

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION BY THE PUBLIC SERVICE)
COMMISSION OF THE APPLICATION OF THE)
FUEL ADJUSTMENT CLAUSE OF KENTUCKY) CASE NO. 10438
POWER COMPANY FROM NOVEMBER 1, 1986)
TO OCTOBER 31, 1988)

O R D E R

Pursuant to Commission Regulation 807 KAR 5:056, the Commission on December 5, 1988 established this case to review and evaluate the operation of the fuel adjustment clause of Kentucky Power Company ("Kentucky Power") for the 2 years ended October 31, 1988, and to determine the amount of fuel cost that should be transferred (rolled-in) to its base rates to reestablish its fuel adjustment clause charge.

The Attorney General ("AG"), through his Utility and Rate Intervention Division, was the only intervenor in this case. The AG did not present any witnesses, perform any cross-examination, or challenge any evidence or proposals presented by Kentucky Power.

As part of its review, the Commission ordered Kentucky Power to submit certain information concerning, inter alia, its fuel procurement, its fuel usage and the operation of its fuel adjustment clause. Kentucky Power submitted this information on December 21, 1988. A public hearing was held in this case on February 9, 1989, at which Paul Daley, an official of the American

Electric Power Company, and Mitch Thomas, Ed Berginnis and Errol Wagner, Kentucky Power officials, testified.

Kentucky Power proposed that the month of August 1988 be used by the Commission as the base period (test month) for the purpose of arriving at the base fuel cost [F(b)] and the KWH sales [S(b)] components of its fuel adjustment clause. It further proposed that its base fuel cost be changed to 14.28 mills per KWH, the actual fuel cost for the proposed base period. Kentucky Power's current base fuel cost is 17.40 mills per KWH.

In establishing the appropriate level of base fuel cost to be included in Kentucky Power's rates, the Commission must determine whether the proposed base period fuel cost per KWH is representative of the level of fuel cost currently being experienced by Kentucky Power. The Commission's review of generation mix, generation unit outages, and generation unit availability discloses that the month of August 1988 is a reasonably representative generation month for Kentucky Power. Our analysis of Kentucky Power's monthly fuel clause filings shows that the actual fuel cost incurred for the 2-year period in question ranges from a low of 13.50 mills per KWH in October 1988 to a high of 17.97 mills per KWH in May 1987 with an average cost for the period of 15.10 mills per KWH. Based upon this review, the Commission is of the opinion that Kentucky Power has complied with Commission Regulation 807 KAR 5:056 and that the proposed base period fuel cost of 14.28 mills per KWH should be approved.

In implementing a new base period fuel cost, the Commission recognizes that the potential for underrecovery of fuel costs

exists. Kentucky Power bills its customers on a daily cycle basis. Customers are billed only after service is received. The average Kentucky Power customer has a billing period which straddles 2 calendar months. As a result, his monthly bill is partially for usage in the current calendar month and partially for usage in the prior calendar month. As the change in the base period fuel cost will occur during the billing period, not at its beginning, Kentucky Power faces the prospect of assessing its customers a fuel adjustment charge based on an incorrect base period fuel cost for a portion of the billing period.

This problem is compounded by the lag in billing customers for the fuel adjustment clause rate. Each customer incurs a fuel adjustment clause charge with every billing period. Because of the time required to calculate the precise charge for that billing period, however, the charge incurred is not actually billed until two billing periods later.¹

¹ Consider the following example: The new base period fuel cost is established as 14.28 mills per KWH effective for service rendered on and after July 1, 1989. The actual fuel costs for May and June 1989 are 16.50 and 17.00 mills per KWH respectively. Since half of May sales are billed in May and the other half is billed in June, the base fuel cost of 17.40 mills per KWH would apply to both months. Thus the applicable fuel adjustment charge for May would be <0.90> mills per KWH (16.50 - 17.40) and would be recoverable from customers beginning with the first cycle billed July 1989. The recovery of June fuel costs would not be as easily computed since that half of the sales billed in June would be subject to the old base fuel cost of 17.40 mills per KWH and the other half would be subject to the new base fuel cost of 14.28 mills per KWH.

The Commission has faced this problem in prior cases,² and has found that, while no precise solution exists, a reasonable solution is to average the base period fuel cost prior to and after roll-in in computing the fuel adjustment charge for the billing period in which the new base period fuel cost (after roll-in) becomes effective.³ The use of this procedure in the case at bar, the Commission believes, will eliminate any material impact on Kentucky Power and its customers from the roll-in of the fuel cost to base rates.

The Commission, having considered the evidence of record and being advised, finds that:

1. Kentucky Power has complied in all material respects with the provisions of 807 KAR 5:056.

2. The test month of August 1988 should be used as Kentucky Power's base period for this review.

3. Kentucky Power's proposed base period fuel cost of 14.28 mills per KWH should be approved.

4. The establishment of a base fuel cost of 14.28 mills per KWH requires a transfer (roll-in) of <3.12> mills per KWH from the

² See, e.g., Case No. 8058, An Examination By the Public Service Commission of the Application of the Fuel Adjustment Clause of Kentucky Power Company Pursuant to 807 KAR 5:056E, Sections 1(11) and (12).

³ Applying this method to the example presented in note 1, the base fuel cost for June would be the average of the base fuel cost after roll-in of 14.28 mills per KWH and the base fuel cost before roll-in of 17.40, or 15.84. Thus the fuel adjustment charge for June would be 1.16 mills per KWH (17.00 - 15.84) and would be recovered from the customers beginning with the first cycle billed in August.

fuel adjustment clause rate to Kentucky Power's base rates and can best be accomplished by an energy adder to each KWH sold.

5. The rates and charges in Appendix A reflect the transfer (roll-in) to base rates of the differential between the current base fuel cost of 17.40 mills per KWH and the proposed fuel cost of 14.28 mills per KWH.

6. The rates in Appendix A, attached and incorporated hereto, are fair, just, and reasonable and should be approved for service rendered on and after July 1, 1989.

7. The fuel adjustment clause rate for May 1989, which will be billed in July 1989, should be computed using the base fuel cost prior to roll-in of 17.40 mills per KWH.

8. The fuel adjustment clause rate for June 1989, which will be billed in August 1989, should be computed using a base fuel cost of 15.84 mills per KWH, the average of the base fuel costs prior to and after roll-in.

9. The fuel adjustment clause rate for July 1989 and succeeding months should be computed using the base fuel cost of 14.28 mills per KWH.

IT IS THEREFORE ORDERED that:

1. The charges collected by Kentucky Power through the fuel adjustment clause for the period November 1, 1986 through October 31, 1988 be and they hereby are approved.

2. Kentucky Power's proposed base period fuel cost of 14.28 mills per KWH be and it hereby is approved.

3. The rates in Appendix A are fair, just, and reasonable and are approved for service rendered by Kentucky Power on and after July 1, 1989.

4. The current base rate of 17.40 mills per KWH shall be used to compute the fuel adjustment clause rate for May 1989.

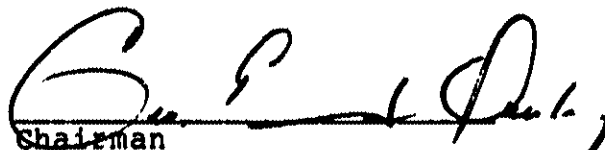
5. The average base fuel cost of 15.84 mills per KWH shall be used to compute the fuel adjustment clause rate for June 1989.

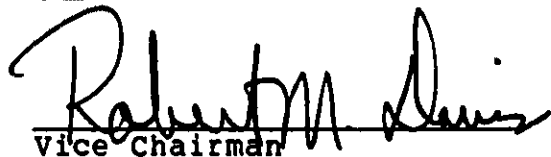
6. The base fuel cost of 14.28 mills per KWH shall be used to compute the fuel adjustment clause rate for July 1989 and succeeding months.

7. Within 30 days from the date of this Order, Kentucky Power shall file with this Commission its revised tariff sheets setting out the rates approved herein.

Done at Frankfort, Kentucky, this 31st day of March, 1989.

PUBLIC SERVICE COMMISSION


Chairman


Vice Chairman


Commissioner

ATTEST:

Executive Director

APPENDIX A
APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 10438 DATED 3/31/89

The following rates and charges are prescribed for the customers in the area served by Kentucky Power Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the effective date of this Order.

TARIFF R. S.
(Residential Service)

RATE:

<u>Service Charge</u>	\$4.25 per month
<u>Energy Charge</u>	
First 500 KWH per month	5.272¢ per KWH
All Over 500 KWH per month	4.541¢ per KWH

TARIFF RS - LM - TOD
(Residential Load Management Time-of-Day
Electric Service Schedule)

RATE:

For the service provided under this Tariff, the rate shall be:

<u>Service Charge:</u>	\$6.75 per month
<u>Energy Charge:</u>	
All KWH used during on-peak billing period	7.278¢ per KWH
All KWH used during off-peak billing period	2.503¢ per KWH

TARIFF G. S.
(General Service)

AVAILABILITY OF SERVICE

Available for general service to customers with normal maximum electrical capacity requirements of not more than 100 KW.

The rates for service at 2.4 KV and above as listed below are available only where the customer furnishes and maintains the complete substation equipment including all transformers and/or other apparatus necessary to take the entire service at the primary voltage of the transmission or distribution line from which service is to be received. The rates set forth in this tariff are based upon the delivery and measurement of energy at the same voltage.

Existing customers not meeting the above criteria will be permitted to continue service under present conditions only for continuous service at the premises occupied on or prior to December 5, 1984.

RATE:

For Capacity Requirements Less Than 5 KW:

Service Charge: \$9.85 per month

Energy Charge:

First 500 KWH per month 6.766¢ per KWH

All over 500 KWH per month 4.028¢ per KWH

Monthly Minimum Charge: \$9.85

For Capacity Requirements of 5 KW and Above:

	<u>Delivery Voltage</u>	
	<u>Below 2.4 KV</u>	<u>2.4 KV and Above</u>
Service Charge per Month:	\$10.80	\$16.20
Demand Charge per KW:	\$1.10	\$1.10
Energy Charge:		
KWH equal to 200 times KW of monthly billing demand	5.530¢	4.977¢
KWH in excess of 200 times KW of monthly billing demand	4.562¢	4.315¢

Monthly Minimum Charge as determined below.

MONTHLY BILLING DEMAND

Billing demand shall be taken monthly to be the highest registration of a 15-minute integrating demand meter or indicator, or the highest registration of a thermal type demand meter. The minimum billing demand shall be 5 KW.

MINIMUM CHARGE

This tariff is subject to a minimum charge equal to the sum of the service charge plus the demand charge multiplied by 5 KW for the demand portion (5 KW and above) of the rate.

Industrial and coal mining customers contracting for 3-phase service after October 1, 1959 shall contract for capacity sufficient to meet their normal maximum demands in KW, but not less than 10 KW. Monthly billing demand of these customers shall not be less than 60 percent of contract capacity and the minimum monthly charge shall be \$4.65 per KW of monthly billing demand, subject to adjustment as determined under the fuel adjustment clause, plus the service charge.

TERM OF CONTRACT

Contracts under this tariff will be required of customers with normal maximum demands of 100 KW or greater, except for three-phase service to industrial and coal mining customers as provided elsewhere in this tariff. Contracts under this tariff will be made for an initial period of not less than 1 year and shall remain in effect thereafter until either party shall give at least 6 months' written notice to the other of the intention to terminate the contract. The Company will have the right to make contracts for periods of longer than 1 year and to require contracts for customers with normal maximum demands of less than 100 KW.

SPECIAL TERMS AND CONDITIONS

This tariff is subject to the Company's Terms and Conditions of Service.

This tariff is also available to customers having other sources of electrical energy supply but who desire to purchase service from the Company. Where such conditions exist, the customer shall contract for the maximum demand in KW which the Company might be required to furnish, but not less than 5 KW. The Company shall not be obligated to supply demands in excess of that contracted for. If the customer's actual demand, as determined by demand meter or indicator, in any month exceeds the amount of his then-existing contract demand, the contract demand shall then be increased automatically to the maximum demand so created by the customer. Where service is supplied under the provisions of this

paragraph, the billing demand each month shall be the contract demand instead of the billing demand defined under paragraph "Monthly Billing Demand" and the minimum charge shall be as follows:

Service Charge	\$10.80 per month
First 5 KW or fraction thereof contract demand	\$22.55 per month
Each KW of contract demand in excess of 5 KW	\$4.56 per month per KW

This tariff is available for resale service to mining and industrial customers who furnish service to customer-owned camps or villages where living quarters are rented to employees and where the customer purchases power at a single point for both his power and camp requirements.

Load Management Time-of-Day Provision

Monthly Rate:

Service Charge: \$3.00 Per Customer Per Month

Energy Charge:

All KWH used during on-peak billing period 7.954¢ per KWH

All KWH used during off-peak billing period 2.987¢ per KWH

SPECIAL TARIFF PROVISION FOR RECREATIONAL LIGHTING SERVICE

Available for service to customers with demands of 5 KW or greater and who own and maintain outdoor lighting facilities and associated equipment utilized at baseball diamonds, football stadiums, parks and other similar recreational areas. This service is available only during the hours between sunset and sunrise.

RATE

Service Charge	\$10.80 per month
Energy Charge	5.536¢ per KWH

TARIFF L. G. S. (Large General Service)

AVAILABILITY OF SERVICE

Available for general service. Customers shall contract for a definite amount of electrical capacity in kilovolt-amperes, which shall be sufficient to meet normal maximum requirements but

in no case shall the capacity contracted for be less than 100 KVA nor more than 1000 KVA. The Company may not be required to supply capacity in excess of that contracted for except by mutual agreement. Contracts will be made in multiples of 25 KVA.

The rates for service at 2.4 KV and above as listed below are available only where the customer furnishes and maintains the complete substation equipment including all transformers and/or other apparatus necessary to take the entire service at the primary voltage of the transmission or distribution line from which service is to be received. The rate set forth in this tariff is based upon the delivery and measurement of energy at the same voltage.

Existing customers not meeting the above criteria will be permitted to continue service under present conditions only for continuous service at the premises occupied on or prior to December 5, 1984.

RATE

	<u>Delivery Voltage</u>		
	<u>Under 2.4 KV</u>	<u>2.4 KV- 12.5 KV</u>	<u>34.5 KV- 69 KV</u>
Service Charge per month	\$85.00	\$127.50	\$535.50
Demand Charge per KVA	\$ 2.89	\$ 2.89	\$ 2.89
Energy Charge per KWH	4.017¢	3.324¢	2.775¢

This tariff is also available to customers having other sources of energy supply but who desire to purchase service from the Company. Where such conditions exist, the monthly billing demand shall not be less than the customer's contract capacity.

TARIFF Q.P.
(Quantity Power)

AVAILABILITY OF SERVICE

Available for power service. Customers shall contract for a definite amount of electrical capacity in kilowatts which shall be sufficient to meet normal maximum requirements, but in no case shall the capacity contracted for be less than 1,000 KW. The Company may not be required to supply capacity in excess of that contracted for except by mutual agreement. Contracts will be made in multiples of 100 KW.

The customer shall own, operate and maintain equipment, including all transformers, and other apparatus necessary for receiving and purchasing electric energy at the voltage of the transmission or distribution line from which service is delivered.

The rate set forth in this tariff is based upon the delivery and measurement of energy at the same voltage.

RATE

	<u>Delivery Voltage</u>		
	<u>2.4 KV-</u> <u>12.5 KV</u>	<u>34.5 KV-</u> <u>69 KV</u>	<u>Above</u> <u>69 KV</u>
Service Charge per month	\$276.00	\$662.00	\$1,353.00
Demand Charge per KVA	\$ 9.37	\$ 8.53	\$ 7.90
Energy Charge per KWH	1.553¢	1.512¢	1.491¢

Reactive Demand Charge:

For each kilovar of lagging reactive demand in excess of 50% of the KW of monthly billing demand \$.54 per KVAR

MONTHLY BILLING DEMAND

The billing demand in KW shall be taken each month as the highest single 15-minute integrated peak in KW as registered during the month by a demand meter or indicator or, at the Company's option, as the highest registration of a thermal type demand meter or indicator. The billing demand shall in no event be less than 60 percent of the contract capacity of the customer, nor less than 1,000 KW.

The reactive demand in KVARs shall be taken each month as the highest single 15-minute integrated peak in KVARs as registered during the month by a demand meter or indicator or, at the Company's option, as the highest registration of a thermal type demand meter or indicator.

MINIMUM CHARGE

This tariff is subject to a minimum monthly charge equal to the sum of the service charge and the demand charge multiplied by the monthly billing demand.

TARIFF O. L.
(Outdoor Lighting)

AVAILABILITY OF SERVICE

Available for outdoor lighting to individual customers in locations where municipal street lighting is not applicable.

MONTHLY RATE

A. OVERHEAD LIGHTING SERVICE

- High Pressure Sodium
100 watts (9,500 Lumens) \$5.29 per lamp
200 watts (22,000 Lumens) \$7.92 per lamp

2. Mercury Vapor*

175 watts (7,000 Lumens)	\$5.01 per lamp
250 watts (11,000 Lumens)	\$6.64 per lamp
400 watts (20,000 Lumens)	\$8.26 per lamp

3. Incandescent*

189 watts (2,500 Lumens)	\$5.08 per lamp
--------------------------	-----------------

Company will provide lamp, photo-electric relay control equipment, luminaire and upsweep arm not over six feet in length, and will mount same on an existing pole carrying secondary circuits.

B. POST-TOP LIGHTING SERVICE

1. Mercury Vapor*

175 watts (7,000 Lumens) on 12-foot post	\$5.84 per lamp
---	-----------------

2. High Pressure Sodium

100 watts (9,500 Lumens) on 12-foot post	\$9.21 per lamp
---	-----------------

Company will provide lamp, photo-electric relay control equipment, luminaire, post, and installation including underground wiring for a distance of thirty feet from the Company's existing secondary circuits.

C. FLOODLIGHTING SERVICE

1. High Pressure Sodium

200 watts (22,000 Lumens)	\$ 9.26 per lamp
400 watts (50,000 Lumens)	\$12.64 per lamp

Company will provide lamp, photo-electric relay control equipment, luminaire, mounting bracket, and mount same on an existing pole carrying secondary circuits.

When new or additional facilities, other than those specified in paragraph A, B, and C, are to be installed by the Company, the customer, in addition to the monthly charges, shall pay in advance the installation cost (labor and material) of such additional facilities.

*These lamps are not available for new installations.

TARIFF S. L.
(Street Lighting)

AVAILABILITY OF SERVICE

Available for lighting service for all the lighting of public streets, public highways and other public outdoor areas in municipalities, counties and other governmental subdivisions where such service can be supplied from the existing general distribution systems.

MONTHLY RATE:

A. Overhead Service on Existing Distribution Poles

1. Mercury Vapor

100 Watts (3,500 Lumens)	\$3.29 per lamp
175 Watts (7,000 Lumens)	\$4.11 per lamp
250 Watts (11,000 Lumens)	\$5.21 per lamp
400 Watts (20,000 Lumens)	\$6.10 per lamp
700 Watts (30,000 Lumens)	\$8.91 per lamp
1,000 Watts (50,000 Lumens)	\$10.67 per lamp
4,000 Watts (4-50,000 Lumens)	\$27.50 per lamp
Lights on One Pole	

2. High Pressure Sodium

70 Watts (5,800 Lumens)	\$4.06 per lamp
100 Watts (9,500 Lumens)	\$4.52 per lamp
150 Watts (16,000 Lumens)	\$5.04 per lamp
200 Watts (22,000 Lumens)	\$5.82 per lamp
400 Watts (50,000 Lumens)	\$7.97 per lamp

B. Overhead Service on Existing Special Metal or Concrete Poles - "Whiteway"

1. Mercury Vapor

400 Watts (20,000 Lumens)	\$8.53 per lamp
700 Watts (30,000 Lumens)	\$11.83 per lamp
1,000 Watts (50,000 Lumens)	\$13.58 per lamp

C. Underground Service on Existing Special Metal Pole - Post Top

1. Mercury Vapor

175 Watts (7,000 Lumens)	\$4.11 per lamp
--------------------------	-----------------

D. Service on New Wood Distribution Poles

1. High Pressure Sodium

70 Watts (5,800 Lumens)	\$6.76 per lamp
100 Watts (9,500 Lumens)	\$7.21 per lamp
150 Watts (16,000 Lumens)	\$7.75 per lamp
200 Watts (22,000 Lumens)	\$9.10 per lamp
400 Watts (50,000 Lumens)	\$11.26 per lamp

E. Service on New Metal or Concrete Poles

1. High Pressure Sodium

70 Watts (5,800 Lumens)	\$14.15 per lamp
100 Watts (9,500 Lumens)	\$14.61 per lamp
150 Watts (16,000 Lumens)	\$15.14 per lamp
200 Watts (22,000 Lumens)	\$19.24 per lamp
400 Watts (50,000 Lumens)	\$19.90 per lamp

TARIFF M. W.
(Municipal Waterworks)

AVAILABILITY OF SERVICE

Available only to incorporated cities and towns and authorized water districts and to utility companies operating under the jurisdiction of Public Service Commission of Kentucky for the supply of electric energy to waterworks systems and sewage disposal systems served under this tariff on September 1, 1982, and only for continuous service at the premises occupied by the customer on that date. If service hereunder is discontinued, it shall not again be available.

Customer shall contract with the Company for a reservation in capacity in kilovolt-amperes sufficient to meet with the maximum load which the Company may be required to furnish.

RATE

Service Charge \$22.90 per month

Energy Charge:

All KWH used per month 4.414¢ per KWH

MINIMUM CHARGE

This tariff is subject to a minimum monthly charge equal to the sum of the service charge plus \$2.88 per KVA as determined from customer's total connected load. The minimum monthly charge shall be subject to adjustments as determined under the Fuel Adjustment Clause.

SPECIAL TERMS AND CONDITIONS

This tariff is subject to the Company's Terms and Conditions of Service.

This tariff is not available to customers having other sources of energy supply.

TARIFF C.I.P. - T.O.D.
(Commercial and Industrial Power - Time-of-Day)

RATE:

	<u>Delivery Voltage</u>		
	<u>2.4 KV- 12.5 KV</u>	<u>34.5 KV- 69 KV</u>	<u>Above 69 KV</u>
Service Charge per month	\$276.00	\$662.00	\$1,353.00
Demand Charge per KW:			
On-Peak	\$8.52	\$7.78	\$7.27
Off-Peak	\$2.00	\$1.22	\$1.07
Energy Charge per KWH	1.553¢	1.512¢	1.491¢
Reactive Demand Charge:			
For each KVAR of reactive demand in excess of 50 percent of the monthly on-peak or off-peak billing demands			\$.56 per KVAR

TARIFF I. R. P.
(Interruptible Power)

AVAILABILITY OF SERVICE

Available to industrial customers whose plants are located adjacent to existing transmission lines of the Company when the Company has sufficient capacity in generating stations and other facilities to supply the customer's requirements. The Company reserves the right to specify the times at which deliveries hereunder shall commence.

The customer shall contract for a definite amount of electrical capacity which shall be sufficient to meet his normal maximum requirements and the Company shall not be required to supply capacity in excess of that contracted for except by mutual agreement. Contracts hereunder will be made for minimum capacities of 5,000 KW.

The rates set forth in this tariff are based upon the delivery and measurement of energy as the same voltage. Company shall determine and advise customer which of its lines will be utilized to deliver service hereunder and shall specify the voltage thereof.

The customer shall own, operate, and maintain equipment, including all transformers, switches and other apparatus necessary for receiving and purchasing electric energy at the voltage of the transmission or distribution line from which service is delivered.

RATE

	<u>DELIVERY VOLTAGE</u>	
	<u>34.5 KV- 69 KV</u>	<u>ABOVE 69 KV</u>
Service Charge per month	\$662.00	\$1,353.00
Demand Charge per KW	\$ 7.25	\$ 6.72
Energy Charge per KWH	1.512¢	1.491¢

Reactive Demand Charge

For each KVAR of reactive demand in excess of 50 percent of the KW of monthly billing demand \$.54 per KVAR

MONTHLY BILLING DEMAND

The billing demand in KW shall be taken each month as the highest 15-minute integrated peak in KW as registered during the month by a demand meter or indicator or, at the Company's option, as the highest registration of a thermal type demand meter or indicator. The billing demand shall not be less than 60 percent of the contract capacity of the customer, nor less than 5,000 KW.

The reactive demand in KVARS shall be taken each month as the highest single 15-minute integrated peak in KVARS as registered during the month by a demand meter or indicator or, at the Company's option, as the highest registration of a thermal type demand meter or indicator.

MINIMUM CHARGE

This tariff is subject to a minimum monthly charge equal to the sum of the service charge and the demand charge multiplied by the monthly billing demand.