

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

FILED
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PUBLIC SERVICE COMMISSION

In the matter of the Application of)
Trigen-Kansas City District Energy)
Corporation for permission, approval,)
and a Certificate of Public)
Convenience and Necessity authorizing)
it to acquire, own, operate, control,)
manage, and maintain a steam heat)
distribution system to provide steam)
heat service, and for approval of)
its rates and rules and regulations)
applying to steam heat service)
(the "Application").)

Case No. HA-90-5

MEMORANDUM IN SUPPORT OF THE APPLICATION
OF TRIGEN-KANSAS CITY DISTRICT ENERGY CORPORATION

COMES NOW the applicant, Trigen-Kansas City District Energy Corporation, a Delaware corporation ("Trigen"), and submits this Memorandum which identifies certain issues pertinent to Trigen's Application. Resolution of these issues in a manner satisfactory to Trigen is a prerequisite to Trigen's acquisition and operation of the Kansas City steam distribution system (the "System").

The System is presently owned by Kansas City Power & Light Company ("KCPL"). The System is operational and provides steam service to over one hundred (100) users within KCPL's present service area. The System has, however, been losing both money and customers for several years. Steam sales have dropped from approximately 1.3 million M pounds per year in 1973 to .4 million M pounds in 1988. In 1986, the Public Service Commission (the "Commission") reviewed KCPL's request for a rate increase for steam service and agreed that a substantial revenue deficiency existed based on a traditional revenue requirement basis for an ongoing business.

Notwithstanding the problems inherent in operating the System, Trigen has agreed to purchase the System from KCPL pursuant to the terms of the Central Station Steam Distribution System Sales Agreement, a copy of which has been submitted to the Commission. Trigen believes that its financial strength and management expertise in the steam industry, together with the Commission making the regulatory findings requested herein, will permit the System to remain viable and continue to service customers in the Kansas City metropolitan area. Without the regulatory findings requested herein, Trigen does not believe the System can be operated profitably and would be reluctant to proceed with its acquisition of the System from KCPL.

The purposes of this Memorandum are to:

(1) Provide a brief overview of applicable Missouri law governing permissible rates for utilities subject to the Commission's jurisdiction;

(2) Outline Trigen's proposed rate structure for the System and the supporting authority under Missouri law for such rates;

(3) Request a finding by the Commission that Trigen may enter into service contracts with customers located outside Trigen's proposed service area which will not be subject to review or approval by the Commission;

(4) Request a finding by the Commission that Trigen may enter into long-term steam service contracts of three (3) years duration or longer with customers, wherever located, which will not be subject to review or approval by the

Commission; and

(5) Discuss the basis upon which the Commission should waive its standard practice of denying rate increases to the acquiring company in conjunction with the consolidation, merger or acquisition of control of a utility under the Commission's jurisdiction.

I. MISSOURI LAW GOVERNING UTILITY RATES

Chapter 393 of the Missouri Revised Statutes (hereinafter "Mo. Rev. Stat.") governs the regulation of gas, electric, water, heating and sewer corporations. Under present Missouri law, Trigen's operation of the System will bring it within the definition of a "heating company" contained in Mo. Rev. Stat. § 386.020(17). Thus, the provisions of Chapter 393 governing permissible rates will be applicable to Trigen's operation of the System. All charges made or demanded by a heating company for any service provided by the heating company to its customer must be "just and reasonable and not more than allowed by law or by order or decision of the commission." Mo. Rev. Stat. § 393.130(1). All "unjust or unreasonable charges" for heating services or charges in excess of those allowed by law or by order or decision of the commission are expressly prohibited. Id. Further, rates charged by a heating company for services provided to its customers may not be unduly or unreasonably preferential or prejudicial. Mo. Rev. Stat. § 393.130(2) and (3).

The Commission has authority to fix a maximum rate for utility services to be furnished to customers. Mo. Rev. Stat. § 393.270(2). The price fixed by the Commission is the maximum

price which the utility may charge for services to be furnished in the utility's territory. Mo. Rev. Stat. § 393.270(3). The Commission also has authority to require each heating company subject to its jurisdiction to file with the Commission and to print and keep open for public inspection schedules showing all rates and charges to customers. Mo. Rev. Stat. § 393.140(11). The Missouri Supreme Court has stated that the principle underlying these statutory provisions is that the rates charged by a utility to its customers should be "definite and published in order to insure stability and notice of rates to consumers and in order that consumers understand their rates and thus have the knowledge necessary to determine if complaint is warranted. . . ." State ex rel. Utility Consumers Council of Missouri, Inc., et al. v. Public Service Commission of Missouri, et al., 585 S.W.2d 41, 49 (Mo. 1979). (This case is hereinafter referred to as the "UCCM" case).

Mo. Rev. Stat. § 393.130(4) permits an exception to the requirement that there be a "maximum rate" for utility service to customers which is both "definite and published." Mo. Rev. Stat. § 393.130(4) reads as follows:

Nothing in this section shall be taken to prohibit a gas corporation, electric corporation, water corporation or sewer corporation from establishing a sliding scale for a fixed period for the automatic adjustment of charges for gas, electricity, water, sewer or any service rendered or to be rendered and the dividends to be paid stockholders of such gas corporation, electric corporation, water corporation or sewer corporation. . . .

Mo. Rev. Stat. § 393.130(4) is made applicable to steam companies by Mo. Rev. Stat. § 393.290.

Although no statutory definition of a "sliding scale" appears under applicable Missouri law, the Missouri Supreme Court went to great lengths to define such term in the UCCM case. In particular, the Supreme Court cited with approval the case of Bertha A. Mining Co. v. Empire District Electric Co., 235 S.W. 508 (Mo. App. 1921), which defined a sliding scale as "tying automatic adjustment of charges to dividends to be paid stockholders." UCCM at 54. The Court of Appeals in the Bertha Mining case cites with approval language from Ponds on Public Utilities, § 463 defining a sliding scale as one "whereby the income which the municipal public utility is permitted to earn is increased as the rate charged for the service rendered is decreased." Bertha Mining at 510. The Court of Appeals in the Bertha Mining case and the Supreme Court in the UCCM case both quoted with approval the following language from In re Boston Consolidated Gas Company, Massachusetts Board of Gas and Electric Light Commissions, 1919A P.U.R. 699:

The essential characteristic of this method of regulating the price of gas is by a prearranged automatic and interdependent adjustment of the price to consumers and the rate of dividends to stockholders, whereby for every decrease or increase in the price the stockholders are permitted an increase or suffer a decrease in the rate of dividend.

UCCM at 55. The basic premise underlying a sliding scale is that the income which a utility earns is permitted to increase as the rate charged for the service rendered to customers is decreased. For example, a tariff which permits the utility to earn additional income as it reduces its charges to customers would fall within the definition of a permissible sliding scale.

A second exception to the requirement of a maximum utility rate is the use of fuel adjustment clauses and similar clauses which provide that, as the designated cost item varies, utility prices will be allowed to vary in direct proportion. In a case titled Hotel Continental v. Burton, 334 S.W.2d 75 (Mo. 1960), the Missouri Supreme Court authorized KCPL to include in its rate schedule a tax adjustment clause which permitted KCPL to state separately on each customer's bill a charge equal to any part of a license, occupation, or similar fee or tax applicable to service by a utility to that customer and imposed by local taxing authorities on the basis of gross receipts. Subsequently, in the UCCM case, the Missouri Supreme Court limited the use of fuel adjustment clauses ("FAC's") in Missouri when it held that the Commission lacks statutory authority to approve the use of such clauses in the case of utility services provided to residential customers. UCCM at 51-58. The Court expressly noted that although FAC's had traditionally been permitted as a part of industrial and commercial rate schedules, that issue was not before the Court in the subject case. UCCM at 44.

II. TRIGEN'S PROPOSED RATES ARE AUTHORIZED UNDER MISSOURI LAW

Trigen proposes to establish through its tariff a maximum rate for steam service to customers located within its proposed service area. This maximum rate is based on two (2) assumptions. First, that the fuel mix utilized by Trigen to generate steam will be 70% coal and 30% natural gas and oil. Second, that Trigen's projected average fuel cost will be \$1.85/mmBtu (LHV). The rates charged by Trigen to customers located within Trigen's proposed service area

will not exceed the maximum rate approved by the Commission, regardless of fluctuations in variable operating costs. However, to the extent Trigen achieves fuel cost savings either through increasing its ratio of coal to natural gas and oil used as Trigen's fuel source or through achieving cost savings in buying fuel, thereby reducing Trigen's average fuel cost below \$1.85/mmBtu (LHV), customers located within Trigen's proposed service area will receive a refund which will be credited against future bills. Under Trigen's rate proposal, 70% to 80% of the fuel cost savings achieved will be passed on to customers and 20% to 30% of such savings will be retained by Trigen, thus giving Trigen incentive to minimize its fuel costs and utilize the most economical sources of fuel.

More particularly, under Trigen's tariff, customers will be assessed a fixed monthly charge (the "Base Charge") which will be based on each customer's annual average steam consumption for calendar years 1986, 1987 and 1988 (or estimates where necessary) and a fuel rate of \$3.89 per one thousand pounds of steam consumed. On September 1 of each year, Trigen will forecast the mix of coal, gas and oil it anticipates utilizing to generate steam in the ensuing twelve (12) month period and will adjust the Base Charge accordingly. Thereafter, each month Trigen will compare its weighted average cost of fuel with the projected cost, and, in the following month, will credit each customer's bill in an amount equal to the fuel cost savings per mmBtu multiplied by a factor calculated to return 70% to 80% of the fuel cost savings to customers.

No adjustment to the amounts charged to customers is proposed where the ratio of coal to natural gas and oil utilized by Trigen is within 5% of the projected 70%/30% mix. For example, in the event the actual use of coal as opposed to natural gas and oil differs by more than 5% from the forecasted ratio, Trigen will recalculate the prior twelve (12) months' invoices in light of the actual fuel mix and issue a credit or surcharge to each customer, payable over the ensuing three (3) months; provided, however, that in the event of a surcharge, the surcharge amount will not cause the total charge to exceed the maximum approved rate.

Trigen believes these rates are statutorily authorized in that:

(1) Maximum rates will be on file with the Commission and open to inspection by customers in accordance with Mo. Rev. Stat. §§ 393.140(11) and 393.270(2) and (3); and

(2) The component of Trigen's proposed tariff which provides that fuel cost savings will be shared by Trigen and its customers constitutes a sliding scale which is statutorily authorized under Mo. Rev. Stat. § 393.140(4). As fuel savings are achieved, 70% to 80% of such savings will be passed through to customers and 20% to 30% of such savings will be retained by Trigen. Utility rates for customers located within the service area will decrease and Trigen's income will correspondingly increase. Thus, Trigen's rate proposal clearly falls within the definition of a sliding scale as espoused by the Court of Appeals in the Bertha Mining case and the Missouri Supreme Court in the UCCM case. The tariff rates

proposed by Trigen are designed to provide Trigen with incentive to achieve fuel cost savings by permitting the company to participate in such savings, while at the same time passing the vast majority of any such savings (70% to 80%) through to customers located in its service area.

As additional support for Trigen's proposed rates, the Commission has previously endorsed the use of rates based on "forecasted fuel prices" and "forecasted fuel prices, with refundability protection." In re Missouri Power & Light Company, 24 Mo. P.S.C. (N.S.) 257 (March 13, 1981) and In re Kansas City Power & Light Company, 43 Pub. Util. Rep. (PUR) 559 (July 17, 1981). In allowing rates based on forecasted fuel prices, the Commission in the Missouri Power & Light Company decision noted that:

Since fuel costs represent such a large portion of the Company's expenses and earnings, any substantial increase in fuel costs will cause a more substantial erosion of its earnings than would be the case of a company with a large generation capacity and the corresponding extensive rate base.

Missouri Power & Light Company at 267. Trigen's proposed rates include a maximum rate based on projected fuel costs with a refundability component. Further, Trigen's fuel costs will constitute a substantial percentage of its operating expenses, thereby impacting heavily on Trigen's earnings. Based on the Commission's rationale in deciding the KCPL and Missouri Power & Light Company cases, the Commission should approve Trigen's proposed tariff rates.

Trigen's proposed rates for steam service to customers located within its service area differ substantially from the FAC struck

down by the Missouri Supreme Court in the HCCM case. These differences include, without limitation, the following:

(a) Trigen will service only commercial and industrial customers who will presumably be more knowledgeable and experienced in the interpretation of utility rates than the general public;

(b) The Commission will not be abdicating its rate-making function in that it has approved a specified maximum rate pursuant to Mo. Rev. Stat. §§ 393.270(2) and (3) which will be on file with the Commission and available for public inspection in accordance with Mo. Rev. Stat. § 393.140(11);

(c) Trigen's rates include only a refundability provision for fuel cost savings and not an escalation clause;

(d) Trigen's rates would be definite and published with the Commission in order to ensure stability and notice of rates to customers;

(e) The sophisticated and experienced nature of Trigen's customers will eliminate the possibility that customers will be misled or confused by Trigen's proposed steam rates;

(f) Trigen will retain an incentive to minimize fuel costs and select economically efficient fuel sources in that cost savings will be shared by Trigen and its customers.

Thus, the objections frequently raised with respect to fuel adjustment clauses are not applicable to the rates proposed by Trigen. By utilizing these rates, Trigen believes that it can maintain and expand its customer base within its proposed service area, enhance the financial viability of the System, and provide

reliable, quality service to its customers.

Although Trigen has not elected, at this time, to include an FAC in its proposed rates, Trigen believes that, based on the Court's rationale in the UCCM case, an FAC is authorized under Missouri law given the facts and circumstances at issue regarding Trigen and the System. Trigen bases its position on the following factors which distinguish Trigen and the System from the facts confronted by the Court in the UCCM case:

(1) As previously noted, Trigen's customers are limited to commercial and industrial users. In the UCCM case, the Court acknowledged that FAC's have been used in regard to industrial and large commercial users for in excess of sixty (60) years. UCCM at 54. The Court further stated on numerous occasions that the issue of the application of FAC's to commercial and industrial users was not before the Court. The commercial and industrial customers who will be served by Trigen will be more knowledgeable, sophisticated and experienced with respect to utility rates than residential customers. Therefore, the Commission's involvement is not necessary in order to assure that customers are aware if rate complaints are warranted.

(2) A properly formulated FAC would provide Trigen with a continuing incentive to minimize fuel costs by allowing cost savings to be shared by Trigen and its customers. For example, an FAC could be structured in a manner similar to the sliding scale discount presently proposed by Trigen, whereby increases and decreases in fuel prices would be shared by Trigen and its

customers, thereby providing Trigen with incentive to minimize fuel costs and utilize the most economically efficient fuel sources.

Attached hereto as Exhibit A and incorporated herein by reference are the most recent tariff rates for steam filed by KCPL and approved by the Commission. It is Trigen's understanding that these rates were approved by the Commission in June of 1982, more than two (2) years after the UCCM case was decided by the Missouri Supreme Court. These tariff rates include both a fuel adjustment clause and a tax adjustment clause. In addition, the Commission has previously approved a private contract between KCPL and National Starch and Chemical Corporation (which has traditionally been the largest user of steam distributed through the System and which is located outside KCPL's current service area and Trigen's proposed service area) which includes a variety of adjustment clauses based on increases or decreases in KCPL's operating expenses. Trigen believes that these facts provide the Commission with additional precedent for finding that Trigen's proposed rates for steam service to customers located within its service area are authorized under Missouri law.

III. CONTRACTS FOR STEAM SERVICE BETWEEN TRIGEN AND CUSTOMERS LOCATED OUTSIDE THE PROPOSED SERVICE AREA SHOULD NOT BE SUBJECT TO REVIEW OR APPROVAL BY THE COMMISSION

The Missouri Supreme Court has recognized that the dual purpose of the Commission is to protect the consumer against the natural monopoly of a public utility, as provider of a public necessity, while at the same time permitting recovery by the utility of a just and reasonable rate of return. UCCM at 47. The

Commission's role is to supervise, regulate and control the public utilities within its jurisdiction. Id. at 48. The Commission lacks jurisdiction over a corporation to the extent that it is not operating as a public utility. City of St. Louis v. Mississippi River Fuel Corporation, 97 F.2d 726, 729 (8th Cir. 1938).

Both the Missouri Supreme Court and federal courts applying Missouri law have ruled that the principal factor to be considered in determining whether a corporation is a public utility is whether the corporation is providing services "for public use." City of St. Louis at 729 and State ex rel. Lohman & Farmers' Mutual Telephone Co. v. Brown, et al., 19 S.W.2d 1048, 1049 (Mo. 1929). In the City of St. Louis case, the court stated that the provision of services for public use is the "distinctive badge of a public utility, and the characteristic by which it is determined whether a particular business is or is not a public utility. The statutes of Missouri create a Public Service Commission with certain defined powers over public utilities including common carriers, pipe line corporations, gas corporations, electrical corporations, and others." City of St. Louis at 729.

In State ex rel. M.O. Danciger & Co. v. Public Service Commission, 205 S.W. 36 (Mo. 1918), the Missouri Supreme Court was asked to determine whether an electric company was a public utility and, therefore, subject to the Commission's jurisdiction. The court held that whether or not the corporation was a public utility depended upon whether or not it furnished electricity "for public use." Danciger at 40. In rendering its decision, the Supreme Court analyzed whether the corporation was providing electricity

"to the community in general" and whether the corporation was willing to "sell to the public indiscriminately at regular rates." Id. at 41-42. In holding that the corporation did not constitute a public utility, the Court noted that rather than offering electricity indiscriminately to the public, the corporation had chosen to enter into special contracts upon their own terms. Id. In the City of St. Louis case, the Supreme Court similarly concluded that the term "for public use" meant "the sale of gas to the public generally and indiscriminately, and not to particular persons under special contracts." City of St. Louis at 730.

The Missouri Supreme Court has also held that a corporation may be a public utility subject to the Commission's supervision and regulation regarding certain aspects of its operations, while other aspects constitute a private business not subject to the Commission's regulations. Lohman at 1049.

In applying this Missouri precedent to Trigen's proposed operations, it is clear that:

(1) Within Trigen's proposed service area where it will be offering steam indiscriminately to the general public at tariff rates, Trigen will be acting as a public utility subject to regulation by the Commission; and

(2) In instances where Trigen is offering steam to customers located outside its proposed service area pursuant to special contracts, Trigen will not be offering steam indiscriminately to the general public at regular rates, will not be acting as a public utility as that term is defined under applicable Missouri law, and, therefore, will not be

subject to supervision or regulation by the Commission.

Based on this analysis, Trigen should be permitted to enter into contracts to provide steam service to customers outside its proposed service area without the necessity of review or approval of these contracts by the Commission. Since these contracts are not subject to Commission review and approval, their terms (including rates) will be dictated solely by arm's length negotiations between Trigen and the commercial or industrial customer. To the extent Trigen and such a customer agree to rates which include an FAC or similar clause which adjusts rates on the bases of increases or decreases in operating costs, these rates should be valid, enforceable and exempt from review by the Commission.

IV. LONG-TERM CONTRACTS FOR STEAM SERVICE WITH CUSTOMERS, WHEREVER LOCATED, SHOULD NOT BE SUBJECT TO REVIEW OR APPROVAL BY THE COMMISSION

Trigen believes that certain customers located within its proposed service area will want to enter into long-term steam service contracts which assure said customers that their long-term needs for steam will be satisfied at a fixed or predetermined rate. Trigen further believes that said customers will insist that the terms of these contracts not be available for public inspection in order to prevent disclosure of operating costs, production procedures and other proprietary information to competitors. The terms of these contracts would be subject to arms length negotiations between Trigen and the customer. In the event Trigen is unable to provide steam service to these customers on a long-term, confidential basis, Trigen believes these customers will

pursue the use of alternative energy sources. As a general rule, Trigen believes that customers demanding this type of service will be large commercial and industrial users with relatively large, year-round steam requirements.

In response to this perceived demand, Trigen is requesting a finding from the Commission that contracts of three (3) years duration or greater to provide steam service to customers located within its proposed service area be excepted from the Commission's review and approval. Trigen believes that such a finding by the Commission would be of great assistance in marketing the System to large, high volume steam users with year-round needs, thereby permitting Trigen to increase system load and burn more coal and less natural gas and oil which, in turn, reduces the per unit cost of steam to all customers located in the service area.

As noted in Section III of this Memorandum, the Commission's jurisdiction extends only to those entities providing utility service "for public use." City of St. Louis at 729 and Lohman at 1049. In determining whether utility services are being provided for public use, the Missouri Supreme Court has looked to whether the services in question are being provided "to the community in general" and whether the corporation was willing to "sell to the public indiscriminately at regular rates." Danciger at 41-42. With respect to long-term steam service contracts, Trigen will generally be providing a specialized service to customers meeting established criteria (i.e., large demand, year-round use, process use, etc.). The services offered in these long-term contracts will not be offered to or needed by the majority of customers located

not be offered to or needed by the majority of customers located within the proposed service area. Thus, the sale of steam to customers pursuant to long-term contracts does not constitute the providing of a utility service "for public use" and Trigen should not, therefore, be considered to be a public utility in providing such contractual services. This argument is consistent with the Missouri Supreme Court's decision in the Lohman case where the Court held that a corporation may be a public utility with respect to certain aspects of its operations, while other aspects constitute a private business not subject to the Commission's jurisdiction. Lohman at 1049.

Further, the Commission would not be abdicating its responsibility to protect consumers against the natural monopoly of a true public utility because, as previously noted: (1) the market regulates the steam industry through the availability of numerous, unregulated fuel sources (i.e., unregulated fuel oil and the unregulated cost of installing and operating a boiler); and (2) the subject customers will likely be knowledgeable and experienced in negotiating utility rates thereby making Commission regulation unnecessary.

Trigen believes that the authority cited above supports the Commission's finding that long-term contracts of three (3) years duration or greater to provide steam service to customers, wherever located, are not subject to the Commission's review or approval.

- V. THE COMMISSION SHOULD APPROVE TRIGEN'S PROPOSED RATES FOR STEAM SERVICE TO CUSTOMERS SO LONG AS THEY ARE JUST, REASONABLE AND NONDISCRIMINATORY, NOTWITHSTANDING THE FACT THAT THE COMMISSION'S PAST PRACTICE HAS BEEN TO DENY RATE INCREASES OR MODIFICATIONS IN CONNECTION WITH THE CONSOLIDATION, MERGER OR ACQUISITION OF A UTILITY

It is Trigen's understanding that the Commission has historically denied applications for rate increases or modifications filed in conjunction with the consolidation, merger or acquisition of a utility. It is Trigen's further understanding that this practice is not the subject matter of any formally adopted regulation.

Trigen believes that a proposed rate modification is necessary to assure the continued viability of the System. KCPL has historically operated the System at rates which are not adequate to cover the expenses of operating the System and provide a reasonable rate of return to KCPL. In fact, the Commission acknowledged the inadequacy of KCPL's rates when, in 1986, the Commission agreed that a substantial revenue deficiency existed with respect to the System based on a traditional revenue requirement basis for an ongoing business. Based on Trigen's experience in the steam distribution business, Trigen believes that its proposed rates will not result in a significant loss of customers to the System and will, in the long term, return the System to an independently viable operation. The Commission should also note that KCPL has not received a rate increase for steam distribution services since 1982.

In the interests of assuring that the System remains operational and avoiding hardship to certain customers of KCPL who would be forced to convert from district steam to an alternative energy source, Trigen requests that the Commission except this transaction from its past practice and allow Trigen to modify and, if necessary, increase the rates charged to customers of the System

over those rates previously filed by KCPL and approved by the Commission.

VI. CONCLUSION

Although Trigen acknowledges that its operation of the System will constitute it a "heating company" as that term is defined in Mo. Rev. Stat. § 393.020(17) and that Trigen will, therefore, constitute a public utility subject to supervision by the Commission within its service area, Trigen believes that the factors which led to steam companies being classified as public utilities no longer exist. This argument is based in part on the fact that the monopolistic aspects of other utilities (*i.e.*, electrical, gas and telecommunications companies) do not exist within the steam heating industry and, therefore, that the Commission's supervision is not necessary. Customers of the System will have numerous alternative energy sources available to them, and will be free to shift from one energy source to another based on their individual needs and economic conditions. Because of these competitive pressures, state regulation of the steam heating industry is not necessary in order to assure fair treatment of customers. Because of the lack of any compelling need for regulation of the steam heating system, the Commission should appropriately exercise its considerable discretion in reviewing and acting positively upon the Application and requests of Trigen. In considering the issues raised in this Memorandum, the Commission should not forget its dual purpose. Not only was the Commission formed to protect consumers against the natural monopoly of a true public utility, as provider of a public necessity, but also to

permit the utility to earn a just and reasonable rate of return. UCCM at 47.

On a practical level, the Commission is confronted with a situation whereby the System will likely be closed if the proposed transaction between Trigen and KCPL cannot be consummated. Closure of the system would result in undue hardship to in excess of one hundred (100) present customers of the System. Trigen is willing to purchase the System at substantial cost and to place its management expertise and experience behind the promotion and development of the System. However, Trigen's willingness to proceed with the transaction is predicated upon: (1) approval of Trigen's proposed rates; (2) the willingness of the Commission to permit Trigen to enter into special contracts with customers located outside its proposed service area which will not be subject to Commission review or approval; and (3) the willingness of the Commission to permit Trigen to enter into long-term steam service contracts with customers, wherever located, which will not be subject to Commission review or approval. By approving Trigen's requests contained in this Memorandum, Trigen believes that the Commission is satisfying its dual responsibility to protect consumers while at the same time ensuring the continued viability of the System upon terms reasonably acceptable to the System's owner.

Subject to the Commission's approval of the issues raised herein, Trigen is prepared to seek approval of the acquisition by Trigen's Board of Directors, to close the acquisition of the System

from KCPL and to operate the System for the joint benefit of its customers and Trigen.

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MEMORANDUM

TO: Missouri Public Service Commission
FROM: Thomas R. Casten
DATE: September 7, 1989
RE: Kansas City Power & Light Steam System Purchase
FILE: TRC Commission

FILED
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PUBLIC SERVICE COMMISSION

This memorandum asks the Commission to approve the sale of the KCP&L steam system and Grand Avenue power plant to Trigen Energy Corporation's wholly-owned subsidiary, Trigen-Kansas City District Energy Corporation, (Trigen) at the agreed price of \$6,000,000 and per the terms of the submitted contracts covering 1) sale of the system, 2) operating agreement, and 3) steam sales to KCP&L. It is further requested that the Commission approve the proposed "sliding scale" rates, that the Commission waive jurisdiction over negotiated contracts of three years or longer, and that the Commission agree to issue a Certificate of Convenience and Necessity to Trigen for the operation of the Kansas City steam system.

This memorandum explains the proposed contracts and steam rates which are attached and discusses Trigen's approach, our plan to make the system financially healthy and our plans for system expansion and fuel switch. It also provides background on Trigen and its parent shareholders.

1. Who is Trigen Energy Corporation?

Trigen Energy Corporation (Trigen) is headquartered in White Plains, New York, and specializes in the development, ownership, and operation of district heating and cooling systems. At present, Trigen owns and operates systems serving Trenton, New Jersey; Tulsa and Oklahoma City, Oklahoma; and London, Ontario, Canada. In addition, Trigen operates a system for Nassau County, New York, and will commence construction this fall on a 50 megawatt cogeneration plant and expansion of the Nassau heating and chilling plant.

Trigen has two parent corporation shareholders who also specialize in district energy. Cofreth, a majority owned subsidiary of Societe Lyonnaise des Eaux, operates 70 district energy plants with over 440 miles of distribution pipe in a variety of locations and is among the largest operators of district systems in the world in terms of number of systems. The other Trigen parent shareholder, Compagnie Parisienne De Chauffage Urbain (CPCU), is also partly owned by Societe Lyonnaise des Eaux, and is the owner and operator of the Paris, France district heating system, which we believe is the second largest in the free world.

The U.S. management team of Trigen has been active in the development and operation of district energy systems in North America since 1980, and has access to unlimited technical support of its parent corporations. Thus, Trigen believes it has the capability of effecting technical solutions to the problems of district energy.

2. What is Trigen's Plan for Kansas City?

As the Commission is aware, the district steam system in Kansas City has been losing money and losing customers for several years. KCP&L's last rate increase was approved in 1982. The Commission reviewed rates in 1986 and staff apparently agreed with KCP&L that a substantial rate increase would be needed to provide allowed rates of return, but felt that the prices charged for steam in 1986 were so high, that any price increase would cause additional loss of steam sales and would help kill the steam system. Trigen agrees that the system cannot be made healthy solely with price increases and has developed a comprehensive plan to reduce real costs, which includes the following:

- 2.A. Upgrade maintenance to the Grand Avenue Station so the station can burn coal reliably whenever the total system steam sendout is above 75 thousand pounds ("Mib") per hour, thus replacing 70 to 100% of the natural gas (the most recently used fuel) with coal. (Note that the Grand Avenue plant was designed to produce roughly 1,000 Mib of steam per hour, and a single boiler cannot operate below about 75 Mib per hour on coal, but must switch to gas and operate in an less efficient mode. At 1988 loads there were about 4000 hours when the steam sendout was less than the required 75 Mib per hour.)
- 2.B. Change the steam rate structure in order to send clear and accurate signals to customers about the marginal costs of steam production. Trigen proposes a fixed annual base charge spread equally over 12 months for the supply of service and a usage charge for the measured consumption of steam, thus marginally pricing steam and encouraging its more rational use, especially for process use and to produce chilled water in the summer months. As users respond to these marginal steam prices, Trigen expects to see a leveling of the system load and improvement in the load factor, and a consequent increase in the number of hours with over 75 Mibs per hour sendout, i.e. hours with enough load to allow coal to be burned instead of gas.
- 2.C. Aggressively market steam under long term contracts to industrial users who have process loads. These sales will help to pay for the fixed costs of the system and will increase the number of hours which require at least 75 Mib sendout.
- 2.D. Longer term, use steam to produce and sell chilled water, so as to utilize the boiler and system capacity during the summer.

Given that Trigen is prepared to make these commitments and will, for purposes of steam service, upgrade and maintain the Grand Avenue Station as a reliable generator of medium pressure (650 psig) steam, KCP&L has agreed to sign a five year contract with Trigen to maintain and provide on call up to 750 Mib of steam per hour to be used in existing steam turbines at Grand Avenue to generate electricity during KCP&L electrical system peaks. This five year contract is, in essence, a specialized industrial or process sale and allows Trigen time to sell and connect other users and return the system to health without making excessive subsidies of operating costs during the first years of operation.

Trigen's plan recognizes that most of the system's operating costs, other than fuel, and almost all of the losses of energy in the distribution system are fixed, and do not vary with changes in amount of steam sold. A principal reason the steam system is in financial trouble is because it was built to serve a much larger load, and the Grand Avenue plant is inherently inefficient at today's smaller loads. The present system has an extensive distribution system which was designed to supply four times the present load. This distribution system will support major growth of sales, but for the present has fixed thermal losses which are very high as a percentage of today's reduced sales. These thermal losses in the distribution system will stay relatively constant with added sales, except for those sales that require system extensions, and the percentage of losses will therefore drop.

At present, the fixed costs are in excess of the revenues net of the cost of fuel and the system is in a "death spiral". If steam rates were raised substantially in order to cover present costs, more customers might leave the system. With the present rate structure, no new customers are likely to sign up. Trigen believes that its new rate structure will, over time, prove attractive to new users and help increase system sales.

We ask the Commission to recognize that this situation is unique to this steam system and requires decisions which the Commission may have found inappropriate for other state regulated utilities. The unique aspects of the present case include:

- 1) There has been an erosion of confidence in the steam system's ability to provide cost effective, competitively priced steam service. Potential new customers, who are asked to forego other competitive options, such as installing their own on-site boilers, are asking for the certainty of long term contracts where all escalation is spelled out and under which they can be sure that their costs will remain competitive with other options.
- 2) The targeted industrial customers are in competitive businesses where the cost of their energy is a significant part of their total product costs. These users demand long term contracts that will not place

their businesses at a competitive disadvantage with other producers who have chosen to produce their own steam and who can purchase fuel from an unregulated market. They also ask that their contracts not be public record, where their competitors can see what their costs are. We believe these industrial users will not purchase long term steam service from Trigen unless there is an arms length negotiated contract, not made public, and not subject to Commission alteration of the rates. To work over the long term, these contracts must include fuel and inflation adjustment factors that keep both parties whole. The addition of steam sales to these industrial customers is vital to a healthy steam system in Kansas City.

3. Trigen's Proposed Rates

The leading Missouri Supreme Court case (State ex rel. Utility Consumers of Mo. v. P.S.C., June 29, 1979) noted that fuel adjustment clauses have "... been permitted as part of industrial and large commercial rate schedules, a matter which is not before us in this case." While the Commission may have exercised its discretionary power to expand the holding of that case to such rate schedules in subsequent circumstances, the validity of such schedules remains legally unchallenged. Most of Trigen's customers are industrial or large commercial, so a rate with a fuel adjustment clause should be permissible. However, Trigen will also serve some commercial users who are small, and rates to these smaller users could be construed to be covered by the above case.

In order to stay within staff guidelines and avoid the issue of a fuel adjustment clause for tariff rates, we ask for approval of a "sliding scale" rate under which the maximum rate is based on the burning of 70% coal and 30% natural gas or oil at projected average fuel cost of \$1.85 / mmBtu, (LHV) Under this rate proposal there will be an approved published rate structure, determined and fixed by the Commission in accordance with its traditional standards, rules and regulations. The price charged to any tariff customer in our certificated service area may not exceed this approved rate, absent further Commission approval, regardless of fluctuations in variable steam costs, such as fuel, electric, labor, etc.

However, we propose a sliding scale discount, in order to pass on the cost savings that will result if there is further switch to coal, and/or any savings are achieved in buying fuel. The proposed adjustment will reduce the energy rates charged each month by 1.6 times the savings per million British thermal units (mmBtu) in weighted average fuel purchase costs versus the targeted \$1.85/mmBtu (lower heating value) for fuel, thus passing on to customers 70% to 80% of the anticipated cost savings.

Under this rate proposal, there will be a fixed charge (annual base charge) payable in equal monthly increments which will be based on the base usage of each customer (or an estimate where required), and a usage charge of \$3.90 per thousand pounds of steam consumed. On September 1 of each year, Trigen will forecast the mix of coal, gas, and oil for the ensuing 12 months, taking account of new steam sales contracts, lost loads, construction schedules for new connections and operational changes to the Grand Avenue Station. Each month Trigen will compare its weighted average fuel cost at the forecast mix of fuels with the base fuel cost, \$1.85 / mmBtu (LHV). The Company will issue a credit, if any, per pound of steam consumed by the customer in the prior month equal to the difference between the weighted average cost and the base cost of fuel, multiplied by a factor of 1.6.

No "true-up" is proposed for any year where the actual fuel mix is within a plus or minus 5% of the forecast for each fuel's use as a percent of total. If the actual mix is more than 5% different than forecast for any fuel, then Trigen shall recalculate the prior 12 months' invoices using actual fuel mix and issue a credit or a surcharge, payable over the next three months.

4. Gross Receipts Tax

Part of the problem of economic operation of this steam system in past was the 10% gross receipts tax on all heating revenues imposed by the City of Kansas City. This represented an 11.1% addition to steam rates. Users who chose to self generate steam could use oil or self help gas and escape all gross receipts tax, or use regulated gas, in which case the tax would represent about 4 to 4.5% of the user's self generation costs.

As part of this transaction, Kansas City has changed its law to tax district heating sales at 4% of gross receipts. All rates referred to herein are inclusive of the gross receipts tax and thus are totals paid by users.

5. Best Estimate Case

Based on Trigen's acquisition analysis, and assuming no change in the system load in 1990, i.e., no added industrial customers or process loads or summer chilling loads, and no reduction in 1988 sales, we believe we can burn coal for 77% of the annual fuel and will thus have effective steam rates after credit for the downtown customers and, including inflation of present costs of \$12.36 compared to \$11.92/Mlb for 1988 or a 3.72% increase of 1990 rates over 1988 actual rates, well below inflation for the same period. This represents a cost decrease in real dollars. The annual base charge rates include a structure for fixed charges reflecting the economies of scale to Trigen of serving large customers. Thus, individual customers will see savings or increases in the rates they pay for each M pound of steam based on their load factors and the new rate structure. The large users who have summer steam loads, such as hotels and buildings using steam for chilling, will see a reduction in their average rate per M pound and will find that there is less incentive to leave the steam system and install their own boilers. The heating only customers will see an increase in average rates which they can mitigate by using steam at very low marginal rates for domestic hot water production or chilling.

6. Contracts of Three Years or Longer

Trigen is specifically asking the Commission to find that it is not required to regulate the rates charged to any user who voluntarily signs a long term contract (3 years or longer). Such decisions are made in a market environment and are subject to competition with several forms of steam production using unregulated fuel oil, unregulated costs of installing boilers and supporting equipment and unregulated labor costs. Alternatively, a potential customer may use unregulated gas over which the Commission exercises control only with respect to transportation costs. In these cases we believe it is essential to have the freedom to sign long term contracts which have rates that will not be overturned by future Commissions, and which are not a part of the public record, on view for competitors of both Trigen and the user.

7. Why Does Trigen ask for Unregulated Contracts?

State legislators have mandated Public Service Commission regulation of heat systems in some States and not in others. In cases of heat regulation, it was arguably a result of the origin of district heating systems in that State. The first steam systems, were constructed in the early 1900's by electric utilities and were used to sell otherwise wasted heat from electrical generation. At the time these systems commenced, there were no natural gas pipelines and only coal-gas was available in the large cities. Oil was not a competitive fuel and the only realistic alternate fuel was coal.

Furthermore, the systems were fed from joint cogenerating boiler plants which also produced regulated electricity. It was difficult to allocate parts of the same boiler and parts of labor to regulated and unregulated businesses, so there was, in some States, regulation of heat sales.

In the past 30 years, there has been an emergence of other competitive forms of heat, including natural gas pipelines and freedom for large users to purchase unregulated natural gas at the wellhead. Oil has become a competitive fuel, and new technologies have emerged such as heat pumps that allow the cost effective use of electricity to produce building heating and cooling. In this new, competitive climate, regulated district energy systems have suffered a brutal loss of business and profitability. They have difficulty responding effectively to these new, competitive challenges and have in general lost business and often had to be closed.

In the last ten years, Rochester NY saw its utility owned steam system nearly shut down and finally sold to a Co-op of customers, as also occurred in Pittsburgh PA. Regulated systems in St. Louis, Philadelphia, Youngstown, OH., Boston, Baltimore, and other smaller cities all went into a cycle of lost sales and were sold. St. Louis was removed from PSC regulation. By contract, new district heating systems have been built in Trenton, NJ; Minneapolis, MN; St. Paul, MN; and in other smaller cities, none of which are subject to full rate regulation. These systems are successfully competing for process and industrial loads and have spread their costs and become competitive suppliers of heat, whereas the regulated systems have had large users leave their systems, and have seen few new users, if any.

We appreciate that it is the task of the Missouri Legislature to decide whether heating systems are to be subject to Commission regulation as to rates and we will, if approved to purchase this system, seek a change in

Missouri law to remove heating system rates from the Commission's jurisdiction. In the meantime, we ask the Commission to find, within its broad discretionary power, that its present requirement to regulate heating systems carries with it a responsibility to insure the continuance of the system as a competitive supplier of heat, and that the reality is that industrial users and large commercial users have other unregulated options for the production of steam, and therefore demand the certainty of a long term contract before committing their futures to a steam system. In other words, we ask the Commission to formally agree that it will not regulate Trigen's sales contracts which are for three or more years and are the result of negotiation with a corporation, partnership, governmental unit, or a sophisticated individual able to carry out such negotiation.

As a relevant aside, we note that none of the five other systems operated by Trigen in North America are rate regulated, nor are 38 systems operated by Trigen's parent shareholders.

We propose to make a commitment to all users, regulated and contractual, that we will take all possible steps to increase the system load and use coal as often as is possible, and then share with all users any fuel cost advantages we achieve by burning coal and by buying gas or oil on the spot market in the summer when spot is cheaper than tariff gas. This approach tells the industrials that they are reducing their future energy cost risk by having a coal fired source of steam, and that their large process loads will increase the amount of time Trigen will be able to burn coal, thus further reducing costs of service to all.

This dual approach of rate and contract will also help persuade the large customers that they can lock in an energy cost future in which the efficiency of conversion is guaranteed, the capital costs are largely frozen, and the fuel costs will be tied increasingly to coal.

We believe the large users are in a fully competitive energy market and can negotiate contracts without regulatory help from the Commission. The service offered is not a natural monopoly as has been amply proven by the downtown sales which have dropped from 1,300,000 Mib per year in 1973 to 390,000 Mib of sales in 1988. The bulk of present users are all businesses, or institutions such as the City or County, who are well able to evaluate the competitive alternatives to steam supply, and to finance the capital needed to self generate the steam, if that is more cost effective than purchase of steam.

The large process users, who most strongly demand contracts, are the salvation to the whole system, helping to pay the fixed operating costs with their constant purchases of steam and helping the Grand Avenue plant to have large enough loads to burn cheaper fuels, i.e. coal. These users are not willing to commit to steam purchases from Trigen if their future costs are subject to periodic Commission rulings. They have demanded contracts which clearly pass through the costs of fuel and lock in the maximum which Trigen can charge over and above the cost of fuel.

8. Return on Trigen Equity

We have modeled the operation of the steam system for 1990 and 1991, based on a detailed analysis of the system, the past four years sales, and our proposed rates and contracts. There are many assumptions about changes by Trigen versus KCP&L's recent operation, and many assumptions about keeping present users and selling to others. To give the Commission a view of the range of possibilities over the next two full years, we have run three cases as follows:

- Case A Analyzed maximum rate without new sales, coal 70% of fuel.
- Case B Conservative growth case with increase in downtown sales of 25,000 Mib per year, coal 77% and some fuel cost savings.
- Case C Best case with an added industrial customer, increased sales downtown, coal 98% of fuel in 1991, and fuel prices at the bottom of the ranges we have been quoted for coal.

The financial analyses show returns on equity for the three cases as follows, assuming 20% of total capital costs are equity.

**Table 1
Proforma Rates of Return
Trigen Kansas City Steam System**

		<u>1990</u>	<u>1991</u>
Case A	Equity (000's)	1550	2110
	Profit After Tax(000's)	36	(15)
	Return	2.32%	NA
Case B	Equity (000's)	1550	2144
	Profit After Tax(000's)	104	247
	Return	6.71%	11.52%
Case C	Equity (000's)	1550	3080
	Profit After Tax(000's)	118	371
	Return	7.61%	12.05%

It is clear that Trigen's purchase decision is predicated upon growth over several years and the addition of more steam sales than is achieved in even the best case above. We see a five year process to grow the system to financial health.

Summary of Situation

There is a working steam system providing steam to over 100 users, which is capable of competing for the supply of steam to other consumers, but this system will be, per Commission order, closed unless it is sold by KCP&L. There is a willing seller, (KCP&L) at agreed price (\$6,000,000) and at agreed terms (contracts submitted under separate cover). There is a willing buyer (Trigen) who has a plan for making the system financially healthy, and has demonstrated competence in operating and owning similar systems and has substantial technical and financial resources. The buyer's willingness to proceed is predicated upon the approval of the proposed rates and rate structures and on the willingness of the Commission to agree to allow unregulated steam sales contracts of 3 years duration or longer.

Trigen asks the Commission to approve the sale, grant Trigen a Certificate of Convenience and Necessity, approve the proposed rates for downtown customers of the system, and allow freely negotiated, long term contracts. If the Commission agrees, Trigen and KCP&L intend to consummate this transaction on the 29th of September, 1989 and to proceed immediately to operate the system and provide service under the new rates. Trigen's agreement to purchase the system will require final approval of its Board of Directors, and a meeting of the Trigen Board has been scheduled for September 15th.