



July 27, 2018

FILED

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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: Hawaiian Electric Energy Cost Adjustment Factor for August 2018

Hawaiian Electric Company Inc.'s ("Hawaiian Electric" or "Company") August 2018 energy cost adjustment factor is 0.802 cents per kilowatt-hour ("kWh"), a decrease of 0.402 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$158.79, an increase of \$0.52 compared to rates effective July 1, 2018. The increase in the typical residential bill is due to the increase in the Purchased Power Adjustment Clause rate (+\$2.30) and the increase in the DSM Adjustment (+\$0.23), partially offset by a decrease in the Energy Cost Adjustment factor (-\$2.01).

The Company's fuel composite cost of generation decreased 26.96 cents per million BTU to 1,408.15 cents per million BTU. The Company's Distributed Generation ("DG") energy component increased 0.071 cents per kWh to 0.106 cents per kWh. The composite cost of purchased energy increased 0.058 cents per kWh to 10.149 cents per kWh.

The attached sheets set forth the energy cost adjustment factor in cents per kWh for each rate schedule that is applicable for *pro rata* use beginning August 1, 2018.

Very truly yours,

Dean K. Matsuura
Manager, Regulatory Rate Proceedings

Attachments

cc: Division of Consumer Advocacy

Hawaiian Electric Company, Inc.
ENERGY COST ADJUSTMENT FACTOR

	<u>Effective Dates</u>		<u>Change</u>
	<u>07/01/18</u>	<u>08/01/18</u>	
Composite Cost Of Generation, ¢/mmbtu	1,435.11	1,408.15	(26.96)
DG Energy Component, ¢/kWh	0.036	0.106	0.071
Composite Cost Of Purchased Energy, ¢/kWh	10.091	10.149	0.058
 <u>Residential, Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	1.204	0.802	(0.402)
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	1.204	0.802	(0.402)
 <u>Residential Customer with:</u>			
500 kWh Consumption, \$/bill	158.27	158.79	0.52
600 kWh Consumption, \$/bill	188.61	189.22	0.61

Supersedes Sheet Effective: July 1, 2018

Hawaiian Electric Company, Inc.
ENERGY COST ADJUSTMENT FILING

ENERGY COST ADJUSTMENT (ECA) FILING - August 1, 2018 (page 1 of 2)

Line
1 **Effective Date** - August 1, 2018
2 **Supersedes Factor** - July 1, 2018

GENERATION COMPONENT

<u>CENTRAL STATION</u>							
FUEL PRICES, ¢/MBTU							
3	Honolulu			1,405.60			
4	Kahe			1,405.92			
5	Waiau-Steam			1,405.60			
6	Waiau-Diesel			1,718.19			
7	CIP-Diesel			2,071.34			
8	CIP-Biodiesel			2,960.84			
9	Other			0			
BTU MIX, %							
10	Honolulu			0.00			
11	Kahe			82.37			
12	Waiau-Steam			16.90			
13	Waiau-Diesel			0.73			
14	CIP-Diesel			0.00			
15	CIP-Biodiesel			0.00			
16	Other			0.00			
17 COMPOSITE COST OF GENERATION, CNTRL STN + OTHER ¢/mmbtu					1,408.15		
18	% Input to system kWh Mix			47.60			
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
		Eff Factor	Percent of	Weighted			
	Fuel Type	mmbtu/kwh	Centrl Stn +	Eff Factor			
			Other				
19	LSFO	0.011079	99.73	0.011049			
20	Diesel	0.019721	0.27	0.000053			
21	Biodiesel	0.020169	0.00	0.000000			
22	Other	0.011143	0.00	0.000000			
(Lines 19 through 22): Col(B) x Col(C) = Col(D)							
23	Weighted Efficiency Factor, mmbtu/kWh [(lines 19(D) + 20(D) + 21(D) + 22(D))]			0.011102			
24	WGTD. COMPOSITE CNTRL STN + OTHER GEN COST, ¢/kWh (lines 17 x 18 x 23)			7.44144			
25	BASE CNTRL STN + OTHER GEN. COST, ¢/Mbtu			1,354.58			
26	Base % Input to System kWh Mix			57.59			
27	Efficiency Factor, Mbtu/kWh			0.011142			
28	WEIGHTED BASE CNTRL STN + OTHER GEN COST ¢/KWH (lines 25 x 26 x 27)			8.69190			
29	Cost Less Base (Line 24 - 28)			(1.25046)			
30	Revenue Tax Req Multiplier			1.0975			
31	CNTRL STN + OTHER GENERATION FACTOR, ¢/KWH (Line 29 x 30)			(1.37238)			
					<u>DG ENERGY COMPONENT</u>		
					32 COMPOSITE COST OF DG ENERGY, ¢/kWh	32.120	
					33 % Input to System kWh Mix	0.33	
					34 WTD COMP DG ENRGY COST, ¢/kWh (Lines 32 x 33)	0.10600	
					35 BASE DG ENERGY COMP COST	0.000	
					36 Base % Input to System kWh Mix	0.00	
					37 WTD BASE DG ENERGY COST, ¢/kWh (Line 35 x 36)	0.00000	
					38 Cost Less Base (Line 34 - 37)	0.10600	
					39 Loss Factor	1.053	
					40 Revenue Tax Req Multiplier	1.0975	
					41 DG FACTOR, ¢/kWh (Line 38 x 39 x 40)	0.12250	
					SUMMARY OF TOTAL GENERATION FACTOR, ¢/kWh		
					42 CNTRL STN + OTHER (line 31)	(1.37238)	
					43 DG (line 41)	0.12250	
					44 TOTAL GENERATION FACTOR, ¢/KWH (lines 42 + 43)	(1.24988)	

Hawaiian Electric Company, Inc.
ENERGY COST ADJUSTMENT FILING

ENERGY COST ADJUSTMENT (ECA) FILING - August 1, 2018 (page 2 of 2)

<u>Line</u>	Effective Date	- August 1, 2018
1		
2	Supercedes Factor	- July 1, 2018

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>			
	PURCHASED ENERGY PRICE - ¢/KWH			
45	PAR Hawaii	- On Peak		14.862
46	(f.k.a HIE/Tesoro)	- Off Peak		14.485
47	HRRV	- On Peak		17.19
48		- Off Peak		16.70
49	HRRV	- On Peak	(excess)	10.95
50		- Off Peak	(excess)	6.57
51	IES Downstream	- On Peak		14.862
52		- Off Peak		14.485
53	Kalaeloa			13.303
54	AES-HI			3.286
55	Kawailoa			22.064
56	Kahuku Wind			20.704
57	Waianae Solar PV			14.500
58	As Available I			22.058
59	FIT			19.254
	PURCHASED ENERGY KWH MIX, %			
60	PAR Hawaii	- On Peak		0.22
61	(f.k.a HIE/Tesoro)	- Off Peak		0.16
62	HRRV	- On Peak		6.81
63		- Off Peak		2.37
64	HRRV	- On Peak	(excess)	0.00
65		- Off Peak	(excess)	2.25
66	IES Downstream	- On Peak		0.01
67	(f.k.a Chevron)	- Off Peak		0.01
68	Kalaeloa			37.94
69	AES-HI			40.02
70	Kawailoa			3.57
71	Kahuku Wind			2.19
72	Waianae Solar PV			2.15
73	As Available I			0.66
74	FIT			1.64
				100.00
75	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH			10.149
76	% Input to System kWh Mix			52.07
77	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 75 x 76)			5.28458
78	BASE PURCH ENERGY COMP COST			8.328
79	Base % Input to System kWh Mix			42.41
80	WEIGHTED COMP. PURCH. ENERGY COST, ¢/KWH (lines 78 x 79)			3.53190
81	Cost Less Base (Line 77 - 80)			1.75268
82	Loss Factor			1.053
83	Revenue Tax Req Multiplier			1.0975
84	PURCHASED ENERGY FACTOR, ¢/KWH (lines 81 x 82 x 83)			2.02552

<u>Line</u>	<u>SYSTEM COMPOSITE</u>	
85	GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 44 + 84)	0.77564
86	Kahuku Wind D-VAR Adjustment, ¢/kWh	0.000
87	ECA Reconciliation Adjustment	0.026
88	ECA FACTOR, ¢/kWh (lines 85 + 86 + 87)	0.802

Hawaiian Electric Company, Inc.
FUEL OIL INVENTORY PRICES FOR 08-01-18

	<u>Honolulu</u>	<u>Kahe</u>	<u>Waiiau</u>
Average Low Sulfur Fuel Oil, ¢/Mbtu	1,405.60	1,405.60	1,405.60
Kahe Fuel Additive, ¢/Mbtu	-	0.32	-
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
	<hr/>		
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	1,405.60	1,405.92	1,405.60
	<hr/>		
	<u>Waiiau</u>	<u>CIP Biodiesel</u>	<u>CIP Diesel</u>
Average Diesel / Biodiesel Oil, ¢/Mbtu	1,718.19	2,960.84	2071.34
Thruput Charges, ¢/Mbtu	-	-	0
	<hr/>		
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	1,718.19	2,960.84	2,071.34
	<hr/>		
	<u>Honolulu</u>	<u>Kahe</u>	<u>Waiiau</u>
Average Low Sulfur Fuel Oil, \$/bbl	88.71	88.71	88.71
Kahe Fuel Additive, \$/bbl	-	0.02	-
Honolulu Trucking Cost, \$/bbl	-	-	-
	<hr/>		
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	88.71	88.73	88.71
	<hr/>		
	<u>Waiiau</u>	<u>CIP Biodiesel</u>	<u>CIP Diesel</u>
Average Diesel / Biodiesel Oil, \$/bbl	98.34	154.49	118.24
Thruput Charges, ¢/Mbtu	-	-	-
	<hr/>		
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	98.34	154.49	118.24
	<hr/>		
Distributed Generation Fuel Prices Used for Filing, ¢/kWh			32.120

FOAC August 2018

<u>LSFO</u>	<u>BARRELS</u>	<u>MBTU</u>	<u>AMOUNT</u>	<u>AVE \$/MBTU</u>
Per FOAC run	722,626	4,560,665.75	64,104,516.53	14.055956
Additional	-	-	-	-
Forecast Amt	722,626	4,560,665.75	64,104,516.53	14.055956
	-	6.20	-	ADD'L BBL
	4,560,666	722,626	6.3112	MBTU / BBL
	64,104,517	722,626	88.71	DOLLARS / BBL
<u>WAIKU DIESEL</u>	29,841	170,786.00	2,934,431.69	17.181922
	2,934,432	29,841	98.34	DOLLARS / BBL
<u>CIP BIODIESEL</u>	3,573	18,643.12	551,992.94	29.608407
	551,993	3,573	154.49	DOLLARS / BBL
<u>CIP DIESEL</u>	9,153	52,248.78	1,082,250.04	20.713404
	1,082,250	9,153	118.24	DOLLARS / BBL
KAHE FUEL ADDITIVE *				
Additional	-	-	-	0.003194
Forecast Amt	-	-	-	0.003194
\$ / BBL =			0.02	DOLLARS / BBL
HONOLULU TRUCKING COST				
Per FOAC run	-	-	-	-
Additional	-	-	-	-
Forecast Amt	-	-	-	-
\$ / BBL =	-	-	-	DOLLARS / BBL

* Annualized amount per HECO T-4 in Docket No. 2010-0080

Hawaiian Electric Company, Inc.

CONTRACT PRICES EFFECTIVE 7-1-18

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
LOW SULFUR FUEL OIL		
Tax *	5.3859	86.88
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
DIESEL		
Tax *	6.3608	108.56
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
ULTRA LOW SULFUR DIESEL		
Tax *	6.7716	118.17
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
BIODIESEL		
Tax *	7.6985	146.69
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

* Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST, Federal Oil Spill Recovery Fee, and Environmental Response, Energy and FS Tax.

Note: Since these components are not accounted for separately in inventory, contract prices for the current month are being provided. Contract prices are considered accurate pending actual delivery of the fuel.

HAWAIIAN ELECTRIC COMPANY, INC.

DETERMINATION OF DISTRIBUTED GENERATION EXPENSE

Line No.					
L1		Estimated Distributed Generation Fuel Cost (\$/mbtu)	\$		32.34
L2		Estimated Distributed Generation Fuel Transport Cost (\$/mbtu)			\$0.00
L3 = L1 + L2		Estimated Total Fuel and Transportation Cost (\$/mbtu)	\$		32.34
L4	Sum of (B)	Estimated Mbtu Generation for month (August 2018)			20,254
L5 = L3 x L4	Sum of (C)	Estimated Distributed Generation Total Fuel Cost (\$)			\$655,089
L6	Sum of (D)	Estimated Distributed Generation kWh Produced (August 2018)			2,039,529
L7 = (L5 ÷ L6) x 100		Distributed Generation Fuel Prices Used for Filing, (¢/kWh)			32.1200
		Airport DG Biodiesel		Schofield Biodiesel	
(A)	\$	27.40	\$	33.25	\$
(B)		530		18,572	
(B1)		101		3,539	
(C) = (A) x (B)		\$14,523		\$617,512	\$23,053
(D)		47,200		1,887,141	105,188
(E) = ((C) ÷ (D)) x 100		30.770		32.720	21.920

Fuel Prices for Avoided Cost Filing, Page 2 of 9 (¢/kWh)

Hawaiian Electric Company, Inc.
ECA RECONCILIATION ADJUSTMENT
August 2018

1.	Amount to be collected	\$	417,100
2.	Monthly Amount (Line 1 x 1/3)	\$	139,033
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	152,591
5.	Estimated MWh Sales (AUGUST 2018)		591,100
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>0.026</u></u>

Hawaiian Electric Company, Inc.
FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
June 2018
(Thousand \$)

<u>Line</u>	<u>Description</u>	Info Only		Basis for Recon	
		W/O DeadBand June 2018 Cumulative <u>YTD Total</u>	collectn by <u>company*</u>	W/ DeadBand June 2018 Cumulative <u>YTD Total</u>	collectn by <u>company*</u>
ACTUAL COSTS:					
1	Generation / Major Fuels	\$227,178.2		\$227,178.2	
2	Distributed Generation / Minor Fuels	\$6,394.3		\$6,394.3	
3	Purch Power	\$149,670.1		\$149,670.1	
4	TOTAL	\$383,242.6		\$383,242.6	
FUEL FILING COST					
5	Generation / Major Fuels	\$225,740.4		\$227,279.5	
6	Distributed Generation / Minor Fuels	\$6,394.3		\$6,394.3	
7	Purch Power	\$149,670.1		\$149,670.1	
8	TOTAL	\$381,804.8		\$383,343.9	
BASE FUEL COST					
9	Generation / Major Fuels	\$198,917.3		\$198,917.3	
10	Distributed Generation / Minor Fuels	\$2,085.4		\$2,085.4	
11	Purch Power	\$182,610.4		\$182,610.4	
12	TOTAL	\$383,613.2		\$383,613.2	
13	FUEL-BASE COST (Line 8-12)	-\$1,808.4		-\$269.3	
14	ACTUAL FOA LESS TAX	\$1,363.5		\$1,363.5	
15	Less: FOA reconciliation adj for prior year	\$6,969.7		\$6,969.7	
16	ADJUSTED FOA LESS TAX	-\$5,606.2		-\$5,606.2	
17	FOA-(FUEL-BASE) (Line 16-13)	-\$3,797.8	under	-\$5,336.9	under
ADJUSTMENTS:					
18	Current year FOA accrual reversal	-\$4,999.4		-\$4,999.4	
19	SGS test fuel removal	\$2,420.1		\$2,420.1	
20	Other	\$0.0		\$0.0	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	-\$6,377.1	under	-\$7,916.2	under
22	1st Quarter Reconciliation YTD			-\$7,499.1	
23	Amount to be collected			-\$417.1	

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

Hawaiian Electric Company, Inc.
DEADBAND CALCULATION
2018

FOR PERIOD: JANUARY 1, 2018 TO April 12, 2018

	Notes	YTD
Industrial		
Industrial Efficiency Factor (per D&O), BTU/kWh	f	11,079
Industrial Deadband Definition, +/- BTU/kWh	d	50
Industrial Portion of Recorded Sales, kWh	a	874,645,679
Industrial Consumption (Recorded), MMBTU	b	9,794,533
Industrial Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,198
Lower limit of Industrial Deadband, BTU/kWh	e = f-d	11,029
Higher limit of Industrial Deadband, BTU/kWh	g = f+d	11,129
Industrial Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	11,129
Diesel		
Diesel Efficiency Factor (per D&O), BTU/kWh*	f	19,721
Diesel Deadband Definition, +/- BTU/kWh	d	50
Diesel Portion of Recorded Sales, MWh	a	6,463,149
Diesel Consumption (Recorded), MMBTU	b	188,720
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	29,199
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	19,671
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	19,771
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	19,771
Biodiesel		
Biodiesel Efficiency Factor (per D&O), BTU/kWh*	f	20,169
Biodiesel Deadband Definition, +/- BTU/kWh	d	50
Biodiesel Portion of Recorded Sales, MWh	a	16,727,814
Biodiesel Consumption (Recorded), MMBTU	b	274,835
Biodiesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	16,430
Lower limit of Biodiesel Deadband, BTU/kWh	e = f-d	20,119
Higher limit of Biodiesel Deadband, BTU/kWh	g = f+d	20,219
Biodiesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	20,119
Hydro		
Hydro Efficiency Factor (per D&O), BTU/kWh*	f	0
Hydro Deadband Definition, +/- BTU/kWh	d	50
Hydro Portion of Recorded Sales, MWh	a	0
Hydro Consumption (Recorded), MMBTU	b	0
Hydro Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Hydro Deadband, BTU/kWh	e = f-d	-50
Higher limit of Hydro Deadband, BTU/kWh	g = f+d	50
Hydro Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	0
Other		
Other Efficiency Factor (per D&O), BTU/kWh*	f	11,143
Other Deadband Definition, +/- BTU/kWh	d	50
Other Portion of Recorded Sales, MWh	a	0
Other Consumption (Recorded), MMBTU	b	0
Other Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Other Deadband, BTU/kWh	e = f-d	11,093
Higher limit of Other Deadband, BTU/kWh	g = f+d	11,193
Other Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	11,093

Hawaiian Electric Company, Inc.
DEADBAND CALCULATION
2018

FOR PERIOD: APRIL 13, 2018 TO JUNE 30, 2018

	Notes	YTD
Industrial		
Industrial Efficiency Factor (per D&O), BTU/kWh	f	11,165
Industrial Deadband Definition, +/- BTU/kWh	d	125
Industrial Portion of Recorded Sales, kWh	a	706,792,207
Industrial Consumption (Recorded), MMBTU	b	7,975,036
Industrial Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,283
Lower limit of Industrial Deadband, BTU/kWh	e = f-d	11,040
Higher limit of Industrial Deadband, BTU/kWh	g = f+d	11,290
Industrial Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	11,283
Diesel		
Diesel Efficiency Factor (per D&O), BTU/kWh*	f	0
Diesel Deadband Definition, +/- BTU/kWh	d	50,000
Diesel Portion of Recorded Sales, MWh	a	0
Diesel Consumption (Recorded), MMBTU	b	0
Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Diesel Deadband, BTU/kWh	e = f-d	-50,000
Higher limit of Diesel Deadband, BTU/kWh	g = f+d	50,000
Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	0
Biodiesel		
Biodiesel Efficiency Factor (per D&O), BTU/kWh*	f	0
Biodiesel Deadband Definition, +/- BTU/kWh	d	50,000
Biodiesel Portion of Recorded Sales, MWh	a	0
Biodiesel Consumption (Recorded), MMBTU	b	0
Biodiesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Biodiesel Deadband, BTU/kWh	e = f-d	-50,000
Higher limit of Biodiesel Deadband, BTU/kWh	g = f+d	50,000
Biodiesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	0
Hydro		
Hydro Efficiency Factor (per D&O), BTU/kWh*	f	0
Hydro Deadband Definition, +/- BTU/kWh	d	0
Hydro Portion of Recorded Sales, MWh	a	0
Hydro Consumption (Recorded), MMBTU	b	0
Hydro Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Hydro Deadband, BTU/kWh	e = f-d	0
Higher limit of Hydro Deadband, BTU/kWh	g = f+d	0
Hydro Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	0
Other		
Other Efficiency Factor (per D&O), BTU/kWh*	f	0
Other Deadband Definition, +/- BTU/kWh	d	0
Other Portion of Recorded Sales, MWh	a	0
Other Consumption (Recorded), MMBTU	b	0
Other Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	0
Lower limit of Other Deadband, BTU/kWh	e = f-d	0
Higher limit of Other Deadband, BTU/kWh	g = f+d	0
Other Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	0

HAWAIIAN ELECTRIC COMPANY, INC.
GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST,
June 2018 Year-to-Date

	<u>Without Deadband</u>	<u>With Deadband - As Filed</u>
<u>INDUSTRIAL FUEL FILING COST</u>		
LSFO Portion of Recorded Sales , MWH	1,581,437,886	1,581,437,886
LSFO Sales Efficiency Factor (mmbtu/kwh)	0.011079	0.011129
Mmbtu adjusted for Sales Efficiency Factor	17,520,750,339	17,599,822,233
\$/mmbtu	<u>\$12.2264</u>	<u>\$12.2600</u>
TOTAL LSFO \$ TO BE RECOVERED	\$214,215,494	\$215,773,192
<u>DIESEL FUEL FILING COST</u>		
Diesel Portion of Recorded Sales, MWH	6,463,149	6,463,149
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.019721	0.019771
Mmbtu adjusted for Sales Efficiency Factor	127,459,761	127,782,919
\$/mmbtu	<u>\$15.6339</u>	<u>\$15.6339</u>
TOTAL DIESEL \$ TO BE RECOVERED ¹	\$1,992,692	\$1,997,745
<u>BIODIESEL FUEL FILING COST</u>		
Biodiesel Portion of Recorded Sales , MWH	16,727,814	16,727,814
Biodiesel Sales Efficiency Factor (mmbtu/kwh)	0.020169	0.020119
Mmbtu adjusted for Sales Efficiency Factor	337,383,281	336,546,890
\$/mmbtu	<u>\$28.2533</u>	<u>\$28.2533</u>
TOTAL BIODIESEL \$ TO BE RECOVERED ¹	\$9,532,177	\$9,508,546
<u>TOTAL GENERATION FUEL FILING COST</u>		
Generation Portion of Recorded Sales , MWH		
Sales Efficiency Factor (mmbtu/kwh)		
Mmbtu adjusted for Sales Efficiency Factor		
\$/mmbtu		
TOTAL GENERATION FUEL FILING COST \$	\$225,740,364	\$227,279,483
<u>GENERATION BASE FUEL COST</u>		
TOTAL GENERATION BASE FUEL COST	\$198,917,334	\$198,917,334
TOTAL GENERATION FUEL FILING COST \$ YTD	\$225,740,364	\$227,279,483
TOTAL GENERATION BASE FUEL COST YTD	\$198,917,334	\$198,917,334

1) Diesel & biodiesel are included under DG as of April 13, 2018

HAWAIIAN ELECTRIC COMPANY, INC.
2018 Cumulative Reconciliation Balance

	(1)		(2)	(3)	(4)	(5)	(6)
<u>Month</u>	<u>YTD FOA Reconciliation</u>	<u>Qtr</u>	<u>FOA Rec Adjust Variance</u>	<u>FOA Rec Less Variance</u>	<u>Try to Collect</u>	<u>Actual Collect</u>	<u>Month-end Cumulative Balance</u>
November '17	(988,400)	(3)	140,027	(1,128,427)	329,467	323,129	(663,027)
December					329,467	305,191	(357,836)
January '18					329,467	320,330	(37,506)
February	(6,640,300)	(4)	(28,376)	(6,611,924)	2,213,433	2,088,724	(4,560,707)
March					2,213,433	2,155,118	(2,405,589)
April					2,213,433	2,229,374	(176,215)
May	(7,499,100)	(1)	(192,161)	(7,306,939)	2,499,700	2,387,495	(5,095,658)
June					2,499,700	2,571,358	(2,524,300)
July					2,499,700		
August	(417,100)	(2)			139,033		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 4)
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))

Hawaiian Electric Company, Inc.
FUEL OIL ADJUSTMENT FACTOR DATA

<u>EFFECTIVE DATE</u>	FUEL FACTOR CENTS / KWH <u>RESIDENTIAL & COMMERCIAL</u>	RESIDENTIAL BILL (\$)	
		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
January 1, 2016	-3.748	129.34	153.97
February 1, 2016	-4.637	127.47	151.74
March 1, 2016	-5.498	123.06	146.43
April 1, 2016	-5.393	123.34	146.76
May 1, 2016	-5.527	124.85	148.58
June 1, 2016	-4.651	129.34	153.95
July 1, 2016	-3.854	133.43	158.90
August 1, 2016	-3.176	134.73	160.45
September 1, 2016	-3.345	133.98	159.57
October 1, 2016	-3.964	130.77	155.71
November 1, 2016	-3.848	131.04	156.03
December 1, 2016	-3.578	132.32	157.56
January 1, 2017	-2.091	135.39	161.22
February 1, 2017	-1.863	142.81	170.13
March 1, 2017	-1.730	143.26	170.66
April 1, 2017	-1.608	143.43	170.86
May 1, 2017	-2.347	140.42	167.26
June 1, 2017	-2.215	141.89	169.01
July 1, 2017	-2.003	141.79	168.91
August 1, 2017	-2.180	140.14	166.92
September 1, 2017	-2.288	139.74	166.45
October 1, 2017	-2.216	139.91	166.65
November 1, 2017	-2.109	139.52	166.18
December 1, 2017	-1.629	141.82	168.96
January 1, 2018	-1.145	144.26	171.84
February 1, 2018	-0.261	150.24	179.01
March 1, 2018	-0.389	152.06	181.14
April 1, 2018	-0.483	152.06	181.14
May 1, 2018	0.923	149.05	177.53
June 1, 2018	1.529	154.86	184.50
July 1, 2018	1.204	158.27	188.61
August 1, 2018	0.802	158.79	189.22

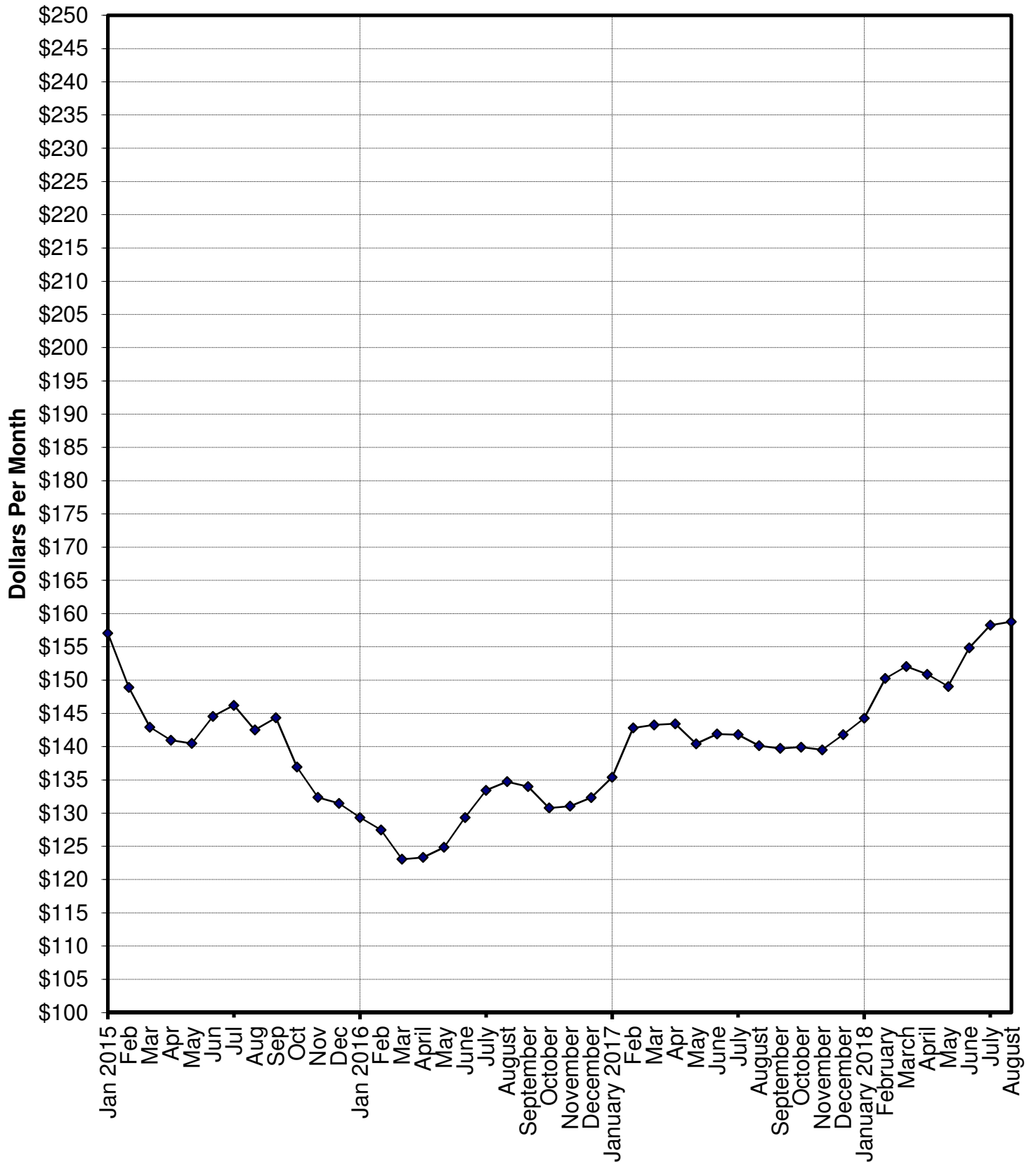
**Hawaiian Electric Company, Inc.
RESIDENTIAL SURCHARGE DATA**

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
09/01/12	FINAL RATE INCREASE (TY2011) 3.39% EFFECTIVE 09/01/12, DOCKET NO. 2010-0080	
2/1/2013	REFUND OF 2011 INTERIM RATE INCREASE	0.00 PERCENT ON BASE
01/1/2016 - 01/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	2.8642 CENTS/KWH
12/17/2015 - 02/29/2016	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0204 CENTS/KWH
01/01/2016 - 06/30/2016	GREEN INFRASTRUCTURE FEE	1.3000 DOLLARS/MONTH
02/1/2016 - 02/29/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.3809 CENTS/KWH
03/1/2016 - 03/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.3578 CENTS/KWH
3/1/2016 - 05/14/2016	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0204 CENTS/KWH
04/1/2016 - 04/30/2016	SOLAR SAVER ADJUSTMENT	-0.1223 CENTS/KWH
04/1/2016 - 04/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.3834 CENTS/KWH
4/1/2016 - 3/31/2017	RESIDENTIAL DSM ADJUSTMENT	0.0811 CENTS/KWH
5/1/2016 - 3/31/2017	SOLAR SAVER ADJUSTMENT	0.00 CENTS/KWH
05/1/2016 - 05/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.6989 CENTS/KWH
5/15/2016	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 CENTS/KWH
06/1/2016 - 06/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.7373 CENTS/KWH
6/1/2016 - 5/31/2017	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	2.1098 CENTS/KWH
07/1/2016 - 07/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.6808 CENTS/KWH
7/1/2016 - 12/31/2016	GREEN INFRASTRUCTURE FEE	1.1300 DOLLARS/MONTH
7/1/2016 - 6/30/2017	RESID. PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH
08/1/2016 - 08/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.2621 CENTS/KWH
09/1/2016 - 09/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.2827 CENTS/KWH
10/1/2016 - 10/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.2576 CENTS/KWH
11/1/2016 - 11/30/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.1959 CENTS/KWH
12/1/2016 - 12/31/2016	PURCHASED POWER ADJUSTMENT CLAUSE	3.1815 CENTS/KWH
01/1/2017 - 01/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	2.2812 CENTS/KWH
1/01/2017 - 06/30/2017	GREEN INFRASTRUCTURE FEE	1.2700 DOLLARS/MONTH
02/1/2017 - 02/28/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5384 CENTS/KWH
03/1/2017 - 03/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.4937 CENTS/KWH
04/1/2017 - 04/30/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5276 CENTS/KWH
4/1/2017 - 02/15/2018	RESIDENTIAL DSM ADJUSTMENT	0.0774 CENTS/KWH
4/1/2017 - 4/30/2017	SOLAR SAVER ADJUSTMENT	-0.1187 CENTS/KWH
5/1/2017-3/31/2018	SOLAR SAVER ADJUSTMENT	0.0000 CENTS/KWH
05/1/2017 - 05/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5484 CENTS/KWH
06/1/2017 - 06/30/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5894 CENTS/KWH
6/1/2017 - 2/15/2018	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	2.2291 CENTS/KWH
7/1/2017 - 12/31/2017	GREEN INFRASTRUCTURE FEE	1.1800 DOLLARS/MONTH
7/1/2017 - 7/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.5388 CENTS/KWH
7/1/2017 - 6/30/2018	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
8/1/2017 - 8/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.3840 CENTS/KWH
9/1/2017 - 9/30/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.4128 CENTS/KWH
10/1/2017 - 10/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.3748 CENTS/KWH
11/1/2017 - 11/30/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.1890 CENTS/KWH
12/1/2017 - 12/31/2017	PURCHASED POWER ADJUSTMENT CLAUSE	3.1709 CENTS/KWH
1/1/2018 - 1/31/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.1422 CENTS/KWH
1/1/2018 - 6/30/2018	GREEN INFRASTRUCTURE FEE	1.3400 DOLLARS/MONTH
2/1/2018 - 2/28/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.4536 CENTS/KWH
2/16/2018 -04/12/018	INTERIM RATE INCREASE 2017 TEST YEAR	8.8700 PERCENT ON BASE
2/16/2018 - 5/31/2018	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.7116 CENTS/KWH
2/16/2018 - 3/31/2018	RESIDENTIAL DSM ADJUSTMENT	0.0000 CENTS/KWH
3/1/2018 -3/31/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.4266 CENTS/KWH
4/1/2018 - 4/30/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.4413 CENTS/KWH
4/1/2018 - 4/30/2018	SOLAR SAVER ADJUSTMENT	-0.1063 CENTS/KWH
4/1/2018 - 7/31/2018	RESIDENTIAL DSM ADJUSTMENT	-0.0513 CENTS/KWH
4/13/2018	INTERIM RATE INCREASE 2017 TEST YEAR	5.8900 PERCENT ON BASE
5/1/2018	SOLAR SAVER ADJUSTMENT	0.0000 CENTS/KWH
5/1/2018 - 5/31/2018	PURCHASED POWER ADJUSTMENT CLAUSE	2.2718 CENTS/KWH
6/1/2018 - 6/30/2018	PURCHASED POWER ADJUSTMENT CLAUSE	2.5042 CENTS/KWH
6/1/2018	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.0350 CENTS/KWH
7/1/2018	GREEN INFRASTRUCTURE FEE	1.2100 DOLLARS/MONTH
7/1/2018	RESID. PBF SURCHARGE ADJUSTMENT	0.4658 CENTS/KWH
7/1/2018 - 7/31/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.4959 CENTS/KWH
8/1/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.9557 CENTS/KWH
8/1/2018	RESIDENTIAL DSM ADJUSTMENT	-0.0064 CENTS/KWH

~ Surcharges currently in effect are in bold.

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

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



Hawaiian Electric Company, Inc.
CALCULATIONS OF THE AVERAGE RESIDENTIAL CUSTOMER BILL

	Rate		Charge (\$) at 500 kWh			
	7/1/2018	8/1/2018	7/1/2018	8/1/2018	Difference	
Base Rates	effective date:	09/01/12	09/01/12			
Base Fuel/Energy Charge	¢/kWh	13.6062	13.6062	68.03	68.03	0.00
Non-fuel Fuel Energy Charge						
First 350 kWh per month	¢/kWh	8.1034	8.1034	28.36	28.36	0.00
Next 850 kWh per month	¢/kWh	9.2569	9.2569	13.89	13.89	0.00
Customer Charge	\$	9.00	9.00	9.00	9.00	0.00
Total Base Charges				119.28	119.28	0.00
Purchase Power Adjustment	¢/kWh	3.4959	3.9557	17.48	19.78	2.30
RBA Rate Adjustment	¢/kWh	1.0350	1.0350	5.18	5.18	0.00
DSM Adjustment	¢/kWh	-0.0513	-0.0064	-0.26	-0.03	0.23
Interim Rate Increase (TY 2017)	% on base	5.890%	5.890%	7.03	7.03	0.00
Refund of 2011 Interim	% on base	0.000%	0.000%	0.00	0.00	0.00
PBF Surcharge	¢/kWh	0.4658	0.4658	2.33	2.33	0.00
Renewable Energy Infrastructure Cost						
Recovery Provision	¢/kWh	-	-	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	1.204	0.802	6.02	4.01	-2.01
Green Infrastructure Fee	\$	1.21	1.21	1.21	1.21	0.00
Avg Residential Bill at 500 kWh				158.27	158.79	

Increase / (Decrease -)	0.52
% Change	0.33%

	Rate		Charge (\$) at 600 kWh			
	7/1/2018	8/1/2018	7/1/2018	8/1/2018	Difference	
Base Rates	effective date:	09/01/12	09/01/12			
Base Fuel/Energy Charge	¢/kWh	13.6062	13.6062	81.64	81.64	0.00
Non-fuel Fuel Energy Charge						
First 350 kWh per month	¢/kWh	8.1034	8.1034	28.36	28.36	0.00
Next 850 kWh per month	¢/kWh	9.2569	9.2569	23.14	23.14	0.00
Customer Charge	\$	9.00	9.00	9.00	9.00	0.00
Total Base Charges				142.14	142.14	0.00
Purchase Power Adjustment	¢/kWh	3.4959	3.9557	20.98	23.73	2.75
RBA Rate Adjustment	¢/kWh	1.0350	1.0350	6.21	6.21	0.00
DSM Adjustment	¢/kWh	-0.0513	-0.0064	-0.31	-0.04	0.27
Interim Rate Increase (TY 2017)	% on base	5.890%	5.890%	8.37	8.37	0.00
Refund of 2011 Interim	% on base	0.000%	0.000%	0.00	0.00	0.00
PBF Surcharge	¢/kWh	0.4658	0.4658	2.79	2.79	0.00
Renewable Energy Infrastructure Cost						
Recovery Provision	¢/kWh	-	-	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Adjustment	¢/kWh	1.204	0.802	7.22	4.81	-2.41
Green Infrastructure Fee	\$	1.21	1.21	1.21	1.21	0.00
Avg Residential Bill at 600 kWh				188.61	189.22	

Increase / (Decrease -)	0.61
% Change	0.32%