COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

GENERAL ADJUSTMENT OF ELECTRIC RATES OF KENTUCKY UTILITIES COMPANY) CASE NO. 8177

O R D E R

On March 23, 1981, Kentucky Utilities Company ("KU") filed an application with this Commission requesting authority to increase its rates for electric service effective on and after April 13, 1981. The proposed rates would produce an additional \$39.3 million annually, an increase of 12.4% based on test year revenue derived from Kentucky jurisdictional sales. In addition to the requested permanent rate increase KU filed a motion pursuant to KRS 278.190(2) requesting an interim increase of \$29.2 million.

Motions to intervene were filed by the Division of Consumer Protection (formerly the Consumer Intervention Division) in the Department of Law ("Attorney General"), Clopay Corporation ("Clopay"), Black River Lime Company ("Black River") and Green River Steel Corporation, and sustained by the Commission.

A hearing was held on April 28, 1981, at the Commission's offices in Frankfort, Kentucky, for the purpose of cross examination of KU's witnesses with respect to the proposed interim rate increase. No testimony was filed by the intervenors in opposition to the proposed interim rate increase.

On May 1, 1981, the Commission issued an Order which found that an emergency existed with regard to KU's financial condition and granted interim rate relief of $13 million annually. The emergency increase was granted in the form of a surcharge and was collected subject to refund, pending the final determination in this matter.

Hearings on the permanent rate relief were conducted on June 21 and 22, 1981, at the Commission's offices in Frankfort, Kentucky. Oral arguments were held on August 10, 1981. KU has responded to numerous requests for additional information, and the matter is now before the Commission for final determination.

COMMENTARY

KU is an investor-owned electric utility, incorporated under Kentucky law, serving approximately 332,000 retail consumers in 78 counties within the Commonwealth of Kentucky. It also provides electric service to 12 wholesale customers under rates approved by the Federal Energy Regulatory Commission.

KU has been going through a difficult period. As testimony in this case has brought out, KU barely earned its common stock dividend in 1977, and failed to earn the dividend in 1978 and 1980. Moreover, KU witness Newton stated that, "For 1981, even with the ERC rates fully annualized, earnings are projected to continue well below the dividend rate." And in that same testimony, Mr. Newton added, "The Company's earned return on common equity for this year is projected to be 7.2%." 1/

Further, pre-tax earnings were 2.16 times fixed charges in 1980, down from 2.83 in 1979, and from 3.26 in 1976. In April of this year Standard & Poor's Corporation lowered its ratings on KU's first mortgage bonds and collateralized pollution control revenue bonds to "A+" from "AA" and preferred stock to "A-" from "A", and there is reason to believe that Moody's has its ratings of KU's securities under review.

Finally, at December 31, 1980, debt was approximately 56% of capitalization, and common equity was only 32% of total capital. This relatively high-leverage capital structure was a factor in Standard & Poor's decision to lower its ratings on KU's securities. Moreover, in order to increase the percentage of equity in its capital structure, which it must do in order to prevent further lowering of the ratings on its securities, KU will have to sell a considerable number of shares of common stock in the next several years.

KU witness Newton offered an explanation for these developments:

1/ Newton Interim testimony, p. 4

> The Company's present ill health, its deficient earnings, lost credit rating, and curtailment of necessary construction, are a consequence of a decade of regulation which can only be characterized as politically motivated expediency.

He also believed he had the solution:

> . . . the obligation to deal with the problem responsibly, to enable our Company to earn and compete for funds as any other business at the most reasonable cost to our customers, lies squarely with this Commission. 2/

The Commission believes that neither the sources of the problems facing KU nor the solutions to those difficulties are as simple as Mr. Newton would have us believe. The Commission is concerned that adherence to the facile explanation and solution offered by Mr. Newton will divert KU from thorough self-assessment and decisions, concerning its current difficulties and future course, which will lead to financial stability, and which are the very essence of the managerial function and responsibility.

A more credible explanation for the current financial condition of KU appears in the testimony of KU witness Tipton, who, in discussing Ghent Units 3 and 4 stated, "Their cost has also been the primary burden upon the Company's recent financial health. . . ." 3/ In the opinion of this Commission, Mr. Tipton's assessment is correct. Ghent Unit 3, which was placed in commercial operation the end of

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2/ Transcript of evidence, April 28, 1981, p. 16.

3/ Tipton testimony, p. 6.

May of this year, and Ghent Unit 4, which currently is scheduled for commercial operation in October 1984, represent a 46% increase in the generating capacity of KU. Such an ambitious construction program on a relatively small base, during a period when interest rates have been at unprecedented levels, has brought about the current financial condition of KU.

What is to be done? In seeking an answer to that question, two things are certain: First, this Commission, KU, and its customers each has a responsibility in this undertaking. And second, KU has an opportunity to improve its financial stability. How it responds to this opportunity will influence the condition of KU for some time to come.

The Commission takes cognizance of the recent history and outlook for construction expenditures by KU. Exhibits filed in this case show that construction expenditures reached a peak in 1980 of $168.9 million, and will decline for the next several years to $89.2 million in 1983. This decline in construction expenditures, coupled with an increase in the percentage of construction funded from internally generated sources, will afford KU the opportunity to improve its financial stability to which we referred. 4/

But the same exhibits filed in this case show that after several years of decline in construction expenditures, those

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4/ Kentucky Utilities Company Annual Reports, 1979 and 1980. Tipton Exhibits 2 and 3.

expenditures are projected to rise, commencing in 1984, as KU proceeds with the Hancock plant. This Commission believes that if KU pursues the Hancock facility, without the most thorough search for and evaluation of alternatives, KU management will not have executed its responsibility, and certainly will not be justified, a decade from now, holding this Commission responsible for its financial condition.

What are some of the alternatives to the Hancock facility? Throughout the United States there is increasing recognition that load management is an alternative to added generating capacity, and this Commission notes that KU's relatively low load factor -- indicated to have been 57.2% in 1980, down from approximately 60% in 1979 and 1978, and from 61.2% in 1977 5/ -- makes load management efforts all the more appropriate.

Another alternative to added generating capacity is purchases from other utilities. The Commission believes that KU's load factor and the comfortable reserve margin experienced by many electric utilities -- should that reserve margin continue -- make purchases an alternative worth careful consideration.

And another alternative to additional capacity is conservation. Here we do not mean conservation which

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5/ Kentucky Utilities Company Annual Report, 1980.

relies on exhortations to customers to conserve, and assurances that KU favors efforts to reduce consumption of electric energy. We have in mind an aggressive conservation program, which sees expenditures on conservation not as an unfortunate necessity or misguided effort, but rather as an investment, and as such an alternative to investment in added generating capacity. We have in mind the sort of energy conservation program undertaken by Pacific Power & Light and the Tennessee Valley Authority.

We wish to make a final comment. In spite of the many disagreements among the participants in this case, we believe there would be agreement on one point: over the past decade or so the electric power industry in this country has changed fundamentally. The obvious corollary is that, in order to be relevant, solutions to the problems which the industry faces today, and will face tomorrow, also must be fundamentally different from the old solutions. That is the essence of the managerial problem and responsibility. When, however, as in this case, we are told that KU proposes to continue a rate design which has " . . . not been changed, to the best of my knowledge, since sometime prior to the forties," 6/ we wonder about the likelihood of fundamentally different solutions. Moreover, when

6/ Transcript of Evidence, July 21, 1981, p. 168.

we are told that the declining block rate structure proposed in this case "should encourage our customers to conserve energy," 7/ we have even more concern.

In his concluding remarks, counsel for KU stated, "We are interested in a solution [to KU's current financial condition]. Solutions are hard for difficult problems." 8/ This Commission agrees completely with counsel; pledges its full cooperation; and looks forward to joint search for relevant solutions.

TEST PERIOD

KU proposed two test periods in this matter. It submitted the historical test period ending December 31, 1980, with adjustments as the basis for determining its revenue requirements. The projected test period ending September 30, 1982, was presented to reflect the effect of the proposed rates on operations for the first full 12-month period after the rates are approved.

In accordance with past procedure the Commission will adopt the historical test period for the purpose of determining the reasonableness of the proposed rates. In utilizing the historical test period the Commission has included adjustments found to be known and measurable to reflect more current operating conditions.

7/ Bechanan testimony, p. 8.

8/ Transcript of Evidence, August 10, 1981, p. 102.

The Commission concludes that the projected test period ending September 30, 1982, should not be used for rate-making purposes in this case. The Commission specifically requested explanations of all calculations and assumptions used to arrive at the projected test year results. KU supplied a 600-page response which consisted primarily of computer printouts showing projected revenue by individual substation. Operating expenses and other income were projected based on budgeted estimates. However, KU did not provide detailed explanations of the calculations and the underlying assumptions essential to the complete evaluation of the data contained in the printouts. Without this information such printouts are of little or no value.

In brief, the projected test year proposed by KU is nothing more than budgeted estimates of future operations, which are insufficiently supported by the evidence of record herein. Therefore, the Commission rejects the future test year proposed by KU.

VALUATION

KU presented the net original cost, capital structure, and reproduction cost as the valuation methods in this case. The net original cost and capital structure were presented as of December 31, 1980, and September 30, 1982. For the reasons previously stated, the Commission will not consider the latter.

The Commission has given due consideration to these and other elements of value in determining the reasonableness of the proposed rates and charges. As in the past, the Commission has given limited consideration to the proposed reproduction cost.

Net Original Cost

KU proposed in Newton Exhibit 1 a total company net original cost rate base of $881,664,070 as of December 31, 1980. All elements of the net original cost were allocated to the Kentucky jurisdiction at a rate of 84.47% with the exception of working capital which was allocated at 84.61%. This allocation resulted in a net original cost for the Kentucky jurisdiction of $744,775,326.

The Commission has accepted the proposed net original cost with minor modifications. The allowance for working capital has been adjusted to include the pro forma level of operating expenses allowed, and the reserve for depreciation has been adjusted to include the allowed pro forma adjustment to depreciation expense. The Kentucky jurisdictional net original cost rate base is determined by the Commission to be as follows:

Plant in Service	$ 770,096,779
Construction Work in Progress	255,038,192
Total Utility Plant	$1,025,134,971
Add:	
Materials and Supplies	$ 6,752,134
Fuel Inventory	51,246,681

Prepayments	348,790
Working Capital	20,951,922
Sub-total	$ 79,299,527

Less:

Reserve for Depreciation	$ 238,548,469
Reserve for Deferred Taxes	76,794,530
Reserve for Investment Tax Credit	43,759,983
Customer Advances for Construction	1,044,215
Sub-total	$ 360,147,197
Net Original Cost	$ 744,287,301

Capital Structure

The Commission has determined that KU's combined and jurisdictional capital structure at the end of the test period is as follows:

	Total Company (thousands)	%	Kentucky Jurisdiction (thousands)	%
Common Equity	$ 283,935	31.9	$ 228,031	31.4
Preferred Stock	110,000	12.3	90,421	12.4
Long Term Debt	455,398	51.1	374,344	51.5
Short Term Debt	41,735	4.7	34,307	4.7
Total	$ 891,068	100.0	$ 727,103	100.0

In determining the capital allocated to the Kentucky jurisdiction the Commission has reduced the total company common stock equity by $6,529,803 to exclude the equity in subsidiary earnings and by $7,450,161 related to other investments which include Old Dominion Power Company, Electric Energy, Inc., Ohio Valley Electric Corporation and miscellaneous investments. The allocation of other investments to the remaining components of the capital structure resulted in reductions in preferred stock of $2,954,229; in long term debt of $12,230,466; and in short term debt of $1,120,861. The remaining capital was then allocated based on the ratio of the total Kentucky jurisdictional utility plant to total company utility plant resulting in Kentucky jurisdictional capital of $727,103,189.

Reproduction Cost

KU presented the net current cost rate base in Newton Exhibit 3. In determining the current or reproduction cost rate base KU estimated the present value of utility plant and construction work in progress at the end of the test year and applied the additions and deductions as proposed in the net original cost rate base. The resulting total reproduction cost is $1,807,622,718. The Kentucky jurisdictional portion of the reproduction cost, using an allocation factor of 84.47% would be $1,526,898,909.

REVENUES AND EXPENSES

In Newton Exhibit 4, KU proposed pro forma adjustments to reflect current and anticipated operating conditions. The Commission has accepted the pro forma adjustments to revenue to reflect the normalization of revenue based on the rates granted in Case Number 7804 effective October 1, 1980, and the additional revenue from sales based on the year-end level of consumers. The concurrent adjustment to operating expenses to reflect the year-end level of consumers has likewise been accepted. The adjustments to exclude local franchise fees from operating expenses and to reflect the additional costs associated with the federal Public Utility Regulatory Policies Act of 1978 have also been accepted as proposed by KU.

KU proposed an adjustment to increase depreciation expense by $1,638,204 annually, including $1,080,543 of additional expense based on the level of plant in service at the end of the test period and $557,661 in additional depreciation based on the equal life group (ELG) depreciation method. KU offered testimony that it has an application pending with the Federal Energy Regulatory Commission ("FERC") in which the same ELG rates have been proposed.

Since this Commission has adopted the FERC Uniform System of Accounts Prescribed for Public Utilities and Licensees, it will defer action on KU's requested depreciation adjustment until resolution of the pending FERC rate case. If the FERC permits use of the ELG procedure, the Commission will permit KU to file new tariff charges on 20-days' notice as a part of this proceeding. In such filing KU shall submit:

1. A schedule showing the revisions made by FERC to its proposed depreciation rates.

2. Evidence that KU's financial position will be impaired if it is not permitted to put the new tariff charges into effect.

The Commission has, therefore, reduced the proposed adjustment to depreciation expense by $557,661 to exclude the depreciation based on the presently unauthorized ELG depreciation rates.

The Commission has increased the proposed adjustment to labor and related costs by $77,761 to recognize the full impact of the August 1, 1981, wage increase. In calculating this adjustment, the Commission has applied this wage increase to the normalized test year wages.

KU proposed an adjustment to reflect increased property tax expense based on the value of plant in service at the end of the test year. This adjustment has been decreased by $10,731 to reflect the current state real estate tax rate.

KU proposed adjustments to federal and state income tax expense to reflect the effects of the pro forma adjustments and the annualized interest expense based on the test year end capitalization. The Commission has modified income tax expense to include the allowed expense adjustments and an adjusted cost rate of 15% on short-term debt.

Based on the aforesaid adjustments, KU's Kentucky jurisdictional operating statement is as follows:

	Actual 12/31/80	Pro forma Adjustments	Adjusted
Operating Revenues	$297,049,151	$23,290,244	$320,339,395
Operating Expenses	240,173,965	9,656,335	249,830,300
Net Operating Income	$ 56,875,186	$13,633,909	$ 70,509,095

RATE OF RETURN

The Commission has determined that the adjusted end-of-period earnings of KU are as follows:

Net Operating Income		$70,509,095
Less:		
Preferred Stock @ 8.28%	$ 7,486,905	
Long Term Debt @ 9.62%	36,011,896	
Short Term Debt @ 15.00%	5,146,014	
		48,644,815
Balance for Common Equity		21,864,280
Return on Common Equity		9.58%

KU requested a rate of return on Kentucky jurisdictional capital of 12.22% based on a requested return on common equity of 17% and actual end of test year capital structure 9/ and embedded capital costs. The Attorney General's witness, Mr. Johnson, recommended an overall rate of return on capital in the range of 10.97% to 11.76% with a "best estimate" of 11.29%. 10/ The Commission is of the opinion that a return of 12.22% is excessive in this instance and should not be allowed. In determining a fair rate of return, the Commission has considered KU's capital and capital structure and its

9/ Newton exhibit 6, p. 1.

10/ Johnson testimony, pp. 95-96.

cost of debt, preferred stock and common equity.

KU proposed to use the embedded cost of preferred stock of 8.28%, the embedded cost of long-term debt of 9.62%, and the end of year cost of short-term debt of 19.25%. 11/ It estimated cost rates as of September 30, 1982, of 9.33% for preferred stock, 9.74% for long-term debt, and 14.0% for short-term debt. 12/ Mr. Johnson recommended a short-term debt cost rate of 16%. 13/ The Commission notes that interest rates on 90-day commercial paper averaged 14.8% for the year ended July 1981. 14/ Having considered current costs and trends, the Commission accepts the preferred stock rate of 8.28% and the long-term debt rate of 9.62% and establishes a short-term debt rate of 15.0%.

KU presented three witnesses, Mr. Mount, Mr. Newton and Dr. Haywood, to support its requested rate of return on common equity of 17%. Mr. Mount arrived at his conclusion that an appropriate rate of return on common equity is no less than 17% by considering achieved equity returns for eight electric companies, discounted cash flow analyses of the same electric companies which indicated returns of 16.9%

11/ Newton exhibit 6, p. 1.

12/ Newton exhibit 6, pp. 2-4.

13/ Johnson testimony, p. 53.

14/ Average of monthly rates for 12 months ended July 1981, Federal Reserve Statistical Release.

and 17.4%, and achieved equity returns for Standard and Poor's 400 Industrials. 15/ Mr. Newton used the prime interest rate and the rate of attrition in KU's forecasted test year rate of return to estimate a 17% cost rate for the historical test year. 16/ Dr. Haywood's discounted cash flow analysis indicated a range of 17.36% to 17.86%. 17/ He maintained that KU needed to achieve a rate of return of at least 13.2% and suggested a four to five percentage point allowance for attrition. 18/ KU's forecasted test year rate of return showed a decline of only two percentage points to 15% on the historical test year with proposed adjustments. 19/ Mr. Johnson estimated the cost of common equity at 13.5% to 14.5% using a comparable earnings analysis of other utilities and industrial firms. 20/ His market analysis, which emphasized the discounted cash flow approach and earnings/price ratios, resulted in a range of 14% to 16%. 21/ Mr. Johnson suggested a "best estimate" of 14.5%. 22/

15/ Mount testimony, pp. 38-40.

16/ Newton testimony, pp. 15-16.

17/ Haywood testimony, pp. 10-11.

18/ Haywood testimony, pp. 13-14.

19/ Newton testimony, p. 8.

20/ Johnson testimony, p. 66.

21/ Johnson testimony, p. 90.

22/ Johnson testimony, p. 96.

The Commission is of the opinion that a range of returns on equity of 14.5% to 16.0% is fair, just and reasonable. The Commission has determined that a return on equity in this range would not only allow KU to attract capital at reasonable costs to insure continued service and provide for necessary expansion to meet future requirements, but also would result in the lowest possible cost to the ratepayer. Considering current economic conditions and KU's substantial capital requirements, the Commission finds that a return on common equity at the top of this range of 16% will allow KU to attain the above objectives. Applying cost rates of 16% for common equity, 8.28% for preferred stock, 9.62% for long-term debt, and 15.0% for short-term debt to the capital structure approved herein produces an overall cost of capital of 11.71%.

Considering its Kentucky jurisdictional capitalization KU needs additional annual operating income of $14,620,652 to produce a rate of return on common equity of 16% based on the adjusted historical test period. After the provision for state and federal income taxes of $14,182,839, there is an overall revenue deficiency of $28,803,491. The net operating income required to allow KU the opportunity to pay its operating expenses and fixed costs and have a reasonable amount available for equity growth is $85,129,747. Therefore, the Commission finds that KU should be allowed to increase its rates to produce additional annual revenue in the amount of $28,803,491. This additional revenue will result in gross operating revenue, based on the adjusted test year of $349,142,886, including other operating revenue of $1,501,289. The rates in Appendix A are designed to produce revenue from sales in the amount of $347,641,597 based on the adjusted test year sales to Kentucky jurisdictional consumers.

The additional revenue granted herein will provide a rate of return on the net original cost established herein of 11.44% and an overall return on total capitalization of 11.71%.

OTHER ISSUES

Revenue Allocation and Rate Design

KU proposed to allocate any revenue increase by applying the percent increase required to offset a revenue deficiency to each rate classification. Within each rate class, each energy step is increased by the same amount per kilowatt hour. The Attorney General did not propose an alternative method of revenue allocation or any rate design changes. Black River and Clopay supported KU's proposed revenue allocation method.

KU proposed to re-index its fuel clause to 15.33 mills/KWH. This required an increase in existing rates of 3.04 mills/KWH to produce the same revenues. KU made these changes in the tariffs filed following the Order granting an interim increase in this case. The rates in Appendix A have incorporated these changes.

KU's rate design has remained basically the same for many years. 23/ Changing conditions in the electric power industry in recent years create the probability that a historical rate structure may no longer be appropriate. KU argued and the Commission agrees, however, that the proper place to consider fundamental changes in rate design is Administrative Case No. 203, Electric Utility Rate Structures, presently pending before the Commission.

Price Elasticity

KU proposed an adjustment to reflect an additional revenue deficiency of $3,744,954 because of price elasticity. In determining this adjustment, it used an elasticity coefficient of -.15 which, when applied to the overall 11.4% proposed increase in rates, resulted in an estimated 1.68% reduction in total kilowatt hour sales. It contended that in the electric utility industry KWH consumption is affected by variables such as per capita income, heating and cooling degree days, price, substitute sources of energy, and appliance saturation; and that of the elasticities used to determine how much KWH consumption changes when the variables

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23/ Transcript of Evidence, July 21, 1981, p. 168.

change "the most common of these has proven to be price elasticity." 24/

Mr. Johnson opposed the price elasticity adjustment because of the method used to select the elasticity factor and the lack of consideration of variables other than price affecting electric sales. This witness agreed, however, that price elasticity exists and that it could be measured to some extent with a properly constructed model including variables specific to KU's service area. In order to use such a study, the Commission would have to accept estimates of the future values of variables influencing demand.

The Commission is of the opinion and finds that the price elasticity adjustment is not in the public interest and it is hereby denied. A price elasticity adjustment has the effect of increasing rates by some additional amount, to compensate for a reduction in usage, which is a response by consumers to the initial increase in rates. This reduction in usage is a rational response on the part of consumers to an increase in price, and furthers the objective of conservation, which the Commission endorses. Further, to grant a price elasticity adjustment would have the effect of shifting risk from KU shareholders to KU customers, and any such shift should be accompanied by an appropriate reduction in the allowed return on equity.

24/ Hewitt testimony, page 5.

SUMMARY

The Commission is of the opinion and finds that the rates in Appendix A attached hereto and made a part hereof, are the fair, just and reasonable rates for Kentucky Utilities Company which should produce gross annual revenue, based on adjusted test year sales, of approximately $347,641,597. The Commission further finds that the rates of return granted herein are fair, just and reasonable and will provide for the financial obligations of the utility with a reasonable amount remaining for equity growth.

IT IS THEREFORE ORDERED that the rates and charges in Appendix A, attached hereto and made a part hereof, are fair, just and reasonable and are approved for service rendered on and after September 13, 1981.

IT IS FURTHER ORDERED that the rates and charges proposed by Kentucky Utilities Company are unfair, unjust and unreasonable in that they produce revenue in excess of that found fair, just and reasonable herein and are hereby denied.

IT IS FURTHER ORDERED that Kentucky Utilities Company shall file with the Commission within 30 days from the date of this Order its revised tariff sheets setting out the rates approved herein.

IT IS FURTHER ORDERED that Kentucky Utilities Company shall file with the Commission within 30 days from the date of this Order its long-range plans which discuss projected load growth, additions to generating capacity, and future capital requirements.

Done at Frankfort, Kentucky, this 11th day of September, 1981.

PUBLIC SERVICE COMMISSION

Marlin M. Volz
Chairman

Katherine Randall
Vice Chairman

Linda Carrigan
Commissioner

ATTEST:

Secretary

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 8177 DATED SEPTEMBER 11, 1981

The following rates and charges are prescribed for the customers in the area served by Kentucky Utilities 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 date of this Order.

RS-1 and RS-5 Residential, Rural and Farm Residential Service*

$1.83 per month to include 16 KWH used per month
8.538 cents per KWH for the next 34 KWH used per month
6.358 cents per KWH for the next 50 KWH used per month
4.997 cents per KWH for the next 100 KWH used per month
4.756 cents per KWH for the next 200 KWH used per month
4.348 cents per KWH for all in excess of 400 KWH used per month
3.324 cents per KWH for all off-peak water heating

Minimum Bill: $1.83 per month for single phase service or $6.83 per month for three phase service, for all ordinary residential uses. Additional 82¢ per connected HP per month when special equipment, greater than normal investment, abnormal or seasonal use involved.

FERS-1 and FERS-5 (Full Electric Residential Service) Supplement to RS-1 and RS-5*

Rate Schedule RS-1 and RS-5 shall remain in effect the first 1000 KWH used each month. All KWH used in excess of 1000 per month (excluding off-peak water heating use) shall be billed @3.899¢ per KWH. Minimum charge as set out in RS-1 but not less than $6.83 per month.

GS-1 and GS-5 General Service*

$4.80 to include 50 KWH used per month
8.871 cents per KWH for the next 50 KWH used per month
6.920 cents per KWH for the next 400 KWH used per month
5.662 cents per KWH for the next 1,500 KWH used per month
5.182 cents per KWH for all in excess of 2,000 KWH used per month

* An additional charge or credit will be made on the kilowatt-hours purchased by the customer in accordance with the fuel clause.

Minimum Bill: The greater of: (a) $4.80 per month to include the first 20 KW or less capacity, or (b) $4.80 per month, plus $1.63 per KW for demand in excess of 20 KW, which is the greater of (1) the maximum demand registered in the current month, (2) 75% of the highest monthly maximum demand registered in the preceding 11 months, (3) the contract capacity, or (4) 60% of the KW capacity of facilities specified by the customers.

Off-Peak Water Heating (OPWH)*

Rate: 4.065¢ per KWH

Minimum: $1.62 per month per installation, and when service is combined with RS or GS service, the minimum of the RS or GS Rate will apply.

Rate 33 - Electric Space Heating Rider*

Rate: 4.080¢ per KWH

Minimum: $12.95 per connected KW but not less than $88.83 per heating season.

Rate 33 - Electric Space Heating Rider (Restricted)*

Rate: 4.080¢ per KWH

Minimum: $12.95 per connected KW but not less than $177.18 per heating season.

Rate A.E.S. (All Electric School)*

Rate: 4.068¢ per KWH

Annual Minimum: $19.31 per connected KW, excluding air conditioning and equipment of one KW or less, but not less than $193.10 per year.

Cooking for Schools Rate E (Restricted)*

Rate: 13.989 cents per KWH for the first 20 KWH used per month
7.130 cents per KWH for the next 280 KWH used per month
4.860 cents per KWH for all in excess of 300 KWH used per month

Minimum: $3.29 per month for first 6 connected KW plus 82¢ per month for each additional connected KW. Optional annual minimum of $59.03 per year for first 6 connected KW plus $9.73 per year for each additional connected KW.

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* An additional charge or credit will be made on the kilowatt-hours purchased by the customer in accordance with the fuel clause.

LP Rate Combined Lighting and Power Service*

Maximum Load Charge:

Secondary Service	$2.85	per KW, but not less than $342.00 per year
Primary Service	$2.51	per KW, but not less than $753.00 per year
Transmission Service	$2.31	per KW, with minimum depending on facilities necessary to serve, but not less than $1.386.00

Plus an Energy Charge of:

5.006 cents per KWH for the first 2,000 KWH used per month
3.485 cents per KWH for the next 8,000 KWH used per month
3.235 cents per KWH for the next 90,000 KWH used per month
3.145 cents per KWH for the next 400,000 KWH used per month
3.005 cents per KWH for the next 500,000 KWH used per month
2.896 cents per KWH for the next 1,000,000 KWH used per month
2.766 cents per KWH for all in excess of 2,000,000 KWH used per month except
2.645 cents per KWH for all in excess of 2,000,000 KWH and 50% load factor and
2.536 cents per KWH for all in excess of 6,000,000 KWH and 50% load factor.

Annual Minimum: Annual minimum of $34.20 per KW for secondary delivery, $30.12 per KW for primary delivery and $27.72 per KW for transmission delivery for each yearly period based on the greater of (a), (b), (c), (d) or (e) as follows: (a) The highest monthly maximum load during such yearly period. (b) The contract capacity, based on the expected maximum KW demand upon the system. (c) 60% of the KW capacity of facilities specified by the customer. (d) Secondary delivery, $342.00 per year; Primary delivery, $753.00 per year; Transmission delivery, $1,386 per year. (e) Minimum may be adjusted where customer's service requires an abnormal investment in special facilities.

* An additional charge or credit will be made on the kilowatt-hours purchased by the customer in accordance with the fuel clause.

Rate HLF (High Load Factor)*

KW Billing Rate for Delivered Voltage at:

	Sec. per KW	Pri. per KW	Trans. per KW
First 2,000 KW of Monthly Billing Demand	$ 4.64	$ 4.37	$ 4.19
Next 3,000 KW of Monthly Billing Demand	$ 4.09	$ 3.83	$ 3.68
All Over 5,000 KW of Monthly Billing Demand	$ 3.45	$ 3.18	$ 3.03

Plus Energy Charge of:

For first 200 hours use of Billing Demand @ 2.595 cents per KWH
For next 200 hours use of Billing Demand @ 2.534 cents per KWH
For next 200 hours use of Billing Demand @ 2.474 cents per KWH
Excess of 600 hours use of Billing Demand @ 2.410 cents per KWH

Rate MP-1 (Coal Mining Power Service)*

Maximum Load Charge:

Primary Service at nominal voltages of 2400 or more
$ 2.59 per KW of the maximum load in the month.

Transmission Line Service at nominal voltages of 34,500 or more
$ 2.35 per KW of the maximum load in the month.

Plus an Energy Charge of:

4.221 cents per KWH for the first	10,000	KWH used per month
3.151 cents per KWH for the next	490,000	KWH used per month
2.911 cents per KWH for the next	500,000	KWH used per month
2.801 cents per KWH for the next	1,000,000	KWH used per month
2.701 cents per KWH for all in excess of	2,000,000	KWH used per month

Annual Minimum: Not less than the Greater of:

(a) $41.88 per KW of reserved capacity.
(b) $31.08 per KW for Primary Delivery or $ 28.20 per KW for Transmission Delivery based on highest 15 minute maximum load during contract year.
(c) Based on required special investment.

* An additional charge or credit will be made on the kilowatt-hours purchased by the customer in accordance with the fuel clause.

Rate M (Water Pumping Service)*

4.972 cents per KWH for the first	5,000	KWH used per month
4.682 cents per KWH for the next	5,000	KWH used per month
4.332 cents per KWH for the next	10,000	KWH used per month
4.043 cents per KWH for all in excess of	20,000	KWH used per month

Monthly Minimum: The Greater of:

(a) $0.84 per HP (Total Connected), but not less than $16.70 per month.
(b) $1.67 per connected HP (exclude standby equipment and fire pumps)
(c) Based on required special investment.

Street Lighting Service Rate*

Incandescent System	Load/Light**	Rate Per Light Per Year Standard	Rate Per Light Per Year Ornamental
1,000 Lumens (Approximately)	.102 KW/Light	$26.16	$ 33.72
2,500 " "	.201 KW/Light	32.04	41.16
4,000 " "	.327 KW/Light	45.84	56.64
6,000 " "	.447 KW/Light	60.96	73.08
10,000 " "	.690 KW/Light	82.32	100.56

Mercury Vapor	Load/Light**	Rate Per Light Per Year Standard	Rate Per Light Per Year Ornamental
3,500 Lumens (Approximately)	.126 KW/Light	$ 66.24	$ 93.72
7,000 " "	.207 KW/Light	76.56	102.60
10,000 " "	.294 KW/Light	88.32	111.36
20,000 " "	.453 KW/Light	104.04	122.40
High Pressure Sodium			
50,000 Lumens (Approximately)	.468 KW/Light	$195.12	$298.32
Fluorescent			
#20,000 Lumens(Approximately)	.489 KW/Light	$121.32	$139.68

C.O.L. (Customer Outdoor Lighting Rate)**

	Load/Light**	Rate Per Lamp
##2500 Lumen Incandescent Light	.201 KW/Light	$5.27 per month
3500 Lumen Mercury Vapor Light	.126 KW/Light	6.40 per month
7000 Lumen Mercury Vapor Light	.207 KW/Light	7.32 per month

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* An additional charge or credit will be made on the kilowatt-hours purchased by the customer in accordance with the fuel clause.
** Refer to Determination of Energy Consumption Table.
\# Restricted to those fixtures in service on February 15, 1977
\## Restricted to those fixtures in service on December 15, 1971

Optional Minimum Rider To Any Applicable Rate Schedule For Seasonal and/or Temporary Electric Service

Minimum: $ 2.89 per KW per month of total connected load

Supplementary Service Rider S

Minimum: $ 4.31 per kilowatt per month based on (a) the number of kilowatts that the Company is obligated to stand ready to supply, or (b) the number of kilowatts constituting the greatest maximum demand established within the contract year.

Temporary Lighting and Power Service (Carnivals, etc.) Rate TS

Rate for Service for Connected Load of:

	Up to and including 2½ KW	In Excess of 2½ KW and including 5 KW	In Excess of 5 KW and including 7½ KW	In Excess of 7½ KW and including 10 KW	In Excess of 10 KW and including 15 KW
6 Nights	$25.76	46.99	63.67	78.84	110.67
5 Nights	22.73	39.41	59.13	74.29	95.52
4 Nights	19.71	33.34	54.56	71.25	95.52
3 Nights or less	15.15	28.80	54.56	71.25	95.52

For each KW connected load in excess of 15 KW add $3.16 for 6 nights or less. For each night in excess of 6 (in succession) add $0.47 per KW per night.

Special Contract for Electric Service to Green River Steel Corporation*

Demand Charge:

Non-Interruptible Demand	$3.85 per KW
Interruptible Demand	1.71 per KW
Additional Demand	.86 per KW

* An additional charge or credit will be made on the kilowatt-hours purchased by the customer in accordance with the fuel clause.

Plus an Energy Charge of:

A. For KWH used between 6 a.m. and 10 p.m., Monday-Friday, excluding holidays:

25.11 mills per KWH for first	2,000,000 KWH per month
24.48 mills per KWH for next	2,000,000 KWH per month
23.85 mills per KWH for excess of	4,000,000 KWH per month

B. For all KWH used at other hours:

23.24 mills per KWH used per month

Reactive Demand Charge:

$ .213 per RKVA

Annual Minimum: $376,047

Special Contract for Electric Service to West Virginia Pulp & Paper Company*

Demand Charge:

Non-Interruptible	$3.08 per KVA, but not less than 10,000 KVA
Interruptible	$1.52 per KVA

Plus an Energy Charge of:

First	150 KWH per KVA of Maximum demand @ 24.42 mills per KWH
Next	150 KWH per KVA of Maximum demand @ 23.79 mills per KWH
Excess of	300 KWH per KVA of Maximum demand @ 23.21 mills per KWH

Annual Minimum:

$36.96 per KVA of maximum non-interruptible demand
$18.24 per KVA of maximum interruptible demand but not less than $644,500 per said 12 month period

* An additional charge or credit will be made on the kilowatt-hours purchased by the customer in accordance with the fuel clause.