1/1/2017	12/1/2016	1/1/2017	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	3.1815	2.2812	19.09	13.69	-5.40
<b>RBA Rate Adjustment</b>	¢/kWh	2.1098	2.1098	12.66	12.66	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0811	0.0811	0.49	0.49	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	0.5865	0.5865	3.52	3.52	0.00
<b>Renewable Energy Infrastructure Cost Recovery Provision</b>	¢/kWh	-	-	0.00	0.00	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Adjustment</b>	¢/kWh	-3.578	-2.091	-21.47	-12.55	8.92
<b>Green Infrastructure Fee</b>	\$	1.13	1.27	1.13	1.27	0.14
<b>Avg Residential Bill at 600 kWh</b>				157.56	161.22	

Increase / (Decrease -) 3.66  
% Change 2.32%