

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION OF HENDERSON-UNION)
RURAL ELECTRIC COOPERATIVE) CASE NO. 9974
CORPORATION'S RATES FOR DISTRIBUTION)
ELECTRIC SERVICE)

O R D E R

The Commission, on its own Motion, initiated Case No. 9885, An Investigation of Big Rivers Electric Corporation's Rates for Wholesale Electric Service, to review the current wholesale rates authorized for Big Rivers Electric Corporation ("Big Rivers") and also initiated this case on its own Motion to investigate the flow-through rates of Henderson-Union Electric Cooperative Corporation ("Henderson-Union"). Henderson Union had previously filed information in Case No. 9620¹ to support its flow-through rates to Big Rivers Rate Case No. 9613.² However, no rate increase was granted Big Rivers at that time. The background information filed by Henderson-Union in Case No. 9620 is still applicable to the present case.

Henderson-Union is one of four member distribution cooperatives of Big Rivers. In Case No. 9885, Big Rivers requested an

¹ Green River Electric Corporation's Notice of Increase in Rates for Retail Electric Service.

² Big Rivers Electric Corporation's Notice of Changes in Rates and Tariffs for Wholesale Electric Service and of a Financial Workout Plan.

increase in revenue, excluding aluminum smelter delivery points, of approximately \$15,219,001. Of this total increase, Henderson-Union would experience an increase in power costs of approximately \$3,319,458, which represents 21.8 percent of the proposed Big Rivers increase and would result in an overall increase to Henderson-Union's consumers of approximately 17.6 percent.

A hearing upon notice was held on August 20, 1987, at the Commission's offices in Frankfort, Kentucky. The intervenors in this case were the Utility and Rate Intervention Division of the Attorney General's Office and Alcan Aluminum Corporation ("Alcan").

At the hearing Alcan challenged the Commission's authority to establish the proposed Variable Aluminum Smelter Rate. Alcan argued that such a rate was impermissible under the terms of Paragraph No. 9 of its Agreement for Electric Service with Henderson-Union dated April 24, 1982. Paragraph No. 9 states, in pertinent part, "Customer agrees to pay monthly for the power and energy hereunder at rates based upon average cost of capacity and energy,. . .subject, however,. . .to such changes as may be authorized or ordered into effect from time to time by the Kentucky Public Service Commission." The crux of Alcan's objection is that under the variable rate it may not be paying Henderson-Union's average cost of power and energy in each and every month of the rate's ten-year term.

The Commission is not persuaded by Alcan's argument for two reasons. First, Alcan's power contract expressly recognizes the authority of this Commission to order changes in existing rates.

Pursuant to KRS 278.040(2), the Commission's jurisdiction over rates is exclusive. A customer and a utility cannot, through the use of a contract, infringe upon that jurisdiction. When a utility's existing rates are found to be insufficient to allow it to maintain its financial stability, the Commission has the authority to authorize new rates that are fair, just, and reasonable. Whether new rates are based on average cost, incremental cost, unit cost, or some other approach is for the Commission to determine based on the evidence of record. Secondly, the variable rate should produce over time the same amount of revenue that would be produced by a flat rate. Further, the variable rate will be subject to periodic reviews so that the Commission can make any adjustments that may be necessary. The first review will commence on July 1, 1990. As the market price of aluminum varies over time, so will Alcan's monthly payments for power and energy. Over the long term, however, Alcan's total payments should be in line with Henderson-Union's average costs.

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

1. The Commission, by reference, incorporates Case No. 9620 as a part of the record in this case.

2. The actual increase allowed Big Rivers, excluding aluminum smelter delivery points, in Case No. 9885, is \$13,321,181, which will result in an increase in power costs to Henderson-Union, excluding aluminum smelter delivery points, of \$2,903,836.

3. Henderson-Union's financial condition would be materially impaired if it were not allowed to recover the increased wholesale power costs allowed in Case No. 9885.

4. Henderson-Union proposed a change in its LP-3 tariff dividing it into two subsections to allow for a difference in meter readings. Normally, the Commission does not approve tariff changes in a flow-through case; however, in this instance, it is necessary. The proposed changes in LP-3 by Henderson-Union is fair, just, and reasonable and should be approved.

5. The revised rates and charges in Appendix A are designed to reflect only the increased power costs from Big Rivers allowed in the Final Order in Case No. 9885.

6. The flow-through of the wholesale power costs will not result in any additional net margin to Henderson-Union.

IT IS THEREFORE ORDERED that:

1. Henderson-Union be and it hereby is authorized to flow-through the increased power costs resulting from the rate increase granted its wholesale power supplier, Big Rivers, in Case No. 9885.

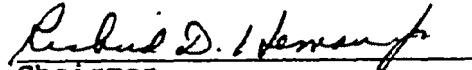
2. The rates in Appendix A shall be placed into effect on the effective date of the Big Rivers' wholesale power increase.

3. The LP-3 tariff proposed by Henderson-Union be and it hereby is approved.

4. Henderson-Union shall, within 20 days from the date of this Order, file its revised tariff sheets setting out the rates and charges approved herein.

Done at Frankfort, Kentucky, this 1st day of September, 1987.

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. 9974 DATED September 1, 1987.

The following rates and charges are prescribed for the customers in the area served by Henderson-Union Rural Electric Cooperative Corporation. 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.

SCHEDULE A - RESIDENTIAL

Monthly Rate:

Customer Charge per Delivery Point	\$6.45
Energy Charge per KWH	0.055273

SCHEDULE B - FARM, GOVERNMENT OR COMMERCIAL

Monthly Rate:

Customer Charge per Delivery Point	\$11.50
Energy Charge per KWH	0.060122

SCHEDULE B-1 - FARM OR COMMERCIAL

Monthly Rate:

Customer Charge per Delivery Point	\$11.50
Demand Charge per KW	3.50
Energy Charge per KWH	0.054166

SCHEDULE LP-3 - LARGE POWER DEDICATED DELIVERY POINT

Availability

This rate shall apply for large power consumers contracting for a demand of 501 to 2,000 KW.

Conditions of Service

An "Agreement for Purchase of Power" shall be signed by the consumer for service under this rate.

Character of Service

Service shall be the 60 Hz, 3-phase, at voltage as mutually agreed by the seller and consumer.

Determination of Billing Demand

For all delivery points, the billing demand in kilowatts shall be member's maximum integrated thirty-minute demand at such delivery point during each billing month, determined by meters which record at the end of each thirty-minute period the integrated kilowatt demand during the preceding thirty-minutes, or such maximum integrated thirty-minute demand achieved during any one of the eleven preceding months, or the contract demand, whichever shall be greater.

Power Factor Adjustment

The consumer agrees to maintain unity power factor as nearly as practicable. Demand charge will be adjusted for average power factors lower than 90%. Such adjustment will be made by increasing demand 1% for each 1% by which the average power factor is less than 90% leading or lagging.

Metering

Electrical usage will be metered at the transmission voltage supplied or at the consumer's secondary voltage with a 1% adder to the metered KWH to account for transformer losses, as determined by the Seller.

Monthly Rate

Customer Charge per Delivery Point	\$17.20
Demand Charge per KW - 100% Ratchet	7.50
*Energy Charge per KWH:	
First 100,000 KWH	.030168
All Over 100,000 KWH	.024574

School Taxes added to bill if applicable
Kentucky Sales Taxes added to bill if applicable

Fuel Adjustment Charge

In case for any month the rate under which Seller (Henderson-Union) purchases power wholesale from its supplier (Big Rivers) is adjusted in accordance with any present or future fuel cost or surcharge provided for in Seller's wholesale power contract or by order of the Public Service Commission, then the foregoing monthly

energy charges shall be adjusted for each kilowatt hour sold by dividing the total dollar amount of such fuel and surcharge cost adjustment to Seller attributable to each class of service by the total number of kilowatt hours sold by Seller for such class of service for the billing month.

(The above fuel adjustment charge is subject to the provisions of and may be amended from time to time to conform to 807 KAR 5:056 and to any adjustment in the fuel clause or other increments which may be made in Big Rivers' fuel charges under 807 KAR 5:056 by the Public Service Commission.)

*The monthly kilowatt hour usage shall be subject to plus or minus an adjustment per KWH determined in accordance with the "Fuel Adjustment Charge."

Minimum Demand Charge

The minimum monthly demand charge shall be no less than the amount as specified in the "Agreement for Purchase of Power."

Terms of Payment

Delinquent accounts are subject to a collection fee of \$10 or disconnection of service. The above rates are net, the gross rate being five percent (5%) higher. In the event the current monthly bill is not paid within 15 days from the date of the bill, the gross rate shall apply.

SCHEDULE LP-3 - LARGE POWER NON-DEDICATED DELIVERY POINT

Availability

This rate shall apply for large power consumers contracting for a demand of 501 to 2,000 KW.

Conditions of Service

An "Agreement for Purchase of Power" shall be signed by the consumer for service under this rate.

Character of Service

Service shall be the 60 Hz, 3-phase, at voltage as mutually agreed by the seller and consumer.

Determination of Billing Demand

For all delivery points, the billing demand in kilowatts shall be member's maximum integrated fifteen-minute demand at such delivery point during each billing month, determined by meters which record at the end of each fifteen-minute period the integrated kilowatt demand during the preceding fifteen-minutes, or such maximum

integrated fifteen-minute demand achieved during any one of the eleven preceding months, or the contract demand, whichever shall be greater.

Power Factor Adjustment

The consumer agrees to maintain unity power factor as nearly as practicable. Demand charge will be adjusted for average power factors lower than 90%. Such adjustment will be made by increasing demand 1% for each 1% by which the average power factor is less than 90% leading or lagging.

Minimum Demand Charge

The minimum monthly demand charge shall be no less than the amount as specified in the "Agreement for Purchase of Power."

Monthly Rate

Customer Charge per Delivery Point	\$17.20
Demand Charge per KW - 100% Ratchet	7.50
*Energy Charge per KWH:	
First 100,000 KWH	.030168
All Over 100,000 KWH	.024574

School Taxes added to bill if applicable
Kentucky Sales Taxes added to bill if applicable

Fuel Adjustment Charge

In case for any month the rate under which Seller (Henderson-Union) purchases power wholesale from its supplier (Big Rivers) is adjusted in accordance with any present or future fuel cost or surcharge provided for in Seller's wholesale power contract or by order of the Public Service Commission, then the foregoing monthly energy charges shall be adjusted for each kilowatt hour sold by dividing the total dollar amount of such fuel and surcharge cost adjustment to Seller attributable to each class of service by the total number of kilowatt hours sold by Seller for such class of service for the billing month.

(The above fuel adjustment charge is subject to the provisions of and may be amended from time to time to conform to 807 KAR 5:056 and to any adjustment in the fuel clause or other increments which may be made in Big Rivers' fuel charges under 807 KAR 5:056 by the Public Service Commission.)

*The monthly kilowatt hour usage shall be subject to plus or minus an adjustment per KWH determined in accordance with the "Fuel Adjustment Charge."

Terms of Payment

Delinquent accounts are subject to a collection fee of \$10 or disconnection of service. The above rates are net, the gross rate being five percent (5%) higher. In the event the current monthly bill is not paid within 15 days from the date of the bill, the gross rate shall apply.

SCHEDULE LP-4 - LARGE POWER

Customer Charge per Delivery Point	\$17.20
Demand Charge per KW	7.50
Energy Charge per KWH	
First 100,000 KWH	.027979
All Over 100,000 KWH	.024013

Determination of Billing Demand

For all delivery points, the billing demand in kilowatts shall be member's maximum integrated thirty-minute demand at such delivery point during each billing month, determined by meters which record at the end of each thirty-minute period the integrated kilowatt demand during the preceding thirty-minutes, or such maximum integrated thirty-minute demand achieved during any one of the eleven preceding months, or the contract demand, whichever shall be greater.

Minimum Demand Charge

The minimum monthly demand charge shall be no less than the amount as specified in the "Agreement for Purchase of Power."

SCHEDULE SL - STREET LIGHTS*

Monthly Rate	
Sodium or Mercury Vapor Lamp	
8,000 Lumen	\$4.76
20,000 Lumen	9.00

SCHEDULE D - SECURITY LAMP

Monthly Rate	
Sodium or Mercury Vapor Lamp	
8,000 Lumen	\$7.64
20,000 Lumen	11.04

INDUSTRIAL CONSUMERS SERVED UNDER SPECIAL CONTRACTS

Peabody Coal Company
Breckinridge Coal Mine

Monthly Rate

Demand Charge Per KW - 100% Ratchet \$7.50

For all delivery points, the billing demand in kilowatts shall be member's maximum integrated thirty-minute demand at such delivery point during each billing month, determined by meters which record at the end of each thirty-minute period the integrated kilowatt demand during the preceding thirty-minutes, or such maximum integrated thirty-minute demand achieved during any one of the eleven preceding months, or the contract demand, whichever shall be greater.

*Plus an energy charge of 20.7288 mills per KWH consumed.

Alcan Aluminum Corporation

The rates to Alcan Aluminum Corporation shall be the Variable Aluminum Smelter Power Rate contained in the tariff of Big Rivers, attached herein, plus \$0.0001 per kilowatt hour per month. Upon termination of the Variable Aluminum Smelter Power Rate, the rate applicable to Alcan shall be the rate charged the Corporation by its wholesale power supplier, plus \$0.0001 per kilowatt hour per month.

VARIABLE ALUMINUM SMELTER RATE

Section I. **Availability**

This schedule is available to cooperatives for sales for resale to primary aluminum smelters within the service territory of Big Rivers and its member cooperatives. This schedule only covers purchases for primary aluminum reduction and associated administrative facilities. It does not cover purchases for later resale or use in fabrication.

Section II. Terms of the Rate

This rate schedule shall take effect on September 1, 1987, and shall terminate at midnight, August 31, 1997. The rate schedule shall be subject to two reviews, commencing July 1, 1988, and July 1, 1990, as provided for in the August 10, 1987, Order in Case No. 9885 and such other reviews as may from time to time be established by the Public Service Commission. Upon termination of this rate schedule, the rates applicable to nonsmelter customers shall apply to the aluminum smelters.

Section III. Rate

A. Initial Rate Charges Subject to Adjustments

The following rates shall apply to sales for resale to primary aluminum smelter customers that purchase power under the Variable Smelter Power Rate Schedule.

1. Base Variable Aluminum Smelter Rate

a. Demand Charge

\$7.50 per kilowatt of contract demand

b. Pivot Energy Charge

32.0 mills per kilowatt-hour of billing energy

2. Lower Rate Limit

18.1 mills per kilowatt-hour of billing energy

3. Upper Rate Limit

44.0 mills per kilowatt-hour of billing energy

B. Initial Rate Parameters Subject to Adjustments

The following rate parameter shall be used in determining the power bills for customers purchasing power under the Variable Aluminum Smelter Power Rate Schedule.

Pivot aluminum price

62 cents per pound

Section IV. Formula

The Variable Aluminum Smelter Power Rate is a formula tied to the average monthly "MW U.S. Trans" price of aluminum as reported in Metals Week, for the month prior to the month charges are incurred ('monthly billing aluminum price'). Under this rate schedule, the monthly energy charge varies in response to changes in the monthly billing aluminum price.

A. Demand Charge

1. Each month the smelters purchasing under the Variable Aluminum Smelter Power Rate Schedule shall pay a Demand Charge, as stated in Section III.A.1.a. of this rate schedule, times the contracted capacity, pursuant to current contracts. For the amount of energy consumed in each month, the smelters shall pay the Energy Charge, as stated in Section IV.B. of this rate schedule, minus a Demand Charge Credit for each kilowatt-hour, computed as the Demand Charge rate converted to mills per kilowatt-hour at a 99% load factor.

B. Energy Charge

1. Pivot Point Charge

When the monthly billing aluminum price (described in Section VI of this schedule) is equal to the Pivot Aluminum Price (as stated in Section III.B. of this rate

schedule), the monthly energy charge shall be the Pivot Energy Charge as stated in Section III.A.1.b. of this rate schedule.

2. Reductions to Pivot Energy Charge

When the monthly billing aluminum price is less than the Pivot Aluminum Price, the monthly energy charge shall be the greater of:

a. The Pivot Energy Charge minus $(P-MAP) \times LS$ where:

P = the Pivot Aluminum Price as stated in Section III.B. of this rate schedule.

MAP = the monthly billing aluminum price in cents per pound determined pursuant to Section VI of this schedule.

LS = the lower slope or 0.8 mills per kilowatt hour.

or

b. The Lower Rate Limit as stated in Section III.A.2. of this rate schedule.

3. Increases to Pivot Energy Charge

When the monthly billing aluminum price is greater than the Pivot Aluminum Price, the monthly energy charge shall be the lesser of:

a. The Pivot Energy Charge plus $(MAP-P) \times US$ where:

P = the Upper Pivot Aluminum Price as stated in Section III.B. of this rate schedule.

MAP = the monthly billing aluminum price in cents per pound determined pursuant to Section VI.A.1. of this schedule.

US = the upper slope or 0.7 mills per kilowatt hour.

or

- b. The Upper Rate Limit, as stated in Section III.A.3. of this rate schedule.

Section V. Adjustments for Legislation or Regulatory Action

Upon payment by Big Rivers for new, sudden expenditures required by legislation or regulatory action (e.g. acid rain, taxes), the Pivot Energy Charge and the Upper Rate Limit shall be adjusted to reflect these increased legislation or regulatory costs. The new Pivot Energy Charge and Upper Rate Limit shall supersede in every way the Pivot Energy Charge and Upper Rate Limit set out in Sections III.A.1.b. and III.A.3. of this schedule.

Section VI. Rate Parameters and Adjustments

A. Monthly Average Aluminum Price Determination

1. Calculation of the Monthly Billing Aluminum Price

The monthly billing aluminum price shall be determined monthly. For purposes of this rate schedule, the monthly billing aluminum price shall be the average U.S. Mid West Transactions Price reported for the previous month by Metals Week, in cents per pound.

2. Changes in Aluminum Price Indicators

In the event that Big Rivers determines that factors outside its control have rendered Section VI.A.1. unusable as an approximation of the U.S. market price for aluminum, Big Rivers shall develop and submit to the appropriate regulatory bodies a substitute indicator for determining the Monthly Billing Aluminum Price.

Section VII. Fuel Adjustment Clause

The energy charge shall be increased or decreased by a fuel adjustment factor as follows:

$$\frac{F}{S} - \$.01295$$

1. The fuel clause shall provide for periodic adjustment per KWH of sales equal to the difference between the fuel costs per KWH sales in the base period and in the current period according to the following formula:

$$\text{Adjustment Factor} = \frac{F (m)}{S (m)} - \frac{F (b)}{S (b)}$$

Where F is the expense of fossil fuel in the base (b) and current (m) periods; and S is sales in the base (b) and current (m) periods, all defined below.

2. FB/SB shall be so determined that on the effective date of the Commission's approval of the utility's application of the formula, the resultant adjustment will be equal to zero (0).
3. Fuel costs (F) shall be the most recent actual monthly cost of:
 - a. Fossil fuel consumed in the utility's own plants, and the utility's share of fossil and nuclear fuel consumed in jointly owned or leased plants, plus the cost of fuel which would have been used in plants suffering forced generation and/or transmission outages, but less the cost of fuel related to substitute generation, plus

- b. The actual identifiable fossil and nuclear fuel costs associated with energy purchased for reasons other than identified in paragraph (c) below, but excluding the cost of fuel related to purchases to substitute the forced outages, plus
 - c. The net energy cost of energy purchases, exclusive of capacity or demand charges (irrespective of the designation assigned to such transaction) when such energy is purchased on an economic dispatch basis. Included therein may be such costs as the charges for economy energy purchases and the charges as a result of scheduled outage, all such kinds of energy being purchased by the buyer to substitute for its own higher cost energy; and less
 - d. The cost of fossil fuel recovered through inter-system sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.
 - e. All fuel costs shall be based on weighted average inventory costing.
4. Forced outages are all nonscheduled losses of generation of transmission which require (purchase of) substitute power for a continuous period of excess of six (6) hours. Where forced outages are not as a result of faulty equipment, faulty manufacture, faulty design, faulty installations, faulty operation or faulty maintenance, but are acts of God, riot, insurrection or acts of the public

enemy, then the utility may, upon proper showing, with the approval of the Commission, include the fuel cost of substitute energy in the adjustment.

5. Sales (S) shall be all KWHs sold, excluding inter-system sales. Where, for any reason, billed system sales cannot be coordinated with fuel costs for the billing period, sales may be equated to the sum of (i) generation, (ii) purchases, (iii) interchange in, less (iv) energy associated with pumped storage operations, less (v) inter-system sales referred to in subsection 3(d) above, less (vi) total system losses. Utility-used energy shall not be excluded in the determination of sales (S).
6. The cost of fossil fuel shall include no items other than the invoice price of fuel less any cash or other discounts. The invoice price of fuel includes the cost of the fuel itself and necessary charges for transportation of the fuel from the point of acquisition to the unloading point, as listed in Account 151 of FERC Uniform System of Accounts for Public Utilities and Licenses.
To facilitate the prompt mailing of bills, the fuel adjustment amount for any billing month shall be the product of the "Adjustment Factor" for the preceding month as defined above and the kilowatt hours consumed by the member in the preceding month.