

JAY IGNACIO, P. E. President

September 27, 2017

2017 SEP 27 P 3:51

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 October 2017

Hawai'i Electric Light Company, Inc.'s ("Hawai'i Electric Light") Energy Cost Adjustment factor for October 2017 is -2.131 cents per kilowatt-hour ("kWh"), an increase of 0.316 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$172.97, an increase of \$1.45 compared to rates effective September 1, 2017. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor (+\$1.58) and the decrease in the Purchase Power Adjustment Clause rate (-\$0.13).

Hawai'i Electric Light's fuel composite cost of generation increased 6.89 cents per million BTU to 1,086.69 cents per million BTU. The distributed generation decreased 0.858 cents per kWh to 10.876 cents per kWh. The composite cost of purchased energy increased 0.376 cents per kWh to 11.747 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 October 1, 2017.

Sincerely,

Attachments

cc: Division of Consumer Advocacy

Hawai'i Electric Light

HAWAII ELECTRIC LIGHT COMPANY, INC.

ENERGY COST ADJUSTMENT FACTOR

EFFECTIVE DATES

	<u>9/01/17</u>	<u>10/01/17</u>	<u>Change</u>
Composite Cost			
Generation, ¢/mmbtu Dispersed Generation Energy, ¢/kWh Purchased Energy, ¢/kWh	1,079.80 11.734 11.371	1,086.69 10.876 11.747	6.89 (0.858) 0.376
Residential Schedule "R"			
Energy Cost Adjustment - ¢/kWh	(2.447)	(2.131)	0.316
<u>Others - "G,J,P,F"</u>			
Energy Cost Adjustment - ¢/kWh	(2.447)	(2.131)	0.316
Residential Customer with:			
500 KWH Consumption - \$/Bill 600 KWH Consumption - \$/Bill	\$171.52 \$205.50	\$172.97 \$207.23	\$1.45 \$1.73

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

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

<u>Line</u>

1	Effective Date	October 1, 2017
2	Supercedes Factors of	September 1, 2017

GENERATION COMPONENT

	CE	NTRAL STATIO	N WITH WIND/I	HYDRO COMPO	NENT			
		FUEL PRICES,	¢/mmbtu					
	3							
	4	Hill Industrial			804.91			
	5	Puna Industria	al		817.87			
	6	Keahole Diese	el		1,437.86			
	6a	a Keahole ULS)		1,377.59			
	7	Waimea ULSD	Diesel		1,368.72			
	8	Hilo Diesel			1,411.08			
	8a	a Hilo (Kanoelehu	ua) ULSD Diesel	1	1,348.95			
	9	Puna Diesel			1,411.43		DG ENERGY COMPONENT	
	10	Wind			0.00	35	COMPOSITE COST OF DG	
	11	Hydro			0.00		ENERGY, ¢/kWh	10.876
						36	% Input to System kWh Mix	0.004
		BTU MIX, %						
	12	,				37	WEIGHTED COMPOSITE DG ENERGY COST,	
	13	Hill Industrial			49.670		¢/kWh (Lines 35 x 36)	0.0004
	14	Puna Industria	al		5.274			
	15	Keahole Diese	el		44.286	38	BASE DG ENERGY COMPOSITE COS	15.70
5a		Keahole ULS)		0.002			
	16	Waimea ULSI	D Diesel		0.000	39	Base % Input to System kWh Mix	0.0
	17	Hilo Diesel			0.000	40	WEIGHTED BASE DG ENERGY COST,	
17a		Hilo (Kanoelehi	ua) ULSD Diesel	1	0.000			
	18	•	,		0.493		¢/kWh (Line 38 x 39)	0.00942
	19	Wind			0.000			
	20	Hydro			0.275	41	Cost Less Base (Line 37 - 40)	(0.00898
					100.000	42	Loss Factor	1.067
	21	COMPOSITE C	OST OF GENE	RATION,		43	Revenue Tax Req Multiplier	1.0975
		CENTRAL ST	ATION + WIND/	/HYDRO ¢/mmb	1,086.69	44	DG FACTOR, ¢/kWh	
	22	% Input to Syst	em kWh Mix		46.202		(Line 41 x 42 x 43)	(0.01052
			ACTOR, mmbtu	/k\//b				
		(A)	(B)	(C)	(D)			
		(74)		Percent of	(2)			
			Eff Factor	Centrl Stn +	Weighted			
		Fuel Type	mmbtu/kwh	Wind/Hydro	Eff Factor			
	23	Industrial	0.015148	44.241	0.006702			
	24	Diesel	0.010424	52.723	0.005496			
	25		0.012621	3.036	0.000383			
			, 25): Col(B) x C					
	26	•	anay Easter mm	. , ,				

(Lines 23, 24, 25): Col(B) X Col(C) = Co 26 Weighted Efficiency Factor, mmbtu/kWh

	[Lines 23(D) + 24(D) + 25(D)]	0.0125810
27	WEIGHTED COMPOSITE CENTRAL STATION WIND/HYDRO GENERATION COST, ¢/kWh	
	(Lines (21 x 22 x 26))	6.31657
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)	(0.80138)
	Revenue Tax Reg Multiplier	1.0975
34	CENTRAL STATION + WIND/HYDRO	
	GENERATION FACTOR,	
	¢/kWh (Line (32 x 33))	(0.87951)

¹ Hilo ULSD same location as Kanoelehua ULSD

HELCO ECAC eff 10-01-17 filed with price update v1a.xlsm

SUMMARY OF	
TOTAL GENERATION FACTOR, ¢/kWh	
45 Cntrl Stn+Wind/Hydro (line 34)	(0.87951)
46 DG (line 44)	(0.01052)
47 TOTAL GENERATION FACTOR,	
¢/kWh (lines 45 + 46)	(0.89003)

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

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

Line	PURCHASED EI	NERGY COMPON	IENT
	PURCHASED ENERGY P	RICF ¢/kWh	
48	HEP		13.017
49	PGV	On Peak	11.036
50	PGV	Off Peak	11.131
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
	Wailuku Hydro	On Peak	11.036
	Wailuku Hydro	Off Peak	11.131
-	Hawi Renewable Dev.	On Peak	11.036
	Hawi Renewable Dev.	Off Peak	11.131
59	· · · · · · · · · · · · · · · · · · ·	On Peak	12.900
60 61	Tawhiri (Pakini Nui)	Off Peak	12.070
	Small Hydro (>100 KW)	On Peak	11.036
63	, , ,	Off Peak	11.131
64			10.760
65	FIT		23.800
	PURCHASED ENERGY K	WH MIX, %	
66	HEP		15.923
	PGV	On Peak	21.827
	PGV Addet	Off Peak	13.322
	PGV - Addt'l	On Peak	4.352
	PGV - Addt'l PGV - Add'l 8 MW	Off Peak On Peak	3.118
	PGV - Add'l 8 MW	Off Peak	2.582 5.737
	Wailuku Hydro	On Peak	1.175
	Wailuku Hydro	Off Peak	0.851
	Hawi Renewable Dev.	On Peak	4.549
	Hawi Renewable Dev.	Off Peak	2.051
	Tawhiri (Pakini Nui)	On Peak	12.886
	Tawhiri (Pakini Nui)	Off Peak	9.026
79			
	Small Hydro (>100 KW)	On Peak	0.000
81	,	Off Peak	0.000
82	, , ,		0.189
83	FIT		2.412
			100.000
84	COMPOSITE COST OF P	URCHASED	
e -	ENERGY, ¢/kWh		11.747
	% Input to System kWh Mi		53.794
86	WEIGHTED COMPOSITE		
	COST, ¢/kWh (Lines (84	x 85))	6.31918
87	BASE PURCHASED ENER		
00	COMPOSITE COST, ¢/k		13.354
88 89	Base % Input to Sys kWh I WEIGHTED BASE PURCH		53.88
09	COST, ¢/kWh (Lines (87		7.19514
۵n	COST LESS BASE (Lines	(86 - 89))	(0.87596)
	Loss Factor		(0.87390) 1.067
	Revenue Tax *		1.0975
	PURCHASED ENERGY F	ACTOR. ¢/kWh	(1.02578)
	(Lines (90 x 91 x 92))	, -	(

Line

SYSTEM COMPOSITE

94	GENERATION AND PURCHASED ENERGY	
	FACTOR, ¢/kWh (Lines (47 + 93))	(1.91581)
95	Not Used	0.000
96	Not Used	0.000
97	ECA Reconciliation Adjustment	(0.215)
98	ECA FACTOR, ¢/kWh	(2.131)
	(Lines (94 + 95+ 96 + 97))	

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY PRICES FOR October 1, 2017

INDUSTRIAL FUEL COSTS: Average Industrial Fuel Cost - \$/BBL Land Transportation Cost - \$/BBL	<u>HILO</u> 50.7090 	<u>PUNA</u> 50.7090 0.8166		
Industrial Costs For Filing - \$/BBL Conversion Factors - mmbtu/BBL	50.7090 6.30	51.5256 6.30		
Industrial Costs For Filing - ¢/mmbtu	804.91	817.87		
DIESEL FUEL COSTS: Average Diesel Fuel Cost - \$/BBL Land Transportation Cost - \$/BBL	KEAHOLE 81.4599 2.7984	PUNA CT-3 81.4599 1.2498	HILO 81.4599 1.2294	
Diesel Costs For Filing - \$/BBL Conversion Factors - mmbtu/BBL	84.2583 5.86	82.7097 5.86	82.6894 5.86	
Diesel Costs For Filing - ¢/mmbtu	1,437.86	1,411.43	1,411.08	
ULSD FUEL COSTS: Average ULSD Fuel Cost - \$/BBL Land Transportation Cost - \$/BBL	KEAHOLE 76.0765 2.8593	WAIMEA 76.0765 2.3514	HILO 76.0765 1.2185	DISPERSED GENERATION 76.0765 -
ULSD Costs For Filing - \$/BBL Conversion Factors - mmbtu/BBL	78.9358 5.73	78.4279 5.73	77.2951 5.73	76.0765 5.73
ULSD Costs For Filing - ¢/mmbtu	1,377.59	1,368.72	1,348.95	1,327.69

Dispersed Generation, cents per kWh

COMPOSITE COST
OF DISP. GEN.
5.7185
76.0765
435.04
4,000
10.876

	SHIPMAN	I INDUSTRIAL	HILL INDU	JSTRIAL			
					COST PER BAF	REL	
	BBL	COST	BBL	COST	EXCL LT	LT Total	
Balance at 08/31/2017	0	0.00	37,826	1,890,698.27			
Less: Est'd Inventory Addn			0	0.00			
Purchases: Estimate	xxxxxx xx	****	xxxxxxxx	xxxxxxxxxxxx			
Actual	XXXXXX XX	*****	XXXXXXXXX	*****			
Transfers out: Estimate	xxxxxx xx	****	XXXXXXXXX	****			
Actual	xxxxxx xx	****	XXXXXXXX	*****			
Transfers in: Estimate	0	0.00	(23,900)	(1,168,643.17)			
Actual	0	0.00	24,826	1,210,331.06			
Consumed: Estimate	0	0.00	28,137	1,320,176.79			
Actual	0	0.00	(28,562)	(1,325,836.04)			
Balance Per G/L 08/31/2017	0	0.00	38,327	1,926,726.91			
Purchases	xxxxxx xx	****	XXXXXXXXX	****			
Transfer out	xxxxxx xx	****	XXXXXXXXX	****			
Transfer in	0	0.00	38,410	1,954,190.50			
Consumed	0	0.00	(32,961)	(1,662,767.09)	106.5901	0.0000	106.5901
Balance @ 09/30/2017	0	0.00	43,776	2,218,150.32			
Inv From Offsite/Transfers	0	0.00	0	0.00			
Est'd Inventory Addition	0	0.00	0	0.00			
Fuel Balance @ 09/30/2017	0	0.00	43,776	2,218,150.32			
Reverse Fuel Balance	xxxxxx	0.00	****	(2,218,150.32)			
Fuel Bal @ Avg Price	xxxxxx	0.00	*****	2,219,837.90			
Total @ 10/01/2017 Avg Price	0	0.00	43,776	2,219,837.90			
Weighted Avg Cost/BBL by Location		#DIV/0!		50.6705			
Weighted Avg Cost/BBL @ Avg Cost		#DIV/0!		50.7090			

	PUNA INDUST	RIAL				
			LAND	COST PER BA	ARREL	
	BBL	COST	TRANSP	EXCLUDE LT	LT	TOTAL
Balance at 08/31/2017	6,089	300,104.63	6,816.54			
Less: Est'd Inventory Addition	0	0.00	0.00			
Purchases: Estimate	xxxxxxxx xx	****	*****			
Actual	XXXXXXXXXXXX XX	*****	*****			
Transfers out: Estimate	xxxxxxxx xx	****	*****			
Actual	XXXXXXXXXXXX XX	*****	*****			
Transfers in: Estimate	(2,590)	(129,518.73)	(3,096.97)			
Actual	2,420	121,323.95	2,976.20			
Consumed: Estimate	2,515	118,002.79	2,884.71			
Actual	(1,785)	(75,662.45)	(4,458.91)			
Balance Per G/L 08/31/2017	6,649	334,250.19	5,121.57	-		
Purchases	xxxxxxxx xx	****	*****			
Transfer out	xxxxxxxx xx	****	*****			
Transfer in	2,168	113,950	2,592.36			
Consumed	(1,697)	(85,607.71)	(1,899.79)	50.4465	1.1195	51.5660
Balance @ 09/30/2017	7,120	362,592.14	5,814.14			
Inventory From Offsite/Transfers	0	0.00	0.00			
Est'd Inventory Addition	0	0.00	0.00			
Fuel Bal @ Avg Price	7,120	362,592.14	5,814.14		0.8166	
Reverse Fuel Balance	xxxxxxxxxx	(362,592.14)	*****			
Fuel Balance @ Avg Price	*****		****			
Total @ 10/01/2017 Avg Price	7,120	361,048.20	5,814.14	-		
Weighted Avg Cost/BBL by Location		50.9259	0.8166			
Weighted Avg Cost/BBL @ Avg Cost		50.7090	0.8166			

		KEAHOLE CT					
		_	COST	LAND	COST PER		
HS Diesel	BBL	GALLONS	EXCLUDE LT	TRANSP	EXCLUD LT	LT	TOTAL
Balance at 08/31/2017	45,481.3	1,910,215.0	3,603,718.7	132,722.1			
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		****	****	****			
Actual		*****	****	*****			
Transfers in: Estimate	(46,866.2)	(1,968,380.0)	(3,570,105.1)	(133,259.3)			
Actual	49,642.7	2,084,993.0	3,684,870.8	138,566.67			
Consumed: Estimate	50,974.7	2,140,937.0	3,307,115.6	144,915.95			
Actual	(50,984.2)	(2,141,335.0)	(3,293,798.8)	(144,830.8)	64.6043		
Balance Per G/L 08/31/2017	48,248.3	2,026,430	3,731,801.16	138,114.54	77.3457		
Purchases	****	* ****	****	****			
Transfer out	****	* ****	****	****			
Transfer in	47,154.5	1,980,490.0	3,960,969.8	134,079.2	83.9998		
Consumed	(43,551.1)	(1,829,147.0)	(3,455,999.1)	(127,090.88)	79.3550	2.9182	82.2732
Balance @ 09/30/2017	51,851.7	2,177,773	4,236,771.92	145,102.84	81.7094		
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	51,851.7	2,177,773	4,236,771.92	145,102.84	81.7094		
Reverse Fuel Balance	****		(4,236.771.9)	xxxxxxxxxxxxx			
Fuel Balance @ Avg Price		* ****		****			
Total @ 10/01/2017 Avg Price	51,851.7	2,177,773	4,223,837.76	145,102.84	81.4599		
Weighted Avg Cost/BBL by Location			81.7094	2.7984			
Weighted Avg Cost/BBL @ Avg Cost			81.4599	2.7984			

	Р	UNA CT-3					
			COST	LAND	COST PER B	ARREL	
HS Diesel	BBL	GALLONS	EXCLUD LT	TRANSP	EXCL LT	LT	TOTAL
Balance at 08/31/2017	4,021.5	168,901.0	296,446.1	4,985.7			
Less: Est'd Inven Addition	0.0	0.0	0.0	0.0			
Purchases: Estimate	x	****	****	****			
Actual	х	XXXXXXXXXXXXXXXXXXXXX	xxxxxxxxxxxxx	XXXXXXXXXXXXXX			
Transfers out: Estimate	х	****	****	xxxxxxxxxxx			
Actual	х	*****	*****	XXXXXXXXXXXXX			
Transfers in: Estimate	(476.4)	(20,009.0)	(39,064.0)	(528.2)			
Actual	465.0	19,532.0	44,646.0	626.8			
Consumed: Estimate	2,062.2	86,611.0	133,788.4	2,357.7			
Actual	(1,867.2)	(78,423.0)	(110,574.2)	(2,134.8)			
Balance Per G/L 08/31/2017	4,205.0	176,612	325,242.36	5,307.12			
Purchases	xxxxxxx x	xxxxxxxxxxxxxx	xxxxxxxxxxxx	****			
Transfer out	xxxxxxx x	xxxxxxxxxxxxx	xxxxxxxxxxx	****			
Transfer in	415.0	17,431.0	37,602.4	460.2	90.6031		
Consumed	(671.8)	(28,217)	(53,313.33)	(832.94)	79.3550	1.2398	80.5948
Balance @ 09/30/2017	3,948.2	165,826	309,531.47	4,934.36	78.3974		
Inven From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Balance @ 09/30/2017	3,948.2	165,826	309,531.47	4,934.36	78.3974		
Reverse Fuel Balance	XXXXXXXXXXXX	xxxxxxxxxxx	(309.531.47)	****			
Fuel Balance @ Avg Price		*****		*****			
Total @ 10/01/2017 Avg Price	3,948.2	165,826	321,623.11	4,934.36	81.4599		
Weighted Avg Cost/BBL by Location			78.3974	1.2498			
Weighted Avg Cost/BBL @ Avg Cost			81.4599	1.2498			

		TOTAL HILO I	HS-DIESEL				
			COST	LAND	COST PER	BARREL	
HS Diesel	BBL	GALLONS	EXCLUDE LT	TRANSP	EXCL LT	LT	TOTAL
Balance at 08/31/2017	1605.9	67,446	112,258	1,742			
Less: Est'd Inven Addition	0.0	0	0	0			
Purchases: Estimate			*****				
Actual	2	xxxxxxxxxxxx	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	xxxxxxxxxxxx			
Transfers out: Estimate	2	xxxxxxxxxxx	*****	xxxxxxxxxxx			
Actual	2	*****	XXXXXXXXXXXXXXXXX	xxxxxxxxxxxx			
Transfers in: Estimate	-188.4	-7913.0	-15294.1	0.9			
Actual	188.4	7913.0	14811.2	0.0			
Consumed: Estimate	102.0	4283.0	6616.0	125.1			
Actual	-90.8	-3815.0	6676.9	115.9			
Balance Per G/L 08/31/2017	1617.0	67,914	125,068.00	1,984.26	77.3457		
Purchases	*****	xxxxxxxxxxx	XXXXXXXXXXXX	xxxxxxxxxxx			
Transfer out	xxxxxxxxxxxx	xxxxxxxxxxx	*****	xxxxxxxxxxx			
Transfer in	-1.8	-76.0	0.0	-1.8	#DIV/0!		
Consumed	-22.8	-959.0	-1811.9	-24.8	79.3550	1.0850	80.4400
Balance @ 09/30/2017	1,592.4	66,879	123,256.06	1,957.72	77.4048		
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	1,592.4	66,879	123,256.06	1,957.72	77.4048		
Reverse Fuel Balance	xxxxxxxxxxxx	xxxxxxxxxxx	-123,256.06 >	xxxxxxxxxxx			
Fuel Balance @ Avg Price	XXXXXXXXXXXXXX	****	129,713.26	xxxxxxxxxxx			
Total @ 10/01/2017 Avg Price	1,592.4	66,879	129,713.26	1,957.72	81.4599		
Weighted Avg Cost/BBL by Location			77.4048	1.2294			
Weighted Avg Cost/BBL @ Avg Cost			81.4599	1.2294			

	KEAHOLE DIES	EL				
		COST	LAND	COST PER BARREL	-	
BBL	GALLONS	EXCLUDE LT	TRANSP	EXCLUD LT	LT	TOTAL
2,175.7	91,378	164,607.01	6,352.14			
0.0						
(188.2)	(7,903)	(15,451.18)	(535.03)			
188.2	7,903	15,451.18	0.00			
	xxxxxxxxxxxx	****	xxxxxxxxxxxx			
	XXXXXXXXXXXXX	*****	*****			
	(181)	0.00	(12.25)			
	174	0.00	535.03			
135.5	5,693	10,073.79	390.61			
(183.4)	(7,702)	(14,558.94)	(639.89)	79.3918		
2,127.7	89,362	160,121.86	6,090.61	75.2570		
0.0	0	1,080.57	0.00	0.0000		
0.0	0	0.00	0.00			
(1.3)	(54)	0.00	(3.66)	0.00		
(115.8)	(4,862)	(8,766.30)	(337.98)	75.7270	2.9196	78.6466
2,010.6	84,446	152,436.13	5,748.98	75.8155		
0.0	0	0.00	0.00			
0.0	0	0.00	0.00			
2,010.6	84,446	152,436.13	5,748.98	75.8155		
XXXXXXXXXXXXX	xxxxxxxxxxx	(152,436.13)	xxxxxxxxxxx			
XXXXXXXXXXXX	****					
2,010.6	84,446	152,960.89	5,748.98	76.0765		
		75.8155	2.8593			
	BBL 2,175.7 0.0 (188.2) 188.2 135.5 (183.4) 2,127.7 0.0 2,127.7 0.0 (1.3) (115.8) 2,010.6 0.0 0.0 2,010.6	BBL GALLONS 2,175.7 91,378 0.0 (188.2) (188.2) (7,903) 188.2 7,903 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	BBL GALLONS EXCLUDE LT 2,175.7 91,378 164,607.01 0.0 (15,451.18) 188.2 7,903 15,451.18) 188.2 7,903 15,451.18) 188.2 7,903 15,451.18) 188.2 7,903 15,451.18) 188.2 7,903 15,451.18) 188.2 7,903 10,073.79 (183.4) (7,702) (14,558.94) 2,127.7 89,362 160,121.86 0.0 0 1,080.57 0.0 0 0,00 (11.3) (54) 0,00 (115.8) (4,862) (8,766.30) 2,010.6 84,446 152,436.13 0.0 0 0,00 0.0 0 0,00 2,010.6 84,446 152,436.13 2,010.6 84,446 152,436.13 2,010.6 84,446 152,960.89 2,010.6 84,446 152,960.89	BBL GALLONS EXCLUDE LT TRANSP 2,175.7 91,378 164,607.01 6,352.14 0.0 (188.2) (7,903) (15,451.18) (535.03) 188.2 7,903 15,451.18 0.00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	BBL GALLONS EXCLUDE LT TRANSP COST PER BARREL 2,175.7 91,378 164,607.01 6,352.14 0.0 (188.2) (7,903) (15,451.18) (535.03) 188.2 188.2 7,903 15,451.18 0.00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	BBL COST LAND COST PER BARREL EXCLUDE LT COST PER BARREL TRANSP 2,175.7 91,378 164,607.01 6,352.14 EXCLUDE LT LT 0.0 (188.2) (7,903) (15,451.18) (535.03) EXCLUDE LT LT 188.2 7,903 15,451.18 0.00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

		WAIMEA DIES	EL				
			COST	LAND	COST PER BARI	REL	
ULSD	BBL	GALLONS	EXCLUDE LT	TRANSP		LT	TOTAL
Balance at 08/31/2017	1,516.5	63,693.0	113,959.8	3,565.96			
Less: Est'd Inven Addition	0.0	0.0	0.00	0.00			
Purchases: Estimate		(7,913)	(15,468.62)	(446.29)			
Actual		7,913.0	15,468.6	0.00			
Transfers out: Estimate		****	****	****			
Actual		*****	*****	XXXXXXXXXXXXX			
Transfers in: Estimate	(3.7)			0.00			
Actual	3.7	156	0.00	446.29			
Consumed: Estimate	172.0	7,222	12,779.36	404.90			
Actual	(149.3)						
Balance Per G/L 08/31/2017	1,539.2	64,645	115,833.10	3,619.34	75.2570		
ULSD Purchases	188.6	7,920	16,329.46	446.69	86.5956		
Estimated Purchases	-	0	0.00	0.00			
Transfer in	****	61	0.00	0.00	#DIV/0!		
Consumed	(227.5)	(9 <i>,</i> 557)	(17,231.50)	(535.06)	75.7270	2.3514	78.0784
Balance @ 09/30/2017	1,501.6	63,069	114,931.06	3,530.97	76.5369		
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	1,501.6	63,069	114,931.06	3,530.97	76.5369		
Reverse Fuel Balance	xxxxxxxxxxx	****	(114,931.06)	xxxxxxxxxxx			
Fuel Balance @ Avg Price	*****	*****	114,239.76	****			
Total @ 10/01/2017 Avg Price	1,501.6	63,069	114,239.76	3,530.97	76.0765		
Weighted Avg Cost/BBL by Location			76.5369	2.3514			
Weighted Avg Cost/BBL @ Avg Cost			76.0765	2.3514			

	I	KANOELEHUA	DIESEL			
			COST	LAND		
ULSD	BBL	GALLONS	EXCLUDE LT	TRANSP		
Balance at 08/31/2017	1,555.4	65,327.0	118,857.5	1,850.1		
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		х	x	x		
Actual		х	х	x		
Transfers in: Estimate		610	0.00	14.21		
Actual		(800)	0.00	183.53		
Consumed: Estimate	16.6	698	1,235.11	103.00		
Actual	(11.8)	(495)	(3,014.21)	(241.77)		
Balance Per G/L 08/31/2017	1,555.7	65,340	117,078.43	1,909.05		
ULSD Purchases	0	0	0.00	0.00	#DIV/0!	
Estimated Purchases	0	-	-	-		
Transfer in	(12)	(494)	0.00	(11.51)		
Consumed	(44.9)	(1,887)	(3,402.31)	(70.91)	75.727	1.1894
Balance @ 09/30/2017	1,499.0	62,959	113,676.12	1,826.63		
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	1,499.0	62,959	113,676.12	1,826.63		
Reverse Fuel Balance	x	v	(113,676.12)	v		
Fuel Balance @ Avg Price	×		114,040.51	x		
Total @ 10/01/2017 Avg Price	1,499.0	62,959	114,040.51	1,826.63		
Weighted Avg Cost/BBL by Location			75.8334	1.2185		
Weighted Avg Cost/BBL @ Avg Cost			76.0765	1.2185		

DISPERSED GENERATION

F

	BBL	GALLONS	COST	COST/BBL
Balance at 08/31/2017	45.4	1,908	3,398.55	
Less: Est'd Inven Addition	0.0	xxxxxxxx	xxxxxxxx	
Purchases: Estimate Actual	(9.4) 9.4	(393) 393	(655.96) 675.71	
Consumed: Estimate Actual		2,918 (2,088)		
		xxxxxxxxxxx xxxxxxxxxx		
		xxxxxxxxxxx xxxxxxxxxx		
Balance Per G/L 08/31/2017	65.19	2,738	4,906.04	75.2570
Purchases	41.2	1,732	3,388.17	82.1612
Transfer out	****	****	xxxxxxxxxx	
Transfer in	xxxxxxxxx	****	xxxxxxxxxx	
Consumed	(1.0)	(42)	(75.73)	75.7270
Balance @ 09/30/2017	105.4	4,428	8,218.48	77.9531
Est'd Inventory Addition	0.0	0	0.00	
Fuel Balance @ 09/30/2017	105.4	4,428	8,218.48	
Reverse Fuel Balance Fuel Balance @ Avg Price		xxxxxxxxxxxx xxxxxxxxxxx	(8,218.48) x 8,020.64 x	
Total @ 10/01/2017 Avg Price	105.4	4,428	8,020.64	76.0765

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

TYPE OF OIL BURNED

	<u>Hill Indu</u>	<u>strial</u>	<u>Puna Ind</u>	<u>ustrial</u>
INDUSTRIAL *	<u>¢/MBTU</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>	<u>\$/BBL</u>
Tax ¹ Ocean Transportation Storage Wharfage Fees ²	47.66 53.60 28.69 4.78 1.13	3.0024 3.2545 1.9687 0.2900 0.0712	47.66 51.66 31.25 4.60 1.13	3.0024 3.2545 1.9687 0.2900 0.0900
	Hilo Die	esel	Waimea I	Diesel
DIESEL * Tax ¹ Ocean Transportation Storage Wharfage Fees ²	¢/MBTU 80.56 55.54 26.13 4.95 1.67	\$/BBL 4.7204 1.9761 1.5312 0.2900 0.0975	¢/MBTU 79.00 52.04 26.13 4.95 1.67	\$/BBL 4.6289 3.0496 1.5312 0.2900 0.0975
	Kona Di	esel	CT3 Di	esel
	¢/MBTU	\$/BBL	¢/MBTU	\$/BBL
Tax ¹ Ocean Transportation Storage Wharfage Fees ²	79.00 52.04 26.13 4.95 1.67	4.6289 3.0496 1.5312 0.2900 0.0975	79.00 52.04 26.13 4.95 1.67	4.6289 3.0496 1.5312 0.2900 0.0975
	ULSI)		
ULSD ** Tax 1 Ocean Transportation Storage	¢/MBTU 26.38 0.00	\$/BBL 1.9068 0.0000		

¹ Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST Tax and Environmental Response Tax.

² 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 October 1, 2017

		October 1, 2017 (¢/kWh)	Floor Rates (¢/kWh)
PGV (25 MW)	- on peak	11.036	6.560
PGV (22 MW)	- off peak	11.131	5.430
WAILUKU HYDRO	- on peak	11.036	7.240
		11.131	5.970
Other: (<100 KW)	Sch Q Rate	10.760	
		October 1, 2017 (¢/kWh)	Floor Rates (¢/kWh)
HEP		13.017	
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 October 1, 2017

<u>Line No.</u>	Description	Amount
1	Amount to be (returned) or collected	(\$500,800)
2	Monthly Amount ($^{1}/_{3}$ x Line 1)	(\$166,933)
3	Revenue Tax Divisor	0.91115
4	Total (Line 2 / Line 3)	(\$183,212)
5	Estimated MWh Sales (October 1, 2017)	85,360 mwh
6	Adjustment (Line 4 / Line 5)	(0.215) ¢/kwh

HAWAII ELECTRIC LIGHT COMPANY, INC.

2017 Cumulative Reconciliation Balance

	(1)		(2) FOA Rec	(3) FOA Rec	(4)	(5)	(6) Month-end
	YTD FOA		Adjust	Less	Try to	Actual	Cumulative
<u>Month</u>	Reconciliation	<u>Qtr</u>	Variance	<u>Variance</u>	Collect	Collect	<u>Balance</u>
November	791,200	[3]	44,375	746,825	(263,733)	(262,906)	565,708
December					(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)		
October					(166,933)		
November					(
December							

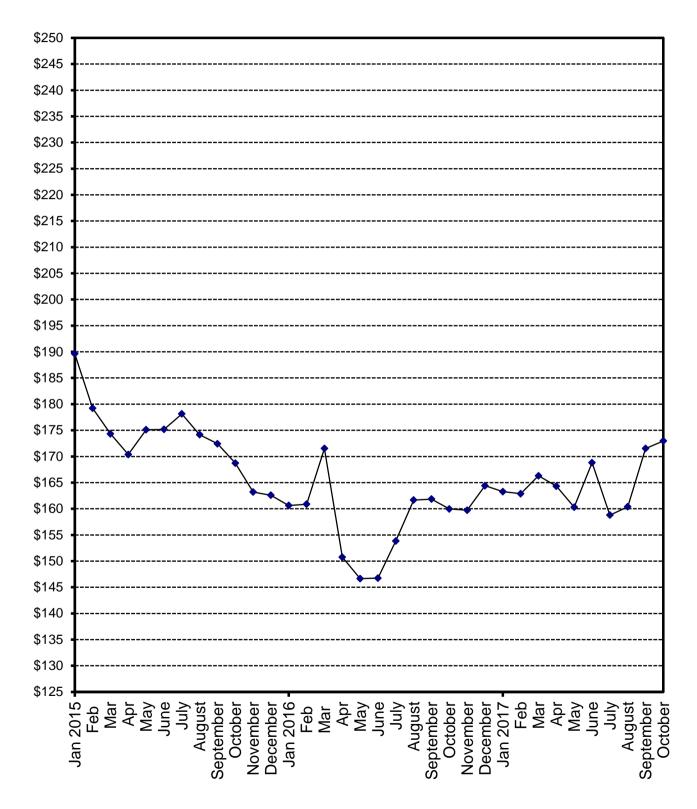
December

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

EFFECTIVE DATE	FUEL FACTOR CENTS / KWH RESIDENTIAL & <u>COMMERCIAL</u>		()
January 1, 2015 February 1, 2015 March 1, 2015 April 1, 2015 June 8, 2015 July 1, 2015 August 1, 2015 September 1, 2015 October 1, 2015 November 1, 2015	2.369 0.485 -0.519 -0.990 -0.420 -0.579 0.264 -0.586 -0.927 -1.671 -2.727 -2.859	189.62 179.22 174.32 170.37 175.10 175.16 178.14 174.16 172.43 168.73 163.20 162.59	227.20 214.71 208.85 204.10 209.79 209.85 213.38 208.61 206.54 202.10 195.47 194.74
January 1, 2016 February 1, 2016 March 1, 2016 April 1, 2016 June 1, 2016 July 1, 2016 August 1, 2016 September 1, 2016 October 1, 2016 November 1, 2016 December 1, 2016	-3.223 -2.962 -4.311 -4.715 -5.554 -5.546 -4.248 -3.094 -3.040 -3.427 -3.514 -2.584	160.63 160.87 154.26 150.76 146.66 146.74 153.85 161.67 161.85 159.97 159.72 164.41	192.41 192.69 184.76 180.57 175.64 175.74 184.31 193.69 193.90 191.65 191.35 196.97
January 1, 2017 February 1, 2017 March 1, 2017 April 1, 2017 May 1, 2017 June 1, 2017 July 1, 2017 August 1, 2017 September 1, 2017 October 1, 2017	-2.842 -2.956 -2.274 -2.425 -3.035 -1.343 -3.220 -3.643 -2.447 -2.131	163.27 162.87 166.31 164.31 160.30 168.82 158.79 160.39 171.52 172.97	195.58 195.09 199.24 196.83 192.02 202.25 190.22 192.15 205.50 207.23

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 SOLARSAVER ADJUSTMENT -0.2779 CENTS/KWH 4/1/2016 - 4/30/16 5/1/2016 - 5/31/16 PURCHASED POWER ADJUSTMENT CLAUSE SOLARSAVER ADJUSTMENT 5/1/2016 6/1/2016 - 6/30/16 PURCHASED POWER ADJUSTMENT CLAUSE 6/1/2016 **RBA RATE ADJUSTMENT** 7/1/2016-7/31/16 PURCHASED POWER ADJUSTMENT CLAUSE 7/1/2016 **GREEN INFRASTRUCTURE FEE** 7/1/2016 RESIDENTIAL PBF SURCHARGE ADJUSTMENT 8/1/2016-8/31/16 PURCHASED POWER ADJUSTMENT CLAUSE 9/1/2016-9/30/16 PURCHASED POWER ADJUSTMENT CLAUSE 10/1/2016-10/31/16 PURCHASED POWER ADJUSTMENT CLAUSE PURCHASED POWER ADJUSTMENT CLAUSE 11/1/2016-11/30/16 12/1/2016-12/31/16 PURCHASED POWER ADJUSTMENT CLAUSE 1/1/2017-1/31/2017 PURCHASED POWER ADJUSTMENT CLAUSE 1/1/2017 **GREEN INFRASTRUCTURE FEE** 2/1/2017 - 2/28/17 PURCHASED POWER ADJUSTMENT CLAUSE 3/1/2017 - 3/31/17 PURCHASED POWER ADJUSTMENT CLAUSE PURCHASED POWER ADJUSTMENT CLAUSE 4/1/2017-4/30/17 4/1/2017-4/30/17 SOLARSAVER ADJUSTMENT 5/1/2017-5/31/17 PURCHASED POWER ADJUSTMENT CLAUSE 1.9396 CENTS/KWH 5/1/2017 SOLARSAVER ADJUSTMENT 0.0000 CENTS/KWH

PURCHASED POWER ADJUSTMENT CLAUSE 6/1/2017-6/30/17 **RBA RATE ADJUSTMENT** 6/1/2017 7/1/2017 - 7/31/2017 PURCHASED POWER ADJUSTMENT CLAUSE **GREEN INFRASTRUCTURE FEE** 7/1/2017-12/31/17 7/1/2017 **RESIDENTIAL PBF SURCHARGE ADJUSTMENT** 8/1/2017-8/31/17 PURCHASED POWER ADJUSTMENT CLAUSE 9/1/2017-9/30/17 PURCHASED POWER ADJUSTMENT CLAUSE 8/31/2017 Interim Ra te Increase 2016 8/31/2017 **RBA RATE ADJUSTMENT**

10/1/2017 - 10/31/17

1.8623 CENTS/KWH 0.0000 CENTS/KWH 1.8442 CENTS/KWH 1.4241 CENTS/KWH 1.8909 CENTS/KWH 1.1300 DOLLARS/MONTH 0.5865 CENTS/KWH 2.3000 CENTS/KWH 2.2824 CENTS/KWH 2.2930 CENTS/KWH 2.3298 CENTS/KWH 2.3371 CENTS/KWH 2.3400 CENTS/KWH 1.2700 DOLLARS/MONTH 2.3737 CENTS/KWH 2.3809 CENTS/KWH 2.3781 CENTS/KWH -0.2462 CENTS/KWH

1.9225 CENTS/KWH 1.4533 CENTS/KWH 1.9710 CENTS/KWH 1.1800 DOLLARS/MONTH 0.4244 CENTS/KWH 2.7161 CENTS/KWH 2.7515 CENTS/KWH 5.8800 PERCENT ON BASE 0.6313 CENTS/KWH 2.7257 CENTS/KWH

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

PURCHASED POWER ADJUSTMENT CLAUSE

	Rate			Γ	Charge (\$) at 500 Kwh		
		9/01/17	10/01/17		9/01/17	10/01/17	Difference
Base Rates	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
Total Base Charges				Γ	\$154.46	\$154.46	\$0.00
Interim Rate Increase 2016 TY	% on base	5.8800%	5.8800%		\$9.08	\$9.08	\$0.00
RBA Rate Adjustment	¢/kwh	0.6313	0.6313		\$3.16	\$3.16	\$0.00
Purchased Power Adj. Clause	¢/kwh	2.7515	2.7257		\$13.76	\$13.63	-\$0.13
PBF Surcharge	¢/kwh	0.4244	0.4244		\$2.12	\$2.12	\$0.00
DSM Adjustment	¢/kwh	0.0000	0.0000		\$0.00	\$0.00	\$0.00
SolarSaver Adjustment	¢/kwh	0.0000	0.0000		\$0.00	\$0.00	\$0.00
Energy Cost Adjustment	¢/kwh	(2.4470)	(2.1310)		-\$12.24	-\$10.66	\$1.58
Green Infrastructure Fee	\$	1.1800	1.1800		\$1.18	\$1.18	\$0.00

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

Avg Residential Bill at 500 kwh

Increase (Decrease -) % Change

\$172.97

\$171.52

\$1.45 0.85%

	Rate			Γ	Charge (\$) at 600 Kwh			
		09/01/17	10/01/17		9/01/17	10/01/17	Difference	
Base Rates	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	
Total Base Charges					\$185.26	\$185.26	\$0.00	
Interim Rate Increase 2016 TY	% on base	5.8800%	5.8800%		\$10.89	\$10.89	\$0.00	
RBA Rate Adjustment	¢/kwh	0.6313	0.6313		\$3.79	\$3.79	\$0.00	
Purchased Power Adj. Clause	¢/kwh	2.7515	2.7257		\$16.51	\$16.35	-\$0.16	
PBF Surcharge	¢/kwh	0.4244	0.4244		\$2.55	\$2.55	\$0.00	
DSM Adjustment	¢/kwh	0.0000	0.0000		\$0.00	\$0.00	\$0.00	
SolarSaver Adjustment	¢/kwh	0.0000	0.0000		\$0.00	\$0.00	\$0.00	
Energy Cost Adjustment	¢/kwh	(2.4470)	(2.1310)		-\$14.68	-\$12.79	\$1.89	
Green Infrastructure Fee	\$	1.1800	1.1800		\$1.18	\$1.18	\$0.00	
	_							
Avg Residential Bill at 600 kwh					\$205.50	\$207.23		

Increase (Decrease -) % Change

