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PUBLIC UTILITIES
COMMISSION

SHARON M. SUZUKI
President

January 29, 2018

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: Maui Electric Energy Cost Adjustment Factor for February 2018

Maui Electric Company, Limited's ("Maui Electric" or "Company") February 2018 Energy Cost Adjustment factor for our Maui Division is -5.747 cents per kilowatt-hour ("kWh"), an increase of 0.368 cents per kWh from last month. A residential customer consuming 500 kWh of electricity will be paying \$156.16, an increase of \$1.88 compared to rates effective January 1, 2018. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor (+\$1.85) and the increase in the Purchase Power Adjustment Clause rate (+\$0.03).

The Company's Maui Division fuel composite cost of generation, central station and other decreased 52.81 cents per million BTU to 1,362.37 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy decreased 0.131 cents per kWh to 20.091 cents per kWh.

The Energy Cost Adjustment factor for our Lāna'i Division for February 2018 is -8.395 cents per kWh, a decrease of 0.037 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$153.54, a decrease of \$0.15 compared to rates effective January 1, 2018. The decrease in the typical residential bill is due to the decrease in the Energy Cost Adjustment factor.

The Company's Lāna'i Division fuel composite cost of generation, central station and other increased 11.64 cents per million BTU to 1,961.69 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 30.00 cents per kWh.

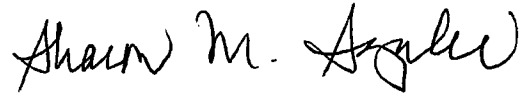
The Energy Cost Adjustment factor for our Moloka'i Division for February 2018 is -6.275 cents per kWh, an increase of 0.025 cents per kWh from last month. A residential customer consuming 400 kWh of electricity will be paying \$147.78, an increase of \$0.10 compared to rates effective January 1, 2018. The increase in the typical residential bill is due to the increase in the Energy Cost Adjustment factor.

The Honorable Chair and Members
of the Hawai'i Public Utilities Commission
January 29, 2018
Page 2

The Company's Moloka'i Division fuel composite cost of generation, central station and other increased 14.17 cents per million BTU to 1,648.00 cents per million BTU. The composite cost of DG energy is 0.00 cents per kWh. The composite cost of purchased energy is 21.80 cents per kWh.

The attached sheets set forth the fuel adjustment in cents per kWh for each rate schedule that is applicable for pro rata use beginning February 1, 2018.

Sincerely,



Sharon M. Suzuki
President

Attachments

cc: Division of Consumer Advocacy

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

ENERGY COST ADJUSTMENT FACTOR

	EFFECTIVE DATES		<u>Change</u>
	<u>01-01-18</u>	<u>02-01-18</u>	
<u>COMPOSITE COSTS</u>			
Generation, Central Station & Other, ¢/mbtu	1,633.83	1,648.00	14.17
DG Energy, ¢/kWh	0.00	0.00	0.00
Purchased Energy, ¢/kWh	21.80	21.80	0.00
<u>Residential Schedule "R"</u>			
Energy Cost Adjustment, ¢/kWh	(6.300)	(6.275)	0.025
<u>Others - "G,P,F"</u>			
Energy Cost Adjustment, ¢/kWh	(6.300)	(6.275)	0.025
<u>Residential Customer with</u>			
400 KWH Consumption, \$/Bill	147.68	147.78	0.10
500 KWH Consumption, \$/Bill	183.78	183.90	0.12

Supersedes Sheet Effective:

January 1, 2018

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
ENERGY COST ADJUSTMENT (ECA) FILING**

ENERGY COST ADJUSTMENT (ECA) FILING - February 1, 2018 (page 1 of 2)

<u>Line</u>		
1	Effective Date	February 1, 2018
2	Supercedes Factors	January 1, 2018

GENERATION COMPONENT

<u>CENTRAL STATION</u>							
FUEL PRICES, ¢/mmbtu							
3	Industrial			0.00			
4	Diesel			1,648.00			
5	Other			0.00			
BTU MIX, %							
6	Industrial			0.00			
7	Diesel			100.00			
8	Other			<u>0.00</u>			
				<u>100.00</u>			
9	COMPOSITE COST OF GENERATION, CENTRAL STATION + OTHER ¢/mmbtu (Lines 3 x 6) + (4 x 7) + (5 x 8))			1,648.00			
10	% Input to System kWh Mix			99.98			
EFFICIENCY FACTOR, mmbtu/kWh							
	(A)	(B)	(C)	(D)			
		Eff Factor	Percent of	Weighted			
	<u>Fuel Type</u>	<u>mmbtu/kwh</u>	<u>Centrl Stn + Other</u>	<u>Eff Factor</u>			
11	Industrial	0.000000	0.00	0.000000			
12	Diesel	0.011194	100.00	0.011194			
13	Other	0.011194	0.00	0.000000			
	(Lines 11, 12, 13): Col(B) x Col(C) = Col(D)						
14	Weighted Efficiency Factor, mmbtu/kWh [lines 11(D) + 12(D) + 13(D)]			0.011194			
15	WEIGHTED COMPOSITE CENTRAL STATION + OTHER GENERATION COST, ¢/kWh (lines 9 x 10 x 14))			18.44493			
16	BASE CENTRAL STATION + OTHER GENERATION COST, ¢/mmbtu			2,144.57			
17	Base % Input to Sys kWh Mix			99.91			
18	Efficiency Factor, mmbtu/kwh			0.011194			
19	WEIGHTED BASE CENTRAL STATION + OTHER GENERATION COST ¢/kWh (lines 16 x 17 x 18))			23.98471			
20	COST LESS BASE (line(15 - 19))			(5.53978)			
21	Revenue Tax Req Multiplier			1.0975			
22	CENTRAL STATION + OTHER GENERATION FACTOR, ¢/kWh (line (20 x 21))			(6.07991)			
					<u>DG ENERGY COMPONENT</u>		
					23	COMPOSITE COST OF DG ENERGY, ¢/kWh	0.000
					24	% Input to System kWh Mix	0.00
					25	WEIGHTED COMPOSITE DG ENERGY COST, ¢/kWh (Lines 23 x 24)	0.00000
					26	BASE DG ENERGY COMP COST	0.000
					27	Base % Input to System kWh Mix	0.00
					28	WEIGHTED BASE DG ENERGY COST, ¢/kWh (Line 26 x 27)	0.00000
					29	Cost Less Base (Line 25 - 28)	0.00000
					30	Loss Factor	1.095
					31	Revenue Tax Req Multiplier	1.0975
					32	DG FACTOR, ¢/kWh (Line 29 x 30 x 31)	0.00000
					SUMMARY OF		
					TOTAL GENERATION FACTOR, ¢/kWh		
					33	CNTRL STN + OTHER (line 22)	-6.07991
					34	DG (line 32)	0.00000
					35	TOTAL GENERATION FACTOR, ¢/kWh (lines 33 + 34)	-6.07991

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
ENERGY COST ADJUSTMENT (ECA) FILING**

ENERGY COST ADJUSTMENT (ECA) FILING - February 1, 2018 (page 2 of 2)

<u>Line</u>		
1	Effective Date	February 1, 2018
2	Supercedes Factors	January 1, 2018

<u>Line</u>	<u>PURCHASED ENERGY COMPONENT</u>	
	PURCHASED ENERGY PRICE, ¢/kWh	
36	FIT	21.800
37		0.000
38	Sch Q	0.000
	PURCHASED ENERGY KWH MIX, %	
39	FIT	100.00
40		0.00
41	Sch Q	0.000
42	COMPOSITE COST OF PURCHASED ENERGY, ¢/kWh (Lines (36 x 39) + (37 x 40) + (38 x 41))	21.800
43	% Input to System kWh Mix	0.02
44	WEIGHTED COMPOSITE PURCHASED ENERGY COST, ¢/kWh (lines (42 x 43))	0.00328
45	BASE PURCHASED ENERGY COMPOSITE COST, ¢/kWh	21.800
46	Base % Input to Sys kWh Mix	0.09
47	WEIGHTED BASE PURCHASED ENERGY COST, ¢/kWh (lines (45 x 46))	0.01962
48	COST LESS BASE (lines (44 - 47))	(0.01634)
49	Loss Factor	1.095
50	Revenue Tax Req Multiplier	1.0975
51	PURCHASED ENERGY FACTOR, ¢/kWh (lines (48 x 49 x 50))	(0.01964)

<u>Line</u>	<u>SYSTEM COMPOSITE CALCULATIONS</u>	
52	GENERATION AND PURCHASED ENERGY FACTOR, ¢/kWh (lines (35 + 51))	(6.09955)
53	Adjustment, ¢/kWh	0.000
54	ECA Reconciliation Adjustment	(0.175)
55	ECA FACTOR, ¢/kWh (lines (52 + 53 + 54))	(6.275)

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

MONTH END FUEL OIL ESTIMATE

	<u>Barrels</u>	<u>MBTU</u>	<u>\$</u>
1/22/2018	8,850.90	50,715.68	834,745.24
Estimated Use	1,292.26	7,404.65	120,979.44
Estimated Received	-	-	-
Estimated Additional	-	-	-
Estimated End	<u>7,558.64</u>	<u>43,311.03</u>	<u>713,765.80</u>

Next Months Expense = \$ 94.4305 /bbl

FUEL OIL INVENTORY PRICE USED FOR FILING

<u>Type of Oil Burned</u>	<u>Price</u>	<u>Prices ¢/MBTU</u>
Diesel	\$ 94.4305 5.73 BTU/BBL	1648.00

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

Contract Prices effective January 1, 2018

<u>TYPE OF OIL BURNED</u>	<u>\$/BBL</u>	<u>¢/MBTU</u>
ULTRA LOW SULFUR DIESEL		
Tax *	2.1232	37.05
Ocean Transportation	1.7264	30.13
Storage	4.6440	81.05
Wharfage	0.2900	5.06

* Tax includes HGET, Hawaii Use Tax, Liquid Fuel Tax, LUST tax, Environmental Response Tax, Customs Duty Fee, Federal Oil Spill Recovery Fee, 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.
Molokai Division
ECA Reconciliation Adjustment

February 2018

1. Amount to be refunded	(\$10,400)
2. Monthly amount (1/3 x Line 1)	(\$3,467)
3. Revenue Tax Divisor	0.91115
4. Total (Line 2 / Line 3)	(\$3,805)
5. Estimated Sales (February 2018)	2,169 mwh
6. Adjustment (Line 4 ÷ Line 5)	-0.175 ¢/kwh

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
2017 FUEL OIL ADJUSTMENT RECONCILIATION SUMMARY
(Thousand \$)**

<u>Line</u>	<u>Description</u>	Without Deadband 4th Quarter <u>YTD Total</u>	collection by <u>company*</u>	Basis for Recon With Deadband 4th Quarter <u>YTD Total</u>	collection by <u>company*</u>
Actual Costs					
1	Generation	\$4,522.9		\$4,522.9	
2	Distributed Generation	\$0.0		\$0.0	
3	Purch Power	<u>\$1.2</u>		<u>\$1.2</u>	
4	Total	\$4,524.1		\$4,524.1	
Fuel Filing Cost					
5	Generation	\$4,586.5		\$4,566.0	
6	Distributed Generation	\$0.0		\$0.0	
7	Purch Power	<u>\$1.2</u>		<u>\$1.2</u>	
8	Total	\$4,587.7		\$4,567.2	
Base Fuel Cost					
9	Generation	\$6,768.4		\$6,768.4	
10	Distributed Generation	\$0.0		\$0.0	
11	Purch Power	<u>\$1.2</u>		<u>\$1.2</u>	
12	Total	\$6,769.6		\$6,769.6	
13	FUEL - BASE COST (Line 8-12)	-\$2,181.9		-\$2,202.4	
14	ACTUAL FOA REVENUE LESS TAX	-\$2,167.7		-\$2,167.7	
15	FOA reconciliation adj for prior years	<u>\$23.7</u>		<u>\$23.7</u>	
16	ADJUSTED FOA LESS TAX	-\$2,191.4		-\$2,191.4	
17	FOA-(FUEL-BASE) (Line 16-13)	-\$9.5		\$11.0	
ADJUSTMENTS					
18	Current year FOA accrual reversal	-\$5.9		-\$5.9	
19	Other prior year FOA	\$0.0		\$0.0	
20	Other	<u>\$0.0</u>		<u>\$0.0</u>	
21	4th QUARTER FOA RECONCILIATION (Lines 17+18+19+20)	-\$15.4	Under	\$5.1	Over
22	3rd QUARTERLY YTD 2017 FOA Reconciliation Recognized in FOA Rates			<u>-\$5.3</u>	Under
23	FOA Reconciliation to be Refunded February 2018 to April 2018 (Line 22- 21)			<u><u>-\$10.4</u></u>	To Be Refunded

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

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
DEADBAND CALCULATION**

Determination of Efficiency Factor to use for Cost-Recovery Purposes
Period: January 1, 2017 through December 31, 2017

	<u>Notes</u>	<u>Jan 1 - Dec 31</u>
<u>Palaau Diesel</u>		
Palaau Diesel Efficiency Factor (TY2009), BTU/kWh	f	11,194
Palaau Diesel Deadband Definition, +/- BTU/kWh	d	50
Palaau Diesel Portion of Recorded Sales, MWh	a	28,194
Palaau Diesel Consumption (Recorded), MMBTU	b	310,762
Palaau Diesel Efficiency Factor (Recorded), BTU/kWh	c = (b/a)*1000	11,022
Lower limit of Palaau Diesel Deadband, BTU/kWh	e = f-d	11,144
Higher limit of Palaau Diesel Deadband, BTU/kWh	g = f+d	11,244
Palaau Diesel Efficiency Factor for cost-recovery, BTU/kWh	h = c, e, or g	11,144

MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
GENERATION FUEL FILING COST AND GENERATION BASE FUEL COST, WITHOUT and WITH DEADBAND
2017

	<u>Without Deadband</u> <u>Jan 1 - Dec 31</u>	<u>With Deadband - AS FILED</u> <u>Jan 1 - Dec 31</u>
<u>DIESEL FUEL FILING COST</u>		
Diesel Portion of Recorded Sales, MWH	28,194	28,194
Diesel Sales Efficiency Factor (mmbtu/kwh)	0.011194	0.011144
Mmbtu adjusted for Sales Efficiency Factor	315,608	314,198
\$/mmbtu	<u>\$14.5323</u>	<u>\$14.5323</u>
TOTAL DIESEL \$000s TO BE RECOVERED	\$4,586.5	\$4,566.0
TOTAL GENERATION FUEL FILING COST, \$000s	\$4,586.5	\$4,566.0
TOTAL GENERATION BASE FUEL COST , \$000s YTD	\$6,768.4	\$6,768.4
TOTAL GENERATION FUEL FILING COST, \$000s YTD	\$4,586.5	\$4,566.0
TOTAL GENERATION BASE FUEL COST, \$000s YTD	\$6,768.4	\$6,768.4

**MAUI ELECTRIC COMPANY, LTD.
MOLOKAI DIVISION
2018 Cumulative Reconciliation Balance**

<u>Month</u>	(1) <u>YTD FOA Reconciliation</u>	<u>Qtr</u>	(2) <u>FOA Rec Adjust 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>
December '17					(533)	(534)	528
January '18					(533)		
February	10,400	(4)	-	10,400	(3,467)		

NOTES:

- Col(1): Quarterly FOA reconciliation amounts. (Refer to Attachment 20)
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))

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

	Rate			Charge (\$) at 400 Kwh		
		01-01-18	02-01-18	01-01-18	02-01-18	Difference
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	26.3468	26.3468	105.39	105.39	0.00
Non-fuel Fuel Energy Charge						
First 250 kWhr per month	¢/kWh	11.4278	11.4278	28.57	28.57	0.00
Next 500 kWhr per month	¢/kWh	14.0778	14.0778	21.12	21.12	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				163.58	163.58	0.00
IRP Refund	% on base	0.000	0.000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	1.5654	1.5654	6.26	6.26	0.00
PBF Surcharge	¢/kWh	0.4244	0.4244	1.70	1.70	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
Energy Cost Adjustment	¢/kWh	-6.300	-6.275	-25.20	-25.10	0.10
Green Infrastructure Fee	\$	1.34	1.34	1.34	1.34	0.00
Avg Residential Bill at 400 kwh				147.68	147.78	

Increase (Decrease -)	0.10
% Change	0.07%

	Rate			Charge (\$) at 500 Kwh		
		01-01-18	02-01-18	01-01-18	02-01-18	Difference
Base Rates	effective date:	08/01/13	08/01/13			
Base Fuel/Energy Charge	¢/kWh	26.3468	26.3468	131.73	131.73	0.00
Non-fuel Fuel Energy Charge						
First 250 kWhr per month	¢/kWh	11.4278	11.4278	28.57	28.57	0.00
Next 500 kWhr per month	¢/kWh	14.0778	14.0778	35.19	35.19	0.00
Customer Charge	\$	8.50	8.50	8.50	8.50	0.00
Total Base Charges				203.99	203.99	0.00
IRP Refund	% on base	0.000	0.000	0.00	0.00	0.00
Revenue Balancing Rate Adjustment	¢/kWh	1.5654	1.5654	7.83	7.83	0.00
PBF Surcharge	¢/kWh	0.4244	0.4244	2.12	2.12	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
Energy Cost Adjustment	¢/kWh	-6.300	-6.275	-31.50	-31.38	0.12
Green Infrastructure Fee	\$	1.34	1.34	1.34	1.34	0.00
Avg Residential Bill at 500 kwh				183.78	183.90	

Increase (Decrease -)	0.12
% Change	0.07%

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

<u>EFFECTIVE DATE</u>	<u>FUEL FACTOR CENTS / KWH RESIDENTIAL & COMMERCIAL</u>	<u>RESIDENTIAL BILL (\$)</u>	
		<u>@ 400 KWH</u>	<u>@ 500 KWH</u>
January 1, 2016	-9.942	133.44	165.99
February 1, 2016	-11.270	128.13	159.35
March 1, 2016	-12.649	122.61	152.45
April 1, 2016	-13.391	118.92	147.82
May 1, 2016	-13.226	120.31	149.57
June 1, 2016	-13.376	118.95	147.87
July 1, 2016	-12.675	122.03	151.76
August 1, 2016	-9.906	133.11	165.61
September 1, 2016	-9.794	133.55	166.17
October 1, 2016	-11.131	128.21	159.48
November 1, 2016	-9.970	132.85	165.29
December 1, 2016	-9.244	135.75	168.92
January 1, 2017	-8.940	137.11	170.58
February 1, 2017	-8.792	137.70	171.32
March 1, 2017	-8.066	140.61	174.95
April 1, 2017	-8.432	138.59	172.43
May 1, 2017	-8.851	137.47	171.02
June 1, 2017	-8.516	139.44	173.49
July 1, 2017	-8.482	138.83	172.76
August 1, 2017	-9.670	134.08	166.82
September 1, 2017	-10.692	129.95	161.66
October 1, 2017	-9.093	136.35	169.65
November 1, 2017	-4.912	153.07	190.56
December 1, 2017	-5.591	150.36	187.16
January 1, 2018	-6.300	147.68	183.78
February 1, 2018	-6.275	147.78	183.90

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

EFFECTIVE DATE	DESCRIPTION OF SURCHARGE	RATE
06/01/11	IRP RECOVERY REFUND	0.000 PERCENT ON BASE
08/01/13	FINAL RATE INCREASE (1.25%), DOCKET NO. 2011-0092 (2012 TEST YEAR	
01/01/16 - 06/30/16	GREEN INFRASTRUCTURE FEE	1.30 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	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	SOLARSAVER ADJUSTMENT	0.0000 CENTS/KWH
06/01/17	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	RESID. PBF SURCHARGE ADJUSTMENT	0.4244 CENTS/KWH
01/01/18	GREEN INFRASTRUCTURE FEE	1.34 DOLLARS/MONTH

~ Surcharges currently in effect are in bold.

~ Base charges include customer charge, demand charge, energy charge, power factor adjustment, voltage discount and minimum charge.