

SHARON M. SUZUKI President

August 28, 2019

2019 AUG 28 P 3: 22

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 September 2019

Hawai'i Electric Light Company, Inc.'s ("Hawai'i Electric Light") Energy Cost Recovery factor for September 2019 is 14.845 cents per kilowatt-hour ("kWh"), a decrease of 0.49 cents per kWh from last month.

Hawai'i Electric Light's fuel composite cost of generation decreased 47.65 cents per million BTU to 1,330.21 cents per million BTU. The composite cost of distributed generation increased 0.46 cents per kWh to 16.091 cents per kWh. The composite cost of purchased energy decreased 0.67 cents per kWh to 12.231 cents per kWh.

A residential customer consuming 500 kWh of electricity will be paying \$175.70, a decrease of \$2.44 compared to rates effective August 1, 2019. The decrease in the typical residential bill is due to the decrease of (-\$2.43) of the Energy Cost Recovery Factor and the decrease in the Purchased Power Adjustment rate (-\$0.01).

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 September 1, 2019.

Sincerely,

Attachments

cc: Division of Consumer Advocacy

Shaw M. Ageled

ENERGY COST RECOVERY FACTOR

	<u>EFFECTIV</u>	E DATES	
	8/01/19	9/01/19	<u>Change</u>
Composite Cost			
Generation, ¢/mmbtu Dispersed Generation Energy, ¢/kWh Purchased Energy, ¢/kWh	1,377.86 15.630 12.901	1,330.21 16.091 12.231	(47.65) 0.46 (0.67)
Residential Schedule "R"			
Energy Cost Recovery - ¢/kWh	15.331	14.845	(0.49)
Others - "G,J,P,F"			
Energy Cost Recovery - ¢/kWh	15.331	14.845	(0.49)
Residential Customer with:			
500 KWH Consumption - \$/Bill 600 KWH Consumption - \$/Bill	\$178.14 \$213.25	\$175.70 \$210.32	(\$2.44) (\$2.93)

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

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

Line

1 Effective Date September 1, 2019 2 Supercedes Factors of August 1, 2019

GENERATION COMPONENT

		ENTRAL STATIC	ON WITH WIND/HYDRO COMP	ONENT		
	<u></u>			ONLINI		
	3	FUEL PRICES, 9	μπιποια			
		Hill Industrial		000 50		
	4	Hill Industrial		988.58		
	5	Puna Industrial		1,009.91		
	6	Keahole Diesel		1,607.20		
		Keahole ULSD	No. and	1,720.36		
		Waimea ULSD D	Diesel	1,715.98		
	8	Hilo Diesel		1,575.78		
	8a	Hilo (Kanoelehua	a) ULSD Diesel¹	1,689.96		
	9	Puna Diesel		1,578.98	DG ENERGY COMPONENT	
	10	Wind		0.00	35 COMPOSITE COST OF DG	
	11	Hydro		0.00	ENERGY, ¢/kWh	16.09
		,			36 % Input to System kWh Mix	0.11
		BTU MIX, %			·······	****
	12	D10 111171, 70			37 WEIGHTED COMPOSITE DG ENERGY COST,	
	13	Hill Industrial		30.126	¢/kWh (Lines 35 x 36)	0.0188
	14	Puna Industrial		6.710	pricer (Ellies so x so)	0.0100
	15	Keahole Diesel		42.766	38 BASE DG ENERGY COMPOSITE COS	0.00
5a		Keahole ULSD		0.293	30 BAGE BO ENERGY COMIT CONE COO	0.00
Ja	16	Waimea ULSD	Diesel	0.293	39 Base % Input to System kWh Mix	0.0
		Hilo Diesel	Diesei	6.277	40 WEIGHTED BASE DG ENERGY COST,	0.0
_	17				40 WEIGHTED BASE DG ENERGY COST,	
7a		Hilo (Kanoelehua	a) ULSD Diesel¹	0.299		
		Puna Diesel		10.238	¢/kWh (Line 38 x 39)	0.0000
	19	Wind		0.000		
	20	Hydro		2.904	41 Cost Less Base (Line 37 - 40)	0.0188
				100.000	42 Loss Factor	1.07
	21	COMPOSITE CO	OST OF GENERATION,		43 Revenue Tax Req Multiplier	1.097
		CENTRAL STA	TION + WIND/HYDRO ¢/mmbt	u 1,330.21	44 DG FACTOR, ¢/kWh	
	22	% Input to System	m kWh Mix	53.165	(Line 41 x 42 x 43)	0.0221
		EFFICIENCY FA	CTOR, mmbtu/kWh			
		(A)	(B) (C)	(D)		
		. ,	Percent of	` '		
			Eff Factor Centrl Stn +	Weighted		
		Fuel Type	mmbtu/kwh Wind/Hydro			
	23	Industrial	0.014569 36.836	0.005367		
	24	Diesel	0.010480 60.260	0.006315		
	25	Other	0.012395 2.904	0.000360		
	_0	(Lines 23, 2	100.000			
	26	,	ncy Factor, mmbtu/kWh	-		
	_0	[Lines 23(D) + 2	· ·	0.0120420		
		[EIIIOO 20(D) 1 2	(=, - 20(5)]	0.0120720		
	27	WEIGHTED CO	MPOSITE CENTRAL STATION	+		
	21		GENERATION COST, ¢/kWh			
			• •	8.51618		
		(Lines (21 x 22	X 20))	0.51010		
	20	DACE CENTER!	STATION - MIND/INDDO			
	۷۵		STATION + WIND/HYDRO	2.25		
	00		ON COST, ¢/mmbtu	0.00		
		Base % Input to		0.00		
		Efficiency Factor		0.000000		
	31		SE CENTRAL STATION +			
			GENERATION COST ¢/kWh			
		(Lines (28 x 29	9 x 30))	0.00000		
					SUMMARY OF	
	32	COST LESS BAS	SE (Line 27 - 31)	8.51618	TOTAL GENERATION FACTOR, ¢/kWh	
		Revenue Tax Re	,	1.0975	45 Cntrl Stn+Wind/Hydro (line 34)	9.3465
			ION + WIND/HYDRO		46 DG (line 44)	0.0221
	٠.	GENERATION F			47 TOTAL GENERATION FACTOR,	0.0221
		¢/kWh (Line (3		0.04054	¢/kWh (lines 45 + 46)	0.0000
		(;/KVVII II III — 1 >		9.34651	C/KVVII (III) les 45 ± 451	9.3686

 $^{^{\}mathrm{1}}\,$ Hilo ULSD same location as Kanoelehua ULSD

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

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

ine	PURCHASED EI	NERGY COMPONEN	<u>1T</u>			
	PURCHASED ENERGY PRI	CE. ¢/kWh Fossil				
48	HEP	o_, <i>p</i> /	11.743			
40	PURCHASED ENERGY PRI PGV	CE, ¢/kWh Renewable On Peak	e 14.687			
	PGV	Off Peak	13.097			
	PGV - Add'l 5 MW	On Peak	13.050			
	PGV - Add'l 5 MW	Off Peak	13.050			
	PGV - Add'l 8 MW	On Peak	9.950			
	PGV - Add'l 8 MW	Off Peak	6.640			
	Wailuku Hydro	On Peak	14.687			
	Walluku Hydro	Off Peak	13.097			
	Hawi Renewable Dev.	On Peak	14.687			
	Hawi Renewable Dev.	Off Peak	13.097			
	Tawhiri (Pakini Nui)	On Peak	12.220			
	Tawhiri (Pakini Nui)	Off Peak	12.240			
61			0			
	Small Hydro (>100 KW)	On Peak	14.687			
	Small Hydro (>100 KW)	Off Peak	13.097			
	Sch Q Hydro (<100 KW)		13.670			
	FIT		23.800			
	PURCHASED ENERGY KW	H MIX, %, Fossil				
66	HEP		67.199			
	PURCHASED ENERGY KW					
	PGV	On Peak	0.000			
	PGV	Off Peak	0.000			
	PGV - Addt'l	On Peak	0.000			
	PGV - Addt'l	Off Peak	0.000			
	PGV - Add'l 8 MW	On Peak	0.000			
	PGV - Add'l 8 MW	Off Peak	0.000			
	Wailuku Hydro	On Peak	3.330			
	Wailuku Hydro	Off Peak	2.287			
	Hawi Renewable Dev.	On Peak	4.949			
	Hawi Renewable Dev.	Off Peak	1.641			
	Tawhiri (Pakini Nui)	On Peak	12.084	Derivation of	of No	on-Adjustable Component:
	Tawhiri (Pakini Nui)	Off Peak	7.574	004		O O I 5 1000
79				93A		Ocean Cargo Insurance Exp, \$000
	Small Hydro (>100 KW)	On Peak	0.000	005		HELCO-R-503, page 1, line 4
	Small Hydro (>100 KW)	Off Peak	0.000	93B		Revenue Tax Adjustment
	Sch Q Hydro (<100 KW)		0.166	93C		Non-Adj Revenues, \$000
83	FIT		0.771	93D		2016 TY Sales, MWh
			100.000			HELCO-WP-302z
00	0 0 15 1 15	- 1 ///	44 =	93E		Non-Adj Revenues, ¢/kWh
	Comp. Cost Purchased Ener	, ,	11.7430			
	Comp. Cost Purchased Ener		13.2318			
84	COMPOSITE COST OF PUI	KCHASED	40.00:			
۰-	ENERGY, ¢/kWh		12.231			
	% Input to System kWh Mix	LIDOLIA OED ENEDOV	46.718			
86	WEIGHTED COMPOSITE P		F 74400			
	COST, ¢/kWh (Lines (88 x	ນອ <u>ງ)</u>	5.71408			
07	DACE DUDOUACED ENERG	NV.				
٥ <i>/</i>	BASE PURCHASED ENERG		0.000	Line		SYSTEM COMPOSITE
QΟ	COMPOSITE COST, ¢/kW		0.000	<u>Line</u>		3131EM COMPOSITE
	Base % Input to Sys kWh Mi WEIGHTED BASE PURCHA		0.00		Q٨	GENERATION AND PURCHASED ENERGY
OB	COST, ¢/kWh (Lines (91 x		0.00000		34	FACTOR, ¢/kWh (Lines (47 + 93))
	COOT, WINTER LINES (91 X	<i>32</i>]]	0.00000		05	Not Used
90	COST LESS BASE (Lines (9	0 - 93))	5.71408			Non-Adjustable Component
	Loss Factor		1.072			ECA Reconciliation Adjustment
	Revenue Tax *		1.0975			ECA FACTOR, ¢/kWh
	PURCHASED ENERGY FAC	CTOR, ¢/kWh	6.72273			(Lines (94 + 95+ 96 + 97))
93						, , , , , , , , , , , , , , , , , , , ,

Hawaii Electric Light Company, Inc.

FUEL OIL INVENTORY PRICES FOR September 1, 2019

INDUSTRIAL FUEL COSTS: Average Industrial Fuel Cost - \$/BBL Land Transportation Cost - \$/BBL	<u>HILO</u> 62.2808 	<u>PUNA</u> 62.2808 1.3436		
Industrial Costs For Filing - \$/BBL Conversion Factors - mmbtu/BBL	62.2808 6.30	63.6243 6.30		
Industrial Costs For Filing - ¢/mmbtu	988.58	1,009.91		
DIESEL FUEL COSTS: Average Diesel Fuel Cost - \$/BBL Land Transportation Cost - \$/BBL	KEAHOLE 91.2408 2.9409	PUNA CT-3 91.2408 1.2876	HILO 91.2408 1.1000	
Diesel Costs For Filing - \$/BBL Conversion Factors - mmbtu/BBL	94.1817 5.86	92.5284 5.86	92.3408 5.86	
Diesel Costs For Filing - ¢/mmbtu	1,607.20	1,578.98	1,575.78	:
ULSD FUEL COSTS:	KEAHOLE	WAIMEA	HILO	DISPERSED GENERATION
Average ULSD Fuel Cost - \$/BBL Land Transportation Cost - \$/BBL	95.5034 3.0735	95.5034 2.8220	95.5034 1.3314	95.5034 -
ULSD Costs For Filing - \$/BBL Conversion Factors - mmbtu/BBL	98.5769 5.73	98.3254 5.73	96.8348 5.73	95.5034 5.73
ULSD Costs For Filing - ¢/mmbtu	1,720.36	1,715.98	1,689.96	1,666.73

Dispersed Generation, cents per kWh

	COMPOSITE COST
	OF DISP. GEN.
BBIs Fuel:	185.3396
\$/BBI Inv Cost:	95.5034
Fuel \$ (Prod Sim Consumption x Unit Cost)	17,700.55
Net kWh (from Prod Sim)	110,000
cents/kWh:	16.091

Estimated Weighted Average
July 2019

SHIPMAN INDUSTRIAL HILL INDUSTRIAL

	SHIFIVIAIN	INDUSTRIAL	HILL IND	JOINIAL			
					COST PER BARREL		
	BBL	COST	BBL	COST	EXCL LT	LT Total	
Balance at 06/30/2019	0	0.00	39,779	2,695,453.91			
Less: Est'd Inventory Addn			0	0.00			
Purchases: Estimate	xxxxxx xxx	xxxxxxxxxxx	xxxxxxx	xxxxxxxxxxxx			
Actual	xxxxxx xxx	XXXXXXXXXXXX	xxxxxxx	xxxxxxxxxxxx			
Transfers out: Estimate	xxxxxx xxx	xxxxxxxxxx	xxxxxxx	xxxxxxxxxxxx			
Actual	XXXXXX XXX	XXXXXXXXXXXX	XXXXXXXX	xxxxxxxxxxx			
Transfers in: Estimate	0	0.00	(38,734)	(2,630,073.42)			
Actual	0	0.00	39,025	2,644,210.66			
Consumed: Estimate	0	0.00	35,209	2,483,744.97			
Actual	0	0.00	(34,269)	(2,618,139.93)			
Balance Per G/L 06/30/2019	0	0.00	41,010	2,575,196.19	-		
Purchases	xxxxxx xxx	xxxxxxxxxxx	xxxxxxx	xxxxxxxxxxxx			
Transfer out	xxxxxx xxx	xxxxxxxxxxx	xxxxxxx	xxxxxxxxxxxx			
Transfer in	0	0.00	23,673	1,470,197.55			
Consumed	0	0.00	(37,112)	(2,335,250.33)	106.5901	0.0000	106.5901
Balance @ 07/31/2019	0	0.00	27,571	1,710,143.41			
Inv From Offsite/Transfers	0	0.00	895	55,386.71			
Est'd Inventory Addition	0	0.00	0	0.00			
Fuel Balance @ 07/31/2019	0	0.00	28,466	1,765,530.12	:		
Reverse Fuel Balance	xxxxxx	0.00	xxxxxxx	(1,765,530.12)			
Fuel Bal @ Avg Price	xxxxx	0.00	xxxxxxxx	1,772,853.58			
Total @ 08/01/2019 Avg Price	0	0.00	28,466	1,772,853.58	<u> </u>		

Weighted Avg Cost/BBL by Location #DIV/0! 62.0235
Weighted Avg Cost/BBL @ Avg Cost #DIV/0! 62.2808

Estimated Weighted Average July 2019

PUNA INDUSTRIAL

			LAND	COST PER BA	RREL	
	BBL	COST	TRANSP	EXCLUDE LT	LT	TOTAL
Balance at 06/30/2019	5,347	411,757.90	8,159.48			
Dalatice at 35, 35, 2513	3,3 17	111,737.30	0,233.10			
Less: Est'd Inventory Addition	0	0.00	0.00			
Less. Est a inventory Addition	O	0.00	0.00			
Purchases: Estimate			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
			XXXXXXXXXXXXXXXXXXXXXXX			
Actual	xxxxxxxxxx x	xxxxxxxxxxxx	XXXXXXXXXXXXXXXXXXXXXXX			
T (
Transfers out: Estimate	XXXXXXXXXXXX X	xxxxxxxxxxxx	XXXXXXXXXXXXXXXXXXXXXXX			
Actual	XXXXXXXXXXX X	xxxxxxxxxxx	xxxxxxxxxxxxxxxxxx			
	(5.000)	(442,502,50)	(7,000,11)			
Transfers in: Estimate	(6,023)	(413,692.52)				
Actual	6,163	414,193.02	8,189.12			
Consumed: Estimate	8,553	603,353.42	13,092.08			
Actual	(5,963)	(508,421.88)	(8,925.46)			
Balance Per G/L 06/30/2019	8,077	507,189.94	12,593.11			
				-		
Purchases	xxxxxxxxxxx	xxxxxxxxxxx	xxxxxxxxxxxxxxxxxx			
Transfer out	xxxxxxxxxxx x	xxxxxxxxxxx	xxxxxxxxxxxxxxxxxxx			
Transfer in	7,812	502,523	10,275.20			
	,,,,,					
Consumed	(8,334)	(524,411.95)	(12,717.68)	62.9244	1 5260	64.4504
Consumed	(0,334)_	(324,411.33)		02.3244	1.5200	04.4304
Balance @ 07/31/2019	7,555	485,301.16	10,150.63			
Inventory From Offsite/Transfers	0	0.00	0.00			
-						
Est'd Inventory Addition	0	0.00	0.00			
Fuel Rel @ Avg Price	7	40E 201 1C	10 150 62		1 2/26	
Fuel Bal @ Avg Price	7,555	485,301.16	10,150.63		1.3436	
		(405.004.65)				
Reverse Fuel Balance	xxxxxxxxxx		xxxxxxxxxxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxx	470,531.30	xxxxxxxxxxxxxxxxxx			
				_		
Total @ 08/01/2019 Avg Price	7,555	470,531.30	10,150.63			
Weighted Avg Cost/BBL by Location		64.2358	1.3436			
•						
Weighted Avg Cost/BBL @ Avg Cost		62.2808	1.3436			
5 111 5 1114 === 6 1118 0000		3-1-270	=== .50			

Estimated Weighted Average July 2019

KEAHOLE CT

BBL 52,768.0	GALLONS	COST EXCLUDE LT	LAND TRANSP	COST PER EXCLUD LT		
	GALLONS	EXCLUDE LT	TRANSP	EVCLUDIT	1 T	
52,768.0				EXCLUD LI	LT	TOTAL
,,	2,216,258.0	4,809,817.1	149,526.5			
0.0	0.0	0.0	0.0			
0.0	0.0	0.0	0.0			
0.0	0.0	0.0	0.0			
	xxxxxxxxxxxx	xxxxxxxxxxxxx	xxxxxxxxxxxxxx			
	xxxxxxxxxxxx	xxxxxxxxxxxxx	xxxxxxxxxxxxxx			
(39,344.7)	(1,652,478.0)	(3,447,279.5)	(111,872.8)			
37,865.0	1,590,330.0	3,295,889.0	104,916.86			
38,183.9	1,603,725.0	3,857,970.5	92,114.91			
(37,527.1)		(3,801,335.4)	(83,226.7)	101.2958		
51,945.2	2,181,697	4,715,061.67	151,458.81	90.7700		
xxxxxxxxxx	(xxxxxxxxxxxxx	xxxxxxxxxxxxx	xxxxxxxxxxxxx			
xxxxxxxxxx	(xxxxxxxxxxxxx	xxxxxxxxxxxxx	xxxxxxxxxxxxxx			
32,742.3	1,375,178.0	2,966,523.5	93,099.6	90.6021		
(41,978.4)	(1,763,094.0)	(3,815,562.1)	(118,954.27)	90.8934	2.8337	93.7271
42,709.1	1,793,781	3,866,023.07	125,604.09	90.5200		
0.0	0.0	0.0	0.00			
0.0	0	0.0	0.00			
42,709.1	1,793,781	3,866,023.07	125,604.09	90.5200		
xxxxxxxxxx	(XXXXXXXXXXXXXXX	(3.866.023.1)	xxxxxxxxxxxxxxx			
42,709.1	1,793,781	3,896,809.10	125,604.09	91.2408		
		90.5200	2.9409			
	0.0 0.0 0.0 (39,344.7) 37,865.0 38,183.9 (37,527.1) 51,945.2 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	0.0 0.0 0.0 0.0 XXXXXXXXXXXXXXXXXXXXXXX	0.0 0.0 0.0 0.0 XXXXXXXXXXXXXXX XXXXXXXXXX	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 XXXXXXXXXXX

91.2408

Weighted Avg Cost/BBL @ Avg Cost

2.9409

Estimated Weighted Average July 2019

PUNA CT-3

		ONA CI-3					
			COST	LAND	COST PER E	BARREL	
HS Diesel	BBL	GALLONS	EXCLUD LT	TRANSP	EXCL LT	LT	TOTAL
Balance at 06/30/2019	4,083.4	171,503.0	353,715.8	4,809.5			
Data 100 at 00/30/2013	7,000.4	1,1,303.0	333,713.0	7,003.3			
Less: Est'd Inven Addition	0.0	0.0	0.0	0.0			
Purchases: Estimate	x	XXXXXXXXXXXXXXXX	xxxxxxxxxxx	XXXXXXXXXXX			
Actual		xxxxxxxxxxxx					
Transfers out: Estimate	x	xxxxxxxxxxxxx	xxxxxxxxxxx	xxxxxxxxxxx			
Actual		XXXXXXXXXXXXXXX					
Transfers in: Estimate	(4,071.6)	(171,007.0)	(355,386.2)	(4,514.6)			
Actual	2,998.4	125,934.0	282,242.6	3,520.8			
Consumed: Estimate	4,576.7	192,221.0	462,412.8	5,175.8			
Actual	(3,790.1)	(159,185.0)		•			
		, , ,	, , ,	, ,			
Balance Per G/L 06/30/2019	3,796.8	159,466	344,636.32	5,525.01			
Purchases	xxxxxxxxxx x	xxxxxxxxxxxxx	xxxxxxxxxxx	xxxxxxxxxx			
Transfer out	xxxxxxxxxx x	xxxxxxxxxxxx	xxxxxxxxxxx	xxxxxxxxxx			
Transfer in	6,915.9	290,467.0	634,735.8	7,668.3	91.7795		
Consumed	(5,467.2)	(229,623)	(496,933.69)	(6,439.28)	90.8934	1.1778	92.0712
Balance @ 07/31/2019	5,245.5	220,310	482,438.47	6,754.05	91.9723		
Inven From Offsite/Transfers	0.0	0	0.00	0.00			
Est'd Inventory Addition	0.0	0	0.00	0.00			
Fuel Palance @ 07/21/2010	E 24E E	220 210	102 120 17	6 754 05	91.9723		
Fuel Balance @ 07/31/2019	5,245.5	220,310	482,438.47	6,754.05	91.9723		
Reverse Fuel Balance	xxxxxxxxxx x	xxxxxxxxxxxxx	(482,438.47)	xxxxxxxxxx			
Fuel Balance @ Avg Price	xxxxxxxxxx x	xxxxxxxxxxxxx	478,601.35	xxxxxxxxxx			
Total @ 08/01/2019 Avg Price	5,245.5	220,310	478,601.35	6,754.05	91.2408		
Weighted Avg Cost/BBL by Location			91.9723	1.2876			
Weighted Avg Cost/BBL @ Avg Cost			91.2408	1.2876			

Estimated Weighted Average July 2019

TOTAL HILO HS-DIESEL

		TOTAL HILO	H3-DIESEL				
			COST	LAND	COST PER	BARREL	
HS Diesel	BBL	GALLONS	EXCLUDE LT	TRANSP	EXCL LT	LT	TOTAL
Balance at 06/30/2019	1843.6	77,431	196,590	2,341			
Less: Est'd Inven Addition	0.0	0	0	0			
		· ·	·	· ·			
Purchases: Estimate	:	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx			
Actual		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx			
Tue nafa na a chi Fabina aba							
Transfers out: Estimate		xxxxxxxxxx	XXXXXXXXXXXX	xxxxxxxxxx			
Actual		XXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXX			
Transfers in: Estimate	0.0	0.0	0.0	0.0			
Actual	-1.0	-44.0	0.0	0.0			
Consumed: Estimate	118.0	4957.0	11924.7	147.6			
Actual	-122.6	-5150.0	-41683.5	-378.5			
Balance Per G/L 06/30/2019	1838.0	77,194	166,830.90	2,109.71	90.7700		
Purchases	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx			
Transfer out	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx			
Transfer in	187.2	7862.0	17410.0	183.2	#DIV/0!		
Consumed	-384.5	-16151.0	-34952.8	-488.2	90.8934	1.2696	92.1630
Balance @ 07/31/2019	1,640.6	68 905	149,288.04	1,804.67	90.9963		
Inven From Offsite/Transfers	0.0	0.0		0.0	30.3330		
Est'd Inventory Addition	0.0	0.0		0.0			
Fuel Balance @ Avg Price	1,640.6	68,905	149,288.04	1,804.67	90.9963		
Reverse Fuel Balance	VVVVVVVVVVVVVV	·····	-149,288.04	vvvvvvvvvvvv			
Fuel Balance @ Avg Price	XXXXXXXXXXXX	xxxxxxxxx	149,689.19	XXXXXXXXXXX			
Total @ 08/01/2019 Avg Price	1,640.6	68,905	149,689.19	1,804.67	91.2408		
Weighted Avg Cost/BBL by Location			90.9963	1.1000			
•							

91.2408

1.1000

Weighted Avg Cost/BBL @ Avg Cost

Estimated Weighted Average July 2019

KEAHOLE DIESEL

		KEAHOLE DIES					
			COST	LAND	COST PER BARREL	·	
ULSD	BBL	GALLONS	EXCLUDE LT	TRANSP	EXCLUD LT	LT	TOTAL
Balance at 06/30/2019	2,159.3	90,690	199,891.52	4,612.35			
Less: Est'd Inventory Addition	0.0						
D	(100.4)	(7.044)	(47.446.42)	(F2F F7)			
Purchases: Estimate	(188.4)	(7,911)	(17,116.42)				
Actual	188.4	7,911	17,116.42	0.00			
Transfers out: Estimate		····	xxxxxxxxxxxx	VVVVVVVVVVVVVV			
Actual							
Actual		*******	XXXXXXXXXXXXXXX	*********			
Transfers in: Estimate		229	0.00	15.50			
Actual		(238)	0.00	535.57			
Actual		(230)	0.00	333.37			
Consumed: Estimate	213.7	8,975	19,872.53	441.36			
Actual	(170.2)	(7,149)	(17,313.06)		101.7133		
	(=: -:=)	(-,=,	(=: ,==::==,	_,			
Balance Per G/L 06/30/2019	2,202.5	92,507	202,450.99	6,422.07	91.9167		
, , ,	•	,	,	,			
Purchases	0.0	0	0.00	0.00	0.0000		
Estimated Purchases	190.0	7,980	17,992.46	540.25			
Transfer in	10.5	442	0.00	29.92	0.00		
Consumed	(419.9)	(17,636)	(38,951.54)	(896.96)	92.7628	2.1361	94.8989
Balance @ 07/31/2019	1,983.2	83,293	181,491.91	6,095.28	91.5162		
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	1,983.2	83,293	181,491.91	6,095.28	91.5162		
Reverse Fuel Balance	XXXXXXXXXXX	xxxxxxxxxx	(181,491.91)	XXXXXXXXXXX			
Fuel Balance @ Avg Price	XXXXXXXXXXX	XXXXXXXXXX	189,399.11	xxxxxxxxxx			
	-						
Total @ 08/01/2019 Avg Price	1,983.2	83,293	189,399.11	6,095.28	95.5034		
Weighted Avg Cost/BBL by Location			91.5162	3.0735			
Weighted Avg Cost/BBL @ Avg Cost			95.5034	3.0735			

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

WAIMEA DIESEL

		WAIMEA DIES					
			COST	LAND	COST PER BARREI		
ULSD	BBL	GALLONS	EXCLUDE LT	TRANSP		LT	TOTAL
Balance at 06/30/2019	823.9	34,604.0	73,353.7	2,720.14			
, ,		,	,	,			
Less: Est'd Inven Addition	0.0	0.0	0.00	0.00			
Purchases: Estimate		0	0.00	0.00			
Actual		7,917.0	17,129.4	0.00			
Transfers out: Estimate		xxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxx			
Actual		xxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxx			
Transfers in: Estimate	(0.0)	(2)	0.00	0.00			
Actual	(0.9)	(36)		446.52			
Consumed: Estimate	180.5	7,583	16,790.35	595.39			
Actual	(118.6)	(4,980)		(391.01)			
Balance Per G/L 06/30/2019	1,073.5	45,086	98,670.42	3,371.04	91.9167		
ULSD Purchases	376.7	15,821	35,671.51	892.30	94.6971		
Estimated Purchases	-	0	0.00	0.00			
Transfer in	xxxxxxxxxx	241	0.00	0.00	#DIV/0!		
Consumed	(322.7)	(13,555)	(29,938.09)	(1,065.52)	92.7628	3.3015	96.0643
Balance @ 07/31/2019	1,133.2	47,593	104,403.84	3,197.82	92.1346		
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	1,133.2	47,593	104,403.84	3,197.82	92.1346		
Reverse Fuel Balance	**********	xxxxxxxxxxx	(104 403 84)	xxxxxxxxxx			
Fuel Balance @ Avg Price		XXXXXXXXXXXXX		XXXXXXXXXXX			
Total @ 08/01/2019 Avg Price	1,133.2	47,593	108,221.24	3,197.82	95.5034		
Weighted Avg Cost/BBL by Location			92.1346	2.8220			
Weighted Avg Cost/BBL @ Avg Cost			95.5034	2.8220			

Estimated Weighted Average
July 2019

KANOELEHUA DIESEL

	<u> </u>	VANOLLLIIOA	5.2522		1	
			COST	LAND		
ULSD	BBL	GALLONS	EXCLUDE LT	TRANSP		
Balance at 06/30/2019	1,180.1	49,566.0	111,334.8	1,162.8	l	
	0.0	0	0.00	0.00		
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		
Actual	0.0	O	0.00	0.00		
Transfers out: Estimate		Х	х	х		
Actual		x	x	х		
Transfers in: Estimate		0	0.00	0.00		
Actual		0	0.00	0.00		
Consumed: Estimate	48.4	2,031	967.04	26.58		
Actual	(48.9)	(2,055)	(3,879.50)	164.56		
	4.470.6	40.543	100 122 26	4 252 00		
Balance Per G/L 06/30/2019	1,179.6	49,542	108,422.36	1,353.98		
ULSD Purchases	0	0	0.00	0.00	#DIV/0!	
OLSD Fulcilases	U	U	0.00	0.00	#DIV/0:	
Estimated Purchases	0	_	_	-		
	_					
Transfer in	0	0	0.00	0.00		
Consumed	(182.6)	(7,668)	(967.04)	(26.58)	92.7628	0.9853
Balance @ 07/31/2019	997.0	41,874	107,455.32	1,327.40		
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	997.0	41,874	107 455 22	1,327.40		
Fuel Balance @ Avg Price	997.0	41,674	107,455.32	1,327.40		
Reverse Fuel Balance	х	v	(107,455.32)	V		
Fuel Balance @ Avg Price	X	X		Ĵ		
Tuel Bulance & Avg Thee	Α	^	33,210.00	^		
Total @ 08/01/2019 Avg Price	997.0	41,874	95,216.86	1,327.40		
=		,	,	,		
Weighted Avg Cost/BBL by Location			107.7787	1.3314		
Weighted Avg Cost/BBL @ Avg Cost			95.5034	1.3314		

Estimated Weighted Average July 2019

DISPERSED GENERATION

	ISPERSED G			
	BBL	GALLONS	COST	COST/BBL
Balance at 06/30/2019	131.1	5,505	13,781.02	
Less: Est'd Inven Addition	0.0	xxxxxxxx	××××××××	
Purchases: Estimate Actual	0.0 28.3	0 1,187	0.00 2,568.22	
Consumed: Estimate Actual		374 (299)		
		xxxxxxxxxx xxxxxxxxxx		
		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		
Balance Per G/L 06/30/2019	161.12	6,767	14,809.54	91.9168
Purchases	0.0	0	0.00	0.0000
Transfer out	xxxxxxxxx	xxxxxxxxx	xxxxxxxxxx	
Transfer in	xxxxxxxxx	xxxxxxxxx	xxxxxxxxx	
Consumed	(23.4)	(981)	(2,166.67)	92.7628
Balance @ 07/31/2019	137.8	5,786	12,642.87	91.7733
Est'd Inventory Addition	0.0	0	0.00	
Fuel Balance @ 07/31/2019	137.8	5,786	12,642.87	
Reverse Fuel Balance Fuel Balance @ Avg Price		xxxxxxxxxxx xxxxxxxxxxx	(12,642.87) xxx 13,156.73 xxx	
Total @ 08/01/2019 Avg Price	137.8	5,786	13,156.73	95.5034

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

TYPE OF OIL BURNED

THE OF OIL BURNED				
	Hill Indu	<u>strial</u>	<u>Puna Ind</u>	<u>ustrial</u>
INDUSTRIAL *	<u>¢/MBTU</u>	\$/BBL	¢/MBTU	\$/BBL
Tax ¹	54.16	3.4120	54.16	3.4120
Ocean Transportation	57.38	3.4841	0.00	0.0000
Storage	31.16	2.1410	33.98	2.1410
Wharfage	6.59	0.4000	6.35	0.4000
Fees ²	0.00	0.0000	0.00	0.0000
	Hilo Die	esel	Waimea	Diesel
DIESEL *	¢/MBTU	\$/BBL	¢/MBTU	\$/BBL
Tax ¹	88.52	5.1866	88.52	5.1866
Ocean Transportation	59.46	3.4841	59.46	3.4841
Storage	28.34	1.6606	28.34	1.6606
Wharfage	6.83	0.4000	6.83	0.4000
Fees ²	0.00	0.0000	0.00	0.0000
	Kona Di	esel	CT3 Di	esel
	¢/MBTU	\$/BBL	¢/MBTU	\$/BBL
Tax ¹	88.52	5.1866	88.52	5.1866
Ocean Transportation	59.46	3.4841	59.46	3.4841
Storage	28.34	1.6606	28.34	1.6606
Wharfage	6.83	0.4000	6.83	0.4000
Fees ²	0.00	0.0000	0.00	0.0000
	ULSI)		
ULSD **	¢/MBTU	\$/BBL		
Tax ¹	77.18	4.4224		
Ocean Transportation	18.32	1.0500		
Storage	45.48	2.0636		
Wharfage	0.00	0.0000		
Fees ²	0.00	0.0000		

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

inventory, contract prices for the current month are being provided. Contract prices are considered accurate pending actual delivery of fuel.

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

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

^{*} Land Transportation Costs are shown in Attachment 3, Sheet 1.

^{**} ULSD includes Waimea, Kanoelehua, and Keahole.

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

		September 1, 2019 (¢/kWh)	Floor Rates (¢/kWh)
PGV (25 MW) PGV (22 MW)	- on peak - off peak	14.687 13.097	6.560 5.430
WAILUKU HYDRO	- on peak off peak	14.687 13.097	7.240 5.970
Other: (<100 KW)	Sch Q Rate	13.670	
		September 1, 2019 (¢/kWh)	Floor Rates (¢/kWh)
HEP		11.743	
PGV Addtl 5 MW	- on peak - off peak	13.0500 13.0500	0.0000 0.0000
PGV Addtl 8 MW	- on peak	9.9500	0.0000

Hawaii Electric Light Company, Inc. Energy Cost Reconciliation Adjustment

September 1, 2019

Line No.	<u>Description</u>	<u>Amount</u>
1	Amount to be (returned) or collected	(\$3,027,900)
2	Monthly Amount (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 (September 1, 2019)	88,849 mwh
6	Adjustment (Line 4 / Line 5)	(1.247) ¢/kwh

2019 Cumulative Reconciliation Balance

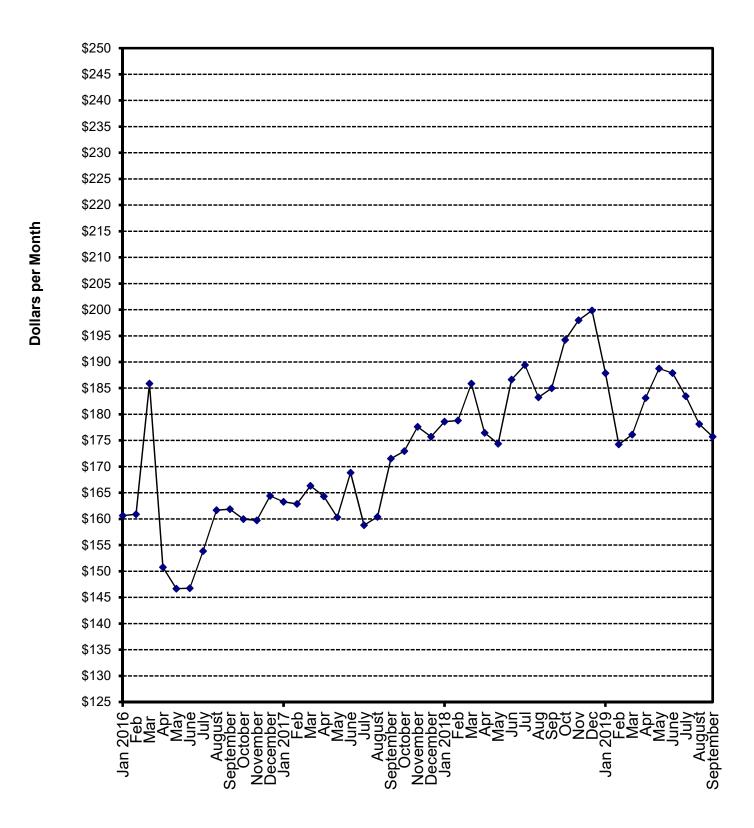
	(1)		(2) FOA Rec	(3) FOA Rec	(4)	(5)	(6) Month-end
	YTD FOA		Adjust	Less	Try to	Actual	Cumulative
<u>Month</u>	Reconciliation	<u>Qtr</u>	<u>Variance</u>	<u>Variance</u>	<u>Collect</u>	<u>Collect</u>	<u>Balance</u>
January 18					(238,067)	(242,224)	1,462
February	825,100	[4]	(29,783)	854,883	(275,033)	(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 1	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)	(586,240)	80,944
August	3,027,900	[2]	49,815	2,978,085	(1,009,300)	, , ,	,
September	-,- ,		- , - -	, ,	(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)

- 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)
- Cumulative balance of the FOA reconciliation (Previous balance + Col(3) + Col(5)) Col(6):

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



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

FUEL FACTOR CENTS / KWH

RESIDENTIAL & RESIDENTIAL BILL (\$)

EFFECTIVE DATE

COMMERCIAL @ 500 KWH @ 600 KWH

		<u></u>	
January 1, 2015 February 1, 2015 March 1, 2015 April 1, 2015 May 1, 2015 June 8, 2015 July 1, 2015 August 1, 2015 September 1, 2015 October 1, 2015 November 1, 2015 December 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 May 1, 2016 June 1, 2016 July 1, 2016 August 1, 2016 September 1, 2016 October 1, 2016 November 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	192.41 192.69 184.76 180.57 175.64 175.74 184.31 193.69 193.90 191.65 191.35
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 November 1, 2017	-2.842 -2.956 -2.274 -2.425 -3.035 -1.343 -3.220 -3.643 -2.447 -2.131 -0.885 -1.405	163.27 162.87 166.31 164.31 160.30 168.82 158.79 160.39 171.52 172.97 177.60 175.02	195.58 195.09 199.24 196.83 192.02 202.25 190.22 192.15 205.50 207.23 212.80 209.69
January 1, 2018 February 1, 2018 March 1, 2018 April 1, 2018 May 1, 2018 June 1, 2018 July 1, 2018 August 1, 2018 September 1, 2018 October 1, 2018 November 1, 2018 December 1, 2018	-0.723 -0.579 0.816 -0.912 -0.452 2.301 2.831 1.665 2.027 8.359 8.913 9.292	178.59 178.81 185.87 176.46 174.38 186.65 189.43 183.25 184.98 194.21 197.99	213.95 214.22 222.68 211.39 208.90 223.63 226.97 219.55 221.62 232.50 237.04 239.29
January 1, 2019 February 1, 2019 March 1, 2019 April 1, 2019 May 1, 2019 June 1, 2019 July 1, 2019 August 1, 2019 September 1, 2019	6.867 14.631 14.976 16.469 17.396 17.318 16.450 15.331 14.845	187.86 174.25 176.1 183.12 188.74 187.89 183.46 178.14 175.70	224.86 208.53 210.75 219.17 225.93 224.90 219.63 213.25 210.32

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 5/1/2016	PURCHASED POWER ADJUSTMENT CLAUSE SOLARSAVER ADJUSTMENT	1.8623 CENTS/KWH 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 12/1/2016-12/31/16	PURCHASED POWER ADJUSTMENT CLAUSE PURCHASED POWER ADJUSTMENT CLAUSE	2.3298 CENTS/KWH 2.3371 CENTS/KWH
12/1/2010-12/31/10	PURCHASED POWER ADJUSTIMENT CLAUSE	2.33/1 CEN13/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 4/1/2017-4/30/17	PURCHASED POWER ADJUSTMENT CLAUSE PURCHASED POWER ADJUSTMENT CLAUSE	2.3809 CENTS/KWH 2.3781 CENTS/KWH
4/1/2017-4/30/17	SOLARSAVER ADJUSTMENT CLAUSE	-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
8/31/2017-4/3018 8/31/2017	INTERIM RATE INCREASE 2016 RBA RATE ADJUSTMENT	5.8800 PERCENT ON BASE 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 2.3395 CENTS/KWH
05/1/18-05/31/18 05/1/18-05/31/18	PURCHASED POWER ADJUSTMENT CLAUSE 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 0.0000 PERCENT ON BASE
10/1/2018 10/1/2018	INTERIM RATE INCREASE 2016 FINAL RATE INCREASE (TY 2016) 0.53% EFFECTIVE 10/0	
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
05/01/2019	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/2019-6/30/19 6/1/2019	PURCHASED POWER ADJUSTMENT CLAUSE RBA RATE ADJUSTMENT	1.9474 CENTS/KWH 0.9069 CENTS/KWH
	UDA VATE ADJUSTMENT	0.5005 CENI 3/KWH
	PURCHASED POWER ADJUSTMENT OF AUSE	1 9539 CENTS/KWH
7/01/2019-7/31/19	PURCHASED POWER ADJUSTMENT CLAUSE GREEN INFRASTRUCTURE FEE	1.9539 CENTS/KWH 1.1700 DOLLARS/MONTH
	PURCHASED POWER ADJUSTMENT CLAUSE GREEN INFRASTRUCTURE FEE RESIDENTIAL PBF SURCHARGE ADJUSTMENT	1.9539 CENTS/KWH 1.1700 DOLLARS/MONTH 0.4775 CENTS/KWH
7/01/2019-7/31/19 7/1/2019	GREEN INFRASTRUCTURE FEE	1.1700 DOLLARS/MONTH

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

Calculations of the Average Residential Customer Bill

Base Rates

Base Fuel Energy Charge Non-Fuel Energy Charge First 300 kWh per month Next 700 kWh per month Customer Charge Total Base Charges

Interim Rate Increase 2016 TY RBA Rate Adjustment Purchased Power Adj. Clause PBF Surcharge DSM Adjustment SolarSaver Adjustment Energy Cost Recovery Green Infrastructure Fee

Avg Residential Bill at 500 kwh

Rate					
	08/01/19	09/01/19			
effective date:	2/1/2019	2/1/2019			
¢/kwh	-	-			
¢/kwh					
¢/kwh	13.0289	13.0289			
¢/kwh	16.3807	16.3807			
\$	11.50	11.50			
% on base	0.0000%	0.0000%			
¢/kwh	0.9069	0.9069			
¢/kwh	2.0075	2.0060			
¢/kwh	0.4775	0.4775			
¢/kwh	0.0000	0.0000			
¢/kwh	0.0000	0.0000			
¢/kwh	15.3310	14.8450			
\$	1.1700	1.1700			

Charge (\$) at 500 Kwh					
08/01/19	08/01/19 09/01/19				
\$0.00	\$0.00	\$0.00			
\$71.85	\$71.85	\$0.00			
\$39.09	\$39.09	\$0.00			
\$32.76	\$32.76	\$0.00			
\$11.50	\$11.50	\$0.00			
\$83.35	\$83.35	\$0.00			
\$0.00	\$0.00	\$0.00			
\$4.53	\$4.53	\$0.00			
\$10.04	\$10.03	-\$0.01			
\$2.39	\$2.39	\$0.00			
\$0.00	\$0.00	\$0.00			
\$0.00	\$0.00	\$0.00			
\$76.66	\$74.23	-\$2.43			
\$1.17	\$1.17	\$0.00			
\$178.14	\$175.70				

Increase (Decrease -) % Change

-\$2.44 -1.37%

Base Rates

Base Fuel/Energy Charge Non-Fuel Energy Charge First 300 kWh per month Next 700 kWh per month Customer Charge Total Base Charges

Interim Rate Increase 2016 TY RBA Rate Adjustment Purchased Power Adj. Clause PBF Surcharge DSM Adjustment SolarSaver Adjustment Energy Cost Recovery Green Infrastructure Fee

Avg Residential Bill at 600 kwh

Rate						
	08/01/19	09/01/19				
effective date:	2/1/2019	2/1/2019				
¢/kwh	-	-				
¢/kwh						
¢/kwh	13.0289	13.0289				
¢/kwh	16.3807	16.3807				
\$	11.50	11.50				
% on base	0.0000%	0.0000%				
¢/kwh	0.9069	0.9069				
¢/kwh	2.0075	2.0060				
¢/kwh	0.4775	0.4775				
¢/kwh	0.0000	0.0000				
¢/kwh	0.0000	0.0000				
¢/kwh	15.3310	14.8450				
\$	1.1700	1.1700				

Charge (\$) at 600 Kwh		
08/01/19	09/01/19	Difference
\$0.00	\$0.00	\$0.00
\$88.23	\$88.23	\$0.00
\$39.09	\$39.09	\$0.00
\$49.14	\$49.14	\$0.00
\$11.50	\$11.50	\$0.00
\$99.73	\$99.73	\$0.00
\$0.00	\$0.00	\$0.00
\$5.44	\$5.44	\$0.00
\$12.05	\$12.04	-\$0.01
\$2.87	\$2.87	\$0.00
\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00
\$91.99	\$89.07	-\$2.92
\$1.17	\$1.17	\$0.00
\$213.25	\$210.32	

Increase (Decrease -) % Change

-\$2.93 -1.37%