

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY)
FOR APPROVAL OF AN ALTERNATIVE METHOD OF) CASE NO. 98-474
REGULATION OF ITS RATES AND SERVICE)

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COMMENTARY

Kentucky Utilities Company ("KU") is a privately owned electric utility that generates, transmits, distributes, and sells electricity to approximately 441,000 consumers in all or parts of 77 counties in Kentucky.¹ KU is a wholly owned subsidiary of LG&E Energy Corporation, a non-utility holding company.

BACKGROUND

On July 14, 1997, KU and Louisville Gas and Electric Company ("LG&E") filed a joint application for approval of a merger. As part of the application, docketed as Case No. 97-300,² KU committed to freeze its base electric rates for five years from the date of the merger. In addition, it committed to share equally the net merger savings for the first five years between shareholders and the KU and LG&E ratepayers through the use of a monthly billing credit. Based on KU's commitment to these ratepayer benefits, as well as the Commission's determination that the transaction was in the public interest,

¹ Operating under the name of Old Dominion Power Company, KU generates, transmits, distributes, and sells electricity to approximately 29,000 consumers in 5 counties in southwestern Virginia. KU also sells wholesale electric energy to 12 municipalities.

² Case No. 97-300, Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Approval of Merger.

the transfer and change in control was approved by Order dated September 12, 1997 (“Merger Order”).

During the review and investigation of the merger application, some of the intervenors alleged that KU and LG&E were earning an excessive rate of return and that the appropriate solution was to give ratepayers a larger share of the merger savings. The Commission, however, found insufficient evidence in the record to support a finding at that time that earnings were excessive. The Commission did find that continued monitoring of KU’s and LG&E’s financial reports was appropriate, and that a rate investigation could be initiated “should circumstances warrant.”³

In approving the merger, the Commission also recognized that the electric utility industry is undergoing restructuring in many jurisdictions and competition is emerging in both wholesale and retail markets. To ensure that KU and LG&E were prepared to operate in this new environment, the Commission directed that after the merger each utility separately file detailed plans to either continue having its rates set on a rate of return basis, which considers operating and capital costs, or to adopt a non-traditional (or alternative) form of rate regulation, which considers factors other than, or in addition to, costs.

More specifically, the Merger Order stated:

If either utility elects to remain under traditional rate-of-return regulation, it should state the reasons and include an analysis and proposals relative to its earnings at that time. Alternatively, if either utility elects non-traditional regulation, the reasons for this choice should be disclosed, along with the details of a proposal and how it will achieve the Commission’s goals of providing incentives to utilities and a sharing of resulting benefits with ratepayers. The

³ Case No. 97-300, September 12, 1997 Order at 14.

Commission will then determine, based on all relevant financial information, as well as then current economic and regulatory conditions, whether changes should be made to the existing regulation of LG&E and KU.⁴

KU and LG&E were directed to file their respective detailed plans to address future regulation by September 14, 1998 or the consummation of the merger, whichever was later. Since the merger was consummated on May 4, 1998, the due date for filing the detailed plans was September 14, 1998.

CASE PROCEDURE

On August 14, 1998, KU filed a letter giving notice of its intent to file an application on or after September 14, 1998 for approval of an alternative form of rate regulation. KU subsequently filed a motion on August 31, 1998 requesting a four week extension of time, from September 14, 1998 to October 12, 1998, to file its application. By Order dated September 10, 1998 the Commission granted KU the four week filing extension.

KU then filed on October 12, 1998 its application for Commission approval of an alternative form of rate regulation. The alternative form proposed is commonly known as performance-based rate-making ("PBR") and consisted of three targeted incentives tied to three specific operational areas.

The following parties requested and were granted full intervention: the Attorney General's Office; Kentucky Industrial Utility Customers ("KIUC"); the United States Department of Defense and other Federal Executive Agencies; the Kentucky Natural Resources and Environmental Protection Cabinet, through its Division of Energy; the

⁴ Id. at 35.

Kentucky Association for Community Action, Inc. ("KACA"); Kentucky Resources Council, Inc. ("KRC"); the Lexington-Fayette Urban County Government; and the Community Action Council for Lexington-Fayette, Bourbon, Harrison, and Nicholas Counties, Inc. ("CAC").

KU requested that a series of informal conferences be held at the Commission's offices to discuss the issues raised in KU's application, as well as issues raised by intervenors. During the course of these conferences, opportunities were afforded for discovery. The first informal conference was held on November 4, 1998 for KU to make a presentation on the alternative rate-making plan proposed in its application. During the conference, intervenors alleged that KU's existing rates were excessive and should be reduced. Although KU did not agree that its existing rates were excessive, it did agree to discuss its recent level of earnings and what is a reasonable return on equity.

The next informal conference was held on November 20, 1998 to discuss generally the subject of alternative rate-making and specifically KU's earnings. Subsequent informal conferences were convened on December 17 and 18, 1998, to discuss the specific components of KU's alternative regulation plan and KU's earnings, and on January 28, 1999, to discuss the intervenors' alternative proposals to KU's application and the intervenors' positions on KU's earnings.

At the request of KU and the intervenors, another conference was set for February 25, 1999 to discuss settlement of the issues in KU's application and the issue of KU's earnings. Two days before the conference, KU requested a two week delay. Since the parties were unable to mutually agree on a new date, the conference was cancelled.

On February 8, 1999, the Commission issued a procedural schedule to investigate KU's application. The schedule provided for discovery, intervenor testimony, and a hearing on June 15, 1999. KU subsequently filed on March 5, 1999 an Amended Application, supplementing its original application by proposing additional ratepayer benefits and protections. The most significant benefit was a five year schedule of bill reductions based on KU's analysis of its earnings and rate of return. By Order entered April 13, 1999, the Commission accepted for filing the Amended Application and allowed the proposed tariffs to become effective on July 2, 1999 subject to future change.

Apparently, the intervenors' inability to resolve with KU the issues raised concerning its level of earnings led KIUC to file a formal rate complaint on March 18, 1999. KIUC's complaint alleged that KU's electric rates were excessive; were no longer fair, just and reasonable; and should be reduced. The Commission found that KIUC had established a prima facie case and, due to common issues of fact raised in the rate complaint and KU's Amended Application, consolidated KIUC's rate complaint into this proceeding.

The procedural schedule was revised to allow all parties an opportunity to address the new issues raised by KU's Amended Application and KIUC's rate complaint. Consolidated hearings were held on August 31, 1999 and September 1-3 and 7-8, 1999 for this case and the companion LG&E case. The parties have filed initial and reply briefs and this case now stands submitted for a decision.

ALTERNATIVE REGULATION

Alternative regulation is a tool used by regulators and utilities to create new behavioral and operational activities by the participating utility that emulate the actions of a firm in a competitive market. All of the major utility industries—telecommunications, electricity, natural gas, and water—have utilized some form of alternative regulation in one or more jurisdictions across the nation. Titles such as “price caps,” “performance based rates,” and “earnings sharing mechanisms” all describe distinct forms of alternative regulation that consider non-cost factors when establishing rates.

In a June 1998 report prepared for KU and LG&E, Laurits R. Christensen Associates, Inc. developed a detailed outline of the most widely recognized forms of performance-based regulation or alternative regulation.⁵ The Christensen Report discusses the three major forms of alternative regulation: 1) rate and revenue indexes; 2) earnings sharing mechanisms; and 3) benchmarking. An appendix to the report provides an in-depth matrix of specific alternative regulation plans that fall within these three major forms of alternative regulation, with a further index by jurisdiction.

According to the Christensen Report, performance-based regulation can be implemented in the form of rate and revenue indexing (often referred to as “price caps” and “rate caps,” respectively), earnings sharing mechanisms, and benchmark regulation. Rate and revenue indexing, which have been accepted by regulators in this country and Great Britain, measure the “escalation in the company’s prices...by one or

⁵ See Case No. 98-426, LG&E’s Response to Metro Human Needs Alliance Request for Information, dated December 15, 1998, Item A4 Attachment. (“Christensen Report”). KU and LG&E jointly retained Christensen Associates to undertake an analysis of performance-based regulation.

more actual price indexes.”⁶ The actual prices are limited by the growth in a “price cap index” that does not reflect company actions. The price cap index can be a measure of economy-wide inflation, a subindex of several economic inputs, or an index of prices charged by competing service providers. Rate and revenue indexing plans often include sharing mechanisms so the ratepayers will receive a portion of the benefits achieved. This type of performance-based regulation is widely found in the telecommunications industry, but has found applications in the energy sector as well.

The Christensen Report describes the advantages of comprehensive rate indexing, which can produce stronger incentives than those produced by traditional cost-of-service regulation. Incentives are comprehensive when a wide range of cost containment, product development, and marketing incentives are encouraged.⁷ There is also a potential boost in efficiency by relaxing operating restrictions, and by lowering regulatory costs. Rate indexing also increases regulatory risk and business risk. Regulatory risk can be increased when the terms of the rate indexing plan are chosen arbitrarily, which could significantly weaken a plan’s incentives. Other utilities may then be discouraged from seeking this type of regulation. Business risk may be increased if the pricing restrictions do not track trends in external business conditions, which affect a utility’s unit cost.⁸

Stand-alone earnings sharing mechanisms (“ESMs”) are the most widely used form of comprehensive alternative regulation in the energy industry, according to the

⁶ Christensen Report at 11.

⁷ Id. at 27.

⁸ Id. at 28.

Christensen Report.⁹ An ESM automatically adjusts a utility's approved rates when its earned rate of return falls outside a pre-established range for a specified time period. Mechanisms are established to assign earnings surpluses or deficits between the utility and its customers. Return on equity ("ROE") is the most widely-used measure for an ESM.

ESMs have been used in several recent alternative regulation cases of electric utilities.¹⁰ The ESM function is also commonly used in tandem with rate and revenue indexing plans. Rate and revenue indexing plans generally provide greater incentives to cut costs and develop new products than do ESMs. However, ESMs do not increase the business and regulatory risks to the utility to the same extent as rate and revenue indexing plans. The Christensen Report states that an ESM can "extend the time period during which the company can operate without regulatory intervention,"¹¹ meaning that the filing of rate cases can be delayed. Finally, ESMs are relatively easy to understand, and provide transparent benefits to both the utility and its customers through the sharing of increases in earnings. ESMs align the interests of the shareholders and customers, since both parties directly benefit from an increase in efficiency, reductions in costs, and increases in revenues.

The last form of performance-based rates discussed by the Christensen Report is benchmark regulation. This form of performance-based regulation uses external performance standards, i.e., those that are insensitive to the actions of utility managers,

⁹ Id. at Appendix.

¹⁰ Id. at 38.

¹¹ Id. at 41.

to evaluate the efficiency of one or more indicators of the utility's activity. There are a variety of performance indicators or benchmarks, which can include non-energy on-site services, reliability, telephone services, metering and billing, customer satisfaction, employee safety, education, and transmission quality.¹² Such plans are considered comprehensive when "they cover all of the utility performance dimensions that matter to customers."¹³

Performance benchmarks typically compare a utility's current activity level to that in a previous period or compare the utility's performance to a corresponding indicator of a peer group of utilities. In the time-sensitive benchmark, a utility is rewarded relative to recent history. Under a peer group benchmark, the utility is rewarded when its performance improves relative to the peer group.

The Christensen Report describes three comprehensive benchmark regulation plans in detail. The first, Mississippi Power Company's ("MPC") Performance Evaluation Plan ("PEP"), was established through a collaborative process between MPC and representatives of its regulator and its customers. The PEP provided for quarterly adjustments to rates and allowed returns based upon MPC's performance in the following indicators: customer price, customer satisfaction, service reliability, equivalent availability, construction performance, contribution to load factor, and employee safety.¹⁴ MPC's allowed earnings range was determined using the performance

¹² Id. at Appendix.

¹³ Id. at 43.

¹⁴ Id. at 47.

indicators according to a formula.¹⁵ The PEP has since been revised and now includes only three performance categories: retail price, customer satisfaction, and service reliability. Some indicators, such as the customer price indicator, are benchmarked against peers, and others have time-sensitive benchmarks. Both PEPs allowed for sharing related to retail prices.¹⁶

The second comprehensive benchmark regulation plan involves Niagara Mohawk Power Corp. Again, this alternative regulation plan was established through a collaborative process. This plan utilized the ratio of utility cost to an index of utility output quantities and benchmarked those results against the same measure of unit cost of other regional utilities. One advantage of this index was its ability to have an objective and consistent measure of capital cost.¹⁷

The final plan described is a performance-based regulation plan for Southern Bell Telephone of Georgia. This plan features an earnings sharing mechanism based on service quality and total factor productivity growth.¹⁸

The Christensen Report describes comprehensive benchmark regulation as a way to “strengthen utility performance incentives relative to cost of service regulation

¹⁵ Individual indicators are evaluated against a benchmark and given a score between 0 and 10, with 10 being the highest score. Then the indicator scores are weighted and summed to arrive at an overall company performance rating. The overall performance rating is then used to determine the allowed earnings range for the company. Id. at 47-48.

¹⁶ Id. at 50.

¹⁷ Id. at 52-54.

¹⁸ Id. at 55.

with short rate case cycles.”¹⁹ This style of regulation can also reduce regulatory and business risk by using a mechanism to share deviations of actual performance from targeted performance. However, the Christensen Report also points out that comprehensive benchmarking provides no opportunity to redesign existing rates or to implement new rates or services.²⁰

The Christensen Report goes on to discuss service quality benchmarking which is becoming an important component of comprehensive indexing and benchmarking plans.²¹ Service quality benchmarking compares the actual performance of service quality of the utility with a set of standard benchmarks. This measurement evaluates service quality based on proxy data related to the service, market-based measures of value, and customer surveys. The Christensen Report suggests that judgmental factors be used in establishing the benchmarks for an electric utility since there are no industry-wide quality standards.²² These benchmarks can be based against recent utility performance, or against data available for a peer group of utilities. Penalties and rewards for service quality range from actual dollar figures to basis points on ROE. The Christensen Report does not discuss how best to share service quality benchmarking rewards and penalties between the utility and its customers.

Finally, the Christensen Report discusses non-comprehensive benchmark plans. These plans are similar to the comprehensive plans in that they involve performance

¹⁹ Id.

²⁰ Id. at 56.

²¹ Id.

²² Id. at 59.

indicators, performance benchmarks and award mechanisms but dissimilar in that they do not cover all dimensions of performance.²³ According to the Christensen Report, many of the benchmark plans approved for energy utilities are non-comprehensive and feature a small number of narrowly-focused performance variables such as: fuel procurement performance, generator management, and demand-side management performance. The Christensen Report notes that the performance areas can be targeted to meet the special concern of the regulatory community, but the company may sacrifice a degree of overall performance in pursuit of award payments. Non-comprehensive benchmark plans also generally do not include sharing. As the Christensen Report states, sharing can help reduce regulatory and business risk.²⁴

KU ALTERNATIVE REGULATION PLAN

KU's original application proposed a PBR consisting of three incentives tied to its fuel costs, generation performance, and service quality. KU developed its PBR with the assistance of two consultants who prepared the Christensen Report. KU asserted that these three components, when coupled with the five year price cap offered as a condition of merger in Case No. 97-300, results in a comprehensive PBR. KU subsequently amended its application to include the following additional provisions: 1) a five year cap on gas base rates; 2) a five year schedule of annual bill reductions; 3) a one year extension to its existing five year commitment to annually credit ratepayers with half of the net merger savings; 4) a one year extension to its existing five year rate cap; and 5) a low-income customer assistance.

²³ Id. at 72.

²⁴ Id. at 73.

Fuel Cost Recovery Mechanism

The fuel cost recovery (“FCR”) mechanism KU proposes replaces the uniform fuel adjustment clause (“FAC”) under which KU has historically operated pursuant to 807 KAR 5:056. Under the FAC, a utility recovers its actual costs of fuel burned, subject to after-the-fact reviews by the Commission as to the reasonableness of those costs. Under the proposed FCR, the percentage change in the prices KU pays for fuel would be compared to the percentage change in a fuel price index composed of spot-market prices paid for fuel by electric utilities in a five-state area, including Kentucky.²⁵ When the percentage change in KU’s fuel prices is less than the percentage change in the index, KU will have “outperformed” the index. The dollar amount arising from the difference in the two percentages will be shared between shareholders and ratepayers by charging ratepayers for a level of fuel costs based upon the average of the two percentages. When the percentage change in KU’s fuel prices exceeds the percentage change in the index, the percentage change in fuel costs charged to ratepayers will be limited to the percentage change in the index.

KU states that it proposed the FCR to provide a continuing incentive to aggressively negotiate with fuel suppliers and transporters on price terms and to manage its fuel and energy procurement practices with greater efficiency and innovation.²⁶ In KU’s opinion, the FCR will encourage it to seek competitive advantages

²⁵ The five states are Kentucky, Indiana, Ohio, Virginia and West Virginia. The fuel index prices would be those prices published in the Federal Energy Regulatory Commission’s “FERC Form 423, Monthly Report of Cost and Quality of Fuels for Electric Plants.”

²⁶ Willhite Testimony, filed October 12, 1998, at 8-9.

through partnerships with coal companies, through the greater use of alternative fuels, through increases in fuel blending, and by studying procurement practices and strategies of other regional utilities. KU states that the FAC has limited its ability to continue to reduce fuel costs because it creates an incentive to use conservative procurement strategies, as opposed to riskier procurement methods, to ensure that costs are not subsequently disallowed by the Commission. KU asserts that the FCR was designed to replace the FAC's after-the-fact prudence test with a real-life prudence test based on the market price for coal.²⁷

The intervenors make several arguments against implementation of the FCR. KIUC states that KU already has a self-interest in improving fuel cost performance in both absolute and relative terms, because such improvements result in higher margins on competitive off-system sales.²⁸ KIUC asserts that under the FCR, ratepayers will only receive one-half of any fuel cost savings, whereas under the FAC, ratepayers receive 100 percent of any fuel cost savings. KIUC discounts any real value to the FCR, arguing that under a traditional FAC, any fuel cost not procured in an optimal manner should be disallowed.²⁹

KIUC claims that KU has failed to present any persuasive arguments to demonstrate that the FCR is an improvement over the FAC,³⁰ or that the FCR actually

²⁷ Haimberger Rebuttal Testimony, filed August 5, 1999, at 4.

²⁸ Kollen Direct Testimony, filed March 18, 1999, at 40-41.

²⁹ Id. at 41.

³⁰ Id. at 44.

can or will result in lower fuel costs.³¹ While the current FAC tracks the actual cost of fuel as it is used and allows its recovery on a dollar-for-dollar basis, the FCR only measures changes in the purchase price of fuel and, therefore, does not reflect improvements in generation as does the FAC.³² Because the FCR measures changes in KU's fuel prices for all fuel purchases compared to changes in an index based on spot-market fuel prices, KIUC contends that it does not explicitly address the greater volatility of the spot market compared to contract coal purchases.³³

KRC argues that since the FCR addresses the cost of fuel, rather than the quantity of fuel burned, it creates no incentive for more efficient generation.³⁴ KRC argues that sufficient incentive to reduce fuel costs already exists under the FAC since KU retains the margins from increases in off-system sales.³⁵ KRC also contends that if KU is trying to simulate competitive markets, neither the FAC nor the FCR are appropriate.³⁶ KRC argues that the FCR is flawed for failing to address the type of fuel used and that, because the focus is only on fuel costs, KU might seek out cheaper coal from operators with poor environmental compliance records.³⁷

³¹ Id.

³² Id.

³³ Id. at 45.

³⁴ Reply Brief of KRC, at 2.

³⁵ Id.

³⁶ Id.

³⁷ Id.

Other issues concerning the FCR were raised during the hearing. One was the use of a fuel price index based on mostly out-of-state utilities that in recent years have consistently paid higher costs for fuel than KU.³⁸ To avoid using a fuel price index that would provide rewards but create little or no incentives, it was suggested that KU's own recent fuel costs be used as the benchmark against which its future fuel costs should be compared.³⁹ Another issue raised was KU's lack of detail in explaining how it would modify its existing fuel procurement practices to achieve fuel cost savings under the FCR compared to the fuel costs it would incur under the FAC.⁴⁰

In response to the argument that the FCR is unnecessary because the FAC already provides an incentive to improve cost performance, KU asserts that the FCR was developed in response to the Commission's September 12, 1997 Order in Case No. 97-300. Specifically, that Order stated that any non-traditional form of regulation should provide incentives to the utility and share benefits with the ratepayers.⁴¹ KU claims the FCR achieves both of these goals. On KIUC's claim that the FCR has no value to ratepayers, KU argues that KIUC has not factored in future incentives assuming the FCR is approved.⁴² On KRC's claim that neither the FCR nor the FAC should be allowed in a model moving toward competition, KU states the concern is

³⁸ Transcript of Evidence ("T.E."), Volume I, August 31, 1999, at 274-279 and Volume II, September 1, 1999, at 199-213.

³⁹ T.E., Volume II, September 1, 1999, at 199-213.

⁴⁰ T.E., Volume II, September 1, 1999, at 174-175 and at 182-183.

⁴¹ Case No. 97-300, September 12, 1997 Order at 34-35.

⁴² Joint Brief of LG&E and KU at 42..

premature and can be addressed only after restructuring.⁴³ On KRC's claim that providing incentives to reduce fuel costs might encourage purchases from operators or permittees with poorer environmental compliance records, KU submits that state and federal legislatures, not the Commission, are the proper forums for this issue.⁴⁴

The Commission is not persuaded by KU's arguments that the FCR is either necessary or appropriate. The Commission finds that significant incentives for KU to keep fuel costs at a minimum level already exist, including a review of its fuel costs through the administrative process established under 807 KAR 5:056, the increased margins realized from inter-system sales, and the increased opportunity to consummate profitable inter-system sales. Further, while the Commission's directive in Case No. 97-300 established that any non-traditional or alternative regulation plan should both create incentives for the utility and should share benefits with the ratepayers, it did not direct KU to replace its FAC or to adopt any particular form of alternative regulation.

The Commission also finds the FCR itself to be flawed in many respects. KU has presented no compelling basis for comparing its fuel prices, which reflect the mix of its total fuel portfolio, to an index composed solely of spot-market fuel purchases. The volatility of changes in spot-market fuel prices compared to changes in KU's prices, which consist of a mix of long- and medium-term contracts, as well as spot-market purchases, renders such an index unreasonable for measuring changes in fuel costs. KU offered no persuasive argument for using an index made up of utilities that,

⁴³ Willhite Rebuttal Testimony, filed August 15, 1999, at 6.

⁴⁴ Id. at 4.

historically, have been less efficient in their fuel procurement practices than KU.⁴⁵ Based upon a review of the Christensen Report, the efficient fuel procurement practices already in place at KU make a prime case for the argument favoring use of a utility's own historical performance instead of utilizing a peer group.⁴⁶ As compared to the FCR, a more appropriate incentive would be created for KU if its future fuel costs are judged against either its own historical costs or those of a select group of utilities with low fuel costs, rather than an aggregate of regional utilities. In addition, the proposed FCR focuses only on fuel costs and lacks any provision to encourage more efficient fuel use.

Finally, despite general references to possible changes in KU's fuel procurement activities under the FCR, i.e. - employing strategies that encompass risks greater than what it is comfortable taking under its FAC, KU has provided no evidence of any specific changes it would make to its existing fuel procurement processes to achieve the greater savings it claims are achievable under the FCR. Without more specific descriptions and explanations of how fuel costs would be lower under the FCR than the FAC, KU has not demonstrated that it will, in fact, achieve any savings under the FCR. Thus, the Commission is not convinced that ratepayers will actually benefit from the proposed FCR or that it is appropriate for KU to automatically recover fuel costs without the administrative review and scrutiny provided for under the FAC. For all these reasons, the Commission finds that the proposed FCR is not reasonable and should be rejected.

⁴⁵ Reference Staff Cross-Examination Exhibits 1 and 2.

⁴⁶ Christensen Report at 43.

Generation Performance

KU's PBR includes a generation performance ("GP") component designed to measure changes in the utilization and availability of its generating units. Since the generating assets of KU and LG&E are operated as one system, however, this measurement of performance is for the combined system.⁴⁷ The GP component is expressed as a credit in the quarterly PBR and is based on two measures, the Equivalent Availability Factor ("EAF") and the Capacity Factor ("CF"), both computed on a 12-month rolling quarter-ended basis using the combined KU and LG&E generation system. The quarterly EAF and CF values, which are expressed as percentages, are averaged together to determine the composite performance for the quarter.⁴⁸ For purposes of the PBR, the EAF and CF include all generating units except for hydro-based generation.

The EAF is the percentage of time the generating units are available to serve load, adjusted for de-ratings,⁴⁹ and is calculated by dividing the number of hours the units are available to serve load by the total number of hours in the period. In simple terms, the EAF measure reflects the percentage of time the units are available to serve load. The EAF reflects a 12-month rolling quarter-ended period, which is the weighted average of the 12 monthly system EAF values weighted by the number of hours per month. The CF is a measure of the utilization of the generating units and is calculated

⁴⁷ Willhite Direct Testimony, filed October 12, 1998, at 14.

⁴⁸ Id., Exhibit RLW-1.

⁴⁹ De-rating occurs when a generating plant's capacity rating is adjusted for subsequent additions or changes to the plant.

by dividing the actual KWH output by the product of the number of hours in the period and the rated capacity of the generating assets. In simple terms, the CF measures the actual KWH output compared to the maximum potential KWH output for the period. The CF also reflects a 12-month rolling quarter-ended period, which is the weighted average of the 12 monthly system CF values weighted by the number of hours per month.⁵⁰

KU proposes to compare the composite quarterly GP against the highest composite performance for KU and LG&E from 1991 through 1997. The highest composite performance of KU and LG&E during this period, which was 71.8 percent for the quarter ended in December 1996, is called the threshold level.⁵¹ Each percentage point above the threshold is worth \$625,000 per quarter to KU and would be shared equally between ratepayers and shareholders. KU's maximum GP dollar value for any quarter is limited to \$1,250,000.⁵² There are no penalties to KU if the threshold level is not achieved in any quarter.

KU states that the GP will benefit ratepayers because they will immediately receive benefits from improvements in the GP, while under traditional regulation those benefits would not be received until there was a base rate case. KU asserts that the GP creates several incentives to improve the EAF and CF. First, improved EAF will lower the cost of generation, which will improve KU's ability to compete in the off-system

⁵⁰ Willhite Direct Testimony, filed October 12, 1998, at 13 and Exhibit RLW-1.

⁵¹ Id., at 14 and Exhibit RLW-3. However, in the response to the Commission's January 8, 1999 Order, Item 14, KU and LG&E showed that composite quarterly GP values of 72.5 percent and 73.5 percent had been achieved in the period ended June 1998 and September 1998 respectively.

⁵² Identical dollar values and limits are proposed for LG&E, since this performance measure is based upon the combined generation system.

market and to attract new businesses to its service territory. Second, higher CF will allow generating units to operate at a more efficient point on the heat input curve, lowering generation costs, reducing fuel costs, and increasing sales potential.⁵³ Concerning the absence of any penalty in the GP for failing to achieve the threshold, KU contends that it will already be penalized because it would be incurring higher costs of generation, experiencing no load or revenue growth in its service territory, and experiencing no growth in wholesale sales.⁵⁴

The intervenors object to the GP component on numerous grounds. As with the FCR, KIUC states that KU already has an incentive to lower its generation costs in order to increase the margins earned on off-system sales. KIUC claims that the GP, in conjunction with the FCR, will allow KU to retain a portion of the savings that are now passed through entirely to ratepayers through the FAC.⁵⁵ KIUC contends that the EAF is a function of KU's maintenance activities, which are mostly fixed costs already in base rates. In addition, KIUC argues that since the CF is influenced by factors beyond KU's control, including economic activity, weather, and relative pricing in competitive power markets, it does not properly measure increased performance.⁵⁶

KRC argues that with an incentive to increase plant availability, KU could defer general maintenance, or pollution control equipment replacement or maintenance, at

⁵³ Bellar Rebuttal Testimony, filed August 5, 1999, at 1-2.

⁵⁴ Response to the Commission's January 8, 1999 Order, Item 1, Presentation Handouts from the December 17, 1998 informal conference.

⁵⁵ Kollen Direct Testimony, filed March 18, 1999, at 40.

⁵⁶ Id. at 43.

the expense of the environment. KRC argues that the GP should incorporate a requirement that a unit be considered available only when it is in full compliance with environmental requirements.⁵⁷ KRC also criticizes the GP for creating an incentive to increase sales, which it believes is contrary to the Commission's policy of not rewarding utilities' marketing activities by excluding such costs from rates.

KU asserts that creating incentives to improve generation performance was necessitated by the directive in the Merger Order that any PBR proposal provide incentives to the utility and share benefits with ratepayers. KU dismisses KIUC's assertion that sharing savings under the FCR and GP would be less beneficial to ratepayers compared to retaining the FAC, arguing that increased performance incentives would create greater savings that, in turn, would be shared with ratepayers.⁵⁸ On KIUC's contention that improvement in the EAF is a function of maintenance activities already included in base rates, KU states that any increase in maintenance activities will be at shareholders' expense due to the existing price cap.⁵⁹ KU disagrees with the contention that the CF is dependent on variables beyond its control and is not a good measure of performance. KU states that such criticism is inaccurate, that any failure to improve the EAF or the CF would be due to factors within its control, and that KU, not its ratepayers, would be penalized.⁶⁰

⁵⁷ Reply Brief of KRC, at 4.

⁵⁸ Bellar Rebuttal Testimony, filed August 5, 1999, at 2.

⁵⁹ Id.

⁶⁰ Id.

KU disagrees with KRC's contention that a power plant should only be considered available if it is in full compliance with environmental standards.⁶¹ KU asserts that it has historically complied with all environmental requirements, and the Commission is not the proper forum for KRC's claim that existing environmental regulations or their enforcement are inadequate.⁶² KU rejects KRC's claim that the GP will harm ratepayers through increased marketing costs, noting that the price cap will shield ratepayers from these costs.⁶³

The Commission is not persuaded that the proposed GP is either reasonable or necessary. The Commission finds that under the GP, improvements to KU's generation performance will produce lower fuel costs and increased margins on off-system sales, but these benefits will be retained entirely by KU between rate cases whenever the threshold level is not achieved. This outcome provides an extremely strong incentive to improve generation.

Contrary to KU's assertion, the Merger Order did not require KU to propose a specific generation performance incentive. Rather, the Merger Order merely established the parameters which any PBR proposal should meet. KU's claim that absent the GP, ratepayers would receive no benefit from improved generation performance until there is a base rate case, is incorrect. Improving generation performance will result in lower fuel costs per kilowatt-hour and this directly benefits ratepayers through the FAC.

⁶¹ Willhite Rebuttal Testimony, filed August 5, 1999, at 4.

⁶² Id.

⁶³ Id.

The merits of the GP threshold proposed by KU are questionable. Although it was exceeded twice during 1998, the threshold of 71.8 percent was achieved only once over a period of seven years (1991-1997). As KU Exhibit RLW-3 demonstrates, within the range of 67 to 72 percent shown therein, the GP has been in the lower half of that range for the majority of the seven-year time period reflected in that exhibit. Thus, the proposed GP measure is unlikely to produce greater benefits for ratepayers, except in those rare instances when KU is able to exceed the established threshold. However, KU's shareholders would significantly benefit from improvements in generation performance which do not exceed the threshold.

Furthermore, the analysis in the Christensen Report does not support KU's proposed GP. In its review of benchmarking alternatives, the only utility using generation performance in alternative regulation appears to be MPC, which is a subsidiary of a multi-utility holding company.⁶⁴ MPC's plan measures the utility's EAF but not CF. Finally, contrary to KU's proposal, MPC's plan includes penalties for failing to meet established performance objectives.

While providing incentives to increase generation performance, the proposed GP fails to provide for a proper sharing of the benefits with ratepayers until the extraordinarily high threshold is exceeded. Incentives based upon generation performance generally help the utility achieve greater profits through increased off-system sales and reduced peak-period power purchases, but do not provide corresponding benefits to ratepayers. As previously stated, if KU fails to meet the threshold but does lower its per-unit fuel costs and increase its margins from off-system

⁶⁴ Christensen Report at 47.

sales, its shareholders may accrue benefits under the proposed GP component while KU incurs no penalty for not meeting the GP threshold. A method of sharing these benefits with ratepayers is one way to adequately create an incentive for generation performance that might merit possible future consideration.

The Commission finds that EAF is largely a function of KU's maintenance costs and those costs are already reflected in base rates. We also find that the factors impacting CF are, to a significant degree, outside the control of KU, making CF an inappropriate measure of performance. While Commission regulation 807 KAR 5:016 prohibits utilities from recovering through rates any costs to promote electric sales, KRS 278.285 specifically authorizes the recovery of costs related to changing customers' consumption patterns. Although KU's GP component suffers from numerous infirmities, the evidence of record does not convince us that it would constitute an impermissible promotion of electric sales. KU's determination of unit availability, which does not specify environmental compliance criteria, is not inadequate since the Commission has no jurisdiction to interpret or enforce environmental requirements.

The Commission concludes that the proposed GP is an unnecessary and inappropriate performance measure. Due to its construction and the unrealistic threshold selected, it is likely to produce little, if any, benefits to ratepayers from improved generation performance beyond those already available under the FAC.⁶⁵ However, it would result in benefits to shareholders, if and when the threshold was attained, that are not available under the FAC. Obviously, an incentive that benefits

⁶⁵ The GP, combined with the FCR, eliminates all immediate ratepayer benefits from improved generation performance, except for when the threshold is exceeded.

only shareholders is untenable. For all these reasons, we find that the proposed GP should be denied.

Service Quality

The service quality (“SQ”) component of KU’s PBR is comprised of three categories: system reliability, customer satisfaction, and employee safety. Each category is composed of specific measures with separate penalties and rewards to KU. The maximum penalty assessed or reward earned in a quarter is \$1,250,000. If the preliminary sum of the quarterly SQ measures results in rewards greater than GP for any quarter, the difference, identified as net service quality rewards, will be carried forward for up to four quarters after which time any unrecovered amount will be forfeited. SQ rewards for the current quarter will be set equal to GP rewards for the current quarter. However, if the preliminary sum of the quarterly SQ measures results in a penalty to KU, the penalty is offset by any banked net service quality rewards. Current quarter SQ penalties are not restricted by the GP.⁶⁶

The system reliability category of SQ measures are the System Average Interruption Duration Index (“SAIDI”) and the System Average Interruption Frequency Index (“SAIFI”).⁶⁷ SAIDI and SAIFI include all interruptions in excess of one minute, but exclude severe storms where power has not been restored within 24 hours because such storms result from severe weather that is beyond KU’s control, and because their

⁶⁶ Willhite Direct Testimony, filed October 12, 1998, Exhibit RLW-1 and RLW-4.

⁶⁷ Kaufmann Direct Testimony, filed October 12, 1998, at 10-15. A third measure, the Momentary Average Interruption Frequency Index (“MAIFI”), which is for large industrial customers, currently is not measured by KU. KU’s intent is to begin collecting this information four months after approval of the PBR and incorporate the MAIFI measure in the PBR 16 months after the PBR approval.

exclusion will result in a more accurate measure of KU's true performance in minimizing the frequency and duration of outages. SAIDI reflects the minutes of average duration of interruption per customer, on a 12-month rolling quarter-ended basis. SAIFI reflects the average frequency of interruption per customer, also on a 12-month rolling quarter-ended basis. The quarterly values for SAIDI and SAIFI are compared to benchmark values based on KU's average SAIDI and SAIFI values from 1991 through 1997. There are no deadbands placed on the SAIDI and SAIFI benchmark values because the impact of severe storms on outage frequency and duration has already been excluded.⁶⁸ The differences between the current SAIDI and SAIFI values are multiplied by specific dollar amounts to determine KU's reward or penalty.⁶⁹

The customer satisfaction category measures are based on the results of two surveys. The Customer Satisfaction Survey uses the results from a broad-scope survey to measure residential customers' overall satisfaction, based on the percentage of customers rating their satisfaction with KU service as "excellent."⁷⁰ KU plans to begin collecting this survey data monthly in January 1999. The benchmark for this measure will be the percentage of customers served by a peer group of utilities who rate their overall satisfaction as excellent, using the same definition as KU. KU's quarterly score must exceed the benchmark by 10 percentage points to earn a reward under this

⁶⁸ Kaufmann Direct Testimony, filed October 12, 1998, at 10-11.

⁶⁹ For SAIDI, the quarterly difference in values is multiplied by \$30,000 per minute. For SAIFI, the quarterly difference in values is multiplied by \$425,000 per outage. For both calculations, positive differences result in rewards while negative differences result in penalties.

⁷⁰ "Excellent" is defined as a score of 9 or 10 on a 10-point scale.

measure. If KU does not achieve the benchmark, penalties will be assessed. No penalty or reward will be given if the results fall between the benchmark and the 10-percentage point upper band. Each percentage point below the benchmark or above the upper band will be worth \$72,500 per quarter.⁷¹

The Customer Callback Survey is measured by the percentage of residential customers who rate a telephone service representative's overall handling of phone calls as "excellent."⁷² KU plans to begin collecting this survey data in January 1999. Since only LG&E's customers have been surveyed under this approach to date, the benchmark will be LG&E's score on this measure in 1998. A deadband will be established which equals the sample margin of error for the survey. KU's quarterly score will be evaluated against the deadband with each percentage point outside the deadband being worth \$18,000 quarterly. Quality performance above the deadband will result in rewards while performance below the deadband will result in penalties.⁷³

Employee safety will be measured using the federal Occupational Safety and Health Administration's ("OSHA") Recordable Incidence Rate, which reflects the total number of employee accidents and illnesses per 200,000 hours worked. The benchmark will be the average OSHA Recordable Incidence Rate over the period 1991 through 1997. A deadband will be established equal to the standard deviation of KU's OSHA Recordable Incidence Rate over the same period. During the quarterly evaluation, each 0.1 percentage change outside the deadband will be worth \$32,500.

⁷¹ Kaufmann Direct Testimony, filed October 12, 1998, at 15-17.

⁷² "Excellent" is defined as a score of 9 or 10 on a 10-point scale.

⁷³ Kaufmann Direct Testimony, filed October 12, 1998, at 18-21.

Quarterly performance below the deadband will result in rewards while performance above the deadband will result in penalties.⁷⁴

KU contends that the service quality component in the PBR ensures that customers will continue receiving the high quality of service currently enjoyed, as well as providing an incentive for KU to achieve even higher levels of service quality during the operation of the PBR. Since SQ rewards will only be included in the PBR formula to the extent that the GP amounts are available as an offset to the SQ rewards, any SQ rewards will not directly cause an increase in customers' bills.⁷⁵ In addition, KU states that this counter-balances the other PBR components to ensure that cost cutting is not achieved at the expense of service quality, thereby simulating a competitive market.⁷⁶

The intervenors presented several arguments against implementating the SQ component of the PBR. Metro Human Needs Alliance, Inc. ("MHNA") and People Organized and Working for Energy Reform ("POWER"), intervenors in the companion LG&E case, contend that a utility has an existing legal obligation to serve and it should not be rewarded for doing so by payment above the fair rates set by the Commission.⁷⁷ They also state that major storms should be an important component of the service quality measurements and that the Customer Satisfaction Survey was intended for market research, not designed for PBR or ratesetting purposes. Finally, the LG&E intervenors argue that out of 70 questions on the Customer Satisfaction Survey, which

⁷⁴ Id. at 22-23.

⁷⁵ Willhite Direct Testimony, filed October 12, 1998, at 16-17.

⁷⁶ Joint Brief of LG&E and KU at 54.

⁷⁷ See Case No. 98-426, Post Hearing Brief of MHNA and POWER at 5.

takes 15 minutes to answer, only one vague question relating to service quality impacts the PBR, while there was no evidence of that question or any part of the survey having been tested for criterion validity.⁷⁸

KRC states that to be comprehensive, the service quality component should measure the response time to major storms and momentary service outages for residential and commercial customers.⁷⁹ Further, KRC contends that the SQ aggregates performance in various categories, allowing less than stellar performance in one category to be offset by improving or maintaining high performance in another, and that no reward should be allowed when any part of service is lacking.⁸⁰ KIUC contends that the survey measures are subjective and lack objectivity,⁸¹ and that KU's safety record is not appropriate for fashioning a quality of service component in a PBR.⁸²

KU responded to the intervenors' arguments by stating that PBR plans that provide rewards go beyond merely assuring that service quality does not decline by creating an important incentive to constantly improve service quality.⁸³ KU also argues that other states do not include major storms in SAIDI and SAIFI calculations because it is difficult to set reasonable benchmarks due to variations in storm severity. Also, KU contends, the Customer Satisfaction Surveys provide an incentive to quickly reconnect

⁷⁸ Id. at 9.

⁷⁹ Post-Hearing Brief of KRC, at 9.

⁸⁰ Id.

⁸¹ Kollen Direct Testimony, filed March 18, 1999, at 47.

⁸² Id.

⁸³ Joint Brief of LG&E and KU, at 57.

service.⁸⁴ KU also argues that its proposed SQ measures are comprehensive and that its Customer Satisfaction Survey is reasonable and statistically reliable.⁸⁵ Responding to KRC's argument that the SQ allows an offset for less than stellar performance, KU notes that there are currently no PBR plans broken down by the utility's geographic and market segments.⁸⁶

The Commission finds the proposed SQ measure to be deficient. While KU argues that linking GP with SQ rewards prevents it from reaping rewards from ever-improving service quality, the linking of the two is also a potential means of avoiding sharing GP success with ratepayers. In addition, there is a notable and glaring inconsistency between the GP and SQ in that the GP threshold is the highest level achieved in recent history, while the SQ's SAIDI and SAIFI benchmarks are based on average performance over recent history. The Commission finds that, in calculating a SQ component, a performance level that exceeds the utility's historic average should be the basis for establishing a benchmark.

The Commission questions the reasonableness of excluding severe storms from the SAIDI and SAIFI calculations. Though KU is correct that no two storms are alike, the length of time required to restore service after any outage lasting 24 or more hours is a critical component of service and of vital importance to affected customers. Utilizing unadjusted SAIDI and SAIFI calculations with a deadband created to exclude severe storms could possibly be considered as an alternative measure of service quality.

⁸⁴ Reply Brief of LG&E and KU, at 4.

⁸⁵ Id.

⁸⁶ Id., at 5.

The Commission is not persuaded that customer satisfaction is properly calculated from the results of the Customer Satisfaction Survey and Customer Callback Survey. The intervenors' challenges to the development of the customer surveys and the manner in which they will be used to measure customer satisfaction have merit. Absent any compelling arguments to the contrary we find that using only one question out of 70 in the Customer Satisfaction Survey as a factor in the SQ renders the use of the survey highly suspect. Further, the surveys are subjective in nature and, as such, the results may or may not be accurate. The analysis in the Christensen Report clearly provides that service quality measures should be objective and have measurable benchmarks.

Finally, KU has no experience with these surveys, as it did not plan to begin collecting monthly survey data until January 1999. Particularly for the Customer Callback Survey, which is based solely on LG&E's historic responsiveness, this lack of experience is a major drawback to relying on it as a measure of customer satisfaction.

The Commission agrees that employee safety and health are important considerations. This importance is reflected in the numerous state and federal statutes, regulations, and rules governing employee health and safety in the workplace. However, it is the existence of these very statutes, regulations, and rules that cause us to question whether it is appropriate to include employee safety as a service quality measure. Whether KU operates in a regulated or a competitive environment, there has been no evidence presented to indicate that existing health and safety standards will be relaxed or otherwise modified. While KU may face pressure from cost cutting efforts, the health and safety obligations to its employees will remain. KU is already subject to

sizable penalties if the health and safety conditions for its employees deteriorate. Conversely, KU should not be financially rewarded for its compliance with the law. For all these reasons, the Commission finds that the service quality measurement proposed by KU should be denied.

Five Year Electric Bill Reductions

KU's Amended Application proposed a five year schedule of reductions in customers' bills. In year one, the bill reduction would be \$10.6 million annually, while in years two through five the bill reductions would be \$4.24 million annually. While these proposed bill reductions would be substantial for a utility that is earning a reasonable return on equity, the reductions are clearly inadequate in light of KU's test year level of earnings. Thus, as discussed in the "Revenue Requirements" section, the Commission has determined that KU's electric base rates should be reduced, and this reduction obviates any further consideration of KU's electric bill reductions.

One Year Extension to Credit Half of Merger Savings

KU's Amended Application proposed to extend by one year the existing five year merger surcredit approved in Case No. 97-300. At the time that surcredit was approved, KU was directed to file, midway through the fifth year of the merger, plans to reflect sharing subsequent years merger savings with ratepayers..⁸⁷ KU's proposal in the Amended Application extends the merger surcredit to include a sixth year, reflecting

⁸⁷ Case No. 97-300, September 12, 1997 Order, at 15, 38, and 40.

that year's estimated net savings.⁸⁸ The sharing of all subsequent years' merger savings would be subject to determination by the Commission after year six.⁸⁹

The Commission finds that this proposal provides little additional benefit to ratepayers beyond that already in existence. In the merger proceeding, KU filed a ten year estimate of savings and was directed to subsequently file a plan to reflect the sharing of savings in years six through ten. There is no evidence to indicate that the savings estimate now proposed for year six would be materially different from the savings ratepayers would have otherwise received pursuant to Case No. 97-300. Therefore, the only material effect of this proposal is to delay by one year KU's plan to reflect future years merger savings.

One Year Extension to Electric Rate Cap

KU proposes to extend by one year its existing five year cap on electric base rates. KU's original commitment to a five-year electric rate cap was an integral part of its application in Case No. 97-300 for the merger. Thus, following completion of the merger, the rate cap became effective on July 1, 1998 as a result of the merger. This rate cap, however, included a number of exceptions including unforeseen changes in federal tax laws and environmental requirements. To the extent that the rate cap provides an incentive to KU to maintain and reduce costs, that incentive already exists because of the merger. Furthermore, the rate cap itself does not provide for any

⁸⁸ The sixth year net savings were estimated to be \$83,078,000, with KU's jurisdictional ratepayers receiving \$18,971,979. See Case No. 97-300, Application Exhibit AJV-1, and Amended Application Exhibit B, Willhite Supplemental Testimony, filed April 5, 1998, at 10.

⁸⁹ Response to the Commission's April 30, 1998 Order, Item 4.

sharing with ratepayers of earnings in excess of a reasonable level. Considering that in recent years KU's earnings have not been less than reasonable, its commitment to extend the rate cap for an additional year has not been shown to be a substantial benefit to ratepayers.

Low-Income Customer Assistance

KU has proposed in its Amended Application that if its PBR plan is approved without material change, it will contribute funds to qualified charitable organizations to assist low-income residential customers pay their electric bills. The funding proposal is for a total of \$3,180,000 over five years, with \$1,060,000 contributed in year one and \$530,000 contributed in each of the following four years. Only shareholder funds would be used to make these contributions, so the amounts would not be included as rate-making expenses and no new tariff provisions would be needed.

The Commission commends KU for its charitable efforts to assist residential customers who have financial difficulties paying their electric bills. Since this proposal involves the use of only shareholder funds, the Commission has no explicit jurisdiction over the contributions and, as KU correctly notes, the proposal need not be embodied in a tariff.

KIUC EARNINGS SHARING PROPOSAL

As an alternative to KU's PBR, KIUC proposes an ESM.⁹⁰ In general, KIUC's ESM provides for a sharing with ratepayers of earnings in excess of a threshold level.

⁹⁰ Kollen Direct Testimony, filed March 18, 1999, at 20.

Earnings are computed on a rate-making basis after incorporating pro forma adjustments.⁹¹

The earnings threshold would be KU's authorized rate of return with earnings in excess shared 60 percent to ratepayers and 40 percent to shareholders.⁹² The existing environmental surcharge would be rolled into base revenues.⁹³

Through the ESM formula, any excess earnings would be shared with ratepayers and reflected on their bills on a timely basis through a surcredit mechanism which would be revised quarterly and trued-up annually.⁹⁴ Once established, there would be an annual Commission proceeding to evaluate the ESM and to consider new rate-making and rate-of-return adjustments.⁹⁵ The ESM would be implemented pursuant to a tariff, with the sharing implemented through a surcredit computed as a uniform percentage of revenues for all customer classes and ratepayers.⁹⁶

The ESM would require an initial filing on or before the end of 14 months after the Commission establishes fair, just, and reasonable rates in this case.⁹⁷ The initial surcredit would go into effect with the first billing cycle in the month following the ESM

⁹¹ Id.

⁹² Id.

⁹³ Id.

⁹⁴ Id. at 21.

⁹⁵ Id.

⁹⁶ Id.

⁹⁷ Id. at 31.

filing.⁹⁸ Thereafter, quarterly filings would be made with the change in the surcredit effective with the first billing cycle in the month following each filing.⁹⁹

In each subsequent filing, KU would determine its earnings on common equity on a rate-making basis for the twelve months ending no more than two months earlier. For example, KU would make its initial filing on or before March 1, 2001 for the twelve months ending December 31, 2000, assuming an effective date of the Commission's Order in this case during December 1999.¹⁰⁰

All earnings over the threshold would be converted to a revenue requirement surplus, with 60 percent credited to ratepayers through a surcredit over the next twelve months.¹⁰¹ The surcredit would be adjusted for cumulative underrecoveries or overrecoveries at the end of the proceeding quarter amortized over a twelve-month period. The filing would be on a rate-making basis, consistent with prior Commission precedent. New pro forma adjustments would be separately identified but not included in the quarterly computations of the surcredit until the Commission has approved the adjustments in the annual review proceedings.¹⁰²

The Commission would establish an annual case to consider, on an expedited basis and similar to the biennial reviews of the environmental surcharge and fuel clause recovery, whether the four previous quarterly filings were correctly computed and in

⁹⁸ Id.

⁹⁹ Id.

¹⁰⁰ Id. at 32.

¹⁰¹ Id.

¹⁰² Id.

compliance with prior Commission precedent.¹⁰³ Also to be considered during the annual reviews are new pro forma rate-making adjustments for incorporation in prospective quarterly filings.¹⁰⁴

KIUC claims that its ESM is superior to KU's proposed PBR because its ESM was comprehensive and provides a fair and timely sharing of cost containment and revenue growth between ratepayers and stockholders.¹⁰⁵ Also, KIUC asserts that ESM is a good transitional mechanism that remains grounded in historic rate-of-return regulation, but provides significant incentives to increase profitability through reduced costs and increased revenues, incentives normally provided to deregulated companies through the market.¹⁰⁶ Two intervenors commented on KIUC's ESM. KACA generally supports alternative regulation¹⁰⁷ and CAC approves the plan with modifications to include a small symmetrical deadband and sharing of both over- and under-earnings.¹⁰⁸

KU specifically objects to KIUC's proposed ESM and to ESM generally. KU labels KIUC's proposal unbalanced and punitive, since it would require KU to absorb all earnings shortfalls below the threshold but share 60 percent of earnings above the threshold with ratepayers.¹⁰⁹ KU also objects to what it characterizes as an annual "rate

¹⁰³ Id. at 33.

¹⁰⁴ Id.

¹⁰⁵ Id. at 21.

¹⁰⁶ Id. at 22.

¹⁰⁷ Brief of KACA, at 1.

¹⁰⁸ Initial Brief of the CAC, at 14.

¹⁰⁹ Joint Brief of LG&E and KU, at 71.

case,” where new pro forma adjustments and cost of capital changes would be considered.¹¹⁰

The Commission finds KIUC’s ESM proposal to be deficient in a number of respects. If an ESM is to produce incentives for greater efficiencies, it must be symmetrical so that the risks of underearning as well as the rewards of overearning are shared between ratepayers and shareholders. KIUC’s ESM fails to provide this symmetry. KIUC’s plan also omits a rate-of-return deadband. The Commission finds that such a deadband is necessary to recognize the range of reasonable returns, to provide for rate stabilization, to eliminate the need for constant rate changes, and to provide for extraordinary or unusual changes in revenues and expenses.

Further, KIUC’s plan provides for annual reviews that would be tantamount to full blown rate cases by allowing consideration of rate-making adjustments and changes in rate of return. The Commission finds that such rate proceedings would be administratively burdensome and unnecessary. Based on all these findings, the Commission ultimately finds that KIUC’s ESM proposal is unreasonable and should be rejected.

EARNINGS SHARING MECHANISMS

ESM regulatory plans are typically and appropriately used when an industry is beginning the transition from a monopolistic industrial structure to a more competitive structure. ESMs can provide utilities with incentives to operate more efficiently, as in a competitive market, without the negative consequences of losing customers to a competitor. ESMs also provide the utility incentives to alter its behavior and to take on

¹¹⁰ Id. at 73.

additional risks by providing a limited safety net in case new efforts result in failure. The Christensen Report to KU discusses the attributes of ESMs. ESMs are relatively easy to understand. They can reduce business and regulatory risk and serve as an automatic means of keeping earnings within acceptable bounds. Sharing revenues allows captive ratepayers, as well as shareholders, to directly benefit from successful company initiatives.

Generally, within an ESM, the initial rates and earnings levels are typically set by traditional rate of return methods. The constraints surrounding how quickly the company may subsequently adjust its rates varies and usually depends upon the amount of retail competition in the market.¹¹¹

In a typical ESM, companies whose earnings fall between the high and low threshold earnings band or deadband retain 100 percent of those earnings. When earnings exceed the established band, some portion of the excess earnings are shared with ratepayers. Similarly, when earnings fall below the deadband, the utility is only allowed to recover a portion of the shortfall from ratepayers. In this way, ESMs help monopolistic utilities prepare both behaviorally and operationally to participate in a competitive market. ESMs provide incentives to increase efficiency and cut costs by allowing utilities to retain a portion of any increase in earnings.¹¹² ESMs also provide an incentive for the utility to take greater risks in deepening and extending its markets, by

¹¹¹ As retail competition begins to actually develop and the company's need for rate flexibility grows, then a price cap type of regulatory plan becomes more appropriate. However, even with an ESM, some rate flexibility can be afforded to utilities through the ability to enter into special contracts with specific customers.

¹¹² Through an ESM, utilities are also able to forego the added expense and effort of being subjected to a traditional rate proceeding.

being more creative with its service offerings and by offering new types of services. When earnings fall below the deadband, the ability to automatically recover a portion of the shortfall partially offsets the consequences of taking on additional risk in the marketplace.

The Commission has experience in the use of ESMs in the telecommunications industry. In Case No. 10105,¹¹³ the Commission approved a two year experimental incentive regulation plan for BellSouth Telecommunications, Inc. (“BellSouth”) which was an ESM plan. A revised ESM plan was subsequently approved for BellSouth in Case No. 90-256.¹¹⁴ The original ESM plan was initiated, in part, to obviate the need for frequent rate reviews and to provide incentives for BellSouth to become more efficient by cutting its costs from monopolistic levels to levels more compatible with a competitive market. At the time the original ESM plan was approved, BellSouth was facing negligible competition in its markets. However, technological advances had been taking place in the telecommunications industry, which made the threat of network bypass ever more possible and economically feasible. By the time BellSouth filed its price cap plan in 1994, it was exercising some limited pricing flexibility by entering into special contract arrangements with its larger retail customers.

¹¹³ Case No. 10105, Investigation of the Kentucky Intrastate Rates of South Central Bell Telephone Company, Inc., Order issued September 30, 1988.

¹¹⁴ Case No. 90-256, A Review of The Rates and Charges and Incentive Regulation Plan of South Central Bell Telephone Company, final Order – Phase I issued April 30, 1991 and final Order – Phase II issued January 23, 1992.

In Case No. 94-121,¹¹⁵ the Commission approved a Price Cap Plan for BellSouth. This represented another step in an ongoing transition toward full market competition. At the time the Price Cap Plan was approved, BellSouth was beginning to experience competitive threats to some of its tariffed services. This plan was designed, in part, to address the potential for BellSouth to use its least competitive services to cross-subsidize its more competitive services. The plan also addressed BellSouth's need for greater pricing flexibility for those services for which there was a competitive threat.¹¹⁶

The Price Cap Plan gave BellSouth increased pricing flexibility by categorizing its tariffed services into different market baskets, each with its own unique pricing constraints. A price cap was placed on those services for which there was little or no competitive threat. For those services facing a viable competitive threat, BellSouth was able to price its services according to market constraints, but could not lower prices below incremental cost, except to meet a demonstrated competitive threat, and then only for a short period. By segregating tariffed services according to degrees of competition and by placing different pricing constraints upon each market basket, the Commission reduced the possibility of cross-subsidization between services. This

¹¹⁵ Case No. 94-121, Application of BellSouth Telecommunications Inc., d/b/a South Central Bell Telephone Company To Modify Its Method of Regulation.

¹¹⁶ In this respect, the Price Cap Plan's primary focus was on service pricing, as opposed to the ESM plan's primary focus of increasing efficiency and reducing costs. Even though the Price Cap Plan freed BellSouth from earnings constraints it, like the ESM, retained a mechanism to share a portion of BellSouth's efficiency gains with its ratepayers.

served to protect BellSouth's captive ratepayers, as well as those new companies seeking to enter BellSouth's markets.

On January 25, 1999, the Commission approved a modified version of Cincinnati Bell Telephone's ("CBT") proposed price cap plan.¹¹⁷ One modification was to add an ESM component to the plan. However, the Commission subsequently reconsidered its decision and eliminated the ESM component after finding that its inclusion with CBT's alternative regulation plan "mixes regulatory formats in a manner that distorts the intended incentives to the utility and its customers." That Order also states that a price cap regulatory format is a precursor to full market competition and "is designed to give CBT a degree of pricing freedom, depending upon the amount of competition experienced from other carriers."¹¹⁸

KU objects to ESMs generally, arguing that they are not an appropriate rate-making tool given the pending changes in the industry. KU states that ESM had received consideration and been discarded for three reasons. KU argues that ESMs perpetuate a focus on cost rather than price.¹¹⁹ KU also states that in conjunction with its commitment to cap base rates, it was able to incorporate greater incentives in its PBR proposals than would have been provided by an ESM.¹²⁰ Finally, ESM was rejected because this Commission and other regulatory bodies have rejected ESMs in

¹¹⁷ Case No 98-292, The Application of Cincinnati Bell Telephone Company For Authority to Adjust Its Rates and Charges and to Change Regulations and Practices Affecting Same.

¹¹⁸ Case No. 98-292, Order issued July 26, 1999 at 2-3.

¹¹⁹ Id. at 71.

¹²⁰ Id.

the past.¹²¹ KU also asserts that a majority of the ESMs that exist for electric utilities were established before the recent trend to allow electric competition.¹²²

In general, the Commission agrees with the reasons cited by KIUC to support ESMs. KU's objections to ESMs are not persuasive. KU has recognized that state and federal telecommunications regulatory authorities have been shifting away from the use of ESMs in favor of price cap plans.¹²³ Contrary to KU's characterizations, these actions should not be construed as the rejection of one form of alternative rate-making mechanism in favor of another.¹²⁴ ESMs, price cap plans, and the other forms of alternative regulation discussed above are valid types of alternative rate-making mechanisms. Regulatory authorities' use of one over the other represents an acknowledgment of and a response to the changing nature of the telecommunications industry. In the cases of BellSouth and CBT, each form of alternative rate-making mechanism was appropriate considering the time it was approved and the circumstances under which each company was operating. Finally, this Commission and other regulatory bodies have replaced ESMs with price cap plans for many telecommunications utilities. These utilities are already facing competitive threats for retail services and they require retail pricing flexibility. KU is not currently facing any retail competition for electric service.

¹²¹ Id.

¹²² Id.

¹²³ Lowry Rebuttal Testimony, filed August 5, 1999 at 9-10 and 14-16 and Joint Brief of LG&E & KU, at 71.

¹²⁴ Joint Brief of LG&E and KU, at 71.

The Commission does, however, believe that a more balanced ESM plan would be extremely beneficial to both KU's shareholders and its ratepayers. Based on this firm belief, the Commission will now offer KU an alternative to traditional regulation in the form of an optional ESM plan. The Commission encourages KU to take advantage of this optional ESM, since it provides KU with sufficient incentives to improve its performance while reducing the business risks inherent in over- and under-earnings. The Commission recognizes that mandating an alternative regulation plan is not appropriate at this time since our Order in Case No. 97-300 specified that KU could choose traditional or alternative rate-making and the joinder of KIUC's rate complaint has resulted in a traditional rate review. In addition, the ESM incentives will only work if they are fully supported by KU. Therefore, we now propose an optional ESM for KU, recognizing that KU's full support and commitment is essential to make this incentive plan work.

COMMISSION'S OPTIONAL ESM PLAN

- All revenues and expenses associated with the FAC and the environmental surcharge will be excluded in determining the return on equity.
- The threshold of the plan is an 11.50 percent return on equity with a symmetrical deadband of 100 basis points above and below the threshold.
- The rate cap will be lifted.
- To provide a strong incentive for KU to operate more efficiently, the effects of which will benefit ratepayers as well as KU, the sharing mechanism will be 60 percent KU and 40 percent ratepayers.

- To ensure that the ESM plan does not become cumbersome and the annual reviews do not result in lengthy and costly rate cases, only limited rate-making adjustments will be required. The scope of these adjustments to KU's earnings is discussed in detail under "ESM Reporting Requirements."
- When KU's earnings fall outside the deadband range, the amount of over- or under-earnings will be shared with or charged to ratepayers via a credit, or charge, on their bills. This credit, or charge, will be based on a percentage-of-revenue calculation as utilized in KU's monthly environmental surcharge factors, with a provision for an annual true-up. The calculated percentage will be reflected on customers' bills after the FAC and merger surcredit, but before the environmental surcharge and taxes.
- The optional ESM plan will have a three year term with the earnings sharing reflected on bills rendered from 2001 through 2003. At the beginning of the third year, the Commission will conduct a focused management audit pursuant to KRS 278.255 to review the plan and reassess its reasonableness.
- KU will be expected to continue and maintain its superior level of service quality which will be monitored through existing reporting requirements.
- KU should signify its acceptance of this optional ESM plan by filing within 30 days of the date of this Order, a tariff incorporating the ESM plan.

The Commission finds that this optional ESM plan will produce fair, just, and reasonable rates.

Although KU's PBR has not been accepted, the Commission reaffirms its support of alternative rate-making mechanisms, and notes that in addition to its use of alternative rate-making in telecommunications three of Kentucky's gas utilities, currently

operate under some form of incentive regulation. KU is encouraged to continue pursuing an alternative regulation plan with components that are clearly defined and easily measured, and submit it to the Commission for review. The Commission will make its offices available if KU wishes to pursue a collaborative process with interested parties.

ESM Reporting Requirements

The optional ESM plan will require KU to make an annual filing by March 1 of each year from 2001 through 2003. Any refund or collection of earnings outside the established deadband is to be reflected on bills rendered after April 1 of that year. The annual filings must contain, at a minimum:

1) The calculation of the adjusted jurisdictional revenues, expenses, and net operating income. Revenues will be adjusted to include revenues from all off-system sales. Expenses will be adjusted to remove advertising costs, in accordance with the Commission's regulations.

2) The calculation of adjusted jurisdictional capitalization, capital structure, and the cost rates for debt and preferred stock. All such calculations shall be presented in a manner consistent with that adopted by the Commission in this Order.

3) The calculation of the rate of return on common equity. This calculation must reflect the adjusted jurisdictional net operating income, the adjusted jurisdictional capitalization, adjusted capital structure, and the calendar year end cost rates for debt and preferred stock.

4) The calculation of the revenue requirement for the reporting period based on the upper or lower point of the ESM deadband, and reflecting the adjusted financial information as calculated in conformity with Item Nos. 1-3, above.

5) A comparison of the adjusted net operating income to the upper or lower point revenue requirement, a calculation of the amount of sharing with or collection from ratepayers, and a determination of the surcredit or surcharge factor to be applied to ratepayers' bills, if applicable.

TARIFF FLEXIBILITY

KU also proposes to adopt a new tariff that would establish rules for special contracts and optional class tariffs that would provide greater flexibility to respond more quickly to customers' energy service needs. The only provision contained in the rules proposed by KU that really differs from the procedure the Commission currently has established for filing tariffs or special contracts is the requirement that all such filings must be approved within 30 days. Given the complex nature of many of the tariffs and special contracts that are filed with the Commission on a regular basis, the requirement that Commission approval be granted within 30 days is, in our view, totally unreasonable. While KU is one of the largest electric utilities subject to the Commission's jurisdiction, there are many other utilities and many other issues that the Commission must deal with on an ongoing basis. There is no justification, in our opinion, for singling out KU, via the proposed provision for "tariff flexibility," for more favorable treatment under the review process for tariffs and special contracts than the treatment afforded other utilities regulated by the Commission.

REVENUE AND RATE ISSUES

KIUC's rate complaint, as revised at the beginning of the hearing, recommended an annual revenue reduction of \$55,806,793 for KU.¹²⁵ KU opposed KIUC's recommended decrease and in response presented its own revenue requirements determination which showed that it was entitled to a \$14,949,851¹²⁶ increase in annual revenues. The Commission's analysis of the various rate-making issues presented by KIUC and KU are discussed in the following sections of this Order.

TEST PERIOD

In evaluating the reasonableness of its regulated return from Kentucky jurisdictional¹²⁷ operations, KU contends that the 12-month period ending December 31, 1998 was more representative of its ongoing operations since the period was closely aligned with its planning, budgeting, and operating processes. In addition, KU proposes several adjustments that it believes are necessary to reflect ongoing levels of revenues and expenses for its jurisdictional operations.¹²⁸ KIUC agrees that the 12-month period ending December 31, 1998 is appropriate. KIUC has proposed the test-year

¹²⁵ By the conclusion of the hearing, the amount of the reduction proposed by KIUC had increased by \$60,541,355.

¹²⁶ KU Response to Hearing Data Requests, Item 9, page 2 of 3.

¹²⁷ Unless otherwise noted in this Order, the use of the term "jurisdictional" refers to KU's Kentucky jurisdictional operations. KU's non-Kentucky operations will be referred to as "Other Jurisdictional."

¹²⁸ See Response to the Commission's February 2, 1999 Order, which required information as originally requested in the Commission's December 2, 1998 Order, Item 11; Response to the Commission's April 30, 1999 Order, Item 7; and the Responsive Testimony of Michael D. Robinson, Martyn Gallus, Lonnie E. Bellar, and Ronald L. Willhite, filed July 2, 1999.

adjustments it believes are necessary and has evaluated the adjustments proposed by KU.¹²⁹ The Commission believes it is reasonable to utilize the 12-month period ending December 31, 1998 as the test period in this proceeding. In utilizing a historic test period, the Commission has given full consideration to appropriate known and measurable changes.

NET ORIGINAL COST RATE BASE

KU proposes an adjusted jurisdictional net original cost rate base (“rate base”) of \$1,092,691,592.¹³⁰ KIUC has proposed an adjusted jurisdictional rate base of \$1,016,604,000.¹³¹ The Commission has reviewed both proposed rate bases and has made the following modifications:

Materials and Supplies and Prepayments

In determining the jurisdictional rate base, KU and KIUC used the test-period end balances for materials and supplies and prepayments. KU’s prepayments included the PSC Assessment test-period end balance of \$390,780.¹³² KIUC proposes that the prepayments not be recognized in the calculation of the jurisdictional rate base. KIUC claims this proposal is justified because KU’s actual cash working capital is, or should

¹²⁹ KIUC originally proposed that the 12-month period ending September 30, 1998 was the appropriate period to be used for the evaluation of KU’s regulated return. See Kollen Direct Testimony, filed March 18, 1999, at 6. KIUC updated its test period to the 12-months ending December 31, 1998 due to the availability of information in response to discovery. See Kollen Additional Direct Testimony, filed May 24, 1999, at 2. KIUC later agreed with KU on the use of the 12-months ending December 31, 1998. See Kollen Rebuttal Testimony, filed August 16, 1999, at 3.

¹³⁰ Response to the Commission’s July 16, 1999 Order, Item 1(f).

¹³¹ Kollen Rebuttal Testimony, filed August 16, 1999, Exhibit LK-1, page 4 of 4.

¹³² Response to Public Hearing Information Requests, Item 12.

be, sufficiently negative to exceed the level of prepayments KU had included in rate base.¹³³

The category of materials and supplies includes the accounts of Materials and Supplies, Undistributed Stores Expense, and Fuel Inventory. Over the past decade, the Commission has utilized the 13-month average balance for these accounts when calculating the rate base. The Commission has found that the use of the 13-month average balance has resulted in more reasonable amounts to include in rate base. The Commission also notes that the use of the 13-month average approach is consistent with the approach used in determining LG&E's electric operations rate base in Case No. 98-426. Appendix A to this Order contains the calculation of the 13-month averages for these accounts, as well as the determination of the amounts allocated to Kentucky jurisdictional operations.

Concerning prepayments, the Commission finds no merit to the reasoning used by KIUC for its adjustment. The Commission traditionally includes a reasonable level of prepayments in the determination of the rate base, and KIUC has offered no evidence to convince us to do otherwise in this proceeding. The calculation of the level of prepayments to include in KU's jurisdictional rate base is also shown on Appendix A.

¹³³ Kollen Additional Direct Testimony, filed May 24, 1999, at 14.

In calculating the amount of prepayments to include in the rate base, the Commission has excluded the balances associated with the PSC Assessment.¹³⁴ The classification of the PSC Assessment as a prepayment allows KU to recognize the expense over the entire year, rather than in the month of payment. The Commission is not opposed to the concept of spreading this expenditure over a 12-month period. However, in determining whether the unamortized expense should be included in rate base, we must consider whether the funds were provided by ratepayers prior to or after the prepayment is recorded on the books. The assessment is based on the gross operating revenues of the utility for the prior calendar year, and it is notified of its assessments by July 1 of the following year. Thus, the assessment applies to sales that occurred prior to the recording of the prepayment. The PSC Assessment is included in operating expenses in determining revenue requirements that provide full recovery of this cost. It is inappropriate to also include a return on the unamortized balance in the prepaid accrual simply because for accounting purposes the assessment can be treated as an accrual or a prepaid expense.

Cash Working Capital Allowance

KU determined its cash working capital allowance using the 45 day or 1/8th formula methodology. KIUC did not include a cash working capital allowance in its determination of the jurisdictional rate base. KIUC argues that the 1/8th formula ensures

¹³⁴ See Case No. 90-041, An Adjustment of Gas and Electric Rates of The Union Light, Heat and Power Company, Order dated October 2, 1990, at 10; Case No. 91-370, Application of The Union Light, Heat and Power Company to Adjust Electric Rates, Order dated May 5, 1992, at 4-5; and Case No. 92-346, The Application of The Union Light, Heat, and Power Company for an Adjustment of Rates, Order dated July 23, 1993, at 4-5.

a positive cash working capital regardless of the timing of the utility's actual cash flows, assumes that investors supply capital for cash working capital purposes, and no longer provides a reasonable quantification of cash working capital requirements. KIUC also contends that, had a cash lead/lag study been properly performed, it would be unlikely that an electric utility would have a positive cash working capital requirement.¹³⁵ KU has rejected KIUC's proposal, contending that the proposal was not consistent with previous Commission decisions in its rate cases.¹³⁶

KIUC has offered no lead/lag study or any other evidence to support its contention that KU would have a negative cash working capital requirement if a lead/lag study were performed. KIUC has acknowledged that the Federal Energy Regulatory Commission ("FERC") has not adopted the position that cash working capital should be set at zero unless the utility can justify a different result.¹³⁷ As noted by KU, this Commission has traditionally used the 1/8th formula approach in rate cases. The Commission finds that approach is reasonable and should be used here. However, the cash working capital allowance has been adjusted to reflect the accepted pro forma adjustments to operation and maintenance expenses, as discussed later in this Order.

Accumulated Depreciation

KIUC proposes no adjustment to KU's test-year electric accumulated depreciation.

¹³⁵ Kollen Additional Direct Testimony, filed May 24, 1999, at 13-14.

¹³⁶ Robinson Responsive Testimony, filed July 2, 1999, at 22.

¹³⁷ Response to the Commission's June 7, 1999 Order, Item 7(c).

KU proposes to increase the test-period balance for jurisdictional accumulated depreciation of \$1,030,562,566 by \$853,962 in conjunction with its proposed adjustment to depreciation expense. KIUC opposes the proposed adjustment to depreciation expense¹³⁸ and maintains that there was no need to adjust accumulated depreciation.

The proposal by KU is consistent with past Commission practice. As discussed later in this Order, the Commission has accepted KU's proposed depreciation expense adjustment. Therefore, the Commission will include the increase in test-period depreciation expense in the balance of accumulated depreciation used to determine KU's jurisdictional rate base. However, the Commission has also adjusted accumulated depreciation to reflect its decision concerning the environmental surcharge, as discussed later in this Order.

Net Regulatory Assets and Liabilities

KIUC proposes a reduction of \$23,297,000 to KU's jurisdictional rate base for net regulatory assets and liabilities.¹³⁹ KIUC contends that regulatory assets and liabilities that have a carrying cost should be included in the rate base calculations.¹⁴⁰ KU has rejected KIUC's proposal, contending that the proposal was not consistent with previous Commission decisions in its rate cases.¹⁴¹

¹³⁸ Kollen Rebuttal Testimony, filed August 16, 1999, at 39-40.

¹³⁹ Kollen Additional Direct Testimony, filed May 24, 1999, Exhibit LK-1, page 4 of 4. This was a change from KIUC's original position. In the Kollen Direct Testimony, filed March 18, 1999, Exhibit LK-2, page 4 of 4, KIUC's witness proposed to remove all Miscellaneous Deferred Debits and Credits. No reason was stated as to why KIUC made this change in its jurisdictional rate base calculations.

¹⁴⁰ Response to the Commission's June 7, 1999 Order, Item 14.

¹⁴¹ Robinson Responsive Testimony, filed July 2, 1999, at 22.

KIUC has not provided sufficient justification for this proposed adjustment to the rate base calculation. As correctly noted by KU, the Commission has not traditionally made this type of adjustment to the rate base for KU. Therefore, the Commission finds that KIUC's proposal is not reasonable.

Customer Deposits

KIUC proposes reducing KU's jurisdictional rate base by \$9,695,000, the amount of jurisdictional customer deposits held by KU.¹⁴² KIUC contends that most public utility commissions and utilities consider customer deposits to be customer supplied capital. However, KIUC acknowledges that it does not know how customer deposits were handled in KU's last rate case.¹⁴³ KU has opposed this adjustment, again contending that it is not consistent with the Commission's practice in previous rate cases.

KIUC has offered no support for its contention that most commissions and utilities consider customer deposits to be customer supplied capital. Generally when customer deposits are deducted from rate base, a corresponding adjustment is made to increase expenses for the amount of interest paid to customers on these deposits. It does not appear that KIUC included such an adjustment for the interest expense. Further, the Commission has traditionally not reduced rate base by the level of customer deposits. Therefore, the Commission will not implement KIUC's proposed adjustment to the rate base.

¹⁴² Kollen Additional Direct Testimony, filed May 24, 1999, Exhibit LK-1, page 4 of 4.

¹⁴³ Response to the Commission's June 7, 1999 Order, Item 9.

Environmental Surcharge

As part of its determination of a base revenue reduction for KU, KIUC has assumed that the environmental surcharge would be incorporated into the base revenue requirement and then reset to zero in conjunction with the effective date of the Commission's Order in this proceeding. Any net incremental environmental costs incurred after that date would be recovered through the environmental surcharge.¹⁴⁴ KIUC argues that the integration of the base and environmental surcharge revenue requirements provides KU with full recovery of its environmental costs.¹⁴⁵

KU agrees with KIUC that any analysis of its revenue requirement should include the environmental surcharge, but does not agree that the surcharge could or should be incorporated into base rates in this case. KU has stated that the incorporation of the environmental surcharge into base rates must be accomplished in accordance with KRS 278.183.¹⁴⁶

The environmental surcharge provides eligible electric utilities with the opportunity to recover certain environmental costs and to earn a return on qualifying environmental control-related investments that are not reflected in existing base rates. The mechanism approved for KU results in the monthly determination of an environmental revenue requirement that is collected from ratepayers in the form of a

¹⁴⁴ Kollen Additional Direct Testimony, filed May 24, 1999, at 3.

¹⁴⁵ Id. at 16.

¹⁴⁶ Response to the Commission's July 16, 1999 Order, Item 7(c). KRS 278.183(3) states, in pertinent part, "Every two years the commission shall review and evaluate past operation of the surcharge, and after hearing, as ordered, shall disallow improper expenses, and to the extent appropriate, incorporate surcharge amounts found just and reasonable into the existing base rates of each utility."

surcharge. Because of the focus on plant and expenses not already included in existing rates, the environmental surcharge is a stand-alone cost recovery mechanism.

Before the environmental surcharge can be incorporated into the base rates, the reasonableness of the surcharge amounts must be examined in accordance with KRS 278.183(3). No party conducted such an examination in this proceeding and there is no evidence of record to determine whether the surcharge amounts are just and reasonable. Therefore, the Commission finds that KIUC's proposal to incorporate KU's existing environmental surcharge into base rates as part of this proceeding is inappropriate.

KU argues that it would now be unfair and unreasonable to exclude the environmental surcharge-related assets, expenses, and revenues from the determination of its earnings, since the exclusion would overstate earnings. KU contends that including these environmental surcharge-related items in the determination of its earnings appropriately recognizes its right to earn a fair return on the environmental capital investment. KU notes that because it proposed a limited return on capital in its surcharge mechanism, which the Commission accepted, the suggested exclusion would prevent it from receiving a full rate of return on its environmental investments.¹⁴⁷

The Commission finds that KU's approach to handling the environmental surcharge in this proceeding is also inappropriate. If the environmental surcharge-related assets are not excluded, KU will recover the environmental costs through base rates as well as through the environmental surcharge mechanism. KU would be

¹⁴⁷ Id., Item 7(a).

earning the rate of return authorized in this proceeding and the rate of return authorized for the surcharge mechanism on the same environmental investment. If the environmental surcharge-related expenses are not excluded, KU would recover these costs twice: through base rates and the monthly surcharge rate.¹⁴⁸ If the environmental surcharge-related revenues are not excluded, the determination of base rate earnings will be over-stated.

Therefore, the Commission will exclude KU's environmental surcharge-related assets, expenses, and revenues from the determination of the base revenue requirements in this proceeding. This exclusion will require adjustments to KU's electric rate base and capitalization. Appendix B to this Order details the amounts to be excluded. It should be noted that the amounts excluded from rate base, capitalization, revenues, and expenses have been adjusted to reflect the adoption of the Settlement Agreement in Case No. 93-465.¹⁴⁹ The adjustment of these amounts is consistent with the philosophy that those specific environmental investments and expenses are eligible for inclusion in KU's base rates.

¹⁴⁸ The environmental expenses are comprised of expenses associated with specific environmental assets (depreciation, property taxes, and insurance), emission allowance expense, and certain operation and maintenance expenses associated with scrubbers, precipitators, emissions monitors, and ash handling.

¹⁴⁹ Case No. 93-465, *The Application of Kentucky Utilities Company to Assess a Surcharge Under KRS 278.183 to Recover Costs of Compliance with Environmental Requirements for Coal Combustion Wastes and By-Products*. On August 17, 1999, the Commission approved a unanimous Settlement Agreement which resolved all outstanding issues and pending litigation relating to KU's environmental surcharge. The Settlement Agreement was in response to the December 17, 1998 Opinion of the Supreme Court of Kentucky in Kentucky Industrial Utility Customers, Inc. v. Kentucky Utilities Co., Ky., 983 S.W.2d 493 (1998). As a result of the Settlement Agreement, certain expenses and investments are no longer recovered through the surcharge mechanism.

Based upon the previous findings, we have determined the jurisdictional rate base for KU at December 31, 1998 to be as follows:

Total Utility Plant in Service	\$2,156,546,510
Add:	
Materials and Supplies	39,427,407
Prepayments	771,530
Cash Working Capital Allowance	<u>42,732,410</u>
Subtotal	\$ 82,931,347
Deduct:	
Accumulated Depreciation	1,006,475,497
Customer Advances	1,211,950
Accumulated Deferred Taxes	232,641,678
Investment Tax Credit	<u>18,582,413</u>
Subtotal	\$1,258,911,538
 JURISDICTIONAL NET ORIGINAL COST RATE BASE	 <u>\$ 980,566,319</u>

CAPITALIZATION

KIUC proposes a jurisdictional capitalization of \$1,047,579,000.¹⁵⁰ KIUC also recognizes adjustments for non-utility plant investments, investment in Electric Energy, Inc. ("EEI"), equity in earnings from EEI, and other investments. The equity in the earnings from EEI was allocated to common equity, while all other capitalization adjustments were allocated to capitalization on a pro rata basis. KIUC also proposes an adjustment to recognize \$22,302,000 in investment tax credits. KIUC states that it was appropriate to include the investment tax credits, as this was consistent with prior Commission decisions in KU general rate cases.¹⁵¹ KIUC does not include an adjustment to common equity for shareholder merger-related costs and savings. KIUC

¹⁵⁰ Kollen Additional Direct Testimony, filed May 24, 1999, Exhibit LK-1, page 1 of 4.

¹⁵¹ Response to the Commission's June 7, 1999 Order, Items 13 and 14.

opposes this adjustment, arguing that KU's capital structure had not been shown to be unreasonable. KU's position was limited only to circumstances in which the result was an increase in common equity from actual levels and the adjustment would have the effect of negating KU's commitment to charge ratepayers for 50 percent of the costs to achieve merger savings.¹⁵²

KU proposes an adjusted jurisdictional capitalization of \$1,043,233,566.¹⁵³ Included in the jurisdictional capitalization were adjustments to remove non-utility plant investments, investment in and the equity in the earnings of EEI, other investments, and recognition of the shareholders' merger-related costs and savings. The equity in the earnings from EEI and the shareholder merger-related items were allocated by KU to common equity. The other capitalization adjustments were allocated on a pro rata basis to all components of capitalization.

Concerning the inclusion of investment tax credits in KU's jurisdictional capitalization, the Commission is not persuaded by KIUC's arguments. KIUC has offered no evidence to support its claim that the inclusion of investment tax credits in KU's capitalization is consistent with previous Orders of the Commission. KIUC has acknowledged that KU elected to reduce rate base by the amount of unamortized investment tax credits rather than amortizing these credits above the line.¹⁵⁴ Based on these factors, the Commission finds that KIUC's proposal is unreasonable.

¹⁵² KIUC Main Brief at 55.

¹⁵³ Response to the Commission's July 16, 1999 Order, Item 1(h), page 1 of 2.

¹⁵⁴ Response to the Commission's June 7, 1999 Order, Item 13. KIUC has also acknowledged that the treatment elected by KU was not the same as elected by LG&E.

During the test period, KU wrote-off the shareholder portion of costs associated with the merger between KU Energy Corp. and LG&E Energy Corp. KU's retained earnings were correspondingly reduced as a result of the write-off, which lowered the common equity component of capitalization. KU argues that this adjustment is necessary in order to remove the effects of a significant non-recurring item, to maintain the regulatory balance for the sharing of merger costs and merger savings as ordered in Case No. 97-300, to prevent shareholders from being penalized, and to prevent customers receiving a windfall inconsistent with the regulatory balance established in Case No. 97-300.¹⁵⁵

KU's proposed adjustment reflects the reversal of the test-period write-off of the shareholders' cost to achieve the merger, net of the after tax shareholder portion of the merger savings. As discussed later in this Order, the Commission accepts KU's proposed adjustment to its operating income statement for the shareholder portion of the merger savings. However, after analyzing the proposed adjustment to KU's common equity, the Commission finds that the proposed adjustment is inappropriate and should be rejected. The Commission cannot simply ignore the fact that the write-off has occurred and will continue to impact KU's capitalization in the future. Contrary to arguments made by KU, if this were a reasonable adjustment, it would have to be made in future rate proceedings, regardless of when the shareholder portion of the merger savings exceeds the merger costs.¹⁵⁶ In making this adjustment, KU in effect has attempted to shift some of the shareholders' portion of the merger costs to ratepayers,

¹⁵⁵ Response to the Commission's July 16, 1999 Order, Item 6.

¹⁵⁶ Joint Brief of LG&E and KU at 100.

in that the increase in common equity lowers the achieved rates of return on both equity and capitalization. The lowering of these rates of return would falsely skew an investigation of whether KU has experienced excessive earnings. If this proposed adjustment is allowed, the recipients of a windfall will be KU's shareholders, not its customers. Consequently, the proposed adjustment upsets, rather than maintains, any regulatory balance established in Case No. 97-300.

Based on the findings herein, the Commission has determined that KU's total test-period-end jurisdictional capitalization should be \$905,830,096. The Commission has accepted KIUC's and KU's proposed adjustments for the investment in EEI, the equity in the earnings from EEI, and the removal of other investments. However, the Commission has rejected the adjustment to remove non-utility plant from the capitalization. Neither KIUC nor KU has demonstrated that this adjustment is consistent with previous Commission practice. As discussed previously in this Order, KU's investment in environmental assets has been excluded. The Commission has normally made adjustments to capitalization by allocating the adjustment on a pro rata basis to all capital components, unless good cause existed to allocate to a specific component. Concerning the environmental adjustment, we believe such cause exists and have removed KU's environmental asset investment from the long-term debt component of the capitalization. The rate of return on the environmental surcharge rate base was based on the interest rate associated with KU's pollution control debt.¹⁵⁷ The removal of the environmental investment on a pro rata basis treats these investments as if the rate of return used in the environmental surcharge mechanism reflects both a debt and

¹⁵⁷ Case No. 93-465, Order dated July 19, 1994, at 19.

equity component. However, the rate of return on rate base utilized in the environmental surcharge reflects only a debt component. It is therefore appropriate to adjust only the debt component of KU's capitalization. The calculation of the jurisdictional capitalization is shown on Appendix C.

REVENUES AND EXPENSES

For the test period, KU has reported actual net operating income from jurisdictional operations of \$107,923,224.¹⁵⁸ Starting with this net operating income, KIUC has proposed a series of adjustments to revenues and expenses in support of its determinations that KU was over-earning and that a base rate revenue reduction was required. KIUC's resulting adjusted net operating income from KU's jurisdictional operations was \$122,252,000.¹⁵⁹ KU has provided its own series of adjustments to revenues and expenses to reflect known and measurable changes and to establish a more representative level of on-going operations. KU's adjusted net operating income from jurisdictional operations was \$94,166,225.¹⁶⁰ The Commission finds that three of the adjustments proposed by KU and agreed to by KIUC are reasonable and will be accepted without change: the adjustments to eliminate the non-recurring reduction in expenses due to the liquidation of the Risk Management Trust; the elimination of advertising expenses; and the reallocation of sales for resale revenues and expenses to

¹⁵⁸ Response to the Commission's July 16, 1999 Order, Item 1(a), page 1 of 2.

¹⁵⁹ KIUC Main Brief, Appendix A. KIUC had previously determined the adjusted net operating income from electric operations was \$119,735,000 (Kollen Additional Direct Testimony, Exhibit LK-1, page 2 of 4), later revised to \$118,845,000 (Kollen Rebuttal Testimony, Exhibit LK-1, page 2 of 4). KIUC's final calculation reflected additional information received during the public hearing.

¹⁶⁰ Response to the Commission's July 16, 1999 Order, Item 1(a), page 1 of 2.

jurisdictional operations.¹⁶¹ The Commission makes the following modifications to the remaining proposed adjustments.

FAC Adjustment For Off-System Sales Losses and Jurisdictionalization

KU proposes an adjustment to decrease revenues by \$3,063,858 to reflect application of a 3.1 percent loss factor for intersystem sales and recalculation of system line loss as set out in the Commission's Orders in Case No. 96-523-C,¹⁶² and Case No. 98-564.¹⁶³ In these Orders, the Commission found that KU had applied an improper line loss percentage to intersystem sales and had incorrectly computed system line loss. The Commission's rehearing Orders were issued after this case record was complete and adjusted KU's intersystem line loss for January through October 1998 from 3.1 percent to 1.0 percent. Data for the months of November and December 1998 is contained in the record of Case No. 98-564-A.¹⁶⁴ Reflecting the change from 3.1 percent to 1.0 percent reduces this adjustment from \$1,789,882 to \$484,396.

¹⁶¹ This adjustment also reflects the reallocation of transmission service revenues and expenses to jurisdictional operations.

¹⁶² Case No. 96-523-C, An Examination by the Public Service Commission of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company from November 1, 1997 to April 30, 1998. Final Order dated July 21, 1999. Rehearing Order dated August 30, 1999.

¹⁶³ Case No. 98-564, An Examination by the Public Service Commission of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company from November 1, 1996 to October 31, 1998. Final Order Dated July 21, 1999. Rehearing Order dated August 30, 1999.

¹⁶⁴ Case No. 98-564-A, An Examination by the Public Service Commission of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company from November 1, 1998 to April 30, 1999.

KIUC opposes the \$1,273,976 revenue reduction contained in this adjustment that relates to KU's calculation of system line loss, and points out that this disallowance is concerned with costs that should not be recoverable from Kentucky retail ratepayers in either the FAC or base rates. The Commission agrees that this adjustment to decrease revenue for rate-making purposes is inappropriate and should not be allowed.

Customer Growth

KU proposes an adjustment to revenues by \$5,918,193 and expenses by \$3,310,637 to reflect customer growth during the test period by recognizing the number of customers served at the end of the test period compared to the average number served during the test period.

KIUC contends that KU's customer growth adjustment should be rejected because it did not include adjustments for the three classes of customers that use large volumes of electricity. KIUC also argues that KU's expense adjustment is incorrect, claiming that some of the expense categories do not vary as the number of customers varies.

KU states that its methodology in this case is the same as that previously approved by the Commission in Case No. 8624. For the customer classes questioned by KIUC, which include very large consumers of electricity, the number of customers remained constant during the year. Also, the expenses included in the adjustment are variable based on the number of customers served and the expense offset developed by this computation is correct.

The Commission finds that KU's year-end customer growth adjustment accurately reflects the increased revenue and expenses associated with the additional

customers served as of the end of the test year. Therefore, the Commission will accept KU's customer growth adjustment as proposed.

Net Revenues (Margins) from Off-System Sales

During the test year, KU realized margins from off-system sales of \$27,778,756.¹⁶⁵ KU's off-system sales consists of three categories: 1) sales to other utilities for resale; 2) sales to LG&E in accordance with the LG&E/KU agreement to jointly dispatch their generating plants; and 3) brokered sales. KIUC proposes no adjustment to this amount. KU proposes an adjustment to reduce those margins by \$10,717,298¹⁶⁶ for rate-making purposes based on planning studies performed to determine its expected level of off-system sales for calendar year 2000. KU contends that calendar year 1998 is not representative of the levels of off-system sales, and the margins on those sales, that it expects to realize on an ongoing basis; therefore, it is appropriate to rely on the results of its planning studies for calendar year 2000 to adjust the test-year levels.¹⁶⁷

KU argues that its native load sales are expected to grow, resulting in less capacity being available for off-system sales. It anticipates that it may have a greater number of outages on its system in the future in order to install equipment needed to meet stricter environmental regulations, which would reduce the amount of time its generating capacity would be available for off-system sales. KU also contends that its future off-system sales will be less than the level experienced during the test year

¹⁶⁵ Bellar Response Testimony, filed July 2, 1999, Response Exhibit LEB-2.

¹⁶⁶ Id.

¹⁶⁷ Id., at 2.

because market prices for peak period sales in the future are anticipated to decline. As prices decline, KU forecasts that its ability to make off-system sales on an economic basis will also decline, resulting in fewer opportunities to make such sales.¹⁶⁸

KIUC argues that the proposed adjustment is inappropriate and should be rejected for numerous reasons. First, KIUC claims the adjustment, based on KU's year 2000 planning studies, is not known and measurable.¹⁶⁹ Second, KIUC contends that by selectively choosing this adjustment as one that goes out 24 months beyond the end of the test year, KU ignores the matching principle, since it has not proposed to carry other revenue and expense adjustments (with the exception of its proposed adjustment for purchased power expense) out a full 24 months beyond the test period.¹⁷⁰ Third, KIUC claims that, even if the proposed adjustment was known and measurable and did not violate the matching principle, the reasons offered by KU in support of its proposal are flawed.

KIUC asserts that if increases in KU's native load sales cause KU's off-system sales to decline, then KU's overall margins will increase, not decrease, since native load sales carry a higher margin than economy off-system sales. KIUC contends that current evidence on off-system sales prices does not reflect any decline in margins from 1998 to 1999 and that KU has made no compelling argument for anticipating that there will be a significant decline in market prices for off-system sales beginning in 2000. On the issue of additional outages due to required installation of environmental equipment,

¹⁶⁸ Id.

¹⁶⁹ Kollen Rebuttal Testimony at 17.

¹⁷⁰ T.E., Volume IV, September 3, 1999, at 129-130.

KIUC points to the current uncertainty surrounding: (1) new NO_x regulations; (2) the equipment that KU will be installing in response to those regulations; and (3) on which of KU's generating units such equipment might be installed.¹⁷¹ KIUC also points out that KU has projected that its plant capacity factors and equivalent availability factors, respectively, will remain constant, or increase, over the 1999-2001 period.¹⁷²

The adjustment proposed by KU is rejected. For all the reasons cited by KIUC, the Commission cannot accept such an adjustment. There is abundant evidence that contradicts each of the reasons given by KU for making the adjustment. While planning studies are a necessity as part of a utility's planning process, the results of such studies do not rise to the level of a known and measurable rate-making adjustment to a historical test period. In addition, it is obvious that KU made no attempt to be consistent in making projections and carrying adjustments out 24 months beyond the end of the test year, in clear violation of the matching principle. The Commission will include an adjustment, to reduce test-year margins from off-system sales by \$2,521,656, based on the actual margins KU experienced on off-system sales for the twelve months ended August 1999.¹⁷³ Such an adjustment goes out a full eight months beyond the end of the test period; however, it is supported by the evidence of record, does not rely on planning studies or forecasts, and can be judged to be known and measurable.

¹⁷¹ T.E., Volume I, August 31, 1999, at 146-152.

¹⁷² KIUC Cross Examination Exhibit 18.

¹⁷³ KU Responses to Hearing Data Requests, Item 16.

Electric Weather Normalization

KU proposes a net increase in revenues of \$2,802,000 to reflect the effect of abnormal weather on its sales, revenues, and expenses. KU states that the methodology used to calculate this adjustment had been documented in its 1996 Integrated Resource Plan (“IRP”). KU notes that the Commission had not questioned the appropriateness of its methodology to reflect weather effects in the sales forecasts component of its 1996 IRP. KU argues that using the models it developed to prepare its 1996 IRP was the appropriate means to quantify the effect of weather on 1998 sales.

KU’s approach was to weather normalize the monthly electric energy sales to each revenue class on the basis of a weather variable coefficient. This coefficient was taken from the monthly regression model equation for the class and the deviation of actual monthly total heating/cooling degree days from the most recent 20-year average for the month. Mine power and lighting were not weather adjusted. The heating and cooling degree days were calculated using the average of eight 3-hour daily temperature observations.¹⁷⁴

KIUC opposes the adjustment for three reasons: (1) the Commission historically has not adopted weather normalization adjustments for electric utilities; (2) the selection of the data series and development of the regression equations, as well as other aspects of the methodologies, are subject to considerable judgment; and (3) there have been procedural limitations to the development of a comprehensive record on this issue.¹⁷⁵

¹⁷⁴ Willhite Responsive Testimony, filed July 2, 1999, at 3-4.

¹⁷⁵ Kollen Additional Direct Testimony, filed May 24, 1999, at 16-17.

The Commission has considered an electric weather normalization adjustment in four previous electric utility rate cases.¹⁷⁶ In all four cases, the Commission denied the proposed adjustment, noting the failure of the sponsoring party to adequately support the adjustment. However, the Commission has also stated its general endorsement of the concept of normalization and willingness to consider such a proposal in future rate proceedings. We reaffirm that willingness in this Order.

However, the Commission finds that KU's proposed electric weather normalization adjustment has not been adequately supported and should be denied. Although KU did file a summary of the results of its weather normalization, it failed to file the supporting regression analyses, modeling and forecasting assumptions, and calculation details. As KU well knows, the Commission's regulation governing IRP filings, 807 KAR 5:058, Section 11(3), provides only for the issuance of a report by Commission Staff. Thus, while that staff report may not have questioned the accuracy and validity of the weather normalization methodology used in KU's 1996 IRP for forecasting purposes, that report does not equate to Commission approval. In addition, KU's methodology is now proposed for rate-making, a purpose which is vastly different than forecasting future supply and demand in an IRP.

¹⁷⁶ See Case No. 8284, General Adjustment in Electric and Gas Rates for Louisville Gas and Electric Company, final Order dated January 4, 1982; Case No. 8616, General Adjustment in Electric and Gas Rates of Louisville Gas and Electric Company, final Order dated March 2, 1983; Case No. 8924, General Adjustment in Electric and Gas Rates of Louisville Gas and Electric Company, final Order dated May 16, 1984; and Case No. 10064, Adjustment of Gas and Electric Rates of Louisville Gas and Electric Company, final Order dated July 1, 1988.

Further, KU has not adequately explained why it is reasonable to use a 20-year average of degree days to define normal weather rather than a 30-year average.¹⁷⁷ KU acknowledged that since its 1996 IRP filing, it has modified several customer sector models to improve the capture of weather-related variances or to begin the collection of weather sensitivity information.¹⁷⁸ KU indicated that a portion of its weather normalization calculations follows an approach developed in a project sponsored by the Electric Power Research Institute (“EPRI”), but KU has not provided any evidence to indicate that its overall electric weather normalization methodology is consistent with this EPRI research¹⁷⁹ or that the EPRI model has been accepted as a rate-making tool.

PBR Tariff

KU proposes two adjustments relating to the July 2, 1999 implementation of its electric PBR tariff subject to future change. The first adjustment is a reduction to revenues of \$10,600,000 to reflect the first year bill reduction incorporated in the tariff. The second adjustment is a reduction to revenues of \$3,886,000 to reflect the impact of the performance-based components¹⁸⁰ of the PBR tariff had this tariff been in effect during the entire test period. KU argues that the PBR tariff will have an ongoing impact on the representative test period and that recognition of the tariff impacts is consistent

¹⁷⁷ Previous electric weather normalization adjustments proposed in the LG&E rate cases were based on a 30-year average. The 30-year average is typically used in gas weather normalization adjustments.

¹⁷⁸ Response to Public Hearing Information Requests, Item 19.

¹⁷⁹ Response to the Commission’s July 16, 1999 Order, Item 20, part 2.

¹⁸⁰ The performance based components are Fuel Cost Recovery, Generation Performance, and Service Quality.

with the Commission's Order implementing the tariff.¹⁸¹ KU also contends that, even though the Commission's Order implementing the tariff states the tariff is subject to further change, recognition of its impact is consistent with the development of a representative period in a series of traditional rate cases.¹⁸²

KIUC opposes both adjustments, arguing that KU's revenue requirement and the appropriate base revenue reduction should be determined absent any consideration of the PBR tariff. KIUC contends that the rate reduction should depend, not upon the adoption of the PBR tariff, but upon KU's cost of service.¹⁸³ KIUC further argues that the PBR tariff bill reduction is dependent upon the Commission's final adoption of the tariff; that it is temporary in nature; and that KU's bill reduction adjustment reflects only the first year reduction and not the significantly smaller reductions scheduled in subsequent years.¹⁸⁴

The Commission finds that it is not appropriate to recognize the effects of the PBR tariff when determining KU's level of base rate earnings. The PBR tariff represents a stand-alone adjusting factor that operates independently of the base rates, as do the environmental surcharge and the merger surcredit. The PBR results do not restate or revision of the base rates of KU. Therefore, when determining whether KU's base rates produce excessive earnings, it is not appropriate to incorporate the effects of the PBR tariff in the determination of base rate earnings.

¹⁸¹ Willhite Responsive Testimony, July 2, 1999, at 6 and 9.

¹⁸² Response to the Commission's July 16, 1999 Order, Item 12.

¹⁸³ Kollen Additional Direct Testimony, filed May 24, 1999, at 21-23.

¹⁸⁴ Kollen Rebuttal Testimony, filed August 16, 1999, at 23-24.

KU's application of the PBR tariff to the test period leads to a misstatement of the base rate earnings. The acceptance of the \$10,600,000 bill reduction as proposed by KU does not accurately reflect the provisions of the PBR tariff. In years two through five, the annual bill reduction is only \$4,240,000. If it were appropriate to recognize the effects of the bill reduction in determining a representative, on-going level of operations, the adjustment for the bill reduction should have reflected that \$27,560,000 was to be returned to KU customers over a 5-year period. The Commission also notes that KU did not calculate the FCR component of its proposed adjustment in conformity with the PBR tariff, which results in an understatement of the adjustment.¹⁸⁵

The Commission finds that these two adjustments are rendered unnecessary by our decision to reject the proposed PBR. Nevertheless, addressing the merits of the adjustments may provide useful guidance in the future. First, a determination should be made of KU's base rate earnings level and then a determination should be made of whether that level of earnings is excessive. Only then should the effects of the PBR tariff be recognized in conjunction with any determination that earnings were excessive. This approach properly reflects the prospective nature of the application of the PBR tariff to KU's base rate earnings. KU has produced no evidence to demonstrate that a retroactive application of the PBR tariff to its historic test year is consistent with the

¹⁸⁵ Response to the Commission's April 30, 1999 Order, Item 7, page 20 of 60. The FCR portion of the PBR tariff states that when the percentage change in the actual fuel cost ("CA") is less than the percentage change in the fuel cost index ("CI"), the two percentages are added together and the result divided by 2. In Item 7, page 20 of 60, KU calculated the difference between CA and CI and divided by 2. Correcting this mistake in the calculation results in a FCR of \$2,033,480, not the \$1,321,762 as shown.

treatment of similar adjustments in previous rate cases. Therefore, the proposed adjustment is denied.

Environmental Surcharge Revenues

KU proposes two adjustments related to the adoption of the Settlement Agreement in Case No. 93-465. First, KU proposes to increase revenues by \$21,500,000 to remove surcharge refunds resulting from the Settlement Agreement. Second, KU proposes to reduce revenues by \$3,000,000 to reflect the ongoing impact on its environmental surcharge of the adoption of the Settlement Agreement in Case No. 93-465. KU contends that these adjustments should be made as both adjustments were known and measurable as a result of the Settlement Agreement.¹⁸⁶

KIUC agreed with the proposal to remove the surcharge refunds, but it increased revenues \$22,157,000, which reflected all amounts KU recorded in the test period as provisions for refunds.¹⁸⁷ KIUC opposes the adjustment to reflect the on-going impact of the Settlement Agreement, contending that its proposal to incorporate the environmental surcharge into the base rates already recognized this impact of the Settlement Agreement. KIUC argues that accepting KU's proposed adjustment would result in double counting the revenue reduction due to the Settlement Agreement.¹⁸⁸

The Commission agrees with KU and finds that the proposal to remove the surcharge refunds is reasonable and has increased revenues by \$21,500,000. As it is

¹⁸⁶ Robinson Responsive Testimony, filed July 2, 1999, at 7-8.

¹⁸⁷ Kollen Additional Direct Testimony, filed May 24, 1999, at 6, and Exhibit LK-1, page 2 of 4.

¹⁸⁸ Id. at 16.

unclear what the remaining balance in the provision for refund represents, it would not be appropriate to summarily remove the amount. However, the adjustment to recognize the ongoing impact of the Settlement Agreement proposed by KU should be denied. As discussed previously in this Order, the Commission has determined that all environmental surcharge assets, revenues, and expenses should be excluded from the determination of base rate earnings. Thus, the Commission will reduce revenues by \$16,826,199 and expenses by \$12,154,482. Appendix B to this Order details the amounts to be excluded. These amounts have been adjusted to reflect the adoption of the Settlement Agreement in Case No. 93-465.

Merger Dispatch Savings and Open Access Transmission Tariff Costs

KU proposes to normalize revenues associated with its merger dispatch savings and expenses associated with its open access transmission tariff (“OATT”). Jurisdictional merger dispatch savings, identified as internal economy revenues, were decreased by \$1,883,000, while transmission costs associated with KU’s OATT were decreased by \$1,190,000.¹⁸⁹ KU contends that the adjustments were appropriate. The merger dispatch savings reflected fuel costs from off-system sales that are provided to retail customers as fuel clause billing reductions. The OATT cost decrease reflects the operation of the LG&E/KU Joint OATT filed at FERC.¹⁹⁰

KIUC opposes both of these adjustments. It argues that the proposed adjustment to the merger dispatch savings would permit KU to retaining the savings,

¹⁸⁹ Response to the Commission’s December 2, 1998 Order, Item 11, Supplemental Response filed February 9, 1999, Workpaper-20.

¹⁹⁰ Robinson Responsive Testimony, filed July 2, 1999, at 11-12.

rather than return those savings to customers. KIUC further argues that both adjustments were one-sided and did not properly match revenues with associated expenses.¹⁹¹

The Commission finds that KU's proposal to normalize the merger dispatch savings and OATT costs is reasonable and should be accepted. The merger dispatch savings and the OATT costs included in the test period reflect six months of operation. It is reasonable to normalize these items to reflect a full 12 months of operation. KIUC has not provided adequate justification to support the rejection of the proposals.

Purchased Power Expense

KU proposes an adjustment to increase its purchased power expense above the actual test level by \$5,187,000.¹⁹² This adjustment reflects test-year demand and energy purchases with the demand purchase volumes re-priced to reflect year 2000 forward prices obtained by KU from energy marketing companies and power brokering entities. KU contends that because of changes in the electric industry caused by the price spikes experienced for power purchases during the summer of 1998 the prices for its 1998 power purchases, which were determined prior to the price spikes experienced in June and July of that year, are not representative of prices on a going-forward basis.

KIUC asserts that the proposed adjustment is not known and measurable and that it is a direct violation of the matching principle. Citing the use of a verbal price quote obtained on a single day, from one energy marketer, KIUC states that the volatile nature of the wholesale power market renders the basis for KU's adjustment inherently

¹⁹¹ KIUC Main Brief at 42.

¹⁹² Bellar Response Testimony, filed July 2, 1999, Response Exhibit LEB-1.

unreliable.¹⁹³ KIUC also points to the fact that KU hasn't made any commitments for year 2000 purchases but, had it done so, the probability that the price for such purchases would be the same as the verbal price quote received on one day during the summer of 1999 is virtually nonexistent. KIUC also argues that with 328 megawatts of peaking capacity being added to the combined system during 1999, there may not be the need to purchase the quantities of power in 2000 that were purchased during 1998.

The adjustment proposed by KU cannot be accepted. This is another example of selectively going out 24 months beyond the end of the test year in an attempt to support an adjustment. The likelihood that purchase volumes in 2000 will be at the same level as in 1998 is remote, to say the least. The probability that any purchases that KU "might" make for calendar year 2000 will be at the same price was quoted one day this past summer is even more remote. Even if the support for KU's adjustment were not so vacuous, the adjustment itself is inconsistent with actual events that have occurred since the test year, such as the installation of the new CTs at the Brown Generating Station. It is also inconsistent with arguments KU offered in support of its proposed adjustment to reduce off-system sales margins, including: (1) projecting lower future prices in the wholesale power market; (2) increases in sales to native load customers; and (3) increased outages for KU's own generating facilities due to the need to install equipment necessary to meet stricter environmental regulations.

The Commission will include an adjustment based on KU's actual purchased power expense for the twelve months ended August 1999.¹⁹⁴ This adjustment reflects the

¹⁹³ T.E., Volume V, September 7, 1999, at 10, 14, and 15.

¹⁹⁴ KU Responses to Hearing Data Requests, Item 15.

impact of both price and volume changes since the test year, is based on KU's actual purchases for a period of time that is in evidence in this record, and does not rely on price quotes from a single source on one day of the year. As such, this adjustment is clearly known and measurable, is adequately supported, and comports in principle with the matching concept while, at the same time, recognizes the substantial changes that have occurred in the wholesale power market due to the events that led to the price spikes of 1998, and 1999 as well. The impact of this adjustment is to increase purchase power expense by \$4,768,000 above the level incurred during the test year.

Write-off of Shareholder Portion of Costs to Achieve

In conjunction with its proposal to adjust the common equity portion of its electric operations capitalization, KU proposes to recognize on its operating statement the reversal of the write-off of the shareholder portion of the costs to achieve. The reversal adjustment was \$18,784,000. This adjustment was one of several proposed by KU to eliminate the balances recorded "below the line" on its operating statement for Other Income and Deductions. As noted earlier in this Order, KIUC was opposed to this adjustment.

The Commission has already determined that this adjustment to KU's electric common equity is inappropriate. This expense adjustment, if accepted, would result in the ratepayers being forced to pay over time the shareholders' portion of the costs to

achieve. Consequently, the Commission rejects this proposed adjustment to KU's electric operating statement.¹⁹⁵

Shareholder Merger Savings

KU proposes an increase to jurisdictional operating expenses of \$9,595,000 to reflect the shareholders' portion of the merger savings. The shareholder portion of merger savings reflects 50 percent of the total savings originally estimated and presented in Case No. 97-300. Like the ratepayer net merger savings, the shareholder portion escalates over a 10-year period. KU argues that in order for the shareholders to retain their portion of the merger savings, this adjustment was necessary to eliminate the shareholders' merger savings from the return calculations. The proposed adjustment reflects the first full year of estimated savings and was stated at the gross level, rather than a net amount reflecting the shareholders' portion of costs to achieve.¹⁹⁶

KIUC agrees with the proposed adjustment in principle, but initially argued that only an amount reflecting the net of gross savings, less costs to achieve, should be recognized as the adjustment. At that time, KIUC argued that using the gross level would alter the sharing arrangement accepted in Case No. 97-300 and that the shareholder portion of costs to achieve would be shifted to ratepayers.¹⁹⁷ In its brief,

¹⁹⁵ The Commission notes that the determination of KU's earnings level is based on its net operating income, not its net income as presented and argued by KU throughout this proceeding. "Below the line" operating statement adjustments are only recognized to the extent that they have an impact on "above the line" items, such as the interest synchronization adjustment.

¹⁹⁶ Joint Brief of LG&E and KU at 96.

¹⁹⁷ Kollen Rebuttal Testimony, filed August 16, 1999, at 44.

citing information provided by KU at the public hearing, KIUC modified its position, recommending that the gross level of savings be used, but that it reflect only an amount equal to eight months of savings. KIUC contends that the use of this amount was reasonable since the merger was in effect approximately eight months of the test period.¹⁹⁸

The Commission finds that an adjustment should be made to secure the shareholder portion of the merger savings. We also find that it is reasonable to use the gross level of merger savings reflecting the eight months the merger was in effect during the test period. Therefore, jurisdictional operating expenses have been increased by \$6,396,666.

Team Incentive Award Plan

KU proposed to increase jurisdictional operating expenses \$3,140,000 to recognize the increased expense for its Team Incentive Award (“TIA”) Plan. The TIA Plan is an annual addition to employee compensation that is based on a combination of KU’s corporate and individual employee performance and goal attainment. During the test period, only a limited number of KU’s employees were covered by the plan, but effective January 1, 1999, substantially all active KU employees were eligible. In response to objections raised by KIUC, KU stated that its proposed adjustment was based upon adjusted 1998 payroll expense levels, did not rely on 1999 budget information, and was necessary in order to reflect a reasonable, on-going level of employee expenses.¹⁹⁹

¹⁹⁸ KIUC Main Brief at 37-38.

¹⁹⁹ Robinson Responsive Testimony, filed July 2, 1999, at 13-15.

KIUC opposed the proposed adjustment. KIUC argued that the adjustment represented a selective, single-issue post-test-period adjustment that was based on 1999 budget information. KIUC noted that KU had failed to provide any rationale for the adjustment, other than the TIA Plan was being extended to all employees. KIUC contended that if the adjustment was based on actual achievements in 1999, it could not be considered a known and measurable adjustment.²⁰⁰

As described by KU, the TIA Plan²⁰¹ attempts to link employee pay and performance. It was designed to mirror incentive plans already in effect within LG&E Energy Corp. and its subsidiaries. The TIA plan payments begin with a “target award,” which is 5, 8, or 13 percent of the total annual earnings of the participating employee.²⁰² The target award amount for each eligible employee is then multiplied by weighted performance objectives and the associated performance earned award percentage.²⁰³

²⁰⁰ Kollen Additional Direct Testimony, filed May 24, 1999, at 17-18.

²⁰¹ The TIA Plan became effective on May 5, 1998, and with the exception of modifications to the performance goals and targets, was essentially unchanged when it was expanded effective January 1, 1999. See Response to the Commission’s July 16, 1999 Order, Item 8.

²⁰² The employee category determines which percentage will be used to determine the target award. Hourly non-union, hourly union, and non-exempt categories receive 5 percent, the exempt category receives 8 percent, the part-time category receives either 5 or 8 percent, and the management category receives 13 percent. See Robinson Responsive Testimony, filed July 2, 1999, Exhibit MDR-KU-3, page 5 of 5.

²⁰³ Effective January 1, 1999, there were 3 performance objectives in the TIA Plan: financial, customer satisfaction, and individual/team effectiveness. The objectives were weighted at 45, 15, and 40 percent, respectively. Each performance objective weight and performance earned award percentage is separately multiplied by the target award, with the sum of these calculations equaling the total TIA Plan award. See Response to the Commission’s July 16, 1999 Order, Item 8(a), page 9 of 18.

KU's proposed adjustment only represented the target award portion of the total TIA Plan. The calculation was based upon the KU headcount of eligible employees as of August 1, 1998, and reflected annualized base pay rates as of July 8, 1998 and overtime estimated as of August 18, 1998.²⁰⁴ The proposed adjustment included the impact on social security taxes, and reflected the removal of the capitalized portion of the expense and the level of expense associated with officers of KU. During the test period, KU's employees received wage increases of 2.5 to 3.5 percent exclusive of any TIA Plan awards.²⁰⁵

The Commission finds that KU has not adequately supported or calculated the proposed adjustment. We are not opposed to compensation plans that link employee pay with performance. However, it must be demonstrated that any employee compensation plan is reasonable in total. This proposed adjustment only deals with a portion of KU's total employee compensation package. KU has not indicated whether the TIA Plan will replace wage increases, like the 2.5 to 3.5 percent awarded in the test period, or be in addition to them. KU has offered no justification for the reasonableness of the target award percentages of 5, 8, and 13 percent. It is not clear from the TIA Plan documentation whether a participating employee could earn less than the target award. The calculation of the adjustment was not based upon employee levels, base wage rates, or overtime levels at test period end, which would be the normal procedure in

²⁰⁴ Robinson Responsive Testimony, filed July 2, 1999, Exhibit MDR-KU-3, page 5 of 5.

²⁰⁵ Id. at 19.

determining this type of adjustment. Therefore, the Commission rejects the proposed adjustment for the TIA Plan.

Year 2000 Compliance Expenses

KU proposes to decrease jurisdictional operating expenses by \$640,000 to eliminate incremental costs associated with preparing its automated computer systems for the Year 2000. KU proposes to amortize the total test-period jurisdictional expense of \$960,000²⁰⁶ over a 3-year period and recognize the first year amortization in operating expenses. The proposed decrease reflects the difference between the total test-period jurisdictional expense and the first year amortization. KU argues that the 3-year period is consistent with generally accepted accounting principles and the procedures it currently follows for the amortization of information technology investments.²⁰⁷

KIUC agrees with this adjustment in concept, but argues that the amortization period should be five years. KIUC contends that the 5-year period more closely parallels the merger surcredit period, that computer software and hardware are commonly amortized over 5 to 10 years, and that its proposed 5-year period would provide KU with the full recovery of these costs.²⁰⁸

The Commission finds that the proposal by KU is reasonable and should be accepted. A three year amortization conforms with generally accepted accounting

²⁰⁶ Response to the Commission's April 30, 1999 Order, Item 7, page 7 of 60. Total company test period expense was \$1,118,973; multiplying this amount by the allocation factor of 85.8 percent results in the jurisdictional amount.

²⁰⁷ Robinson Responsive Testimony, July 2, 1999, at 15-16.

²⁰⁸ Kollen Additional Direct Testimony, filed May 24, 1999, at 10-11.

principles and KU's procedures for recovery of information technology investments. KIUC has not explained the relevance of the merger surcredit period with regard to the amortization of computer costs. KIUC also has not provided adequate support for its contention that these computer costs are normally amortized over 5 to 10 years. Therefore, the jurisdictional operating expenses have been reduced by \$640,000.

Labor Costs

KU proposes to increase jurisdictional operating expenses by \$1,371,000²⁰⁹ to reflect annual labor cost increases that occurred during the test period. KU states that the proposed adjustment was based on the employee level at the end of the test period and it has annualized the salaries for those employees for 1998 wage increases.²¹⁰ In response to claims made in the KIUC brief, KU states that it had identified two unusual items that had been in error recognized in the proposed adjustment. KU argued that, contrary to the claims of KIUC, these two items resulted in reduction of the adjustment by only \$73,000, and did not result in a significant error or an overstatement of labor costs and expenses. In addition, KU contends that the labor adjustment proposed in KIUC's brief ignores the impact of the Commission' Order in Case No. 97-300 and that the differences cited by KIUC are captured by the merger surcredits and other merger savings adjustments.²¹¹

²⁰⁹ The adjustment reflected increases for wages, payroll taxes, and fringe benefits. See Response to KIUC's 3rd Data Request, dated April 30, 1999, Item 39, pages 6 through 8 of 23.

²¹⁰ Robinson Responsive Testimony, July 2, 1999, at 20.

²¹¹ Joint Reply Brief of LG&E and KU at 18.

KIUC opposes the proposed labor adjustment, claiming that it violated the matching principle because it recognized post-test-period events, annualized a wage increase which should have already been reflected in the first step of KU's calculations, intended to capture projected increases in KU's fringe benefits by annualizing one month's costs, and failed to reflect any reduction in KU's employee levels in the 1999 projections.²¹² In its brief, KIUC states that based on KU's acknowledged errors in calculating the proposed adjustment, labor costs were overstated by \$3,908,000.²¹³

Usually, the normalization of labor costs is a straightforward calculation. For hourly employees, the hourly wage rates as of test-period end are multiplied by the normal hours worked in a year. Salaried employees are recognized at the salary level as of test-period end. The difference between this amount and the test-period actual costs is computed and becomes the basis for an adjustment. The associated payroll taxes and fringe benefits are calculated reflecting the end of test-period normalization.

However, such an approach is not appropriate for this proceeding. A significant portion of the merger savings anticipated by KU relate to reductions in its workforce. Those expected labor savings have been incorporated into the amounts returned to ratepayers through the merger surcredit. If the Commission follows the usual labor normalization approach, there will be a double recognition of the savings from the workforce reduction. Consequently, the Commission does not accept KIUC's argument that KU failed to recognize the impact of any employee reductions in their calculations. In order to avoid such a double recognition, the calculated normalized labor cost for

²¹² Kollen Rebuttal Testimony, filed August 16, 1999, at 32-35.

²¹³ KIUC Main Brief at 48-52.

employees as of test-period end would have to be compared to the test- period actual costs for those employees at test-period end. KU's explanation as to how the adjustment was determined indicates that this approach was not followed.

The Commission finds that KU's proposed labor costs adjustment is not reasonable and should be rejected. KU's approach of annualizing monthly payroll, even with the adjustments it has acknowledged, is not an accurate approach. After reviewing the calculations submitted by KU, the Commission is in agreement with KIUC that steps one and two of the proposed labor adjustment appear to be duplicative.²¹⁴ Any payroll tax adjustment based upon these calculations will result in an overstatement of the normalized payroll tax. Finally, KU failed to provide sufficient documentation to support the cost increases it has identified for employee fringe benefits.

The Commission finds that KIUC's proposal to reduce labor costs by \$3,908,000 is also unsupported and should be rejected. KIUC's proposal is speculative and cannot be considered known and measurable since its adjustment is based on KU's acknowledged calculation errors, and not a full examination of the labor costs. Therefore, the Commission will make no adjustment to the test-period labor costs.

Depreciation Expense

KIUC's rate complaint included no adjustment to KU's test-year depreciation expense.

²¹⁴ See Response to KIUC's 3rd Data Request, dated April 30, 1999, Item 39, pages 6 through 8 of 23. Step one shows the "Annualized Base Labor @ December 31, 1998" while step two shows the "Adjustments to annualize 1998 labor increase." If step one actually shows the "annualized" base labor at test period end, any wage changes granted during the test period have already been recognized, and step two is a duplication which overstates the adjustment.

KU proposes to increase jurisdictional operating expenses by \$854,000 to reflect a full year depreciation expense on 1998 net plant additions, in order for the test period to be more representative of on-going operations.²¹⁵ KU calculates its proposed adjustment by listing test-period end plant balances by function and plant location, multiplied by the corresponding depreciation rate.²¹⁶

KIUC agrees conceptually with the proposed adjustment, but is unwilling to accept KU's calculations, citing errors identified in the LG&E calculations and a concern similar errors were made in KU's calculations.²¹⁷ In response to the KIUC position, KU contends that the misclassifications noted for LG&E are not present in its calculations. KU argues that KIUC's position was arbitrary and should be rejected.²¹⁸

The Commission finds that KU's proposed adjustment is adequately supported by the record and should be accepted. The supporting schedule provides the various plant balances and corresponding depreciation rates, the items needed in order to verify the reasonableness of the calculations. Therefore, jurisdictional operating expenses have been increased by \$853,962.

Interest Synchronization

Neither KIUC nor KU proposes an interest synchronization adjustment. KU states that such an adjustment was not necessary since there were no pro forma

²¹⁵ Robinson Responsive Testimony, July 2, 1999, at 20-21.

²¹⁶ Response to KIUC's 3rd Data Request, dated April 30, 1999, Item 39, pages 13 and 15 of 23. KU calculated the adjustment on a total company basis, and then applied the appropriate jurisdictional allocation factor.

²¹⁷ Kollen Rebuttal Testimony, filed August 16, 1999, at 40.

²¹⁸ Joint Brief of LG&E and KU at 92.

adjustments to capitalization that impacted the debt component.²¹⁹ However, KU recognizes adjustments to its total company capitalization to remove other investments on a pro rata basis, which did impact the debt component.²²⁰

The Commission has traditionally recognized the income tax effects of adjustments to the long-term debt component and corresponding interest expense through an interest synchronization adjustment. The adjustment is calculated by applying the interest rates applicable to the debt component of the capital structure in order to compute an interest adjustment. The combined state and federal income tax rate is then applied to the interest adjustment to determine the effect on income taxes.

The Commission has calculated an interest synchronization adjustment for KU. The debt components utilized in this computation reflect the exclusion of the investment in EEI, the exclusion of other investments, and the removal of KU's environmental assets. Using the adjusted jurisdictional capitalization and the cost rate applicable to KU's debt component, jurisdictional interest expense is decreased \$7,570,655 which results in an increase to jurisdictional income taxes of \$3,055,706.

Income Taxes

Both KU and KIUC have determined the overall effect their respective adjustments would have on KU's jurisdictional income tax expense. KU has calculated a reduction in jurisdictional income taxes of \$9,400,000.²²¹ KIUC has calculated an

²¹⁹ Response to the Commission's July 16, 1999 Order, Item 16.

²²⁰ Id., Item 1(h), pages 1 and 2 of 2.

²²¹ Response to the Commission's July 16, 1999 Order, Item 1(a), page 2 of 2.

increase in income taxes of \$22,894,000.²²² The Commission has applied the combined state and federal income tax rate of 40.3625 percent to the accepted pro forma adjustments, resulting in an increase in jurisdictional income tax expense of \$1,832,118. This adjustment is in addition to the interest synchronization adjustment described previously in this Order.

Pro forma Net Operating Income Summary

The adjusted jurisdictional net operating income for KU is as follows:

Operating Revenues	\$701,669,536
Operating Expenses	<u>594,094,978</u>
ADJUSTED JURIS. NET OPERATING INCOME	<u>\$107,574,558</u>

RATE OF RETURN

Capital Structure

KU proposes an adjusted end-of-test-period capital structure containing 45.25 percent long-term debt, 3.31 percent preferred stock, and 51.43 percent common equity.²²³ As discussed previously in this Order, KU has allocated adjustments for its investment in EEI, other investments, and non-utility plant on a pro rata basis to all components of capitalization, but has allocated the equity in its EEI investment and the shareholder merger-related items only to common equity.

KIUC proposes a capital structure containing 44.98 percent debt, 3.29 percent preferred stock, 49.88 percent common equity, and 1.85 percent of unallocated

²²² KIUC Main Brief, Appendix A, at 7.

²²³ Response to the Commission's July 16, 1999 Order, Item 1(i), page 1 of 3.

investment tax credits.²²⁴ The difference between the KIUC and KU proposals is KU's recognition of the adjustment to common equity related to the shareholder merger-related items and KIUC's inclusion of the investment tax credits. As discussed previously in the Order, KIUC opposes the shareholder merger-related items adjustment.

As discussed previously in this Order, the Commission does not agree with KIUC's inclusion of investment tax credits in the determination of KU's capitalization or capital structure. However, the Commission agrees with KIUC that the shareholder merger-related items adjustment is inappropriate. After recognizing the Commission's adjustments to KU's jurisdictional capitalization, discussed previously in this Order, the Commission finds KU's jurisdictional capital structure is as follows:

	<u>Percent</u>
Long-Term Debt	38.26
Preferred Stock	3.83
Common Equity	<u>57.91</u>
Total Electric Capital	100.00

Cost of Debt and Preferred Stock

KU proposes a cost of long-term debt of 7.05 percent.²²⁵ To arrive at its cost of long-term debt, KU has adjusted interest expense by the amortization of expenses, annual line of credit fees, and the loss on reacquired debt. KIUC proposes a cost of

²²⁴ KIUC Main Brief, Appendix A, at 8. The unallocated investment tax credits were assigned a cost rate of zero.

²²⁵ Response to the Commission's July 16, 1999 Order, Item 1(i), page 2 of 3.

long-term debt of 6.99 percent.²²⁶ The differences between the cost of debt rates were related to the interest rate used for certain pollution control bonds and the inclusion of the annual line of credit fees.²²⁷

The Commission finds that the cost of long-term debt should be based on the total interest expense adjusted only to reflect the amortization of the loss on reacquired debt. Concerning the annual line of credit fees, this expense is associated with a line of credit KU had in place during 1998, but was unused.²²⁸ The expense is associated with short-term, not long-term, financing and as such should not be reflected in the cost rate for long-term debt. Since the cost of debt is the effective rate which already reflects expenses on debt issuances, no additional adjustments are needed. Finally, it is reasonable to use the average interest rate for the pollution control debt that is priced at a variable interest rate. Consistent with the approach used in Case No. 90-158,²²⁹ the Commission finds the cost of long-term debt to be 6.79 percent.

²²⁶ KIUC Main Brief, Appendix A, at 8. The calculation of this cost rate is shown in the Response to the Commission's April 30, 1999 Order, Item 10(c), page 1 of 2.

²²⁷ The Response to the Commission's April 30, 1999 Order, Item 10(c), page 1 of 2, shows an interest rate of 5.20 percent for Pollution Control Bonds, Series 10. In the Response to the Commission's July 16, 1999 Order, Item 1(i), page 2 of 3, the interest rate is 3.90 percent. The Series 10 bonds are priced at a variable rate. The 3.90 percent rate was the average rate for 1998.

²²⁸ See KU's 1998 FERC Form No. 1, at 123.13.

²²⁹ Case No. 90-158, Adjustment of Gas and Electric Rates of Louisville Gas and Electric Company, final Order dated December 21, 1990.

KU proposes a cost of preferred stock of 5.68 percent.²³⁰ KIUC proposes a cost of preferred stock of 5.64 percent.²³¹ The difference between KIUC and KU is that KU's cost rate reflects the blended effective cost rate, while KIUC's cost rate reflects the blended stated cost rate. The Commission finds that the use of the effective cost rate is reasonable, and has determined the cost of preferred stock to be 5.68 percent.

Return on Equity

In its rate complaint, KIUC initially estimated a fair rate of return on common equity for KU using a Discounted Cash Flow ("DCF") analysis and a Capital Asset Pricing Model ("CAPM") analysis. The DCF analysis was performed upon a comparison group of six electric utilities. A DCF analysis was not performed upon KU's parent, LG&E Energy, because of the recent merger with KU Energy Corp. Historical data for LG&E Energy would only reflect LG&E and not KU.²³²

KIUC's criteria for selecting the comparison group of companies was a Value Line Safety Rank of either 1 or 2, and a Moody's Bond Rating of Aa. KIUC has also eliminated any companies that had less than 75 percent of earnings or dividends generated from electric operations, had cut their dividends within the last four years, or were involved in merger activity. The DCF analysis results had a range of 8.97 to 9.89 percent, with a midpoint of 9.43 percent. The CAPM analysis produces returns from

²³⁰ Response to the Commission's July 16, 1999 Order, Item 1(i), page 3 of 3.

²³¹ KIUC Main Brief, Appendix A, at 8. The calculation of this cost rate is shown in the Response to the Commission's April 30, 1999 Order, Item 10(c), page 1 of 2.

²³² Baudino Direct Testimony, filed March 18, 1999, at 19.

7.14 to 9.28 percent. Based on these analyses, KIUC has initially recommended a rate of return on common equity for KU of 9.45 percent.²³³

KIUC subsequently filed updates to its DCF and CAPM analyses.²³⁴ Because of recently announced merger activity, one of the DCF comparison group companies was dropped from the analysis. The effect of this action was to increase the DCF estimated range of returns on common equity. The updated returns were 9.14 to 9.96 percent with a midpoint of 9.55 percent. The updated CAPM analysis produces a common equity range of 7.16 to 9.13 percent.²³⁵

KIUC filed further updates to its DCF and CAPM analyses after KU filed its rate of return analyses.²³⁶ Due to additional merger activity, three more utilities were eliminated from KIUC's DCF comparison group of companies. Because its comparison group now included only two companies, KIUC revised its selection criteria to allow for more companies to be included. The newly expanded company group included companies with a Moody's Bond Rating of Aa2 and a Value Line Safety Rank of 2. KIUC also updated its pricing period and altered its growth methodologies. While noting a perception that analysts are beginning to expect higher returns under deregulation, KIUC argues that higher returns from deregulated investments should not be reflected in the cost of equity of regulated assets. Thus, KIUC has lowered the growth rates for

²³³ Id. at 33.

²³⁴ Baudino Additional Direct Testimony, filed May 24, 1999.

²³⁵ Id. at 2-3.

²³⁶ Baudino Rebuttal Testimony, filed August 16, 1999.

two of the companies in its comparison group.²³⁷ Two alternative DCF calculations were performed, using different growth rates. The results produce two alternative midpoints, 9.88 percent and 9.71 percent. Based upon its judgment and accounting for the fact that some of the comparison group companies had lower bond ratings than KU, KIUC's final recommended return on common equity was 9.70 percent.²³⁸

KU argues that the DCF method itself is susceptible to measurement error and that KIUC's constant-growth DCF methodology contained a downward bias by using its own generated growth rates, rather than the projected growth rates published by Value Line. KU further argues that even though all the companies in KIUC's final proxy group are not involved in mergers, investors view all utilities as merger candidates because of the recent merger activity in the industry. This investor expectation and the resulting effect on stock prices used in the proxy group also caused measurement error in KIUC's DCF calculations. Finally, KU argues that KIUC, by relying on only the DCF results in formulating its recommendation, relied on a method too prone to measurement error.

KU utilizes four financial methodologies to estimate its return on common equity: (1) DCF; (2) CAPM; (3) Risk Premium; and (4) Comparable Earnings.²³⁹ KU has used a comparison group of non-electric and non-regulated companies with a Value Line Safety Rank of 2 to develop its results. These methods and criteria produce a range for the return on equity from 11.50 percent to 12.50 percent.²⁴⁰ Within this range, KU

²³⁷ Id. at 9-10.

²³⁸ Id. at 11-12.

²³⁹ Rosenberg Response Testimony, filed July 2, 1999, at 2-7.

²⁴⁰ Id. at 6.

recommends using the upper end of 12.50 percent, citing the increased risk associated with its proposed PBR plan and the limitations on rate increases over the next five years. The 12.50 percent return also reflects premiums to account for both KU's relatively small size and its efficient management.²⁴¹

KU has applied a DCF analysis to both KIUC's proxy companies and to its own comparable companies with a Value Line Safety Rank of 2, the Safety Rank of KU's parent company, LG&E Energy. The resulting estimate of return on common equity was a range of 10.5 to 10.7 percent using KIUC's proxy companies and a range of 12.0 to 13.2 percent using the non-utility companies with a Safety Rank of 2.²⁴²

KU performed two CAPM analyses. One used a revision of KIUC's method, which employed an expected market risk premium based on the S&P 500 group, while the other used published historical data. The resulting estimate of return on common equity was a range of 11.50 to 11.90 percent based on the S&P 500 expected market risk premium and a range of 10.1 to 11.1 percent based on the historical data.²⁴³ KU also suggests adding a premium of 40 basis points to these results to reflect its relatively small capitalization.²⁴⁴

Using the Risk Premium Analysis, KU has presented two alternative calculations. One uses the historical spread between Moody's electric utility common stock returns and utility bond yields, resulting in an estimated cost of equity of 11.2 percent. The

²⁴¹ Id. at 42, 61-62.

²⁴² Id. at 16-27.

²⁴³ Id. at 28-43.

²⁴⁴ Id. at 42.

other uses a regression analysis to calculate the risk premium implied by allowed returns since 1980, resulting in an estimated cost of equity 11.6 percent.

The last method used by KU was Comparable Earnings. Gathering samples of companies of similar risk to LG&E Energy, which has a Safety Rank of 2, and using historical and projected returns, KU has calculated a return on common equity of 14.0 to 15.0 percent.

KIUC argues that KU's applications of the DCF and CAPM methodologies were faulty and that certain methodologies applied by KU were inappropriate.²⁴⁵ For example, KIUC argues that: (1) KU used incorrect inputs and input values inside its two stage DCF analysis; (2) KU used incorrect or inflated input values in its CAPM and Risk Premium analyses; and (3) KU erred by including unregulated non-electric companies in its analyses. KIUC argues that there are no reasons to suspect that investors expect historical risk premiums to apply in the future and that KU's assumption of an unchanging risk premium is tenuous and unjustified. Finally, KIUC argues that KU's Comparable Earnings approach should be rejected due to the use of unregulated companies and the use of historical earned returns on book equity. According to KIUC, the use of this type of data is not appropriate for analyses conducted for regulated utilities for rate-making purposes since regulated companies have less risk than unregulated companies.

KIUC argues that KU's reasons for being awarded a return in the top portion of its equity range were incorrect. According to KIUC, KU's PBR does not add to its level of risk, since the mechanisms inside the PBR provide ample protection for cost

²⁴⁵ Baudino Rebuttal Testimony, filed August 16, 1999, at 15-28.

recovery. KU should not be awarded additional returns for management operating the company efficiently, because past court decisions prohibit the Commission from making this type of award.²⁴⁶ Finally, KIUC states that KU's rate cap does not affect recovery of environmental, DSM, and fuel related cost recovery. Under the rate cap KU also has the ability to petition the Commission for rate relief under certain circumstances.²⁴⁷

The Commission finds KIUC's comparison companies to be an unreliable proxy for KU. KIUC has revised the composition of its comparison companies twice, each time removing those involved in mergers, substituting new companies, and revising its recommended return on equity slightly higher each time. In addition, the ultimate comparison companies include utilities with nuclear and hydro generation. KU, on the other hand, has no nuclear generation and only a small amount of hydro generation. Thus, KIUC's comparison companies reflect significant differences in their generation mix, which translates into different levels of risk than that faced by KU. Finally, the Commission has concerns that KIUC's final recommended ROE of 9.7 percent is too conservative and would not be sufficient to allow KU to maintain its currently strong financial ratings and adequately compete for investment capital on reasonable terms.

The Commission finds KU's use of unregulated non-electric companies to be inappropriate for use as comparison companies in its DCF and other analyses for rate-making purposes. Unregulated non-electric companies do not properly represent the environment in which KU operates. KU correctly states that it must compete with all companies, regulated or otherwise, to attract equity capital, not just with other electric

²⁴⁶ South Central Bell Telephone Co. v Utility Regulatory Commission, Ky., 637 S.W.2d 649 (1982).

²⁴⁷ Baudino Rebuttal Testimony, filed August 16, 1999, at 31-32.

utilities. However, investors do not look at Safety Rankings alone when deciding how to invest their money and are fully aware of risk differentials between regulated and unregulated companies. KU operates in an environment where it has an inalienable right to charge a rate that covers all its reasonable and prudent costs and provides its investors an opportunity to earn a reasonable return. Unregulated companies have no such right. A more appropriate set of comparison companies in analyzing investments with similar risk would be other electric utilities.

The Commission agrees with KIUC's arguments against awarding KU an ROE at the top of its range, i.e., 12.5 percent. However, taken as a whole, the Commission finds that the lower end of the range produced by KU's analysis is more reasonable for setting the cost of common equity for KU. The Commission has concerns that KIUC's recommended ROE is too conservative and would not be sufficient for KU to adequately compete for investment capital.

The Commission has considered the analyses introduced into the record by both parties, and evaluated the reasonableness of all arguments. The Commission finds that a return on equity in the range of 11 to 12 percent, with 11.50 percent as the mid-point, is fair, just, and reasonable given the current electric utility industry environment. A return on equity in this range will not only allow KU to attract capital at reasonable costs to ensure continued service and provide for necessary expansion to meet future requirements, but also will result in the lowest reasonable cost to the ratepayer. A return on common equity of 11.50 percent will allow KU to attain the above objectives.

Rate of Return Summary

Applying the rates of 6.79 percent for debt, 5.68 percent for preferred stock, and 11.50 percent for common equity to the capital structure produces an overall cost of capital of 9.48 percent, which we find to be fair, just, and reasonable. This cost of capital produces a rate of return on KU's jurisdictional rate base of 8.76 percent, which the Commission finds is fair, just, and reasonable.

REVENUE REQUIREMENTS

The Commission has determined, based upon an jurisdictional capitalization of \$905,830,096 and an overall cost of capital of 9.48 percent, that the net operating income found reasonable for KU's jurisdictional operations is \$85,872,693. KU's jurisdictional pro forma net operating income for the test period is \$107,574,558. Thus, KU has excessive annual operating income of \$21,701,865. After the provision for the PSC Assessment, and state and federal taxes, there is an overall revenue sufficiency of \$36,450,394. The net operating income found reasonable for KU's jurisdictional operations will allow it the opportunity to pay its operating expenses and fixed costs and have a reasonable amount for equity growth. The calculation of the overall revenue sufficiency is as follows:

Net Operating Income Found Reasonable	\$ 85,872,693
Pro Forma Net Operating Income	<u>107,574,558</u>
Net Operating Income Sufficiency	(21,701,865)
Gross Up Revenue Factor ²⁴⁸	<u>.595381</u>
Overall Revenue Sufficiency	<u><u>\$(36,450,394)</u></u>

The reduction of KU’s jurisdictional revenues in the amount of \$36,450,394 will provide a rate of return on the jurisdictional rate base of 8.76 percent and an overall return on jurisdictional capitalization of 9.48 percent.

OTHER ISSUES

Rate Unbundling

KU has traditionally sold electricity through retail rates that, in regulatory parlance, are known as “bundled rates.” KU’s rates are bundled because they reflect the total cost for the three functions provided, i.e. generation, transmission, and distribution. Unbundled electric rates are ones that separately identify the costs for generation, transmission, and distribution.

Although rate unbundling has been referred to during the course of this proceeding, it has not been a real issue. Given the multitude of diverse rate and financial issues that were addressed in this proceeding, and the lack of substantial evidence on this issue, the Commission recognizes that this is clearly not the case to require KU to unbundle its electric rates. However, the Commission also recognizes the

²⁴⁸ The gross up revenue factor recognizes the impact the overall revenue sufficiency will have on the PSC Assessment, state income taxes, and federal income taxes. In calculating the gross up revenue factor, the effect of the PSC Assessment is recognized first, then the state income tax effect, and finally the federal income tax effect. The following rates were used in the gross up revenue factor: PSC Assessment rate of 1.6670, state income tax rate of 8.25 percent, and federal income tax rate of 35 percent.

extensive level of competition that now exists in the wholesale market; the numerous states that have implemented, or will be implementing, retail competition; KU's membership in the Midwest ISO, which will necessitate determining KU's transmission costs; and KU's expressed support of retail electric competition. Considering all of these factors, the Commission believes that some comment on the issue of rate unbundling is appropriate.

There is no clear evidence at this time that retail competition will produce material benefits for Kentucky's ratepayers, largely due to the relatively low electric rates already enjoyed throughout the Commonwealth. However, future evidence, not yet developed, might show such benefits, and there is a real potential that federal legislation could mandate retail competition on a nationwide basis. For these reasons, the Commission finds that KU's electric ratepayers could greatly benefit by knowing the individual costs for the three functions that are now bundled in their rates. Informational rate unbundling, by separately identifying the generation, transmission, and distribution components of electric service, is an important first step in the process of educating customers to make them better informed on this important and timely matter. Therefore, KU should consider filing, for informational only purposes, the individual costs of generation, transmission, and distribution which are now bundled in the new rates that will be filed in response to this Order.

Allocation of Revenue Decrease

Due to the nature of this case, the record does not include a fully allocated class cost-of-service study or a billing analysis. In addition, the record is nearly devoid of any evidence on how a revenue decrease approved by the Commission would be allocated

among customer classes or how rates might be modified as a result of such decreases. The record does include KU's 1998 actual revenues reported by customer classification and rate schedule.

In its main brief, KIUC points to the fact that, in the absence of an acceptable cost-of-service study, the Commission has historically allocated revenue increases and decreases on a percentage-of-revenue, or "total revenue" basis. This allocation methodology produces the same percentage increase, or decrease, in revenues for each customer class. KIUC states that such an approach should be implemented in this proceeding given the absence of a class cost-of-service study.

The Commission agrees that allocating the decrease found reasonable herein will be best accomplished through a percentage-of-revenue approach that will result in all customer classes and all rate schedules receiving the same percentage decrease. We also agree with KIUC that the calculation of base rates to produce the required decrease should be performed by KU based on its billing determinants for calendar year 1998, adjusted to reflect the year-end customer adjustment accepted herein. However, we do not agree with KIUC's proposal that once KU files its reduced rates, with the necessary supporting workpapers, calculations and narrative explanations, that the parties should be allowed to comment on the rates submitted by KU prior to the Commission issuing a final Order terminating this case.

After reviewing KU's tariffs and considering the magnitude of the decrease found reasonable herein, the Commission has determined the manner in which rates should be reduced. Once the decrease has been allocated to each customer class and each rate schedule, KU shall adhere to the following guidelines in calculating its reduced

rates: (1) customer charges should be unchanged on all rate schedules – there will be no reductions to customer charges on any rate schedules; (2) on rate schedules where both demand and energy usage are metered, the decrease should be allocated so that both demand and energy charges are reduced by an equal percentage; (3) on rate schedules where only energy usage is metered the full amount of the decrease should be allocated to the energy charge; and (4) on rate schedules with no metering that include fixed monthly charges, such as lighting schedules, the same percentage decrease shall be applied to each of the fixed charges included in the rate schedule. These guidelines shall also be consistently applied to the rates charged to customers served under any special contracts that KU currently has in effect.

KRS 278.180(1) authorizes the Commission to require a utility to decrease its rates only after giving the utility 20 days notice of the changes and finding good cause.. Accordingly, the rate decrease authorized herein cannot go into effect immediately upon the issuance of this Order. The Commission believes that ratepayers should receive the benefit of the revenue reduction authorized herein as soon as possible; however, given the complexities of the issues related to implementing this reduction, including reinstating the FAC, the Commission has determined that the resulting rate reductions should be effective for bills rendered on and after March 1, 2000. This billing date is more than 20 days from the date of this Order, and bills rendered on and after March 1, 2000 should only apply to service rendered on and after the date of this Order. For these reasons, and as explained further below, the Commission considers this approach and this effective date to be appropriate in this instance.

First, we are requiring KU to file its reduced rates within 20 days from the date of this Order. Second, the Commission will require a certain amount of time to review the filing in order to ensure both the accuracy of the filing and that KU has complied with the guidelines prescribed herein. Third, the FAC is being reinstated for KU and, per KAR 807:056, that reinstatement must be done to coincide with a calendar month filing schedule. Fourth, it would be both impractical and illogical to attempt to adjust base rates to reflect the revenue decrease authorized herein at a different point in time than when rates would be adjusted to reinstate the FAC. Therefore, KU is required to file revised tariffs, to be effective for bills rendered on and after March 1, 2000, reflecting the revenue reduction authorized herein, and the reinstatement of the FAC, within 20 days from the date of this Order. Those tariffs are to be accompanied by KU's proof of revenue calculations for the test year, as described earlier in this section, with all necessary supporting workpapers and narrative explanations included. After review of the filing, and assuming there are no errors or areas of non-compliance with the guidelines enumerated herein, the Commission will issue a final Order approving those tariffs.

Reinstating the Fuel Adjustment Clause

By Order issued April 13, 1999, the Commission allowed KU to implement its EPBR tariffs, effective July 2, 1999, subject to future change. This resulted in KU implementing the FCR mechanism included in its EPBR tariffs and discontinuing its FAC. Our decision to reject implementing the proposed PBR mechanism on a permanent basis requires that the FCR mechanism be terminated and that the FAC be

reinstated for KU concurrent with the effective date of the revenue reduction authorized herein.

As discussed elsewhere in the Order, the reduced rates will be effective for bills rendered on and after March 1, 2000. Accordingly, the termination of the FCR and the reinstatement of KU' FAC should be timed to coincide with that effective date. Therefore, the FCR mechanism should remain in effect through January 31, 2000, and the FAC should be reinstated effective March 1, 2000. This will require that KU file an FAC report for the expense month of December, 1999, with the FAC factor calculated therein to be applied to bills rendered on and after March 1, 2000, in accordance with the provisions of 807 KAR 5:056. Also per the provisions of 807 KAR 5:056, the report is to be filed with the Commission at least 10 days prior to the date the FAC factor determined therein will be applied to customers' bills.

During the period the FCR was in place in lieu of the FAC, KU was not bound by the requirement of 807 KAR 5:056 to file its fuel and fuel transportation contracts with the Commission to be treated as public documents available for inspection at the Commission. With the termination of the FCR and the reinstatement of the FAC, KU will again be required to comply with this provision of the FAC regulation. For purposes of providing the Commission with adequate documentation to support its future fuel costs, KU will be required, within 20 days from the date of this Order, to file all fuel contracts, purchase orders, transportation contracts, and any other pertinent documents entered into since July 2, 1999, that will affect its fuel costs, prospectively, beginning March 1, 2000.

Low Income Intervenors Funding Proposal

KACA and two of the intervenors in the companion LG&E case (“The Low Income Group” or “LIG”) propose that KU implement a “lines charge” to be applied to all customers in order to generate \$5 million annually in order to fund percentage-of-income energy assistance programs for low income customers.²⁴⁹ LIG claims that the program it proposes will benefit both KU and the customers funding the program due to improved payments by program participants, savings in collection and cut-off expenses, and reductions in the amounts of uncollectible accounts that are recovered from all ratepayers.

LIG states that a funding mechanism of this sort would be revenue neutral for KU since it would be collected as a separate charge on customers’ bills. LIG argues that its proposal is not dependent on the specific results of any other parts of this case and state that it does not “take the place of” rate reductions. LIG argues that KRS 278.030(3), which authorizes the creation of different classes of customers for several specific reasons, and also authorizes the Commission to recognize customer characteristics “on any other reasonable basis”, allows the Commission to recognize a low income class of customers for the purpose of approving its proposed funding mechanism. LIG points to court decisions upholding the Commission’s decision in National-Southwire Aluminum Co., v. Big Rivers Electric Corp.²⁵⁰ to approve a “special rate” for a limited group of aluminum smelters that was tied to the sales price, and

²⁴⁹ The two intervenors, MHNA and POWER, made an identical proposal in the LG&E case, see Case No. 98-426.

²⁵⁰ National-Southwire Aluminum Co. v. Big Rivers Electric Corp., Ky. App., 785 S.W.2d 503 (1990).

resulting revenue, the smelters received for their product, as support for establishing a customer classification based on low income customers' income levels. LIG also cites the creation of the segment of the Universal Service Fund ("USF") in the telephone industry that assists low-income customers and that is funded through a charge on all customers' bills, as evidence of a prior Commission decision favoring the type of plan it has proposed in this proceeding.

KU objects to the proposal, arguing that the Commission is not the proper forum to debate the establishment a low income funding program and that such an issue must be dealt with through legislation, not regulation.²⁵¹ KU points to prior Commission cases in which similar programs were considered and rejected because: (1) programs designed to improve the financial condition of individuals with low incomes require redistribution of income, an activity that is beyond the scope of the Commission's authority under its existing statutes; (2) the proponents of such programs failed to adequately support their contention that the programs would benefit both the utility and all its ratepayers through increased revenues, improved collections, and reduced collection costs; or (3) the proposed programs raised a rate issue that does not comport with the filed rate doctrine, KRS 278.160, or the prohibition against undue discrimination, KRS 278.170.²⁵² KU also notes that the Commission has only approved low-income electric assistance programs that were agreed to by all parties through negotiated case settlements.²⁵³

²⁵¹ Joint Brief of LG&E and KU at 79.

²⁵² Id. at 81-82.

²⁵³ Id. at 81.

The Commission recognizes that some customers have financial problems that make it difficult to pay the full amount of their utility bills on a regular basis. Existing programs such as LIHEAP and Wintercare provide assistance to those customers via assistance measures that are funded through tax dollars or through voluntary contributions by utilities and utility customers. These programs operate by redistributing income in order to assist low-income customers in paying their utility bills. The Commission is not statutorily empowered to create a special rate class to redistribute income.

LIG has not persuaded the Commission to find that its proposed program will benefit either the utility or non-program participants. In the one instance where the Commission authorized a percentage-of-income plan to be implemented on a pilot basis as part of a unanimous settlement in a rate case,²⁵⁴ the results of the pilot tend to confirm the concerns expressed by the Commission in prior cases.²⁵⁵ That utility's percentage-of-income pilot program incurred costs, including administrative costs and lost revenues, that were 12 times greater than the benefits realized, in the form of reduced collection and cut-off costs and reductions in write-offs of uncollectible accounts.²⁵⁶

²⁵⁴ Case No. 94-179, Notice of Adjustment of Rates of Columbia Gas of Kentucky, Inc. On and After July 1, 1994.

²⁵⁵ Case No. 99-165, The Tariff Filing of Columbia Gas of Kentucky, Inc. to Implement a Small Volume Gas Transportation Service, to Continue its Gas Cost Incentive Mechanisms, And to Continue its Customer Assistance Plan.

²⁵⁶ Id., Application filed April 22, 1999, Attachment G at 14.

The Commission has previously considered and rejected arguments that under KRS 278.030(3), special rate classes can be created to reflect customers' income levels. That statutory provision authorizes the establishment of rate classes based on criteria including the nature of the use, the quality and quantity used, the time and purpose of the use, and other reasonable considerations. The Commission has previously considered and rejected arguments that KRS 278.030(3) authorizes the establishment of rate classes based on income levels. Specifically, in Case No. 91-066, the Commission found that, "If income alone were to be recognized as a reasonable consideration for establishing customer classifications and rates, not only low income, but also middle and high incomes would need to be recognized. If it is appropriate to provide utility service to low income customers at reduced rates, service to high income customers should be at premium rates."²⁵⁷

As to the "special" variable rate approved for the aluminum smelters, the Commission also addressed that argument when it pointed out that "The variable smelter rate, to be in effect for 10 years, was conceived specifically to recognize the projected changes in the market price of aluminum. Consequently, the variable rate was designed so that it was likely to produce, over time, the same amount of revenue that would be produced under a conventional, flat rate."²⁵⁸ The variable rate was not designed to result in a permanent rate reduction for the smelters, or for the smelters to be subsidized through higher rates paid by other customers. This distinguishes the

²⁵⁷ Case No. 91-066, Application for Adjustment of Electric Rates of Kentucky Power Company, Order dated October 31, 1991, at 7.

²⁵⁸ Id.

smelter rate from LIG's low-income customers percentage-of-income plans where the rate reduction is permanent and paid for by non-participants.

Concerning the establishment of a USF for low-income telephone customers, LIG notes that the Commission was not obligated to fund the USF, but that establishment of the USF was prompted by federal action. Those circumstances are precisely those that distinguish LIG's proposal from the approved USF. The decision to establish a USF was prompted by 47 U.S.C. §254 of the Telecommunications Act of 1996, which applies to all states and all telephone subscribers. Pursuant to federal law, financial incentives have been used to encourage state participation. There has been no comparable federal action affecting the electric industry.

Based on the evidence, the Commission finds that customers' income levels are not a reasonable consideration for establishing a classification of customers and the rate plan advocated by LIG would create an undue rate preference to low income customers in violation of KRS 278.170. For these reasons, the Commission finds that LIG's proposal would not result in fair, just, and reasonable rates, and, therefore, should be denied.

SUMMARY

1. KU's proposed PBR plan, for the reasons discussed herein, is not reasonable, will not result in rates that are fair, just, and reasonable, and should be denied.

2. KIUC's proposed ESM, for the reasons discussed herein, lacks the proper incentives, is unnecessarily burdensome, will not result in rates that are fair, just, and reasonable, and should be denied.

3. The Commission's optional ESM plan constitutes a reasonable form of alternative regulation for KU and will result in fair, just, and reasonable rates.

4. Within 30 days of the date of this Order, KU should file with the Commission either a tariff adopting the Commission's optional ESM plan or a written notice rejecting such plan.

5. KU proposed tariff flexibility provision should be denied.

6. To pay all reasonable operating expenses, service its debt, continue to attract capital at reasonable costs, and provide an opportunity for equity investors to receive the return found reasonable herein, KU's revenue requirements from electric operations are \$665,219,142.

7. KU's existing rates are not fair, just or reasonable because they produce revenues of \$36,450,394 in excess of the revenue requirements found reasonable herein.

8. KU should reduce its rates in the manner discussed herein to produce \$36,450,394 less revenues than its existing rates.

9. Based on the size of the revenue decrease found reasonable herein, the substantial number of customers affected, and the potential impact on customers' bills during the winter hearing season, the Commission finds that, pursuant to KRS 278.180(1), good cause exists to shorten the required notice of rate change from 30 days to 20 days.

10. Within 20 days of the date of this Order, KU should file revised tariffs containing new rates that will produce \$36,450,394 less revenues than its existing rates,

in conformity to the rate design found reasonable herein along with its proof of revenue calculations, and all necessary supporting workpapers and narrative explanations.

11. In accordance with the Commission's decision to reject its proposed PBR plan, KU should reinstate its FAC which had been withdrawn when its PBR tariffs were permitted to go into effect.

IT IS THEREFORE ORDERED that:

1. KU's proposed PBR plan and tariff flexibility provision are denied.
2. Within 30 days of the date of this Order, KU shall file either a tariff adopting the Commission's optional ESM or a written notice that the optional ESM is rejected.
3. If KU adopts the Commission's optional ESM plan, KU shall file within 60 days thereafter draft schedules for annual filings, pursuant to the findings herein
4. Within 20 days of the date of this Order, KU shall file revised tariffs containing new rates that will produce \$36,450,394 less revenues than its existing rates, in conformity to the rate design found reasonable herein, and shall also file its proof of revenue calculations and all necessary supporting workpapers and narrative explanations.
5. Within 20 days of the date of this Order, KU shall file revised tariffs which reinstate its FAC with an effective date of March 1, 2000.
6. KU shall file by May 1, 2000 a detailed report discussing the issue of rate unbundling for informational purposes and a suggested methodology to accurately determine the generation, transmission, and distribution components of its rates.

Done at Frankfort, Kentucky, this 7th day of January, 2000.

By the Commission

ATTEST:

Executive Director

APPENDIX A

AN APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 98-474 DATED January 7, 2000

Calculation of 13-Month Average Balances
for Materials and Supplies and Prepayments

13-Month Average Calculations

	<u>Materials & Supplies</u>	<u>Undistributed Stores Expense</u>	<u>Fuel Inventory</u>	<u>Prepaid Insurance</u>
December 1997	19,433,326	4,214,752	27,799,420	393,627
January 1998	19,446,130	4,205,938	26,934,582	314,102
February 1998	19,825,962	4,339,212	23,823,173	995,803
March 1998	19,759,572	4,387,595	22,892,313	890,343
April 1998	19,918,696	4,403,702	23,523,595	918,705
May 1998	19,592,055	4,337,328	23,734,044	676,413
June 1998	19,619,842	4,402,575	25,400,058	600,828
July 1998	19,868,072	4,502,643	23,012,717	781,013
August 1998	20,161,382	4,397,988	21,587,343	1,435,514
September 1998	19,800,246	4,364,053	16,477,171	1,229,983
October 1998	19,883,349	4,291,501	19,660,385	1,116,987
November 1998	20,049,031	4,337,653	23,589,893	873,013
December 1998	<u>19,969,837</u>	<u>4,278,633</u>	<u>23,927,315</u>	<u>1,055,894</u>
13-Month Totals	<u>257,327,500</u>	<u>56,463,573</u>	<u>302,362,009</u>	<u>11,282,225</u>
13-Month Averages	19,794,423	4,343,352	23,258,616	867,863
KY Jurisdictional Allocation Factor	Calculated .85558	M&S .85557	ENERGY .85657	EXP9245 .88900
KY Jurisdictional Balances	<u>16,935,712</u>	<u>3,716,042</u>	<u>19,922,633</u>	<u>771,530</u>

KY Jurisdictional Allocation Factors taken from Response to KIUC's 3rd Data Request, dated April 30, 1999, Item 38(b), pages 8, 28, and 29 of 32. However, there are 3 allocation factors applicable to Materials & Supplies. A weighted average of the 3 factors has been used to determine that allocation factor.

	<u>12/98 Acct. Bal.</u>	<u>Percentage of Total</u>	<u>Allocation Title</u>	<u>Allocation Factor</u>	<u>Weighted Aver. Allocation Factor</u>
M&S – Production	11,444,247	57.308%	PRODPLT	.83923	.48095
M&S – Transmission	3,138,753	15.717%	TRANPLT	.78426	.12326
M&S – Distribution	5,386,836	26.975%	DISTPLT	.93185	.25137
Calculated Factor					<u>.85558</u>

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 98-474 DATED January 7, 2000

Exclusion of KU's
Environmental Surcharge Components

Environmental Surcharge Components – Rate Base & Operating Statement

	<u>12/31/98 Balances</u>	<u>Settlement Adjustments</u>	<u>Adjusted Balances</u>	<u>Allocation Title</u>	<u>Allocation Factor</u>	<u>KY Juris. Balances</u>
<u>Rate Base Items –</u>						
Pollution Control Utility Plant	229,521,401	(54,764,180)	174,757,221	DEMPROD	.85235	148,954,317
Pollution Control CWIP excluding AFUDC	879,028	(0)	879,028	PRODSYS	.85235	749,240
Spare Parts – 13-Month Average	1,143,551	(0)	1,143,551	PRODPLT	.83923	959,702
Limestone – 13-Month Average	223,155	(0)	223,155	PRODPLT	.83923	187,278
Emission Allowances	628,655	(0)	628,655	DEMPROD	.85235	535,834
Acc. Depr. On Pollution Control Utility Plant	48,093,503	(18,832,013)	29,261,490	STMSYS	.85235	24,941,031
Deferred Income Taxes	31,208,446	(13,731,722)	17,476,724	PRODSYS	.85235	14,896,286
Deferred Investment Tax Credits	539,310	(539,310)	0	PRODPLT	.83923	0
<u>Operating Statement Items –</u>						
Surcharge Revenues	19,041,935	(0)	19,041,935	REVENUE	.86489	16,469,179
Proceeds from Allowance Sales & By-Product Sales	418,866	(0)	418,866	DEMPROD	.85235	357,020
Account No. 50205	2,119,901	(0)	2,119,901	STMPLT	.83842	1,777,367
Account No. 50605	323,651	(0)	323,651	STMPLT	.83842	271,355
Account Nos. 51207, 51208 & 51209	4,351,547	(0)	4,351,547	ENERGY	.85657	3,727,405
Depreciation Expense	9,658,632	(2,755,884)	6,902,748	STMSYS	.85235	5,883,557
Property Taxes	366,888	(51,996)	314,892	NETPLANT	.86288	271,714
Insurance Expense	74,676	(0)	74,676	PLANT	.85829	64,094
Emission Allow. Exp.	189,630	(0)	189,630	STMPLT	.83842	158,990

Notes for Appendix B – Environmental Surcharge Components

KY Jurisdictional Allocation Factors taken from Response to KIUC's 3^d Data Request, dated April 30, 1999, Item 38(b).

"12/31/98 Balances" are taken from the following monthly environmental surcharge reports –

Rate Base Items are from the December 1998 expense month, filed on January 22, 1999. The balances for Spare Parts and Limestone represent the 13-month average balances for those accounts. The information was taken from the monthly filings from December 1997 through December 1998.

Operating Statement Items reflect the sum of the January through December expense month amounts submitted on the appropriate monthly filings.

"Settlement Adjustments" reflect those amounts KU determined should be removed from the environmental surcharge in conjunction with the Settlement Agreement filed in Case No. 93-465. All adjustments are taken from Exhibit B, pages 6 and 32. The adjustment amounts, where applicable, were determined as follows –

Pollution Control Utility Plant was taken from Exhibit B, page 32, 12/31/98 Balance.

Accumulated Depreciation on Pollution Control Utility Plant was taken from Exhibit B, page 32, 12/31/98 Balance.

Deferred Income Taxes was taken from Exhibit B, page 32, 12/31/98 Balance.

Deferred Investment Tax Credits was calculated, based on an examination of Exhibit B, pages 3 and 18. From these pages, it has been determined that the entire balance of deferred investment tax credits was removed by the Settlement Agreement. Subsequent surcharge filings made by KU since the implementation of the Settlement Agreement support this conclusion.

Depreciation Expense was taken from Exhibit B, page 32, 12/31/98 Balance. This monthly amount was multiplied by 12 to arrive at an annual amount.

Property Taxes was taken from Exhibit B, page 6. This monthly amount was multiplied by 12 to arrive at an annual amount.

The allocation title "DEMPROD" was used for "Proceeds from Allowance Sales and By-Product Sales" as this was the allocation title used for Pollution Control Utility Plant and Emission Allowance inventory.

APPENDIX C

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 98-474 DATED January 7, 2000

Determination of KU's
Kentucky Jurisdictional Capitalization

The determination of KU's jurisdictional capitalization reflects the allocation of the total company capitalization using a factor based on KU's unadjusted, actual test period jurisdictional rate base compared to the total company rate base.

	<u>KY Jurisdictional Rate Base at 12/31/98</u>	<u>Other Jurisdictional Rate Base at 12/31/98</u>	<u>Total Company Rate Base at 12/31/98</u>
Total Utility Plant In Service	\$2,306,250,067	\$379,277,285	\$2,685,527,352
Add:			
Materials & Supplies	40,574,387	6,822,004	47,396,391
Prepayments	771,530	96,333	867,863
Emission Allowances	535,834	92,821	628,655
Cash Working Capital Allowance	<u>43,733,687</u>	<u>6,598,079</u>	<u>50,331,766</u>
Subtotal	\$ 85,615,438	\$ 13,609,237	\$ 99,224,675
Deduct:			
Accum. Depreciation	1,030,562,566	177,620,118	1,208,182,684
Customer Advances	1,211,950	53,167	1,265,117
Accum. Defer. Taxes	247,537,964	44,302,232	291,840,196
Investment Tax Credit	<u>18,582,413</u>	<u>3,719,171</u>	<u>22,301,584</u>
Subtotal	\$1,297,894,893	\$225,694,688	\$1,523,589,581
 NET ORIGINAL COST RATE BASE	 <u>\$1,093,970,612</u>	 <u>\$167,191,834</u>	 <u>\$1,261,162,446</u>

Percentage of KY Jurisdictional Rate Base to Total Company Rate Base 86.74%

Materials and Supplies and Prepayments reflect the 13-month average balances, as shown on Appendix A. The Prepayments do not include an amount for the PSC Assessment, as described in the Order. With the exception of Materials and Supplies, Prepayments, and Cash Working Capital Allowance, the Kentucky jurisdictional amounts were taken from the Response to the Commission's July 16, 1999 Order, Item 1(f). The Total Company amounts were taken from the Response to KIUC's 3rd Data Request dated April 30, 1999, Item 38(b), page 2 of 32. Cash Working Capital Allowance was calculated taking by adding operation expenses and maintenance expenses, subtracting purchased power, and multiplying the result by 1/8th.

APPENDIX C (continued)

Allocation of Total Company Capitalization to Kentucky Jurisdictional Capitalization

<u>Component of Capitalization</u>	<u>Total Company Balances at 12/31/98</u>	<u>Adjustments to Total Co. Capitalization</u>	<u>Adjusted Total Company Capitalization</u>	<u>Capital Structure</u>	<u>KY Juris. Capitalization</u>	<u>Adjustments to KY Juris. Capitalization</u>	<u>Adjusted KY Jurisdictional Capitalization</u>
Long-Term Debt	546,330,000	(962,636)	545,367,364	45.83%	473,051,652	(126,445,340)	346,606,312
Preferred Stock	40,000,000	(70,427)	39,929,573	3.35%	34,634,912	(0)	34,634,912
Common Equity	<u>606,712,973</u>	<u>(1,929,860)</u>	<u>604,783,113</u>	<u>50.82%</u>	<u>524,588,872</u>	<u>(0)</u>	<u>524,588,872</u>
Total Capitalization	<u>1,193,042,973</u>	<u>(2,962,923)</u>	<u>1,190,080,050</u>	100.00%	<u>1,032,275,436</u>	<u>(126,445,340)</u>	<u>905,830,096</u>

Long-Term Debt, Preferred Stock, and Common Equity were allocated to Kentucky Jurisdictional Capitalization by applying the Kentucky Jurisdictional Rate Base percentage of 86.74% to the Adjusted Total Company Capitalization Balances.

Adjustments to Total Company Capitalization:

	<u>Investment in EEI</u>	<u>Equity in EEI Earnings</u>	<u>Other Investments</u>	<u>Total Adjustments</u>
Long-Term Debt	593,347	0	369,289	962,636
Preferred Stock	43,409	0	27,018	70,427
Common Equity	<u>659,044</u>	<u>860,638</u>	<u>410,178</u>	<u>1,929,860</u>
Totals	1,295,800	860,638	806,485	2,962,923

The allocation of the Investment in EEI and Other Investments was based on the test period actual capital structure. This capital structure was composed of 45.79% Long-Term Debt, 3.35% Preferred Stock, and 50.86% Common Equity. The assignment of the Equity in EEI Earnings totally to Common Equity results in the adjusted Capital Structure shown in the schedule above. The Other Investments reflect KU's investment in the Ohio Valley Electric Corporation and various county industrial development programs.

Adjustments to Kentucky Jurisdictional Capitalization:

This adjustment reflects the removal of the Kentucky Jurisdictional balances for KU's environmental surcharge. The jurisdictional balances are presented in Appendix B to this Order. The net adjustment of \$126,445,340 represents the sum of the Pollution Control Utility Plant and Pollution Control CWIP plus Spare Parts, Limestone, and Emission Allowances, less Accumulated Depreciation on Pollution Control Plant. The allocation was to Long-Term Debt, as described in the Order. The resulting capital structure is 38.20% Long-Term Debt, 3.83% Preferred Stock, and 57.91% Common Equity.