



February 28, 2020

FILED

2020 FEB 28 P 3:17

The Honorable Chair and Members  
of the Hawai'i Public Utilities Commission  
Kekuanaoa Building, First Floor  
465 South King Street  
Honolulu, Hawai'i 96813

PUBLIC UTILITIES  
COMMISSION

Dear Commissioners:

Subject: Hawaiian Electric Energy Cost Recovery Factor for March 2020  
Revised Attachments Reflecting REIP Rate Adjustment

Enclosed for filing are revised Attachments 1, 6A, 6B, 7, and 8 of Hawaiian Electric Company, Inc.'s ("Hawaiian Electric" or "Company") March 2020 Energy Cost Recovery Factor filing, reflecting the impact of the Company's Renewable Energy Infrastructure Program Cost Recovery Provision ("REIP") rate adjustment, as approved by the Commission in Order No. 37012 issued on February 27, 2020 in Docket No. 2015-0411.

On February 26, 2020, Hawaiian Electric filed its Energy Cost Recovery Factor for March 2020. Since the filing, the Company received the Commission's decision on the Company's REIP rate adjustment proposal submitted in Docket No. 2015-0411 approving Hawaiian Electric's REIP tariff sheets to be effective March 1, 2020. To reflect the approved REIP adjusted rate, attached are the revised versions of Attachments 1, 6A, 6B, 7, and 8 to incorporate the impact in the customer bill analysis. There is no change to the Energy Cost Recovery Factor as filed February 26, 2020.

A residential customer consuming 500 kWh of electricity will be paying \$160.64, a decrease of \$1.26 compared to rates effective February 1, 2020. The decrease in the typical residential bill is due the decrease in the Energy Cost Recovery Factor (-\$1.49), partially offset by the increase in the Purchased Power Adjustment Clause rate (+\$0.04) and the implementation of the REIP rate adjustment (+\$0.19).

For the Commission's convenience, Hawaiian Electric is refiling the entire attachments included in the February 26, 2020 filing. The revised attachments are notated with "Revised 2/28/2020" in the headers; the other attachments are unchanged.

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>02/01/20</u>	<u>03/01/20</u>	
Composite Cost Of Major Energy, ¢/mmbtu	1,266.66	1,248.22	(18.44)
Composite Cost Of Minor Energy, ¢/kwh	20.781	21.734	0.953
Composite Cost Of Purchased Energy, ¢/kWh	9.348	9.809	0.461
 <u>Residential, Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	14.648	14.349	(0.299)
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Recovery, ¢/kWh	14.648	14.349	(0.299)
 <u>Residential Customer with:</u>			
500 kWh Consumption, \$/bill	161.90	160.64	(1.26)
600 kWh Consumption, \$/bill	192.54	191.02	(1.52)

Supersedes Sheet Effective:

February 1, 2020

Hawaiian Electric Company, Inc.  
ENERGY COST RECOVERY FILING

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

Line		
1	Effective Date	- March 1, 2020
2	Supercedes Factor	- February 1, 2020

GENERATION COMPONENT

MAJOR ENERGY COMPONENT					MINOR ENERGY COMPONENT					
					Gen Cost	Percent of	Weighted Gen			
					Fuel Type	\$/KWH	Minor Energy	Cost \$/KWH		
3	Honolulu		0.00		32a Airport DG	33.12	2.29%	0.7586		
4	Kahe		1,248.22		32b CIP-Biodiesel	0.00	0.00%	0.0000		
5	Waiau-Steam		1,248.22		32c CIP-Diesel	-9.48	-2.08%	0.1968		
6	(Future Use)		0.00		32d SGS - Biodiesel	27.55	45.63%	12.5707		
7	(Future Use)		0.00		32e SGS - ULSD	16.73	0.48%	0.0811		
8	(Future Use)		0.00		32f Waiau-Diesel	42.05	19.33%	8.1266		
9	Other		0		32g West Loch PV	0.00	34.35%	0.0000		
BTU MIX, %					32h COMPOSITE COST OF MINOR ENERGY, \$/kWh				21.734	
10	Honolulu		0.00		33 % Input to System kWh Mix				2.22	
11	Kahe		79.75		34 WTD COMP MINOR ENERGY COST, \$/kWh (Lines 32h x 33)				0.48249	
12	Waiau-Steam		20.25		35 2017 TY Loss Factor				1.0490	
13	(Future Use)		0.00		36 WTD COMP MINOR ENERGY COST, \$/kWh (Line 34 x 35)				0.50613	
14	(Future Use)		0.00		37 BASE MINOR ENERGY COMP COST				0.0000	
15	(Future Use)		0.00		38 Base % Input to System kWh Mix				0.0000	
16	Other		0.00		39 WTD BASE MINOR ENERGY COST, \$/kWh (Line 37 x 38)				0.00000	
100.00					40 2017 TY Loss Factor				1.0490	
17	COMPOSITE COST OF GENERATION, MAJOR ENERGY \$/mmbtu			1,248.22	41 WTD COMP MINOR ENERGY COST, \$/kWh (Line 39 x 40)				0.00000	
18	% Input to system kWh Mix			42.48	42 Cost Less Base (Line 36 - 41)				0.506132	
EFFICIENCY FACTOR, mmbtu/kWh					43 Revenue Tax Adjustment (1 / (1-0.08885))				1.097514	
	(A)	(B)	(C)	(D)	44 MINOR ENERGY FACTOR, \$/kWh (Line 42 x 43)				0.55549	
	Fuel Type	Eff Factor mmbtu/kWh	Percent of Centrl Stn + Other	Weighted Eff Factor						
19	LSFO	0.011142	100.00	0.011142						
20	(Future Use)	0.000000	0.00	0.000000						
21	(Future Use)	0.000000	0.00	0.000000						
22	Other	0.011142	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)]			0.011142						
24	WEIGHTED MAJOR ENERGY COST, \$/kWh Sales (lines 17 x 18 x 23)			5.90798						
25	BASE MAJOR ENERGY COST, \$/mmbtu			0.00						
26	Base % Input to System kWh Mix			0.0000						
27	Efficiency Factor, Mbtu/kWh			0.000000						
28	WEIGHTED BASE MAJOR ENERGY COST \$/KWH Sales (lines 25 x 26 x 27)			0.00000						
29	Cost Less Base (Line 24 - 28)			5.90798						
30	Revenue Tax Adjustment (1 / (1-0.08885))			1.097514						
31	MAJOR ENERGY GENERATION FACTOR, \$/KWH (Line 29 x 30)			6.48409						

SUMMARY OF TOTAL GENERATION FACTOR, \$/kWh		
45 MAJOR ENERGY (line 31)		6.48409
46 MINOR ENERGY (line 44)	-	0.55549
47 TOTAL GENERATION FACTOR, \$/KWH (lines 45 + 46)	-	7.03958

Hawaiian Electric Company, Inc.  
ENERGY COST RECOVERY FILING

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

Line

- 1 Effective Date - March 1, 2020
- 2 Supersedes Factor - February 1, 2020

PURCHASED ENERGY COMPONENT		Calculation of Monthly Fossil Fuel Cost Risk Sharing Component	
PURCHASED ENERGY PRICE - FOSSIL - ¢/KWH			
48	PAR Hawaii - On Peak	10.654	
49	PAR Hawaii - Off Peak	11.707	
50	IES Downstream	0.000	
51	Kalaeloa	11.663	
52	AES-HI	3.385	
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 Wind	22.73	
59	Kahuku Wind	21.33	
60	Waianae Solar PV	14.50	
61	As Available I	23.60	
62	FIT	23.78	
63	CBRE PV	15.00	
64	Kawailoa PV	12.73	
65	Lanikuhana PV	13.05	
66	Waipio PV	12.18	
67	Unused	0.00	
PURCHASED ENERGY KWH MIX - FOSSIL - %			
68	PAR Hawaii - On Peak	0.20	
69	PAR Hawaii - Off Peak	0.14	
70	IES Downstream	0.01	
71	Kalaeloa	33.21	
72	AES-HI	38.56	
73			
73a	Subtotal Fossil %	72.13	
PURCHASED ENERGY KWH MIX - RENEWABLE - %			
74	HRRV - On Peak	6.26	
75	- Off Peak	2.61	
76	HRRV - On Peak (excess)	0.00	
77	- Off Peak (excess)	2.93	
78	Kawailoa Wind	3.23	
79	Kahuku Wind	1.77	
80	Waianae Solar PV	1.69	
81	As Available I	0.66	
82	FIT	1.84	
83	CBRE PV	0.00	
84	Kawailoa PV	3.08	
85	Lanikuhana PV	0.92	
86	Waipio PV	2.88	
87	Unused	0.00	
87a	Subtotal Renewable %	27.87	
87b	Total Purchased Energy %	100.00	
87c	Composite Cost of Purchased Energy, Fossil	7.23	
87d	Composite Cost of Purchased Energy, Renewable	16.48	
88	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH	9.809	
89	% Input to System kWh Mix	55.30	
90	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 88 x 89)	5.42438	
91	2017 TY Loss Factor	1.0490	
92	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 90 x 91)	5.69017	
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)	5.69017	
99	Revenue Tax Adjustment (1 / (1-0.08885))	1.097514	
100	PURCHASED ENERGY FACTOR, ¢/KWH (lines 98 x 99)	6.24505	
		<b>Baseline LSFO (Actual)</b> 101 LSFO \$, baseline month \$43,537,044 102 LSFO mmbtu, baseline 3,600,297 103 Baseline LSFO, ¢/mmbtu 1209.26  <b>Baseline Diesel (Actual)</b> 104 Diesel \$, baseline month \$2,926,612 105 Diesel mmbtu, baseline 195,326 106 Baseline Diesel, ¢/mmbtu 1,498.32  <b>Month LSFO</b> 107 LSFO mmbtu, budget 2,480,038 108 LSFO Cost, ¢/mmbtu 1,248.22 109 LSFO ECRC Fossil Cost \$30,956,406 110 LSFO Base ECRC Recovery Target \$29,990,171 111 LSFO differential \$966,235  <b>Month Diesel</b> 112 Diesel mmbtu, budget 66,038 113 Diesel Cost, ¢/mmbtu 1,491.53 114 Diesel ECRC Fossil Cost \$984,979 115 Diesel Base ECRC Recovery Target \$989,465 116 Diesel differential -\$4,485  117 Total Fossil \$961,750 118 2% of above \$19,235 118A Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year \$33,992 118B Maximum Annual Cap (bi-directional) \$2,500,000 118C Applicable Monthly Fossil Fuel Cost Risk Sharing \$19,235 118D Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month \$53,227  119 Fossil Cost Risk Sharing before taxes \$19,235 120 Revenue Tax Adjustment 1,097,514 121 Fossil Cost Risk Sharing w/revenue tax \$21,111  122 Forecasted Month MWh Sales 510,700 123 Fossil Fuel Cost Risk Sharing Component, ¢/kWh -0.0041	
		<b>Derivation of Non-Adjustable Component:</b> 80A Fuel Handling Exp, \$000 \$7,604.5 Final Settlement, HECO-603, p1 80B Revenue Tax Adjustment 1,097,514 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	
		<b>Line SYSTEM COMPOSITE</b> 124 GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 47 + 100) 13.2846 125 (Future Use) Adjustment, ¢/kWh 0.0000 126 ECR Reconciliation Adjustment 0.9430 127 Non-Adjustable Component (line 80E) 0.1253 128 Fossil Fuel Cost Risk Sharing Component (line 123) -0.0041  129 Monthly Energy Cost Recovery Factor (lines 124 + 125 + 126 + 127 + 128) 14.349	

**Hawaiian Electric Company, Inc.**  
**FUEL OIL INVENTORY PRICES FOR March 1, 2020**

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	1,246.92	1,246.92	1,246.92
Fuel Additive, ¢/Mbtu	-	1.30	1.30
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	1,246.92	1,248.22	1,248.22

	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	1,485.66	-	1,584.32
Thruput Charges, ¢/Mbtu	-	-	0
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	1,485.66	-	1,584.32

	SGS ULSD	SGS Biodiesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	2,000.71	3,281.92
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	2,000.71	3,281.92

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	77.23	77.23	77.23
Fuel Additive, \$/bbl	-	0.08	0.08
Honolulu Trucking Cost, \$/bbl	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	77.23	77.31	77.31

	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, \$/bbl	86.71	-	90.42
Thruput Charges, ¢/Mbtu	-	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	86.71	-	90.42

	SGS ULSD	SGS Biodiesel
Average Diesel / Biodiesel Oil, \$/bbl	115.96	170.77
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	115.96	170.77

Distributed Generation Fuel Prices Used for Filing, ¢/kWh 33.120

**FOAC March 2020**

<b><u>LSFO</u></b>	<b>BARRELS</b>	<b>MBTU</b>	<b>AMOUNT</b>	<b>AVE \$/MBTU</b>
Per FOAC run	720,285	4,461,384	55,630,026	12.469231
Additional	-	-	-	-
Forecast Amt	720,285	4,461,384	55,630,026	12.469231
	-	6.20	-	ADD'L BBL
	4,461,384	720,285	6.1939	MBTU / BBL
	55,630,026	720,285	77.23	DOLLARS / BBL
<b><u>WAIU DIESEL</u></b>	17,544	102,395	1,521,231	14.856554
	1,521,231	17,544	86.71	DOLLARS / BBL
<b><u>CIP BIODIESEL</u></b>	-	-	-	-
	-	-	-	DOLLARS / BBL
<b><u>CIP DIESEL</u></b>	42,605	243,167	3,852,545	15.843185
	3,852,545	42,605	90.42	DOLLARS / BBL
<b><u>SGS ULSD</u></b>	426	2,469	49,400	20.007140
	49,399.63	426	115.96	DOLLARS / BBL
<b><u>SGS BIODIESEL</u></b>	6,145	31,975	1,049,384	32.81919406
	1,049,384	6,145	170.77	DOLLARS / BBL
<b>FUEL ADDITIVE</b>				0.013019
Additional				
Forecast Amt	-	-	-	0.013019
\$ / BBL =	-	-	0.08	DOLLARS / BBL
<b>HONOLULU TRUCKING COST</b>				
Per FOAC run	-	-	-	-
Additional				
Forecast Amt	-	-	-	-
\$ / BBL =	-	-	-	DOLLARS / BBL

**Hawaiian Electric Company, Inc.**

**CONTRACT PRICES EFFECTIVE 2-1-20**

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
<b>LOW SULFUR FUEL OIL</b>		
Tax *	4.6144	74.43
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
<b>DIESEL</b>		
Tax *	5.3949	92.08
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
<b>ULTRA LOW SULFUR DIESEL</b>		
Tax *	5.5584	97.00
Ocean Transportation	0.0000	0.00
Land Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00
<b>BIODIESEL</b>		
Tax *	7.9800	152.06
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)	\$	32.45	\$	32.82	\$	20.01	Estimated Distributed Generation Fuel Cost (\$/MBTU)
(B)		2740		44,885		475	Estimated MBTU Consumption
(B1)		522		8,553		83	Estimated fuel consumption barrels
(C) = (A) x (B)		\$88,905		\$1,473,096		\$9,498	Estimated Distributed Generation Fuel Cost (\$)
(D)		268,399		5,346,967		56,786	Estimated Distributed Generation kWh
(E) = ((C) ÷ (D)) x 100		<b>33.120</b>		<b>27.550</b>		<b>16.730</b>	¢/kWh



**Hawaiian Electric Company, Inc.**  
**ECA RECONCILIATION ADJUSTMENT**  
**March 2020**

1.	Amount to be collected	\$	13,170,400
2.	Monthly Amount (Line 1 x 1/3)	\$	4,390,133
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	4,818,233
5.	Estimated MWh Sales (March 2020)		510,700
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u>0.943</u>

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**2020 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 '19	(6,720,985)	(3)	294,091	(7,015,076)	2,240,328	2,353,575	(4,284,761)
December					2,240,328	2,361,239	(1,923,522)
January '20					2,240,328	2,306,195	382,673
February	(13,170,400)	(4)	316,801	(13,487,201)	4,390,133		
March					4,390,133		

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 &amp; COMMERCIAL</u>	RESIDENTIAL BILL (\$)	
		<u>@ 500 KWH</u>	<u>@ 600 KWH</u>
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
February 1, 2020	14.648	161.90	192.54
March 1, 2020	14.349	160.64	191.02

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

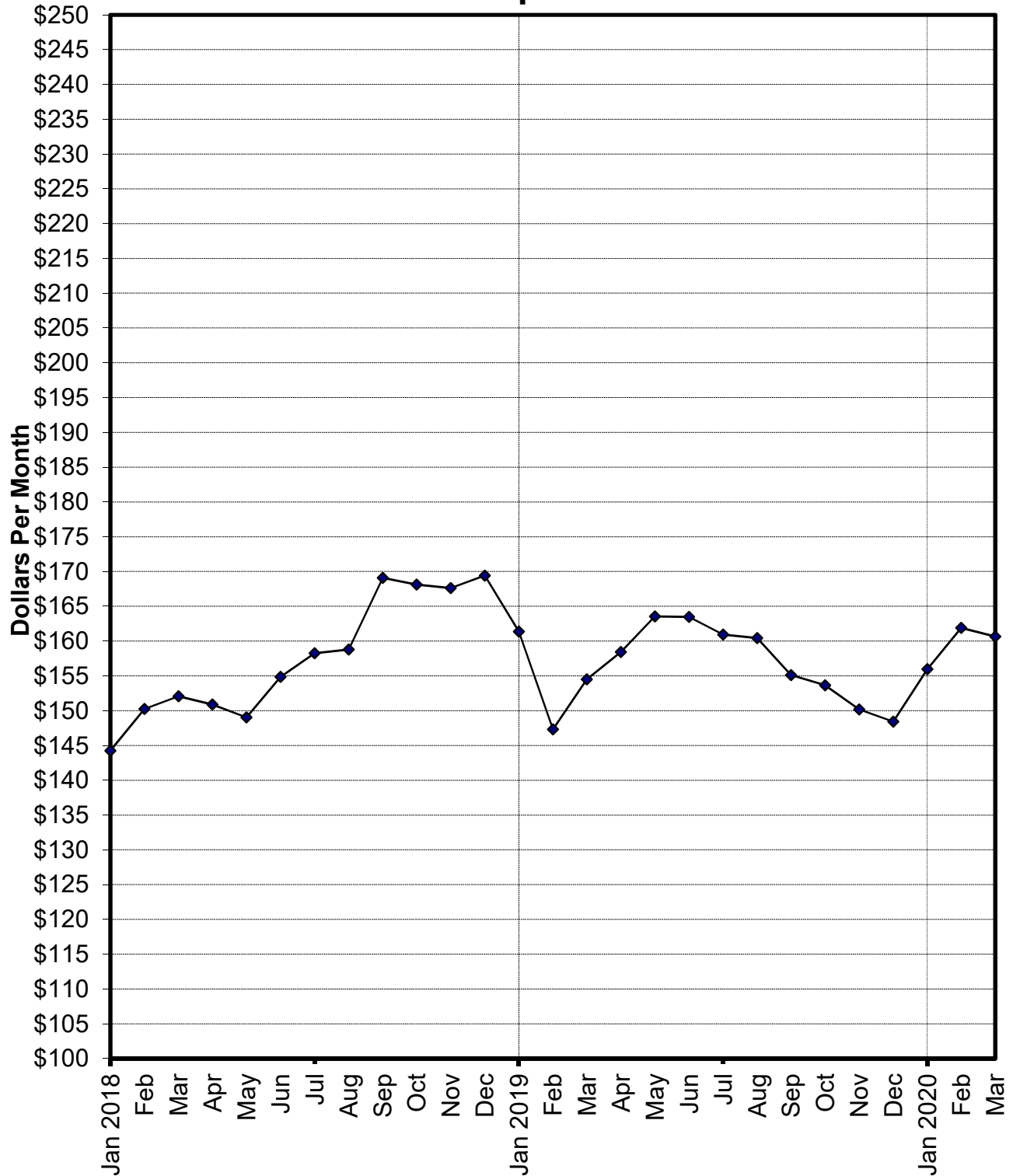
ATTACHMENT 6B  
Revised 2/28/2020

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
5/15/2016 - 2/29/2020	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
<b>9/1/2018</b>	<b>INTERIM RATE INCREASE 2017 TEST YEAR</b>	<b>0.0000 PERCENT ON BASE</b>
<b>9/1/2018</b>	<b>FINAL RATE INCREASE (TY2017) -0.039% EFFECTIVE 09/01/18, DOCKET NO. 2016-0328</b>	
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	1.3500 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
<b>6/1/2019</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>0.9376 CENTS/KWH</b>
7/1/2019 - 7/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.6543 CENTS/KWH
<b>7/1/2019</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.17 DOLLARS/MONTH</b>
<b>7/1/2019</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.4658 CENTS/KWH</b>
8/1/2019 - 8/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.8165 CENTS/KWH
8/1/2019 - 1/31/2020	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 - 1/31/2020	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	0.0000 CENTS/KWH
12/1/2019 - 12/31/2019	PURCHASED POWER ADJUSTMENT CLAUSE	2.2980 CENTS/KWH
1/1/2020 - 1/31/2020	PURCHASED POWER ADJUSTMENT CLAUSE	0.0000 CENTS/KWH
<b>1/1/2020</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.7437 CENTS/KWH</b>
<b>1/1/2020</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.25 DOLLARS/MONTH</b>
<b>2/1/2020</b>	<b>RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)</b>	<b>-0.0116 CENTS/KWH</b>
<b>2/1/2020</b>	<b>RESIDENTIAL DSM ADJUSTMENT</b>	<b>0.0651 CENTS/KWH</b>
2/1/2020 - 2/29/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.4197 CENTS/KWH
<b>3/1/2020</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>2.4281 CENTS/KWH</b>
<b>3/1/2020</b>	<b>RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION</b>	<b>0.0384 CENTS/KWH</b>

~ 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			
	2/1/2020	3/1/2020	2/1/2020	3/1/2020	Difference	
<b>Base Rates</b>	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	\$					
<b>Total Base Charges</b>				66.63	66.63	0.00
<b>Purchase Power Adjustment</b>	¢/kWh	2.4197	2.4281	12.10	12.14	0.04
<b>RBA Rate Adjustment</b>	¢/kWh	0.9376	0.9376	4.69	4.69	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0651	0.0651	0.33	0.33	0.00
<b>Demand Response Adjustment Clause</b>	¢/kWh	-0.0116	-0.0116	-0.06	-0.06	0.00
<b>Interim Rate Increase (TY 2017)</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>Refund of 2011 Interim</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>PBF Surcharge</b>	¢/kWh	0.7437	0.7437	3.72	3.72	0.00
<b>Renewable Energy Infrastructure Cost Recovery Provision</b>	¢/kWh	-	0.0384	0.00	0.19	0.19
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Recovery</b>	¢/kWh	14.648	14.349	73.24	71.75	-1.49
<b>Green Infrastructure Fee</b>	\$	1.25	1.25	1.25	1.25	0.00
<b>Avg Residential Bill at 500 kWh</b>				161.90	160.64	

Increase / (Decrease -) -1.26  
% Change -0.78%

	Rate		Charge (\$) at 600 kWh			
	2/1/2020	3/1/2020	2/1/2020	3/1/2020	Difference	
<b>Base Rates</b>	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	\$					
<b>Total Base Charges</b>				78.47	78.47	0.00
<b>Purchase Power Adjustment</b>	¢/kWh	2.4197	2.4281	14.52	14.57	0.05
<b>RBA Rate Adjustment</b>	¢/kWh	0.9376	0.9376	5.63	5.63	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0651	0.0651	0.39	0.39	0.00
<b>Demand Response Adjustment Clause</b>	¢/kWh	-0.0116	-0.0116	-0.07	-0.07	0.00
<b>Interim Rate Increase (TY 2017)</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>Refund of 2011 Interim</b>	% on base	0.000%	0.000%	0.00	0.00	0.00
<b>PBF Surcharge</b>	¢/kWh	0.7437	0.7437	4.46	4.46	0.00
<b>Renewable Energy Infrastructure Cost Recovery Provision</b>	¢/kWh	-	0.0384	0.00	0.23	0.23
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Recovery</b>	¢/kWh	14.648	14.349	87.89	86.09	-1.80
<b>Green Infrastructure Fee</b>	\$	1.25	1.25	1.25	1.25	0.00
<b>Avg Residential Bill at 600 kWh</b>				192.54	191.02	

Increase / (Decrease -) -1.52  
% Change -0.79%