



December 27, 2019

FILED

2019 DEC 27 P 3: 55

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 Recovery Factor for January 2020

Hawaiian Electric Company, Inc.'s ("Hawaiian Electric" or "Company") January 2020 Energy Cost Recovery Factor is 13.629 cents per kilowatt-hour ("kWh"), an increase of 1.220 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$155.97, an increase of \$7.56 compared to rates effective December 1, 2019. The increase in the residential typical bill is due to the increases in the Energy Cost Recovery Factor (+\$6.10), Public Benefits Fund Surcharge (+\$1.33), Purchase Power Adjustment Clause rate (+\$0.05) and Green Infrastructure Fee (+\$0.08).

The Company's fuel composite cost of major energy increased 50.28 cents per million BTU to 1,209.37 cents per million BTU. The Company's composite cost of minor energy increased 0.470 cents per kWh to 19.353 cents per kWh. The composite cost of purchased energy increased 0.689 cents per kWh to 9.097 cents per kWh.

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 January 1, 2020.

Very truly yours,

Dean K. Matsuura
Director, Regulatory Rate Proceedings

Enclosures

cc: Division of Consumer Advocacy

Hawaiian Electric Company, Inc.
ENERGY COST RECOVERY FACTOR

	<u>Effective Dates</u>		<u>Change</u>
	<u>12/01/19</u>	<u>01/01/20</u>	
Composite Cost Of Major Energy, ¢/mmbtu	1,159.09	1,209.37	50.28
Composite Cost Of Minor Energy, ¢/kwh	18.883	19.353	0.470
Composite Cost Of Purchased Energy, ¢/kWh	8.408	9.097	0.689
 <u>Residential, Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	12.409	13.629	1.220
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Recovery, ¢/kWh	12.409	13.629	1.220
 <u>Residential Customer with:</u>			
500 kWh Consumption, \$/bill	148.41	155.97	7.56
600 kWh Consumption, \$/bill	176.37	185.42	9.05

Supersedes Sheet Effective:

December 1, 2019

Hawaiian Electric Company, Inc.
ENERGY COST RECOVERY FILING

ENERGY COST RECOVERY (ECR) FILING - January 1, 2020 (page 2 of 2)

Line		
1	Effective Date	- January 1, 2020
2	Supersedes Factor	- December 1, 2019

Line	PURCHASED ENERGY COMPONENT		
	PURCHASED ENERGY PRICE - FOSSIL - ¢/KWH		
48	PAR Hawaii	- On Peak	10.789
49	PAR Hawaii	- Off Peak	11.752
50	IES Downstream		0.000
51	Kalaeloa		12.800
52	AES-HI		3.377
53			
	PURCHASED ENERGY PRICE - RENEWABLE - ¢/KWH		
54	HRRV	- On Peak	17.95
55		- Off Peak	17.43
56	HRRV	- On Peak (excess)	11.43
57		- Off Peak (excess)	6.86
58	Kawailoa		22.73
59	Kahuku Wind		21.33
60	Waianae Solar PV		14.50
61	As Available I		22.72
62	FIT		19.36
63	CBRE PV		15.00
64	Kawailoa PV		12.73
65	Lanikuhana PV		13.05
66	Waipio PV		12.18
67	Na Pua Makani Wind		13.93
	PURCHASED ENERGY KWH MIX - FOSSIL - %		
68	PAR Hawaii	- On Peak	0.24
69	PAR Hawaii	- Off Peak	0.17
70	IES Downstream		0.02
71	Kalaeloa		14.01
72	AES-HI		49.93
73			
73a	Subtotal Fossil %		64.37
	PURCHASED ENERGY KWH MIX - RENEWABLE - %		
74	HRRV	- On Peak	8.98
75		- Off Peak	3.18
76	HRRV	- On Peak (excess)	0.00
77		- Off Peak (excess)	4.21
78	Kawailoa		2.65
79	Kahuku Wind		1.45
80	Waianae Solar PV		2.37
81	As Available I		0.68
82	FIT		2.26
83	CBRE PV		0.00
84	Kawailoa PV		3.33
85	Lanikuhana PV		1.00
86	Waipio PV		3.12
87	Na Pua Makani Wind		2.39
87a	Subtotal Renewable %		35.63
87b	Total Purchased Energy %		100.00
87c	Composite Cost of Purchased Energy, Fossil		5.48
87d	Composite Cost of Purchased Energy, Renewable		15.64
88	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH		9.097
89	% Input to System kWh Mix		44.66
90	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 88 x 89)		4.06279
91	2017 TY Loss Factor		1.0490
92	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 90 x 91)		4.26187
93	BASE PURCHASED ENERGY COMPOSITE COST, ¢/KWH		0.000
94	Base % Input to System kWh Mix		0.0000
95	WEIGHTED BASE PURCHASED ENERGY COST, ¢/KWH SALES (lines 93 x 94)		0.00000
96	2017 TY Loss Factor		1.049
97	WTD CMP PURCH ENRGY COST, ¢/KWH sales (lines 95 x 96)		0.00000
98	Cost Less Base (Line 92 - 97)		4.26187
99	Revenue Tax Adjustment (1 / (1-0.08885))		1.097514
100	PURCHASED ENERGY FACTOR, ¢/KWH (lines 98 x 99)		4.67746

Calculation of Monthly Fossil Fuel Cost Risk Sharing Component	
Baseline LSFO (Actual)	
101	LSFO \$, baseline month \$38,140,512
102	LSFO mmbtu, baseline 3,153,750
103	Baseline LSFO, ¢/mmbtu 1209.37
Baseline Diesel (Actual)	
104	Diesel \$, baseline month \$576,947
105	Diesel mmbtu, baseline 38,076
106	Baseline Diesel, ¢/mmbtu 1,515.26
Month LSFO	
107	LSFO mmbtu, budget 3,153,750
108	LSFO Cost, ¢/mmbtu 1,209.37
109	LSFO ECRC Fossil Cost \$38,140,512
110	LSFO Base ECRC Recovery Target \$38,140,512
111	LSFO differential \$0
Month Diesel	
112	Diesel mmbtu, budget 38,076
113	Diesel Cost, ¢/mmbtu 1,515.26
114	Diesel ECRC Fossil Cost \$576,947
115	Diesel Base ECRC Recovery Target \$576,947
116	Diesel differential \$0
117	Total Fossil \$0
118	2% of above \$0
118A	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year \$0
118B	Maximum Annual Cap (bi-directional) \$2,500,000
118C	Applicable Monthly Fossil Fuel Cost Risk Sharing \$0
118D	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month \$0
119	Fossil Cost Risk Sharing before taxes \$0
120	Revenue Tax Adjustment 1.097514
121	Fossil Cost Risk Sharing w/revenue tax \$0
122	Forecasted Month MWh Sales 515,000
123	Fossil Fuel Cost Risk Sharing Component, ¢/kWh 0.0000
Derivation of Non-Adjustable Component:	
80A	Fuel Handling Exp, \$000 \$7,604.5
	Final Settlement, HECO-603, p1
80B	Revenue Tax Adjustment 1.097514
80C	Non-Adj Revenues, \$000 \$8,346.0
80D	2017 TY Sales, MWh 6,660,200
	HECO-301, p1
80E	Non-Adj Revenues, ¢/kWh 0.12531
Line SYSTEM COMPOSITE	
124	GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 47 + 100) 13.0270
125	(Future Use) Adjustment, ¢/kWh 0.0000
126	ECR Reconciliation Adjustment 0.4770
127	Non-Adjustable Component (line 80E) 0.1253
128	Fossil Fuel Cost Risk Sharing Component (line 123) 0.0000
129	Monthly Energy Cost Recovery Factor (lines 124 + 125 + 126 + 127 + 128) 13.629

Hawaiian Electric Company, Inc.
FUEL OIL INVENTORY PRICES FOR 1-01-20

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	1,208.07	1,208.07	1,208.07
Fuel Additive, ¢/Mbtu	-	1.30	1.30
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	1,208.07	1,209.37	1,209.37

	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	1,511.24	-	1,496.16
Thruput Charges, ¢/Mbtu	-	-	0
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	1,511.24	-	1,496.16

	SGS ULSD	SGS Biodiesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	2,000.71	3,121.47
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	2,000.71	3,121.47

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	75.41	75.41	75.41
Fuel Additive, \$/bbl	-	0.08	0.08
Honolulu Trucking Cost, \$/bbl	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	75.41	75.49	75.49

	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, \$/bbl	87.77	-	85.57
Thruput Charges, ¢/Mbtu	-	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	87.77	-	85.57

	SGS ULSD	SGS Biodiesel
Average Diesel / Biodiesel Oil, \$/bbl	115.96	168.31
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	115.96	168.31

Distributed Generation Fuel Prices Used for Filing, ¢/kWh 33.410

FOAC January 2020

<u>LSFO</u>	BARRELS	MBTU	AMOUNT	AVE \$/MBTU
Per FOAC run	836,913	5,223,887	63,108,403	12.080736
Additional	-	-	-	-
Forecast Amt	836,913	5,223,887.44	63,108,402.79	12.080736
	-	6.20	-	ADD'L BBL
	5,223,887	836,913	6.2419	MBTU / BBL
	63,108,403	836,913	75.41	DOLLARS / BBL
<u>WAIU DIESEL</u>	21,913	127,268	1,923,327	15.112447
	1,923,327	21,913	87.77	DOLLARS / BBL
<u>CIP BIODIESEL</u>	-	-	-	-
	-	-	-	DOLLARS / BBL
<u>CIP DIESEL</u>	61,646	352,563	5,274,907	14.961601
	5,274,907	61,646	85.57	DOLLARS / BBL
<u>SGS ULSD</u>	426	2,469	49,400	20.00714025
	49,399.63	426	115.96	DOLLARS / BBL
<u>SGS BIODIESEL</u>	7,493	40,403	1,261,166	31.21467395
	1,261,166	7,493	168.31	DOLLARS / BBL
FUEL ADDITIVE				0.013019
Additional				
Forecast Amt	-	-		0.013019
\$ / BBL =	-	-	0.08	DOLLARS / BBL
HONOLULU TRUCKING COST				
Per FOAC run	-	-	-	-
Additional				
Forecast Amt	-	-	-	-
\$ / BBL =	-	-	-	DOLLARS / BBL

Hawaiian Electric Company, Inc.
CONTRACT PRICES EFFECTIVE 12-1-19

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
LOW SULFUR FUEL OIL		
Tax *	4.2771	68.99
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
DIESEL		
Tax *	5.2757	90.04
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 *	5.4392	94.92
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
BIODIESEL		
Tax *	6.7200	128.05
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.		<u>Airport DG</u> <u>Biodiesel</u>	<u>Schofield</u> <u>Biodiesel</u>	<u>Schofield</u> <u>ULSD</u>			
(A)	\$	32.72	\$	31.21	\$	20.01	Estimated Distributed Generation Fuel Cost (\$/MBTU)
(B)		2785		44,840		561	Estimated MBTU Consumption
(B1)		531		8,544		98	Estimated fuel consumption barrels
(C) = (A) x (B)		\$91,140		\$1,399,665		\$11,226	Estimated Distributed Generation Fuel Cost (\$)
(D)		272,831		5,345,114		66,888	Estimated Distributed Generation kWh
(E) = ((C) ÷ (D)) x 100		33.410		26.190		16.780	¢/kWh

Hawaiian Electric Company, Inc.
ECA RECONCILIATION ADJUSTMENT
January 2020

1.	Amount to be collected	\$	6,720,985
2.	Monthly Amount (Line 1 x 1/3)	\$	2,240,328
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	2,458,792
5.	Estimated MWh Sales (January 2020)		515,000
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u>0.477</u>

HAWAIIAN ELECTRIC COMPANY, INC.
2019 Cumulative Reconciliation Balance

	(1)		(2)	(3)	(4)	(5)	(6)
	YTD FOA		FOA Rec	FOA Rec	Try to	Actual	Month-end
<u>Month</u>	<u>Reconciliation</u>	<u>Qtr</u>	<u>Adjust</u>	<u>Less</u>	<u>Collect</u>	<u>Collect</u>	<u>Cumulative</u>
			<u>Variance</u>	<u>Variance</u>			<u>Balance</u>
November '18	(3,451,000)	(3)	46,479	(3,497,479)	1,150,333	1,163,303	(2,284,162)
December					1,150,333	1,102,163	(1,181,999)
January '19					1,150,333	1,121,708	(60,291)
February	(8,214,600)	(4)	(31,672)	(8,182,928)	2,738,200	2,387,566	(5,855,653)
March					2,738,200	2,502,912	(3,352,741)
April					2,738,200	2,610,703	(742,038)
May	(9,386,800)	(1)	(614,547)	(8,772,253)	3,128,933	3,065,471	(6,448,820)
June					3,128,933	3,272,756	(3,176,064)
July					3,128,933	3,238,171	62,107
August	(6,233,900)	(2)	(47,137)	(6,186,763)	2,077,967	2,162,647	(3,962,009)
September					2,077,967	2,178,140	(1,783,869)
October					2,077,967	2,160,610	376,741
November	(6,720,985)	(3)	294,091	(7,015,076)	2,240,328	2,353,575	(4,284,761)
December					2,240,328		
January '20					2,240,328		

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.
ENERGY COST RECOVERY FACTOR DATA

<u>EFFECTIVE DATE</u>	ENERGY COST FACTOR CENTS / KWH <u>RESIDENTIAL & COMMERCIAL</u>	RESIDENTIAL BILL (\$)	
		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
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
September 1, 2018	4.201	169.09	201.16
October 1, 2018	4.008	168.13	200.01
November 1, 2018	5.151	167.62	199.40
December 1, 2018	5.553	169.64	201.82
January 1, 2019	14.095	161.36	191.85
February 1, 2019	12.044	147.31	175.01
March 1, 2019	13.449	154.51	183.63
April 1, 2019	14.338	158.42	188.34
May 1, 2019	14.721	163.56	194.50
June 1, 2019	15.199	163.47	194.39
July 1, 2019	14.545	160.95	191.42
August 1, 2019	14.297	160.45	190.82
September 1, 2019	13.240	155.11	184.42
October 1, 2019	12.951	153.64	182.65
November 1, 2019	12.778	150.18	178.51
December 1, 2019	12.409	148.41	176.37
January 1, 2020	13.629	155.97	185.42

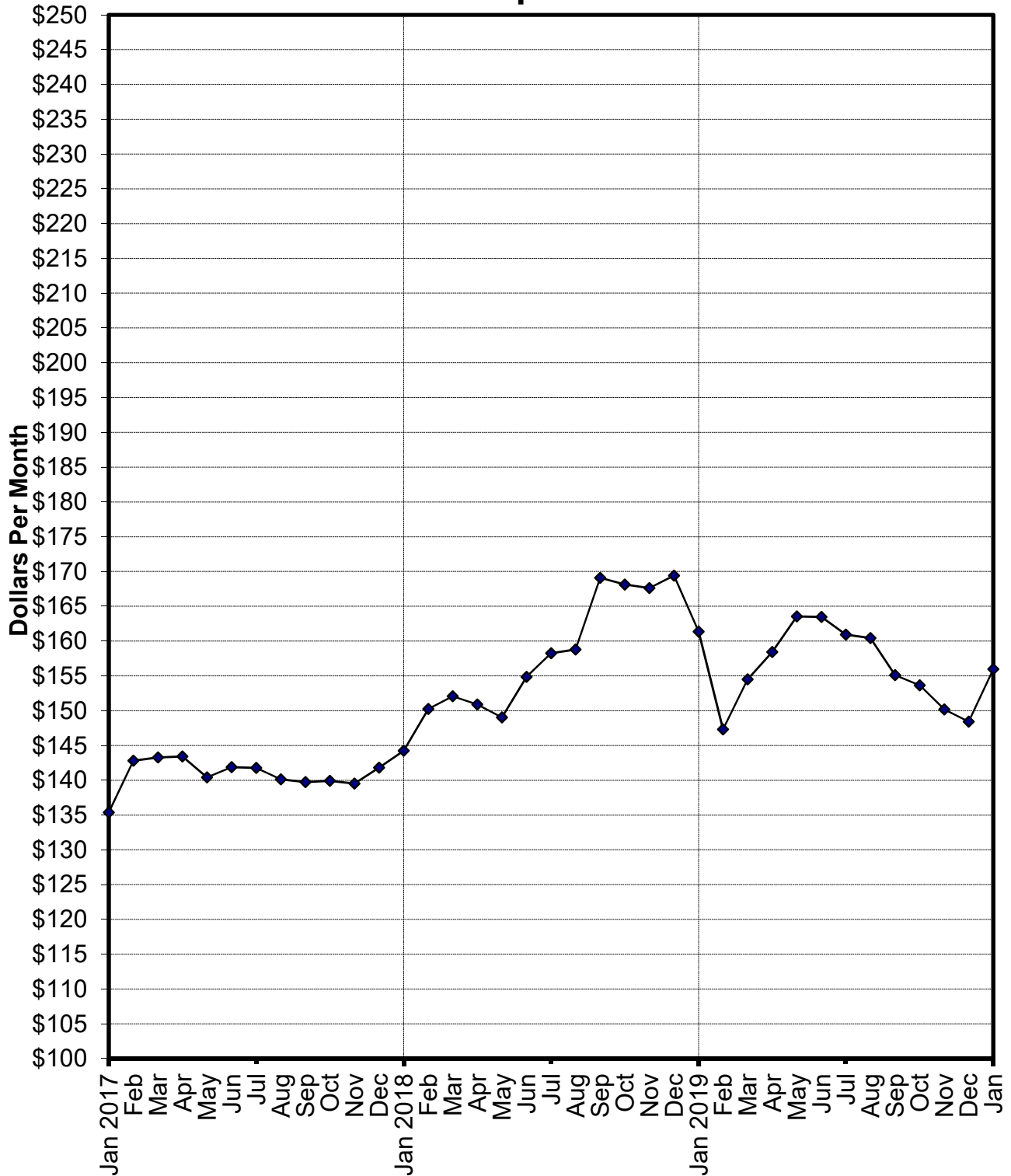
**Hawaiian Electric Company, Inc.
RESIDENTIAL SURCHARGE DATA**

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
5/15/2016	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 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 -8/31/2018	INTERIM RATE INCREASE 2017 TEST YEAR	5.8900 PERCENT ON BASE
5/1/2018 - 3/31/19	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 - 5/31/2019	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.0350 CENTS/KWH
7/1/2018 - 12/31/2018	GREEN INFRASTRUCTURE FEE	1.2100 DOLLARS/MONTH
7/1/2018 - 6/30/2019	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 - 8/31/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.9557 CENTS/KWH
8/1/2018 - 10/31/2018	RESIDENTIAL DSM ADJUSTMENT	-0.0064 CENTS/KWH
9/1/2018 - 9/30/2018	PURCHASED POWER ADJUSTMENT CLAUSE	4.3234 CENTS/KWH
9/1/2018	INTERIM RATE INCREASE 2017 TEST YEAR	0.0000 PERCENT ON BASE
9/1/2018	FINAL RATE INCREASE (TY2017) -0.039% EFFECTIVE 09/01/18, DOCKET NO. 2016-0328	
10/1/2018 - 10/31/2018	PURCHASED POWER ADJUSTMENT CLAUSE	4.3252 CENTS/KWH
11/1/2018 - 11/1/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.0539 CENTS/KWH
11/1/2018 - 1/31/2019	RESIDENTIAL DSM ADJUSTMENT	0.0203 CENTS/KWH
12/1/2018 - 12/31/2018	PURCHASED POWER ADJUSTMENT CLAUSE	3.0553 CENTS/KWH
1/1/2019 - 1/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	3.0574 CENTS/KWH
1/1/2019 - 6/30/2019	GREEN INFRASTRUCTURE FEE	1.35 DOLLARS/MONTH
2/1/2019 - 4/30/2019	RESIDENTIAL DSM ADJUSTMENT	0.0000 CENTS/KWH
2/1/2019 - 2/28/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.3209 CENTS/KWH
3/1/2019 - 3/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.3532 CENTS/KWH
4/1/2019 - 4/30/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.3341 CENTS/KWH
4/1/2019 - 4/30/2019	SOLAR SAVER ADJUSTMENT	-0.0857 CENTS/KWH
5/1/2019 - 5/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.8780 CENTS/KWH
5/1/2019	SOLAR SAVER ADJUSTMENT	0.0000 CENTS/KWH
5/1/2019 - 7/31/2019	RESIDENTIAL DSM ADJUSTMENT	0.0133 CENTS/KWH
6/1/2019 - 6/30/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.4806 CENTS/KWH
6/1/2019	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.9376 CENTS/KWH
7/1/2019 - 7/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.6543 CENTS/KWH
7/1/2019 - 12/31/2019	GREEN INFRASTRUCTURE FEE	1.17 DOLLARS/MONTH
7/1/2019 -12/31/2019	RESID. PBF SURCHARGE ADJUSTMENT	0.4775 CENTS/KWH
8/1/2019 - 8/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.8165 CENTS/KWH
8/1/2019	RESIDENTIAL DSM ADJUSTMENT	0.0000 CENTS/KWH
9/1/2019 - 9/30/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.8061 CENTS/KWH
10/1/2019-10/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.8008 CENTS/KWH
11/1/2019 - 11/30/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.2849 CENTS/KWH
11/1/2019	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0019 CENTS/KWH
12/1/2019 - 12/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.2980 CENTS/KWH
1/1/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.3077 CENTS/KWH
1/1/2020	RESID. PBF SURCHARGE ADJUSTMENT	0.7437 CENTS/KWH
1/1/2020	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH

~ 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			
	12/1/2019	1/1/2020	12/1/2019	1/1/2020	Difference	
Base Rates	effective date:	01/01/19	01/01/19			
Base Fuel/Energy Charge	¢/kWh	-	-	0.00	0.00	0.00
Non-fuel Fuel Energy Charge	¢/kWh	10.6812	10.6812	37.38	37.38	0.00
First 350 kWhr per month	¢/kWh	11.8347	11.8347	17.75	17.75	0.00
Next 850 kWhr per month	¢/kWh	11.50	11.50	11.50	11.50	0.00
Customer Charge	\$					
Total Base Charges				66.63	66.63	0.00
Purchase Power Adjustment	¢/kWh	2.2980	2.3077	11.49	11.54	0.05
RBA Rate Adjustment	¢/kWh	0.9376	0.9376	4.69	4.69	0.00
DSM Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Demand Response Adjustment Clause	¢/kWh	-0.0019	-0.0019	-0.01	-0.01	0.00
Interim Rate Increase (TY 2017)	% on base	0.000%	0.000%	0.00	0.00	0.00
Refund of 2011 Interim	% on base	0.000%	0.000%	0.00	0.00	0.00
PBF Surcharge	¢/kWh	0.4775	0.7437	2.39	3.72	1.33
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 Recovery	¢/kWh	12.409	13.629	62.05	68.15	6.10
Green Infrastructure Fee	\$	1.17	1.25	1.17	1.25	0.08
Avg Residential Bill at 500 kWh				148.41	155.97	

Increase / (Decrease -) 7.56
% Change 5.09%

	Rate		Charge (\$) at 600 kWh			
	12/1/2019	1/1/2020	12/1/2019	1/1/2020	Difference	
Base Rates	effective date:	01/01/19	01/01/19			
Base Fuel/Energy Charge	¢/kWh	-	-	0.00	0.00	0.00
Non-fuel Fuel Energy Charge	¢/kWh	10.6812	10.6812	37.38	37.38	0.00
First 350 kWhr per month	¢/kWh	11.8347	11.8347	29.59	29.59	0.00
Next 850 kWhr per month	¢/kWh	11.50	11.50	11.50	11.50	0.00
Customer Charge	\$					
Total Base Charges				78.47	78.47	0.00
Purchase Power Adjustment	¢/kWh	2.2980	2.3077	13.79	13.85	0.06
RBA Rate Adjustment	¢/kWh	0.9376	0.9376	5.63	5.63	0.00
DSM Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Demand Response Adjustment Clause	¢/kWh	-0.0019	-0.0019	-0.01	-0.01	0.00
Interim Rate Increase (TY 2017)	% on base	0.000%	0.000%	0.00	0.00	0.00
Refund of 2011 Interim	% on base	0.000%	0.000%	0.00	0.00	0.00
PBF Surcharge	¢/kWh	0.4775	0.7437	2.87	4.46	1.59
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 Recovery	¢/kWh	12.409	13.629	74.45	81.77	7.32
Green Infrastructure Fee	\$	1.17	1.25	1.17	1.25	0.08
Avg Residential Bill at 600 kWh				176.37	185.42	

Increase / (Decrease -) 9.05
% Change 5.13%