



FILED

JAY IGNACIO, P. E.  
President

October 27, 2017

2017 OCT 27 P 3:51

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 November 2017

Hawai'i Electric Light Company, Inc.'s ("Hawai'i Electric Light") Energy Cost Adjustment factor for November 2017 is -0.885 cents per kilowatt-hour ("kWh"), an increase of 1.246 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$177.60, an increase of \$4.63 compared to rates effective October 1, 2017. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor (+\$6.23) and the decrease in the Purchase Power Adjustment Clause rate (-\$1.60).

Hawai'i Electric Light's fuel composite cost of generation increased 144.06 cents per million BTU to 1,230.75 cents per million BTU. The distributed generation increased 3.055 cents per kWh to 13.931 cents per kWh. The composite cost of purchased energy increased 0.597 cents per kWh to 12.344 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 November 1, 2017.

Sincerely,

Attachments

cc: Division of Consumer Advocacy

## HAWAII ELECTRIC LIGHT COMPANY, INC.

ENERGY COST ADJUSTMENT FACTOR

	<u>EFFECTIVE DATES</u>		
	<u>10/01/17</u>	<u>11/01/17</u>	<u>Change</u>
<u>Composite Cost</u>			
Generation, ¢/mmbtu	1,086.69	1,230.75	144.06
Dispersed Generation Energy, ¢/kWh	10.876	13.931	3.055
Purchased Energy, ¢/kWh	11.747	12.344	0.597
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment - ¢/kWh	(2.131)	(0.885)	1.246
<u>Others - "G,J,P,F"</u>			
Energy Cost Adjustment - ¢/kWh	(2.131)	(0.885)	1.246
Residential Customer with:			
500 KWH Consumption - \$/Bill	\$172.97	\$177.60	\$4.63
600 KWH Consumption - \$/Bill	\$207.23	\$212.80	\$5.57

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

ENERGY COST ADJUSTMENT (ECA) FILING - November 1, 2017 (Page 1 of 2)

<u>Line</u>		
1	Effective Date	November 1, 2017
2	Supercedes Factors of	October 1, 2017

**GENERATION COMPONENT**

<b>CENTRAL STATION WITH WIND/HYDRO COMPONENT</b>					<b>DG ENERGY COMPONENT</b>		
FUEL PRICES, ¢/mmbtu							
3							
4	Hill Industrial		901.18				
5	Puna Industrial		916.31				
6	Keahole Diesel		1,683.00				
6a	Keahole ULSD		1,431.59				
7	Waimea ULSD Diesel		1,422.86				
8	Hilo Diesel		1,656.07				
8a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>		1,402.83				
9	Puna Diesel		1,656.34				
10	Wind		0.00		35	COMPOSITE COST OF DG ENERGY, ¢/kWh	13.931
11	Hydro		0.00		36	% Input to System kWh Mix	0.058
BTU MIX, %							
12					37	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 35 x 36)	0.00808
13	Hill Industrial		50.166		38	BASE DG ENERGY COMPOSITE COS	15.702
14	Puna Industrial		6.756		39	Base % Input to System kWh Mix	0.06
15	Keahole Diesel		40.590		40	WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 38 x 39)	0.00942
15a	Keahole ULSD		0.194		41	Cost Less Base (Line 37 - 40)	(0.00134)
16	Waimea ULSD Diesel		0.128		42	Loss Factor	1.067
17	Hilo Diesel		0.117		43	Revenue Tax Req Multiplier	1.0975
17a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>		0.056		44	DG FACTOR, ¢/kWh (Line 41 x 42 x 43)	(0.00157)
18	Puna Diesel		1.588				
19	Wind		0.000				
20	Hydro		0.405				
			100.000				
21	COMPOSITE COST OF GENERATION, CENTRAL STATION + WIND/HYDRO ¢/mmb			1,230.75			
22	% Input to System kWh Mix			45.214			
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
		Eff Factor	Percent of	Weighted			
	Fuel Type	mmbtu/kwh	Centrl Stn + Wind/Hydro	Eff Factor			
23	Industrial	0.015148	46.157	0.006992			
24	Diesel	0.010424	49.317	0.005141			
25	Other	0.012621	4.526	0.000571			
	(Lines 23, 24, 25): Col(B) x Col(C) = Col(D)						
26	Weighted Efficiency Factor, mmbtu/kWh [Lines 23(D) + 24(D) + 25(D)]			0.0127040			
27	WEIGHTED COMPOSITE CENTRAL STATION + WIND/HYDRO GENERATION COST, ¢/kWh (Lines (21 x 22 x 26))			7.06941			
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)			(0.04854)			
33	Revenue Tax Req Multiplier			1.0975			
34	CENTRAL STATION + WIND/HYDRO GENERATION FACTOR, ¢/kWh (Line (32 x 33))			(0.05327)			
					SUMMARY OF		
					TOTAL GENERATION FACTOR, ¢/kWh		
					45	Cntrl Stn+Wind/Hydro (line 34)	(0.05327)
					46	DG (line 44)	(0.00157)
					47	TOTAL GENERATION FACTOR, ¢/kWh (lines 45 + 46)	(0.05484)

<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 - November 1, 2017 (Page 2 of 2)

Line	<b>PURCHASED ENERGY COMPONENT</b>		
	PURCHASED ENERGY PRICE, ¢/kWh		
48	HEP		13.869
49	PGV	On Peak	12.213
50	PGV	Off Peak	12.200
51	PGV - Add'l 5 MW	On Peak	12.670
52	PGV - Add'l 5 MW	Off Peak	12.670
53	PGV - Add'l 8 MW	On Peak	6.440
54	PGV - Add'l 8 MW	Off Peak	6.440
55	Wailuku Hydro	On Peak	12.213
56	Wailuku Hydro	Off Peak	12.200
57	Hawi Renewable Dev.	On Peak	12.213
58	Hawi Renewable Dev.	Off Peak	12.200
59	Tawhiri (Pakini Nui)	On Peak	12.720
60	Tawhiri (Pakini Nui)	Off Peak	12.000
61			
62	Small Hydro (>100 KW)	On Peak	12.213
63	Small Hydro (>100 KW)	Off Peak	12.200
64	Sch Q Hydro (<100 KW)		11.880
65	FIT		23.800
	PURCHASED ENERGY KWH MIX, %		
66	HEP		19.139
67	PGV	On Peak	21.443
68	PGV	Off Peak	13.254
69	PGV - Addt'l	On Peak	4.289
70	PGV - Addt'l	Off Peak	3.063
71	PGV - Add'l 8 MW	On Peak	2.884
72	PGV - Add'l 8 MW	Off Peak	5.634
73	Wailuku Hydro	On Peak	1.308
74	Wailuku Hydro	Off Peak	0.967
75	Hawi Renewable Dev.	On Peak	4.422
76	Hawi Renewable Dev.	Off Peak	2.542
77	Tawhiri (Pakini Nui)	On Peak	11.806
78	Tawhiri (Pakini Nui)	Off Peak	7.090
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)		0.176
83	FIT		1.983
			100.000
84	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh		12.344
85	% Input to System kWh Mix		54.728
86	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (Lines (84 x 85))		6.75562
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))		(0.43952)
91	Loss Factor		1.067
92	Revenue Tax *		1.0975
93	PURCHASED ENERGY FACTOR, ¢/kWh (Lines (90 x 91 x 92))		(0.51469)

Line	<b>SYSTEM COMPOSITE</b>	
94	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (Lines (47 + 93))	(0.56953)
95	Not Used	0.000
96	Not Used	0.000
97	ECA Reconciliation Adjustment	(0.315)
98	ECA FACTOR, ¢/kWh (Lines (94 + 95+ 96 + 97))	(0.885)

**Hawaii Electric Light Company, Inc.**  
FUEL OIL INVENTORY PRICES FOR November 1, 2017

**INDUSTRIAL FUEL COSTS:**

	<u>HILO</u>	<u>PUNA</u>
Average Industrial Fuel Cost - \$/BBL	56.7744	56.7744
Land Transportation Cost - \$/BBL	--	0.9534
Industrial Costs For Filing - \$/BBL	56.7744	57.7278
Conversion Factors - mmbtu/BBL	6.30	6.30
Industrial Costs For Filing - ¢/mmbtu	901.18	916.31

**DIESEL FUEL COSTS:**

	KEAHOLE	PUNA CT-3	HILO
Average Diesel Fuel Cost - \$/BBL	95.8137	95.8137	95.8137
Land Transportation Cost - \$/BBL	2.8099	1.2476	1.2323
Diesel Costs For Filing - \$/BBL	98.6235	97.0612	97.0459
Conversion Factors - mmbtu/BBL	5.86	5.86	5.86
Diesel Costs For Filing - ¢/mmbtu	1,683.00	1,656.34	1,656.07

**ULSD FUEL COSTS:**

	KEAHOLE	WAIMEA	HILO	DISPERSED GENERATION
Average ULSD Fuel Cost - \$/BBL	79.1727	79.1727	79.1727	79.1727
Land Transportation Cost - \$/BBL	2.8577	2.3573	1.2097	-
ULSD Costs For Filing - \$/BBL	82.0304	81.5300	80.3824	79.1727
Conversion Factors - mmbtu/BBL	5.73	5.73	5.73	5.73
ULSD Costs For Filing - ¢/mmbtu	1,431.59	1,422.86	1,402.83	1,381.72

**Dispersed Generation, cents per kWh**

	<u>COMPOSITE COST OF DISP. GEN.</u>
BBIs Fuel:	91.4960
\$/BBI Inv Cost:	79.1727
Fuel \$ (Prod Sim Consumption x Unit Cost)	7,243.98
Net kWh (from Prod Sim)	52,000
cents/kWh:	13.931

HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

	SHIPMAN INDUSTRIAL		HILL INDUSTRIAL		COST PER BARREL		
	BBL	COST	BBL	COST	EXCL LT	LT Total	
Balance at 09/30/2017	0	0.00	43,776	2,218,150.32			
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	(38,410)	(1,954,190.50)			
Actual	0	0.00	32,875	1,673,272.95			
Consumed: Estimate	0	0.00	32,961	1,662,767.09			
Actual	0	0.00	(30,938)	(1,560,715.11)			
Balance Per G/L 09/30/2017	<u>0</u>	<u>0.00</u>	<u>40,264</u>	<u>2,039,284.75</u>			
Purchases	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer out	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer in	0	0.00	37,751	2,175,439.18			
Consumed	<u>0</u>	<u>0.00</u>	<u>(35,537)</u>	<u>(1,802,046.31)</u>	106.5901	0.0000	106.5901
Balance @ 10/31/2017	0	0.00	42,478	2,412,677.62			
Inv From Offsite/Transfers	0	0.00	0	0.00			
Est'd Inventory Addition	0	0.00	0	0.00			
Fuel Balance @ 10/31/2017	<u>0</u>	<u>0.00</u>	<u>42,478</u>	<u>2,412,677.62</u>			
Reverse Fuel Balance	xxxxxx	0.00	xxxxxx	(2,412,677.62)			
Fuel Bal @ Avg Price	xxxxxx	0.00	xxxxxx	2,411,665.08			
Total @ 11/01/2017 Avg Price	<u>0</u>	<u>0.00</u>	<u>42,478</u>	<u>2,411,665.08</u>			

Weighted Avg Cost/BBL by Location #DIV/0! 56.7983

Weighted Avg Cost/BBL @ Avg Cost #DIV/0! 56.7744

HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

PUNA INDUSTRIAL

	BBL	COST	LAND TRANSP	COST PER BARREL		TOTAL
				EXCLUDE LT	LT	
Balance at 09/30/2017	7,120	362,592.14	5,814.14			
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	(2,168)	(113,949.66)	(2,592.36)			
Actual	2,117	113,652.28	2,642.59			
Consumed: Estimate	1,697	85,607.71	1,899.79			
Actual	(1,748)	(88,180.56)	(1,956.86)			
Balance Per G/L 09/30/2017	<u>7,018</u>	<u>359,721.91</u>	<u>5,807.30</u>			
Purchases	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer out	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer in	2,161	131,420	2,583.99			
Consumed	(2,629)	<u>(133,314.00)</u>	(2,146.82)	50.7090	0.8166	51.5256
Balance @ 10/31/2017	<u>6,550</u>	<u>357,827.43</u>	<u>6,244.47</u>			
Inventory From Offsite/Transfers	0	0.00	0.00			
Est'd Inventory Addition	0	0.00	0.00			
Fuel Bal @ Avg Price	<u>6,550</u>	<u>357,827.43</u>	<u>6,244.47</u>		0.9534	
Reverse Fuel Balance	XXXXXXXXXXXX	(357,827.43)	XXXXXXXXXXXX			
Fuel Balance @ Avg Price	XXXXXXXXXXXX	371,872.65	XXXXXXXXXXXX			
Total @ 11/01/2017 Avg Price	<u>6,550</u>	<u>371,872.65</u>	<u>6,244.47</u>			

Weighted Avg Cost/BBL by Location

54.6301

0.9534

Weighted Avg Cost/BBL @ Avg Cost

56.7744

0.9534

HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

KEAHOLE CT

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER EXCLUD LT	BARREL LT	TOTAL
Balance at 09/30/2017	51,851.7	2,177,773.0	4,236,771.9	145,102.8			
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		XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX			
Actual		XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX			
Transfers in: Estimate	(47,154.5)	(1,980,490.0)	(3,960,969.8)	(134,079.2)			
Actual	46,363.9	1,947,285.0	3,869,184.3	130,468.19			
Consumed: Estimate	43,551.1	1,829,147.0	3,455,999.1	127,090.88			
Actual	(43,430.5)	(1,824,083.0)	(3,446,432.7)	(126,737.6)	79.3550		
Balance Per G/L 09/30/2017	51,181.7	2,149,632	4,154,552.74	141,845.15	81.1726		
Purchases	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX			
Transfer out	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX			
Transfer in	44,057.4	1,850,412.0	4,366,392.5	125,272.9	99.1068		
Consumed	(42,893.3)	(1,801,520.0)	(3,494,086.9)	(120,033.48)	81.4599	2.7984	84.2583
Balance @ 10/31/2017	52,345.8	2,198,524	5,026,858.27	147,084.57	96.0317		
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	52,345.8	2,198,524	5,026,858.27	147,084.57	96.0317		
Reverse Fuel Balance	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	(5,026,858.3)	XXXXXXXXXXXXXXXXXX			
Fuel Balance @ Avg Price	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	5,015,444.1	XXXXXXXXXXXXXXXXXX			
Total @ 11/01/2017 Avg Price	52,345.8	2,198,524	5,015,444.10	147,084.57	95.8137		

Weighted Avg Cost/BBL by Location

96.0317 2.8099

Weighted Avg Cost/BBL @ Avg Cost

95.8137 2.8099



HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

PUNA CT-3

HS Diesel	BBL	GALLONS	COST EXCLUD LT	LAND TRANSP	COST PER EXCL LT	BARREL LT	TOTAL
Balance at 09/30/2017	3,948.2	165,826.0	309,531.5	4,934.4			
Less: Est'd Inven Addition	0.0	0.0	0.0	0.0			
Purchases: Estimate		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Actual		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Transfers out: Estimate		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Actual		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Transfers in: Estimate	(415.0)	(17,431.0)	(37,602.4)	(460.2)			
Actual	612.7	25,735.0	65,357.3	831.3			
Consumed: Estimate	671.8	28,217.0	53,313.3	832.9			
Actual	(965.6)	(40,554.0)	(76,623.0)	(1,197.1)			
Balance Per G/L 09/30/2017	3,852.2	161,793	313,976.69	4,941.32			
Purchases		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Transfer out		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Transfer in	956.5	40,171.0	101,657.0	1,060.5	106.2855		
Consumed	(1,239.1)	(52,044)	(100,940.46)	(1,548.63)	81.4599	1.2498	82.7097
Balance @ 10/31/2017	3,569.5	149,920	314,693.22	4,453.20	88.1611		
Inven From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Balance @ 10/31/2017	3,569.5	149,920	314,693.22	4,453.20	88.1611		
Reverse Fuel Balance		XXXXXXXXXXXXXXXXXXXX	(314,693.22)	XXXXXXXXXXXXXXXXXXXX			
Fuel Balance @ Avg Price		XXXXXXXXXXXXXXXXXXXX	342,009.18	XXXXXXXXXXXXXXXXXXXX			
Total @ 11/01/2017 Avg Price	3,569.5	149,920	342,009.18	4,453.20	95.8137		

Weighted Avg Cost/BBL by Location

88.1611 1.2476

Weighted Avg Cost/BBL @ Avg Cost

95.8137 1.2476

HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

TOTAL HILO HS-DIESEL

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL EXCL LT	BARREL LT	TOTAL
Balance at 09/30/2017	1592.4	66,879	123,256	1,958			
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	1.8	76.0	0.0	1.8			
Actual	-0.9	-38.0	0.0	0.0			
Consumed: Estimate	22.8	959.0	1811.9	24.8			
Actual	-40.6	-1705.0	-3221.4	-44.1			
Balance Per G/L 09/30/2017	1575.5	66,171	121,846.57	1,940.21	77.3383		
Purchases		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer out		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer in	-2.3	-96.0	0.0	-1.7	0.0000		
Consumed	-49.0	-2058.0	-3991.5	-60.2	81.4599	1.2294	82.6894
Balance @ 10/31/2017	1,524.2	64,017	117,855.03	1,878.22	77.3218		
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	1,524.2	64,017	117,855.03	1,878.22	77.3218		
Reverse Fuel Balance		XXXXXXXXXXXX	XXXXXXXXXXXX -117,855.03	XXXXXXXXXXXX			
Fuel Balance @ Avg Price		XXXXXXXXXXXX	XXXXXXXXXXXX 146,040.56	XXXXXXXXXXXX			
Total @ 11/01/2017 Avg Price	1,524.2	64,017	146,040.56	1,878.22	95.8137		

Weighted Avg Cost/BBL by Location 77.3218 1.2323

Weighted Avg Cost/BBL @ Avg Cost 95.8137 1.2323

HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

KEAHOLE DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL EXCLUD LT	LT	TOTAL
Balance at 09/30/2017	2,010.6	84,446	152,436.13	5,748.98			
Less: Est'd Inventory Addition	0.0						
Purchases: Estimate	0.0	0	(1,080.57)	0.00			
Actual	0.0	0	1,080.58	0.00			
Transfers out: Estimate		XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXX			
Actual		XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXX			
Transfers in: Estimate		54	0.00	3.66			
Actual		(27)	0.00	0.00			
Consumed: Estimate	115.8	4,862	8,766.30	337.98			
Actual	(106.4)	(4,467)	(8,054.11)	(310.52)	75.7270		
Balance Per G/L 09/30/2017	2,020.7	84,868	153,148.33	5,780.09	75.7910		
Purchases	188.5	7,918	17,232.51	536.05	0.0000		
Estimated Purchases	190.0	7,980	17,367.45	540.25			
Transfer in	2.6	111	0.00	7.51	0.00		
Consumed	(138.8)	(5,828)	(10,556.52)	(396.76)	76.0765	2.8593	78.9358
Balance @ 10/31/2017	2,263.1	95,049	177,191.76	6,467.14	78.2970		
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	2,263.1	95,049	177,191.76	6,467.14	78.2970		
Reverse Fuel Balance	XXXXXXXXXXXX	XXXXXXXXXXXX	(177,191.76)	XXXXXXXXXXXX			
Fuel Balance @ Avg Price	XXXXXXXXXXXX	XXXXXXXXXXXX	179,173.47	XXXXXXXXXXXX			
Total @ 11/01/2017 Avg Price	2,263.1	95,049	179,173.47	6,467.14	79.1727		

Weighted Avg Cost/BBL by Location

78.2970 2.8577

Weighted Avg Cost/BBL @ Avg Cost

79.1727 2.8577

HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

WAIMEA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL	LT	TOTAL
Balance at 09/30/2017	1,501.6	63,069.0	114,931.1	3,530.97			
Less: Est'd Inven Addition	0.0	0.0	0.00	0.00			
Purchases: Estimate		(7,920)	(16,329.46)	(446.69)			
Actual		7,920.0	16,329.5	0.00			
Transfers out: Estimate		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Actual		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfers in: Estimate	(1.5)	(61)	0.00	0.00			
Actual	2.5	103	0.00	446.69			
Consumed: Estimate	227.5	9,557	17,231.50	535.06			
Actual	(167.0)	(7,016)	(12,650.01)	(392.80)			
Balance Per G/L 09/30/2017	1,563.1	65,652	119,512.55	3,673.23	76.4566		
ULSD Purchases	188.7	7,925	19,269.17	446.97	102.1205		
Estimated Purchases	190.0	7,980	19,402.90	450.07			
Transfer in	XXXXXXXXXXXX	(112)	0.00	0.00	#DIV/0!		
Consumed	(156.7)	(6,580)	(11,918.65)	(368.39)	76.0765	2.3514	78.4279
Balance @ 10/31/2017	1,782.5	74,865	146,265.97	4,201.89	82.0566		
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	1,782.5	74,865	146,265.97	4,201.89	82.0566		
Reverse Fuel Balance	XXXXXXXXXXXX	XXXXXXXXXXXX	(146,265.97)	XXXXXXXXXXXX			
Fuel Balance @ Avg Price	XXXXXXXXXXXX	XXXXXXXXXXXX	141,125.34	XXXXXXXXXXXX			
Total @ 11/01/2017 Avg Price	1,782.5	74,865	141,125.34	4,201.89	79.1727		

Weighted Avg Cost/BBL by Location

82.0566 2.3573

Weighted Avg Cost/BBL @ Avg Cost

79.1727 2.3573

HAWAII ELECTRIC LIGHT CO., INC.  
Estimated Weighted Average  
October 2017

KANOELEHUA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP		
Balance at 09/30/2017	1,499.0	62,959.0	113,676.1	1,826.6		
Less: Est'd Inventory Addition	0.0	0	0.00	0.00		
Purchases: Estimate	0.0	0	0.00	0.00		
Actual	0.0	0	0.00	0.00		
Transfers out: Estimate			x	x	x	
Actual			x	x	x	
Transfers in: Estimate		494	0.00	11.51		
Actual		(646)	0.00	0.00		
Consumed: Estimate	44.9	1,887	3,402.31	70.91		
Actual	(44.5)	(1,867)	(3,366.24)	(52.87)		
Balance Per G/L 09/30/2017	1,495.9	62,827	113,712.19	1,856.18		
ULSD Purchases	0	0	0.00	0.00	#DIV/0!	
Estimated Purchases	0	-	-	-		
Transfer in	(6)	(267)	0.00	(6.22)		
Consumed	(36.5)	(1,535)	(2,780.42)	(92.29)	76.07651611	1.2185
Balance @ 10/31/2017	1,453.0	61,025	110,931.77	1,757.67		
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	1,453.0	61,025	110,931.77	1,757.67		
Reverse Fuel Balance	x	x	(110,931.77)	x		
Fuel Balance @ Avg Price	x	x	115,036.05	x		
Total @ 11/01/2017 Avg Price	1,453.0	61,025	115,036.05	1,757.67		

Weighted Avg Cost/BBL by Location

76.3480 1.2097

Weighted Avg Cost/BBL @ Avg Cost

79.1727 1.2097

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
October 2017

DISPERSED GENERATION

	BBL	GALLONS	COST	COST/BBL
Balance at 09/30/2017	105.4	4,428	8,218.48	
Less: Est'd Inven Addition	0.0	XXXXXXXXX	XXXXXXXXXX	
Purchases: Estimate	(41.2)	(1,732)	(3,388.17)	
Actual	41.2	1,732	3,388.17	
Consumed: Estimate	1.0	42	75.73	
Actual	(5.4)	(228)	168.59	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Balance Per G/L 09/30/2017	101.00	4,242	8,462.80	83.7901
Purchases	0.0	0	442.06	0.0000
Transfer out	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Transfer in	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Consumed	(11.9)	(501)	(907.48)	76.0765
Balance @ 10/31/2017	89.1	3,741	7,997.38	89.7861
Est'd Inventory Addition	0.0	0	0.00	
Fuel Balance @ 10/31/2017	89.1	3,741	7,997.38	
Reverse Fuel Balance	XXXXXXXXXX	XXXXXXXXXX	(7,997.38)	xxxx
Fuel Balance @ Avg Price	XXXXXXXXXX	XXXXXXXXXX	7,052.03	xxxx
Total @ 11/01/2017 Avg Price	89.1	3,741	7,052.03	79.1727

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**CONTRACT PRICES EFFECTIVE October 1, 2017**

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>	50.98	3.2110	50.98	3.2110
Ocean Transportation	52.35	3.1783	50.45	3.1783
Storage	28.69	1.9687	31.25	1.9687
Wharfage	5.60	0.3400	5.40	0.3400
Fees <sup>2</sup>	1.13	0.0712	1.13	0.0900
	<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>	88.92	5.2102	88.92	5.2102
Ocean Transportation	54.24	1.9761	54.24	3.1783
Storage	26.13	1.5312	26.13	1.5312
Wharfage	5.80	0.3400	5.80	0.3400
Fees <sup>2</sup>	1.67	0.0975	1.67	0.0975
	<u>Kona Diesel</u>		<u>CT3 Diesel</u>	
	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax <sup>1</sup>	88.92	5.2102	88.92	5.2102
Ocean Transportation	54.24	3.1783	54.24	3.1783
Storage	26.13	1.5312	26.13	1.5312
Wharfage	5.80	0.3400	5.80	0.3400
Fees <sup>2</sup>	1.67	0.0975	1.67	0.0975
	<u>ULSD</u>			
<b>ULSD **</b>	<u>¢/MBTU</u>	<u>\$/BBL</u>		
Tax <sup>1</sup>	26.38	1.9592		
Ocean Transportation	0.00	0.0000		
Storage	0.00	0.0000		
Wharfage	0.00	0.0000		
Fees <sup>2</sup>	1.67	0.0975		

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

<sup>2</sup> Fees include Custom Duty and Fed Oil Spill Recovery

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 November 1, 2017

		November 1, 2017 <u>(¢/kWh)</u>	Floor Rates <u>(¢/kWh)</u>
PGV (25 MW)	- on peak	12.213	6.560
PGV (22 MW)	- off peak	12.200	5.430
WAILUKU HYDRO	- on peak	12.213	7.240
	.	12.200	5.970
Other: (<100 KW)	Sch Q Rate	11.880	
		November 1, 2017 <u>(¢/kWh)</u>	Floor Rates <u>(¢/kWh)</u>
HEP		13.869	
PGV Addtl 5 MW	- on peak	12.6700	0.0000
	- off peak	12.6700	0.0000
PGV Addtl 8 MW	- on peak	6.4400	0.0000
	- off peak	6.4400	0.0000



**Hawaii Electric Light Company, Inc.**  
**Energy Cost Reconciliation Adjustment**  
November 1, 2017

<u>Line No.</u>	<u>Description</u>	<u>Amount</u>
1	Amount to be (returned) or collected	(\$714,200)
2	Monthly Amount ( $\frac{1}{3}$ x Line 1)	(\$238,067)
3	Revenue Tax Divisor	0.91115
4	Total (Line 2 / Line 3)	(\$261,282)
5	Estimated MWh Sales (November 1, 2017)	82,980 mwh
6	Adjustment (Line 4 / Line 5)	(0.315) ¢/kwh

HAWAII ELECTRIC LIGHT COMPANY, INC.  
2017 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY  
(Thousand \$)

LINE	DESCRIPTION	Info Only September 2017 YTD Total No Deadband	collectn by company*	Basis for Recon September 2017 YTD Total Deadband	Collection or Refund by Company
ACTUAL COSTS:					
1	Generation	\$47,479.6		\$47,479.6	
2	Distributed Generation	\$6.9		\$6.9	
3	Purch Power	\$48,450.8		\$48,450.8	
4	TOTAL	<u>\$95,937.3</u>		<u>\$95,937.3</u>	
FUEL FILING COST (1)					
5	Generation	\$48,519.5		\$48,099.7	
6	Distributed Generation	\$6.9		\$6.9	
7	Purch Power	\$48,450.8		\$48,450.8	
8	TOTAL	<u>\$96,977.1</u>		<u>\$96,557.4</u>	
BASE FUEL COST					
9	Generation	\$54,784.4		\$54,784.4	
10	Distributed Generation	\$5.4		\$5.4	
11	Purch Power	\$60,417.8		\$60,417.8	
12	TOTAL	<u>\$115,207.6</u>		<u>\$115,207.6</u>	
13	FUEL-BASE COST (Line 8-12)	-\$18,230.5		-\$18,650.2	
14	ACTUAL FOA LESS TAX	-\$19,397.4		-\$19,397.4	
15	Less: FOA reconciliation adj for prior year	-\$1,628.3		-\$1,628.3	
16	ADJUSTED FOA LESS TAX	<u>-\$17,769.1</u>		<u>-\$17,769.1</u>	
17	FOA-(FUEL-BASE) (Line 16-13)	\$461.4	over	\$881.1	over
ADJUSTMENTS:					
18	Current year FOA accrual reversal	\$779.0		\$779.0	
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>\$1,240.4</u>	over	<u>\$1,660.1</u>	over
22	Second Quarter FOA reconciliation			945.9	over
23	FOA Reconciliation to be Returned or Collected			714.2	over

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

**Hawai'i Electric Light Company  
DEADBAND CALCULATION  
2017**

	Notes	Jan 1 - Sep 2017 YTD
<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	123,231,700
Industrial Consumption (Recorded), MMBTU	b	1,818,563
Industrial Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	14,757
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	242,581,030
Diesel Consumption (Recorded), MMBTU	b	2,481,819
Diesel Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	10,231
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>10,324</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	5,881,682
Hydro Consumption (Recorded), MMBTU	b	69,518
Hydro Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	11,819
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>12,521</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**  
**2017**

	<u>Without Deadband</u>	<u>With Deadband</u>
	<u>Jan 1 - Sep 30</u>	<u>As Filed</u>
	<u>Jan 1 - Sep 30</u>	<u>Jan 1 - Sep 30</u>
<b><u>INDUSTRIAL FUEL FILING COST</u></b>		
Industrial Portion of Recorded Sales , kWh	123,231,700	123,231,700
Industrial Efficiency Factor (mmbtu/kwh)	0.015148	0.015048
Mmbtu adjusted for Sales Efficiency Factor	1,866,714	1,854,391
\$/mmbtu	<u>\$8.1820</u>	<u>\$8.1820</u>
<b>TOTAL INDUSTRIAL \$000s TO BE RECOVERED</b>	<b>\$15,273.503</b>	<b>\$15,172.674</b>
<b><u>DIESEL FUEL FILING COST</u></b>		
Diesel Portion of Recorded Sales, kWh	242,581,030	242,581,030
Diesel Efficiency Factor (mmbtu/kwh)	0.010424	0.010324
Mmbtu adjusted for Sales Efficiency Factor	2,528,665	2,504,407
\$/mmbtu	<u>\$13.1477</u>	<u>\$13.1477</u>
<b>TOTAL DIESEL \$000s TO BE RECOVERED</b>	<b>\$33,245.999</b>	<b>\$32,927.062</b>
<b><u>HYDRO FUEL FILING COST</u></b>		
Hydro Portion of Recorded Sales , kWh	5,881,682	5,881,682
Hydro Efficiency Factor (mmbtu/kwh)	0.012621	0.012521
Mmbtu adjusted for Sales Efficiency Factor	74,233	73,645
\$/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>\$48,519.5</b>	<b>\$48,099.7</b>
<b><u>CALCULATION OF GENERATION BASE FUEL COST</u></b>		
<b>TOTAL GENERATION BASE FUEL COST, \$000s</b>	<b>\$54,784.4</b>	<b>\$54,784.4</b>
<b>TOTAL GENERATION FUEL FILING COST, \$000s YTD</b>	<b>\$48,519.5</b>	<b>\$48,099.7</b>
<b>TOTAL GENERATION BASE FUEL COST YTD</b>	<b>\$54,784.4</b>	<b>\$54,784.4</b>

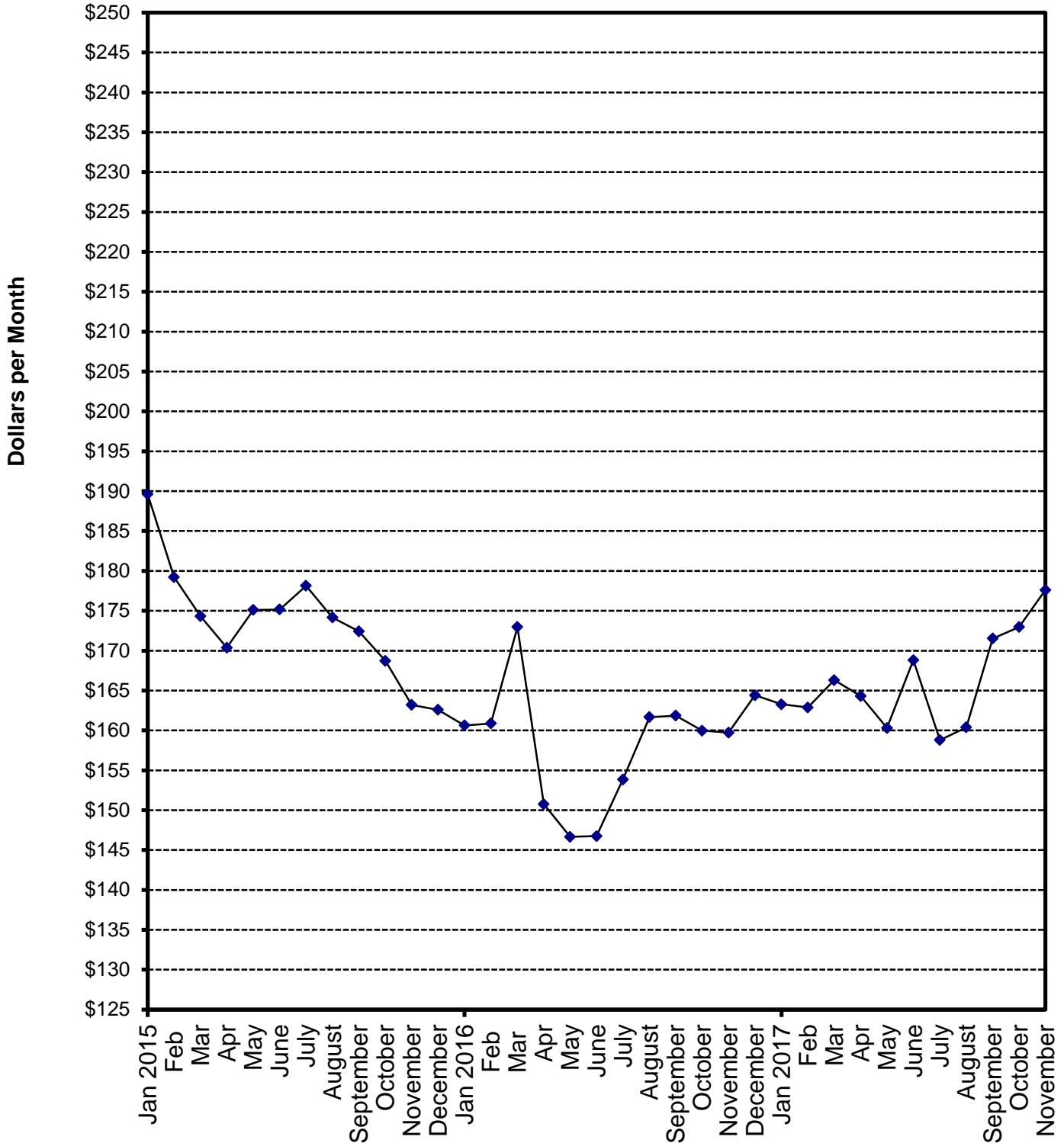
**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
2017 Cumulative Reconciliation Balance

<u>Month</u>	(1) <u>YTD FOA Reconciliation</u>	<u>Qtr</u>	(2) <u>FOA Rec Adjust Variance</u>	(3) <u>FOA Rec Less Variance</u>	(4) <u>Try to Collect</u>	(5) <u>Actual Collect</u>	(6) <u>Month-end Cumulative Balance</u>
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)	(268,646)	534,241
December					(261,800)	(283,626)	250,615
January 17					(261,800)	(265,764)	(15,149)
February	1,366,400	[4]	(46,589)	1,412,989	(455,467)	(473,124)	924,716
March					(455,467)	(479,559)	445,157
April					(455,467)	(478,693)	(33,536)
May	445,100	(1)	(45,713)	490,813	(148,367)	(154,562)	302,715
June					(148,367)	(151,295)	151,420
July					(148,367)	(157,548)	(6,128)
August	500,800	[2]	(32,349)	533,149	(166,933)	(180,924)	346,097
September					(166,933)	(178,788)	167,309
October					(166,933)		
November	714,200	[3]	(35,027)	749,227	(238,067)		
December							

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</u> <u>CENTS / KWH</u>		
	<u>RESIDENTIAL &amp; COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$)</u> <u>@ 500 KWH @ 600 KWH</u>	
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
January 1, 2017	-2.842	163.27	195.58
February 1, 2017	-2.956	162.87	195.09
March 1, 2017	-2.274	166.31	199.24
April 1, 2017	-2.425	164.31	196.83
May 1, 2017	-3.035	160.30	192.02
June 1, 2017	-1.343	168.82	202.25
July 1, 2017	-3.220	158.79	190.22
August 1, 2017	-3.643	160.39	192.15
September 1, 2017	-2.447	171.52	205.50
October 1, 2017	-2.131	172.97	207.23
November 1, 2017	-0.885	177.60	212.80

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
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
5/1/2016	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
6/1/2016 - 6/30/16	PURCHASED POWER ADJUSTMENT CLAUSE	1.8442 CENTS/KWH
6/1/2016	RBA RATE ADJUSTMENT	1.4241 CENTS/KWH
7/1/2016-7/31/16	PURCHASED POWER ADJUSTMENT CLAUSE	1.8909 CENTS/KWH
7/1/2016	GREEN INFRASTRUCTURE FEE	1.1300 DOLLARS/MONTH
7/1/2016	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH
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
12/1/2016-12/31/16	PURCHASED POWER ADJUSTMENT CLAUSE	2.3371 CENTS/KWH
1/1/2017-1/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	2.3400 CENTS/KWH
1/1/2017	GREEN INFRASTRUCTURE FEE	1.2700 DOLLARS/MONTH
2/1/2017 - 2/28/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.3737 CENTS/KWH
3/1/2017 - 3/31/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.3809 CENTS/KWH
4/1/2017-4/30/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.3781 CENTS/KWH
4/1/2017-4/30/17	SOLARSAVER ADJUSTMENT	-0.2462 CENTS/KWH
5/1/2017-5/31/17	PURCHASED POWER ADJUSTMENT CLAUSE	1.9396 CENTS/KWH
<b>5/1/2017</b>	<b>SOLARSAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
6/1/2017-6/30/17	PURCHASED POWER ADJUSTMENT CLAUSE	1.9225 CENTS/KWH
6/1/2017	RBA RATE ADJUSTMENT	1.4533 CENTS/KWH
7/1/2017 - 7/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	1.9710 CENTS/KWH
<b>7/1/2017- 12/31/17</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.1800 DOLLARS/MONTH</b>
<b>7/1/2017</b>	<b>RESIDENTIAL PBF SURCHARGE ADJUSTMENT</b>	<b>0.4244 CENTS/KWH</b>
8/1/2017-8/31/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.7161 CENTS/KWH
9/1/2017-9/30/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.7515 CENTS/KWH
<b>8/31/2017</b>	<b>Interim Ra te Increase 2016</b>	<b>5.8800 PERCENT ON BASE</b>
<b>8/31/2017</b>	<b>RBA RATE ADJUSTMENT</b>	<b>0.6313 CENTS/KWH</b>
10/1/2017 - 10/31/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.7257 CENTS/KWH
<b>11/1/2017 - 11/30/17</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>2.4067 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			
	10/01/17	11/01/17	10/01/17	11/01/17	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>Interim Rate Increase 2016 TY</b>	% on base	5.8800%	5.8800%	\$9.08	\$9.08	\$0.00
<b>RBA Rate Adjustment</b>	¢/kwh	0.6313	0.6313	\$3.16	\$3.16	\$0.00
<b>Purchased Power Adj. Clause</b>	¢/kwh	2.7257	2.4067	\$13.63	\$12.03	-\$1.60
<b>PBF Surcharge</b>	¢/kwh	0.4244	0.4244	\$2.12	\$2.12	\$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	(2.1310)	(0.8850)	-\$10.66	-\$4.43	\$6.23
<b>Green Infrastructure Fee</b>	\$	1.1800	1.1800	\$1.18	\$1.18	\$0.00
<b>Avg Residential Bill at 500 kwh</b>				\$172.97	\$177.60	

Increase (Decrease -)	\$4.63
% Change	2.68%

	Rate		Charge (\$) at 600 Kwh			
	10/01/17	11/01/17	10/01/17	11/01/17	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>Interim Rate Increase 2016 TY</b>	% on base	5.8800%	5.8800%	\$10.89	\$10.89	\$0.00
<b>RBA Rate Adjustment</b>	¢/kwh	0.6313	0.6313	\$3.79	\$3.79	\$0.00
<b>Purchased Power Adj. Clause</b>	¢/kwh	2.7257	2.4067	\$16.35	\$14.44	-\$1.91
<b>PBF Surcharge</b>	¢/kwh	0.4244	0.4244	\$2.55	\$2.55	\$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	(2.1310)	(0.8850)	-\$12.79	-\$5.31	\$7.48
<b>Green Infrastructure Fee</b>	\$	1.1800	1.1800	\$1.18	\$1.18	\$0.00
<b>Avg Residential Bill at 600 kwh</b>				\$207.23	\$212.80	

Increase (Decrease -)	\$5.57
% Change	2.69%