



JAY IGNACIO, P. E.  
President

July 27, 2016

FILED

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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: Hawai'i Electric Light Energy Cost Adjustment Factor for August 2016

Hawai'i Electric Light Company, Inc.'s ("Hawai'i Electric Light") energy cost adjustment factor for August 2016 is -3.094 cents per kilowatt-hour ("kWh"), an increase of 1.154 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$161.67, an increase of \$7.82 compared to the rates effective July 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$5.77) and the increase in the Purchased Power Adjustment Clause rate (+\$2.05).

Hawai'i Electric Light's fuel composite cost of generation increased 108.58 cents per million BTU to 994.31 cents per million BTU. The composite cost of distributed generation increased 0.026 cents per kWh to 11.836 cents per kWh. The composite cost of purchased energy decreased 0.130 cents per kWh to 11.770 cents per kWh.

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

Sincerely,

Attachments

cc: Division of Consumer Advocacy

## HAWAII ELECTRIC LIGHT COMPANY, INC.

ENERGY COST ADJUSTMENT FACTOR

	<u>EFFECTIVE DATES</u>		
	<u>7/01/16</u>	<u>8/01/16</u>	<u>Change</u>
<u>Composite Cost</u>			
Generation, ¢/mmbtu	885.73	994.31	108.58
Dispersed Generation Energy, ¢/kWh	11.810	11.836	0.026
Purchased Energy, ¢/kWh	11.900	11.770	(0.130)
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment - ¢/kWh	(4.248)	(3.094)	1.154
<u>Others - "G,J,P,F"</u>			
Energy Cost Adjustment - ¢/kWh	(4.248)	(3.094)	1.154
Residential Customer with:			
500 KWH Consumption - \$/Bill	\$153.85	\$161.67	\$7.82
600 KWH Consumption - \$/Bill	\$184.31	\$193.69	\$9.38

HAWAII ELECTRIC LIGHT COMPANY, INC.  
ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - August 1, 2016 (Page 1 of 2)

<u>Line</u>		
1	Effective Date	August 1, 2016
2	Supercedes Factors of	July 1, 2016

**GENERATION COMPONENT**

<b><u>CENTRAL STATION WITH WIND/HYDRO COMPONENT</u></b>			
FUEL PRICES, ¢/mmbtu			
3			
4	Hill Industrial	652.52	
5	Puna Industrial	673.58	
6	Keahole Diesel	1,270.32	
6a	Keahole ULSD	1,237.87	
7	Waimea ULSD Diesel	1,228.05	
8	Hilo Diesel	1,240.71	
8a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>	1,193.07	
9	Puna Diesel	1,239.11	
10	Wind	0.00	
11	Hydro	0.00	
BTU MIX, %			
12			
13	Hill Industrial	35.050	
14	Puna Industrial	0.000	
15	Keahole Diesel	55.346	
15a	Keahole ULSD	0.494	
16	Waimea ULSD Diesel	0.353	
17	Hilo Diesel	0.071	
17a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>	0.212	
18	Puna Diesel	3.928	
19	Wind	0.000	
20	Hydro	4.546	
		100.000	
21	COMPOSITE COST OF GENERATION, CENTRAL STATION + WIND/HYDRO ¢/mmb	994.31	
22	% Input to System kWh Mix	43.503	
EFFICIENCY FACTOR, mmbtu/kWh			
	(A)	(B)	(C)
			(D)
			Percent of
			Centrl Stn +
			Wind/Hydro
			Weighted
			Eff Factor
	<u>Fuel Type</u>	<u>Eff Factor</u>	<u>Centrl Stn +</u>
		<u>mmbtu/kwh</u>	<u>Wind/Hydro</u>
			<u>Eff Factor</u>
23	Industrial	0.015148	28.492
24	Diesel	0.010424	66.963
25	Other	0.012621	4.546
	(Lines 23, 24, 25): Col(B) x Col(C) = Col(D)		
26	Weighted Efficiency Factor, mmbtu/kWh [Lines 23(D) + 24(D) + 25(D)]		0.0118700
27	WEIGHTED COMPOSITE CENTRAL STATION + WIND/HYDRO GENERATION COST, ¢/kWh (Lines (21 x 22 x 26))		5.13442
28	BASE CENTRAL STATION + WIND/HYDRO GENERATION COST, ¢/mmbtu		1,224.44
29	Base % Input to Sys kWh Mix		46.06
30	Efficiency Factor, mmbtu/kwh		0.012621
31	WEIGHTED BASE CENTRAL STATION + WIND/HYDRO GENERATION COST ¢/kWh (Lines (28 x 29 x 30))		7.11795
32	COST LESS BASE (Line 27 - 31)		(1.98353)
33	Revenue Tax Req Multiplier		1.0975
34	CENTRAL STATION + WIND/HYDRO GENERATION FACTOR, ¢/kWh (Line (32 x 33))		(2.17692)

<b><u>DG ENERGY COMPONENT</u></b>		
35	COMPOSITE COST OF DG ENERGY, ¢/kWh	11.836
36	% Input to System kWh Mix	0.197
37	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 35 x 36)	0.02332
38	BASE DG ENERGY COMPOSITE COS	15.702
39	Base % Input to System kWh Mix	0.06
40	WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 38 x 39)	0.00942
41	Cost Less Base (Line 37 - 40)	0.01390
42	Loss Factor	1.067
43	Revenue Tax Req Multiplier	1.0975
44	DG FACTOR, ¢/kWh (Line 41 x 42 x 43)	0.01628

SUMMARY OF	
TOTAL GENERATION FACTOR, ¢/kWh	
45	Cntrl Stn+Wind/Hydro (line 34) (2.17692)
46	DG (line 44) 0.01628
47	TOTAL GENERATION FACTOR, ¢/kWh (lines 45 + 46) (2.16064)

<sup>1</sup> Hilo ULSD same location as Kanoelehua ULSD

HAWAII ELECTRIC LIGHT COMPANY, INC.  
ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - August 1, 2016 (Page 2 of 2)

Line	<u>PURCHASED ENERGY COMPONENT</u>		
	PURCHASED ENERGY PRICE, ¢/kWh		
48	HEP		12.246
49	PGV	On Peak	9.436
50	PGV	Off Peak	10.693
51	PGV - Add'l 5 MW	On Peak	12.480
52	PGV - Add'l 5 MW	Off Peak	12.480
53	PGV - Add'l 8 MW	On Peak	9.520
54	PGV - Add'l 8 MW	Off Peak	6.340
55	Wailuku Hydro	On Peak	9.436
56	Wailuku Hydro	Off Peak	10.693
57	Hawi Renewable Dev.	On Peak	9.436
58	Hawi Renewable Dev.	Off Peak	10.693
59	Tawhiri (Pakini Nui)	On Peak	15.700
60	Tawhiri (Pakini Nui)	Off Peak	13.310
61			
62	Small Hydro (>100 KW)	On Peak	9.436
63	Small Hydro (>100 KW)	Off Peak	10.693
64	Sch Q Hydro (<100 KW)		9.680
65	FIT		23.800
	PURCHASED ENERGY KWH MIX, %		
66	HEP		36.123
67	PGV	On Peak	16.629
68	PGV	Off Peak	10.395
69	PGV - Addt'l	On Peak	2.529
70	PGV - Addt'l	Off Peak	2.151
71	PGV - Add'l 8 MW	On Peak	0.877
72	PGV - Add'l 8 MW	Off Peak	2.528
73	Wailuku Hydro	On Peak	2.560
74	Wailuku Hydro	Off Peak	1.750
75	Hawi Renewable Dev.	On Peak	4.884
76	Hawi Renewable Dev.	Off Peak	2.084
77	Tawhiri (Pakini Nui)	On Peak	9.655
78	Tawhiri (Pakini Nui)	Off Peak	5.951
79			
80	Small Hydro (>100 KW)	On Peak	0.000
81	Small Hydro (>100 KW)	Off Peak	0.000
82	Sch Q Hydro (<100 KW)		0.217
83	FIT		1.667
			100.000
84	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh		11.770
85	% Input to System kWh Mix		56.300
86	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (Lines (84 x 85))		6.62651
87	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh		13.354
88	Base % Input to Sys kWh Mix		53.88
89	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (Lines (87 x 88))		7.19514
90	COST LESS BASE (Lines (86 - 89))		(0.56863)
91	Loss Factor		1.067
92	Revenue Tax Req Multiplier		1.0975
93	PURCHASED ENERGY FACTOR, ¢/kWh (Lines (90 x 91 x 92))		(0.66588)

Line	SYSTEM COMPOSITE	
94	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (Lines (47 + 93))	(2.82652)
95	Not Used	0.000
96	Not Used	0.000
97	ECA Reconciliation Adjustment	(0.267)
98	ECA FACTOR, ¢/kWh (Lines (94 + 95+ 96 + 97))	(3.094)

**Hawaii Electric Light Company, Inc.**  
FUEL OIL INVENTORY PRICES FOR August 1, 2016

**INDUSTRIAL FUEL COSTS:**

	<u>HILO</u>	<u>PUNA</u>
Average Industrial Fuel Cost - \$/BBL	41.1089	41.1089
Land Transportation Cost - \$/BBL	--	1.3264
Industrial Costs For Filing - \$/BBL	41.1089	42.4353
Conversion Factors - mmbtu/BBL	6.30	6.30
Industrial Costs For Filing - ¢/mmbtu	652.52	673.58

**DIESEL FUEL COSTS:**

	KEAHOLE	PUNA CT-3	HILO
Average Diesel Fuel Cost - \$/BBL	71.6121	71.6121	71.6121
Land Transportation Cost - \$/BBL	2.8287	0.9998	1.0934
Diesel Costs For Filing - \$/BBL	74.4408	72.6119	72.7055
Conversion Factors - mmbtu/BBL	5.86	5.86	5.86
Diesel Costs For Filing - ¢/mmbtu	1,270.32	1,239.11	1,240.71

**ULSD FUEL COSTS:**

	KEAHOLE	WAIMEA	HILO	DISPERSED GENERATION
Average ULSD Fuel Cost - \$/BBL	68.0777	68.0777	68.0777	68.0777
Land Transportation Cost - \$/BBL	2.8522	2.2894	0.2853	-
ULSD Costs For Filing - \$/BBL	70.9299	70.3671	68.3630	68.0777
Conversion Factors - mmbtu/BBL	5.73	5.73	5.73	5.73
ULSD Costs For Filing - ¢/mmbtu	1,237.87	1,228.05	1,193.07	1,188.09

**Dispersed Generation, cents per kWh**

	<u>COMPOSITE COST OF DISP. GEN.</u>
BBIs Fuel:	325.1309
\$/BBI Inv Cost:	68.0777
Fuel \$ (Prod Sim Consumption x Unit Cost)	22,134.17
Net kWh (from Prod Sim)	187,000
cents/kWh:	11.836

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

	SHIPMAN INDUSTRIAL		HILL INDUSTRIAL		COST PER BARREL		
	BBL	COST	BBL	COST	EXCL LT	LT Total	
Balance at 06/30/2016	0	0.00	32,072	1,200,654.48			
Less: Est'd Inventory Addn			0	0.00			
Purchases: Estimate	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Actual	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfers out: Estimate	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Actual	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfers in: Estimate	0	0.00	(39,434)	(1,449,849.63)			
Actual	0	0.00	41,732	1,555,795.79			
Consumed: Estimate	0	0.00	46,686	1,551,543.85			
Actual	0	0.00	(45,892)	(1,525,154.43)			
Balance Per G/L 06/30/2016	0	0.00	35,164	1,332,990.06			
Purchases	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer out	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer in	0	0.00	42,417	1,695,539.92			
Consumed	0	0.00	(44,977)	(1,675,826.26)	106.5901	0.0000	106.5901
Balance @ 07/31/2016	0	0.00	32,604	1,352,703.72			
Inv From Offsite/Transfers	0	0.00	0	0.00			
Est'd Inventory Addition	0	0.00	0	0.00			
Fuel Balance @ 07/31/2016	0	0.00	32,604	1,352,703.72			
Reverse Fuel Balance	xxxxxx	0.00	xxxxxx	(1,352,703.72)			
Fuel Bal @ Avg Price	xxxxxx	0.00	xxxxxx	1,340,316.18			
Total @ 9/30/2013 Avg Price	0	0.00	32,604	1,340,316.18			

Weighted Avg Cost/BBL by Location #DIV/0! 41.4889

Weighted Avg Cost/BBL @ Avg Cost #DIV/0! 41.1089

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

PUNA INDUSTRIAL

	BBL	COST	LAND TRANSP	COST PER BARREL		TOTAL
				EXCLUDE LT	LT	
Balance at 06/30/2016	7,504	272,665.96	10,447.97			
Less: Est'd Inventory Addition	0	0.00	0.00			
Purchases: Estimate	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Actual	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfers out: Estimate	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Actual	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfers in: Estimate	(4,252)	(165,468.67)	(5,084.29)			
Actual	5,059	199,333.16	6,278.83			
Consumed: Estimate	4,374	145,363.77	6,873.30			
Actual	<u>(3,936)</u>	<u>(130,807.28)</u>	<u>(6,185.01)</u>			
Balance Per G/L 06/30/2016	<u>8,749</u>	<u>321,086.94</u>	<u>12,330.81</u>			
Purchases	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer out	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer in	3,203	136,949	3,829.96			
Consumed	(4,669)	<u>(173,965.20)</u>	(6,500.65)	37.2596	1.3923	38.6519
Balance @ 07/31/2016	<u>7,283</u>	<u>284,070.66</u>	<u>9,660.12</u>			
Inventory From Offsite/Transfers	0	0.00	0.00			
Est'd Inventory Addition	0	0.00	0.00			
Fuel Bal @ Avg Price	<u>7,283</u>	<u>284,070.66</u>	<u>9,660.12</u>		<u>1.3264</u>	
Reverse Fuel Balance	XXXXXXXXXXXX	(284,070.66)	XXXXXXXXXXXX			
Fuel Balance @ Avg Price	XXXXXXXXXXXX	299,396.48	XXXXXXXXXXXX			
Total @ 08/01/2016 Avg Price	<u>7,283</u>	<u>299,396.48</u>	<u>9,660.12</u>			

Weighted Avg Cost/BBL by Location

39.0046

1.3264

Weighted Avg Cost/BBL @ Avg Cost

41.1089

1.3264

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

KEAHOLE CT

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL EXCLUD LT	LT	TOTAL
Balance at 06/30/2016	53,772.9	2,258,463.0	3,356,199.1	151,207.7			
Less: Est'd Inventory Addition	0.0	0.0	0.0	0.0			
Purchases: Estimate	0.0	0.0	0.0	0.0			
Actual	0.0	0.0	0.0	0.0			
Transfers out: Estimate		xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Actual		xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Transfers in: Estimate	(33,439.3)	(1,404,450.0)	(2,182,456.5)	(89,376.5)			
Actual	36,605.2	1,537,420.0	2,390,243.5	96,656.27			
Consumed: Estimate	24,481.5	1,028,222.0	1,428,207.7	68,330.25			
Actual	(30,035.7)	(1,261,501.0)	(1,752,233.6)	(76,087.1)	58.3383		
Balance Per G/L 06/30/2016	51,384.6	2,158,154	3,239,960.23	150,730.58	63.0531		
Purchases	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Transfer out	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Transfer in	39,625.9	1,664,287.0	2,858,948.1	105,912.1	72.1485		
Consumed	(47,908.0)	(2,012,135.0)	(3,078,250.4)	(134,717.23)	64.2534	2.8120	67.0654
Balance @ 07/31/2016	43,102.5	1,810,306	3,020,657.96	121,925.41	70.0808		
Inventory From Offsite/Transfers	0.0	0.0	0.0	0.00			
Est'd Inventory Addition	0.0	0	0.0	0.00			
Fuel Balance @ Avg Price	43,102.5	1,810,306	3,020,657.96	121,925.41	70.0808		
Reverse Fuel Balance	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	(3,020,658.0)	xxxxxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	3,086,662.0	xxxxxxxxxxxxxxx			
Total @ 08/01/2016 Avg Price	43,102.5	1,810,306	3,086,662.04	121,925.41	71.6121		

Weighted Avg Cost/BBL by Location 70.0808 2.8287

Weighted Avg Cost/BBL @ Avg Cost 71.6121 2.8287



**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

PUNA CT-3

HS Diesel	BBL	GALLONS	COST EXCLUD LT	LAND TRANSP	COST PER EXCL LT	BARREL LT	TOTAL
Balance at 06/30/2016	3,193.5	134,128.0	185,149.6	4,123.5			
Less: Est'd Inven Addition	0.0	0.0	0.0	0.0			
Purchases: Estimate		xxxxxxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Actual		xxxxxxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfers out: Estimate		xxxxxxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Actual		xxxxxxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfers in: Estimate	209.0	8,779.0	12,333.5	249.9			
Actual	678.7	28,507.0	65,971.4	978.4			
Consumed: Estimate	242.5	10,187.0	14,149.8	286.8			
Actual	(684.8)	(28,763.0)	(39,952.0)	(809.8)			
Balance Per G/L 06/30/2016	3,639.0	152,838	237,652.32	4,828.81			
Purchases		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfer out		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfer in	5,386.8	226,246.0	405,554.1	5,614.7	75.2865		
Consumed	(4,871.8)	(204,616)	(313,030.33)	(6,290.48)	64.2534	1.2912	65.5446
Balance @ 07/31/2016	4,154.0	174,468	330,176.08	4,153.00	79.4839		
Inven From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Balance @ 07/31/2016	4,154.0	174,468	330,176.08	4,153.00	79.4839		
Reverse Fuel Balance		xxxxxxxxxxxx	(330,176.08)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price		xxxxxxxxxxxx	297,476.64	xxxxxxxxxxxx			
Total @ 08/01/2016 Avg Price	4,154.0	174,468	297,476.64	4,153.00	71.6121		

Weighted Avg Cost/BBL by Location 79.4839 0.9998

Weighted Avg Cost/BBL @ Avg Cost 71.6121 0.9998

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

TOTAL HILO HS-DIESEL

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER EXCL LT	BARREL LT	TOTAL
Balance at 06/30/2016	1373.3	57,677	79,729	1,540			
Less: Est'd Inven Addition	0.0	0	0	0			
Purchases: Estimate		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Actual		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfers out: Estimate		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Actual		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfers in: Estimate	0.0	0.0	0.0	0.0			
Actual	0.0	0.0	0.0	0.0			
Consumed: Estimate	8.3	347.0	482.0	5.1			
Actual	-6.9	-291.0	-404.2	-4.3			
Balance Per G/L 06/30/2016	1374.6	57,733	79,806.60	1,540.42	58.0583		
Purchases		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer out		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer in	189.0	7938.0	14248.5	173.9	0.0000		
Consumed	-166.5	-6995.0	-10701.3	-186.7	64.2534	1.1211	65.3745
Balance @ 07/31/2016	1,397.0	58,676	83,353.85	1,527.56	59.6643		
Inven From Offsite/Transfers	0.0	0.0	0.0	0.0			
Est'd Inventory Addition	0.0	0.0	0.0	0.0			
Fuel Balance @ Avg Price	1,397.0	58,676	83,353.85	1,527.56	59.6643		
Reverse Fuel Balance		XXXXXXXXXXXX	XXXXXXXXXXXX	-83,353.85	XXXXXXXXXXXX		
Fuel Balance @ Avg Price		XXXXXXXXXXXX	XXXXXXXXXXXX	100,045.51	XXXXXXXXXXXX		
Total @ 08/01/2016 Avg Price	1,397.0	58,676	100,045.51	1,527.56	71.6121		

Weighted Avg Cost/BBL by Location

59.6643 1.0934

Weighted Avg Cost/BBL @ Avg Cost

71.6121 1.0934

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

KEAHOLE DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL EXCLUD LT	LT	TOTAL
Balance at 06/30/2016	2,085.0	87,571	141,865.57	5,985.25			
Less: Est'd Inventory Addition	0.0						
Purchases: Estimate	(378.7)	(15,905)	(25,831.35)	(1,012.16)			
Actual	376.9	15,828	25,706.28	0.00			
Transfers out: Estimate		xxxxxxxxxxx	xxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Actual		xxxxxxxxxxx	xxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Transfers in: Estimate		(165)	0.00	(10.50)			
Actual		1	0.00	1,007.26			
Consumed: Estimate	163.1	6,849	11,032.47	455.52			
Actual	(175.3)	(7,363)	(11,860.43)	(489.71)	67.6542		
Balance Per G/L 06/30/2016	2,067.0	86,816	140,912.54	5,935.66	68.1709		
Purchases	188.1	7,902	12,833.65	502.87	0.0000		
Estimated Purchases	0.0	0	0.00	0.00			
Transfer in	0.9	39	0.00	2.48	0.00		
Consumed	(337.0)	(14,155)	(22,968.68)	(967.46)	68.1515	2.8706	71.0221
Balance @ 07/31/2016	1,919.1	80,602	130,777.51	5,473.55	68.1454		
Inventory From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Balance @ Avg Price	1,919.1	80,602	130,777.51	5,473.55	68.1454		
Reverse Fuel Balance	xxxxxxxxxxx	xxxxxxxxxxx	(130,777.51)	xxxxxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxx	xxxxxxxxxxx	130,647.60	xxxxxxxxxxxxxxx			
Total @ 08/01/2016 Avg Price	1,919.1	80,602	130,647.60	5,473.55	68.0777		

Weighted Avg Cost/BBL by Location

68.1454      2.8522

Weighted Avg Cost/BBL @ Avg Cost

68.0777      2.8522

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

WAIMEA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL	LT	TOTAL
Balance at 06/30/2016	1,484.0	62,328.0	101,122.7	3,430.80			
Less: Est'd Inven Addition	0.0	0.0	0.00	0.00			
Purchases: Estimate		(7,920)	(12,862.88)	(419.89)			
Actual		7,920.0	12,862.9	0.00			
Transfers out: Estimate		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Actual		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfers in: Estimate	(0.9)	(37)	0.00	0.00			
Actual	0.9	39	0.00	419.89			
Consumed: Estimate	177.6	7,460	12,016.67	404.21			
Actual	(201.6)	(8,467)	(13,638.76)	(405.19)			
Balance Per G/L 06/30/2016	1,460.1	61,323	99,500.58	3,429.82	68.1477		
ULSD Purchases	188.3	7,910	12,846.64	419.36	68.2122		
Estimated Purchases	190.0	7,980	12,960.33	423.07			
Transfer in	xxxxxxxxxxxx	1,025	0.00	0.00	#DIV/0!		
Consumed	(335.0)	(14,070)	(22,830.75)	(774.49)	68.1515	2.3119	70.4634
Balance @ 07/31/2016	1,527.8	64,168	102,476.79	3,497.77	67.0743		
Inven From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Balance @ Avg Price	1,527.8	64,168	102,476.79	3,497.77	67.0743		
Reverse Fuel Balance	xxxxxxxxxxxx	xxxxxxxxxxxx	(102,476.79)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxx	xxxxxxxxxxxx	104,009.77	xxxxxxxxxxxx			
Total @ 08/01/2016 Avg Price	1,527.8	64,168	104,009.77	3,497.77	68.0777		

Weighted Avg Cost/BBL by Location

67.0743 2.2894

Weighted Avg Cost/BBL @ Avg Cost

68.0777 2.2894

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

KANOELEHUA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP		
Balance at 06/30/2016	1,445.6	60,716.0	98,766.8	1,546.8		
Less: Est'd Inventory Addition	0.0	0	0.00	0.00		
Purchases: Estimate	(188.6)	(7,923)	(12,867.75)	(173.53)		
Actual	188.6	7,923	12,867.75	0.00		
Transfers out: Estimate			x	x	x	
Actual			x	x	x	
Transfers in: Estimate		157	0.00	3.44		
Actual		(310)	0.00	173.53		
Consumed: Estimate	55.7	2,339	3,767.69	95.16		
Actual	(48.0)	(2,018)	(3,250.62)	(1,191.32)		
Balance Per G/L 06/30/2016	1,449.6	60,884	99,283.89	454.10		
ULSD Purchases	0	0	0.00	0.00	#DIV/0!	
Estimated Purchases	0	-	-	-		
Transfer in	(12)	(495)	0.00	(10.84)		
Consumed	(33.4)	(1,404)	(2,278.21)	(42.57)	68.1515	1.0700
Balance @ 07/31/2016	1,404.4	58,985	97,005.68	400.69		
Inventory From Offsite/Transfers	0.0	0	0.00	0.00		
Est'd Inventory Addition	0.0	0	0.00	0.00		
Fuel Balance @ Avg Price	1,404.4	58,985	97,005.68	400.69		
Reverse Fuel Balance	x	x	(97,005.68)	x		
Fuel Balance @ Avg Price	x	x	95,608.65	x		
Total @ 08/01/2016 Avg Price	1,404.4	58,985	95,608.65	400.69		

Weighted Avg Cost/BBL by Location

69.0725 0.2853

Weighted Avg Cost/BBL @ Avg Cost

68.0777 0.2853

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2016

DISPERSED GENERATION

	BBL	GALLONS	COST	COST/BBL
Balance at 06/30/2016	89.8	3,771	6,119.19	
Less: Est'd Inven Addition	0.0	XXXXXXXXX	XXXXXXXXXX	
Purchases: Estimate	(11.8)	(496)	(805.55)	
Actual	11.8	496	805.55	
Consumed: Estimate	5.0	210	338.27	
Actual	(5.0)	(211)	(339.88)	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
Balance Per G/L 06/30/2016	89.76	3,770	6,117.58	68.1534
Purchases	0.0	0	0.00	0.0000
Transfer out	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
Transfer in	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
Consumed	(10.2)	(430)	(697.74)	68.1515
Balance @ 07/31/2016	79.5	3,340	5,419.84	68.1537
Est'd Inventory Addition	0.0	0	0.00	
Fuel Balance @ 07/31/2016	79.5	3,340	5,419.84	
Reverse Fuel Balance	XXXXXXXXXXXX	XXXXXXXXXXXX	(5,419.84)	xxxx
Fuel Balance @ Avg Price	XXXXXXXXXXXX	XXXXXXXXXXXX	5,413.80	xxxx
Total @ 08/01/2016 Avg Price	79.5	3,340	5,413.80	68.0777

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**CONTRACT PRICES EFFECTIVE July 1, 2016**

TYPE OF OIL BURNED

	<u>Hill Industrial</u>		<u>Puna Industrial</u>	
<b>INDUSTRIAL *</b>	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax <sup>1</sup>	41.18	2.5942	41.18	2.5942
Ocean Transportation	45.13	2.8432	45.13	2.8432
Storage	17.03	1.0729	17.03	1.0729
Wharfage	3.97	0.2500	3.97	0.2500
	<u>Hilo Diesel</u>		<u>Waimea Diesel</u>	
<b>DIESEL *</b>	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax <sup>1</sup>	76.47	4.4808	76.47	4.4808
Ocean Transportation	48.52	2.8432	48.52	2.8432
Storage	18.31	1.0729	18.31	1.0729
Wharfage	4.27	0.2500	4.27	0.2500
	<u>Kona Diesel</u>		<u>CT3 Diesel</u>	
	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax <sup>1</sup>	76.47	4.4808	76.47	4.4808
Ocean Transportation	48.52	2.8432	48.52	2.8432
Storage	18.31	1.0729	18.31	1.0729
Wharfage	4.27	0.2500	4.27	0.2500
	<u>ULSD</u>			
<b>ULSD **</b>	<u>¢/MBTU</u>	<u>\$/BBL</u>		
Tax <sup>1</sup>	20.65	1.6226		
Ocean Transportation	0.00	0.0000		
Storage	0.00	0.0000		
Wharfage	0.00	0.0000		

<sup>1</sup> Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST Tax and Environmental Response Tax.

Note: Since the components above 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 fuel.

\* Land Transportation Costs are shown in Attachment 3, Sheet 1.

\*\* ULSD includes Waimea, Kanoelehua, and Keahole.

Reference: Decision and Order No. 16134, Docket No. 96-0040.

**Hawaii Electric Light Company, Inc.**  
PURCHASED POWER PRICES FOR August 1, 2016

		<u>August 1, 2016</u> <u>(¢/kWh)</u>	<u>Floor Rates</u> <u>(¢/kWh)</u>
PGV (25 MW)	- on peak	9.436	6.560
PGV (22 MW)	- off peak	10.693	5.430
WAILUKU HYDRO	- on peak	9.436	7.240
	.	10.693	5.970
Other: (<100 KW)	Sch Q Rate	9.680	
		<u>August 1, 2016</u> <u>(¢/kWh)</u>	<u>Floor Rates</u> <u>(¢/kWh)</u>
HEP		12.246	
PGV Addtl 5 MW	- on peak	12.4800	0.0000
	- off peak	12.4800	0.0000
PGV Addtl 8 MW	- on peak	9.5200	0.0000
	- off peak	6.3400	0.0000



**Hawaii Electric Light Company, Inc.**  
**Energy Cost Reconciliation Adjustment**  
August 1, 2016

<u>Line No.</u>	<u>Description</u>	<u>Amount</u>
1	Amount to be returned or collected	(\$645,200)
2	Monthly Amount ( $\frac{1}{3}$ x Line 1)	(\$215,067)
3	Revenue Tax Divisor	0.91115
4	Total (Line 2 / Line 3)	(\$236,039)
5	Estimated MWh Sales (August 1, 2016)	88,254 mwh
6	Adjustment (Line 4 / Line 5)	(0.267) ¢/kwh

HAWAII ELECTRIC LIGHT COMPANY, INC.  
2016 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY  
(Thousand \$)

LINE	DESCRIPTION	Info Only	collectn	Basis for Recon	Collection
		June 2016 YTD Total <u>No Deadband</u>	by company*	June 2016 YTD Total <u>Deadband</u>	or Refund by <u>Company</u>
ACTUAL COSTS:					
1	Generation	\$26,117.3		\$26,117.3	
2	Distributed Generation	\$4.4		\$4.4	
3	Purch Power	\$27,658.2		\$27,658.2	
4	TOTAL	<u>\$53,779.9</u>		<u>\$53,779.9</u>	
FUEL FILING COST (1)					
5	Generation	\$26,198.0		\$26,290.9	
6	Distributed Generation	\$4.4		\$4.4	
7	Purch Power	\$27,658.2		\$27,658.2	
8	TOTAL	<u>\$53,860.7</u>		<u>\$53,953.5</u>	
BASE FUEL COST					
9	Generation	\$40,218.9		\$40,218.9	
10	Distributed Generation	\$3.4		\$3.4	
11	Purch Power	\$36,135.5		\$36,135.5	
12	TOTAL	<u>\$76,357.8</u>		<u>\$76,357.8</u>	
13	FUEL-BASE COST (Line 8-12)	-\$22,497.1		-\$22,404.3	
14	ACTUAL FOA LESS TAX	-\$20,966.5		-\$20,966.5	
15	Less: FOA reconciliation adj for prior year	\$18.9		\$18.9	
16	ADJUSTED FOA LESS TAX	<u>-\$20,985.4</u>		<u>-\$20,985.4</u>	
17	FOA-(FUEL-BASE) (Line 16-13)	\$1,511.7 over		\$1,418.9 over	
ADJUSTMENTS:					
18	Current year FOA accrual reversal	\$1,547.2		\$1,547.2	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	<u>\$0.0</u>		<u>\$0.0</u>	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	<u>\$3,058.9</u> over		<u>\$2,966.1</u> over	
22	First Quarter FOA reconciliation			2,320.9 over	
23	FOA Reconciliation to be Returned or Collected			645.2 over	

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

**Hawai'i Electric Light Company  
DEADBAND CALCULATION  
2016**

Jan 1 - Jun 2016  
YTD

	Notes	
<b><u>Industrial</u></b>		
Industrial Efficiency Factor (per D&O), BTU/kWh*	f	15,148
Industrial Deadband Definition, +/- BTU/kWh	d	100
Industrial Portion of Recorded Sales, kWh	a	124,511,090
Industrial Consumption (Recorded), MMBTU	b	1,782,351
Industrial Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	14,315
Lower limit of Industrial Deadband, BTU/kWh	e= f-d	15,048
Higher limit of Industrial Deadband, BTU/kWh	g=f+d	15,248
Industrial Efficiency Factor for cost-recovery, BTU/kWh	h=c, e, or g	<b>15,048</b>
<b><u>Diesel</u></b>		
Diesel Efficiency Factor (per D&O), BTU/kWh*	f	10,424
Diesel Deadband Definition, +/- BTU/kWh	d	<b>100</b>
Diesel Portion of Recorded Sales, MWh	a	141,386,843
Diesel Consumption (Recorded), MMBTU	b	1,515,561
Diesel Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	10,719
Lower limit of Diesel Deadband, BTU/kWh	e= f-d	10,324
Higher limit of Diesel Deadband, BTU/kWh	g=f+d	10,524
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h=c, e, or g	<b>10,524</b>
<b><u>Biodiesel</u></b>		
Biodiesel Efficiency Factor (per D&O), BTU/kWh*	f	0
Biodiesel Deadband Definition, +/- BTU/kWh	d	<b>100</b>
Biodiesel Portion of Recorded Sales, MWh	a	0
Biodiesel Consumption (Recorded), MMBTU	b	0
Biodiesel Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	0
Lower limit of Biodiesel Deadband, BTU/kWh	e= f-d	-100
Higher limit of Biodiesel Deadband, BTU/kWh	g=f+d	100
Biodiesel Efficiency Factor for cost-recovery, BTU/kWh	h=c, e, or g	<b>0</b>
<b><u>Hydro</u></b>		
Hydro Efficiency Factor (per D&O), BTU/kWh*	f	12,621
Hydro Deadband Definition, +/- BTU/kWh	d	<b>100</b>
Hydro Portion of Recorded Sales, MWh	a	6,974,214
Hydro Consumption (Recorded), MMBTU	b	88,005
Hydro Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	12,619
Lower limit of Hydro Deadband, BTU/kWh	e= f-d	12,521
Higher limit of Hydro Deadband, BTU/kWh	g=f+d	12,721
Hydro Efficiency Factor for cost-recovery, BTU/kWh	h=c, e, or g	<b>12,619</b>

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

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST**  
**WITHOUT and WITH DEADBAND**  
**2016**

	<b>Without Deadband</b>	<b>With Deadband</b>
	<u>Jan 1 - Jun 30</u>	<u>Jan 1 - Jun 30</u>
<b><u>INDUSTRIAL FUEL FILING COST</u></b>		
Industrial Portion of Recorded Sales , kWh	124,511,090	124,511,090
Industrial Efficiency Factor (mmbtu/kwh)	0.015148	0.015048
Mmbtu adjusted for Sales Efficiency Factor	1,886,094	1,873,643
\$/mmbtu	<u>\$5.1882</u>	<u>\$5.1882</u>
<b>TOTAL INDUSTRIAL \$000s TO BE RECOVERED</b>	<b>\$9,785.346</b>	<b>\$9,720.748</b>
<b><u>DIESEL FUEL FILING COST</u></b>		
Diesel Portion of Recorded Sales, kWh	141,386,843	141,386,843
Diesel Efficiency Factor (mmbtu/kwh)	0.010424	0.010524
Mmbtu adjusted for Sales Efficiency Factor	1,473,816	1,487,955
\$/mmbtu	<u>\$11.1362</u>	<u>\$11.1362</u>
<b>TOTAL DIESEL \$000s TO BE RECOVERED</b>	<b>\$16,412.654</b>	<b>\$16,570.105</b>
<b><u>HYDRO FUEL FILING COST</u></b>		
Hydro Portion of Recorded Sales , kWh	6,974,214	6,974,214
Hydro Efficiency Factor (mmbtu/kwh)	0.012621	0.012619
Mmbtu adjusted for Sales Efficiency Factor	88,022	88,008
\$/mmbtu	<u>\$0.0000</u>	<u>\$0.0000</u>
<b>TOTAL HYDRO \$000s TO BE RECOVERED</b>	<b>\$0.000</b>	<b>\$0.000</b>
<b>TOTAL GENERATION FUEL FILING COST, \$000s</b>	<b>\$26,198.0</b>	<b>\$26,290.9</b>
<b><u>CALCULATION OF GENERATION BASE FUEL COST</u></b>		
<b>TOTAL GENERATION BASE FUEL COST, \$000s</b>	<b>\$40,218.9</b>	<b>\$40,218.9</b>
<b>TOTAL GENERATION FUEL FILING COST, \$000s YTD</b>	<b>\$26,198.0</b>	<b>\$26,290.9</b>
<b>TOTAL GENERATION BASE FUEL COST YTD</b>	<b>\$40,218.9</b>	<b>\$40,218.9</b>

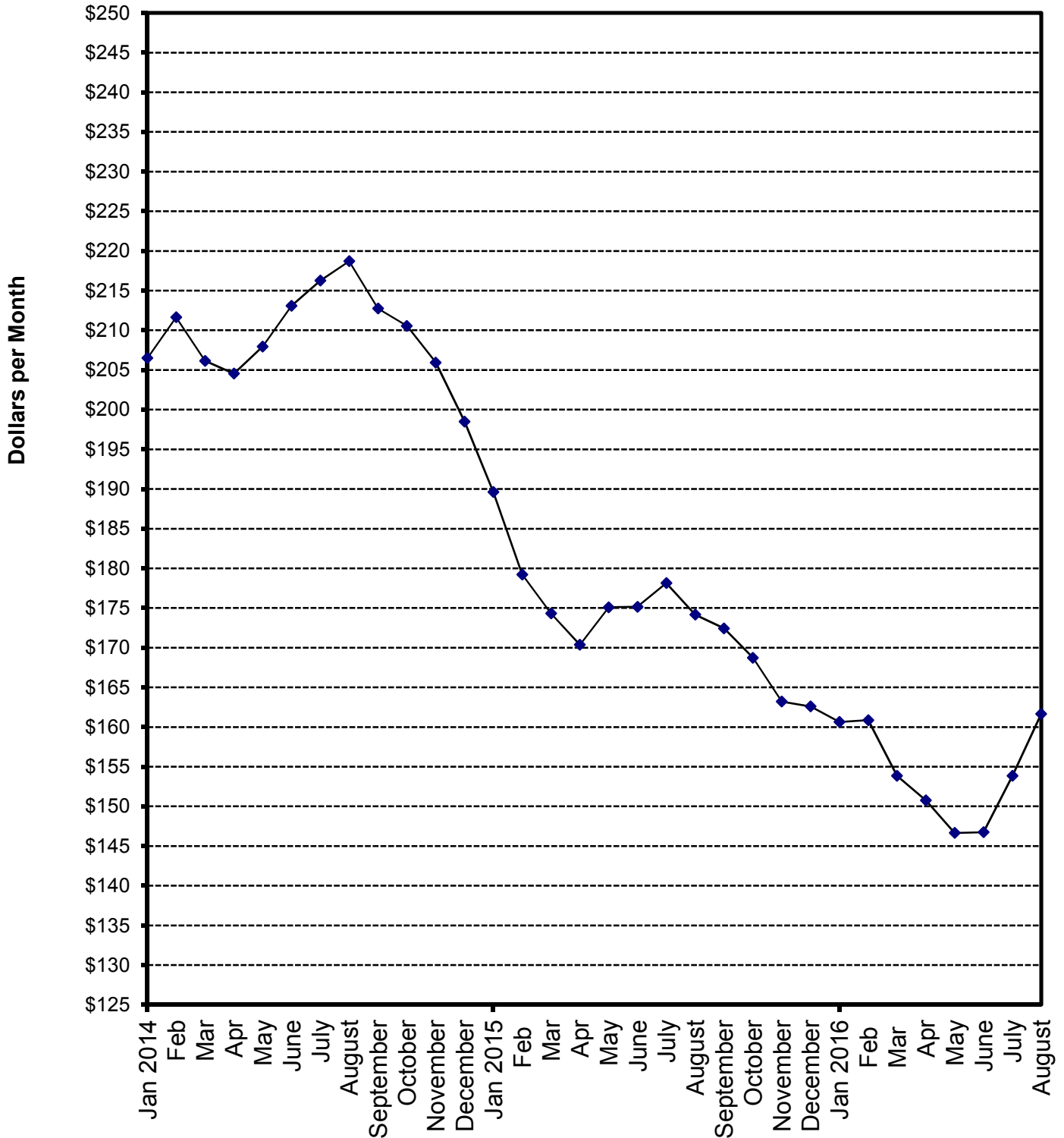
**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
2016 Cumulative Reconciliation Balance

Month	(1) YTD FOA Reconciliation	Qtr	(2) FOA Rec Adjust Variance	(3) FOA Rec Less Variance	(4) Try to Collect	(5) Actual Collect	(6) Month-end Cumulative Balance
November	791,200	[3]	44,375	746,825	(263,733)	(262,906)	565,708
December 15					(263,733)	(256,311)	309,397
January 16					(263,733)	(264,541)	44,856
February	(282,600)	[4]	10,260	(292,860)	94,200	95,382	(152,622)
March					94,200	96,004	(56,618)
April					94,200	97,345	40,727
May	2,320,900	[1]	2,178	2,318,722	(773,633)	(790,776)	1,568,673
June					(773,633)	(817,839)	750,834
July					(773,633)		
August	645,200	[2]	(58,204)	703,404	(215,067)		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 6)  
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))

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



**HAWAII ELECTRIC LIGHT COMPANY, INC.  
FUEL OIL ADJUSTMENT FACTOR DATA**

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH</u>		
	<u>RESIDENTIAL &amp; COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$) @ 500 KWH</u>	<u>RESIDENTIAL BILL (\$) @ 600 KWH</u>
January 1, 2012	9.690	214.24	256.34
January 3, 2012	10.759	219.59	262.75
February 1, 2012	9.220	211.89	253.52
March 1, 2012	10.165	216.62	259.19
April 1, 2012	10.031	215.03	257.28
April 9, 2012	8.553	210.84	252.91
May 1, 2012	8.749	213.77	256.42
June 1, 2012	9.747	218.76	262.41
July 1, 2012	9.320	215.64	258.68
August 1, 2012	7.991	209.09	250.82
September 1, 2012	8.636	212.31	254.69
October 1, 2012	8.294	210.60	252.63
November 1, 2012	6.967	203.82	244.49
December 1, 2012	6.629	202.13	242.46
January 1, 2013	6.897	204.02	244.72
February 1, 2013	7.250	205.19	246.14
March 1, 2013	7.659	207.24	248.59
April 1, 2013	8.128	208.10	249.63
May 1, 2013	7.378	205.53	246.54
June 1, 2013	7.159	207.61	249.02
July 1, 2013	6.537	204.73	245.57
August 1, 2013	6.470	206.02	247.13
September 1, 2013	7.377	210.60	252.62
October 1, 2013	8.458	216.00	259.11
November 1, 2013	7.878	211.84	254.11
December 1, 2013	7.910	212.03	254.35
January 1, 2014	6.796	206.51	247.73
February 1, 2014	7.754	211.65	253.89
March 1, 2014	6.650	206.15	247.28
April 1, 2014	6.679	204.55	245.36
May 1, 2014	7.005	207.96	249.46
June 1, 2014	7.247	213.09	255.62
July 1, 2014	7.697	216.27	259.42
August 1, 2014	8.086	218.71	262.36
September 1, 2014	6.885	212.75	255.20
October 1, 2014	6.447	210.55	252.56
November 1, 2014	5.634	205.93	247.03
December 1, 2014	4.143	198.49	237.84
January 1, 2015	2.369	189.62	227.20
February 1, 2015	0.485	179.22	214.71
March 1, 2015	-0.519	174.32	208.85
April 1, 2015	-0.990	170.37	204.10
May 1, 2015	-0.420	175.10	209.79
June 8, 2015	-0.579	175.16	209.85
July 1, 2015	0.264	178.14	213.38
August 1, 2015	-0.586	174.16	208.61
September 1, 2015	-0.927	172.43	206.54
October 1, 2015	-1.671	168.73	202.10
November 1, 2015	-2.727	163.20	195.47
December 1, 2015	-2.859	162.59	194.74
January 1, 2016	-3.223	160.63	192.41
February 1, 2016	-2.962	160.87	192.69
March 1, 2016	-4.311	154.26	184.76
April 1, 2016	-4.715	150.76	180.57
May 1, 2016	-5.554	146.66	175.64
June 1, 2016	-5.546	146.74	175.74
July 1, 2016	-4.248	153.85	184.31
August 1, 2016	-3.094	161.67	193.69

**HAWAII ELECTRIC LIGHT COMPANY, INC.  
RESIDENTIAL SURCHARGE DATA**

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
01/01/12 - 12/31/12	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.6766 CENTS/KWH
01/01/12 - 04/08/12	INTERIM RATE INCREASE 2010 TEST YEAR	1.74 PERCENT ON BASE
04/01/12 - 04/08/12	FIRM CAPACITY SURCHARGE	0.6427 PERCENT ON BASE
04/01/12 - 04/30/12	SOLARSAVER ADJUSTMENT	-0.3899 CENTS/KWH
<b>04/09/12</b>	<b>FINAL RATE INCREASE (1.28%), DOCKET NO. 2009-0164 (2010 TEST YEAR)</b>	
04/09/12 - 7/31/2012	PURCHASED POWER ADJUSTMENT CLAUSE	2.4355 CENTS/KWH
05/01/12-3/31/13	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/18/12 - 5/31/2013	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	-0.1952 CENTS/KWH
8/1/2012 - 10/31/2012	PURCHASED POWER ADJUSTMENT CLAUSE	2.4540 CENTS/KWH
11/1/2012-1/31/13	PURCHASED POWER ADJUSTMENT CLAUSE	2.4237 CENTS/KWH
01/01/13-6/30/13	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.7850 CENTS/KWH
02/01/13-4/30/13	PURCHASED POWER ADJUSTMENT CLAUSE	2.3063 CENTS/KWH
04/01/13 - 04/30/13	SOLARSAVER ADJUSTMENT	-0.2964 CENTS/KWH
05/01/13 - 03/31/14	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
05/01/13 - 07/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.2452 CENTS/KWH
6/1/2013-5/31/14	RBA RATE ADJUSTMENT	0.4383 CENTS/KWH
7/1/2013-6/30/14	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.8312 CENTS/KWH
8/1/2013-8/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.5712 CENTS/KWH
9/1/2013-9/30/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.5832 CENTS/KWH
10/1/2013-10/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.5802 CENTS/KWH
11/1/2013-11/30/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.3272 CENTS/KWH
12/1/2013-12/31/2013	PURCHASED POWER ADJUSTMENT CLAUSE	2.3347 CENTS/KWH
1/1/2014-1/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.3444 CENTS/KWH
2/1/2014-2/28/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4149 CENTS/KWH
3/1/2014-3/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4170 CENTS/KWH
4/1/2014-4/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4162 CENTS/KWH
4/1/2014-4/30/2014	SOLARSAVER ADJUSTMENT	-0.3486 CENTS/KWH
5/1/2014-5/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4248 CENTS/KWH
5/1/2014-5/31/2014	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
6/1/2014-6/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4244 CENTS/KWH
6/1/2014-5/31/15	RBA RATE ADJUSTMENT	1.2225 CENTS/KWH
7/1/2014-7/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4252 CENTS/KWH
7/1/2014-11/30/14	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	1.0157 CENTS/KWH
8/1/2014-8/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.5250 CENTS/KWH
9/1/2014-9/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.5341 CENTS/KWH
10/1/2014-10/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.5314 CENTS/KWH
11/1/2014-11/30/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4226 CENTS/KWH
12/1/2014-12/31/2014	PURCHASED POWER ADJUSTMENT CLAUSE	2.4235 CENTS/KWH
12/1/2014-6/30/15	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.7583 CENTS/KWH
12/1/2014-6/30/15	GREEN INFRASTRUCTURE FEE	1.2900 DOLLARS/MONTH
1/1/2015-1/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.4245 CENTS/KWH
2/1/2015-2/28/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.2273 CENTS/KWH
3/1/2015-3/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.2539 CENTS/KWH
4/1/2015-4/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.2424 CENTS/KWH
4/1/2015-4/30/2015	SOLARSAVER ADJUSTMENT	-0.3084 CENTS/KWH
5/1/2015-5/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3109 CENTS/KWH
5/1/2015-4/30/16	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
6/1/2015-6/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3064 CENTS/KWH
6/1/2015-6/7/2015	RBA RATE ADJUSTMENT	0.0000 CENTS/KWH
6/8/2015-05/31/16	RBA RATE ADJUSTMENT	1.3971 CENTS/KWH
7/1/2015-7/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3157 CENTS/KWH
7/1/2015-06/30/16	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.4749 CENTS/KWH
7/1/2015-12/31/2015	GREEN INFRASTRUCTURE FEE	1.4200 DOLLARS/MONTH
8/1/2015-8/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3703 CENTS/KWH
9/1/2015-9/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3651 CENTS/KWH
10/1/2015-10/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3699 CENTS/KWH
11/1/2015-11/30/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3204 CENTS/KWH
12/1/2015-12/31/2015	PURCHASED POWER ADJUSTMENT CLAUSE	2.3299 CENTS/KWH
1/1/2016-1/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	2.3260 CENTS/KWH
1/1/2016-06/30/16	GREEN INFRASTRUCTURE FEE	1.3000 DOLLARS/MONTH
2/1/2016 - 2/29/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.1114 CENTS/KWH
3/1/2016 - 3/31/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.1401 CENTS/KWH
4/1/2016 - 4/30/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.1228 CENTS/KWH
4/1/2016 - 4/30/16	SOLARSAVER ADJUSTMENT	-0.2779 CENTS/KWH
5/1/2016 - 5/31/16	PURCHASED POWER ADJUSTMENT CLAUSE	1.8623 CENTS/KWH
<b>5/1/2016</b>	<b>SOLARSAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
6/1/2016 - 6/30/16	PURCHASED POWER ADJUSTMENT CLAUSE	1.8442 CENTS/KWH
<b>6/1/2016</b>	<b>RBA RATE ADJUSTMENT</b>	<b>1.4241 CENTS/KWH</b>
7/1/2016-7/31/16	PURCHASED POWER ADJUSTMENT CLAUSE	1.8909 CENTS/KWH
<b>7/1/2016</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.1300 DOLLARS/MONTH</b>
<b>7/1/2016</b>	<b>RESIDENTIAL PBF SURCHARGE ADJUSTMENT</b>	<b>0.5865 CENTS/KWH</b>
<b>8/1/2016-8/31/16</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>2.3000 CENTS/KWH</b>

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



**Hawaii Electric Light Company, Inc.**  
**Calculations of the Average Residential Customer Bill**

	Rate		Charge (\$) at 500 Kwh		
	7/01/16	8/01/16	7/01/16	8/01/16	Difference
<b>Base Rates</b>					
effective date:	4/9/2012	4/9/2012			
Base Fuel Energy Charge	¢/kwh 16.2487	16.2487	\$81.24	\$81.24	\$0.00
Non-fuel Fuel Energy Charge	¢/kwh		\$62.72	\$62.72	\$0.00
First 300 kWh per month	¢/kwh 11.2019	11.2019	\$33.61	\$33.61	\$0.00
Next 700 kWh per month	¢/kwh 14.5537	14.5537	\$29.11	\$29.11	\$0.00
Customer Charge	\$ 10.50	10.50	\$10.50	\$10.50	\$0.00
<b>Total Base Charges</b>			\$154.46	\$154.46	\$0.00
<b>RBA Rate Adjustment</b>	¢/kwh 1.4241	1.4241	\$7.12	\$7.12	\$0.00
<b>Purchased Power Adj. Clause</b>	¢/kwh 1.8909	2.3000	\$9.45	\$11.50	\$2.05
<b>PBF Surcharge</b>	¢/kwh 0.5865	0.5865	\$2.93	\$2.93	\$0.00
<b>DSM Adjustment</b>	¢/kwh 0.0000	0.0000	\$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 (4.2480)	(3.0940)	-\$21.24	-\$15.47	\$5.77
<b>Green Infrastructure Fee</b>	\$ 1.1300	1.1300	\$1.13	\$1.13	\$0.00
<b>Avg Residential Bill at 500 kwh</b>			\$153.85	\$161.67	
			Increase (Decrease -)		\$7.82
			% Change		5.08%

	Rate		Charge (\$) at 600 Kwh		
	7/01/16	8/01/16	7/01/16	8/01/16	Difference
<b>Base Rates</b>					
effective date:	4/9/2012	4/9/2012			
Base Fuel/Energy Charge	¢/kwh 16.2487	16.2487	\$97.49	\$97.49	\$0.00
Non-fuel Fuel Energy Charge	¢/kwh		\$77.27	\$77.27	\$0.00
First 300 kWh per month	¢/kwh 11.2019	11.2019	\$33.61	\$33.61	\$0.00
Next 700 kWh per month	¢/kwh 14.5537	14.5537	\$43.66	\$43.66	\$0.00
Customer Charge	\$ 10.50	10.50	\$10.50	\$10.50	\$0.00
<b>Total Base Charges</b>			\$185.26	\$185.26	\$0.00
<b>RBA Rate Adjustment</b>	¢/kwh 1.4241	1.4241	\$8.54	\$8.54	\$0.00
<b>Purchased Power Adj. Clause</b>	¢/kwh 1.8909	2.3000	\$11.35	\$13.80	\$2.45
<b>PBF Surcharge</b>	¢/kwh 0.5865	0.5865	\$3.52	\$3.52	\$0.00
<b>DSM Adjustment</b>	¢/kwh 0.0000	0.0000	\$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 (4.2480)	(3.0940)	-\$25.49	-\$18.56	\$6.93
<b>Green Infrastructure Fee</b>	\$ 1.1300	1.1300	\$1.13	\$1.13	\$0.00
<b>Avg Residential Bill at 600 kwh</b>			\$184.31	\$193.69	
			Increase (Decrease -)		\$9.38
			% Change		5.09%