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 UTILITIES COMPANY FROM NOVEMBER 1, 1994 TO APRIL 30, 1995	)	CASE NO. 94-461-A
AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF KENTUCKY UTILITIES COMPANY FROM MAY 1, 1995 TO OCTOBER 31, 1995	)	CASE NO. 94-461-B
AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF KENTUCKY UTILITIES COMPANY FROM NOVEMBER 1, 1995 TO APRIL 30, 1996	)	CASE NO. 94-461-C
AN EXAMINATION BY THE PUBLIC SERVICE COMMISSION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF KENTUCKY UTILITIES COMPANY FROM NOVEMBER 1, 1994 TO OCTOBER 31, 1996	)	CASE NO. 96-523

O R D E R

The above-styled proceedings involve reviews of the operation of the fuel adjustment clause (FAC) of Kentucky Utilities Company (KU) for all or portions of the two-year period ending October 31, 1996. At issue is whether KU has correctly calculated its cost of fuel for the period in question. Finding that it has failed to properly account for system line losses in its calculations, we direct KU to reduce its fuel cost by $4,235,044.

<u>PROCEDURE</u>

By this Order, the Commission consolidates for decision the four proceedings involving the operation of KU s FAC for all or portions of the two-year period ending October 31, 1996. Consolidation of these proceedings is warranted because of the common issues of law and fact involved. As the reviews conducted in Cases No. 94-461-A, No. 94-461-B, and No. 94-461-C are not final and conclusive until completion of the two-year review conducted in Case No. 96-523,[1] consolidation of these cases best serves the interest of administrative economy.

<u>Case No. 94-461-A</u>

On June 27, 1995, the Commission, pursuant to Administrative Regulation 807 KAR 5:056, Section 1(11), initiated a review of the operation of KU s FAC for the six-month period ending April 30, 1995. As part of its review, the Commission ordered KU to submit certain information concerning its FAC, its fuel usage and the operation of its FAC. Kentucky Industrial Utility Customers (KIUC) and the Attorney General (AG) were permitted to intervene in this proceeding.

The Commission conducted a public hearing on August 17, 1995. Testifying before the Commission were: Charles Caudill, KU s Director of System Operations; Robert M. Hewett, KU s Vice President of Regulation and Economic Planning; James Ellington, KU s Ghent Generating Station Plant Superintendent; Gerhard Haimberger, KU s Director of Fuels Management; Wayne T. Lucas, KU s Vice President of Power Supply; and Michael Robinson, KU s Controller. After KU s submission of post-hearing

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[1] <u>See</u> <u>Kentucky Utilities Company</u>, Case No. 9631 (Ky. P.S.C. Sept. 10, 1987) at 2 3. <u>See also</u> <u>Big Rivers Electric Corporation</u>, Case No. 90-360-C (Ky. P.S.C. July 21, 1994).

information requests and the filing of briefs, this case was submitted for decision on April 7, 1997.

Case No. 94-461-B

On December 20, 1995, the Commission, pursuant to Administrative Regulation 807 KAR 5:056, Section 1(11), initiated a review of the operation of KU s FAC for the six-month period ending October 31, 1995. As part of its review, the Commission ordered KU to submit certain information concerning its FAC, its fuel usage and the operation of its FAC. KIUC was permitted to intervene in this proceeding.

After completion of discovery, the Commission conducted a public hearing on February 22, 1996. Testifying before the Commission were: Charles Caudill, KU s Director of System Operations; Robert M. Hewett, KU s Vice President of Regulation and Economic Planning; James Ellington, KU s Ghent Generating Station Plant Superintendent; Gerhard Haimberger, KU s Director of Fuels Management; and Mike Robinson, KU s Controller.

Case No. 94-461-C

On June 13, 1996, the Commission, pursuant to Administrative Regulation 807 KAR 5:056, Section 1(11), initiated a review of the operation of KU s FAC for the six-month period ending April 30, 1996. As part of its review, the Commission ordered KU to submit certain information concerning its FAC, its fuel usage and the operation of its FAC. KIUC was permitted to intervene in this proceeding.

The Commission conducted a public hearing on August 22, 1996. Testifying before the Commission were: Charles Caudill, KU s Director of System Operations; Robert M. Hewett, KU s Vice President of Regulation and Economic Planning; James

Ellington, KU s Ghent Generating Station Plant Superintendent; Gerhard Haimberger, KU s Director of Fuels Management; and Mike Robinson, KU s Controller.

Case No. 96-523

On November 14, 1996, the Commission, pursuant to Administrative Regulation 807 KAR 5:056, Section 1(12), initiated a review of the operation of KU s FAC for the two-year period ending October 31, 1996. As part of its review, the Commission ordered KU to submit certain information concerning its FAC, its fuel usage and the operation of its FAC. Following the intervention of KIUC and the AG, the Commission established a procedural schedule for this proceeding.

After discovery and the filing of written testimony, the Commission conducted a public hearing on April 15, 1997. Testifying before the Commission were: Robert M. Hewett, KU s Vice President of Regulation and Economic Planning; Gary Hawley, KU s Vice President of Bulk Power Engineering; James Ellington, KU s Ghent Generating Station Plant Superintendent; Gerhard Haimberger, KU s Director of Fuels Management; Mike Robinson, KU s Controller; Alan S. Taylor, Senior Consultant, Hagler Bailly Consulting, Inc.; David Brown Kinloch, and Paul Normand of Management Applications Consulting, Inc. After the filing of briefs, this case was submitted for decision on June 16, 1997.

DISCUSSION

Background

An FAC is a means for [an electric] utility to recover from its customers its current fuel expense through an automatic rate adjustment without the necessity for a full regulatory rate proceeding. This rate may increase or decrease from one billing cycle to the next depending on whether the utility s cost of fuel increased or decreased in the same period. The rate provides for a straight pass-through of fuel costs, with no allowance for a profit to the utility.   Kentucky Power Company, Case No. 6877 (Ky. P.S.C. Dec. 15, 1977) at 2.

Administrative Regulation 807 KAR 5:056 permits electric utilities to establish FACs to adjust their rates to reflect changing fuel prices.   It requires that an FAC provide for periodic adjustment per KWH [kilowatt hour] of sales equal to the difference between the fuel costs per KWH sale in the base period and in the current period. 807 KAR 5:056, Section 1(1). It establishes an adjustment factor based upon the following formula:

$$\textbf{Adjustment Factor} \qquad \frac{\textbf{Monthly Fuel Costs}}{\textbf{Monthly Sales}} - \frac{\textbf{Base Fuel Costs}}{\textbf{Base Sales}}$$

This factor, which is also expressed in terms of cents per KWH, is multiplied by the customer s usage to determine his or her monthly FAC charge. The charge, which may be positive or negative, appears as a separate line item on the customer s bill.

Administrative Regulation 807 KAR 5:056, Section 1, provides the following formula to determine monthly and base fuel costs:[2]

Fuel Costs ($)	**Fuel Consumed in Utility s Own Plants** **+** **Fuel Cost of Purchased Power** **+** **Energy Cost of Power Purchased on Economic Dispatch** **-** **Cost of Fuel Recovered Through Intersystem Sales**

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[2] Administrative Regulation 807 KAR 5:056, Section (1)(3) states:

> Fuel costs (F) shall be the most recent actual monthly cost of:
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> (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 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) of this subsection, but excluding the cost of fuel related to purchases to substitute for the forced outages; plus
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> (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
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> (d) The cost of fossil fuel recovered through intersystem sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.

Monthly and base sales are determined using the following formula:

Sale (KWH)	**Generation + Purchases + Interchange-In - Intersystem Sales - Total System Losses**

Because adjustments are automatic, the Commission performs periodic reviews of each FAC. Administrative Regulation 807 KAR 5:056, Section 1(11), requires the Commission to conduct public hearings on a utility s past fuel adjustments and to order a utility to charge off and amortize, by means of a temporary decrease of rates, any adjustments it finds unjustified due to improper calculation or application of the charge or improper fuel procurement practices. Administrative Regulation 807 KAR 5:056, Section 1(12), requires the Commission to hold biennial hearings to review and evaluate past operations of the clause, disallow improper expenses and to the extent appropriate reestablish the fuel clause . . . .

<u>Cost of Fuel Recovered Through Intersystem Sales: Inclusion of Line Loss</u>

KIUC and the AG argue that KU during the review period incorrectly reported its cost of fuel recovered through intersystem sales. When calculating the cost of fuel recovered through intersystem sales, KU bases its cost of fuel on the total KWH sold. For example, if KU sells 100 KWH to an intersystem customer, it determines the cost of fuel recovered from that sale by calculating its cost to generate 100 KWH and subtracts this cost from total fuel costs to determine its monthly fuel cost.

KIUC and the AG argue that this methodology fails to reflect line losses incurred to make intersystem sales. Line losses are [t]he amount of power or commodity lost between the utility s generating facilities or production source and the customers premises or any two intermediate points in the utility system. Public Utilities Reports, Inc., P.U.R. Glossary for Utility Management 83 (1992). Some power, usually in the form of heat, is lost when transmitting the energy from its place of generation to the point of delivery.[3] For example, a utility may generate 103 KW of electricity to sell 100 KW. The three additional KW represent line losses incurred when transmitting the electricity.

KIUC and the AG contend that all fuel costs related to intersystem sales must be deducted from a utility s total fuel costs. In support of their position, they refer to Administrative Regulation 807 KAR 5:056, Section 1(3)(d), which requires the deduction of [t]he cost of fossil fuel recovered from intersystem sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis. KIUC and the AG further contend that the fuel costs associated with transmitting intersystem sales energy from the power plant to the point of delivery are related to intersystem sales. If the intersystem sales did not occur, they assert, then there would be no intersystem line losses.

If this interpretation is correct, then KU s current method overstates fuel costs and requires retail customers to pay a higher fuel charge. It has the effect of forcing

[3] The delivery of power requires a certain amount of energy to overcome the resistance and impedance of the transmission and distribution facilities between the generating station and the customer who takes service. As a result, a portion of the energy generated or purchased by the utility is unavoidably lost. Case No. 96-523, Direct Testimony of Paul M. Normand at 6.

retail customers to subsidize KU s intersystem sales. Fuel costs related to intersystem sales line loss are being allocated to and borne by KU s retail customers, not KU s intersystem customers.

KIUC further argues that KU s current method allows double recovery of fuel costs related to intersystem line loss. It argues that KU s intersystem sales are made at market-based prices that are greater than the variable cost of the sale. In addition to the fuel costs associated with each sale, KIUC contends, the variable cost of each sale includes components such as variable O&M costs, emission allowance costs, and fuel costs associated with line losses. KU reports these components to the Commission as Other Charges that are not considered in the calculation of the FAC charge. Because KU is selling power at prices that exceed its variable costs, KIUC asserts, it is already recovering the cost of fuel related to intersystem sales line loss from its off-system customers.

As further proof of this alleged double recovery, KIUC notes that comparability provisions of Federal Energy Regulatory Commission (FERC) Order 888[4] require KU to charge its own intersystem sales the same transmission costs that it charges other transmission transactions. As KU s transmission tariffs currently provide for a line loss factor of 3.1 percent, KIUC asserts, KU is recovering a 3.1 percent line loss factor from all of its intersystem sales.

In response to these contentions, KU argues that KIUC and the AG s proposal results in asymmetrical regulation and provides a double recovery of fuel costs

[4] For a discussion of FERC s comparability standards, see 60 Fed. Reg. 17672-17674, 17679-17688 (Notice of Proposed Rulemaking); 61 Fed. Reg. 21570-21579 (Final Rule).

associated with line losses to retail customers. Because the revenues associated with intersystem sales were credited back against its revenue requirement in its last general rate case,[5] KU asserts, it receives no double recovery. The fuel cost of the incremental line losses associated with intersystem sales are reflected in base rates.[6] Administrative Regulation 807 KAR 5:056, KU further argues, does not mandate recognition of fuel costs for energy losses in the transmission of intersystem sales from the calculation of the FAC:

> [T]he Commission has applied discretion in recognizing the recovery of these costs and revenues with the rate making used in a base rate case. To exclude the fuel costs for energy losses in the transmission of inter-system sales from being recovered through the fuel adjustment clause when these costs were excluded from KU s cost of service in the last rate case creates an imbalance between the two methods of ratemaking and causes asymmetrical ratemaking.

Direct Testimony of Robert M. Hewitt at 6.

In weighing the parties arguments, the Commission looks to the purpose and intent of Administrative Regulation 807 KAR 5:056. When promulgating this regulation, we stated that:

> The adjustment factor will be based on the actual cost of fossil fuel consumed **for the purpose of supplying energy to the utility s customers**. Recognition of inter-system purchases and exchanges may be provided by **exclusion of fuel costs incurred because of inter-system energy sales**, including fuel costs related to economy energy sales; by inclusion of the fuel cost of energy purchased from other systems; and where energy is purchased on an economic

[5] Kentucky Utilities Company, Case No. 8624 (Ky. P.S.C. Mar. 18, 1983)

[6] Case No. 96-523, Direct Testimony of Robert M. Hewitt at 5; Case No. 96-523, KU s Response to AG s Second Set, Items 3 and 4.

> dispatch basis to replace the purchaser s own higher generating costs, the price paid for economy energy.

Kentucky Power Company, at 17 (emphasis added).[7] Clearly, our intent was to permit recovery only of fuel costs related to the provision of service to retail customers and to ensure that utilities do not recover from their retail customers fuel costs already recovered from non-retail customers.

Re Pennsylvania Power & Light Co., 6 FERC ¶61,036, 27 PUR4th 609 (Jan. 15, 1979), supports this view. In that proceeding, the FERC considered an FAC methodology that allegedly understated the cost of fuel recovered from intersystem sales. Reviewing the purpose of Order 517, the Order which established the FERC s FAC Regulation and upon which Administrative Regulation 807 KAR 5:056 is modeled,[8] the FERC declared:

> In Order 517, we noted that the purpose of the fuel clause is to pass on to customers the increases or decreases in the fuel costs *actually* incurred by the utility. We also stated that the purpose was to make utilities whole for increased costs associated with changes in fuel costs. Section 35.14(a)(2)(iv) of our regulations is an adjustment to the fuel clause designed to ensure that while a utility will be made whole for the increased fuel costs, it will not be permitted to recover from two separate purchasers (the wholesale customers and the intersystem customers) for the same increase in fuel costs. By requiring the utilities to deduct from the fuel clause what has already been recovered from intersystem purchasers, §35.14(a)(2)(iv) ensures that wholesale customers will not pay for fuel costs already paid by the intersystem customers.

[7] See also An Investigation of The Fuel Adjustment Clause Regulation 807 KAR 5:0056, Administrative Case No. 309 (Ky. P.S.C. Sept. 21, 1988) at 5 (One objective of the Uniform FAC was to be fair in billing costs to the cost-causer).

[8] See Kentucky Power Company, Case No. 6877 (Ky. PSC. Dec. 15, 1977) at 11.

> However, PP&L s proposed fuel clause would permit PP&L to collect from its wholesale customers a portion of the fuel costs already recovered from intersystem purchasers. . . . This is not what we intended to allow when we authorized the use of fuel clauses. While we believe that a utility should be made whole for increased costs, we do not believe that a utility should be made whole and plus some.

27 PUR4th at 613 (footnote omitted).

As it currently calculates its fuel costs, KU complies with neither the intent nor the literal language of Administrative Regulation 807 KAR 5:056. By failing to include the cost of fuel associated with intersystem sales line losses in the cost of fossil fuel recovered from intersystem sales, KU places upon its retail customers fossil fuel costs that are clearly <u>related</u> to intersystem sales and <u>unrelated</u> to the provision of retail service. To the extent that KU s charges for intersystem sales provide for recovery of such costs, KU s current methodology allows for double recovery of these costs.

The Commission finds no merit to KU s contention that inclusion of the cost of fuel associated with intersystem sales line losses in the cost of fossil fuel recovered from intersystem sales will result in asymmetrical ratemaking. This contention ignores two key points. First, in KU s last general rate case, both revenues <u>and</u> expenses associated with intersystem sales were incorporated in the calculation of KU s overall revenue requirement. Second, Administrative Regulation 807 KAR 5:056 clearly requires that the costs recovered through intersystem sales be excluded from FAC calculations. If the Commission were to apply KU s logic, then <u>all</u> intersystem sales expenses must be assigned to retail ratepayers. KU has not made such a proposal. KU furthermore does not explain why one type of expense associated with intersystem sales -- the fuel costs associated with line losses for intersystem sales -- should be treated differently than other intersystem sales expenses. The first proposition violates Administrative Regulation 807 KAR 5:056. The latter proposition is unsupportable for there is no justification for assigning one portion of the intersystem sales expenses to retail customers while the remainder of those costs are assigned to intersystem sales customers. The balance established in KU s last general rate case is maintained by either following the practice used in that case or by a complete and total allocation of costs between retail and intersystem sales customers. KU s approach disrupts that balance.

The Commission acknowledges that KU s methodology has been in use for an extended period of time. Previous commissions apparently failed to discern KU s methodology, the implications of such methodology for KU s ratepayers, and the differences in KU s methodology with that of other electric utilities. Until recently, the Commission had never expressly addressed the issue of line loss associated with intersystem sales in any formal Commission proceeding;[9] nor had KU s methodology been expressly questioned in any formal proceeding. During the same period in which KU used its methodology, moreover, two of the remaining three electric generation utilities in this state, East Kentucky Power Cooperative and American Electric Power, included the cost of fuel associated with their intersystem sales line losses in the cost of fossil fuel recovered from intersystem sales. As these utilities methodologies and KU s methodology are mutually exclusive, the use of two conflicting methodologies clearly conflicts with a principal objective of the Uniform FAC Regulation the

[9] For the first Commission discussion of this issue, see Louisville Gas and Electric Company, Case No. 96-524 (Ky. P.S.C. Feb. 9, 1999).

standardization of the FAC for all jurisdictional utilities.[10] By our ruling this day, this Commission returns to the objectives of the Uniform FAC Regulation and corrects previous failures.

Cost of Fuel Recovered Through Intersystem Sales: Appropriate Line-Loss Factor

The parties to the proceedings disagree over the appropriate line loss factor to apply to KU s intersystem sales to determine the fuel cost of fossil fuel associated with intersystem sales line loss recovered from intersystem sales. KIUC and the AG argue that a line loss factor of 3.1 percent is appropriate. This factor is set forth in KU s Transmission Services (TS) Tariff on file with the FERC and is also the factor that KU used throughout the review period to report line loss associated with intersystem sales.[11] Both Intervenors argue that KU s use of this factor in its monthly FAC reports to the Commission demonstrates the reliability and appropriateness of this line loss factor.

KU argues that, should the Commission determine that its method of calculating the cost of fuel recovered from intersystem sales is in error, the Commission should calculate this cost using a line loss factor of one percent. In support of its position, it presented a line loss study that shows KU s line loss factor for intersystem sales on an incremental basis is only one percent. KU argues that because intersystem fuel cost procedures are used to determine prices for those sales, it is more consistent to calculate losses associated with those sales on an incremental basis.

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[10] See An Investigation of The Fuel Adjustment Clause Regulation 807 KAR 5:0056, Administrative Case No. 309 (Ky. P.S.C. Sept. 21, 1988) at 3.

[11] Case No. 96-523, KU s Response to KIUC s First Set of Data Requests, Item 1.

The Commission finds that, in determining the cost of fossil fuel associated with intersystem sales line loss recovered from intersystem sales, a line loss factor of 3.1 percent should be used. We find that KU s use of a 3.1 percent line loss factor in its monthly FAC reports and in its FERC tariffs during the review periods to be strong evidence of the appropriate line loss factor for intersystem sales. In light of KU s previous representations to this Commission and to FERC regarding the appropriate line loss factors, we cannot conclude that the results of KU s most recent line loss study, prepared after the close of the review periods and in response to the Intervenors arguments, should be afforded greater weight.[12]

Based upon our calculations, which are shown in Table I below and which apply a 3.1 percent line loss factor to KU s intersystem sales during the review periods, the Commission finds that KU underreported its cost of fuel recovered from intersystem sales for the period under review by $1,377,960.

[12] KU s failure to modify its monthly reports to reflect the results of its study or to apply for authority to recalculate its FAC charges to reflect a one percent line loss factor during the review periods undermines its arguments. The Commission notes that on July 24, 1997, KU filed revisions to its Transmission Services Tariff to reflect a line loss factor up to 2.35 percent. Kentucky Utilities Company, FERC Docket No. OA97-656-000. Not until January 1999, however, did KU submit a monthly FAC report which reflected a line loss factor of one percent for intersystem sales.

TABLE I

Month	Reported Recovered Intersystem Fuel Cost ($)	Unreported Recovered Intersystem Fuel Cost ($)
November 1994	3,208,206	99,454
December 1994	3,327,857	103,164
January 1995	393,670	12,204
February 1995	421,652	13,071
March 1995	493,600	15,302
April 1995	237,359	7,358
May 1995	1,233,505	38,239
June 1995	1,965,540	60,932
July 1995	3,301,565	102,349
August 1995	4,622,440	143,296
September 1995	1,395,362	43,256
October 1995	1,536,842	47,642
November 1995	1,498,113	46,442
December 1995	1,436,776	44,540
January 1996	2,316,821	71,821
February 1996	2,445,122	75,799
March 1996	2,271,310	70,411
April 1996	1,695,934	52,574
May 1996	1,567,753	48,600
June 1996	1,679,079	52,051
July 1996	1,448,023	44,889
August 1996	1,505,761	46,679
September 1996	1,806,399	55,998
October 1996	2,641,588	81,889
TOTAL		$1,377,960

<u>Calculation Of System Line Losses</u>

To determine the sales component of the FAC charge, KU must calculate its system line losses. It first calculates the overall system line loss for the current expense month, dividing the 12-month overall system losses by the 12-month KWH sources. The overall system line loss is expressed as a percentage. KU then multiples this percentage by the amount of KWH sources for the current expense month to obtain an overall system line loss expressed in KWH. KU next identifies the line losses associated with its wholesale sales and intersystem sales.[13] Using line loss factors set forth in its FERC tariffs, KU calculates the line losses for wholesale and intersystem sales, expressed in KWH. Next, KU determines its retail line losses by subtracting the KWH line losses for wholesale and intersystem sales from the KWH overall system line losses. It also subtracts the wholesale and intersystem sale KWH sources from the overall KWH sources to determine a retail KWH sources. KU divides the retail KWH line loss by the retail KWH sources, resulting in a retail line loss percentage. In its final step, KU multiplies the retail line loss percentage by the total current expense month KWH sources to arrive at the system line losses that it uses to compute the sales component of the FAC charge.[14]

The AG and KIUC objected to the last step in KU's calculations. Noting that Administrative Regulation 807 KAR 5:056, Section 1(5)(f), requires the subtraction of the total system losses from all sources of output to determine the sales component, the AG contends that KU has engaged in "voodoo math to create phantom losses in excess of total system losses" and thus created a total FAC calculation higher than it should be.[15] He further argues that KU's calculation treats every sale on the system as having been made at a loss level equivalent to the retail loss level. Given that the FAC regulation only allows for the reduction of sales by total system losses, the AG

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[13] The wholesale sales are made at either transmission or primary voltage. The intersystem sales are made at transmission voltage.

[14] The calculations that KU performs are set forth in a document entitled Adjustment of Rolling 12 MTD Average Overall System Losses to Reflect Losses at the Retail Level. KU has attached this document to Form A of its monthly FAC report. See Case No. 96-523, KU s Response to KIUC s First Set of Data Requests, Item 1.

[15] Case No. 96-523, AG s Brief at 3.

contends, any calculation that results in an amount greater than 100 percent of the system's losses is erroneous and must be reformed.

In a similar vein, KIUC contends that KU s methodology improperly inflates KU's per KWH fuel costs. KIUC argues that Administrative Regulation 807 KAR 5:056 specifically requires the deduction of total system losses. KU has violated the FAC regulation every month of the review period, KIUC asserts, by consistently subtracting from the calculation of jurisdictional sales more than 100 percent of total system losses. According to KIUC, KU is the only electric utility in Kentucky that uses more than 100 percent of total system losses in the determination of jurisdictional sales.

KU argues that its methodology is reasonable and consistent with Administrative Regulation 807 KAR 5:056. It notes that, unlike other jurisdictional electric utilities, KU has wholesale customers in addition to non-firm intersystem sales. Failing to recognize the differences between service to these customers and to retail customers, KU argues, will result in wholesale customers subsidizing retail customers. KU asserts that the Commission directed such adjustment in Administrative Case No. 309 and has consistently approved such adjustment since its implementation in 1990.[16] Moreover, it also asserts that Commission Staff has voiced similar approval.[17]

The Commission finds that KU s methodology is not consistent with Administrative Regulation 807 KAR 5:056, Section 1(5), which provides:

> Sales (S) shall be all KWH s 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 (a) Generation; (b) Purchases; (c)

[16] Case No. 96-523, KU Brief at 13 14.

[17] Id. at 14.

Interchange-in; less (d) Energy associated with pumped storage operations; less (e) Inter-system sales referred to in subsection (3)(d) above; less (f) **Total system losses** [emphasis added].

The regulation refers only to total system losses and makes no provision for adjustments. It permits an electric utility to use actual line losses only in calculating the sales component. As Table II clearly shows, KU s methodology results in a line loss component that **exceeds total system line loss** and has caused KU to incorrectly calculate its system line losses for the entire review period. Total system line losses, and thus the FAC charge, are overstated for every month of the review periods.

TABLE II

Month	Total System Line Loss (KWH)	KU s Reported Retail FAC Loss Level (KWH)
November 1994	77,309,723	90,499,129
December 1994	84,793,724	98,137,308
January 1995	79,490,026	85,486,974
February 1995	75,670,450	81,888,459
March 1995	70,941,734	76,888,289
April 1995	64,567,600	69,385,971
May 1995	73,489,264	81,788,884
June 1995	83,872,766	93,568,770
July 1995	99,94,204	113,098,842
August 1995	111,591,561	127,194,628
September 1995	76,486,145	85,066,828
October 1995	75,007,094	84,322,897
November 1995	81,143,648	90,423,770
December 1995	90,127,413	99,665,814
January 1996	97,404,621	109,946,836
February 1996	84,997,704	95,822,249
March 1996	86,066,021	95,690,578
April 1996	70,394,295	78,533,664
May 1996	74,447,767	81,738,821
June 1996	84,145,952	92,168,218
July 1996	85,177,012	93,650,394
August 1996	89,626,548	98,004,444
September 1996	76,923,472	86,166,459
October 1996	78,635,762	90,224,563

Source: Case No. 96-523, KU s Response to KIUC s First Set of Data Requests, Item 1

Contrary to KU s contentions, the Commission did not mandate KU s current methodology. In Administrative Case No. 309, the Commission discussed the need for KU to segregate jurisdictional and non-jurisdictional sales:

> The Commission is persuaded that non-jurisdictional sales must be recognized and excluded from the calculation of any over- or under-recovery. The Commission agrees that such an adjustment should be made in order to produce an accurate match of fuel cost and fuel recovery. <u>However, such adjustment should affect only the over- or under-recovery calculation and should not affect the determination of a utility's current month system average fuel cost apart from the over- or under-recovery calculation</u>.

<u>An Investigation of the Fuel Adjustment Clause Regulation</u>, Administrative Case No. 309 (Ky. P.S.C. April 16, 1990) at 3 (emphasis added). Contrary to the Commission s expressed intent, KU s current methodology does in fact affect the determination of its current month system average cost.

The record fails to support KU s claim of Commission Staff endorsement for its methodology. In a June 20, 1990 report, in which KU refers to support its claim, Commission Staff briefly discusses KU s new methodology:

> Beginning in January 1990, KU changed its calculation of line loss for FAC purposes. Previously, KU had calculated a system-wide line loss using a twelve-month rolling average. Now, KU is separating its system-wide line loss between its wholesale/foreign sales and its Kentucky jurisdictional retail sales. The intent is to improve the matching of fuel cost and fuel cost recovery by recognizing the different line losses that occur at the transmission voltage, primary voltage, and distribution voltage levels. The procedure being used allocates transmission and primary voltage losses to wholesale and foreign sales based on the line losses presently allowed in KU's wholesale rates per FERC Case No. 83-656-000. The remainder of the system-wide loss is then allocated to retail sales. KU envisions using this methodology so long as its actual transmission and primary

> voltage losses continue to closely track the loss percentages allowed in its wholesale rates.
>
> The Staff agrees that the separation of KU's system-wide line loss results in a better matching of fuel cost and fuel cost recovery. KU's use of the FERC-approved wholesale line losses appears to be reasonable as it is producing approximately the same loss percentages as would a 12-month rolling average of wholesale line losses. The FERC-approved line loss and the wholesale rolling average will be tracked and compared in future FAC reviews.

Case No. 96-523, Direct Testimony of Robert M. Hewitt, Exhibit RMH-2 at 5. While Commission Staff accepted the segregation of overall system line loss between Kentucky jurisdictional retail sales and non-jurisdictional sales, it never endorsed KU s approach of applying its retail line loss percentage to all system sales to restate the overall system line losses as if experienced at the retail level.

The Commission finds that KU s methodology for calculating system line loss results in an overstatement in the cost of fuel by $2,857,084. This calculation is based on replacing KU s reported retail line loss with the overall system line loss, which is shown in KU s monthly FAC report.[18] Table III reflects the overcharges for each month of the review periods. The Commission further finds that KU should immediately discontinue its practice of restating its total system line losses using the retail line loss factor. When determining the amount of system losses to include on the Sales

[18] Because of the two-month lag in determining the FAC over- or under-recovery adjustment, the Commission s calculations started with the January 1994 FAC report. Thus, the impacts of using incorrect system line losses in periods prior to November 1994 were eliminated.

Schedule of its monthly FAC filings, KU should use the overall system losses based on 12 months to date information. KU should continue to show the separation of its wholesale and intersystem sales and losses from the total system amounts, as well as determining a retail value. However, the last step shown on its Adjustment of Rolling 12 MTD Average Overall System Losses to Reflect Losses at the Retail Level Form, is improper and should be deleted.

TABLE III

MONTH	**DISALLOWANCE FROM RECALCULATION OF FORM A LINE LOSS SCHEDULE**
November 1994	186,394
December 1994	145,408
January 1995	44,466
February 1995	67,489
March 1995	88,455
April 1995	67,545
May 1995	108,391
June 1995	121,684
July 1995	153,472
August 1995	168,611
September 1995	109,977
October 1995	178,921
November 1995	119,100
December 1995	88,359
January 1996	157,329
February 1996	126,910
March 1996	128,645
April 1996	108,624
May 1996	104,140
June 1996	85,873
July 1996	103,809
August 1996	107,929
September 1996	113,533
October 1996	172,020
TOTAL	$2,857,084

Energy Purchases From Owensboro Municipal Utilities

In 1960, KU entered into a purchased power agreement with Owensboro Municipal Utilities (OMU) for the purchase of OMU s surplus capacity. This contract continues in effect until 2001. Under the contract terms, KU purchases OMU s surplus power and controls how the OMU plants are dispatched. KU schedules the operations of its plants around the operation of the OMU facilities. During the review period, KU included in its monthly cost of fuel the total energy charges assessed by OMU. (These charges included environmental compliance costs and other non-fuel related items, but not capacity charges.) KU contends that this treatment is authorized by Administrative Regulation 807 KAR 5:056, Section 1(1)(c), which provides that fuel costs shall include:

> 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.

The AG contends that KU has incorrectly classified its purchases from OMU as economic dispatch purchases. He argues that an economic dispatch transaction occurs only when a utility substitutes another utility s power for its own, more expensive power. [E]nergy purchased on an economic dispatch basis is power purchased for use instead of available, but [sic] higher priced energy from the utility s own sources of supply.[19] OMU power, the AG asserts, is not a substitute for available but more expensive KU-owned power, but a constant long-term source of supply which is being used by KU to increase its base load capacity to the level necessary to meet its minimum load requirements. Moreover, economic dispatch power purchases involve a term of a year or less. KU s purchase power agreement with OMU is for a term of years. The AG notes that KU s planning process looks at production models which include OMU power as a source of base load supply, ranging from three to thirty years

[19] Case No. 96-523, AG s Brief at 7.

in the future - the same way that a utility would view power from a leased or co-owned source.

KIUC employs a similar argument using definitions from the FERC FAC regulation. The FERC defines economic power as power or energy purchased over a period of twelve months or less where the total cost of the purchase is less than the buyer s total avoided cost.[20] Total cost of the purchase is all charges incurred in buying economic power and having such power delivered to the buyer s system.[21] Total avoided variable cost is all identified and documented variable costs that would have been incurred by the buyer had a particular purchase not been made.[22] KIUC asserts that during the review period the total cost of the purchases were in excess of KU s total avoided cost and therefore did not meet the definition of the economic power.

The AG and KIUC propose that the Commission disallow all non-fossil fuel-related costs (such as capacity fees and environment adders) that are contained in KU s purchases from OMU. If KU s purchases from OMU were not made on an economic dispatch basis, then Administrative Regulation 807 KAR 5:056, Section 1(3)(b), would permit KU to recover only the actual identifiable fossil . . . fuel costs associated with [the] energy purchased. KIUC further proposes that the Commission require KU to provide relevant information in a standardized format to determine whether future purchases are economic dispatch purchases.

[20] 18 C.F.R. §35.14(11)(i).

[21] 18 C.F.R. §35.14(11)(ii).

[22] 18 C.F.R. §35.14(11)(iii).

KU asserts that its purchases from OMU are not constant or firm, but rather substitute for the next available unit on KU s system. Over the length of the transaction, the cost of each energy purchase from OMU was an economic substitute for KU s own higher cost energy. The energy price of each transaction is less than the total avoided cost of production energy of KU over the transaction period. As a result, the energy purchased was an economic substitute for KU s own higher cost energy. KU further contends that, using the twelve-month period upon which it plans its generation activities, KU s energy production costs are higher than the purchase cost of OMU power.

KU also argues that the AG and KIUC proposals would represent a radical departure from past Commission practice. For 20 years, the Commission has regarded KU s purchases from OMU as being on an economic dispatch basis. It has not questioned KU s method for accounting for these transactions or disallowed any energy costs related to the transaction.

Existing precedent provides no guide to defining economic dispatch. The Commission has not uncovered any prior Commission Order where the term was discussed or defined. The record of the proceedings in which amending Administrative Regulation 807 KAR 5:056 was established or subsequently amended provided no definition. As the regulation is modeled upon an early version of the FERC s FAC Regulation, FERC decisions provide some limited guidance. In Re Pennsylvania Power and Light Company, 27 PUR4th at 614, the FERC held that the economic dispatch provision

> was intended to benefit consumers by encouraging energy purchases when the cost of the purchased energy is less

> than the cost of the purchaser s own generation. Whether the purchase would be cheaper than generation is determined by an hour-by-hour basis. This is what we intended to encourage. By requiring to use the actual hour-by-hour cost in the fuel clause the consumers will benefit as intended.

See also Central Vermont Public Service Corporation, 61 FERC ¶62,195 (Dec. 7, 1992).

While KIUC and KU refer to the existing FERC FAC Regulation, such references are not very useful. FERC has modified this regulation since the Commission adopted its FAC Regulation, and the Commission has made no attempt to conform its regulation into the FERC s regulation.

In the absence of a clear definition of economic dispatch and in light of the Commission s past acceptance of KU s treatment of energy purchases from OMU, the Commission finds insufficient evidence to conclude that KU improperly accounted for its purchases from OMU. We find, however, that a strong need exists for a clear definition of economic dispatch and for specific standards regarding the reporting of purported economic dispatch transactions. Accordingly, the Commission will within 20 days of this Order establish a proceeding to address the issue with a view to establishing such definition and standards.

Interest

KIUC and the AG request interest on all amounts overcollected. The Commission finds that this request should be denied. Administrative Regulation 807 KAR 5:056 makes no specific provision for the payment of interest. It provides only that the Commission may order a utility to charge off and amortize, by means of a temporary decrease of rates, any adjustments it finds unjustified due to improper calculation or application of the [fuel adjustment] charge. 807 KAR 5:056, Section 1(11). The Commission has awarded interest on overchanges in extraordinary instances where utility misconduct or imprudence was involved. Such factors, however, are not present in this case.

SUMMARY

Having reviewed the evidence of record and being otherwise sufficiently advised, the Commission finds that:

1. When calculating the cost of fuel recovered from intersystem sales, Administrative Regulation 807 KAR 5:056 requires an electric utility to include the cost of fuel associated with line losses which it incurred to make an intersystem sale.

2. During the review periods, KU failed to include the cost of fuel associated with line losses which it incurred to make an intersystem sale when calculating the cost of fuel recovered from intersystem sales.

3. When calculating the cost of fuel recovered from intersystem sales during the periods under review, KU should have used a line loss factor of 3.1 percent to determine the cost of fuel associated with line losses which it incurred to make an intersystem sale.

4. As a result of its failure to correctly calculate the cost of fuel recovered from intersystem sales, KU overstated its fuel costs for the periods under review by $1,377,960.

5. In its calculation of the sales component of its monthly fuel charge, KU improperly calculated total system losses. As a result, KU overstated its fuel costs by $2,857,084.

6. Upon filing its first monthly fuel adjustment after entry of this Order, KU should, in calculating its monthly fuel cost, reduce actual monthly fuel cost by $4,235,044 to reflect unreported fossil fuel costs recovered through intersystem sales during the review period and its overstatement of fuel costs associated with total system losses.

7. The test month of January 1995 should be used as KU s base period for this review.

8. KU s proposed base period cost of 12.97 mills per KWH should be retained.

IT IS THEREFORE ORDERED that:

1. Cases No. 94-461-A, No. 94-461-B, No. 94-461-C and No. 96-523 are consolidated.

2. Upon filing its first monthly fuel adjustment after entry of this Order, KU shall, in calculating its monthly fuel cost, reduce actual monthly fuel cost by $4,235,044 to reflect unreported fossil fuel costs recovered through intersystem sales during the review period and its overstatement of fuel costs associated with total system losses.

3. In all monthly fuel adjustments filed after the entry of this Order, KU shall include in its calculation of cost of fuel recovered from intersystem sales the cost of fuel associated with line losses which it incurred to make intersystem sales.

4. The test month of January 1995 shall be used as KU's base period for this review.

5. KU shall immediately discontinue its practice of restating its total system line losses using the retail line loss factor. When determining the amount of system losses to include on the Sales Schedule of its monthly FAC filings, KU shall use the overall system losses based on 12 months to date information. KU shall continue to show the separation of its wholesale and intersystem sales and losses from the total system amounts, as well as determining a retail value. It shall delete the last step shown on its Adjustment of Rolling 12 MTD Average Overall System Losses to Reflect Losses at the Retail Level Form.

6. KU's proposed base period fuel cost of 12.97 mills per KWH is retained.

7. This case is closed and shall be removed from the Commission s docket.

Done at Frankfort, Kentucky, this 15th day of July, 1999.

By the Commission

ATTEST:

____
Executive Director