



January 27, 2023

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 2023

Hawaiian Electric Company, Inc.'s ("Hawaiian Electric" or "Company") February 2023 Energy Cost Recovery Factor is 25.953 cents per kilowatt-hour ("kWh"), a decrease of 1.309 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$219.26, a decrease of \$3.37 compared to rates effective January 1, 2023. The decrease in the residential typical bill is due to a decrease in the Energy Cost Recovery Factor (-\$6.54), which is partially offset by an increase in the DSM Adjustment (+\$0.65), and an increase in the Purchase Power Adjustment Clause rate (+\$2.52).

The Company's fuel composite cost of major energy decreased 164.03 cents per million BTU to 2,215.62 cents per million BTU. The Company's composite cost of minor energy increased 3.013 cents per kWh to 22.001 cents per kWh. The composite cost of purchased energy decreased 0.665 cents per kWh to 17.895 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 2022 (see Attachment 9). Attachment 9 provides a calculation of the applicable target sales heat rate for 2023 for LSFO. As shown in Attachment 9, the actual sales heat rate for LSFO in 2022 was higher than target sales heat rate for LSFO in 2022, so there is no adjustment to the target heat rate for LSFO that was in effect at the end of 2022.

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.<sup>1</sup>

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, 2023.

Very truly yours,

/s/ Dean K. Matsuura

Dean K. Matsuura  
Director, Regulatory Rate Proceedings

Attachments  
cc: Division of Consumer Advocacy

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<sup>1</sup> 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>01/01/23</u>	<u>02/01/23</u>	
Composite Cost Of Major Energy, ¢/mmbtu	2,379.65	2,215.62	(164.03)
Composite Cost Of Minor Energy, ¢/kwh	18.988	22.001	3.013
Composite Cost Of Purchased Energy, ¢/kWh	18.560	17.895	(0.665)
 <u>Residential, Schedule "R"</u>			
Energy Cost Recovery, ¢/kWh	27.262	25.953	(1.309)
 <u>Others, Schedules "G,J,DS,P,F"</u>			
Energy Cost Recovery, ¢/kWh	27.262	25.953	(1.309)
 <u>Residential Customer with:</u>			
500 kWh Consumption, \$/bill	222.63	219.26	(3.37)
600 kWh Consumption, \$/bill	265.42	261.37	(4.05)

Supersedes Sheet Effective:

January 1, 2023

Hawaiian Electric Company, Inc.  
ENERGY COST RECOVERY FILING

ENERGY COST RECOVERY (ECR) FILING - February 1, 2023 (page 1 of 2)

Line  
1 Effective Date - February 1, 2023  
2 Supercedes Factor - January 1, 2023

GENERATION COMPONENT

MAJOR ENERGY COMPONENT				MINOR ENERGY COMPONENT			
FUEL PRICES, ¢/mmbtu				Fuel Type	Gen Cost ¢/KWH	Percent of Minor Energy	Weighted Gen Cost ¢/KWH
3	Honolulu	0.00		32a Airport DG	34.05	2.41%	0.8219
4	Kahe	2,215.62		32b CIP-Biodiesel	0.00	0.00%	0.0000
5	Waiau-Steam	2,215.62		32c CT-1 (CIP) ULSD	67.67	4.65%	3.1491
6	(Future Use)	0.00		32d SGS - Biodiesel	29.34	19.75%	5.7959
7	(Future Use)	0.00		32e SGS - ULSD	16.69	19.29%	3.2192
8	(Future Use)	0.00		32f Waiau-Diesel	36.89	24.44%	9.0150
9	Other	0		32g West Loch PV	0.00	29.45%	0.0000
BTU MIX, %				32h COMPOSITE COST OF MINOR ENERGY, ¢/kWh			
10	Honolulu	0.00		33 % Input to System kWh Mix			
11	Kahe	70.06					
12	Waiau-Steam	29.94		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			
				38 Base % Input to System kWh Mix			
				39 WTD BASE MINOR ENERGY COST, ¢/kWh (Line 37 x 38)			
				40 2017 TY Loss Factor			
				41 WTD COMP MINOR ENERGY COST, ¢/kWh (Line 39 x 40)			
				42 Cost Less Base (Line 36 - 41)			
				43 Revenue Tax Adjustment (1 / (1-0.08885))			
				44 MINOR ENERGY FACTOR, ¢/kWh (Line 42 x 43)			
17 COMPOSITE COST OF GENERATION, MAJOR ENERGY ¢/mmbtu							
18 % Input to system kWh Mix							
EFFICIENCY FACTOR, mmbtu/kWh							
(A)		(B)	(C)	(D)			
			Percent of				
			Centri Stn +				
			Other				
Fuel Type		Eff Factor		Weighted			
		mmbtu/kwh		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)				16.19183			

ENERGY COST RECOVERY (ECR) FILING - February 1, 2023 (page 2 of 2)

Line

1 Effective Date - February 1, 2023  
2 Supercedes Factor - January 1, 2023

PURCHASED ENERGY COMPONENT			Calculation of Monthly Fossil Fuel Cost Risk Sharing Component						
PURCHASED ENERGY PRICE - FOSSIL - ¢/KWH			Baseline LSFO						
48	PAR Hawaii	- On Peak	22.558	101	LSFO \$, baseline month	\$87,208,891			
49	PAR Hawaii	- Off Peak	22.675	102	LSFO mmbtu, baseline	3,664,778			
50	IES Downstream		0.000	103	Baseline LSFO, ¢/mmbtu	2379.65			
51	Kalaeloa		21.174	Baseline Diesel					
52	Unused			104	Diesel \$, baseline month	\$1,083,027			
53				105	Diesel mmbtu, baseline	46,158			
PURCHASED ENERGY PRICE - RENEWABLE - ¢/KWH			106	Baseline Diesel, ¢/mmbtu	2,346.35				
54	HRRV	- On Peak	20.43	Month LSFO					
55		- Off Peak	19.84	107	LSFO mmbtu, budget	3,319,303			
56	HRRV	- On Peak (excess)	13.01	108	LSFO Cost, ¢/mmbtu	2,215.62			
57		- Off Peak (excess)	7.81	109	LSFO ECRC Fossil Cost	\$73,543,139			
58	Kawaihoa Wind		23.77	110	LSFO Base ECRC Recovery Target	\$78,987,792			
59	Kahuku Wind		22.30	111	LSFO differential	-\$5,444,653			
60	Waianae Solar PV		14.50	Month Diesel					
61	As Available I		23.91	112	Diesel mmbtu, budget	65,585			
62	FIT		23.73	113	Diesel Cost, ¢/mmbtu	2,301.12			
63	CBRE PV		15.00	114	Diesel ECRC Fossil Cost	\$1,509,188			
64	Kawaihoa PV		12.73	115	Diesel Base ECRC Recovery Target	\$1,538,850			
65	Lanikuhana PV		13.05	116	Diesel differential	-\$29,662			
66	Waipio PV		12.18	117	Total Fossil	-\$5,474,315			
67	Na Pua Makani Wind		14.21	118	2% of above	-\$109,486			
67.1	Milliani I Solar		0.00	118A	Total Monthly Fossil Fuel Cost Risk Sharing, Prior Months in Year	\$0			
67.2	Waiawa Solar		0.00	118B	Maximum Annual Cap (bi-directional)	\$2,500,000			
67.3	Unused		0.00	118C	Applicable Monthly Fossil Fuel Cost Risk Sharing	-\$109,486			
67.4	Unused		0.00	118D	Total Monthly Fossil Fuel Cost Risk Sharing, Including This Month	-\$109,486			
67.5	Unused		0.00	119	Fossil Cost Risk Sharing before taxes	-\$109,486			
67.6	Unused		0.00	120	Revenue Tax Adjustment	1.097514			
PURCHASED ENERGY KWH MIX - FOSSIL - %			121	Fossil Cost Risk Sharing w/revenue tax	-\$120,163				
68	PAR Hawaii	- On Peak	0.33	122	Forecasted Month MWh Sales	453,429			
69	PAR Hawaii	- Off Peak	0.24	123	Fossil Fuel Cost Risk Sharing Component, ¢/kWh	0.0265			
70	IES Downstream		0.07	Derivation of Non-Adjustable Component:					
71	Kalaeloa		45.09						
72	Unused								
73									
73a	Subtotal Fossil %		45.74						
PURCHASED ENERGY KWH MIX - RENEWABLE - %			80A				Fuel Handling Exp, \$000	\$7,604.5	
74	HRRV	- On Peak	11.31					Final Settlement, HECO-603, p1	
75		- Off Peak	4.98				80B	Revenue Tax Adjustment	1.097514
76	HRRV	- On Peak (excess)	0.00				80C	Non-Adj Revenues, \$000	\$8,346.0
77		- Off Peak (excess)	2.46				80D	2017 TY Sales, MWh	6,660,200
78	Kawaihoa Wind		4.74					HECO-301, p1	
79	Kahuku Wind		1.64				80E	Non-Adj Revenues, ¢/kWh	0.12531
80	Waianae Solar PV		3.09				Line SYSTEM COMPOSITE		
81	As Available I		0.93						
82	FIT		3.42						
83	CBRE PV		0.00						
84	Kawaihoa PV		4.74						
85	Lanikuhana PV		1.43						
86	Waipio PV		4.46						
87	Na Pua Makani Wind		2.95						
87.1	Milliani I Solar		4.01						
87.2	Waiawa Solar		4.10						
87.3	Unused		0.00				124	GEN AND PURCHASED ENERGY FACTOR, ¢/kWh (lines 47 + 100)	24.9579
87.4	Unused		0.00				125	(Future Use) Adjustment, ¢/kWh	0.0000
87.5	Unused		0.00				126	ECR Reconciliation Adjustment	0.8430
87.6	Unused		0.00				127	Non-Adjustable Component (line 80E)	0.1253
							128	Fossil Fuel Cost Risk Sharing Component (line 123)	0.0265
87a	Subtotal Renewable %		54.27				129	Monthly Energy Cost Recovery Factor (lines 124 + 125 + 126 + 127 + 128)	25.953
87b	Total Purchased Energy %		100.00						
87c	Composite Cost of Purchased Energy, Fossil		21.16						
87d	Composite Cost of Purchased Energy, Renewable		15.14						
88	COMPOSITE COST OF PURCHASED ENERGY, ¢/KWH		17.895						
89	% Input to System kWh Mix		32.34						
90	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 88 x 89)		5.78724						
91	2017 TY Loss Factor		1.0490						
92	WTD CMP PURCH ENRGY COST, ¢/KWH (lines 90 x 91)		6.07081						
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)		6.07081						
99	Revenue Tax Adjustment (1 / (1-0.08885))		1.097514						
100	PURCHASED ENERGY FACTOR, ¢/KWH (lines 98 x 99)		6.66280						

**Hawaiian Electric Company, Inc.**  
**FUEL OIL INVENTORY PRICES FOR February 1, 2023**

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, ¢/Mbtu	2,214.32	2,214.32	2,214.32
Fuel Additive, ¢/Mbtu	-	1.30	1.30
Honolulu Trucking Cost, ¢/Mbtu	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, ¢/Mbtu	2,214.32	2,215.62	2,215.62

	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	2,357.28	-	2,515.74
Thruput Charges, ¢/Mbtu	-	-	0
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	2,357.28	-	2,515.74

	SGS ULSD	SGS Biodiesel
Average Diesel / Biodiesel Oil, ¢/Mbtu	2,000.71	3,392.72
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, ¢/Mbtu	2,000.71	3,392.72

	Honolulu	Kahe	Waiau
Average Low Sulfur Fuel Oil, \$/bbl	139.51	139.51	139.51
Fuel Additive, \$/bbl	-	0.08	0.08
Honolulu Trucking Cost, \$/bbl	-	-	-
Low Sulfur Fuel Oil Prices Used For Filing, \$/bbl	139.51	139.59	139.59

	Waiau	CIP Biodiesel	CIP Diesel
Average Diesel / Biodiesel Oil, \$/bbl	135.88	-	144.09
Thruput Charges, ¢/Mbtu	-	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	135.88	-	144.09

	SGS ULSD	SGS Biodiesel
Average Diesel / Biodiesel Oil, \$/bbl	115.96	181.25
Thruput Charges, ¢/Mbtu	-	-
Diesel / Biodiesel Oil Prices Used for Filing, \$/bbl	115.96	181.25

Distributed Generation Fuel Prices Used for Filing, ¢/kWh	34.050
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**FOAC February 1, 2023**

<b><u>LSFO</u></b>	<b>BARRELS</b>	<b>MBTU</b>	<b>AMOUNT</b>	<b>AVE \$/MBTU</b>
Per FOAC run	871,640	5,491,584	121,601,424	22.143233
Additional	-	-	-	-
Forecast Amt	871,640	5,491,584	121,601,424	22.143233
	-	6.20	-	ADD'L BBL
	5,491,584	871,640	6.3003	MBTU / BBL
	121,601,424	871,640	139.51	DOLLARS / BBL
<b><u>WAIKU DIESEL</u></b>	38,046	219,299	5,169,492	23.572776
	5,169,492	38,046	135.88	DOLLARS / BBL
<b><u>CIP BIODIESEL</u></b>	-	-	-	-
	-	-	-	DOLLARS / BBL
<b><u>CIP DIESEL</u></b>	78,908	451,960	11,370,142	25.157383
	11,370,142	78,908	144.09	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>	6,517	34,816	1,181,198	33.92716024
	1,181,198	6,517	181.25	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

Line No.					
	Airport DG Biodiesel	Schofield Biodiesel	Schofield ULSD		
(A)	\$ 33.35	\$ 33.93	\$ 20.01	Estimated Distributed Generation Fuel Cost (\$/MBTU)	
(B)	2,417	16,757	15,787	Estimated MBTU Consumption	
(B1)	461	3,193	2,755	Estimated fuel consumption barrels	
(C) = (A) x (B)	\$80,633	\$568,510	\$315,860	Estimated Distributed Generation Fuel Cost (\$)	
(D)	236,800	1,937,946	1,892,242	Estimated Distributed Generation kWh	
(E) = ((C) ÷ (D)) x 100	<b>34.050</b>	<b>29.340</b>	<b>16.690</b>	¢/kWh	

**Hawaiian Electric Company, Inc.**  
**ECA RECONCILIATION ADJUSTMENT**  
**February 2023**

1.	Amount to be collected	\$	10,447,000
2.	Monthly Amount (Line 1 x 1/3)	\$	3,482,333
3.	Revenue Tax Divisor		0.91115
4.	Total (Line 2 / Line 3)	\$	3,821,910
5.	Estimated MWh Sales (February 2023)		453,429
6.	ECA Reconciliation Adjustment, ¢/kWh (Line 4 ÷ Line 5)		<u><u>0.843</u></u>

**Hawaiian Electric Company, Inc.**  
**FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY**  
**December 2022**  
**(Thousand \$)**

Line	Description	Info Only		Basis for Recon	
		W/O DeadBand December 2022 Cumulative YTD Total	collectn by company*	W/ DeadBand December 2022 Cumulative YTD Total	collectn by company*
	ACTUAL COSTS:				
1	Generation / Major Fuels	\$846,761.6		\$846,761.6	
2	Distributed Generation / Minor Fuels	\$64,265.4		\$64,265.4	
3	Purch Power	\$469,950.6		\$469,950.6	
4	TOTAL	\$1,380,977.6		\$1,380,977.6	
	FUEL FILING COST				
5	Generation / Major Fuels	\$830,057.9		\$846,745.5	
6	Distributed Generation / Minor Fuels	\$64,265.4		\$64,265.4	
7	Purch Power	\$469,950.6		\$469,950.6	
8	TOTAL	\$1,364,273.9		\$1,380,961.5	
	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)	\$1,364,273.9		\$1,380,961.5	
14	ACTUAL FOA LESS TAX	\$1,386,909.9		\$1,386,909.9	
15	Less: FOA reconciliation adj for prior year	\$15,095.5		\$15,095.5	
15A	Less: Non-Adjustable Component Revenues Less Tax	\$7,091.3		\$7,091.3	
16	ADJUSTED FOA LESS TAX	\$1,364,723.1		\$1,364,723.1	
17	FOA-(FUEL-BASE) (Line 16-13)	\$449.2	over	-\$16,238.4	under
	ADJUSTMENTS:				
18	Current year FOA accrual reversal	-\$31,456.2		-\$31,456.2	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	\$0.0		\$0.0	
21	QUARTERLY FOA RECONCILIATION (Line 17+18+19+20)	-\$31,007.0	under	-\$47,694.6	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)	-\$28,507.0		-\$45,194.6	
22	3rd Quarter Reconciliation YTD			-\$34,747.6	under
23	Amount to be collected			-\$10,447.0	under

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

**Hawaiian Electric Company, Inc.****DEADBAND CALCULATION****2022**

FOR PERIOD: JANUARY 1, 2022 TO DECEMBER 2022

	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	225
LSFO Portion of Recorded Sales, kWh	a	3,216,238,216
LSFO Consumption (Recorded), MMBTU	b	36,555,614
LSFO Efficiency Factor (Recorded), BTU/kWh	$c = (b/a) * 1000$	11,366
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	$h = c, e \text{ or } g$	11,366
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**  
**December 2022 Year-to-Date**

	<b>Without Deadband</b>	<b>With Deadband AS FILED</b>
<u>FUEL FILING COST, MAJOR FUELS</u>	<u>Jan 1-Dec 31</u>	<u>Jan 1-Dec 31</u>
LSFO Portion of Recorded Sales , KWH	3,216,238,216	3,216,238,216
LSFO Sales Efficiency Factor (mmbtu/kwh)	0.011142	0.011366
Mmbtu adjusted for Sales Efficiency Factor	35,835,326	36,555,764
\$/mmbtu	<u>\$23.1631</u>	<u>\$23.1631</u>
TOTAL LSFO \$ TO BE RECOVERED	\$830,057,924	\$846,745,500
 TOTAL MAJOR FUEL FILING COST \$	 \$830,057,924	 \$846,745,500
 <u>BASE FUEL COST, MAJOR FUELS</u>		
TOTAL BASE FUEL COST	\$0	\$0
 TOTAL FUEL FILING COST, MAJOR FUELS \$ YTD	 \$830,057,924	 \$846,745,500
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 2022**

**LSFO Fossil Fuel Cost Risk Sharing**

		Jan-22, Baseline	YTD
A	MMBtu	3,000,521 mmbtu	36,555,614 mmbtu
B	\$ cost, actuals	\$49,571,623	\$846,761,598
C = B / A (Jan Column)	Jan 2022 baseline \$/MMBtu	16.521004	16.521004
D	LSFO Gen kWh		3,371,634,749
E	Total kWh, Gen, Purch Pwr, DG		6,514,378,745
F	Sales kWh		6,210,797,420
G = (D / E) x F	LSFO kWh-sales		3,214,510,734
H	Target Heat Rate		11,142
I	Recovery heat rate		11,366
J = B/A (YTD Column)	Actual Cost \$/MMBtu		23.163654
K = C x H x G / 1,000,000	Base Cost Recovery w/Target Heat Rate		\$591,717,565
L = I x J x G / 1,000,000	Fuel Filing Cost Recovery		\$846,310,247
M = 2% x (L-K)	<b>LSFO Cost Risk Sharing</b>		<b>\$5,091,854</b>

**Diesel Fossil Fuel Cost Risk Sharing (w/o target heat rate)**

AA	MMBtu	349,008 mmbtu	2,521,344 mmbtu
BB	Fuel Filing Cost Recovery (no heat rate)	\$6,163,417	\$59,133,945
CC = BB/AA (Jan Column)	Jan 2022 baseline \$/MMBtu	17.659816	17.659816
DD = AA x CC	Base Cost Recovery		\$44,526,474
EE = (BB - DD) x 2%	<b>Diesel Cost Risk Sharing</b>		<b>\$292,149</b>
FF = M + EE, up to ±\$2.5MM	<b>Total Fossil Fuel Cost Risk Sharing Adjustment, subject to ±\$2.5MM cap</b>		<b>\$2,500,000</b>

**Non-Adjustable Component**

AAA = F	YTD kWh		6,210,797,420
BBB	Non-Adjustable Component, c/kWh		0.12531
CCC = AAA x BBB	Non-Adjustable Component Revenues w/tax		\$7,782,750
DDD = CCC / (1/(1-.08885))	Non-Adjustable Component Revenues less tax		<b>\$7,091,253</b>

**HAWAIIAN ELECTRIC COMPANY, INC.**  
**2023 Cumulative Reconciliation Balance**

	(1)		(2)	(3)	(4)	(5)	(6)
<u>Month</u>	<u>YTD FOA Reconciliation</u>	<u>Qtr</u>	<u>FOA Rec Variance</u>	<u>FOA Rec Less Variance</u>	<u>Try to Collect</u>	<u>Actual Collect</u>	<u>Month-end Cumulative Balance</u>
November 20	(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	2,153,891	152,198
February	(13,004,400)	(4)	89,435	(13,093,835)	4,334,800	4,432,708	(8,508,928)
March					4,334,800	4,544,500	(3,964,428)
April					4,334,800	4,383,947	419,519
May	(17,597,500)	(1)	370,366	(17,967,866)	5,865,833	6,073,898	(11,474,449)
June					5,865,833	5,856,458	(5,617,991)
July					5,865,833	5,813,541	195,550
August	(7,276,200)	(2)	247,836	(7,524,036)	2,425,400	2,369,958	(4,958,528)
September					2,425,400	2,470,009	(2,488,519)
October					2,425,400	2,509,424	20,905
November	(9,873,900)	(3)	(63,125)	(9,810,775)	3,291,300	3,404,135	(6,385,735)
December					3,291,300	3,416,826	(2,968,909)
January 23					3,291,300		
February	(10,447,000)	(4)	322,385	(10,769,385)	3,482,333		

**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>	<u>ENERGY COST FACTOR CENTS / KWH RESIDENTIAL &amp; COMMERCIAL</u>		<u>RESIDENTIAL BILL (\$) @ 500 KWH @ 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	
March 1, 2022	18.629	184.44	219.58	
April 1, 2022	20.489	194.70	231.88	
May 1, 2022	23.241	208.73	248.73	
June 1, 2022	24.081	212.86	253.68	
July 1, 2022	25.791	221.66	264.25	
August 1, 2022	26.477	228.13	272.05	
September 1, 2022	29.852	236.79	282.45	
October 1, 2022	29.205	233.52	278.51	
November 1, 2022	28.468	226.98	270.65	
December 1, 2022	28.053	224.90	268.16	
January 1, 2023	27.262	222.63	265.42	
February 1, 2023	25.953	219.26	261.37	

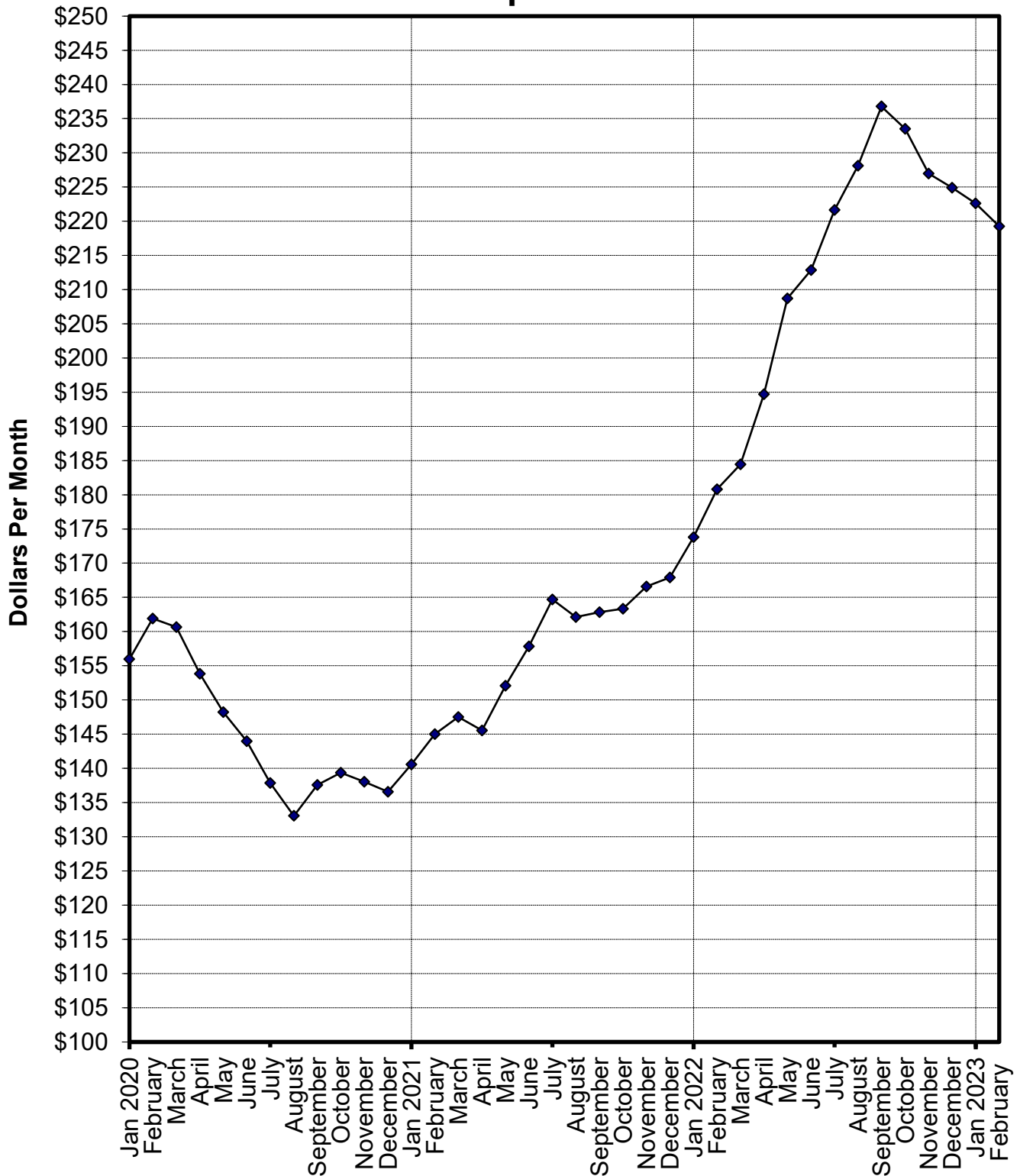
**Hawaiian Electric Company, Inc.**  
**RESIDENTIAL SURCHARGE DATA**

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
<b>9/1/2018</b>	<b>FINAL RATE INCREASE (TY2017) -0.039% EFFECTIVE 09/01/18, DOCKET NO. 2016-0328</b>	
5/1/2021-3/31/2022	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
7/1/2021-6/30/2022	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
8/1/2021-7/31/2022	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
1/1/2022-6/30/2022	GREEN INFRASTRUCTURE FEE	1.25 DOLLARS/MONTH
1/1/2022-5/31/2022	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9505 CENTS/KWH
2/1/2022-2/28/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.1172 CENTS/KWH
2/1/2022-4/30/2022	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0089 CENTS/KWH
2/1/2022-4/30/2022	RESIDENTIAL DSM ADJUSTMENT	0.1082 CENTS/KWH
3/1/2022-3/31/2022	PURCHASED POWER ADJUSTMENT CLAUSE	1.9689 CENTS/KWH
4/1/2022-4/30/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.1650 CENTS/KWH
4/1/2022-4/30/2022	SOLAR SAVER ADJUSTMENT	-0.0064 CENTS/KWH
5/1/2022-7/31/2022	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0045 CENTS/KWH
5/1/2022-7/31/2022	RESIDENTIAL DSM ADJUSTMENT	-0.2047 CENTS/KWH
5/1/2022-5/31/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.5226 CENTS/KWH
<b>5/1/2022</b>	<b>SOLAR SAVER ADJUSTMENT</b>	<b>0.0000 CENTS/KWH</b>
6/1/2022-6/30/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.5505 CENTS/KWH
6/1/2022-12/31/2022	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.9085 CENTS/KWH
7/1/2022-12/31/2022	GREEN INFRASTRUCTURE FEE	1.18 DOLLARS/MONTH
7/1/2022-7/31/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.6139 CENTS/KWH
<b>7/1/2022</b>	<b>RESID. PBF SURCHARGE ADJUSTMENT</b>	<b>0.6488 CENTS/KWH</b>
8/1/2022-8/31/2022	PURCHASED POWER ADJUSTMENT CLAUSE	2.8647 CENTS/KWH
8/1/2022-10/31/2022	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0052 CENTS/KWH
8/1/2022-10/31/2022	RESIDENTIAL DSM ADJUSTMENT	0.1567 CENTS/KWH
<b>8/1/2022</b>	<b>RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION</b>	<b>0.0168 CENTS/KWH</b>
9/1/2022-9/30/2022	PURCHASED POWER ADJUSTMENT CLAUSE	1.2229 CENTS/KWH
10/1/2022-10/31/2022	PURCHASED POWER ADJUSTMENT CLAUSE	1.2139 CENTS/KWH
11/1/2022-11/30/2022	PURCHASED POWER ADJUSTMENT CLAUSE	0.8391 CENTS/KWH
11/1/2022-1/31/2023	RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)	-0.0075 CENTS/KWH
11/1/2022-1/31/2023	RESIDENTIAL DSM ADJUSTMENT	-0.0375 CENTS/KWH
12/1/2022-12/31/2022	PURCHASED POWER ADJUSTMENT CLAUSE	0.8385 CENTS/KWH
1/1/2023-1/31/2023	PURCHASED POWER ADJUSTMENT CLAUSE	0.8495 CENTS/KWH
<b>1/1/2023</b>	<b>GREEN INFRASTRUCTURE FEE</b>	<b>1.23 DOLLARS/MONTH</b>
<b>1/1/2023</b>	<b>REVENUE BALANCING ACCOUNT RATE ADJUSTMENT</b>	<b>2.2241 CENTS/KWH</b>
<b>2/1/2023</b>	<b>RESIDENTIAL DEMAND RESPONSE ADJUSTMENT CLAUSE (DRAC)</b>	<b>-0.0083 CENTS/KWH</b>
<b>2/1/2023</b>	<b>RESIDENTIAL DSM ADJUSTMENT</b>	<b>0.0921 CENTS/KWH</b>
<b>2/1/2023</b>	<b>PURCHASED POWER ADJUSTMENT CLAUSE</b>	<b>1.3539 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		
		1/1/2023	2/1/2023	1/1/2023	2/1/2023	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 kWh per month	¢/kWh	10.6812	10.6812	37.38	37.38	0.00
Next 850 kWh 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	0.8495	1.3539	4.25	6.77	2.52
<b>RBA Rate Adjustment</b>	¢/kWh	2.2241	2.2241	11.12	11.12	0.00
<b>DSM Adjustment</b>	¢/kWh	-0.0375	0.0921	-0.19	0.46	0.65
<b>Demand Response Adjustment Clause</b>	¢/kWh	-0.0075	-0.0083	-0.04	-0.04	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	0.6488	0.6488	3.24	3.24	0.00
<b>Renewable Energy Infrastructure Cost</b>						
<b>Recovery Provision</b>	¢/kWh	0.0168	0.0168	0.08	0.08	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Recovery</b>	¢/kWh	27.262	25.953	136.31	129.77	-6.54
<b>Green Infrastructure Fee</b>	\$	1.23	1.23	1.23	1.23	0.00
<b>Avg Residential Bill at 500 kWh</b>				222.63	219.26	
				Increase / (Decrease -)		-3.37
				% Change		-1.51%

	Rate			Charge (\$) at 600 kWh		
		1/1/2023	2/1/2023	1/1/2023	2/1/2023	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 kWh per month	¢/kWh	10.6812	10.6812	37.38	37.38	0.00
Next 850 kWh 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	0.8495	1.3539	5.10	8.12	3.02
<b>RBA Rate Adjustment</b>	¢/kWh	2.2241	2.2241	13.34	13.34	0.00
<b>DSM Adjustment</b>	¢/kWh	-0.0375	0.0921	-0.23	0.55	0.78
<b>Demand Response Adjustment Clause</b>	¢/kWh	-0.0075	-0.0083	-0.05	-0.05	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	0.6488	0.6488	3.89	3.89	0.00
<b>Renewable Energy Infrastructure Cost</b>						
<b>Recovery Provision</b>	¢/kWh	0.0168	0.0168	0.10	0.10	0.00
<b>SolarSaver Adjustment</b>	¢/kWh	0.0000	0.0000	0.00	0.00	0.00
<b>Energy Cost Recovery</b>	¢/kWh	27.262	25.953	163.57	155.72	-7.85
<b>Green Infrastructure Fee</b>	\$	1.23	1.23	1.23	1.23	0.00
<b>Avg Residential Bill at 600 kWh</b>				265.42	261.37	
				Increase / (Decrease -)		-4.05
				% Change		-1.53%

## Hawaiian Electric Company Annual ECRC Adjustment, Based on Recorded Statistics for : 2022

	LSFO	Notes
1 Target Heat Rate, End of 2022	0.011142	MBTU/kWh Sales
2		
3 Fuel consumed during 2022	36,555,614	MBTU
4 Allocated Sales during 2022	<u>3,216,238,216</u>	kWh
5 2022 Sales Heat Rate, Recorded	0.011366	MBTU/kWh Sales
6		
7 Difference: 2022 Recorded less Start of Year	0.000224	MBTU/kWh Sales
8 Adjustment: One-half the difference, downward only	0.000000	MBTU/kWh Sales
9		
10 Target Heat Rate, Start of 2023	0.011142	MBTU/kWh Sales

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**From:** puc@hawaii.gov  
**Sent:** Friday, January 27, 2023 9:15 AM  
**To:** Oya, Tyler  
**Subject:** Hawaii PUC eFiling Confirmation of Filing

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