



January 27, 2022

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 February 2022

Hawaiian Electric Company, Inc.'s ("Hawaiian Electric" or "Company") February 2022 Energy Cost Recovery Factor is 17.752 cents per kilowatt-hour ("kWh"), an increase of 1.272 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$180.80, an increase of \$7.00 compared to rates effective January 1, 2022. The increase in the residential typical bill is due to an increase in the Energy Cost Recovery Factor (+\$6.36), an increase in the DSM Adjustment (+\$0.73), and an increase in the Demand Response Adjustment Clause rate (+\$0.01), which are partially offset by a decrease in the Purchase Power Adjustment Clause rate (-\$0.10).

The Company's fuel composite cost of major energy decreased 33.34 cents per million BTU to 1,619.15 cents per million BTU. The Company's composite cost of minor energy decreased 0.072 cents per kWh to 16.565 cents per kWh. The composite cost of purchased energy increased 1.118 cents per kWh to 11.493 cents per kWh.

Hawaiian Electric has determined that the target sales heat rate for low sulfur fuel oil ("LSFO") fuel will remain unchanged from the target sales heat rate of 0.011142 million BTU per kilowatt-hour that was in effect at the end of 2021 (see Attachment 9). Attachment 9 provides a calculation of the applicable target sales heat rate for 2022 for LSFO. As shown in Attachment 9, the actual sales heat rate for LSFO in 2021 was higher than target sales heat rate for LSFO in 2021, so there is no adjustment to the target heat rate for LSFO that was in effect at the end of 2021.

The Company provides this determination in accordance with Hawaiian Electric's ECRC tariff, which states:

2. The target sales heat rate for LSFO may be reestablished each calendar year, beginning at January 1, 2019. If the prior year's actual sales heat rate is greater than or equal to the established target sales heat rate in place at the end of the prior calendar year, the target sales heat rate for LSFO remains unchanged. If the prior year's actual sales heat rate is less than the established target sales heat rate in place at the end of the prior calendar year, the target sales heat rate in place at the end of the prior calendar year shall be reduced by one-half of the

The Honorable Chair and Members
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difference between the prior year's actual sales heat rate and the established target sales heat rate in place at the end of the prior calendar year.¹

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 February 1, 2022.

Very truly yours,

/s/ Dean K. Matsuura

Dean K. Matsuura
Director, Regulatory Rate Proceedings

Attachments
cc: Division of Consumer Advocacy

¹ See Hawaiian Electric's ECRC tariff, Revised Sheet No. 63B.

Hawaiian Electric Company, Inc.
ENERGY COST RECOVERY FACTOR

	<u>Effective Dates</u>		<u>Change</u>
	<u>01/01/22</u>	<u>02/01/22</u>	
Composite Cost Of Major Energy, ¢/mmbtu	1,652.49	1,619.15	(33.34)
Composite Cost Of Minor Energy, ¢/kwh	16.637	16.565	(0.072)
Composite Cost Of Purchased Energy, ¢/kWh	10.375	11.493	1.118
 <u>Residential, Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	16.480	17.752	1.272
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Recovery, ¢/kWh	16.480	17.752	1.272
 <u>Residential Customer with:</u>			
500 kWh Consumption, \$/bill	173.80	180.80	7.00
600 kWh Consumption, \$/bill	206.83	215.21	8.38

Supersedes Sheet Effective:

January 1, 2022

Hawaiian Electric Company, Inc.
ENERGY COST RECOVERY FILING

ENERGY COST RECOVERY (ECR) FILING - February 1, 2022 (page 1 of 2)

Line		
1	Effective Date	- February 1, 2022
2	Supercedes Factor	- January 1, 2022

GENERATION COMPONENT

<u>MAJOR ENERGY COMPONENT</u>				<u>MINOR ENERGY COMPONENT</u>			
				Gen Cost	Percent of	Weighted Gen	
				<u>\$/KWH</u>	<u>Minor Energy</u>	<u>Cost \$/KWH</u>	
FUEL PRICES, \$/mmbtu				<u>Fuel Type</u>			
3	Honolulu	0.00		32a Airport DG	29.61	4.09%	1.2124
4	Kahe	1,619.15		32b CIP-Biodiesel	0.00	0.00%	0.0000
5	Waiau-Steam	1,619.15		32c CT-1 (CIP) ULSD	0.00	0.00%	0.0000
6	(Future Use)	0.00		32d SGS - Biodiesel	24.08	39.30%	9.4634
7	(Future Use)	0.00		32e SGS - ULSD	17.67	0.45%	0.0793
8	(Future Use)	0.00		32f Waiau-Diesel	37.99	15.29%	5.8101
9	Other	0		32g West Loch PV	0.00	40.86%	0.0000
BTU MIX, %				32h COMPOSITE COST OF MINOR ENERGY, \$/kWh			
10	Honolulu	0.00		33 % Input to System kWh Mix			
11	Kahe	73.56					
12	Waiau-Steam	26.44		34 WTD COMP MINOR ENERGY COST, \$/kWh (Lines 32h x 33)			
13	(Future Use)	0.00					
14	(Future Use)	0.00		35 2017 TY Loss Factor			
15	(Future Use)	0.00		36 WTD COMP MINOR ENERGY COST, \$/kWh (Line 34 x 35)			
16	Other	0.00					
100.00				37 BASE MINOR ENERGY COMP COST			
17 COMPOSITE COST OF GENERATION, MAJOR ENERGY \$/mmbtu				38 Base % Input to System kWh Mix			
1,619.15				0.0000			
18 % Input to system kWh Mix				39 WTD BASE MINOR ENERGY COST, \$/kWh (Line 37 x 38)			
49.41				0.00000			
EFFICIENCY FACTOR, mmbtu/kWh				40 2017 TY Loss Factor			
(A)	(B)	(C)	(D)	41 WTD COMP MINOR ENERGY COST, \$/kWh (Line 39 x 40)			
		Percent of	Weighted	42 Cost Less Base (Line 36 - 41)			
		Centri Stn +	Eff Factor	43 Revenue Tax Adjustment (1 / (1-0.08885))			
		Other		44 MINOR ENERGY FACTOR, \$/kWh (Line 42 x 43)			
				0.20407			
19	LSFO	0.011142	100.00				
20	(Future Use)	0.000000	0.00				
21	(Future Use)	0.000000	0.00				
22	Other	0.011142	0.00				
(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)			8.91385			
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)			8.91385			
30	Revenue Tax Adjustment (1 / (1-0.08885))			1.097514			
31	MAJOR ENERGY GENERATION FACTOR, \$/KWH (Line 29 x 30)			9.78308			

<u>SUMMARY OF TOTAL GENERATION FACTOR, \$/kWh</u>	
45 MAJOR ENERGY (line 31)	9.78308
46 MINOR ENERGY (line 44)	- 0.20407
47 TOTAL GENERATION FACTOR, \$/KWH (lines 45 + 46)	- 9.98715

Hawaiian Electric Company, Inc.
ENERGY COST RECOVERY FILING

ENERGY COST RECOVERY (ECR) FILING - February 1, 2022 (page 2 of 2)

Line	Effective Date	- February 1, 2022
2	Supercedes Factor	- January 1, 2022

Line	PURCHASED ENERGY COMPONENT		
	PURCHASED ENERGY PRICE - FOSSIL - ¢/KWH		
48	PAR Hawaii	- On Peak	10.485
49	PAR Hawaii	- Off Peak	16.201
50	IES Downstream		0.000
51	Kalaeloa		18.212
52	AES-HI		3.564
53			
	PURCHASED ENERGY PRICE - RENEWABLE - ¢/KWH		
54	HRRV	- On Peak	18.97
55		- Off Peak	18.42
56	HRRV	- On Peak (excess)	12.08
57		- Off Peak (excess)	7.25
58	Kawaiiloa Wind		23.42
59	Kahuku Wind		21.97
60	Waianae Solar PV		14.50
61	As Available I		23.52
62	FIT		23.74
63	CBRE PV		15.00
64	Kawaiiloa PV		12.73
65	Lanikuhana PV		13.05
66	Waipio PV		12.18
67	Na Pua Makani Wind		14.06
	PURCHASED ENERGY KWH MIX - FOSSIL - %		
68	PAR Hawaii	- On Peak	0.22
69	PAR Hawaii	- Off Peak	0.16
70	IES Downstream		0.04
71	Kalaeloa		25.38
72	AES-HI		44.19
73			
73a	Subtotal Fossil %		70.00
	PURCHASED ENERGY KWH MIX - RENEWABLE - %		
74	HRRV	- On Peak	6.73
75		- Off Peak	3.35
76	HRRV	- On Peak (excess)	0.00
77		- Off Peak (excess)	1.40
78	Kawaiiloa Wind		4.07
79	Kahuku Wind		1.36
80	Waianae Solar PV		1.79
81	As Available I		0.58
82	FIT		2.06
83	CBRE PV		0.00
84	Kawaiiloa PV		2.67
85	Lanikuhana PV		1.01
86	Waipio PV		3.16
87	Na Pua Makani Wind		1.81
87a	Subtotal Renewable %		30.00
87b	Total Purchased Energy %		100.00
87c	Composite Cost of Purchased Energy, Fossil		8.93
87d	Composite Cost of Purchased Energy, Renewable		17.48
88	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH		11.493
89	% Input to System kWh Mix		49.52
90	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 88 x 89)		5.69133
91	2017 TY Loss Factor		1.0490
92	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 90 x 91)		5.97021
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)		5.97021
99	Revenue Tax Adjustment (1 / (1-0.08885))		1.097514
100	PURCHASED ENERGY FACTOR, ¢/KWH (lines 98 x 99)		6.55238

Line	Calculation of Monthly Fossil Fuel Cost Risk Sharing Component		
	Baseline LSFO		
101	LSFO \$, baseline month		\$43,002,268
102	LSFO mmbtu, baseline		2,602,271
103	Baseline LSFO, ¢/mmbtu		1652.49
	Baseline Diesel		
104	Diesel \$, baseline month		\$346,174
105	Diesel mmbtu, baseline		19,742
106	Baseline Diesel, ¢/mmbtu		1,753.49
	Month LSFO		
107	LSFO mmbtu, budget		2,471,097
108	LSFO Cost, ¢/mmbtu		1,619.15
109	LSFO ECRC Fossil Cost		\$40,010,759
110	LSFO Base ECRC Recovery Target		\$40,834,623
111	LSFO differential		-\$823,864
	Month Diesel		
112	Diesel mmbtu, budget		20,676
113	Diesel Cost, ¢/mmbtu		1,712.67
114	Diesel ECRC Fossil Cost		\$354,116
115	Diesel Base ECRC Recovery Target		\$362,556
116	Diesel differential		-\$8,441
117	Total Fossil		-\$832,304
118	2% of above		-\$16,646
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		-\$16,646
118D	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month		-\$16,646
119	Fossil Cost Risk Sharing before taxes		-\$16,646
120	Revenue Tax Adjustment		1.097514
121	Fossil Cost Risk Sharing w/revenue tax		-\$18,269
122	Forecasted Month MWh Sales		439,367
123	Fossil Fuel Cost Risk Sharing Component, ¢/kWh		0.0042
	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)		16.5395
125	(Future Use) Adjustment, ¢/kWh		0.0000
126	ECR Reconciliation Adjustment		1.0830
127	Non-Adjustable Component (line 80E)		0.1253
128	Fossil Fuel Cost Risk Sharing Component (line 123)		0.0042
129	Monthly Energy Cost Recovery Factor (lines 124 + 125 + 126 + 127 + 128)		17.752

Hawaiian Electric Company, Inc.
FUEL OIL INVENTORY PRICES FOR February 1, 2022

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	1,617.85	1,617.85	1,617.85
Fuel Additive, ¢/Mbtu	-	1.30	1.30
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	1,617.85	1,619.15	1,619.15
	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	1,699.61	-	1,762.93
Thruput Charges, ¢/Mbtu	-	-	0
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	1,699.61	-	1,762.93
	SGS ULSD	SGS Biodiesel	
Average Diesel / Biodiesel Oil, ¢/Mbtu	2,000.71	2,782.12	
Thruput Charges, ¢/Mbtu	-	-	
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	2,000.71	2,782.12	
	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	99.42	99.42	99.42
Fuel Additive, \$/bbl	-	0.08	0.08
Honolulu Trucking Cost, \$/bbl	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	99.42	99.50	99.50
	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, \$/bbl	97.74	-	101.23
Thruput Charges, ¢/Mbtu	-	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	97.74	-	101.23
	SGS ULSD	SGS Biodiesel	
Average Diesel / Biodiesel Oil, \$/bbl	115.96	146.81	
Thruput Charges, ¢/Mbtu	-	-	
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	115.96	146.81	
Distributed Generation Fuel Prices Used for Filing, ¢/kWh			29.610

FOAC February 1, 2022

<u>LSFO</u>	BARRELS	MBTU	AMOUNT	AVE \$/MBTU
Per FOAC run	692,628	4,256,263	68,859,882	16.178483
Additional	-	-	-	-
Forecast Amt	692,628	4,256,263	68,859,882	16.178483
	-	6.20	-	ADD'L BBL
	4,256,263	692,628	6.1451	MBTU / BBL
	68,859,882	692,628	99.42	DOLLARS / BBL
<u>WAI AU DIESEL</u>	16,471	94,716	1,609,799	16.996107
	1,609,799	16,471	97.74	DOLLARS / BBL
<u>CIP BIODIESEL</u>	-	-	-	-
	-	-	-	DOLLARS / BBL
<u>CIP DIESEL</u>	29,675	170,404	3,004,100	17.629274
	3,004,100	29,675	101.23	DOLLARS / BBL
<u>SGS ULSD</u>	426	2,469	49,400	20.007140
	49,399.63	426	115.96	DOLLARS / BBL
<u>SGS BIODIESEL</u>	5,068	26,744	744,050	27.82121695
	744,050	5,068	146.81	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.

DETERMINATION OF DISTRIBUTED GENERATION EXPENSE

<u>Line No.</u>		<u>Airport DG Biodiesel</u>	<u>Schofield Biodiesel</u>	<u>Schofield ULSD</u>	
(A)	\$	29.00	\$ 27.82	\$ 20.01	Estimated Distributed Generation Fuel Cost (\$/MBTU)
(B)		2098	17,073	199	Estimated MBTU Consumption
(B1)		400	3,253	35	Estimated fuel consumption barrels
(C) = (A) x (B)		\$60,852	\$474,982	\$3,983	Estimated Distributed Generation Fuel Cost (\$)
(D)		205,518	1,972,586	22,536	Estimated Distributed Generation kWh
(E) = ((C) ÷ (D)) x 100		<u>29.610</u>	<u>24.080</u>	<u>17.670</u>	¢/kWh

Hawaiian Electric Company, Inc.
ECA RECONCILIATION ADJUSTMENT
February 2022

1.	Amount to be collected	\$	13,004,400
2.	Monthly Amount (Line 1 x 1/3)	\$	4,334,800
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	4,757,504
5.	Estimated MWh Sales (February 2022)		439,367
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>1.083</u></u>

Hawaiian Electric Company, Inc.
FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
December 2021
(Thousand \$)

<u>Line</u>	<u>Description</u>	Info Only		Basis for Recon	
		W/O DeadBand December 2021 Cumulative YTD Total	collectn by company*	W/ DeadBand December 2021 Cumulative YTD Total	collectn by company*
ACTUAL COSTS:					
1	Generation / Major Fuels	\$411,879.3		\$411,879.3	
2	Distributed Generation / Minor Fuels	\$24,282.6		\$24,282.6	
3	Purch Power	\$348,382.1		\$348,382.1	
4	TOTAL	\$784,544.0		\$784,544.0	
FUEL FILING COST					
5	Generation / Major Fuels	\$403,218.1		\$411,360.7	
6	Distributed Generation / Minor Fuels	\$24,282.6		\$24,282.6	
7	Purch Power	\$348,382.1		\$348,382.1	
8	TOTAL	\$775,882.8		\$784,025.3	
BASE FUEL COST					
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	TOTAL	\$0.0		\$0.0	
13	FUEL-BASE COST (Line 8-12)	\$775,882.8		\$784,025.3	
14	ACTUAL FOA LESS TAX	\$775,634.7		\$775,634.7	
15	Less: FOA reconciliation adj for prior year	\$2,160.6		\$2,160.6	
15A	Less: Non-Adjustable Component Revenues Less Tax	\$7,044.3		\$7,044.3	
16	ADJUSTED FOA LESS TAX	\$766,429.8		\$766,429.8	
17	FOA-(FUEL-BASE) (Line 16-13)	-\$9,453.0	under	-\$17,595.5	under
ADJUSTMENTS:					
18	Current year FOA accrual reversal	-\$6,699.5		-\$6,699.5	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	\$0.0		\$0.0	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	-\$16,152.5	under	-\$24,295.0	under
21A	YTD Fossil Fuel Cost Risk Sharing Adjustment	\$2,500.0		\$2,500.0	
21B	QUARTERLY FOA RECON w/Fossil Risk Adj (Line 21+Line 21A)	-\$13,652.5		-\$21,795.0	
22	3rd Quarter Reconciliation YTD			-\$8,790.6	under
23	Amount to be collected			-\$13,004.4	under

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

Hawaiian Electric Company, Inc.
DEADBAND CALCULATION
2021

FOR PERIOD: JANUARY 1, 2021 TO DECEMBER 2021

	Notes	YTD
<u>Low Sulfur Fuel Oil (LSFO)</u>		
LSFO Efficiency Factor, BTU/kWh*	f	11,142
LSFO Deadband Definition, +/- BTU/kWh	d	225
LSFO Portion of Recorded Sales, kWh	a	2,847,929,598
LSFO Consumption (Recorded), MMBTU	b	32,400,498
LSFO Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,377
Lower limit of LSFO Deadband, BTU/kWh	e = f-d	10,917
Higher limit of LSFO Deadband, BTU/kWh	g = f+d	11,367
LSFO Efficiency Factor for cost-recovery, BTU/kWh	h = c, e or g	11,367
Recorded BTU/kWh vs. Deadband		Worse

* 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
December 2021 Year-to-Date

	Without Deadband	With Deadband AS FILED
<u>FUEL FILING COST, MAJOR FUELS</u>	<u>Jan 1-Dec 31</u>	<u>Jan 1-Dec 31</u>
LSFO Portion of Recorded Sales , MWH	2,847,929,598	2,847,929,598
LSFO Sales Efficiency Factor (mmbtu/kwh)	0.011142	0.011367
Mmbtu adjusted for Sales Efficiency Factor	31,731,631,581	32,372,415,740
\$/mmbtu	<u>\$12.7071</u>	<u>\$12.7071</u>
TOTAL LSFO \$ TO BE RECOVERED	\$403,218,148	\$411,360,680
TOTAL MAJOR FUEL FILING COST \$	\$403,218,148	\$411,360,680
<u>BASE FUEL COST, MAJOR FUELS</u>		
TOTAL BASE FUEL COST	\$0	\$0
TOTAL FUEL FILING COST, MAJOR FUELS \$ YTD	\$403,218,148	\$411,360,680
TOTAL BASE FUEL COST, MAJOR FUELS YTD	\$0	\$0

Hawaiian Electric Company, Inc.
 Fuel Oil Adjustment Reconciliation

ATTACHMENT 4
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Fossil Fuel Cost Risk Sharing Mechanism and Non-Adjustable Component, December 2021

LSFO Fossil Fuel Cost Risk Sharing		Jan-21, Baseline	YTD
A	MMBtu	2,936,857 mmbtu	32,400,498 mmbtu
B	\$ cost, actuals	\$26,119,028	\$411,879,282
C = B / A (Jan Column)	Jan 2021 baseline \$/MMBtu	8.893530	8.893530
D	LSFO Gen kWh		2,977,363,570
E	Total kWh, Gen, Purch Pwr, DG		6,450,359,314
F	Sales kWh		6,169,654,189
G = (D / E) x F	LSFO kWh-sales		2,847,795,406
H	Target Heat Rate		11,142
I	Recovery heat rate		11,367
J = B/A (YTD Column)	Actual Cost \$/MMBtu		12.712128
K = C x H x G / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$282,192,934
L = I x J x G / 1,000,000	Fuel Filing Cost Recovery		\$411,502,903
M = 2% x (L-K)	LSFO Cost Risk Sharing		\$2,586,199
Diesel Fossil Fuel Cost Risk Sharing (w/o target heat rate)			
AA	MMBtu	205,718 mmbtu	2,085,379 mmbtu
BB	Fuel Filing Cost Recovery (no heat rate)	\$1,959,475	\$29,086,588
CC = BB/AA (Jan Column)	Jan 2021 baseline \$/MMBtu	9.525053	9.525053
DD = AA x CC	Base Cost Recovery		\$19,863,348
EE = (BB - DD) x 2%	Diesel Cost Risk Sharing		\$184,465
FF = M + EE, up to ±\$2.5MM	Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$2.5MM cap		\$2,500,000
Non-Adjustable Component			
AAA = F	YTD kWh		6,169,654,189
BBB	Non-Adjustable Component, c/kWh		0.12531
CCC = AAA x BBB	Non-Adjustable Component Revenues w/tax		\$7,731,194
DDD = CCC / (1/(1-.08885))	Non-Adjustable Component Revenues less tax		\$7,044,277

HAWAIIAN ELECTRIC COMPANY, INC.
2021 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	1,191,000	(2)	157,850	1,033,150	(397,000)	(425,414)	1,117,137
September					(397,000)	(420,594)	696,543
October					(397,000)	(434,377)	262,166
November	(3,466,900)	(3)	299,537	(3,766,437)	1,155,633	1,229,016	(2,275,255)
December					1,155,633	1,216,131	(1,059,124)
January 21					1,155,633	1,133,735	74,611
February	(1,005,100)	(4)	96,503	(1,101,603)	335,033	303,760	(723,232)
March					335,033	337,351	(385,881)
April					335,033	321,756	(64,125)
May	(5,736,000)	(1)	(50,854)	(5,685,146)	1,912,000	1,943,306	(3,805,965)
June					1,912,000	1,887,196	(1,918,769)
July					1,912,000	1,943,799	25,030
August	3,218,800	(2)	(6,775)	3,225,575	(1,072,933)	(1,069,958)	2,180,647
September					(1,072,933)	(1,036,068)	1,144,579
October					(1,072,933)	(1,070,373)	74,206
November	(6,273,400)	(3)	71,640	(6,345,040)	2,091,133	2,119,403	(4,151,431)
December					2,091,133	2,149,738	(2,001,693)
January 22					2,091,133		
February	(13,004,400)	(4)	89,435	(13,093,835)	4,334,800		

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		RESIDENTIAL BILL (\$)	
	<u>RESIDENTIAL & COMMERCIAL</u>	<u>@ 500 KWH</u>	<u>@ 600 KWH</u>	
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	
December 1, 2020	10.624	136.57	162.15	
January 1, 2021	11.355	140.57	166.94	
February 1, 2021	11.812	145.00	172.25	
March 1, 2021	12.304	147.49	175.24	
April 1, 2021	11.919	145.53	172.89	
May 1, 2021	13.135	152.07	180.74	
June 1, 2021	13.711	157.85	187.70	
July 1, 2021	15.014	164.69	195.91	
August 1, 2021	14.076	162.12	192.82	
September 1, 2021	14.227	162.82	193.65	
October 1, 2021	14.327	163.32	194.25	
November 1, 2021	15.767	166.60	198.20	
December 1, 2021	16.061	167.92	199.78	
January 1, 2022	16.480	173.80	206.83	
February 1, 2022	17.752	180.80	215.21	

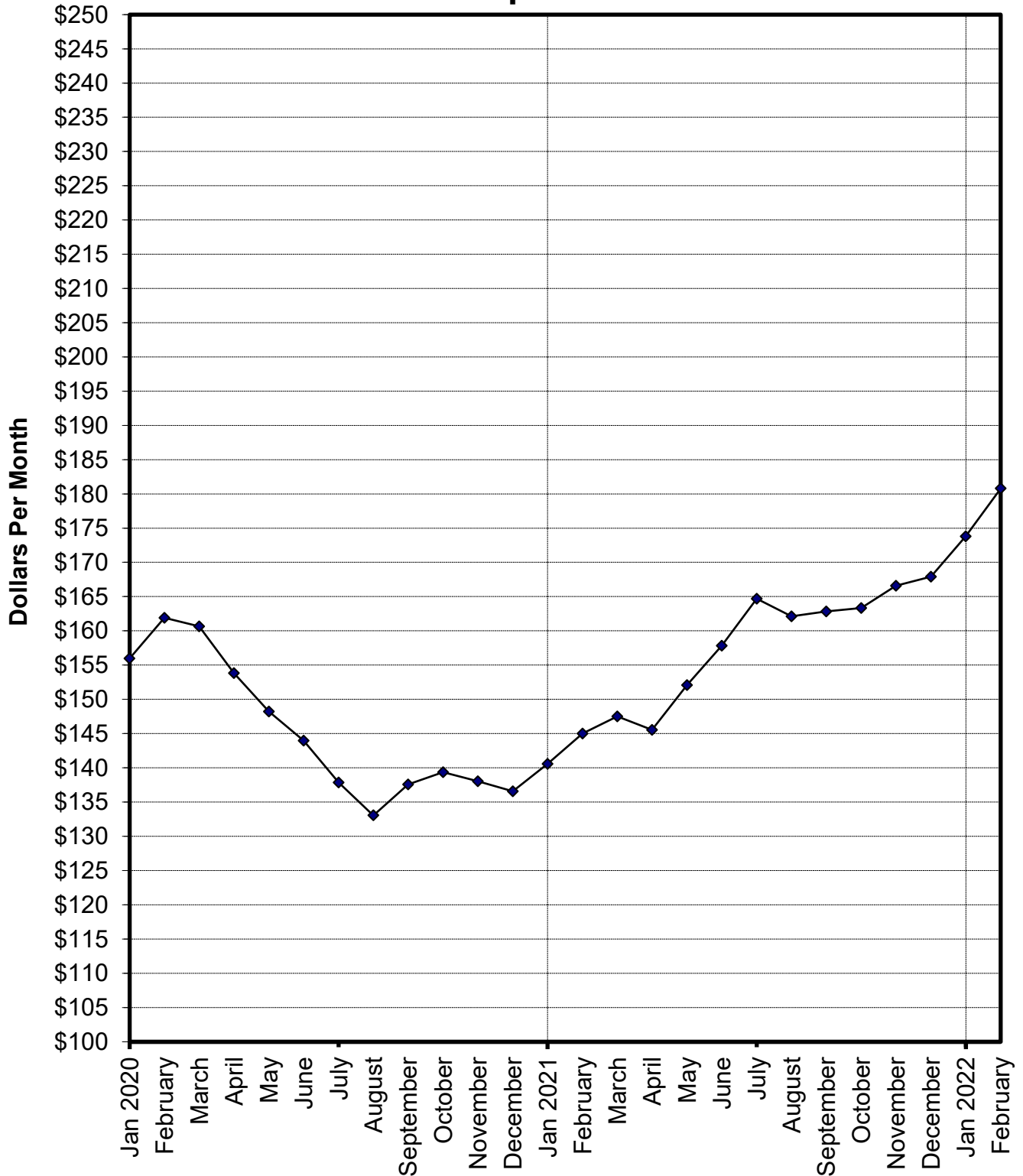
**Hawaiian Electric Company, Inc.
RESIDENTIAL SURCHARGE DATA**

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
9/1/2018	FINAL RATE INCREASE (TY2017) -0.039% EFFECTIVE 09/01/18, DOCKET NO. 2016-0328	
5/1/2021	SOLAR SAVER ADJUSTMENT	0.0000 CENTS/KWH
5/1/2021-7/31/2021	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0008 CENTS/KWH
5/1/2021-7/31/2021	RESIDENTIAL DSM ADJUSTMENT	-0.0233 CENTS/KWH
6/1/2021-6/30/2021	PURCHASED POWER ADJUSTMENT CLAUSE	2.5442 CENTS/KWH
6/1/2021-12/31/2021	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.1469 CENTS/KWH
7/1/2021-7/31/2021	PURCHASED POWER ADJUSTMENT CLAUSE	2.5615 CENTS/KWH
7/1/2021-12/31/2021	GREEN INFRASTRUCTURE FEE	1.19 DOLLARS/MONTH
7/1/2021	RESID. PBF SURCHARGE ADJUSTMENT	0.6478 CENTS/KWH
8/1/2021-8/31/2021	PURCHASED POWER ADJUSTMENT CLAUSE	2.7556 CENTS/KWH
8/1/2021-10/31/2021	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0020 CENTS/KWH
8/1/2021-10/31/2021	RESIDENTIAL DSM ADJUSTMENT	0.2201 CENTS/KWH
8/1/2021	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0158 CENTS/KWH
9/1/2021-9/30/2021	PURCHASED POWER ADJUSTMENT CLAUSE	2.7433 CENTS/KWH
10/1/2021-10/31/2021	PURCHASED POWER ADJUSTMENT CLAUSE	2.7430 CENTS/KWH
11/1/2021-1/31/2022	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0094 CENTS/KWH
11/1/2021-1/31/2022	RESIDENTIAL DSM ADJUSTMENT	-0.0370 CENTS/KWH
11/1/2021-11/30/2021	PURCHASED POWER ADJUSTMENT CLAUSE	2.2269 CENTS/KWH
12/1/2021-12/31/2021	PURCHASED POWER ADJUSTMENT CLAUSE	2.1952 CENTS/KWH
1/1/2022-1/31/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.1382 CENTS/KWH
1/1/2022	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
1/1/2022	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9505 CENTS/KWH
2/1/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.1172 CENTS/KWH
2/1/2022	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0089 CENTS/KWH
2/1/2022	RESIDENTIAL DSM ADJUSTMENT	0.1082 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			
	1/1/2022	2/1/2022	1/1/2022	2/1/2022	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						
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
Total Base Charges				66.63	66.63	0.00
Purchase Power Adjustment	¢/kWh	2.1382	2.1172	10.69	10.59	-0.10
RBA Rate Adjustment	¢/kWh	1.9505	1.9505	9.75	9.75	0.00
DSM Adjustment	¢/kWh	-0.0370	0.1082	-0.19	0.54	0.73
Demand Response Adjustment Clause	¢/kWh	-0.0094	-0.0089	-0.05	-0.04	0.01
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	0.6478	0.6478	3.24	3.24	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0158	0.0158	0.08	0.08	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Recovery	¢/kWh	16.480	17.752	82.40	88.76	6.36
Green Infrastructure Fee	\$	1.25	1.25	1.25	1.25	0.00
Avg Residential Bill at 500 kWh				173.80	180.80	

Increase / (Decrease -) 7.00
% Change 4.03%

	Rate		Charge (\$) at 600 kWh			
	1/1/2022	2/1/2022	1/1/2022	2/1/2022	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						
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
Total Base Charges				78.47	78.47	0.00
Purchase Power Adjustment	¢/kWh	2.1382	2.1172	12.83	12.70	-0.13
RBA Rate Adjustment	¢/kWh	1.9505	1.9505	11.70	11.70	0.00
DSM Adjustment	¢/kWh	-0.0370	0.1082	-0.22	0.65	0.87
Demand Response Adjustment Clause	¢/kWh	-0.0094	-0.0089	-0.06	-0.05	0.01
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	0.6478	0.6478	3.89	3.89	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh	0.0158	0.0158	0.09	0.09	0.00
SolarSaver Adjustment	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
Energy Cost Recovery	¢/kWh	16.480	17.752	98.88	106.51	7.63
Green Infrastructure Fee	\$	1.25	1.25	1.25	1.25	0.00
Avg Residential Bill at 600 kWh				206.83	215.21	

Increase / (Decrease -) 8.38
% Change 4.05%

Hawaiian Electric Company Annual ECRC Adjustment, Based on Recorded Statistics for : 2021

	LSFO	Notes
1 Target Heat Rate, End of 2021	0.011142	MBTU/kWh Sales
2		
3 Fuel consumed during 2021	32,400,498	MBTU
4 Allocated Sales during 2021	<u>2,847,929,598</u>	kWh
5 2021 Sales Heat Rate, Recorded	0.011377	MBTU/kWh Sales
6		
7 Difference: 2021 Recorded less Start of Year	0.000235	MBTU/kWh Sales
8 Adjustment: One-half the difference, downward only	0.000000	MBTU/kWh Sales
9		
10 Target Heat Rate, Start of 2022	0.011142	MBTU/kWh Sales