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2019 MAY 31 P 12:25

May 31, 2019

PUBLIC UTILITIES
COMMISSION

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

Dear Commissioners:

Subject: Maui Electric Energy Cost Adjustment Factor for June 2019
Revised Attachments Reflecting RBA Rate Adjustment

Enclosed for filing are revised Attachments 1, 7, 8A, 8B, 9, 10, 15, 16A, 16B, 17, 22, 23A, and 23B of Maui Electric Company, Limited's ("Maui Electric" or "Company") June 2019 energy cost adjustment factor filing, reflecting the impact of the Company's Revenue Balancing Account ("RBA") rate adjustment, as approved by the Commission in Order No. 36336 issued on May 29, 2019.

On May 29, 2019, Maui Electric filed its energy cost adjustment factors for June 2019 and indicated that it would file the enclosed revised attachments after the Commission issued its decision on the Company's RBA rate adjustment proposal submitted in Transmittal No. 19-03 and incorporate the impact in the customer bill analysis. There is no change to the energy cost adjustment factors as filed May 29, 2019.

For our Maui Division, a residential customer consuming 500 kWh of electricity will be paying \$179.76, an increase of \$8.35 compared to rates effective May 1, 2019. The increase in the typical Maui Division residential bill is due to the increase in the energy cost adjustment factor (+\$39.71), the increase in the RBA rate adjustment (+\$2.77), and the increase in the Purchase Power Adjustment (+\$0.11), partially offset by the decrease in Base Charges (-\$18.20), cancellation of the Interim Rate Increase (TY2018) (-\$12.88), and credit for the Refund of 2018 Interim (-\$3.15).

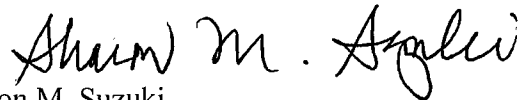
For our Lāna'i Division, a residential customer consuming 400 kWh of electricity will be paying \$172.73, an increase of \$10.58 compared to rates effective May 1, 2019. The increase in the typical Lāna'i Division residential bill is due to the increase in the energy cost adjustment factor (+\$48.24) and the increase in the RBA rate adjustment (+\$2.22), partially offset by the decrease in Base Charges (-\$25.48), cancellation of the Interim Rate Increase (TY2018) (-\$11.31), and credit for the Refund of the 2018 Interim (-3.09).

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
May 31, 2019
Page 2

For our Moloka'i Division, a residential customer consuming 400 kWh of electricity will be paying \$166.63, an increase of \$1.65 compared to rates effective May 1, 2019. The increase in the typical Moloka'i Division residential bill is due to the increase in the energy cost adjustment factor (+\$34.39) and the increase in the RBA rate adjustment (+\$2.22), partially offset by the decrease in Base Charges (-\$21.18), cancelation of the Interim Rate Increase (TY 2018) (-\$10.93), and credit for the Refund of 2018 Interim (-\$2.85).

For the Commission's convenience, Maui Electric is refileing all of the attachments included in the May 29, 2019 filing. The revised attachments are notated with "Revised 5/31/2019" in the headers; the other attachments are unchanged.

Sincerely,



Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

**MAUI ELECTRIC COMPANY, LTD.
 LANAI DIVISION**

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		
	<u>05-01-19</u>	<u>06-01-19</u>	<u>Change</u>
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	2,039.71	2,220.95	181.24
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	30.00	30.00	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(7.864)	4.196	12.060
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(7.864)	4.196	12.060
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	162.15	172.73	10.58
500 KWH Consumption, \$/Bill	201.75	214.30	12.55

Supersedes Sheet Effective:

May 1, 2019

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - June 1, 2019 (page 1 of 2)

Line

- 1 Effective Date June 1, 2019
- 2 Supercedes Factors of May 1, 2019

GENERATION COMPONENT

CENTRAL STATION							
FUEL PRICES, ¢/mmbtu							
3	Industrial			0.00			
4	Diesel - Miki Basin			2,195.53			
5	Diesel - Manele Bay			2,562.28			
6	Other			0.00			
BTU MIX, %							
7	Industrial			0.00%			
8	Diesel - Miki Basin			93.07%			
9	Diesel - Manele Bay			6.93%			
10	Other			0.00%			
				100.00%			
11	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu			2,220.95			
	(Lines (3 x 7) + (4 x 8) + (5 x 9) + (6 x 10))						
12	% Input to System kWh Mix			92.88%			
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
			Percent of				
		Eff Factor	Centrl Stn +	Weighted			
	Fuel Type	mmbtu/kwh	Other	Eff Factor			
13	Industrial	0.000000	0.00	0.000000			
14	Diesel	0.011017	100.00	0.011017			
15	Other	0.011017	0.00	0.000000			
	(Lines 13, 14, 15): Col(B) x Col(C) = Col(D)						
16	Weighted Efficiency Factor, mmbtu/kWh			0.011017			
	[lines 13(D) + 14(D) + 15(D)]						
17	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GEN COST, ¢/kWh			22.72607			
	(lines (11 x 12 x 16))						
18	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			1,740.36			
19	Base % Input to Sys kWh Mix			93.21%			
20	Efficiency Factor, mmbtu/kwh			0.011017			
21	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh			17.87166			
	(lines (18 x 19 x 20))						
22	COST LESS BASE (line(17 - 21))			4.85441			
23	Revenue Tax Req Multiplier			1.0975			
24	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (22 x 23))			5.32771			
					DG ENERGY COMPONENT		
	25 COMPOSITE COST OF DG ENERGY, ¢/kWh			0.000			
	26 % Input to System kWh Mix			0.00%			
	27 WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 25 x 26)			0.00000			
	28 BASE DG ENERGY COMP COST			0.000			
	29 Base % Input to System kWh Mix			0.00%			
	30 WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 28 x 29)			0.00000			
	31 Cost Less Base (Line 27 - 30)			0.00000			
	32 Loss Factor			1.0500			
	33 Revenue Tax Req Multiplier			1.0975			
	34 DG FACTOR, ¢/kWh (Line 31 x 32 x 33)			0.00000			
					SUMMARY OF		
					TOTAL GENERATION FACTOR, ¢/kWh		
	35 CNTRL STN + OTHER (line 24)			5.32771			
	36 DG (line 34)			-			
	37 TOTAL GENERATION FACTOR, ¢/kWh (lines 35 + 36)			5.32771			

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION

ENERGY COST ADJUSTMENT (ECA) FILING

ENERGY COST ADJUSTMENT (ECA) FILING - June 1, 2019 (page 2 of 2)

Line

- 1 Effective Date June 1, 2019
- 2 Supercedes Factors of May 1, 2019

Line	<u>PURCHASED ENERGY COMPONENT</u>	
	PURCHASED ENERGY PRICE, ¢/kWh	
38	LANAI SOLAR RESEARCH - On Peak	30.000
39	- Off Peak	30.000
40	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, %	
41	LANAI SOLAR RESEARCH - On Peak	100.00%
42	- Off Peak	0.00%
43	Sch Q	0.00%
44	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (38 x 41) + (39 x 42) + (40 x 43))	30.000
45	% Input to System kWh Mix	7.12%
46	WEIGHTED COMP. PURCH. ENERGY COST, ¢/kWh (lines (44 x 45))	2.13600
47	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	30.000
48	Base % Input to Sys kWh Mix	6.79
49	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (47 x 48))	2.03700
50	COST LESS BASE(lines (46 - 49))	0.09900
51	Loss Factor	1.050
52	Revenue Tax Req Multiplier	1.0975
53	PURCHASED ENERGY FACTOR, ¢/kWh (lines (50 x 51 x 52))	0.11409

Line SYSTEM COMPOSITE CALCULATIONS

54	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (37 + 53))	5.44180
55	Adjustment, ¢/kWh	0.000
56	ECA Reconciliation Adjustment	(1.246)
57	ECA FACTOR, ¢/kWh (lines (54 + 55 + 56))	4.196

**Maui Electric Company, Ltd.
Lanai Division**

MONTH END FUEL OIL ESTIMATE

<u>Miki Basin - ULSD</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
5/21/2019	3,604.38	20,653.10	450,126.37
Estimated Use	1,258.14	7,209.14	148,363.43
Estimated Received	1,571.43	9,004.29	188,824.85
Estimated Additional	525.96	3,013.75	68,438.04
Estimated End	4,443.63	25,462.00	559,025.83

Next Month's Combined Miki Expense (\$/bbl) = \$ 125.8039 /bbl

<u>Manele CHP</u>	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
5/21/2019	167.33	958.80	21,806.04
Estimated Use	204.10	1,169.49	21,316.35
Estimated Received	285.71	1,637.12	36,712.21
Estimated Additional	82.12	470.57	11,404.41
Estimated End	331.06	1,897.00	48,606.31

Next Month's Manele Expense (\$/bbl) = \$ 146.8185 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

<u>Type of Oil Burned</u>	<u>Price</u>	<u>Conversion Factor</u>	<u>Prices ¢/MBTU</u>
Diesel - Miki Basin	\$ 125.8039	5.73 BTU/BBL	2,195.53
Diesel - Manele Bay	\$ 146.8185	5.73 BTU/BBL	2,562.28

**MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION**

Contract Prices effective May 1, 2019

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
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MIKI BASIN - ULTRA LOW SULFUR DIESEL (DYED)

Tax *	1.5120	26.39
Ocean Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

MIKI BASIN - ULTRA LOW SULFUR DIESEL

Tax *	16.7965	293.13
Ocean Transportation	0.0000	0.00
Storage	0.0000	0.00
Wharfage	0.0000	0.00

MANELE BAY - ULTRA LOW SULFUR DIESEL

Tax *	16.7965	293.13
Ocean 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 tax, Environmental Response Tax, Customs Duty Fee, Fed Oil Spill Recovery Fee, Federal Oil Spill Liability Tax, and Federal Excise 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.

Reference: Decision and Order No. 16134, Docket No. 96-0040.

MAUI ELECTRIC COMPANY, LTD.
Lanai Division
ECA Reconciliation Adjustment

June 2019

1. Amount to be refunded	(\$91,900)
2. Monthly amount (1 / 3 X Line 1)	(\$30,633)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$33,620)
5. Estimated Sales (June 2019)	2,698 mwh
6. Adjustment (Line 4 ÷ Line 5)	-1.246 ¢/kwh

MAUI ELECTRIC COMPANY, LTD.
LANAI DIVISION
2019 Cumulative Reconciliation Balance

<u>Month</u>	(1) <u>YTD FOA</u> <u>Reconciliation</u>	<u>Qtr</u>	(2) <u>FOA Rec</u> <u>Adjust</u> <u>Variance</u>	(3) <u>FOA Rec</u> <u>Less</u> <u>Variance</u>	(4) <u>Try to</u> <u>Collect</u>	(5) <u>Actual</u> <u>Collect</u>	(6) <u>Month-end</u> <u>Cumulative</u> <u>Balance</u>
December '18					(11,867)	(11,797)	11,475
January '19					(11,867)	(11,150)	325
February	8,600	(4)	(386)	8,986	(2,867)	(2,721)	6,590
March					(2,867)	(2,728)	3,862
April					(2,867)	(2,599)	1,263
May	91,900	(1)	1,002	90,898	(30,633)		
June					(30,633)		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 13)
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)
Note: February and March 2019 have a correction of an inadvertent calculation error.
- Col(6): Cumulative balance of the FOA reconciliation (Previous balance + Col(3) + Col(5))

Maui Electric Company, Ltd.
Lanai Division
Calculations of the Average Residential Customer Bill

	Rate		Charge (\$) at 400 Kwh		
	05-01-19	06-01-19	05-01-19	06-01-19	Difference
Base Rates	effective date: 08/01/13	06/01/19			
Base Fuel/Energy Charge	¢/kWh 32.2668	21.9611	129.07	87.84	-41.23
Non-fuel Fuel Energy Charge					
First 250 kWh per month	¢/kWh 9.1240	12.3123	22.81	30.78	7.97
Next 500 kWh per month	¢/kWh 11.6240	14.8123	17.44	22.22	4.78
Customer Charge	\$ 8.50	11.50	8.50	11.50	3.00
Total Base Charges			177.82	152.34	-25.48
IRP Refund	% on base 0.0000	0.0000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh 0.3183	0.8716	1.27	3.49	2.22
PBF Surcharge	¢/kWh 0.4658	0.4658	1.86	1.86	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh 0.0000	0.0000	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh 0.0000	0.0000	0.00	0.00	0.00
Interim Rate Increase (TY 2018)	% on Base 6.36	0.00	11.31	0.00	-11.31
Refund of 2018 Interim	% on Base 0.00	-2.03	0.00	-3.09	-3.09
Energy Cost Adjustment	¢/kWh -7.864	4.196	-31.46	16.78	48.24
Green Infrastructure Fee	\$ 1.35	1.35	1.35	1.35	0.00
Avg Residential Bill at 400 kwh			162.15	172.73	

Increase (Decrease -) 10.58
% Change 6.52%

	Rate		Charge (\$) at 500 Kwh		
	05-01-19	06-01-19	05-01-19	06-01-19	Difference
Base Rates	effective date: 08/01/13	06/01/19			
Base Fuel/Energy Charge	¢/kWh 32.2668	21.9611	161.33	109.81	-51.52
Non-fuel Fuel Energy Charge					
First 250 kWh per month	¢/kWh 9.1240	12.3123	22.81	30.78	7.97
Next 500 kWh per month	¢/kWh 11.6240	14.8123	29.06	37.03	7.97
Customer Charge	\$ 8.50	11.50	8.50	11.50	3.00
Total Base Charges			221.70	189.12	-32.58
IRP Refund	% on base 0.0000	0.0000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh 0.3183	0.8716	1.59	4.36	2.77
PBF Surcharge	¢/kWh 0.4658	0.4658	2.33	2.33	0.00
Renewable Energy Infrastructure Cost Recovery Provision	¢/kWh 0.0000	0.0000	0.00	0.00	0.00
SolarSaver Adjustment	¢/kWh 0.0000	0.0000	0.00	0.00	0.00
Interim Rate Increase (TY 2018)	% on Base 6.36	0.00	14.10	0.00	-14.10
Refund of 2018 Interim	% on Base 0.00	-2.03	0.00	-3.84	-3.84
Energy Cost Adjustment	¢/kWh -7.864	4.196	-39.32	20.98	60.30
Green Infrastructure Fee	\$ 1.35	1.35	1.35	1.35	0.00
Avg Residential Bill at 500 kwh			201.75	214.30	

Increase (Decrease -) 12.55
% Change 6.22%

**MAUI ELECTRIC COMPANY, LTD. -- Lanai Division
FUEL OIL ADJUSTMENT FACTOR DATA**

<u>EFFECTIVE DATE</u>	FUEL FACTOR CENTS / KWH		RESIDENTIAL BILL (\$)
	<u>RESIDENTIAL & COMMERCIAL</u>	<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 1, 2017	-11.861	139.67	173.68
February 1, 2017	-11.218	142.24	176.90
March 1, 2017	-10.975	143.21	178.11
April 1, 2017	-10.875	143.06	177.92
May 1, 2017	-11.993	139.14	173.02
June 1, 2017	-11.149	143.14	178.03
July 1, 2017	-11.181	142.28	176.97
August 1, 2017	-11.659	140.36	174.58
September 1, 2017	-10.389	145.40	180.88
October 1, 2017	-10.059	162.15	201.75
November 1, 2017	-8.264	153.90	191.51
December 1, 2017	-9.353	149.55	186.06
January 1, 2018	-8.358	153.69	191.20
February 1, 2018	-8.395	153.54	191.01
March 1, 2018	-7.868	155.65	193.65
April 1, 2018	-9.141	150.05	186.64
May 1, 2018	-7.716	156.26	194.41
June 1, 2018	-6.144	163.86	203.92
July 1, 2018	-5.753	165.46	205.95
August 1, 2018	-7.005	160.45	199.69
September 1, 2018	-6.735	166.53	207.25
October 1, 2018	-6.372	167.98	209.07
November 1, 2018	-6.037	169.32	210.74
December 1, 2018	-5.396	171.89	213.95
January 1, 2019	-6.950	165.81	206.32
February 1, 2019	-8.789	158.45	197.12
March 1, 2019	-6.041	169.45	210.86
April 1, 2019	-6.801	166.07	206.63
May 1, 2019	-7.864	162.15	201.75
June 1, 2019	4.196	172.73	214.30

**MAUI ELECTRIC COMPANY, LTD. -- Lanai Division
RESIDENTIAL SURCHARGE DATA**

<u>EFFECTIVE DATE</u>	<u>DESCRIPTION OF SURCHARGE</u>	<u>RATE</u>
01/01/11 - 12/31/11	RESID. PBF SURCHARGE ADJUSTMENT	0.5944 CENTS/KWH
06/01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
08/01/13 - 05/31/19	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR)	
01/01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE	1.3000 DOLLARS/MONTH
03/01/16 - 02/28/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0099 CENTS/KWH
04/01/16 - 04/30/16	SOLARSAVER ADJUSTMENT	-0.1835 CENTS/KWH
05/01/16 - 03/31/17	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/16 - 05/31/17	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.4082 CENTS/KWH
07/01/16 - 06/30/17	RESID. PBF SURCHARGE ADJUSTMENT	0.5865 CENTS/KWH
07/01/16 - 12/31/16	GREEN INFRASTRUCTURE FEE	1.13 DOLLARS/MONTH
01/01/17 - 06/30/17	GREEN INFRASTRUCTURE FEE	1.27 DOLLARS/MONTH
03/01/17 - 08/16/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0098 CENTS/KWH
04/01/17 - 04/30/17	SOLARSAVER ADJUSTMENT	-0.1378 CENTS/KWH
05/01/17 - 03/31/18	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/17 - 05/31/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.5654 CENTS/KWH
07/01/17 - 12/31/17	GREEN INFRASTRUCTURE FEE	1.18 DOLLARS/MONTH
07/01/17 - 06/30/18	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
08/17/17	RENEWABLE ENERGY INFRASTRUCTURE COST RECOVERY PROVISION	0.0000 CENTS/KWH
01/01/18 - 06/30/18	GREEN INFRASTRUCTURE FEE	1.34 DOLLARS/MONTH
04/01/18 - 04/30/18	SOLARSAVER ADJUSTMENT	1.3400 CENTS/KWH
05/01/18 - 03/31/19	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/18 - 08/22/18	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	1.8954 CENTS/KWH
07/01/18	RESID. PBF SURCHARGE ADJUSTMENT	0.4658 CENTS/KWH
07/01/18 - 12/31/18	GREEN INFRASTRUCTURE FEE	1.21 DOLLARS/MONTH
08/23/18 - 05/31/19	INTERIM RATE INCREASE 2018 TEST YEAR	6.36 PERCENT ON BASE
08/23/18 - 05/31/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.3183 CENTS/KWH
01/01/19	GREEN INFRASTRUCTURE FEE	1.35 DOLLARS/MONTH
04/01/19 - 04/30/19	SOLARSAVER ADJUSTMENT	-0.0855 CENTS/KWH
05/01/19	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/19	FINAL RATE INCREASE (3.74%), DOCKET NO. 2017-0150 (2018 TEST YEAR)	
06/01/19	REFUND OF INTERIM RATE INCREASE 2018 TEST YEAR	-2.03 PERCENT ON BASE
06/01/19	REVENUE BALANCING ACCOUNT RATE ADJUSTMENT	0.8716 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.