



FILED

JAY IGNACIO, P. E.  
President

November 28, 2016

2016 NOV 28 P 3: 54

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

Hawai'i Electric Light Company, Inc.'s ("Hawai'i Electric Light") energy cost adjustment factor for December 2016 is -2.584 cents per kilowatt-hour ("kWh"), an increase of 0.930 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$164.41, an increase of \$4.69 compared to the rates effective November 1, 2016. The increase in the typical residential bill is due to the increase in the energy cost adjustment factor (+\$4.65) and the increase in the Purchased Power Adjustment Clause rate (+\$0.04).

Hawai'i Electric Light's fuel composite cost of generation increased 97.69 cents per million BTU to 1,049.80 cents per million BTU. The composite cost of distributed generation decreased 0.710 cents per kWh to 11.847 cents per kWh. The composite cost of purchased energy increased 0.461 cents per kWh to 11.901 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 December 1, 2016.

Sincerely,

Attachments

cc: Division of Consumer Advocacy

## HAWAII ELECTRIC LIGHT COMPANY, INC.

ENERGY COST ADJUSTMENT FACTOR

	<u>EFFECTIVE DATES</u>		
	<u>11/01/16</u>	<u>12/01/16</u>	<u>Change</u>
<u>Composite Cost</u>			
Generation, ¢/mmbtu	952.11	1,049.80	97.69
Dispersed Generation Energy, ¢/kWh	12.557	11.847	(0.710)
Purchased Energy, ¢/kWh	11.440	11.901	0.461
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment - ¢/kWh	(3.514)	(2.584)	0.930
<u>Others - "G,J,P,F"</u>			
Energy Cost Adjustment - ¢/kWh	(3.514)	(2.584)	0.930
Residential Customer with:			
500 KWH Consumption - \$/Bill	\$159.72	\$164.41	\$4.69
600 KWH Consumption - \$/Bill	\$191.35	\$196.97	\$5.62

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

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

<u>Line</u>		
1	Effective Date	December 1, 2016
2	Supercedes Factors of	November 1, 2016

**GENERATION COMPONENT**

<b><u>CENTRAL STATION WITH WIND/HYDRO COMPONENT</u></b>						
FUEL PRICES, ¢/mmbtu						
3						
4	Hill Industrial		819.52			
5	Puna Industrial		828.57			
6	Keahole Diesel		1,330.90			
6a	Keahole ULSD		1,261.45			
7	Waimea ULSD Diesel		1,256.86			
8	Hilo Diesel		1,284.36			
8a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>		1,232.73			
9	Puna Diesel		1,296.51			
10	Wind		0.00			
11	Hydro		0.00			
BTU MIX, %						
12						
13	Hill Industrial		42.702			
14	Puna Industrial		0.000			
15	Keahole Diesel		49.707			
15a	Keahole ULSD		0.239			
16	Waimea ULSD Diesel		0.144			
17	Hilo Diesel		0.048			
17a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>		0.072			
18	Puna Diesel		2.466			
19	Wind		0.000			
20	Hydro		4.622			
			100.000			
21	COMPOSITE COST OF GENERATION, CENTRAL STATION + WIND/HYDRO ¢/mmb		1,049.80			
22	% Input to System kWh Mix		42.638			
EFFICIENCY FACTOR, mmbtu/kWh						
	(A)	(B)	(C)	(D)		
			Percent of			
	Fuel Type	Eff Factor	Centrl Stn +	Weighted		
		mmbtu/kwh	Wind/Hydro	Eff Factor		
23	Industrial	0.015148	35.999	0.005453		
24	Diesel	0.010424	59.379	0.006190		
25	Other	0.012621	4.622	0.000583		
	(Lines 23, 24, 25): Col(B) x Col(C) = Col(D)					
26	Weighted Efficiency Factor, mmbtu/kWh [Lines 23(D) + 24(D) + 25(D)]			0.0122260		
27	WEIGHTED COMPOSITE CENTRAL STATION + WIND/HYDRO GENERATION COST, ¢/kWh (Lines (21 x 22 x 26))			5.47253		
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)			(1.64542)		
33	Revenue Tax Req Multiplier			1.0975		
34	CENTRAL STATION + WIND/HYDRO GENERATION FACTOR, ¢/kWh (Line (32 x 33))			(1.80585)		
				<b><u>DG ENERGY COMPONENT</u></b>		
				35	COMPOSITE COST OF DG ENERGY, ¢/kWh	11.847
				36	% Input to System kWh Mix	0.092
				37	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 35 x 36)	0.01090
				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)	0.00148
				42	Loss Factor	1.067
				43	Revenue Tax Req Multiplier	1.0975
				44	DG FACTOR, ¢/kWh (Line 41 x 42 x 43)	0.00173
				<b>SUMMARY OF</b>		
				TOTAL GENERATION FACTOR, ¢/kWh		
				45	Cntrl Stn+Wind/Hydro (line 34)	(1.80585)
				46	DG (line 44)	0.00173
				47	TOTAL GENERATION FACTOR, ¢/kWh (lines 45 + 46)	(1.80412)

<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 - December 1, 2016 (Page 2 of 2)

Line	<b>PURCHASED ENERGY COMPONENT</b>		
	PURCHASED ENERGY PRICE, ¢/kWh		
48	HEP		12.783
49	PGV	On Peak	9.858
50	PGV	Off Peak	11.185
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	6.340
54	PGV - Add'l 8 MW	Off Peak	6.340
55	Wailuku Hydro	On Peak	9.858
56	Wailuku Hydro	Off Peak	11.185
57	Hawi Renewable Dev.	On Peak	9.858
58	Hawi Renewable Dev.	Off Peak	11.185
59	Tawhiri (Pakini Nui)	On Peak	14.790
60	Tawhiri (Pakini Nui)	Off Peak	12.920
61			
62	Small Hydro (>100 KW)	On Peak	9.858
63	Small Hydro (>100 KW)	Off Peak	11.185
64	Sch Q Hydro (<100 KW)		10.120
65	FIT		23.800
	PURCHASED ENERGY KWH MIX, %		
66	HEP		32.473
67	PGV	On Peak	20.616
68	PGV	Off Peak	12.749
69	PGV - Addt'l	On Peak	2.969
70	PGV - Addt'l	Off Peak	2.945
71	PGV - Add'l 8 MW	On Peak	0.950
72	PGV - Add'l 8 MW	Off Peak	3.422
73	Wailuku Hydro	On Peak	0.943
74	Wailuku Hydro	Off Peak	0.501
75	Hawi Renewable Dev.	On Peak	3.087
76	Hawi Renewable Dev.	Off Peak	1.579
77	Tawhiri (Pakini Nui)	On Peak	9.829
78	Tawhiri (Pakini Nui)	Off Peak	6.181
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)		0.175
83	FIT		1.581
			100.000
84	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh		11.901
85	% Input to System kWh Mix		57.270
86	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (Lines (84 x 85))		6.81570
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))		(0.37944)
91	Loss Factor		1.067
92	Revenue Tax R		1.0975
93	PURCHASED ENERGY FACTOR, ¢/kWh (Lines (90 x 91 x 92))		(0.44434)

Line	SYSTEM COMPOSITE	
94	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (Lines (47 + 93))	(2.24846)
95	Not Used	0.000
96	Not Used	0.000
97	ECA Reconciliation Adjustment	(0.336)
98	ECA FACTOR, ¢/kWh (Lines (94 + 95+ 96 + 97))	(2.584)

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

**INDUSTRIAL FUEL COSTS:**

	<u>HILO</u>	<u>PUNA</u>
Average Industrial Fuel Cost - \$/BBL	51.6300	51.6300
Land Transportation Cost - \$/BBL	--	0.5698
Industrial Costs For Filing - \$/BBL	51.6300	52.1999
Conversion Factors - mmbtu/BBL	6.30	6.30
Industrial Costs For Filing - ¢/mmbtu	819.52	828.57

**DIESEL FUEL COSTS:**

	KEAHOLE	PUNA CT-3	HILO
Average Diesel Fuel Cost - \$/BBL	74.6196	74.6196	74.6196
Land Transportation Cost - \$/BBL	3.3710	1.3559	0.6437
Diesel Costs For Filing - \$/BBL	77.9906	75.9755	75.2633
Conversion Factors - mmbtu/BBL	5.86	5.86	5.86
Diesel Costs For Filing - ¢/mmbtu	1,330.90	1,296.51	1,284.36

**ULSD FUEL COSTS:**

	KEAHOLE	WAIMEA	HILO	DISPERSED GENERATION
Average ULSD Fuel Cost - \$/BBL	69.6889	69.6889	69.6889	69.6889
Land Transportation Cost - \$/BBL	2.5923	2.3293	0.9463	-
ULSD Costs For Filing - \$/BBL	72.2812	72.0182	70.6352	69.6889
Conversion Factors - mmbtu/BBL	5.73	5.73	5.73	5.73
ULSD Costs For Filing - ¢/mmbtu	1,261.45	1,256.86	1,232.73	1,216.21

**Dispersed Generation, cents per kWh**

	COMPOSITE COST OF DISP. GEN.
BBIs Fuel:	144.5026
\$/BBI Inv Cost:	69.6889
Fuel \$ (Prod Sim Consumption x Unit Cost)	10,070.23
Net kWh (from Prod Sim)	85,000
cents/kWh:	11.847

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

	SHIPMAN INDUSTRIAL		HILL INDUSTRIAL		COST PER BARREL		
	BBL	COST	BBL	COST	EXCL LT	LT Total	
Balance at 10/31/2016	0	0.00	38,244	1,641,448.11			
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	(32,975)	(1,425,792.62)			
Actual	0	0.00	33,641	1,475,852.94			
Consumed: Estimate	0	0.00	36,586	1,541,203.54			
Actual	0	0.00	(36,428)	(1,534,547.71)			
Balance Per G/L 10/31/2016	0	0.00	39,068	1,698,164.26			
Purchases	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer out	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer in	0	0.00	37,084	1,892,774.95			
Consumed	0	0.00	(35,113)	(1,529,768.07)	106.5901	0.0000	106.5901
Balance @ 11/30/2016	0	0.00	41,039	2,061,171.14			
Inv From Offsite/Transfers	0	0.00	0	0.00			
Est'd Inventory Addition	0	0.00	0	0.00			
Fuel Balance @ 11/30/2016	0	0.00	41,039	2,061,171.14			
Reverse Fuel Balance	xxxxxx	0.00	xxxxxx	(2,061,171.14)			
Fuel Bal @ Avg Price	xxxxxx	0.00	xxxxxx	2,118,845.50			
Total @ 9/30/2013 Avg Price	0	0.00	41,039	2,118,845.50			

Weighted Avg Cost/BBL by Location #DIV/0! 50.2247

Weighted Avg Cost/BBL @ Avg Cost #DIV/0! 51.6300

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

PUNA INDUSTRIAL

	BBL	COST	LAND TRANSP	COST PER BARREL		TOTAL
				EXCLUDE LT	LT	
Balance at 10/31/2016	8,432	378,426.29	6,664.82			
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	(2,240)	(104,036.21)	(2,678.46)			
Actual	2,236	105,747.20	2,814.77			
Consumed: Estimate	2,305	97,099.28	2,147.34			
Actual	(1,894)	(79,785.70)	(4,005.94)			
Balance Per G/L 10/31/2016	8,839	397,450.86	4,942.53			
Purchases	xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfer out	xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfer in	1,067	61,688	1,275.85			
Consumed	(2,601)	(113,317.77)	(2,055.83)	43.5670	0.7904	44.3574
Balance @ 11/30/2016	7,305	345,821.45	4,162.55			
Inventory From Offsite/Transfers	0	0.00	0.00			
Est'd Inventory Addition	0	0.00	0.00			
Fuel Bal @ Avg Price	7,305	345,821.45	4,162.55		0.5698	
Reverse Fuel Balance	xxxxxxxxxxxx	(345,821.45)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxx	377,157.49	xxxxxxxxxxxx			
Total @ 12/01/2016 Avg Price	7,305	377,157.49	4,162.55			

Weighted Avg Cost/BBL by Location

47.3404

0.5698

Weighted Avg Cost/BBL @ Avg Cost

51.6300

0.5698

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

KEAHOLE CT

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL EXCLUD LT	LT	TOTAL
Balance at 10/31/2016	49,405.9	2,075,046.0	3,332,469.2	138,849.1			
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	(39,444.5)	(1,656,667.0)	(2,583,736.4)	(105,427.1)			
Actual	39,858.0	1,674,037.0	2,616,607.5	104,728.58			
Consumed: Estimate	41,466.0	1,741,570.0	2,798,586.9	117,978.93			
Actual	(38,809.7)	(1,630,009.0)	(2,619,315.8)	(76,891.7)	67.4912		
Balance Per G/L 10/31/2016	52,475.6	2,203,977	3,544,611.42	179,237.75	67.5477		
Purchases	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Transfer out	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx			
Transfer in	38,211.5	1,604,884.0	2,842,291.0	102,131.8	74.3831		
Consumed	(43,415.2)	(1,823,439.0)	(2,988,673.0)	(122,014.12)	68.8393	2.8104	71.6497
Balance @ 11/30/2016	47,272.0	1,985,422	3,398,229.43	159,355.39	71.8868		
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	47,272.0	1,985,422	3,398,229.43	159,355.39	71.8868		
Reverse Fuel Balance	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	(3,398,229.4)	xxxxxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx	3,527,414.4	xxxxxxxxxxxxxxx			
Total @ 12/01/2016 Avg Price	47,272.0	1,985,422	3,527,414.43	159,355.39	74.6196		

Weighted Avg Cost/BBL by Location 71.8868 3.3710

Weighted Avg Cost/BBL @ Avg Cost 74.6196 3.3710



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

PUNA CT-3

HS Diesel	BBL	GALLONS	COST EXCLUD LT	LAND TRANSP	COST PER EXCL LT	BARREL LT	TOTAL
Balance at 10/31/2016	3,646.9	153,171.0	295,577.1	5,020.2			
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	(85.4)	(3,586.0)	(4,574.2)	(89.0)			
Actual	35.2	1,479.0	13,338.5	196.7			
Consumed: Estimate	371.2	15,591.0	25,053.7	461.8			
Actual	(600.7)	(25,231.0)	(40,544.5)	(709.7)			
Balance Per G/L 10/31/2016	3,367.2	141,424	288,850.53	4,880.01			
Purchases		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfer out		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfer in	945.0	39,689.0	71,375.6	984.9	75.5316		
Consumed	(864.6)	(36,313)	(59,518.13)	(1,190.20)	68.8393	1.3766	70.2159
Balance @ 11/30/2016	3,447.6	144,800	300,707.95	4,674.76	87.2219		
Inven From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Balance @ 11/30/2016	3,447.6	144,800	300,707.95	4,674.76	87.2219		
Reverse Fuel Balance		xxxxxxxxxxxx	(300,707.95)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price		xxxxxxxxxxxx	257,259.97	xxxxxxxxxxxx			
Total @ 12/01/2016 Avg Price	3,447.6	144,800	257,259.97	4,674.76	74.6196		

Weighted Avg Cost/BBL by Location 87.2219 1.3559

Weighted Avg Cost/BBL @ Avg Cost 74.6196 1.3559

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

TOTAL HILO HS-DIESEL

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER EXCL LT	BARREL LT	TOTAL
Balance at 10/31/2016	1675.3	70,364	118,080	1,092			
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	-205.9	-8648.0	-13194.0	-15.0			
Actual	205.9	8648.0	13314.9	0.0			
Consumed: Estimate	62.4	2620.0	4210.2	45.2			
Actual	-43.7	-1835.0	-2948.7	-31.7			
Balance Per G/L 10/31/2016	1694.0	71,149	119,462.13	1,090.98	70.5197		
Purchases		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer out		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer in	-0.9	-38.0	0.0	-0.8	0.0000		
Consumed	-25.4	-1066.0	-1747.2	-16.6	68.8393	0.6521	69.4914
Balance @ 11/30/2016	1,667.7	70,045	117,714.92	1,073.60	70.5836		
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	1,667.7	70,045	117,714.92	1,073.60	70.5836		
Reverse Fuel Balance		XXXXXXXXXXXX	XXXXXXXXXXXX -117,714.92	XXXXXXXXXXXX			
Fuel Balance @ Avg Price		XXXXXXXXXXXX	XXXXXXXXXXXX 124,445.96	XXXXXXXXXXXX			
Total @ 12/01/2016 Avg Price	1,667.7	70,045	124,445.96	1,073.60	74.6196		

Weighted Avg Cost/BBL by Location

70.5836 0.6437

Weighted Avg Cost/BBL @ Avg Cost

74.6196 0.6437

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

KEAHOLE DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL EXCLUD LT	LT	TOTAL
Balance at 10/31/2016	1,910.7	80,251	130,135.17	4,937.45			
Less: Est'd Inventory Addition	0.0						
Purchases: Estimate	(188.6)	(7,921)	(13,170.26)	(504.08)			
Actua	188.6	7,921	13,170.26	0.00			
Transfers out: Estimate		xxxxxxxxxxxx	xxxxxxxxxxxxxxxx	xxxxxxxxxxxx			
Actua		xxxxxxxxxxxx	xxxxxxxxxxxxxxxx	xxxxxxxxxxxx			
Transfers in: Estimate		86	0.00	5.47			
Actua		1	0.00	504.08			
Consumed: Estimate	350.0	14,699	24,214.64	901.15			
Actua	(288.5)	(12,117)	(19,961.14)	(742.86)	69.1894		
Balance Per G/L 10/31/2016	1,974.3	82,920	134,388.67	5,101.21	68.0695		
Purchases	188.8	7,931	13,165.46	504.71	0.0000		
Estimated Purchases	0.0	0	0.00	0.00			
Transfer in	0.5	19	0.00	1.21	0.00		
Consumed	(178.7)	(7,504)	(12,420.64)	(461.69)	69.5185	2.5841	72.1026
Balance @ 11/30/2016	1,984.9	83,366	135,133.49	5,145.44	68.0806		
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	1,984.9	83,366	135,133.49	5,145.44	68.0806		
Reverse Fuel Balance	xxxxxxxxxxxx	xxxxxxxxxxxx	(135,133.49)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxx	xxxxxxxxxxxx	138,325.84	xxxxxxxxxxxx			
Total @ 12/01/2016 Avg Price	1,984.9	83,366	138,325.84	5,145.44	69.6889		

Weighted Avg Cost/BBL by Location

68.0806 2.5923

Weighted Avg Cost/BBL @ Avg Cost

69.6889 2.5923

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

WAIMEA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL	LT	TOTAL
Balance at 10/31/2016	1,423.2	59,773.0	98,007.8	3,337.27			
Less: Est'd Inven Addition	0.0	0.0	0.00	0.00			
Purchases: Estimate		(15,907)	(26,448.58)	(843.33)			
Actual		15,845.0	26,345.5	0.00			
Transfers out: Estimate		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Actual		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfers in: Estimate	(0.1)	(4)	0.00	0.00			
Actual	(1.5)	(62)	0.00	840.05			
Consumed: Estimate	295.0	12,389	20,409.23	699.03			
Actual	(266.0)	(11,170)	(18,401.09)	(630.25)			
Balance Per G/L 10/31/2016	1,449.1	60,864	99,912.88	3,402.77	68.9462		
ULSD Purchases	188.8	7,930	13,163.80	420.42	69.7200		
Estimated Purchases	-	0	0.00	0.00			
Transfer in	xxxxxxxxxxxx	87	0.00	0.00	#DIV/0!		
Consumed	(200.1)	(8,404)	(13,910.32)	(469.22)	69.5185	2.3450	71.8635
Balance @ 11/30/2016	1,439.9	60,477	99,166.36	3,353.97	68.8689		
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	1,439.9	60,477	99,166.36	3,353.97	68.8689		
Reverse Fuel Balance	xxxxxxxxxxxx	xxxxxxxxxxxx	(99,166.36)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxx	xxxxxxxxxxxx	100,347.05	xxxxxxxxxxxx			
Total @ 12/01/2016 Avg Price	1,439.9	60,477	100,347.05	3,353.97	69.6889		

Weighted Avg Cost/BBL by Location

68.8689 2.3293

Weighted Avg Cost/BBL @ Avg Cost

69.6889 2.3293

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

KANOELEHUA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP		
Balance at 10/31/2016	1,446.8	60,765.0	103,104.1	1,166.0		
Less: Est'd Inventory Addition	0.0	0	0.00	0.00		
Purchases: Estimate	(188.0)	(7,894)	(13,125.35)	(172.90)		
Actual	188.0	7,894	13,125.35	0.00		
Transfers out: Estimate			x	x	x	
Actual			x	x	x	
Transfers in: Estimate		737	0.00	16.14		
Actual		(1,080)	0.00	346.21		
Consumed: Estimate	46.4	1,947	3,207.42	61.75		
Actual	(35.4)	(1,485)	(2,446.34)	(28.03)		
Balance Per G/L 10/31/2016	1,449.6	60,884	103,865.17	1,389.18		
ULSD Purchases	0	0	0.00	0.00	#DIV/0!	
Estimated Purchases	0	-	-	-		
Transfer in	(6)	(266)	0.00	(5.83)		
Consumed	(20.7)	(870)	(1,440.03)	(37.15)	69.5185	0.8059
Balance @ 11/30/2016	1,422.6	59,748	102,425.14	1,346.21		
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	1,422.6	59,748	102,425.14	1,346.21		
Reverse Fuel Balance	x	x	(102,425.14)	x		
Fuel Balance @ Avg Price	x	x	99,137.45	x		
Total @ 12/01/2016 Avg Price	1,422.6	59,748	99,137.45	1,346.21		

Weighted Avg Cost/BBL by Location 72.0000 0.9463

Weighted Avg Cost/BBL @ Avg Cost 69.6889 0.9463

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

DISPERSED GENERATION

	BBL	GALLONS	COST	COST/BBL
Balance at 10/31/2016	75.5	3,172	6,349.81	
Less: Est'd Inven Addition	0.0	XXXXXXXXXX	XXXXXXXXXX	
Purchases: Estimate	0.0	0	0.00	
Actual	0.0	0	0.00	
Consumed: Estimate	12.7	532	876.40	
Actual	(8.9)	(374)	(616.12)	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Balance Per G/L 10/31/2016	79.29	3,330	6,610.09	83.3705
Purchases	0.0	0	0.00	0.0000
Transfer out	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Transfer in	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Consumed	(3.4)	(144)	(238.35)	69.5185
Balance @ 11/30/2016	75.9	3,186	6,371.74	83.9966
Est'd Inventory Addition	0.0	0	0.00	
Fuel Balance @ 11/30/2016	75.9	3,186	6,371.74	
Reverse Fuel Balance	XXXXXXXXXX	XXXXXXXXXX	(6,371.74)	xxxx
Fuel Balance @ Avg Price	XXXXXXXXXX	XXXXXXXXXX	5,286.40	xxxx
Total @ 12/01/2016 Avg Price	75.9	3,186	5,286.40	69.6889

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

TYPE OF OIL BURNED

<b>INDUSTRIAL *</b>	<u>Hill Industrial</u>		<u>Puna Industrial</u>	
	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax <sup>1</sup>	49.80	3.1372	49.80	3.1372
Ocean Transportation	52.67	3.3180	52.67	3.3180
Storage	17.03	1.0729	17.03	1.0729
Wharfage	3.97	0.2500	3.97	0.2500

<b>DIESEL *</b>	<u>Hilo Diesel</u>		<u>Waimea Diesel</u>	
	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax <sup>1</sup>	77.54	4.5432	77.54	4.5432
Ocean Transportation	56.62	3.3180	56.62	3.3180
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>	77.54	4.5432	77.54	4.5432
Ocean Transportation	56.62	3.3180	56.62	3.3180
Storage	18.31	1.0729	18.31	1.0729
Wharfage	4.27	0.2500	4.27	0.2500

<b>ULSD **</b>	<u>ULSD</u>	
	<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 December 1, 2016

		December 1, 2016 <u>(¢/kWh)</u>	Floor Rates <u>(¢/kWh)</u>
PGV (25 MW)	- on peak	9.858	6.560
PGV (22 MW)	- off peak	11.185	5.430
WAILUKU HYDRO	- on peak	9.858	7.240
	.	11.185	5.970
Other: (<100 KW)	Sch Q Rate	10.120	

		December 1, 2016 <u>(¢/kWh)</u>	Floor Rates <u>(¢/kWh)</u>
HEP		12.783	
PGV Addtl 5 MW	- on peak	12.4800	0.0000
	- off peak	12.4800	0.0000
PGV Addtl 8 MW	- on peak	6.3400	0.0000
	- off peak	6.3400	0.0000



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

<u>Line No.</u>	<u>Description</u>	<u>Amount</u>
1	Amount to be returned or collected	(\$785,400)
2	Monthly Amount ( $\frac{1}{3}$ x Line 1)	(\$261,800)
3	Revenue Tax Divisor	0.91115
4	Total (Line 2 / Line 3)	(\$287,329)
5	Estimated MWh Sales (December 1, 2016)	85,409 mwh
6	Adjustment (Line 4 / Line 5)	(0.336) ¢/kwh

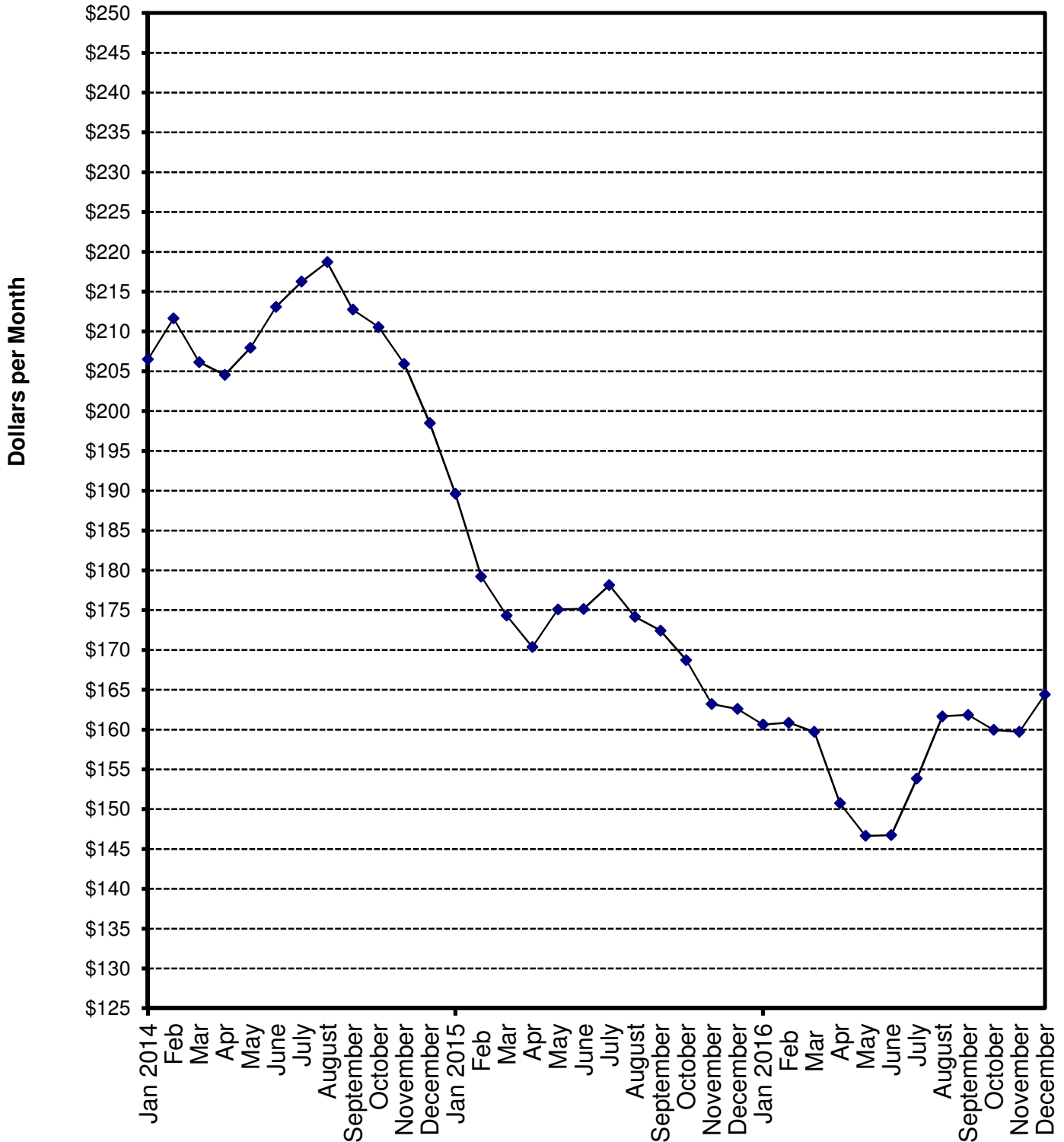
**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
2016 Cumulative Reconciliation Balance

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)	(821,946)	(71,112)
August	645,200	[2]	(58,204)	703,404	(215,067)	(232,600)	399,692
September					(215,067)	(231,769)	167,923
October					(215,067)	(232,984)	(65,061)
November	785,400	[3]	(82,548)	867,948	(261,800)		
December					(261,800)		

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>@ 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
September 1, 2016	-3.040	161.85	193.90
October 1, 2016	-3.427	159.97	191.65
November 1, 2016	-3.514	159.72	191.35
December 1, 2016	-2.584	164.41	196.97

**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>
8/1/2016-8/31/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.3000 CENTS/KWH
9/1/2016-9/30/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.2824 CENTS/KWH
10/1/2016-10/31/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.2930 CENTS/KWH
11/1/2016-11/30/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.3298 CENTS/KWH
<b>12/1/2016-12/31/16</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>2.3371 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		
	11/01/16	12/01/16	11/01/16	12/01/16	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 2.3298	2.3371	\$11.65	\$11.69	\$0.04
<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 (3.5140)	(2.5840)	-\$17.57	-\$12.92	\$4.65
<b>Green Infrastructure Fee</b>	\$ 1.1300	1.1300	\$1.13	\$1.13	\$0.00
<b>Avg Residential Bill at 500 kwh</b>			\$159.72	\$164.41	

Increase (Decrease -)	\$4.69
% Change	2.94%

	Rate		Charge (\$) at 600 Kwh		
	11/01/16	12/01/16	11/01/16	12/01/16	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 2.3298	2.3371	\$13.98	\$14.02	\$0.04
<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 (3.5140)	(2.5840)	-\$21.08	-\$15.50	\$5.58
<b>Green Infrastructure Fee</b>	\$ 1.1300	1.1300	\$1.13	\$1.13	\$0.00
<b>Avg Residential Bill at 600 kwh</b>			\$191.35	\$196.97	

Increase (Decrease -)	\$5.62
% Change	2.94%