



October 28, 2020

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

Dear Commissioners:

Subject: Hawaiian Electric Energy Cost Recovery Factor for November 2020

Hawaiian Electric Company, Inc.'s ("Hawaiian Electric" or "Company") November 2020 Energy Cost Recovery Factor is 10.850 cents per kilowatt-hour ("kWh"), an increase of 0.261 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$138.03, a decrease of \$1.33 compared to rates effective October 1, 2020. The decrease in the residential typical bill is due to a decrease in the Purchase Power Adjustment Clause rate (-\$2.51), a decrease in the DSM Adjustment (-\$0.07), and a decrease in the Demand Response Adjustment Clause rate (-\$0.05), which are partially offset by an increase in the Energy Cost Recovery Factor (\$1.30).

The Company's fuel composite cost of major energy decreased 38.24 cents per million BTU to 903.35 cents per million BTU. The Company's composite cost of minor energy increased 1.010 cents per kWh to 14.194 cents per kWh. The composite cost of purchased energy increased 0.213 cents per kWh to 8.518 cents per kWh.

To streamline the filing, the Company has excluded the contract prices that were previously included in Attachment 3, page 3 of 4 from this filing. Those values do not affect the filed Energy Cost Recovery Factor.

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 November 1, 2020.

Very truly yours,

/s/ Dean K. Matsuura

Dean K. Matsuura  
Director, Regulatory Rate Proceedings

Attachments  
cc: Division of Consumer Advocacy

**Hawaiian Electric Company, Inc.**  
**ENERGY COST RECOVERY FACTOR**

	<u>Effective Dates</u>		<u>Change</u>
	<u>10/01/20</u>	<u>11/01/20</u>	
Composite Cost Of Major Energy, ¢/mmbtu	941.59	903.35	(38.24)
Composite Cost Of Minor Energy, ¢/kwh	13.185	14.194	1.010
Composite Cost Of Purchased Energy, ¢/kWh	8.305	8.518	0.213
 <u>Residential, Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	10.589	10.850	0.261
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Recovery, ¢/kWh	10.589	10.850	0.261
 <u>Residential Customer with:</u>			
500 kWh Consumption, \$/bill	139.36	138.03	(1.33)
600 kWh Consumption, \$/bill	165.49	163.91	(1.58)

Supersedes Sheet Effective:

October 1, 2020

Hawaiian Electric Company, Inc.  
ENERGY COST RECOVERY FILING

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

Line		
1	Effective Date	- November 1, 2020
2	Supersedes Factor	- October 1, 2020

GENERATION COMPONENT

MAJOR ENERGY COMPONENT				MINOR ENERGY COMPONENT			
				Gen Cost	Percent of	Weighted Gen	
				\$/KWH	Minor Energy	Cost \$/KWH	
FUEL PRICES, \$/mmbtu				Fuel Type			
3	Honolulu	0.00		32a Airport DG	30.16	3.89%	1.1727
4	Kahe	903.35		32b CIP-Biodiesel	0.00	0.00%	0.0000
5	Waiau-Steam	903.35		32c CIP-Diesel	-2.37	-4.66%	0.1104
6	(Future Use)	0.00		32d SGS - Biodiesel	25.67	36.41%	9.3464
7	(Future Use)	0.00		32e SGS - ULSD	18.20	0.30%	0.0554
8	(Future Use)	0.00		32f Waiau-Diesel	34.07	10.30%	3.5096
9	Other	0		32g West Loch PV	0.00	53.76%	0.0000
				32h COMPOSITE COST OF MINOR ENERGY, \$/kWh			14.194
10	Honolulu	0.00		33 % Input to System kWh Mix			1.13
11	Kahe	72.51					
12	Waiau-Steam	27.49		34 WTD COMP MINOR ENERGY COST, \$/kWh (Lines 32h x 33)			0.16040
13	(Future Use)	0.00					
14	(Future Use)	0.00		35 2017 TY Loss Factor			1.0490
15	(Future Use)	0.00		36 WTD COMP MINOR ENERGY COST, \$/kWh (Line 34 x 35)			0.16826
16	Other	0.00					
100.00				37 BASE MINOR ENERGY COMP COST			0.0000
17	COMPOSITE COST OF GENERATION, MAJOR ENERGY \$/mmbtu	903.35		38 Base % Input to System kWh Mix			0.0000
18	% Input to system kWh Mix	44.74		39 WTD BASE MINOR ENERGY COST, \$/kWh (Line 37 x 38)			0.00000
EFFICIENCY FACTOR, mmbtu/kWh				40 2017 TY Loss Factor			1.0490
(A)	(B)	(C)	(D)	41 WTD COMP MINOR ENERGY COST, \$/kWh (Line 39 x 40)			0.00000
Fuel Type	Eff Factor mmbtu/kWh	Percent of Centrl Stn + Other	Weighted Eff Factor	42 Cost Less Base (Line 36 - 41)			0.168260
19	LSFO	0.011142	100.00	0.011142			1.097514
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)				43 Revenue Tax Adjustment (1 / (1-0.08885))			
23	Weighted Efficiency Factor, mmbtu/kWh [lines 19(D) + 20(D) + 21(D) + 22(D)]		0.011142	44 MINOR ENERGY FACTOR, \$/kWh (Line 42 x 43)			0.18467
24	WEIGHTED MAJOR ENERGY COST, \$/kWh Sales (lines 17 x 18 x 23)		4.50314				
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)		4.50314				
30	Revenue Tax Adjustment (1 / (1-0.08885))		1.097514				
31	MAJOR ENERGY GENERATION FACTOR, \$/KWH (Line 29 x 30)		4.94226				

SUMMARY OF TOTAL GENERATION FACTOR, \$/kWh	
45 MAJOR ENERGY (line 31)	4.94226
46 MINOR ENERGY (line 44)	- 0.18467
47 TOTAL GENERATION FACTOR, \$/KWH (lines 45 + 46)	- 5.12693

Hawaiian Electric Company, Inc.  
ENERGY COST RECOVERY FILING

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

Line	Effective Date	- November 1, 2020
2	Supercedes Factor	- October 1, 2020

Line	PURCHASED ENERGY COMPONENT		Calculation of Monthly Fossil Fuel Cost Risk Sharing Component		
	PURCHASED ENERGY PRICE - FOSSIL - ¢/KWH				
48	PAR Hawaii	- On Peak	7.828	<b>Baseline LSFO (Actual)</b>	
49	PAR Hawaii	- Off Peak	8.199	101 LSFO \$, baseline month	\$43,537,044
50	IES Downstream		0.000	102 LSFO mmbtu, baseline	3,600,297
51	Kalaeloa		7.242	103 Baseline LSFO, ¢/mmbtu	1209.26
52	AES-HI		3.427		
53				<b>Baseline Diesel (Actual)</b>	
	PURCHASED ENERGY PRICE - RENEWABLE - ¢/KWH			104 Diesel \$, baseline month	\$2,926,612
54	HRRV	- On Peak	17.95	105 Diesel mmbtu, baseline	195,326
55		- Off Peak	17.43	106 Baseline Diesel, ¢/mmbtu	1,498.32
56	HRRV	- On Peak (excess)	11.43		
57		- Off Peak (excess)	6.86	<b>Month LSFO</b>	
58	Kawaiiloa Wind		22.73	107 LSFO mmbtu, budget	2,565,630
59	Kahuku Wind		21.33	108 LSFO Cost, ¢/mmbtu	938.35
60	Waianae Solar PV		14.50	109 LSFO ECRC Fossil Cost	\$23,176,714
61	As Available I		22.73	110 LSFO Base ECRC Recovery Target	\$31,025,201
62	FIT		23.74	111 LSFO differential	-\$7,848,487
63	CBRE PV		15.00		
64	Kawaiiloa PV		12.73	<b>Month Diesel</b>	
65	Lanikuhana PV		13.05	112 Diesel mmbtu, budget	23,084
66	Waipio PV		12.18	113 Diesel Cost, ¢/mmbtu	938.35
67	Unused		0.00	114 Diesel ECRC Fossil Cost	\$216,610
	PURCHASED ENERGY KWH MIX - FOSSIL - %			115 Diesel Base ECRC Recovery Target	\$345,876
68	PAR Hawaii	- On Peak	0.21	116 Diesel differential	-\$129,266
69	PAR Hawaii	- Off Peak	0.15	117 Total Fossil	-\$7,977,753
70	IES Downstream		0.02	118 2% of above	-\$159,555
71	Kalaeloa		25.49	118A Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	-\$1,260,719
72	AES-HI		39.02	118B Maximum Annual Cap (bi-directional)	\$2,500,000
73				118C Applicable Monthly Fossil Fuel Cost Risk Sharing	-\$159,555
73a	Subtotal Fossil %		64.88	118D Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$1,420,275
	PURCHASED ENERGY KWH MIX - RENEWABLE - %			119 Fossil Cost Risk Sharing before taxes	-\$159,555
74	HRRV	- On Peak	7.94	120 Revenue Tax Adjustment	1,097,514
75		- Off Peak	2.70	121 Fossil Cost Risk Sharing w/revenue tax	-\$175,114
76	HRRV	- On Peak (excess)	0.00	122 Forecasted Month MWh Sales	499,298
77		- Off Peak (excess)	3.51	123 Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.0351
78	Kawaiiloa Wind		4.42		
79	Kahuku Wind		3.01		
80	Waianae Solar PV		1.61		
81	As Available I		0.54		
82	FIT		1.76	Derivation of Non-Adjustable Component:	
83	CBRE PV		0.02	80A Fuel Handling Exp, \$000	\$7,604.5
84	Kawaiiloa PV		2.67	Final Settlement, HECO-603, p1	
85	Lanikuhana PV		0.80	80B Revenue Tax Adjustment	1,097,514
86	Waipio PV		2.50	80C Non-Adj Revenues, \$000	\$8,346.0
87	Unused		3.66	80D 2017 TY Sales, MWh	6,660,200
87a	Subtotal Renewable %		35.12	HECO-301, p1	
87b	Total Purchased Energy %		100.00	80E Non-Adj Revenues, ¢/kWh	0.12531
87c	Composite Cost of Purchased Energy, Fossil		4.95		
87d	Composite Cost of Purchased Energy, Renewable		15.11		
88	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH		8.518	<b>Line SYSTEM COMPOSITE</b>	
89	% Input to System kWh Mix		54.13	124 GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 47 + 100)	10.4353
90	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 88 x 89)		4.61079	125 (Future Use) Adjustment, ¢/kWh	0.0000
91	2017 TY Loss Factor		1.0490	126 ECR Reconciliation Adjustment	0.2540
92	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 90 x 91)		4.83672	127 Non-Adjustable Component (line 80E)	0.1253
93	BASE PURCHASED ENERGY COMPOSITE COST, ¢/KWH		0.000	128 Fossil Fuel Cost Risk Sharing Component (line 123)	0.0351
94	Base % Input to System kWh Mix		0.0000	129 Monthly Energy Cost Recovery Factor (lines 124 + 125 + 126 + 127 + 128)	10.850
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)		4.83672		
99	Revenue Tax Adjustment (1 / (1-0.08885))		1.097514		
100	PURCHASED ENERGY FACTOR, ¢/KWH (lines 98 x 99)		5.30837		

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

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	902.05	902.05	902.05
Fuel Additive, ¢/Mbtu	-	1.30	1.30
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	902.05	903.35	903.35
	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	930.36	-	944.62
Thruput Charges, ¢/Mbtu	-	-	0
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	930.36	-	944.62
	SGS ULSD	SGS Biodiesel	
Average Diesel / Biodiesel Oil, ¢/Mbtu	2,000.71	3,036.00	
Thruput Charges, ¢/Mbtu	-	-	
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	2,000.71	3,036.00	
	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	56.06	56.06	56.06
Fuel Additive, \$/bbl	-	0.08	0.08
Honolulu Trucking Cost, \$/bbl	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	56.06	56.15	56.15
	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, \$/bbl	53.90	-	53.96
Thruput Charges, ¢/Mbtu	-	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	53.90	-	53.96
	SGS ULSD	SGS Biodiesel	
Average Diesel / Biodiesel Oil, \$/bbl	115.96	159.26	
Thruput Charges, ¢/Mbtu	-	-	
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	115.96	159.26	
Distributed Generation Fuel Prices Used for Filing, ¢/kWh			30.160

**FOAC November 2020**

<b><u>LSFO</u></b>	<b>BARRELS</b>	<b>MBTU</b>	<b>AMOUNT</b>	<b>AVE \$/MBTU</b>
Per FOAC run	658,309	4,091,543	36,907,922	9.020538
Additional	-	-	-	-
Forecast Amt	658,309	4,091,543	36,907,922	9.020538
	-	6.20	-	ADD'L BBL
	4,091,543	658,309	6.2152	MBTU / BBL
	36,907,922	658,309	56.06	DOLLARS / BBL
<b><u>WAI AU DIESEL</u></b>	14,287	82,779	770,139	9.303583
	770,139	14,287	53.90	DOLLARS / BBL
<b><u>CIP BIODIESEL</u></b>	-	-	-	-
	-	-	-	DOLLARS / BBL
<b><u>CIP DIESEL</u></b>	57,458	328,196	3,100,193	9.446175
	3,100,193	57,458	53.96	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>	6,046	31,715	962,875	30.36000383
	962,875	6,046	159.26	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.

DETERMINATION OF DISTRIBUTED GENERATION EXPENSE

<u>Line No.</u>		<u>Airport DG Biodiesel</u>	<u>Schofield Biodiesel</u>	<u>Schofield ULSD</u>			
(A)	\$	29.54	\$	30.36	\$	20.01	Estimated Distributed Generation Fuel Cost (\$/MBTU)
(B)		2339		18,144		163	Estimated MBTU Consumption
(B1)		446		3,457		28	Estimated fuel consumption barrels
(C) = (A) x (B)		\$69,115		\$550,854		\$3,264	Estimated Distributed Generation Fuel Cost (\$)
(D)		229,149		2,145,737		17,937	Estimated Distributed Generation kWh
(E) = ((C) ÷ (D)) x 100		<u>30.160</u>		<u>25.670</u>		<u>18.200</u>	¢/kWh

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

1.	Amount to be collected	\$	3,466,848
2.	Monthly Amount (Line 1 x 1/3)	\$	1,155,616
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	1,268,305
5.	Estimated MWh Sales (November 2020)		499,298
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>0.254</u></u>



**Hawaiian Electric Company, Inc.**  
**FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY**  
**September 2020**  
**(Thousand \$)**

<u>Line</u>	<u>Description</u>	<b>Info Only</b>		<b>Basis for Recon</b>	
		W/O DeadBand September 2020 Cumulative YTD Total	collectn by company*	W/ DeadBand September 2020 Cumulative YTD Total	collectn by company*
<b>ACTUAL COSTS:</b>					
1	Generation / Major Fuels	\$239,316.8		\$239,316.8	
2	Distributed Generation / Minor Fuels	\$22,686.9		\$22,686.9	
3	Purch Power	\$216,811.5		\$216,811.5	
4	<b>TOTAL</b>	<b>\$478,815.2</b>		<b>\$478,815.2</b>	
<b>FUEL FILING COST</b>					
5	Generation / Major Fuels	\$237,404.9		\$239,279.9	
6	Distributed Generation / Minor Fuels	\$22,686.9		\$22,686.9	
7	Purch Power	\$216,811.5		\$216,811.5	
8	<b>TOTAL</b>	<b>\$476,903.2</b>		<b>\$478,778.3</b>	
<b>BASE FUEL COST</b>					
9	Generation / Major Fuels	\$0.0		\$0.0	
10	Distributed Generation / Minor Fuels	\$0.0		\$0.0	
11	Purch Power	\$0.0		\$0.0	
12	<b>TOTAL</b>	<b>\$0.0</b>		<b>\$0.0</b>	
13	FUEL-BASE COST (Line 8-12)	\$476,903.2		\$478,778.3	
14	ACTUAL FOA LESS TAX	\$497,504.7		\$497,504.7	
15	Less: FOA reconciliation adj for prior year	\$15,410.6		\$15,410.6	
15A	Less: Non-Adjustable Component Revenues Less Tax	\$5,205.3		\$5,205.3	
16	<b>ADJUSTED FOA LESS TAX</b>	<b>\$476,888.8</b>		<b>\$476,888.8</b>	
17	FOA-(FUEL-BASE) (Line 16-13)		-\$14.5 under		-\$1,889.5 under
<b>ADJUSTMENTS:</b>					
18	Current year FOA accrual reversal	-\$7,220.5		-\$7,220.5	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	\$0.0		\$0.0	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	-\$7,235.0	under	-\$9,110.0	under
21A	YTD Fossil Fuel Cost Risk Sharing Adjustment	-\$1,180.4		-\$1,180.4	
21B	QUARTERLY FOA RECON w/Fossil Risk Adj (Line 21+Line 21A)	-\$8,415.4		-\$10,290.5	
22	2nd Quarter Reconciliation YTD			-\$6,823.6	under
23	Amount to be collected			-\$3,466.8	under

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

**Hawaiian Electric Company, Inc.****DEADBAND CALCULATION****2020**

FOR PERIOD: JANUARY 1, 2020 TO SEPTEMBER 2020

	Notes	YTD
<b><u>Low Sulfur Fuel Oil (LSFO)</u></b>		
LSFO Efficiency Factor, BTU/kWh*	f	11,142
LSFO Deadband Definition, +/- BTU/kWh	d	125
LSFO Portion of Recorded Sales, kWh	a	2,196,889,265
LSFO Consumption (Recorded), MMBTU	b	24,671,936
LSFO Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,230
Lower limit of LSFO Deadband, BTU/kWh	e = f-d	11,017
Higher limit of LSFO Deadband, BTU/kWh	g = f+d	11,267
LSFO Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	11,230
Recorded BTU/kWh vs. Deadband		Neutral

\* YTD Efficiency Factor is actual YTD & projected to the end of the year weighted by calendar days in the year

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**FUEL FILING COST AND BASE FUEL COST, MAJOR FUELS, WITHOUT and WITH DEADBAND**  
**September 2020 Year-to-Date**

	<b>Without Deadband</b>	<b>With Deadband AS FILED</b>
<u>FUEL FILING COST, MAJOR FUELS</u>	<u>Jan 1-Sept 30</u>	<u>Jan 1-Sept 30</u>
LSFO Portion of Recorded Sales , MWH	2,196,889,265	2,196,889,265
LSFO Sales Efficiency Factor (mmbtu/kwh)	0.011142	0.011230
Mmbtu adjusted for Sales Efficiency Factor	24,477,740,191	24,671,066,446
\$/mmbtu	<u>\$9.6988</u>	<u>\$9.6988</u>
TOTAL LSFO \$ TO BE RECOVERED	\$237,404,861	\$239,279,895
TOTAL MAJOR FUEL FILING COST \$	\$237,404,861	\$239,279,895
<u>BASE FUEL COST, MAJOR FUELS</u>		
TOTAL BASE FUEL COST	\$0	\$0
TOTAL FUEL FILING COST, MAJOR FUELS \$ YTD	\$237,404,861	\$239,279,895
TOTAL BASE FUEL COST, MAJOR FUELS YTD	\$0	\$0

Hawaiian Electric Company, Inc.  
 Fuel Oil Adjustment Reconciliation

ATTACHMENT 4  
 PAGE 5 OF 5

**Fossil Fuel Cost Risk Sharing Mechanism and Non-Adjustable Component, September 2020**

<b>LSFO Fossil Fuel Cost Risk Sharing</b>		Jan-20, Baseline	YTD
A	MMBtu	3,600,297 mmbtu	24,671,936 mmbtu
B	\$ cost, actuals	\$43,537,044	\$239,316,812
C = B / A (Jan Column)	Jan 2020 baseline \$/MMBtu	12.092626	12.092626
D	LSFO Gen kWh		2,301,007,244
E	Total kWh, Gen, Purch Pwr, DG		4,779,646,377
F	Sales kWh		4,559,044,055
G = (D / E) x F	LSFO kWh-sales		2,194,805,341
H	Target Heat Rate		11,142
I	Recovery heat rate		11,230
J = B/A (YTD Column)	Actual Cost \$/MMBtu		9.699961
K = C x H x G / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$295,719,382
L = I x J x G / 1,000,000	Fuel Filing Cost Recovery		\$239,081,376
M = 2% x (L-K)	<b>LSFO Cost Risk Sharing</b>		<b>-\$1,132,760</b>
<b>Diesel Fossil Fuel Cost Risk Sharing (w/o target heat rate)</b>			
AA	MMBtu	195,326 mmbtu	1,299,008 mmbtu
BB	Fuel Filing Cost Recovery (no heat rate)	\$2,926,612	\$17,079,681
CC = BB/AA (Jan Column)	Jan 2020 baseline \$/MMBtu	14.983249	14.983249
DD = AA x CC	Base Cost Recovery		\$19,463,356
EE = (BB - DD) x 2%	<b>Diesel Cost Risk Sharing</b>		<b>-\$47,674</b>
FF = M + EE, up to ±\$2.5MM	<b>Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$2.5MM cap</b>		<b>-\$1,180,434</b>
<b>Non-Adjustable Component</b>			
AAA = F	YTD kWh		4,559,044,055
BBB	Non-Adjustable Component, c/kWh		0.12531
CCC = AAA x BBB	Non-Adjustable Component Revenues w/tax		\$5,712,938
DDD = CCC / (1/(1-.08885))	Non-Adjustable Component Revenues less tax		<b>\$5,205,344</b>

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**2020 Cumulative Reconciliation Balance**

<u>Month</u>	(1) <u>YTD FOA Reconciliation</u>	<u>Qtr</u>	(2) <u>FOA Rec Variance</u>	(3) <u>FOA Rec Less Variance</u>	(4) <u>Try to Collect</u>	(5) <u>Actual Collect</u>	(6) <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	4,094,101	(9,010,426)
March					4,390,133	4,306,396	(4,704,030)
April					4,390,133	3,741,603	(962,427)
May	(8,014,600)	(1)	(313,903)	(7,700,697)	2,671,533	2,938,807	(5,724,317)
June					2,671,533	3,210,640	(2,513,677)
July					2,671,533	3,023,078	509,401
August	1,190,957	(2)	157,850	1,033,107	(396,986)	(425,414)	1,117,094
September					(396,986)	(420,594)	696,500
October					(396,986)		
November	(3,466,848)	(3)	299,508	(3,766,356)	1,155,616		

**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
April 1, 2020	13.071	153.83	182.86
May 1, 2020	11.735	148.21	176.12
June 1, 2020	10.875	142.16	168.84
July 1, 2020	10.128	137.84	163.68
August 1, 2020	9.274	133.06	157.94
September 1, 2020	10.220	137.57	163.36
October 1, 2020	10.589	139.36	165.49
November 1, 2020	10.850	138.03	163.91

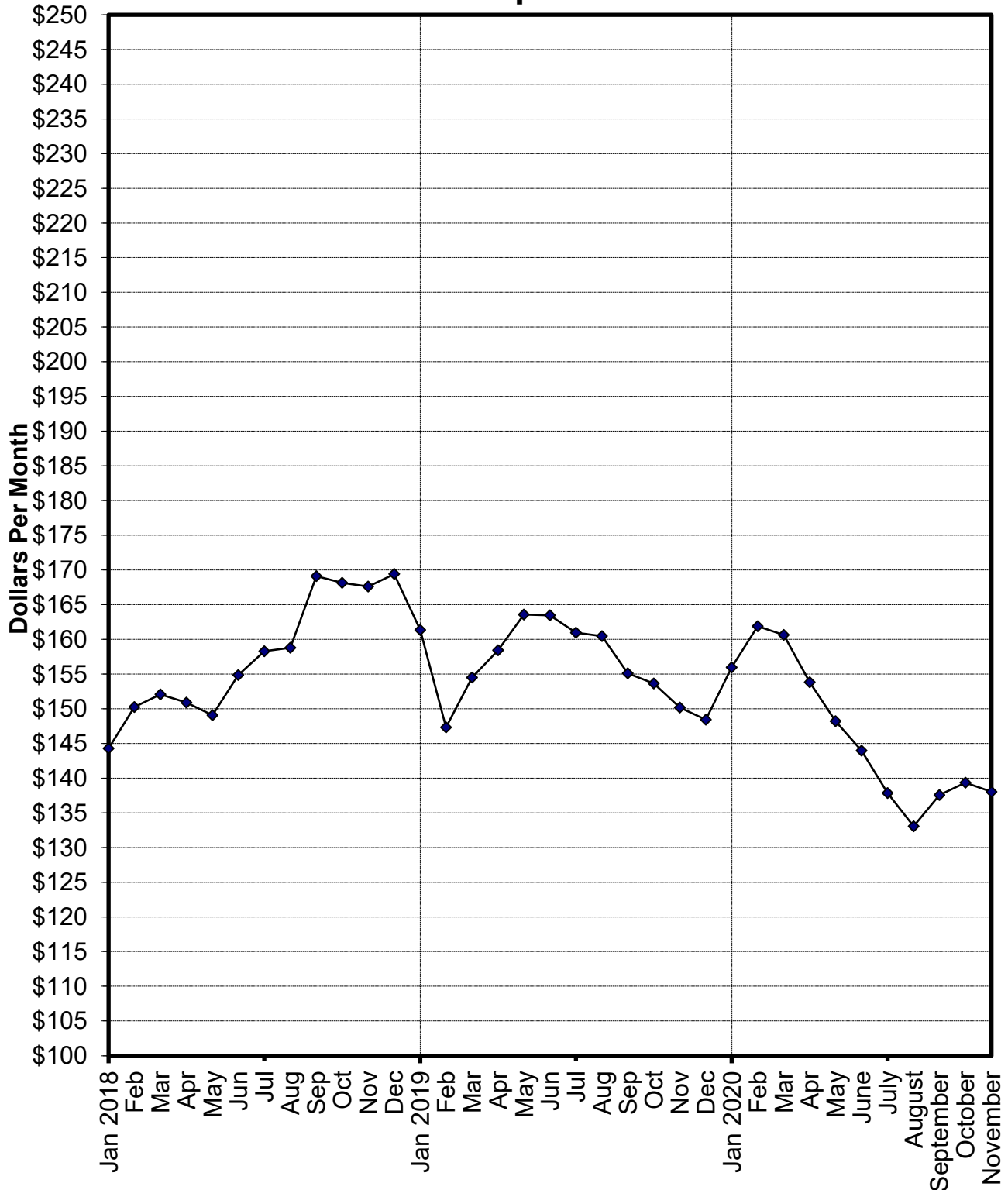
**Hawaiian Electric Company, Inc.**  
**RESIDENTIAL SURCHARGE DATA**

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 - 3/31/2020	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
6/1/2019-5/31/2020	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	0.4658 CENTS/KWH
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
1/1/2020-6/30/2020	RESID. PBF SURCHARGE ADJUSTMENT	0.7437 CENTS/KWH
1/1/2020-6/30/2020	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
2/1/2020-4/30/2020	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0116 CENTS/KWH
2/1/2020-4/30/2020	RESIDENTIAL DSM ADJUSTMENT	0.0651 CENTS/KWH
2/1/2020 - 2/29/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.4197 CENTS/KWH
3/1/2020 - 3/31/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.4281 CENTS/KWH
3/1/2020-7/31/2020	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0282 CENTS/KWH
4/1/2020 - 4/30/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.4087 CENTS/KWH
4/1/2020 - 4/30/2020	SOLAR SAVER ADJUSTMENT	0.0000 CENTS/KWH
<b>5/1/2020</b>	<b>SOLAR SAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
5/1/2020-5/31/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.6029 CENTS/KWH
5/1/2020-7/31/2020	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0099 CENTS/KWH
5/1/2020-7/31/2020	RESIDENTIAL DSM ADJUSTMENT	-0.0137 CENTS/KWH
6/1/2020-6/30/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.6114 CENTS/KWH
<b>6/1/2020</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>0.5773 CENTS/KWH</b>
7/1/2020-7/31/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.0219 CENTS/KWH
<b>7/1/2020</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.19 DOLLARS/MONTH</b>
<b>7/1/2020</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.5882 CENTS/KWH</b>
8/1/2020-8/31/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.5796 CENTS/KWH
8/1/2020-10/31/2020	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0006 CENTS/KWH
8/1/2020-10/31/2020	RESIDENTIAL DSM ADJUSTMENT	0.0008 CENTS/KWH
<b>8/1/2020</b>	<b>RENEWABLE ENERGY INFRASTRUCTURE COST</b> <b>RECOVERY PROVISION</b>	<b>0.0282 CENTS/KWH</b>
9/1/2020-9/30/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.5362 CENTS/KWH
10/1/2020-10/31/2020	PURCHASED POWER ADJUSTMENT CLAUSE	2.5237 CENTS/KWH
<b>11/1/2020</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>2.0219 CENTS/KWH</b>
<b>11/1/2020</b>	<b>RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)</b>	<b>-0.0099 CENTS/KWH</b>
<b>11/1/2020</b>	<b>RESIDENTIAL DSM ADJUSTMENT</b>	<b>-0.0137 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			
	10/1/2020	11/1/2020	10/1/2020	11/1/2020	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						
First 350 kWhr per month	¢/kWh	10.6812	10.6812	37.38	37.38	0.00
Next 850 kWhr per month	¢/kWh	11.8347	11.8347	17.75	17.75	0.00
Customer Charge	\$	11.50	11.50	11.50	11.50	0.00
<b>Total Base Charges</b>			66.63	66.63	0.00	
<b>Purchase Power Adjustment</b>	¢/kWh	2.5237	2.0219	12.62	10.11	-2.51
<b>RBA Rate Adjustment</b>	¢/kWh	0.5773	0.5773	2.89	2.89	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0008	-0.0137	0.00	-0.07	-0.07
<b>Demand Response Adjustment Clause</b>	¢/kWh	-0.0006	-0.0099	0.00	-0.05	-0.05
<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	0.5882	0.5882	2.94	2.94	0.00
<b>Renewable Energy Infrastructure Cost</b>						
<b>Recovery Provision</b>	¢/kWh	0.0282	0.0282	0.14	0.14	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Recovery</b>	¢/kWh	10.589	10.850	52.95	54.25	1.30
<b>Green Infrastructure Fee</b>	\$	1.19	1.19	1.19	1.19	0.00
<b>Avg Residential Bill at 500 kWh</b>			139.36	138.03		

Increase / (Decrease -)	-1.33
% Change	-0.95%

	Rate		Charge (\$) at 600 kWh			
	10/1/2020	11/1/2020	10/1/2020	11/1/2020	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						
First 350 kWhr per month	¢/kWh	10.6812	10.6812	37.38	37.38	0.00
Next 850 kWhr per month	¢/kWh	11.8347	11.8347	29.59	29.59	0.00
Customer Charge	\$	11.50	11.50	11.50	11.50	0.00
<b>Total Base Charges</b>			78.47	78.47	0.00	
<b>Purchase Power Adjustment</b>	¢/kWh	2.5237	2.0219	15.14	12.13	-3.01
<b>RBA Rate Adjustment</b>	¢/kWh	0.5773	0.5773	3.46	3.46	0.00
<b>DSM Adjustment</b>	¢/kWh	0.0008	-0.0137	0.00	-0.08	-0.08
<b>Demand Response Adjustment Clause</b>	¢/kWh	-0.0006	-0.0099	0.00	-0.06	-0.06
<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	0.5882	0.5882	3.53	3.53	0.00
<b>Renewable Energy Infrastructure Cost</b>						
<b>Recovery Provision</b>	¢/kWh	0.0282	0.0282	0.17	0.17	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Recovery</b>	¢/kWh	10.589	10.850	63.53	65.10	1.57
<b>Green Infrastructure Fee</b>	\$	1.19	1.19	1.19	1.19	0.00
<b>Avg Residential Bill at 600 kWh</b>			165.49	163.91		

Increase / (Decrease -)	-1.58
% Change	-0.95%

---

**From:** puc@hawaii.gov  
**Sent:** Wednesday, October 28, 2020 2:25 PM  
**To:** Oya, Tyler  
**Subject:** Hawaii PUC eFiling Confirmation of Filing

**[This email is coming from an EXTERNAL source. Please use caution when opening attachments or links in suspicious email.]**

Your eFile document has been filed with the Hawaii Public Utilities commission on 2020 Oct 28 PM 14:21. The mere fact of filing shall not waive any failure to comply with Hawaii Administrative Rules Chapter 6-61, Rules of Practice and Procedure Before the Public Utilities Commission, or any other application requirements. Your confirmation number is TYLE20142121693. If you have received this email in error please notify the Hawaii Public Utilities Commission by phone at 808 586-2020 or email at hawaii.puc@hawaii.gov.