



SHARON M. SUZUKI  
President

July 29, 2019

**FILED**

2019 JUL 29 P 3:26

**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 Recovery Factor for August 2019

Hawai'i Electric Light Company, Inc.'s ("Hawai'i Electric Light") Energy Cost Recovery factor for August 2019 is 15.331 cents per kilowatt-hour ("kWh"), a decrease of 1.12 cents per kWh from last month.

Hawai'i Electric Light's fuel composite cost of generation decreased 92.35 cents per million BTU to 1,377.86 cents per million BTU. The composite cost of distributed generation decreased 0.04 cents per kWh to 15.630 cents per kWh. The composite cost of purchased energy increased 0.74 cents per kWh to 12.901 cents per kWh.

A residential customer consuming 500 kWh of electricity will be paying \$178.14, a decrease of \$5.32 compared to rates effective July 1, 2019. The decrease in the typical residential bill is due to the decrease of (-\$5.59) of the Energy Cost Recovery Factor and the increase in the Purchased Power Adjustment rate (+\$0.27).

The attached sheets set forth the energy cost recovery factor in cents per kWh for each rate schedule that is applicable for pro rata use beginning August 1, 2019.

Sincerely,

Attachments

cc: Division of Consumer Advocacy

## HAWAII ELECTRIC LIGHT COMPANY, INC.

ENERGY COST RECOVERY FACTOR

	<u>EFFECTIVE DATES</u>		
	<u>7/01/19</u>	<u>8/01/19</u>	<u>Change</u>
<u>Composite Cost</u>			
Generation, ¢/mmbtu	1,470.21	1,377.86	(92.35)
Dispersed Generation Energy, ¢/kWh	15.669	15.630	(0.04)
Purchased Energy, ¢/kWh	12.157	12.901	0.74
<u>Residential Schedule "R"</u>			
Energy Cost Recovery - ¢/kWh	16.450	15.331	(1.12)
<u>Others - "G,J,P,F"</u>			
Energy Cost Recovery - ¢/kWh	16.450	15.331	(1.12)
Residential Customer with:			
500 KWH Consumption - \$/Bill	\$183.46	\$178.14	(\$5.32)
600 KWH Consumption - \$/Bill	\$219.63	\$213.25	(\$6.38)

HAWAII ELECTRIC LIGHT COMPANY, INC.  
ENERGY COST RECOVERY (ECR) FILING

ENERGY COST RECOVERY (ECR) FILING - August 1, 2019 (Page 1 of 2)

<u>Line</u>	1 Effective Date	August 1, 2019
	2 Supercedes Factors of	July 1, 2019

**GENERATION COMPONENT**

<b>CENTRAL STATION WITH WIND/HYDRO COMPONENT</b>				
FUEL PRICES, ¢/mmbtu				
3				
4	Hill Industrial	998.80		
5	Puna Industrial	1,023.02		
6	Keahole Diesel	1,599.44		
6a	Keahole ULSD	1,656.18		
7	Waimea ULSD Diesel	1,676.52		
8	Hilo Diesel	1,572.75		
8a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>	1,636.09		
9	Puna Diesel	1,571.18		
10	Wind	0.00		
11	Hydro	0.00		
BTU MIX, %				
12				
13	Hill Industrial	20.556		
14	Puna Industrial	6.898		
15	Keahole Diesel	48.719		
15a	Keahole ULSD	0.324		
16	Waimea ULSD Diesel	0.418		
17	Hilo Diesel	6.056		
17a	Hilo (Kanoelehua) ULSD Diesel <sup>1</sup>	0.381		
18	Puna Diesel	13.295		
19	Wind	0.000		
20	Hydro	3.353		
		100.000		
21	COMPOSITE COST OF GENERATION, CENTRAL STATION + WIND/HYDRO ¢/mmbtu	1,377.86		
22	% Input to System kWh Mix	53.853		
EFFICIENCY FACTOR, mmbtu/kWh				
(A)	(B)	(C)	(D)	
Fuel Type	Eff Factor mmbtu/kwh	Percent of Centrl Stn + Wind/Hydro	Weighted Eff Factor	
23	Industrial	0.014569	27.454	0.004000
24	Diesel	0.010480	69.193	0.007251
25	Other	0.012395	3.353	0.000416
	(Lines 23, 2		100.0000	
26	Weighted Efficiency Factor, mmbtu/kWh [Lines 23(D) + 24(D) + 25(D)]			0.0116670
27	WEIGHTED COMPOSITE CENTRAL STATION + WIND/HYDRO GENERATION COST, ¢/kWh (Lines (21 x 22 x 26))			8.65714
28	BASE CENTRAL STATION + WIND/HYDRO GENERATION COST, ¢/mmbtu			0.00
29	Base % Input to Sys kWh Mix			0.00
30	Efficiency Factor, mmbtu/kwh			0.000000
31	WEIGHTED BASE CENTRAL STATION + WIND/HYDRO GENERATION COST ¢/kWh (Lines (28 x 29 x 30))			0.00000
32	COST LESS BASE (Line 27 - 31)			8.65714
33	Revenue Tax Req Multiplier			1.0975
34	CENTRAL STATION + WIND/HYDRO GENERATION FACTOR, ¢/kWh (Line (32 x 33))			9.50121

<b>DG ENERGY COMPONENT</b>		
35	COMPOSITE COST OF DG ENERGY, ¢/kWh	15.630
36	% Input to System kWh Mix	0.123
37	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 35 x 36)	0.01922
38	BASE DG ENERGY COMPOSITE COS	0.000
39	Base % Input to System kWh Mix	0.00
40	WEIGHTED BASE DG ENERGY COST,  ¢/kWh (Line 38 x 39)	0.00000
41	Cost Less Base (Line 37 - 40)	0.01922
42	Loss Factor	1.072
43	Revenue Tax Req Multiplier	1.0975
44	DG FACTOR, ¢/kWh (Line 41 x 42 x 43)	0.02261

<b>SUMMARY OF</b>		
TOTAL GENERATION FACTOR, ¢/kWh		
45	Cntrl Stn+Wind/Hydro (line 34)	9.50121
46	DG (line 44)	0.02261
47	TOTAL GENERATION FACTOR, ¢/kWh (lines 45 + 46)	9.52382

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

HAWAII ELECTRIC LIGHT COMPANY, INC.  
ENERGY COST RECOVERY (ECR) FILING

ENERGY COST RECOVERY (ECR) FILING - August 1, 2019 (Page 2 of 2)

Line	<u>PURCHASED ENERGY COMPONENT</u>				
	PURCHASED ENERGY PRICE, ¢/kWh -- Fossil				
48	HEP		12.684		
	PURCHASED ENERGY PRICE, ¢/kWh -- Renewable				
49	PGV	On Peak	14.941		
50	PGV	Off Peak	13.474		
51	PGV - Add'l 5 MW	On Peak	13.050		
52	PGV - Add'l 5 MW	Off Peak	13.050		
53	PGV - Add'l 8 MW	On Peak	9.950		
54	PGV - Add'l 8 MW	Off Peak	6.640		
55	Wailuku Hydro	On Peak	14.941		
56	Wailuku Hydro	Off Peak	13.474		
57	Hawi Renewable Dev.	On Peak	14.941		
58	Hawi Renewable Dev.	Off Peak	13.474		
59	Tawhiri (Pakini Nui)	On Peak	12.140		
60	Tawhiri (Pakini Nui)	Off Peak	12.180		
61					
62	Small Hydro (>100 KW)	On Peak	14.941		
63	Small Hydro (>100 KW)	Off Peak	13.474		
64	Sch Q Hydro (<100 KW)		13.980		
65	FIT		23.800		
	PURCHASED ENERGY KWH MIX, %, Fossil				
66	HEP		69.505		
	PURCHASED ENERGY KWH MIX, %, Renewable				
67	PGV	On Peak	0.000		
68	PGV	Off Peak	0.000		
69	PGV - Add'l	On Peak	0.000		
70	PGV - Add'l	Off Peak	0.000		
71	PGV - Add'l 8 MW	On Peak	0.000		
72	PGV - Add'l 8 MW	Off Peak	0.000		
73	Wailuku Hydro	On Peak	3.296		
74	Wailuku Hydro	Off Peak	2.450		
75	Hawi Renewable Dev.	On Peak	4.963		
76	Hawi Renewable Dev.	Off Peak	2.059		
77	Tawhiri (Pakini Nui)	On Peak	9.485		
78	Tawhiri (Pakini Nui)	Off Peak	7.323		
79					
80	Small Hydro (>100 KW)	On Peak	0.000	93A	Ocean Cargo Insurance Exp, \$000 \$8.2
81	Small Hydro (>100 KW)	Off Peak	0.000		HELCO-R-503, page 1, line 4
82	Sch Q Hydro (<100 KW)		0.189	93B	Revenue Tax Adjustment 1.097514
83	FIT		0.729	93C	Non-Adj Revenues, \$000 \$9.0
			100.000	93D	2016 TY Sales, MWh 1,040,692
					HELCO-WP-302z
				93E	Non-Adj Revenues, ¢/kWh 0.00086
83a	Comp. Cost Purchased Energy Fossil, ¢/kWh		12.6840		
83b	Comp. Cost Purchased Energy Renewable, ¢/kWh		13.3957		
84	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh		12.901		
85	% Input to System kWh Mix		46.024		
86	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (Lines (88 x 89))		5.93756		
87	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh		0.000		
88	Base % Input to Sys kWh Mix		0.00		
89	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (Lines (91 x 92))		0.00000		
90	COST LESS BASE (Lines (90 - 93))		5.93756		
91	Loss Factor		1.072		
92	Revenue Tax *		1.0975		
93	PURCHASED ENERGY FACTOR, ¢/kWh (Lines (94 x 95 x 96))		6.98566		
				<u>Line</u>	<u>SYSTEM COMPOSITE</u>
				94	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (Lines (47 + 93)) 16.50948
				95	Not Used 0.000
				96	Non-Adjustable Component 0.00086
				97	ECA Reconciliation Adjustment (1.179)
				98	ECA FACTOR, ¢/kWh (Lines (94 + 95+ 96 + 97)) 15.331

**Hawaii Electric Light Company, Inc.**  
FUEL OIL INVENTORY PRICES FOR August 1, 2019

**INDUSTRIAL FUEL COSTS:**

	<u>HILO</u>	<u>PUNA</u>
Average Industrial Fuel Cost - \$/BBL	62.9244	62.9244
Land Transportation Cost - \$/BBL	--	1.5260
Industrial Costs For Filing - \$/BBL	62.9244	64.4504
Conversion Factors - mmbtu/BBL	6.30	6.30
Industrial Costs For Filing - ¢/mmbtu	998.80	1,023.02

**DIESEL FUEL COSTS:**

	<u>KEAHOLE</u>	<u>PUNA CT-3</u>	<u>HILO</u>
Average Diesel Fuel Cost - \$/BBL	90.8934	90.8934	90.8934
Land Transportation Cost - \$/BBL	2.8337	1.1778	1.2696
Diesel Costs For Filing - \$/BBL	93.7270	92.0712	92.1629
Conversion Factors - mmbtu/BBL	5.86	5.86	5.86
Diesel Costs For Filing - ¢/mmbtu	1,599.44	1,571.18	1,572.75

**ULSD FUEL COSTS:**

	<u>KEAHOLE</u>	<u>WAIMEA</u>	<u>HILO</u>	<u>DISPERSED GENERATION</u>
Average ULSD Fuel Cost - \$/BBL	92.7628	92.7628	92.7628	92.7628
Land Transportation Cost - \$/BBL	2.1361	3.3015	0.9853	-
ULSD Costs For Filing - \$/BBL	94.8989	96.0643	93.7481	92.7628
Conversion Factors - mmbtu/BBL	5.73	5.73	5.73	5.73
ULSD Costs For Filing - ¢/mmbtu	1,656.18	1,676.52	1,636.09	1,618.90

**Dispersed Generation, cents per kWh**

	<u>COMPOSITE COST OF DISP. GEN.</u>
BBIs Fuel:	207.6645
\$/BBI Inv Cost:	92.7628
Fuel \$ (Prod Sim Consumption x Unit Cost)	19,263.55
Net kWh (from Prod Sim)	123,250
cents/kWh:	15.630

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

	SHIPMAN INDUSTRIAL		HILL INDUSTRIAL		COST PER BARREL		
	BBL	COST	BBL	COST	EXCL LT	LT Total	
Balance at 06/30/2019	0	0.00	40,709	2,854,083.02			
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	(31,531)	(2,150,127.29)			
Actual	0	0.00	28,178	1,924,939.21			
Consumed: Estimate	0	0.00	30,365	2,198,003.93			
Actual	0	0.00	(31,467)	(2,277,773.41)			
Balance Per G/L 06/30/2019	0	0.00	36,254	2,549,125.46			
Purchases	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer out	xxxxxx	xxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxxxxxxxx			
Transfer in	0	0.00	38,734	2,630,073.42			
Consumed	0	0.00	(35,209)	(2,483,744.97)	106.5901	0.0000	106.5901
Balance @ 07/31/2019	0	0.00	39,779	2,695,453.91			
Inv From Offsite/Transfers	0	0.00	0	0.00			
Est'd Inventory Addition	0	0.00	0	0.00			
Fuel Balance @ 07/31/2019	0	0.00	39,779	2,695,453.91			
Reverse Fuel Balance	xxxxxx	0.00	xxxxxx	(2,695,453.91)			
Fuel Bal @ Avg Price	xxxxxx	0.00	xxxxxx	2,503,068.39			
Total @ 08/01/2019 Avg Price	0	0.00	39,779	2,503,068.39			

Weighted Avg Cost/BBL by Location #DIV/0! 67.7607

Weighted Avg Cost/BBL @ Avg Cost #DIV/0! 62.9244

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

PUNA INDUSTRIAL

	BBL	COST	LAND TRANSP	COST PER BARREL		TOTAL
				EXCLUDE LT	LT	
Balance at 06/30/2019	9,264	690,018.28	14,180.33			
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	(3,438)	(238,484.00)	(4,522.04)			
Actual	3,273	238,340.33	4,552.29			
Consumed: Estimate	3,988	288,675.77	5,042.03			
Actual	(5,210)	(377,131.58)	(5,923.16)			
Balance Per G/L 06/30/2019	7,877	601,418.80	13,329.45			
Purchases	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer out	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer in	6,023	413,693	7,922.11			
Consumed	(8,553)	(603,353.42)	(13,092.08)	70.5429	1.5307	72.0736
Balance @ 07/31/2019	5,347	411,757.89	8,159.49			
Inventory From Offsite/Transfers	0	0.00	0.00			
Est'd Inventory Addition	0	0.00	0.00			
Fuel Bal @ Avg Price	5,347	411,757.89	8,159.49		1.5260	
Reverse Fuel Balance	XXXXXXXXXXXX	(411,757.89)	XXXXXXXXXXXX			
Fuel Balance @ Avg Price	XXXXXXXXXXXX	336,456.59	XXXXXXXXXXXX			
Total @ 08/01/2019 Avg Price	5,347	336,456.59	8,159.49			

Weighted Avg Cost/BBL by Location

77.0073

1.5260

Weighted Avg Cost/BBL @ Avg Cost

62.9244

1.5260

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

KEAHOLE CT

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER EXCLUD LT	BARREL LT	TOTAL
Balance at 06/30/2019	48,591.5	2,040,843.0	4,956,496.4	117,220.5			
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		xxxxxxxxxxxxxx	xxxxxxxxxxxxxx	xxxxxxxxxxxxxx			
Actual		xxxxxxxxxxxxxx	xxxxxxxxxxxxxx	xxxxxxxxxxxxxx			
Transfers in: Estimate	(29,765.8)	(1,250,162.0)	(2,863,613.0)	(84,636.0)			
Actual	32,431.4	1,362,120.0	3,090,092.6	90,486.00			
Consumed: Estimate	31,726.6	1,332,517.0	3,401,256.0	59,607.93			
Actual	(31,376.5)	(1,317,813.0)	(3,363,724.0)	(52,909.8)	107.2052		
Balance Per G/L 06/30/2019	51,607.3	2,167,505	5,220,508.09	129,768.67	101.1584		
Purchases	xxxxxxxxxxxx	xxxxxxxxxxxxxx	xxxxxxxxxxxxxx	xxxxxxxxxxxxxx			
Transfer out	xxxxxxxxxxxx	xxxxxxxxxxxxxx	xxxxxxxxxxxxxx	xxxxxxxxxxxxxx			
Transfer in	39,344.7	1,652,478.0	3,447,279.5	111,872.8	87.6173		
Consumed	(38,183.9)	(1,603,725.0)	(3,857,970.5)	(92,114.91)	101.0365	2.4124	103.4489
Balance @ 07/31/2019	52,768.0	2,216,258	4,809,817.12	149,526.52	91.1502		
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	52,768.0	2,216,258	4,809,817.12	149,526.52	91.1502		
Reverse Fuel Balance	xxxxxxxxxxxx	xxxxxxxxxxxxxx	(4,809,817.1)	xxxxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxx	xxxxxxxxxxxxxx	4,796,264.7	xxxxxxxxxxxxxx			
Total @ 08/01/2019 Avg Price	52,768.0	2,216,258	4,796,264.67	149,526.52	90.8934		

Weighted Avg Cost/BBL by Location	91.1502	2.8337
Weighted Avg Cost/BBL @ Avg Cost	90.8934	2.8337



**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

PUNA CT-3

HS Diesel	BBL	GALLONS	COST EXCLUD LT	LAND TRANSP	COST PER EXCL LT	BARREL LT	TOTAL
Balance at 06/30/2019	9,414.1	395,394.0	937,424.0	10,646.6			
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	(6,078.4)	(255,291.0)	(584,454.8)	(6,739.7)			
Actual	4,146.1	174,138.0	417,963.8	4,803.4			
Consumed: Estimate	2,061.2	86,572.0	220,975.4	2,542.1			
Actual	(4,954.7)	(208,096.0)	(531,166.0)	(5,781.7)			
Balance Per G/L 06/30/2019	4,588.5	192,717	460,742.34	5,470.67			
Purchases		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Transfer out		XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX			
Transfer in	4,071.6	171,007.0	355,386.2	4,514.6	87.2843		
Consumed	(4,576.7)	(192,221)	(462,412.79)	(5,175.78)	101.0365	1.1309	102.1674
Balance @ 07/31/2019	4,083.4	171,503	353,715.78	4,809.48	86.6228		
Inven From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Balance @ 07/31/2019	4,083.4	171,503	353,715.78	4,809.48	86.6228		
Reverse Fuel Balance		XXXXXXXXXXXXXXXXXXXX	(353,715.78)	XXXXXXXXXXXXXXXXXXXX			
Fuel Balance @ Avg Price		XXXXXXXXXXXXXXXXXXXX	371,154.34	XXXXXXXXXXXXXXXXXXXX			
Total @ 08/01/2019 Avg Price	4,083.4	171,503	371,154.34	4,809.48	90.8934		

Weighted Avg Cost/BBL by Location

86.6228 1.1778

Weighted Avg Cost/BBL @ Avg Cost

90.8934 1.1778

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

TOTAL HILO HS-DIESEL

HS Diesel	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER EXCL LT	BARREL LT	TOTAL
Balance at 06/30/2019	2057.5	86,413	218,839	2,573			
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	-190.8	-8014.0	-18228.7	-186.7			
Actual	190.8	8014.0	18177.6	184.4			
Consumed: Estimate	150.8	6335.0	16170.1	158.7			
Actual	-246.7	-10360.0	-26444.0	-241.4			
Balance Per G/L 06/30/2019	1961.6	82,388	208,514.39	2,488.21	106.2971		
Purchases		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer out		XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX			
Transfer in	0.0	0.0	0.0	0.0	#DIV/0!		
Consumed	-118.0	-4957.0	-11924.7	-147.6	101.0365	1.2507	102.2872
Balance @ 07/31/2019	1,843.6	77,431	196,589.68	2,340.60	106.6339		
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	1,843.6	77,431	196,589.68	2,340.60	106.6339		
Reverse Fuel Balance		XXXXXXXXXXXX	XXXXXXXXXXXX -196,589.68	XXXXXXXXXXXX			
Fuel Balance @ Avg Price		XXXXXXXXXXXX	XXXXXXXXXXXX 167,570.55	XXXXXXXXXXXX			
Total @ 08/01/2019 Avg Price	1,843.6	77,431	167,570.55	2,340.60	90.8934		
Weighted Avg Cost/BBL by Location			106.6339	1.2696			
Weighted Avg Cost/BBL @ Avg Cost			90.8934	1.2696			

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

KEAHOLE DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL EXCLUD LT	LT	TOTAL
Balance at 06/30/2019	2,259.5	94,898	208,820.50	4,666.82			
Less: Est'd Inventory Addition	0.0						
Purchases: Estimate	(190.0)	(7,980)	(18,912.60)	(540.25)			
Actual	188.4	7,913	18,710.75	0.00			
Transfers out: Estimate		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Actual		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfers in: Estimate		41	0.00	2.78			
Actual		(159)	0.00	535.71			
Consumed: Estimate	69.7	2,927	6,401.00	140.90			
Actual	(134.7)	(5,657)	(12,372.02)	(272.32)	91.8552		
Balance Per G/L 06/30/2019	2,190.1	91,983	202,647.63	4,533.64	92.5301		
Purchases	188.4	7,911	17,116.42	535.57	0.0000		
Estimated Purchases	0.0	0	0.00	0.00			
Transfer in	(5.5)	(229)	0.00	(15.50)	0.00		
Consumed	(213.7)	(8,975)	(19,872.53)	(441.36)	92.9968	2.0654	95.0622
Balance @ 07/31/2019	2,159.3	90,690	199,891.52	4,612.36	92.5730		
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	2,159.3	90,690	199,891.52	4,612.36	92.5730		
Reverse Fuel Balance	xxxxxxxxxxxx	xxxxxxxxxxxx	(199,891.52)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxx	xxxxxxxxxxxx	200,301.40	xxxxxxxxxxxx			
Total @ 08/01/2019 Avg Price	2,159.3	90,690	200,301.40	4,612.36	92.7628		

Weighted Avg Cost/BBL by Location

92.5730 2.1361

Weighted Avg Cost/BBL @ Avg Cost

92.7628 2.1361

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

WAIMEA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER BARREL	LT	TOTAL
Balance at 06/30/2019	1,008.3	42,347.0	90,406.5	3,324.95			
Less: Est'd Inven Addition	0.0	0.0	0.00	0.00			
Purchases: Estimate		0	0.00	0.00			
Actual		0.0	0.0	0.00			
Transfers out: Estimate		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Actual		xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx			
Transfers in: Estimate	(1.4)	(57)	0.00	0.00			
Actual	0.4	15	0.00	0.00			
Consumed: Estimate	79.5	3,337	7,297.62	261.90			
Actual	(82.3)	(3,457)	(7,560.05)	(271.32)			
Balance Per G/L 06/30/2019	1,004.4	42,185	90,144.03	3,315.53	89.7487		
ULSD Purchases	0.0	0	0.00	0.00	#DIV/0!		
Estimated Purchases	-	0	0.00	0.00			
Transfer in	xxxxxxxxxxxx	2	0.00	0.00	#DIV/0!		
Consumed	(180.5)	(7,583)	(16,790.35)	(595.39)	92.9968	3.2977	96.2945
Balance @ 07/31/2019	823.9	34,604	73,353.68	2,720.14	89.0317		
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	823.9	34,604	73,353.68	2,720.14	89.0317		
Reverse Fuel Balance	xxxxxxxxxxxx	xxxxxxxxxxxx	(73,353.68)	xxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxxxx	xxxxxxxxxxxx	76,427.72	xxxxxxxxxxxx			
Total @ 08/01/2019 Avg Price	823.9	34,604	76,427.72	2,720.14	92.7628		

Weighted Avg Cost/BBL by Location

89.0317 3.3015

Weighted Avg Cost/BBL @ Avg Cost

92.7628 3.3015

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

KANOELEHUA DIESEL

ULSD	BBL	GALLONS	COST EXCLUDE LT	LAND TRANSP		
Balance at 06/30/2019	1,400.7	58,828.0	133,326.6	1,387.2		
Less: Est'd Inventory Addition	0.0	0	0.00	0.00		
Purchases: Estimate	(190.0)	(7,980)	(18,912.60)	(185.93)		
Actua	0.0	0	0.00	0.00		
Transfers out: Estimate			x	x		x
Actua			x	x		x
Transfers in: Estimate		0	0.00	0.00		
Actua		0	0.00	0.00		
Consumed: Estimate	51.4	2,157	967.04	26.58		
Actua	(33.5)	(1,408)	(3,079.13)	(38.41)		
Balance Per G/L 06/30/2019	1,228.5	51,597	112,301.86	1,189.42		
ULSD Purchases	0	0	0.00	0.00	#DIV/0!	
Estimated Purchases	0	-	-	-		
Transfer in	0	0	0.00	0.00		
Consumed	(48.4)	(2,031)	(967.04)	(26.58)	92.9968	0.9904
Balance @ 07/31/2019	1,180.1	49,566	111,334.82	1,162.84		
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	1,180.1	49,566	111,334.82	1,162.84		
Reverse Fuel Balance	x	x	(111,334.82)	x		
Fuel Balance @ Avg Price	x	x	109,473.36	x		
Total @ 08/01/2019 Avg Price	1,180.1	49,566	109,473.36	1,162.84		

Weighted Avg Cost/BBL by Location

94.3401      0.9853

Weighted Avg Cost/BBL @ Avg Cost

92.7628      0.9853

**HAWAII ELECTRIC LIGHT CO., INC.**  
Estimated Weighted Average  
July 2019

DISPERSED GENERATION

	BBL	GALLONS	COST	COST/BBL
Balance at 06/30/2019	139.0	5,836	14,515.10	
Less: Est'd Inven Addition	0.0	XXXXXXXXXX	XXXXXXXXXX	
Purchases: Estimate	0.0	0	0.00	
Actual	0.0	0	0.00	
Consumed: Estimate	4.2	175	382.70	
Actual	(3.1)	(132)	(288.67)	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Balance Per G/L 06/30/2019	139.98	5,879	14,609.13	104.3687
Purchases	0.0	0	0.00	0.0000
Transfer out	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Transfer in	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
Consumed	(8.9)	(374)	(828.11)	92.9968
Balance @ 07/31/2019	131.1	5,505	13,781.02	105.1413
Est'd Inventory Addition	0.0	0	0.00	
Fuel Balance @ 07/31/2019	131.1	5,505	13,781.02	
Reverse Fuel Balance	XXXXXXXXXX	XXXXXXXXXX	(13,781.02)	xxxx
Fuel Balance @ Avg Price	XXXXXXXXXX	XXXXXXXXXX	12,158.55	xxxx
Total @ 08/01/2019 Avg Price	131.1	5,505	12,158.55	92.7628

**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
**CONTRACT PRICES EFFECTIVE July 1, 2019**

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>	53.33	3.3598	53.33	3.3598
Ocean Transportation	51.90	3.1514	0.00	0.0000
Storage	31.16	2.1410	33.98	2.1410
Wharfage	6.59	0.4000	6.35	0.4000
Fees <sup>2</sup>	0.00	0.0000	0.00	0.0000
	<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>	85.74	5.0241	85.74	5.0241
Ocean Transportation	53.78	3.1514	53.78	3.1514
Storage	28.34	1.6606	28.34	1.6606
Wharfage	6.83	0.4000	6.83	0.4000
Fees <sup>2</sup>	0.00	0.0000	0.00	0.0000
	<u>Kona Diesel</u>		<u>CT3 Diesel</u>	
	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax <sup>1</sup>	85.74	5.0241	85.74	5.0241
Ocean Transportation	53.78	3.1514	53.78	3.1514
Storage	28.34	1.6606	28.34	1.6606
Wharfage	6.83	0.4000	6.83	0.4000
Fees <sup>2</sup>	0.00	0.0000	0.00	0.0000
	<u>ULSD</u>			
<b>ULSD **</b>	<u>¢/MBTU</u>	<u>\$/BBL</u>		
Tax <sup>1</sup>	74.34	4.2600		
Ocean Transportation	18.32	1.0500		
Storage	45.48	2.0636		
Wharfage	0.00	0.0000		
Fees <sup>2</sup>	0.00	0.0000		

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

<sup>2</sup> With the change in supplier to PAR some fees have been taken off the pricing sheet.

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, Kanoiehua, and Keahole.

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

**Hawaii Electric Light Company, Inc.**  
PURCHASED POWER PRICES FOR August 1, 2019

		<u>August 1, 2019</u> (¢/kWh)	<u>Floor Rates</u> (¢/kWh)
PGV (25 MW)	- on peak	14.941	6.560
PGV (22 MW)	- off peak	13.474	5.430
WAILUKU HYDRO	- on peak	14.941	7.240
	off peak	13.474	5.970
Other: (<100 KW)	Sch Q Rate	13.980	
		<u>August 1, 2019</u> (¢/kWh)	<u>Floor Rates</u> (¢/kWh)
HEP		12.684	
PGV Addtl 5 MW	- on peak	13.0500	0.0000
	- off peak	13.0500	0.0000
PGV Addtl 8 MW	- on peak	9.9500	0.0000
	- off peak	6.6400	0.0000



**Hawaii Electric Light Company, Inc.**  
**Energy Cost Reconciliation Adjustment**  
August 1, 2019

<u>Line No.</u>	<u>Description</u>	<u>Amount</u>
1	Amount to be (returned) or collected	(\$3,027,900)
2	Monthly Amount ( $\frac{1}{3}$ x Line 1)	(\$1,009,300)
3	Revenue Tax Divisor	0.91115
4	Total (Line 2 / Line 3)	(\$1,107,721)
5	Estimated MWh Sales (August 1, 2019)	93,979 mwh
6	Adjustment (Line 4 / Line 5)	(1.179) ¢/kwh

HAWAII ELECTRIC LIGHT COMPANY, INC.  
2019 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY  
(Thousand \$)

LINE	DESCRIPTION	Info Only	collectn	Basis for Recon	Collection
		June 2019 YTD Total No Deadband	by company*	June 2019 YTD Total Deadband	or Refund by Company
ACTUAL COSTS:					
1	Generation	\$40,777.3		\$40,777.3	
2	Distributed Generation	\$6.3		\$6.3	
3	Purch Power	\$34,484.5		\$34,484.5	
4	TOTAL	<u>\$75,268.1</u>		<u>\$75,268.1</u>	
FUEL FILING COST					
5	Generation	\$39,516.8		\$40,097.9	
6	Distributed Generation	\$6.3		\$6.3	
7	Purch Power	\$34,484.5		\$34,484.5	
8	TOTAL	<u>\$74,007.5</u>		<u>\$74,588.6</u>	
BASE FUEL COST					
9	Generation	\$3,791.0		\$3,791.0	
10	Distributed Generation	\$0.3		\$0.3	
11	Purch Power	\$4,516.2		\$4,516.2	
12	TOTAL	<u>\$8,307.6</u>		<u>\$8,307.6</u>	
13	FUEL-BASE COST (Line 8-12)	\$65,700.0		\$66,281.1	
14	ACTUAL FOA LESS TAX	\$66,989.5		\$66,989.5	
15	Less: FOA reconciliation adj for prior year	-\$2,904.6		-\$2,904.6	
15A	Less: Non-Adjustable Component Revenues Less Tax	\$3.2		\$3.2	
16	ADJUSTED FOA LESS TAX	<u>\$69,890.9</u>		<u>\$69,890.9</u>	
17	FOA-(FUEL-BASE) (Line 16-13)	\$4,190.9	over	\$3,609.8	over
ADJUSTMENTS:					
18	Current year FOA accrual reversal	\$1,164.0		\$1,164.0	
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>\$5,354.9</u>	over	<u>\$4,773.8</u>	over
22	First Quarter FOA reconciliation			1,745.9	over
23	FOA Reconciliation to be Returned or Collected			3,027.9	over

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

**Hawai'i Electric Light Company  
DEADBAND CALCULATION  
For Period: January 1, 2019 to June 30, 2019**

	Notes	YTD
<b><u>Industrial</u></b>		
Industrial Efficiency Factor (per D&O), BTU/kWh*	f	14,569
Industrial Deadband Definition, +/- BTU/kWh	d	100
Industrial Portion of Recorded Sales, kWh	a	87,606,023
Industrial Consumption (Recorded), MMBTU	b	1,318,992
Industrial Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	15,056
Lower limit of Industrial Deadband, BTU/kWh	e= f-d	14,469
Higher limit of Industrial Deadband, BTU/kWh	g=f+d	14,669
Industrial Efficiency Factor for cost-recovery, BTU/kWh	h=c, e, or g	<b>14,669</b>
<b><u>Diesel</u></b>		
Diesel Efficiency Factor (per D&O), BTU/kWh*	f	10,480
Diesel Deadband Definition, +/- BTU/kWh	d	<b>200</b>
Diesel Portion of Recorded Sales, MWh	a	149,778,269
Diesel Consumption (Recorded), MMBTU	b	1,613,673
Diesel Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	10,774
Lower limit of Diesel Deadband, BTU/kWh	e= f-d	10,280
Higher limit of Diesel Deadband, BTU/kWh	g=f+d	10,680
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h=c, e, or g	<b>10,680</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	12,395
Hydro Deadband Definition, +/- BTU/kWh	d	<b>100</b>
Hydro Portion of Recorded Sales, MWh	a	4,876,219
Hydro Consumption (Recorded), MMBTU	b	60,578
Hydro Efficiency Factor (Recorded), BTU/kWh	c=(b/a) x 1000	12,423
Lower limit of Hydro Deadband, BTU/kWh	e= f-d	12,295
Higher limit of Hydro Deadband, BTU/kWh	g=f+d	12,495
Hydro Efficiency Factor for cost-recovery, BTU/kWh	h=c, e, or g	<b>12,423</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**  
**2019**

	<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	87,606,023	87,606,023
Industrial Efficiency Factor (mmbtu/kwh)	0.014569	0.014669
Mmbtu adjusted for Sales Efficiency Factor	1,276,332	1,285,093
\$/mmbtu	<u>\$11.0964</u>	<u>\$11.0964</u>
<b>TOTAL INDUSTRIAL \$000s TO BE RECOVERED</b>	<b>\$14,162.682</b>	<b>\$14,259.893</b>
<b><u>DIESEL FUEL FILING COST</u></b>		
Diesel Portion of Recorded Sales, kWh	149,778,269	149,778,269
Diesel Efficiency Factor (mmbtu/kwh)	0.010480	0.010680
Mmbtu adjusted for Sales Efficiency Factor	1,569,676	1,599,632
\$/mmbtu	<u>\$16.1525</u>	<u>\$16.1525</u>
<b>TOTAL DIESEL \$000s TO BE RECOVERED</b>	<b>\$25,354.134</b>	<b>\$25,837.992</b>
<b><u>HYDRO FUEL FILING COST</u></b>		
Hydro Portion of Recorded Sales , kWh	4,876,219	4,876,219
Hydro Efficiency Factor (mmbtu/kwh)	0.012395	0.012423
Mmbtu adjusted for Sales Efficiency Factor	60,441	60,577
\$/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>\$39,516.8</b>	<b>\$40,097.9</b>
<b><u>CALCULATION OF GENERATION BASE FUEL COST</u></b>		
<b>TOTAL GENERATION BASE FUEL COST, \$000s</b>	<b>\$3,791.0</b>	<b>\$3,791.0</b>
<b>TOTAL GENERATION FUEL FILING COST, \$000s YTD</b>	<b>\$39,516.8</b>	<b>\$40,097.9</b>
<b>TOTAL GENERATION BASE FUEL COST YTD</b>	<b>\$3,791.0</b>	<b>\$3,791.0</b>

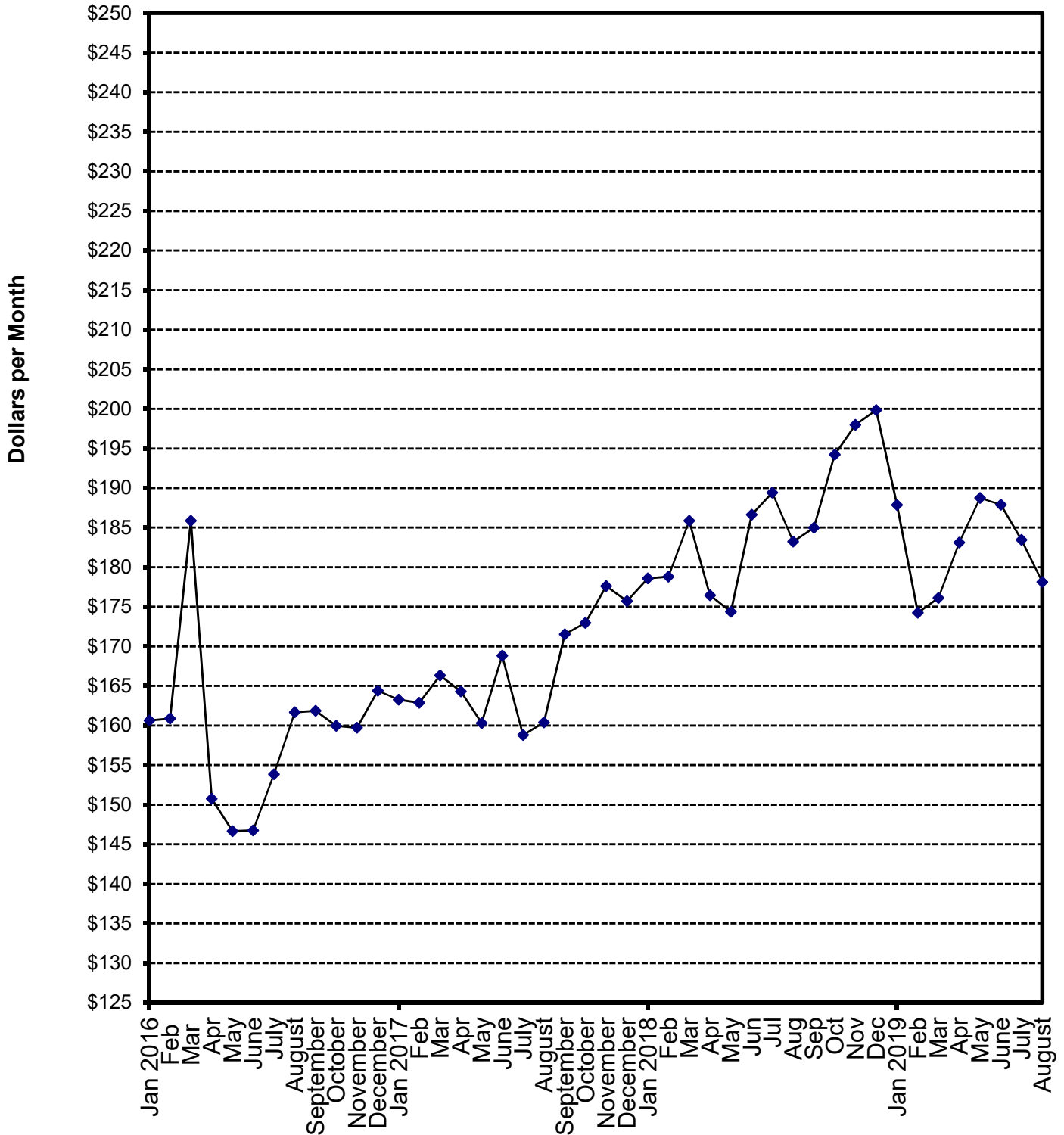
**HAWAII ELECTRIC LIGHT COMPANY, INC.**  
2019 Cumulative Reconciliation Balance

<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>
January 18					(238,067)	(242,224)	1,462
February	825,100	[4]	(29,783)	854,883	(275,033)	(279,869)	576,476
March					(275,033)	(283,895)	292,581
April					(275,033)	(291,829)	752
May	1,153,900	(1)	(17,855)	1,171,755	(384,633)	(398,709)	773,798
June					(384,633)	(387,715)	386,083
July					(384,633)	(399,033)	(12,950)
August	699,900	[2]	(33,954)	733,854	(233,300)	(244,658)	476,246
September					(233,300)	(240,110)	236,136
October					(233,300)	(241,346)	(5,210)
November	917,000	[3]	(32,568)	949,568	(305,667)	(309,251)	635,107
December 18					(305,667)	(302,091)	333,016
January 19					(305,667)	(300,243)	32,773
February	2,598,900	[4]	(8,054)	2,606,954	(866,300)	(800,636)	1,839,091
March					(866,300)	(825,091)	1,014,000
April					(866,300)	(829,484)	184,516
May	1,745,900	(1)	112,297	1,633,603	(581,967)	(565,304)	1,252,815
June					(581,967)	(585,631)	667,184
July					(581,967)		
August	3,027,900	[2]	49,815	2,978,085	(1,009,300)		

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 BILL (\$)</u>	
	<u>RESIDENTIAL &amp; COMMERCIAL</u>	<u>@ 500 KWH</u>	<u>@ 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	
December 1, 2017	-1.405	175.02	209.69	
January 1, 2018	-0.723	178.59	213.95	
February 1, 2018	-0.579	178.81	214.22	
March 1, 2018	0.816	185.87	222.68	
April 1, 2018	-0.912	176.46	211.39	
May 1, 2018	-0.452	174.38	208.90	
June 1, 2018	2.301	186.65	223.63	
July 1, 2018	2.831	189.43	226.97	
August 1, 2018	1.665	183.25	219.55	
September 1, 2018	2.027	184.98	221.62	
October 1, 2018	8.359	194.21	232.50	
November 1, 2018	8.913	197.99	237.04	
December 1, 2018	9.292	199.86	239.29	
January 1, 2019	6.867	187.86	224.86	
February 1, 2019	14.631	174.25	208.53	
March 1, 2019	14.976	176.1	210.75	
April 1, 2019	16.469	183.12	219.17	
May 1, 2019	17.396	188.74	225.93	
June 1, 2019	17.318	187.89	224.90	
July 1, 2019	16.450	183.46	219.63	
August 1, 2019	15.331	178.14	213.25	

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
04/09/12	FINAL RATE INCREASE (1.28%), DOCKET NO. 2009-0164 (2010 TEST YEAR)	
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
5/1/2017	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
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
7/1/2017- 12/31/17	GREEN INFRASTRUCTURE FEE	1.1800 DOLLARS/MONTH
7/1/2017	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
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
8/31/2017-4/30/18	INTERIM RATE INCREASE 2016	5.8800 PERCENT ON BASE
8/31/2017	RBA RATE ADJUSTMENT	0.6313 CENTS/KWH
10/1/2017 - 10/31/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.7257 CENTS/KWH
11/1/2017 - 11/30/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.4067 CENTS/KWH
12/1/2017 - 12/31/17	PURCHASED POWER ADJUSTMENT CLAUSE	2.4090 CENTS/KWH
1/1/2018 - 1/31/18	PURCHASED POWER ADJUSTMENT CLAUSE	2.4105 CENTS/KWH
1/1/18-6/30/18	GREEN INFRASTRUCTURE FEE	1.3400 DOLLARS/MONTH
2/1/18-2/28/18	PURCHASED POWER ADJUSTMENT CLAUSE	2.3101 CENTS/KWH
3/1/18 - 3/31/18	PURCHASED POWER ADJUSTMENT CLAUSE	2.3258 CENTS/KWH
04/1/18-04/30/18	PURCHASED POWER ADJUSTMENT CLAUSE	2.3184 CENTS/KWH
04/1/18-04/30/18	SOLARSAVER ADJUSTMENT	-0.1464 CENTS/KWH
05/1/18-05/31/18	PURCHASED POWER ADJUSTMENT CLAUSE	2.3395 CENTS/KWH
05/1/18-05/31/18	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
5/1/2018	INTERIM RATE INCREASE 2016	2.5000 PERCENT ON BASE
06/01/18-06/30/18	PURCHASED POWER ADJUSTMENT CLAUSE	1.6729 CENTS/KWH
6/1/2018	RBA RATE ADJUSTMENT	1.0006 CENTS/KWH
07/01/18-07/31/18	PURCHASED POWER ADJUSTMENT CLAUSE	1.6811 CENTS/KWH
7/1/2018- 12/31/18	GREEN INFRASTRUCTURE FEE	1.2100 DOLLARS/MONTH
7/1/2018	RESIDENTIAL PBF SURCHARGE ADJUSTMENT	0.4658 CENTS/KWH
08/01/18-08/31/18	PURCHASED POWER ADJUSTMENT CLAUSE	1.6110 CENTS/KWH
09/01/18-09/30/18	PURCHASED POWER ADJUSTMENT CLAUSE	1.5950 CENTS/KWH
10/01/18-10/31/18	PURCHASED POWER ADJUSTMENT CLAUSE	1.8602 CENTS/KWH
<b>10/1/2018</b>	<b>INTERIM RATE INCREASE 2016</b>	<b>0.0000 PERCENT ON BASE</b>
<b>10/1/2018</b>	<b>FINAL RATE INCREASE (TY 2016) 0.53% EFFECTIVE 10/01/18, DOCKET NO. 2015-0170</b>	
11/1/2018-11/30/18	PURCHASED POWER ADJUSTMENT CLAUSE	2.0617 CENTS/KWH
12/1/2018-12/31/18	PURCHASED POWER ADJUSTMENT CLAUSE	2.0577 CENTS/KWH
1/1/2019-1/31/19	PURCHASED POWER ADJUSTMENT CLAUSE	2.0548 CENTS/KWH
1/1/2019- 06/30/19	GREEN INFRASTRUCTURE FEE	1.3500 DOLLARS/MONTH
2/1/2019-2/28/19	PURCHASED POWER ADJUSTMENT CLAUSE	1.8113 CENTS/KWH
3/1/2019-3/31/19	PURCHASED POWER ADJUSTMENT CLAUSE	1.8372 CENTS/KWH
04/1/2019-4/30/19	PURCHASED POWER ADJUSTMENT CLAUSE	1.8247 CENTS/KWH
04/1/19-04/30/19	SOLARSAVER ADJUSTMENT	-0.0768 CENTS/KWH
05/01/2019-5/31/19	PURCHASED POWER ADJUSTMENT CLAUSE	1.9460 CENTS/KWH
<b>05/01/2019</b>	<b>SOLARSAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
06/01/2019-6/30/19	PURCHASED POWER ADJUSTMENT CLAUSE	1.9474 CENTS/KWH
<b>6/1/2019</b>	<b>RBA RATE ADJUSTMENT</b>	<b>0.9069 CENTS/KWH</b>
7/01/2019-7/31/19	PURCHASED POWER ADJUSTMENT CLAUSE	1.9539 CENTS/KWH
<b>7/1/2019</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.1700 DOLLARS/MONTH</b>
<b>7/1/2019</b>	<b>RESIDENTIAL PBF SURCHARGE ADJUSTMENT</b>	<b>0.4775 CENTS/KWH</b>
<b>8/1/2019-8/31/2019</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>2.0075 CENTS/KWH</b>

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



Calculations of the Average Residential Customer Bill

	Rate		Charge (\$) at 500 Kwh			
	07/01/19	08/01/19	07/01/19	08/01/19	Difference	
<b>Base Rates</b>	effective date:	2/1/2019	2/1/2019			
Base Fuel Energy Charge	¢/kwh	-	-	\$0.00	\$0.00	\$0.00
Non-Fuel Energy Charge	¢/kwh			\$71.85	\$71.85	\$0.00
First 300 kWh per month	¢/kwh	13.0289	13.0289	\$39.09	\$39.09	\$0.00
Next 700 kWh per month	¢/kwh	16.3807	16.3807	\$32.76	\$32.76	\$0.00
Customer Charge	\$	11.50	11.50	\$11.50	\$11.50	\$0.00
<b>Total Base Charges</b>				\$83.35	\$83.35	\$0.00
<b>Interim Rate Increase 2016 TY</b>	% on base	0.0000%	0.0000%	\$0.00	\$0.00	\$0.00
<b>RBA Rate Adjustment</b>	¢/kwh	0.9069	0.9069	\$4.53	\$4.53	\$0.00
<b>Purchased Power Adj. Clause</b>	¢/kwh	1.9539	2.0075	\$9.77	\$10.04	\$0.27
<b>PBF Surcharge</b>	¢/kwh	0.4775	0.4775	\$2.39	\$2.39	\$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 Recovery</b>	¢/kwh	16.4500	15.3310	\$82.25	\$76.66	-\$5.59
<b>Green Infrastructure Fee</b>	\$	1.1700	1.1700	\$1.17	\$1.17	\$0.00
<b>Avg Residential Bill at 500 kwh</b>				\$183.46	\$178.14	
				Increase (Decrease -)		-\$5.32
				% Change		-2.90%

	Rate		Charge (\$) at 600 Kwh			
	07/01/19	08/01/19	07/01/19	08/01/19	Difference	
<b>Base Rates</b>	effective date:	2/1/2019	2/1/2019			
Base Fuel/Energy Charge	¢/kwh	-	-	\$0.00	\$0.00	\$0.00
Non-Fuel Energy Charge	¢/kwh			\$88.23	\$88.23	\$0.00
First 300 kWh per month	¢/kwh	13.0289	13.0289	\$39.09	\$39.09	\$0.00
Next 700 kWh per month	¢/kwh	16.3807	16.3807	\$49.14	\$49.14	\$0.00
Customer Charge	\$	11.50	11.50	\$11.50	\$11.50	\$0.00
<b>Total Base Charges</b>				\$99.73	\$99.73	\$0.00
<b>Interim Rate Increase 2016 TY</b>	% on base	0.0000%	0.0000%	\$0.00	\$0.00	\$0.00
<b>RBA Rate Adjustment</b>	¢/kwh	0.9069	0.9069	\$5.44	\$5.44	\$0.00
<b>Purchased Power Adj. Clause</b>	¢/kwh	1.9539	2.0075	\$11.72	\$12.05	\$0.33
<b>PBF Surcharge</b>	¢/kwh	0.4775	0.4775	\$2.87	\$2.87	\$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 Recovery</b>	¢/kwh	16.4500	15.3310	\$98.70	\$91.99	-\$6.71
<b>Green Infrastructure Fee</b>	\$	1.1700	1.1700	\$1.17	\$1.17	\$0.00
<b>Avg Residential Bill at 600 kwh</b>				\$219.63	\$213.25	
				Increase (Decrease -)		-\$6.38
				% Change		-2.90%