THE STATE CORPORATION COMMISSION

OF THE STATE OF KANSAS

Before Commissioners: G. T. Van Bebber, Chairman
William G. Gray
R. C. Loux

In the matter of a general investigation upon the Commission's own motion to establish general policies with regard to purchased natural gas, fuelfor electric power generation, and purchased electric power.	))))))	Docket No. 106,850-U

ORDER

Now, on this 19th day of April, 1977, the above-entitled matter comes on for consideration and final determination upon the Commission's own motion. Having examined all of its files and records, and thereby being fully advised in all the premises, the Commission finds and concludes that:

I. INTRODUCTION

1. On December 24, 1975, an order was issued herein providing that the State Corporation Commission was undertaking, upon its own motion, a general investigation for the purpose of: (a) Establishing a general policy regarding the recovery by gas utilities of the increased costs of natural gas purchased by such utilities; and (b) establishing general policies regarding the recovery by electric utilities of the increased costs of fuel for electric power generation and electric power purchased by such utilities.

2. Said order also directed that a public hearing be held on January 2 1976, at 10:00 a.m. in the Commission's hearing room, Fourth Floor, State Office Building, Topeka, Kansas, for the purpose of providing each gas and electric public utility certificated by and subject to the jurisdiction of the Cor mission the opportunity to be heard as to the necessity of such general invest

gation and to show cause, if any there be, why such investigation should not be made or why the costs thereof should not be assessed against said utilities. The Commission ordered further that its order was to serve as notice of such hearing to all such gas and electric public utilities.

3. Said public hearing was held before the Commission at the time and place provided in the Commission's order of December 24, 1975, and on January 28, 1976, the Commission issued an order reaffirming the necessity for conducting the general investigation and assessing the expenses attributabl to said investigation against the gas and electric public utilities certificated by and subject to the jurisdiction of the Commission.

4. Pursuant to its order of January 28, 1976, the Commission retaine Touche Ross and Company as special consultants to assist the Commission's Staff in conducting the investigation hereunder. Specifically, Touche Ross and Company reviewed the present status of automatic energy adjustment clauses within the state, developed and proposed energy adjustment clauses for the various types of electric and gas utilities and designed standardized reporting and monitoring formats to be used by the Commission and its Staff in administering and implementing the various clauses.

5. Touche Ross and Company compiled and submitted to the Commission a preliminary report, entitled "Preliminary Report on the Review of Automatic Energy Adjustment Clauses Within the State," which analyzed energy adjustment clauses presently being used by the various utilities within the state and which also proposed certain uniform energy adjustment clauses to be used by various classes of utilities. On July 15, 1976, this report was mailed to all interested parties in this docket, accompanied by a letter from Fred B. Adam, the Commission's Director of Utilities, encouraging all such parties to submit comments to the Commission on the preliminary report. In addition to soliciting these comments, Touche Ross and Company tested th applicability and practicality of the various clauses contained in the prelimina report with several utilities of varying types and sizes.

6. Based on its analysis of the comments received from interested

parties herein concerning the Special Staff's preliminary report, together with the results of testing the applicability and practicality of the various energy adjustment clauses proposed in the preliminary report, Touche Ross and Company revised said preliminary report and, on August 27, 1976, submitted to the Commission its final report hereunder, entitled "Report on the Review of Automatic Energy Adjustment Clauses Within the State."

7. On August 27, 1976, the Commission issued its order that a public hearing would be held on October 4, 1976, and continuing to and including October 8, 1976, if necessary, for the purpose of receiving testimony and exhibits by all parties in this docket relating to the Staff's findings and recommendations resulting from its investigation herein. The Commission also ordered that its order was to serve as notice of said hearing to all gas and electric public utilities certificated by and subject to the jurisdiction of the Commission.

8. In accordance with the notice provided in the Commission's order of August 27, 1976, a public hearing was held at the time and place prescribed in said order. At this hearing, Staff presented three witnesses, to-wit: Frank R. Budetti, J. Emerson Hartzler and Michael F. LaPorta, all representatives of Special Staff consultants, Touche Ross and Company. In addition Harold W. Steenbergen testified on behalf of The Gas Service Company, and William E. Brown testified on behalf of The Kansas Power and Light Company

9. During the course of the proceedings in this docket, the following appearances were made:

> Thomas E. Gleason, Ottawa, Kansas, and James C. Mordy, Kansas City, Missouri, appeared for Central Kansas Power Company.
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> Jack Bender, Wichita, Kansas, appeared for The Boeing Company, Wichita Division, Intervenor.
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> James L. Grimes, Jr., Topeka, Kansas, appeared for the Kansas Power and Light Company, People's Natural Gas Division of Northern Natural Gas Company and Southwestern Public Service Company.
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> Laird P. Bowman, Kansas City, Missouri, and Richard C. Byrd, Ottawa, Kansas, appeared for The Gas Service Company.

Richard C. Byrd, Ottawa, Kansas, appeared for Kansas-Nebraska Natural Gas Company, SEKCO Gas Company, Central Telephone and Utilities Corporation, Empire District Electric Company and Greeley Gas Company.

Everett Fettis, Wichita, Kansas, appeared for Arkansas-Louisiana Gas Company.

Bob W. Storey, Topeka, Kansas, and William H. Reeder, Independence, Kansas, appeared for Union Gas System, Inc.

Milo M. Unruh, Wichita, Kansas, appeared for Vulcan Materials Company, Intervenor.

Jack Glaves, Wichita, Kansas, appeared for Sunflower Electric Cooperative, Inc., Kansas Municipal Utilities, Inc., and the following Kansas cities: Anthony, Attica, Burlingame, Chanute, Clay Center, Coffeyville, Ashland, Herrington, Holton, McPherson, Protection, Sabetha, Wellington, Larned, Pratt, Russell, Sterling and Winfield.

Gordon Lowry, Valley Falls, Kansas, and Phil Kassebaum, Wichita, Kansas, appeared for Kansas Electric Cooperatives, Inc.

Phil Kassebaum, Wichita, Kansas, appeared for the following electric cooperatives: Alfalfa, Ark Valley, Brown-Atchison, Butler, Caney Valley, Central Kansas, C. M. S., Coffey County, C & W, Doniphan, D. S. & O., Flint Hills, Great Plains, Jewell-Mitchell, Lane-Scott, Leavenworth-Jefferson, Lyon County, N. C. K., Nemaha-Marshall, Ninnescah, Northwest Kansas, Norton-Decatur, Pioneer, P. R. & W., Radiant, Sedgwick County, Sekan, Smoky Hill, Smoky Valley, Sumner-Cowley, Twin Valley, United Electric, Victory and Western.

James M. Caplinger, Topeka, Kansas, appeared for Kaw Valley Electric Cooperative, Inc., and Central Kansas Electric Cooperative, Inc.

Michael Harris, Wichita, Kansas, appeared for Kansas Gas and Electric Company.

Robert W. Green, Ottawa, Kansas, Tom Sache, Ottawa, Kansas, and David L. Smith, Kansas City, Missouri, appeared for Kansas City Power and Light Company.

Don Schnacke, Topeka, Kansas, appeared for Kansas Independent Oil and Gas Association.

W. Robert Alderson, General Counsel, and Sard Fleeker, Ed Brausa and Walker Hendrix, Assistant General Counsels, appeared for the Commission's Staff and the public generally.

10. The Commission granted the petitions to intervene in this docket filed on behalf of The Boeing Company, Wichita Division, Wichita, Kansas, and Vulcan Materials Company, Wichita, Kansas. Central Kansas Power Company also filed a petition to intervene, but its petition was unnecessary, since this utility was made a party to this docket by virtue of the Commission's order of January 28, 1976.

II. EXISTING ENERGY ADJUSTMENT CLAUSES

11. The investigation and final report by Special Staff, Touche Ross and Company, indicate that there are currently seventy-seven different energy adjustment clauses being used by the various gas and electric public utilities certificated by and subject to the jurisdiction of the Commission. The principal variances between these several clauses depend to some degree on the type of utility utilizing such clause, i.e., private electric utilities, cooperative electric utilities, municipal electric utilities and gas utilities.

12. Private Electric Utilities. There are seven private electric public utilities certificated by and subject to the jurisdiction of this Commission, and all of these utilities have at least one energy adjustment clause currently in effect. Several of these utilities have multiple clauses, so that there are total of seventeen clauses now in effect. All of these clauses are incorporated into the published tariffs of the various utilities, and monthly adjustments are computed and billed without any type of hearing or Commission approval, although the Commission's Staff reviews the data submitted to it monthly by the utilities. However, the level of detail contained in this monthly reporting is limited.

All of the clauses utilized by the seven private electric utilities consider historic costs, rather than forecasted costs, in computing the adjustment, none has a settlement provision and all clauses specify a monthly adjustment computation. However, most other factors vary widely. Thus, the differences among these clauses are considerable, and there is no "typical" clause for these seven private electric utilities.

One notable difference among these clauses concerns the date that the base fuel cost in the formula was set. In those cases where the basic tariff reflects fuel costs of a period in the distant past, the fuel adjustment factor may be a significant part of the total bill the customer pays. Where reasonably current fuel costs are incorporated into the basic tariff, the fuel adjustment factor will be a minor portion of the total rate. While these differences do not necessarily affect the customers' total bills, the Commission recognizes the fact that differences such as this may be difficult for consumers to understand.

13. Cooperative Electric Utilities.- There are thirty-seven cooperative electric utilities certificated by and subject to the Commission's jurisdiction, having a total of forty-five different energy adjustment clauses. Most of these clauses include the cost of purchased power, since only a few cooperatives generate substantial amounts of their own power. For those cooperatives that do generate their own power, the variation among the different energy adjustment clauses is similar to the variation experienced by the private electric utilities. However, for those cooperatives that purchase substantially all of their power, the clauses are generally the same, since they merely attempt to pass through to their customers the actual increase per kwh in the cost of the power purchased by these cooperatives.

The Commission recognizes that the impact of an energy adjustment clause is different for two classes of customers of cooperative electric utilities, i.e., self-billing customers and modified self-billing customers. A modified self-billing customer reads his own meter and submits payment (at the base rate) to the cooperative. The utility then computes the energy adjustment factor and bills the customer for payment of the adjustment amount with the next month's billing. Thus, an additional month's lag is introduced, compared with normal billing procedures where both the base rate and the energy adjustment are multiplied by the monthly usage and billed as one total amount for the current month.

Lag is considerably increased with self-billing customers, where an

annual schedule of rates, including the latest energy adjustment factor, is mailed to the customer and, based on that schedule, twelve monthly payments are made to the utility. The twelve-month time span between mailings results in a considerable lag between cost changes and billing rate adjustments.

14. Municipal Electric Utilities. There are nineteen municipal electr utilities which have tariffs on file with the Commission, and there are a total of eleven energy adjustment clauses applicable to those tariffs. Only about one-half of the municipal electric utilities have automatic energy adjustment clauses currently in effect. The comparison of these clauses results in data similar to the comparative data for private electric utilities. All of the municipal electric utility clauses use historic costs for current period cost calculations, they calculate the adjustment and bill monthly and they also use a single cost base formula. Also, none of them incorporate a settlement provision. With these exceptions, the factors utilized by the municipal electric utilities in their energy adjustment clauses vary widely.

15. Gas Utilities. Of the thirty-five gas utilities in the state, only three have automatic adjustment clauses. One company has two clauses; the other two each have a single clause. As disclosed by Appendix II to the final report of Touche Ross and Company, these four clauses have widely different characteristics.

All gas utilities certificated by and subject to the jurisdiction of the Commission, including those with automatic adjustment clauses, submit applications for rate changes to reflect changes in the cost of purchased gas. The are then subjected to an informal or formal hearing procedure by the Commission. As a result, all rate adjustments for purchased gas cost changes are reviewed and approved or disapproved by the Commission. However, the level of detail provided in these applications is often limited and not standardized, which makes an effective analysis of the applications difficult and time consuming.

16. Conclusion as to Existing Clauses. The Commission agrees with Special Staff that it is difficult to find much uniformity in the clauses currentl

in use by the gas and electric public utilities within the state. The uniformity and level of detail of periodic reporting are both insufficient for effective review by the Commission or its Staff. These facts present a problem to which the Commission must address itself in this docket.

III. ALTERNATIVE APPROACHES

17. The evidence presented to the Commission in this proceeding indicates that there are four alternative approaches the Commission can take with respect to energy cost adjustments. The first alternative is for the Commission to permit no automatic adjustment clauses, but hold periodic hearings to adjust rates for energy cost changes. This approach has been used by several states which disallow energy cost pass-through by rejecting all automatic clauses. Usually, the substitute procedure is to hold periodic hearings to consider rate adjustments for energy cost changes. Although the Commission's credibility with the consumer may be enhanced temporarily by this strategy, we believe that the benefits of periodic hearings are illusory. Without standardized clause formulae and periodic reporting by the utilities, the review of each application is a difficult, time-consuming and costly process, and there can be no assurance that adjustments are comparable among companies.

In rejecting this alternative, the Commission feels that it is important to note that, unless periodic hearings are quite frequent (which would necessi increased regulatory costs to the consumer), significant regulatory lag would be introduced, and the cash requirements of the utilities would be increased. We do not believe that the introduction of increased regulatory lag serves any useful purpose, either for the utilities or the consumers. If the costs of energy are significant and are legitimate costs that will be incorporated into the rate structure at a formal hearing, then those costs should be passed on equitably to the consumers without undue delay. This will insure that the utility is allowed the opportunity to recover its costs and earn a fair return

on its investment.

Further, it is our opinion that to disallow all automatic adjustment clauses in favor of periodic hearings constitutes a denial that a problem exists, rather than a valid attempt to deal with the realities of changing energy costs and their impact on the utilities and their consumers.

18. Another alternative available to the Commission is to permit less formal filings whenever the utility desires to revise its rates due to changes in energy costs. This approach is currently in use in Kansas today with gas utilities. Since this procedure usually results in a relatively rapid pass-through of energy costs to the utilities' customers, it solves much of the problem of regulatory lag. However, it does not result in standardized reporting or uniform adjustment of rates to reflect cost changes. The Commission believes that without standardized reporting by all utilities, the task of analyzing each of these informal filings by the Commission and its Staff is made unnecessarily difficult. In addition, the current level of detail submitted by Kansas utilities for such informal proceedings is insufficient to verify calculations and adjustment methodology. The absence of a standardize clause permits each utility to pass on its energy costs in the manner of its ow choosing, which may result in substantially different rate adjustments for one utility's customers as compared with another utility's customers.

Thus, we reject this approach as being a viable alternative. While we believe that some procedure for informal review by the Commission and its Staff of energy cost adjustments on a selected or exception basis is appropria even with standardized clauses and reporting requirements, we do not believe that informal filings per se are the solution to the energy cost problem.

19. The third basic alternative available to the Commission, as we see it, is to authorize the use of incentive type automatic adjustment provisio in utilities' tariffs, which are intended to encourage efficient operations by th utilities. The rationale in support of this alternative is that some of the burd of regulation is passed to the utility, since the clause provides incentives for the utility to operate efficiently with regard to gas, fuel and energy costs. This is accomplished by designing the automatic adjustment clause with certa

fixed operating statistics, such as line loss, thermal efficiency and fuel mix, at predetermined or standardized levels, and then factoring the changes in gas, fuel and other energy costs by a clause formula which incorporates the standard efficiency parameters.

While this approach admittedly has some appeal to the Commission, we feel that there are two significant and interrelated problems with the use of incentive clauses: First, accurate standards for operating statistics are difficult to establish; and second, standards may become obsolete with any significant change in system configuration. For example, as pointed out on page six of Special Staff's final report in this docket, the actual system heat rate for any electric utility is routinely calculated for periods such as a month or a year. However, determining what the heat rate should have been is a complex problem involving "modeling" of operating conditions to determin such things as:

(a) Which generating units should have been utilized at different times?

(b) During what times could power have been economically purchased, and what would the cost of this power have been?

(c) What interchange receipts and deliveries should have taken place?

Special Staff also points out that another critical problem with an incentive clause is what to do with the dollars of over- or under-recovery which will surely result from the application of standard parameters. If the utility underrecovers its costs through the clause, it may have to file for general rate increases more frequently. In this case, the incentive only acts to increase regulatory lag. We have previously expressed our disapproval of further enhancing this problem. On the other hand, if the utility operates more efficiently and overrecovers its costs, should it be allowed to keep the additional funds? Allowing retention would certainly be an incentive, especial if the amount of money involved were substantial. However, the fairness of this approach to the consumers can fairly be questioned, but if the overrecove must be returned by the utility to its customers through a settlement provisio

in the clause, the value of the incentive is questionable. As a result, without a settlement an incentive clause may result in more frequent rate hearings or unfavorable consumer reaction. With a settlement provision included in the clause, an incentive clause takes on the characteristics of a variable clause. We do not favor either of these two possibilities, and we are compelled to reject the incentive clause as a reasonable alternative for Commission action.

20. The final alternative, as we see it, and the one which we have accepted, is to designate variable automatic adjustment provisions which permit the pass-through of actual costs of gas, fuel or purchased power. With this type of clause, if operating characteristics change, the resulting changes in cost are included in the energy cost adjustment. It eliminates the need for the difficult and costly task of setting standards, and it is most effective in passing on actual cost changes (decreases, as well as increases) to the consumer.

We are cognizant that one of the dangers of a variable clause is that even costs that are avoidable will be passed on to the consumer. No matter how ineffective the utility's purchasing or operating performance is, the consumer will be asked to bear the cost. While we believe that a variable clause is by far the most desirable mechanism for passing through changes in the cost of gas, fuel and purchased power, the Commission also recognizes that it must reserve the right to suspend or adjust the clause if the results of its application fall outside the prescribed limits. We also believe that a variable clause, with specified limits for key operating characteristics such as line loss, thermal efficiency and fuel mix, can accomplish the same objectives as an incentive clause, while avoiding the problems inherent in this latter type of clause.

The evidence presented to the Commission in this docket indicates that a variable clause with limits for key operating statistics can be most effective when preparation of both detailed and summary data required for the adjustment computation is performed by the utility. This procedure will minimize the effort required by the Commission and its Staff to process the adjustment

application. In addition, the Commission's Staff should perform periodic desk and field audits of the data submitted by the utility. This reporting system should provide data from which the Staff can quickly identify unusual situations and verify the calculation procedures in supporting documentation.

We feel that the variable clause should contain one additional characteristic. In the event that the utility's operating statistics fall outside the established limits, the Commission should have the authority under such clause to require the energy cost adjustment to be calculated using the limit value.

Therefore, the Commission specifically approves the use of a variable energy adjustment clause, with specified limits for key operating characteristi such as line loss, thermal efficiency and fuel mix. In so doing, the Commissi feels that it is important to enunciate our determinations as to the purpose, scope and value of energy adjustment clauses, in general.

The primary purpose of any such clause is to pass through to the consumer an increase or decrease in the cost of energy, while avoiding the costly and time-consuming process of a formal hearing to consider a general revisio of all rates. Further, since the cost of gas, fuel or purchased energy affects all classes of customers, all tariffs should carry the energy cost adjustment factor. The energy cost adjustment factor must be considered an integral part of the approved tariff, so that the energy cost adjustment becomes an application of the tariff rate, rather than a change in the rate.

The energy cost adjustment must apply to only variable costs whose fluctuations are largely outside the control of the utility. The variable type of energy adjustment clause approved by the Commission herein is consistent with these principles and it is consistent with the overall regulatory objectives of this Commission and with the other means available to the Commission to achieve these objectives. As noted by Special Staff in its report to the Commission, if some significant cost factors are excluded by the energy cost adjustment clause, but are considered legitimate costs in a general rate hearing, the utility may choose to file more frequent rate applications, rathe

than to absorb those costs denied in the clause. If those costs which are includable, according to the terms of the clause, are accepted and automatically passed on to the consumer without challenge, the regulatory process may become ineffective. To avoid this undesirable result, the energy cost adjustment clause must be coupled with specific reporting requirements and effective monitoring procedures to insure that only legitimate energy costs are included in the adjustment.

We are mindful that opponents of an energy cost adjustment clause typically argue that:

(a) The clause may limit the utility's incentive to bargain for lower cost gas, fuel or purchased power.

(b) The clause may limit the utility's incentive to operate efficiently.

(c) The clause may confuse the consumer regarding how his charges are computed.

(d) The clause may weaken the impact of the regulatory process.

(e) The clause may bias the selection of fuel or power alternatives.

(f) The clause may bias selection of which plants to operate and what types of new plants to construct.

The Commission recognizes that many of the above statements may be valid, particularly if the energy adjustment clause does not recognize the possibility of utility excesses, and does not specifically limit the pass-through of unreasonable costs. However, it is our opinion that these disadvantages can be countered through the use of an appropriately designed variable energy adjustment clause and with appropriate reporting by the utilities, coupled with effective monitoring by the Commission and its Staff. Thus, if these safeguards are included, the Commission believes that an energy adjustment clause will have the following benefits:

(a) The clause will reduce regulatory lag and reduce the utility's cash requirement from sources other than the ratepayer.

(b) The clause will reduce the frequency of formal rate hearings, thereby reducing regulatory cost.

(c) Since energy costs are largely outside the control of the utility they ultimately must be passed through to the consumer, and an appropriately designed clause, with proper safeguards, is the most efficient method to accomplish this pass-through.

(d) User conservation will be encouraged through the prompt pass-through of increased costs.

(e) The clause will result in a better matching of revenues and expenses, a well-established ratemaking principle.

(f) The ability to pass through increased costs reduces the utility's risk, which ultimately may lower its capital costs and increase its capability to attract capital.

In summary, the Commission believes that both the utilities and the consumers benefit from a properly designed energy adjustment clause, and we believe that such clause will play an important part in the overall regulatory process.

IV. SPECIFIC CHARACTERISTICS OF ENERGY ADJUSTMENT CLAUSES

21. An individual energy adjustment clause has a number of specific characteristics which determine its impact. The principal characteristics presented to the Commission for its consideration during the course of these proceedings are as follows:

22. Thermal Efficiency (Electric Utilities Only). Thermal efficiency, or heat rate, refers to the heat (measured in British thermal units or Btu's) required to produce a kilowatt hour (kwh) of electricity. A clause may state costs in terms of Btu's and output in kwh's, using a fixed formula to convert Btu's to kwh's which is based on an historic or standard ratio. If an historic ratio is used, it may reflect the actual experience of a test period (referred to as a single point) or it may consider some changing period such as the last twelve months (moving average).

A clause which accepts the actual cost of fuel and the actual kwh output rather than a fixed formula to convert Btu's to kwh's, is termed a variable thermal efficiency clause. The impact of the variable clause is to utilize the

thermal efficiency actually experienced during the computation period. A variable clause eliminates any over- or underrecovery of costs by the utility due to changes in thermal efficiency of its generating system.

For the reasons stated earlier with respect to the Commission's approval of a variable energy adjustment clause, the Commission finds that a variable heat rate provision in the clause is preferable to a fixed heat rate. W find that it is appropriate to use a variable heat rate, because the thermal efficiency or heat rate of a utility's generating system is variable. A variable hea rate provision in an energy adjustment clause will permit the cost of the Btu's heat actually used in a given month to be passed on to the consumer. However, we also believe that an upper limit should be established for each utility to insure that customers do not pay for unreasonably inefficient heat rates.

23. Line Loss. Line loss refers to the unaccounted for energy lost in the transmission and distribution system. Adjustment clauses which consider line loss as a variable factor compute the cost change per unit (kwh for electri utilities, Mcf for gas utilities) by dividing costs by volume of sales, thus incorporating the actual line loss during the computation period into the adjustment. Fixed line loss clauses calculate the energy cost change per kwh or Mc measured at the point of input to the distribution system, and add to that cost a fixed percentage for line loss.

The impact of using a fixed versus variable line loss is similar to that previously discussed for thermal efficiency. If the line loss is fixed in the clause, the gas or electric utility will over- or underrecover its costs, depend ing upon the actual efficiency of the distribution system compared with the standard line loss factor included in the clause. With a variable clause, the actual line loss experienced is reflected in the energy cost adjustment.

The Commission feels that a variable line loss provision in an energy adjustment clause is preferable to a fixed line loss provision. However, we also believe that an upper limit should be established for each utility to insure that customers do not pay for unreasonably high line losses.

24. Timing of Current Data. Energy cost adjustment formulae calculate a current cost of gas, fuel or purchased power and compare this curre

cost with a base cost. The base cost is that cost which is included in the basic tariff. The selection of a time period to use in computing "current" data for the clause impacts the amount of lag between the time cost changes are experienced by the utility and the time those changes are reflected in customer billings. For example, an historic clause which, in making a monthly adjustment, takes data from the previous six months, may result in a lag of three to five months. On the other hand, a forecast clause is designed to reflect the costs of the period for which customers are to be billed, thus introducing no lag between the cost change and customer billing. For these reasons, the Commission believes that a forecast clause should be included in an energy adjustment clause.

25. Fuel Mix. An energy adjustment clause may have a single-base of cost, where the cost per unit of purchased gas, fuel or purchased power is the total cost divided by the units used. A multi-based clause has two or more bases, one for each source of energy. The current cost is calculated by dividing the current cost for each source by the volume of each source, and combining those costs into an average cost per unit using some predetermined mix of the bases. Separate costs per unit for oil, gas, coal and purchased power illustrate a multi-based electric clause; separate costs per unit for demand and commodity charges or several different supply sources illustrates a multi-based purchased gas adjustment clause.

The weighted average cost per unit of gas, fuel or purchased power can vary with changes in the mix of those elements as well as changes in the price per unit of those elements. The multi-base clause is designed to screen out cost changes due to mix, passing on to the consumer only the cost changes due to unit price. Thus, the utility may over- or underrecover its costs, depending upon how the actual mix of gas, fuel or purchased power compares to the fixed formula in the multi-based clause.

However, a single-based clause reflects both changes in unit prices and cost changes due to mix in the automatic adjustment. No over- or underrecovery results from changes in mix. For these reasons, the Commission has determined that a single-base energy adjustment clause is preferable.

26. Settlement Provision. As was noted earlier, an incentive type of energy adjustment clause may result in over- or underrecovery of costs. Application of a variable energy adjustment clause also may result in over- or underrecovery of costs due to changes in sales volume or cost estimating errors. Since one of the objectives of a variable adjustment clause is to pass through actual costs for gas, fuel and purchased power, the Commission believes that a settlement provision should be included in the clause. Such provision should provide for a periodic comparison of the dollar amount actually recovered from the energy adjustment factor and the actual change in the costs of gas, fuel or purchased power for that same period. Any difference between the amount that should have been recovered and the amount that was actually recovered will be reflected in the adjustment factor for subsequent periods.

V. DIFFERENT CLAUSES FOR DIFFERENT TYPES OF UTILITIES

27. In addition to the obvious distinction between gas utilities and electric utilities, the record in this docket discloses substantial differences in operating characteristics among the various electric utilities subject to the Commission's jurisdiction. For these reasons, the Commission has concluded that there should be three distinct types of energy adjustment clauses for electric utilities and a single energy adjustment clause applicable to gas utiliti We also have concluded that municipally-owned or operated utilities should be exempt from the required usage of the standard energy adjustment clauses pre scribed by this Order, but that the energy adjustment clauses utilized by such municipal utilities should be subject to the scrutiny of this Commission and that certain reporting requirements should be imposed on such utilities. This matter will be discussed in more detail subsequently in this Order.

28. One of the distinctions between the various types of electric utiliti which should be given recognition by an energy adjustment clause is the amoun of power generated by such utilities. As noted earlier in the Order, the

investor-owned utilities subject to the Commission's jurisdiction generate a substantial amount of the power sold to their customers, while only a few cooperatives generate substantial amounts of their own power. Thus, the Commission has determined that a single clause should apply to all rate schedules of investor-owned electric utilities and to all rate schedules of those electric cooperatives electing to utilize such clause. The clause approved by the Commission for these utilities is attached hereto as Appendix A and incorporated herein by reference. It is essentially a variable-type of clause which allows the pass-through of all increased or decreased fuel costs, together with the increased or decreased cost of purchased power. The calculation is to be made monthly, is based on each utility's forecast of the current month's cost and kilowatt-hour sales and provides for a monthly settlement for over- or underrecovery of costs due to errors in estimating.

As a protection against intentional overestimation of costs, there is included in this clause an assessment provision which becomes operative when overrecovery of costs through the clause exceeds five percent of actual costs for any three consecutive months. It should be noted, however, that if the performance of the utilities operating under this clause so dictates, it might be necessary for the Commission at some future time to reduce the number of months for comparison of estimated and actual energy costs.

The clause in Appendix A is single-based and utilizes a variable heat rate, which allows the pass-through of increased or decreased fuel costs, regardless of the thermal efficiency achieved during the period or the mix of the fuels burned. The line loss factor also is variable with the limit to be calculated on the most recent twelve-month period ended December 31. As a protection against pass-through of unreasonable costs, limits are fixed for heat rate and line loss, and a range is prescribed for the mix of fuels. If actual performance falls beyond the limits, the clause provides for calculation of the adjustment using the limit values rather than actual values. It should be noted that different limits for both fuel mix and heat rate are to be estab-

lished for the summer period (May through September) and the winter (October through April).

29. The second clause for use by electric utilities, which is attached hereto as Appendix B and incorporated herein by reference, is designed for use by cooperatives which purchase substantially all of their power. It will apply to all rate schedules of those utilities which elect to adopt this clause, except those rate schedules for self-billing customers. Under this clause, each month the utility will use the latest cost of purchased power to compute the energy cost adjustment. This clause includes the total cost of purchased power, but excludes the fuel cost of generated power. Because the clause utilizes a variable line loss factor, a line loss limit is prescribed in the clause, with treatment similar to that in the first clause if the limit is exceeded.

Because overrecovery and underrecovery is not expected to be large from month to month, and recognizing that many of the smaller utilities may not have adequate accounting resources available to accomplish the monthly settlement calculation, the Commission has included in this clause an annual settlement calculation for the cooperatives which choose to utilize this clause.

30. Attached hereto as Appendix C and incorporated herein by reference is the third clause applicable to electric utilities. This energy adjustment clause has been designed for use only by those electric cooperatives which utilize self-billing methods. For those utilities having rate schedules for both self-billing and regular customers, this clause may be used for self-billing rate schedules and the energy adjustment clause contained in Appendix or Appendix B may be used for regular rate schedules.

The adjustment clause for utilities that serve customers on self-billing rate schedules is essentially the same as the clause contained in Appendix B, for use by electric cooperatives that purchase substantially all of their power. The significant difference is that the adjustment under this clause is made only annually at such time as the self-billing schedules are published. Also included is a provision that allows the utilities to recompute

the adjustment more frequently than annually if conditions warrant such action.

31. Based on the evidence and testimony presented during the course of these proceedings, the Commission also has determined that where an electric utility provides service through two or more separate and distinct, non-interconnected systems, such utility should be permitted to utilize a different energy adjustment clause for each of such system.

32. With respect to gas utilities, the Commission has determined that a single purchased gas adjustment clause should be applicable to each type of gas utility within the state. However, where any such gas utility provides service in several separate and distinct service areas and purchases gas separately for each such service area, such gas utility should be permitted to adopt a separate clause for each such area, even though the clauses so adopted will be identical in structure. Similarly, the Commission finds that a separate purchased gas adjustment clause should be permitted for different classes of customers of a particular utility, where such utility purchases gas at a different cost for each such customer class.

The purchased gas adjustment clause to be utilized by gas utilities is attached hereto as Appendix D and incorporated herein by reference. This clause has been designed with the objective of allowing cost recovery or return to occur in the same period during which changes in prices paid for gas occur. This is accomplished by establishing on June 1 of each year an estimated total cost for purchased gas for the ensuing twelve months. However, a different forecast year may be selected by each gas utility, subject to approval of the Commission, with the requirement that it must end in a period of low usage.

Under this clause, the estimates will be based on known changes in gas rates, as specified in contracts in effect on the estimating date, and estimated changes in volumes of gas from each supplier. The estimated costs include the cost of exchange gas (FPC Account 806) and the related cost of gas added to or withdrawn from storage (FPC Accounts 808 and 809), but increased royalties are excluded. Royalties are not purchased gas, and for this reason

the Commission has determined that they are not within the scope of a purchased gas adjustment clause. The recovery of increased royalties by a gas utility will require a hearing before the Commission.

Once the total estimated cost of purchased gas for the forecast year is determined, such cost is divided by the amount of gas estimated to be sold during that same period to produce an estimated effective cost per Mcf. Such calculation provides a forward-looking, weighted average cost of gas which can be compared to the cost of gas during the base period to arrive at the net purchased gas adjustment. During the ensuing twelve-month period, the adjustment may be recomputed if unforeseen cost changes result in a change in the average cost of gas for the twelve-month period of one mill or more.

The purchased gas adjustment clause includes a variable line loss factor, which will not exceed a limit to be calculated on the most recent twelve-month period ended June 30 or the established limit value, whichever is less. The clause also provides for a settlement calculation to be made annually, by comparing costs recovered through the clause to actual costs incurred. However, the Commission reserves the right to require an earlier settlement if over- or underrecoveries are excessive. The settlement amount would be returned to or recovered from customers by incorporating a settlement factor, in cents per Mcf, into the PGA clause during the succeeding twelve-month period.

The purchased gas adjustment clause does not contain a provision for the assessment of gas utilities due to estimating inaccuracies that result in excessive overrecoveries. However, the Commission will review annually the net over- or underrecovery by each gas utility, and where overrecovery is excessive, interest will be paid on the refund thereof.

VI. IMPLEMENTATION, REPORTING AND MONITORING

33. During the period ending one year from the effective date of this Order, the present energy adjustment clauses of any gas or electric utility makin

application to the Commission for an increase in such utility's basic rates shall be suspended as of the end of thirty days from the effective date of the Commission's order determining such rate application. The present energy adjustment clauses of all other gas and electric utilities shall be suspended at the expiration of one year from the effective date of this Order.

After the suspension of the energy adjustment clause or clauses of any gas or electric utility, as hereinbefore provided, such utility shall not impose any energy adjustment clause other than the appropriate clause or clauses prescribed by this Order, and the implementation of any such clause shall require the approval of the Commission, pursuant to a duly-filed application therefor. Such applications may be filed at any time subsequent to the effective date of this Order, and if approved by the Commission, may be implemented at any time.

Any gas or electric utility having in effect one or more energy adjustment clauses at the time of filing an application for approval to implement any energy adjustment clause prescribed by this Order shall include in such application a proposed procedure for the recovery or other disposition of such utility's deferred fuel costs. The Commission has approved the recovery of such unrecovered fuel costs in prior proceedings, but has not prescribed a standardized or exclusive procedure applicable to all utilities. The Commission will continue to make such determinations on a case-by-case basis after considering all relevant evidence as to the propriety of a particular procedure and the effect it will have on the utility and its customers.

As previously noted in Paragraph 20 of this Order, the Commission has determined that all tariffs of a utility utilizing an energy adjustment clause should carry the energy cost adjustment factor. Therefore, any application to implement an energy adjustment clause prescribed by this Order shall be accompanied by such tariff revisions as may be necessary.

34. As previously stated in Paragraph 27 of this Order, the Commission has concluded that municipally-owned or operated utilities should be exempt from the required usage of the energy adjustment clauses prescribed by this Order. However, the Commission also believes that the utilization of

energy adjustment clauses by such municipal utilities, insofar as it affects jurisdictional customers, should be subject to the Commission's scrutiny and control. Therefore, the Commission has determined that, upon the expiration of one year from the effective date of this Order, no municipally-owned or operated utility shall have in effect an energy adjustment clause applicable to tariffs in effect in any area certificated by and subject to the jurisdiction of this Commission, unless such clause shall have been approved by the Commission as satisfying the overriding objectives of this Order. Each such municipal utility shall make application to the Commission for such approval, accompanied by such supporting data as may be necessary to determine whether such clause is in conformance with this Order.

35. Any utility that implements any of the energy adjustment clauses prescribed by this Order shall submit monthly reports to the Commission for review by its Staff. Such reports shall be submitted in the form and manner prescribed by the Commission. Except for good cause shown to the Commissio the report from an electric utility shall be received by the Commission on or before the fifteenth calendar day of the month prior to the month for which such utility's energy adjustment is to be billed. The Commission retains the jurisdiction to suspend the energy clause adjustment of any such utility by notifying such utility on or before the twenty-fifth calendar day of the month prior to the month for which such adjustment is to be billed.

The report from a gas utility shall be received by the Commission on or before the twenty-fifth day of the month prior to the month for which such utility's purchased gas adjustment is to be billed.

36. The Commission finds that it is necessary and appropriate for the Commission and its Staff to develop and implement a monitoring and auditing system to insure the proper implementation of the energy adjustment clauses prescribed by this Order. If necessary, the Commission will enter such further order or orders in this docket as may be appropriate to achieve such objective.

As a part of the audit procedure the Commission finds it necessary to audit the jurisdictional electric and natural gas utilities' respective fuel purchased gas costs. Accordingly, each jurisdictional electric and natural gas utility shall submit to this Commission, within fifteen (15) days after execution, every fuel and gas purchase contract together with a statement of other alternatives for obtaining the necessary fuel and purchased gas and the reasons for selecting the alternative embodied in the contract. This provision shall apply to all new contracts and to all existing contracts which are either renewed or renegotiated. Each electric and natural gas utility, within fifteen (15) days following notification from the supplier, shall also provide to the Commission a statement of the justification for every escalation invoked under the terms of its existing contracts.

The above-referred to contracts will be used only by the Commission and its Staff for investigative purposes and therefore will be deemed confident or proprietary documents by this Commission in order to maintain the integri of the utilities' decision represented by said documents. The routine filing of such fuel and gas purchase contracts shall not constitute them to be public documents as defined by State Law except as may be otherwise ordered by the Commission.

IT IS, THEREFORE, BY THE COMMISSION ORDERED: That, except as hereinafter provided, there is hereby suspended the present energy adjustment clause or clauses of each gas or electric utility certificated by and subj to the jurisdiction of the Commission, whose application for an increase in it rates shall be determined by the Commission within the period of one year from the effective date of this Order, with such suspension to be effective upon the expiration of thirty (30) days from the effective date of the Commission's order determining said application, or at such other time as may be provided by the Commission; and that the present energy adjustment clauses of all other gas and electric utilities shall be suspended upon the expiration o one year from the effective date of this Order.

IT IS FURTHER ORDERED: That upon the suspension of the energy adjustment clause or clauses of any such gas or electric utility, as hereinbefore ordered, such utility shall not impose any energy adjustment clause other than the energy adjustment clause or clauses determined to be appropriate for such utility by the Commission's findings in this Order, and as specifically set forth in Appendix A, B. C or D to this Order; and that the implementation of any such energy adjustment clause shall be in accordance with the findings of the Commission herein.

IT IS FURTHER ORDERED: That upon the expiration of one year from the effective date of this Order, no municipally-owned or operated utility shall have in effect an energy adjustment clause applicable to tariffs in effect in any area certificated by and subject to the jurisdiction of the Commission, unless such clause shall have been approved by the Commission in accordance with the findings of the Commission herein.

The Commission retains jurisdiction of the subject matter and the parties for the purpose of entering such further order or orders as from time to time it may deem proper.

BY THE COMMISSION IT IS SO ORDERED.

Van Bebber, Chairman; Gray, Com.; Loux, Com. (Concurring)

Steven D. Carter, Secretary

WRA:jb

ORDER MAILED MAY 2 1977

APPENDIX A

STATE CORPORATION COMMISSION OF KANSAS

ENERGY COST ADJUSTMENT CLAUSE
ELECTRIC UTILITIES

ECA - 1

Rate Schedules Covered: All rate schedules of investor-owned utilities and the schedules of any cooperative or municipality electing to adopt this clause.

Computation Formula

The rates for energy to which this adjustment is applicable shall be increased or decreased by .001¢ per kilowatt-hour (kwh) for each .001¢ (or major fraction thereof) increase or decrease in the aggregate cost of energy per kwh as computed by the following formula:

$$\left(\frac{F + P + NI}{(.01)S}\right) - b = \text{Adjustment}$$

Where:

F = Estimated dollar cost of nuclear fuel used[1] and fossil fuel burned[2] during the current month[3] to supply electric energy to customers.

P = Estimated total cost of purchased power[4] during the current month[3] to supply electric energy to customers.

NI = Estimated net dollar cost[7] (positive or negative) of interchange received less interchange sales during the current month.[3]

S = Estimated kwh delivered to retail and wholesale customers during the current month, which equals: (sum of the estimated kwh generated, purchased, and net interchanged during the month) times (1 minus the line loss percentage[6]).

b = Actual energy cost in ¢/kwh established during the base period.[5] This actual energy cost will be calculated by applying the formula $\frac{F + P + NI}{(.01)S}$, where the components are defined as above, except that base period[5] data will be used rather than estimated data for the current month.[3]

NOTES TO THE FORMULA:

1 Costs includable under nuclear fuel are those properly recorded as nuclear in FPC Account Number 518.

2 Costs includable under fossil fuel burned shall include only those costs properly recorded as fossil fuel costs in FPC Account Number 151, except that fuel costs should be reduced by the amount of supplier refunds normally credited to FPC Account Number 501. For natural gas or other fuels for which no inventory is maintained, the costs recorded in FPC Account Number 501 are includable as fossil fuel burned. Costs of each type of fuel burned shall be computed by the following formula:

$$\left(\frac{B + A}{C + D}\right) \times E$$

Where:

B = Dollar cost of fuel stocks at the beginning of the current period.

A = Estimated dollar cost of additions to fuel stocks during the current period.

C = Actual units of fuel (tons, barrels, or MCF) in stock at the beginning of the current period.

D = Estimated units of fuel to be added to stocks during the current period.

E = Estimated units of fuel to be burned during the current period.

3 The current month is defined as the month during which the energy to be billed under the adjustment will be delivered.

4 Costs includable under purchased power are those properly recorded as purchased energy costs in FPC Account Number 555, and are exclusive of capacity, demand or other fixed charges.

5 The base period is defined as the period from which data were taken in establishing the base rates to which the energy adjustment will be applied.

6 Line loss or unaccounted for losses percentage is the amount of total kwh losses divided by the net kwh generated, purchased, and interchanged during the most recent twelve-month period ended December 31. If this calculated value is greater than the limit value (as defined in later paragraphs), use of the limit value shall be required in the calculation.

7 Net dollar costs of interchange are energy costs, and are exclusive of capacity, demand, or other fixed charges.

Computation Frequency

This computation must be made monthly.

Settlement Provision

The adjustment computed above will be increased or decreased by the amount (to the nearest .001¢/kwh) by which the total amount billed to customers under the energy adjustment in the previous month was greater or less than the actual increased or decreased cost of energy experienced during that month. The actual increased cost of energy will be calculated using the formula $\left(\frac{F + P + NI}{(.01)\,S}\right) - b$, where components are defined as above, except that actual rather than estimated data will be used to compute the current period portion of the formula; and the fuel cost factor (F) will be reduced by any supplier refunds or Btu credit adjustments received.

Billing Other Than Monthly

For those customers billed less frequently than monthly, the adjustment will be the average adjustment for the period for which these customers are being billed. The average adjustment will be computed by weighing the monthly adjustment amount (¢/kwh) by the relative volume of total sales during the period under which that particular adjustment amount was in effect.

Reporting Requirements

The company shall submit to the State Corporation Commission on or before the fifteenth day of each month an energy adjustment report, in a format prescribed by the Commission, showing the calculations for the next month's energy adjustment rate.

In the event that the operating statistics of the company shall fall outside the limits as outlined below, the company will make the calculation at the limit values. These limits are:

	Summer Period May - September		Winter Period October - April	
Statistic	Limits	Alternative* Fuel Ratios	Limits	Alternative* Fuel Ratios
Thermal Efficiency (heat rate)	Maximum of _____Btu/kwh		Maximum of _____Btu/kwh	
Percentage of Btu from:				
Coal	_____% to _____%	_____%	_____% to _____%	_____%
Oil	_____% to _____%	_____%	_____% to _____%	_____%
Gas	_____% to _____%	_____%	_____% to _____%	_____%
Nuclear	_____% to _____%	_____%	_____% to _____%	_____%
Line Loss	Maximum of _____%		Maximum of _____%	

*These alternative fuel ratios must be used in calculating the fuel cost, if actual performance falls outside the limit values.

Assessment for Estimating Accuracy

In the event that the estimated total energy cost per kwh for any three consecutive months exceeds by more than 5% the actual cost per kwh for those same months, the company shall submit an explanation. If the company cannot show that the estimate was realistic and the actual cost was the lowest overall cost that could have been incurred, the Commission may, at its discretion, assess the company, for the purpose of recovering administrative costs of handling the adjustment, in an amount not to exceed the difference between the amount billed to customers under the estimated rate and the actual increase in energy costs for those billing periods.

APPENDIX B

STATE CORPORATION COMMISSION OF KANSAS

ENERGY COST ADJUSTMENT CLAUSE
ELECTRIC UTILITIES

ECA - 2

Rate Schedules Covered: Rate schedules of all cooperatives and municipals which purchase substantially all power and who elect to adopt this clause, excepting rate schedules for self-billing customers.

Computation Formula

The rates for energy to which this adjustment is applicable shall be increased or decreased by .001¢ per kilowatt-hour (kwh) for each .001¢ (or major fracti thereof) increase or decrease in the aggregate cost of energy per kwh as computed by the following formula:

$$\left(C - b\right) \frac{P}{S} = \text{Adjustment}$$

Where:

C = The actual total purchased power cost in ¢/kwh purchased for the latest month for which data are available.

b = Actual purchased power cost in ¢/kwh purchased established during the base period. The base period is defined as the period from which data were taken in establishing the base rates to which the energy adjustment will be applied.

P = Actual purchases in kwh for the most recent twelve-month perio ended December 31.

S = Actual sales in kwh for the most recent twelve-month period ended December 31.[1]

Frequency of Computation

The new adjustment amount should be computed no more frequently than once each month.

Settlement Provision

Subsequent to the effective date of this clause, the company shall maintain a continuing monthly comparison of the actual increased (decreased) cost of purchased power as shown on the books and records of the company and the increased (decreased) dollar cost of purchased power recovered from customers.

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1 If actual sales reflect a line loss factor greater than the limit value, restatement of sales based on the limit value shall be required.

For each twelve-month billing period ending at the close of December, the cumulative difference of the monthly comparisons for the twelve-month billing period under consideration shall be added to the "Actual Cost Remainder" described below to produce a cumulative balance. The "Settlement Factor" shall then be calculated by dividing the cumulative balance as of that date by the total number of kwh deliveries during the twelve-month period ending on that date. This amount shall be rounded to the nearest .001¢/kwh to determine the increase or decrease which should be made to the energy cost adjustment. This "Settlement Factor" shall remain in effect until superseded by a subsequent "Settlement Factor" calculated according to this provision.

The amounts collected or returned under this "Settlement Factor" for each twelve-month period shall be compared with the cumulative balance, as described above. Any resulting overage or underage, which shall be known as the "Actual Cost Remainder," shall be applied to the next subsequent twelve-month cumulative balance for the purpose of calculating the next subsequent "Settlement Factor."

Billing Other Than Monthly

For those customers billed less frequently than monthly, the adjustment will be the average adjustment for the period for which these customers are being billed. The average adjustment will be computed by weighing the monthly adjustment amount (¢/kwh) by the relative volume of total sales during the period under which that particular adjustment amount was in effect.

Reporting Requirements

The company shall submit to the State Corporation Commission on or before the fifteenth day of each month an energy adjustment report, in a format prescribed by theCommission, showing the calculations for the next month's energy adjustment rate.

Line Loss Limitation

In the event that the line loss statistic for the most recent twelve-month period ended December 31 shall exceed the limit of _____%, the company will compute the energy adjustment based on the limit value rather than the actual operating statistic value.

APPENDIX C

STATE CORPORATION COMMISSION OF KANSAS

ENERGY COST ADJUSTMENT CLAUSE
ELECTRIC UTILITIES

ECA - 3

Rate Schedules Covered: Rate schedules of self-billing customers.

Computation Formula

The rates for energy to which this adjustment is applicable shall be increased or decreased by .001¢ per kilowatt-hour (kwh) for each .001¢ (or major fraction thereof) increase or decrease in the aggregate cost of energy per kwh as computed by the following formula:

$$\left(C - b\right) \frac{P}{S} = \text{Adjustment}$$

Where:

C = The actual total purchased power cost in ¢/kwh purchased for the latest month for which data are available.

b = Actual purchased power cost in ¢/kwh purchased established during the base period. The base period is defined as the period from which data were taken in establishing the base rates to which the energy adjustment will be applied.

P = Actual purchases in kwh for the most recent twelve-month period ended December 31.

S = Actual sales in kwh for the most recent twelve-month period ended December 31.[1]

Frequency of Computation

The new adjustment must be computed at least annually for the twelve months ending in December, but may be computed in any month upon any change in the supplier rate at the option of the company.

Settlement Provision

Subsequent to the effective date of this clause, the company shall maintain a continuing monthly comparison of the actual increased (decreased) cost of purchased power as shown on the books and records of the company and the increased (decreased) dollar cost of purchased power recovered from custom

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1 If actual sales reflect a line loss factor greater than the limit value, restatement of sales based on the limit value shall be required.

For each twelve-month billing period ending at the close of December, the cumulative difference of the monthly comparisons for the twelve-month billing period under consideration shall be added to the "Actual Cost Remainder" described below to produce a cumulative balance. The "Settlement Factor" shall then be calculated by dividing the cumulative balance as of that date by the total number of kwh deliveries during the twelve-month period ending on that date. This amount shall be rounded to the nearest .001¢/kwh to determine the increase or decrease which should be made to the energy cost adjustment. This "Settlement Factor" shall remain in effect until superseded by a subsequent "Settlement Factor" calculated according to this provision.

The amounts collected or returned under this "Settlement Factor" for each twelve-month period shall be compared with the cumulative balance, as described above. Any resulting overage or underage, which shall be known as the "Actual Cost Remainder," shall be applied to the next subsequent twelve-month cumulative balance for the purpose of calculating the next subsequent "Settlement Factor."

Billing Other Than Monthly

For those customers billed less frequently than monthly, the adjustment will be the average adjustment for the period for which these customers are being billed. The average adjustment will be computed by weighing the monthly adjustment amount (¢/kwh) by the relative volume of total sales during the period under which that particular adjustment amount was in effect.

Reporting Requirements

The company shall submit to the State Corporation Commission on or before the fifteenth day of each month an energy adjustment report, in a format prescribed by the Commission, showing the calculations for the next month's energy adjustment rate.

Line Loss Limitation

In the event that the line loss statistic for the most recent twelve-month period ended December 31 shall exceed the limit of _____%, the company will compute the energy adjustment based on the limit value rather than the actual operating statistic value.

APPENDIX D

STATE CORPORATION COMMISSION OF KANSAS

ENERGY COST ADJUSTMENT CLAUSE
GAS UTILITIES

PGA - 1

Rate Schedules Covered: All rate schedules shall be subject to a purchased gas cost adjustment.

Computation Formula

The specified service rates are subject to adjustment for change in the average cost of gas from all sources of supply purchased. On June 1 of each year, the company will project the average cost of gas for the twelve months ending June 30 of the following year. If at any time during this twelve-month period, the company experiences a change or changes in supplier rates or in sources of supply, the cumulative effect of which change or changes is to produce an increase or decrease in the new projected effective rate for purchased gas from all suppliers of at least 0.1¢ per MCF, then an adjusted average rate shall be determined. The annual cost of gas projection and any revised projections throughout the year will be computed using the following formula:

$$\left(\frac{P + E + S}{(.01)\ V}\right) \quad -b \quad = \quad \text{Adjustment}$$

Where:

P = The estimated total dollar cost of purchased gas to be sold calculated by summing the products of the most recent unit cost of purchased gas from each supplier and the estimated unit purchas from each supplier for the twelve-month period ending June 30. In the event that changes in the rates paid for purchased gas will take place within the current twelve-month period ending June 3 as specified by contract provisions currently in effect, the estimated average unit cost of purchased gas from each supplier for the current twelve-month period ending June 30, may be used in the calculation in place of the most recent unit cost.

E = Estimated net cost (positive or negative) arising from exchange gas transactions that are expected to occur during the twelve month period ending June 30, (account 806), not including storag gas transactions.

S = Estimated cost of stored gas to be withdrawn from storage (account 808) and sold.

V = The estimated sales volume in MCF for the twelve-month perio ending June 30.*

b = Actual purchase gas cost in ¢/MCF established during the base period.

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* If the actual sales volume reflects a line loss factor greater than the limit value, restatement of sales volume, based on the limit value for line loss, shall be required.

Computation Period

The computation period shall be the subsequent twelve-month period ending June 30.

Computation Frequency

The computation shall be made annually on June 1, and each time a change or changes occur in supplier rates or sources of supply, the cumulative effect of which change or changes is to produce an increase or decrease in the new effective rate paid for purchased gas by at least 0.1¢/MCF.

Costs Included

The formula includes only costs which are properly included in FPC Accounts 800, 801, 802, 803, 804 applicable to Kansas; 805, 806, 808, 809; and specifically excludes the cost of any penalties levied by suppliers for overrunning allotments.

Settlement Provision

Subsequent to the effective date of this clause, the company shall maintain a continuing monthly comparison of the actual cost of gas as shown on the books and records of the company, exclusive of refunds, and the cost of gas for the same month calculated by applying to the volumes sold during said month the new estimated effective rate $P + E - S$ used to determine the purchased gas cost adjustments pursuant to these purchased gas cost adjustment provisions. For each twelve-month billing period ended June 30th, the cumulative differences of the comparisons described above will be added to the "Actual Cost Remainder" described below to produce a cumulative balance of overrecovered or underrecovered costs. An "Actual Cost Adjustment" (ACA) shall be computed by dividing the cumulative balance of underrecovered or overrecovered costs by the volume of total sales during the twelve-month period ending on that date. This adjustment shall be rounded to the nearest .01¢/MCF and applied to sales billed on or after the first day of the month following the month in which the adjustment has been approved by the Commission. The "Actual Cost Adjustments" shall remain in effect until superseded by subsequent "Actual Cost Adjustments" calculated according to this provision.

P_{anr} $(.01)\ V_{su}$