



November 28, 2017

FILED

2017 NOV 28 P 3:27

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

PUBLIC UTILITIES
COMMISSION

Dear Commissioners:

Subject: Hawaiian Electric Energy Cost Adjustment Factor for December 2017

Hawaiian Electric Company Inc.'s ("Hawaiian Electric" or "Company") December 2017 energy cost adjustment factor is -1.629 cents per kilowatt-hour ("kWh"), an increase of 0.480 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$141.82, an increase of \$2.30 compared to rates effective November 1, 2017. The increase in the typical residential bill is due to an increase in the Energy Cost Adjustment factor (+\$2.40), and a decrease in the Purchased Power Adjustment Clause rate (-\$0.10).

The Company's fuel composite cost of generation increased 23.88 cents per million BTU to 1,158.88 cents per million BTU. The Company's Distributed Generation ("DG") energy component increased 0.001 cents per kWh to 0.014 cents per kWh. The composite cost of purchased energy increased 0.570 cents per kWh to 8.687 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 December 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>11/01/17</u>	<u>12/01/17</u>	
Composite Cost Of Generation, ¢/mmbtu	1,135.00	1,158.88	23.88
DG Energy Component, ¢/kWh	0.013	0.014	0.001
Composite Cost Of Purchased Energy, ¢/kWh	8.117	8.687	0.570
 <u>Residential, Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(2.109)	(1.629)	0.480
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(2.109)	(1.629)	0.480
 <u>Residential Customer with:</u>			
500 kWh Consumption, \$/bill	139.52	141.82	2.30
600 kWh Consumption, \$/bill	166.18	168.96	2.78

Supersedes Sheet Effective: November 1, 2017

Hawaiian Electric Company, Inc.
ENERGY COST ADJUSTMENT FILING

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

<u>Line</u>		
1	Effective Date	- December 1, 2017
2	Supersedes Factor	- November 1, 2017

GENERATION COMPONENT

CENTRAL STATION							
FUEL PRICES, ¢/MBTU							
3	Honolulu			1,123.46			
4	Kahe			1,123.78			
5	Waiau-Steam			1,123.46			
6	Waiau-Diesel			1,492.35			
7	CIP-Diesel			N/A			
8	CIP-Biodiesel			2,795.42			
9	Other			0			
BTU MIX, %							
10	Honolulu			0.00			
11	Kahe			70.44			
12	Waiau-Steam			23.94			
13	Waiau-Diesel			4.51			
14	CIP-Diesel			N/A			
15	CIP-Biodiesel			1.11			
16	Other			0.00			
17	COMPOSITE COST OF GENERATION, CNTRL STN + OTHER ¢/mmbtu			1,158.88			
18	% Input to system kWh Mix			43.03			
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
		Eff Factor	Percent of	Weighted			
	<u>Fuel Type</u>	<u>mmbtu/kwh</u>	Centrl Stn +	<u>Eff Factor</u>			
			<u>Other</u>				
19	LSFO	0.011079	97.22	0.010771			
20	Diesel	0.019721	2.19	0.000432			
21	Biodiesel	0.020169	0.59	0.000119			
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))]			0.011322			
24	WGTD. COMPOSITE CNTRL STN + OTHER GEN COST, ¢/kWh (lines 17 x 18 x 23)			5.64590			
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)			(3.04600)			
30	Revenue Tax Req Multiplier			1.0975			
31	CNTRL STN + OTHER GENERATION FACTOR, ¢/KWH (Line 29 x 30)			(3.34299)			
					DG ENERGY COMPONENT		
					32	COMPOSITE COST OF DG ENERGY, ¢/kWh	27.270
					33	% Input to System kWh Mix	0.05
					34	WTD COMP DG ENRGY COST, ¢/kWh (Lines 32 x 33)	0.01364
					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)	0.01364
					39	Loss Factor	1.053
					40	Revenue Tax Req Multiplier	1.0975
					41	DG FACTOR, ¢/kWh (Line 38 x 39 x 40)	0.01576
					SUMMARY OF TOTAL GENERATION FACTOR, ¢/kWh		
					42	CNTRL STN + OTHER (line 31)	(3.34299)
					43	DG (line 41)	0.01576
					44	TOTAL GENERATION FACTOR, ¢/KWH (lines 42 + 43)	(3.32723)

Hawaiian Electric Company, Inc.
ENERGY COST ADJUSTMENT FILING

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

Line

1	Effective Date	- December 1, 2017
2	Supersedes Factor	- November 1, 2017

Line	PURCHASED ENERGY COMPONENT		
	PURCHASED ENERGY PRICE - ¢/KWH		
45	PAR Hawaii	- On Peak	11.288
46	(f.k.a HIE/Tesoro)	- Off Peak	11.563
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	IES Downstream	- On Peak	11.288
52		- Off Peak	11.563
53	Kalaeloa		10.145
54	AES-HI		3.233
55	Kawailoa		21.738
56	Kahuku Wind		20.401
57	As Available I		21.713
58	FIT		19.315
	PURCHASED ENERGY KWH MIX, %		
59	PAR Hawaii	- On Peak	0.22
60	(f.k.a HIE/Tesoro)	- Off Peak	0.15
61	HRRV	- On Peak	8.12
62		- Off Peak	2.34
63	HRRV	- On Peak (excess)	0.00
64		- Off Peak (excess)	0.99
65	IES Downstream	- On Peak	0.01
66	(f.k.a Chevron)	- Off Peak	0.01
67	Kalaeloa		41.84
68	AES-HI		40.18
69	Kawailoa		2.74
70	Kahuku Wind		1.59
71	As Available I		0.41
72	FIT		1.40
			100.00
73	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH		8.687
74	% Input to System kWh Mix		56.92
75	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 73 x 74)		4.94464
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)		1.41274
80	Loss Factor		1.053
81	Revenue Tax Req Multiplier		1.0975
82	PURCHASED ENERGY FACTOR, ¢/KWH (lines 79 x 80 x 81)		1.63266

Line SYSTEM COMPOSITE

83	GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 44 + 82)	(1.69457)
84	Kahuku Wind D-VAR Adjustment, ¢/kWh	0.000
85	ECA Reconciliation Adjustment	0.066
86	ECA FACTOR, ¢/kWh (lines 83 + 84 + 85)	(1.629)

Hawaiian Electric Company, Inc.
FUEL OIL INVENTORY PRICES FOR 12-01-17

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	1,123.46	1,123.46	1,123.46
Kahe Fuel Additive, ¢/Mbtu	-	0.32	-
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	1,123.46	1,123.78	1,123.46

	Waiau	CIP
Average Diesel / Biodiesel Oil, ¢/Mbtu	1,492.35	2,795.42
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	1,492.35	2,795.42

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	70.86	70.86	70.86
Kahe Fuel Additive, \$/bbl	-	0.02	-
Honolulu Trucking Cost, \$/bbl	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	70.86	70.88	70.86

	Waiau	CIP
Average Diesel / Biodiesel Oil, \$/bbl	85.54	148.28
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	85.54	148.28

Distributed Generation Fuel Prices Used for Filing, ¢/kWh 27.270

FOAC December 2017

<u>LSFO</u>	<u>BARRELS</u>	<u>MBTU</u>	<u>AMOUNT</u>	<u>AVE \$/MBTU</u>
Per FOAC run	665,119	4,195,212.20	47,131,498.20	11.234592
Additional	-	-	-	-
Forecast Amt	665,119	4,195,212.20	47,131,498.20	11.234592
	-	6.20	-	ADD'L BBL
	4,195,212	665,119	6.3075	MBTU / BBL
	47,131,498	665,119	70.86	DOLLARS / BBL
<u>WAIU DIESEL</u>	35,063	200,973.49	2,999,232.07	14.923521
	2,999,232	35,063	85.54	DOLLARS / BBL
<u>CIP BIODIESEL</u>	31,636	167,810.06	4,690,999.91	27.954224
	4,691,000	31,636	148.28	DOLLARS / BBL
KAHE FUEL ADDITIVE *				
Additional	-	-	-	0.003194
Forecast Amt	-	-	-	0.003194
\$ / BBL =		-	0.02	DOLLARS / BBL
HONOLULU TRUCKING COST				
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 11-1-17

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
LOW SULFUR FUEL OIL		
Tax *	4.4844	72.33
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
DIESEL		
Tax *	5.6784	96.91
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
BIODIESEL		
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

Line No.		
L1	Estimated Distributed Generation Fuel Cost (\$/mbtu)	\$27.01
L2	Estimated Distributed Generation Fuel Transport Cost (\$/mbtu)	\$0.00
L3 = L1+ L2	Estimated Total Fuel and Transportation Cost (\$/mbtu)	\$27.01
L4	Estimated Mbtu Generation for month (December 2017)	3,100
L5 = L3 x L4	Estimated Distributed Generation Total Fuel Cost (\$)	\$83,726
L6	Estimated Distributed Generation kWh Produced (December 2017)	307,000
L7 = (L5 ÷ L6) x 100	Distributed Generation Fuel Prices Used for Filing, (¢/kWh)	27.2700

Hawaiian Electric Company, Inc.
ECA RECONCILIATION ADJUSTMENT
December 2017

1.	Amount to be collected	\$	988,400
2.	Monthly Amount (Line 1 x 1/3)	\$	329,467
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	361,594
5.	Estimated MWh Sales (October 2017)		549,000
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>0.066</u></u>

HAWAIIAN ELECTRIC COMPANY, INC.
2017 Cumulative Reconciliation Balance

	(1)		(2)	(3)	(4)	(5)	(6)
Month	YTD FOA Reconciliation	Qtr	FOA Rec Adjust Variance	FOA Rec Less Variance	Try to Collect	Actual Collect	Month-end Cumulative Balance
December 16					(145,070)	(146,542)	159,869
January'17					(145,070)	(136,541)	23,328
February	(4,392,100)	(4)	14,792	(4,406,892)	1,464,033	1,375,221	(3,008,344)
March					1,464,033	1,470,145	(1,538,199)
April					1,464,033	1,458,185	(80,014)
May	(955,000)	(1)	(74,171)	(880,829)	318,333	312,457	(648,385)
June					318,333	329,519	(318,866)
July					318,333	331,277	12,411
August	(4,553,893)	(2)	(539)	(4,553,354)	1,517,964	1,583,875	(2,957,069)
September					1,517,964	1,579,137	(1,377,932)
October					1,517,964	1,520,202	142,270
November	(988,400)	(3)	140,027	(1,128,427)	329,467		
December					329,467		

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 &</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
February 1, 2017	-1.863		142.81	170.13
March 1, 2017	-1.730		143.26	170.66
April 1, 2017	-1.608		143.43	170.86
May 1, 2017	-2.347		140.42	167.26
June 1, 2017	-2.215		141.89	169.01
July 1, 2017	-2.003		141.79	168.91
August 1, 2017	-2.180		140.14	166.92
September 1, 2017	-2.288		139.74	166.45
October 1, 2017	-2.216		139.91	166.65
November 1, 2017	-2.109		139.52	166.18
December 1, 2017	-1.629		141.82	168.96

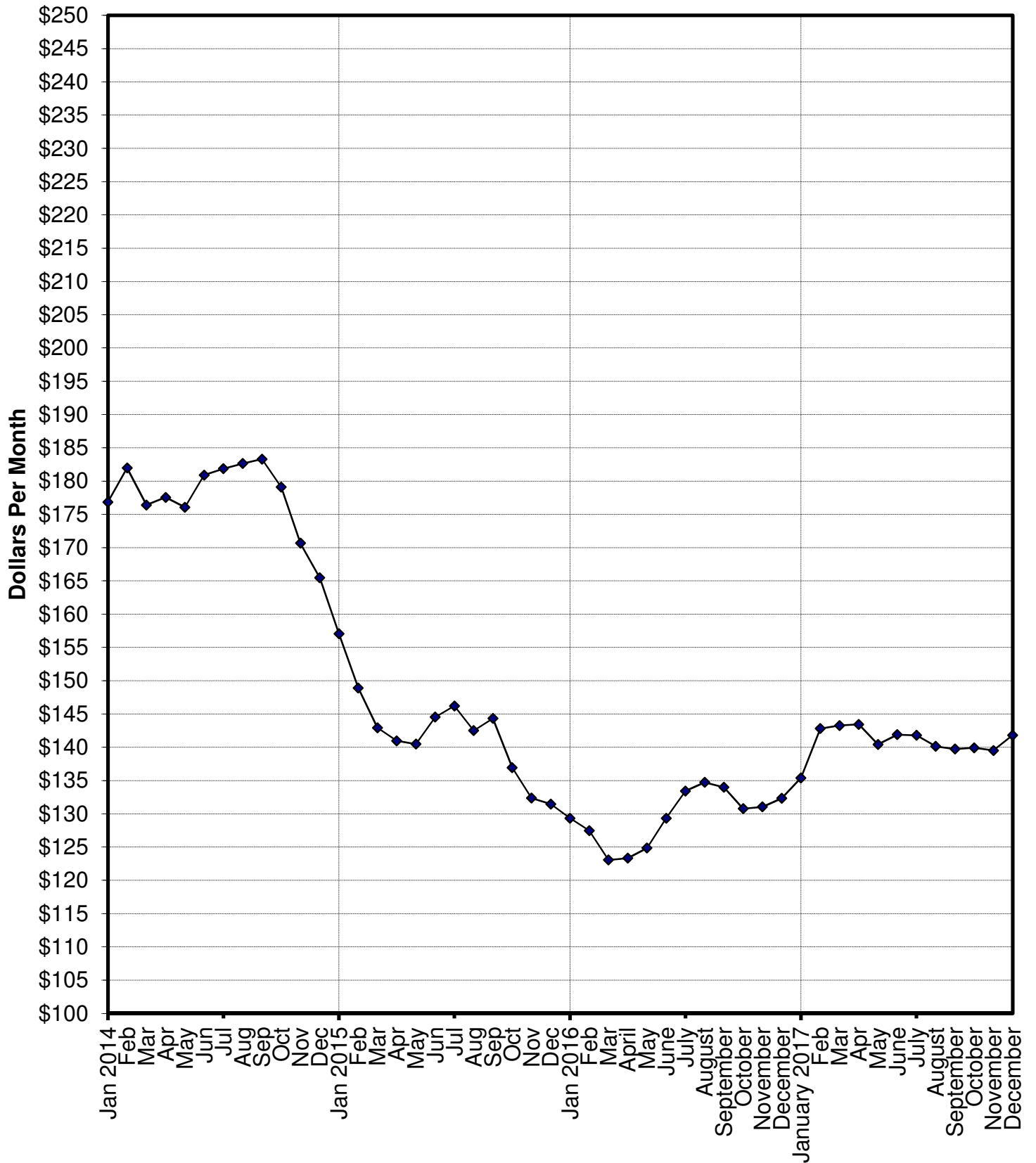
Hawaiian Electric Company, Inc.
RESIDENTIAL SURCHARGE DATA

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
09/01/12	FINAL RATE INCREASE (TY2011) 3.39% EFFECTIVE 09/01/12, DOCKET NO. 2010-0080	
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
2/1/2013	REFUND OF 2011 INTERIM RATE INCREASE	0.00 PERCENT ON BASE
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	3.4676 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	3.4648 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
4/1/2016 - 3/31/2017	RESIDENTIAL DSM ADJUSTMENT	0.0811 CENTS/KWH
5/1/2016 - 3/31/2017	SOLAR SAVER ADJUSTMENT	0.00 CENTS/KWH
05/1/2016 - 05/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.6989 CENTS/KWH
5/15/2016	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 CENTS/KWH
06/1/2016 - 06/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.7373 CENTS/KWH
6/1/2016 - 5/31/2017	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	2.1098 CENTS/KWH
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
7/1/2016	RESID. PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH
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
01/1/2017 - 01/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	2.2812 CENTS/KWH
1/01/2017 - 06/30/2017	GREEN INFRASTRUCTURE FEE	1.2700 DOLLARS/MONTH
02/1/2017 - 02/28/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5384 CENTS/KWH
03/1/2017 - 03/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.4937 CENTS/KWH
04/1/2017 - 04/30/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5276 CENTS/KWH
4/1/2017	RESIDENTIAL DSM ADJUSTMENT	-0.0774 CENTS/KWH
4/1/2017 - 4/30/2017	SOLAR SAVER ADJUSTMENT	-0.1187 CENTS/KWH
5/1/2017	SOLAR SAVER ADJUSTMENT	0.0000 CENTS/KWH
05/1/2017 - 05/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5484 CENTS/KWH
06/1/2017 - 06/30/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5894 CENTS/KWH
6/1/2017	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	2.2291 CENTS/KWH
7/1/2017	GREEN INFRASTRUCTURE FEE	1.1800 DOLLARS/MONTH
7/1/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5388 CENTS/KWH
7/1/2017	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
8/1/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.3840 CENTS/KWH
9/1/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.4128 CENTS/KWH
10/1/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.3748 CENTS/KWH
11/1/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.1890 CENTS/KWH
12/1/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.1709 CENTS/KWH

~ Surcharges currently in effect are in bold.

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

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			
	11/1/2017	12/1/2017	11/1/2017	12/1/2017	Difference	
Base Rates	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
Total Base Charges				119.28	119.28	0.00
Purchase Power Adjustment	¢/kWh	3.1890	3.1709	15.95	15.85	-0.10
RBA Rate Adjustment	¢/kWh	2.2291	2.2291	11.15	11.15	0.00
DSM Adjustment	¢/kWh	0.0774	0.0774	0.39	0.39	0.00
Interim Rate Increase (TY 2011)	% on base	0.000%	0.000%	0.00	0.00	0.00
Refund of 2011 Interim	% on base	0.000%	0.000%	0.00	0.00	0.00
PBF Surcharge	¢/kWh	0.4244	0.4244	2.12	2.12	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	-	-	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	-2.109	-1.629	-10.55	-8.15	2.40
Green Infrastructure Fee	\$	1.18	1.18	1.18	1.18	0.00
Avg Residential Bill at 500 kWh				139.52	141.82	

Increase / (Decrease -) 2.30
% Change 1.65%

	Rate		Charge (\$) at 600 kWh			
	11/1/2017	12/1/2017	11/1/2017	12/1/2017	Difference	
Base Rates	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
Total Base Charges				142.14	142.14	0.00
Purchase Power Adjustment	¢/kWh	3.1890	3.1709	19.13	19.03	-0.10
RBA Rate Adjustment	¢/kWh	2.2291	2.2291	13.37	13.37	0.00
DSM Adjustment	¢/kWh	0.0774	0.0774	0.46	0.46	0.00
Interim Rate Increase (TY 2011)	% on base	0.000%	0.000%	0.00	0.00	0.00
Refund of 2011 Interim	% on base	0.000%	0.000%	0.00	0.00	0.00
PBF Surcharge	¢/kWh	0.4244	0.4244	2.55	2.55	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	-	-	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	-2.109	-1.629	-12.65	-9.77	2.88
Green Infrastructure Fee	\$	1.18	1.18	1.18	1.18	0.00
Avg Residential Bill at 600 kWh				166.18	168.96	

Increase / (Decrease -) 2.78
% Change 1.67%