

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the matter of the joint application of St. Joseph)
Light & Power Company and Kansas City Power & Light)
Company for (1) authority to participate in the)
construction and operation of a 345,000 volt electric)
transmission line from Cooper, Nebraska to St. Joseph,)
Missouri, in accordance with the terms of a Coordinating)
Agreement governing same, and all other documents related)
thereto; (2) for each to enter into and perform under a) Case No. EA-90-252
Facilities Use Agreement related thereto; (3) for a)
determination that a Construction and Financing)
Agreement to be entered into by each pursuant to the)
terms of the Coordinating Agreement does not constitute)
evidence of indebtedness under Chapter 393, RSMo; and)
(4) for approval of the accounting treatment to be)
afforded both relative to their financial participation)
in construction and operation of said transmission line.)

APPEARANCES: Gary W. Duffy, Brydon, Swearingen & England, P.O. Box 456,
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HEARING

EXAMINER: Michael F. Pfaff

REPORT AND ORDER

PROCEDURAL HISTORY

On March 22, 1990, St. Joseph Light & Power (SJLP) and Kansas City
Power & Light Company (KCPL), (Applicants), applied pursuant to Sections

393.170 and 393.190¹ for authority to participate in the construction of a 101 mile 345,000 volt electric transmission line from Northeastern Nebraska to SJLP's substation near St. Joseph, Missouri. Known as the Cooper-Fairport St. Joseph Interconnection (CFSI), the line will be constructed and owned by Associated Electric Cooperative, Inc.

On October 16, 1990, the Commission issued an Order and Notice, establishing an intervention deadline of November, 1990. Interventions were granted to the following landowners, all of whom oppose the proposed line: Darrell Falk, Charles Sillers, Marion Oswald, Jay Smith, Linda Elder, Dean Bolten, Marcia Symanski, David Sly, Julia Bennington, Richard Oswald, Fred Heller, Dennis Ford, Paul Kunz, Betty Sly, Joe Boatright, Kenneth Nold, Roger Henderks, Dan Hageman and Larry Lewis. Subsequently, several of those above named withdrew as intervenors.

On February 22, 1991, Applicants amended their petition, to exclude the request that the Commission authorize the CFSI under Section 393.170. Applicants now state that Section 393.170 has no application, and that since Applicants will neither construct nor own the line they require no certificate of convenience and necessity. By their amended petition, Applicants continue to request the Commission's approval under Section 393.190 of one part of a series of Agreements relating to the CFSI. Applicants request that the Facilities Use Agreement, described infra, be authorized under Section 393.190. Applicants also seek a declaration from the Commission that their participation in the CFSI, and the agreements and leases connected therewith, do not constitute "evidences of indebtedness" under Sections 393.180 and

¹Unless otherwise indicated, all citations to Missouri Statutes are to RSMo, 1986.

393.200. In addition, Applicants request language in this order which specifies ratemaking treatment of certain lease payments, explained in greater detail below.

Pursuant to its procedural schedule ordered on February 8, 1991, the Commission conducted public hearings in St. Joseph, Missouri, on April 18, 1991, at which Randall Wyckoff, Cheryl Wyckoff and Bruce Hill presented testimony.

Following the submission of prepared direct and rebuttal testimony, the Commission conducted an evidentiary hearing on May 22, 1991, wherein Applicants, Staff, Public Counsel and Landowner intervenors made presentations. Initial and Reply Briefs having been filed, this matter is duly before the Commission for determination.

FINDINGS OF FACT

Having considered all the competent and substantial evidence upon the whole record, the Missouri Public Service Commission makes the following findings of fact:

Joint Applicants St. Joseph Light & Power Company and Kansas City Power & Light Company are investor-owned electric corporations, and are public utilities subject to the Commission's jurisdiction by virtue of Chapters 386, RSMo, 1986. Associated Electric Cooperative, Inc., (AECI) is a rural electric cooperative engaged in the generation, transmission, and sale of electric energy to distribution cooperatives in Missouri and Iowa. The Commission's safety jurisdiction over AECI's proposed line is conferred by Section 394.160.

The CFSI is a 101 mile (+ or -) 345,000 volt electric transmission line from Cooper, Nebraska, to St. Joseph, Missouri. Approximately one hundred miles of the line will be in Missouri. The line will be built by AECI, an entity regulated for the most part by the Rural Electrification

Administration (REA). Applicants are participating in the project on an equal-pay basis with AECI and the following regional suppliers of electrical power: The Nebraska Public Power District; the Omaha Public Power District; Iowa Power and Light Company, and the City of Lincoln, Nebraska. The collective rights and obligations of these participants are generally governed by a Coordinating Agreement, Exhibit 1, Appendix 1. Each of the six participants has also individually entered into Construction and Financing Agreements with AECI whereby, in exchange for the use of the line, they are obligated to make 437 monthly payments (36 years) to AECI. None of the parties adduced evidence which directly specified the cost of the line, or estimates thereof. In KCPL witness Cattron's testimony, attached as responses to Staff data requests, the Commission discovered data which, at least inferentially, suggests that the CFSI will cost in the vicinity of \$28,500,000.² Whether this figure includes maintenance and operation expense is unclear.

In addition to the Coordinating Agreement signed by all seven of the participants, and the Construction and Financing Agreements between AECI and SJLP, and AECI and KCPL, Applicants have also entered into a Facilities Use Agreement, a separate contract between KCPL and SJLP. The Facilities Use Agreement provides for KCPL's use of SJLP's existing Iatan 345 Kv line and a portion of SJLP's St. Joseph substation, the latter being designed to facilitate the interconnect between KCPL and the CFSI. Applicants request the Commission to approve only the Facilities Use Agreement pursuant to Section 393.190. Applicants do not request the Commission to approve either the Coordinating Agreement or, apparently, the Construction and Financing

²Exhibit 2, Schedules SC 2-7.

Agreements which each have entered into with AECI. Staff recommends that the Facilities Use Agreement be approved, but that it receive no evaluation for ratemaking purposes.

There are four issues in this case. The first is whether the Commission should, as prayed by Applicants, approve their participation in the Facilities Use Agreement and, if so, whether the Commission has authority to decide this matter pursuant to Section 393.170, or, as Applicants now claim - only under Section 393.190. The second issue is whether the Commission should find, as prayed by Applicants, that Sections 393.180 and 393.200 have no application to this case. The third issue is whether the lease payments to AECI should be characterized in this proceeding for ratemaking purposes. The last issue, raised by the Intervenor, is whether the electromagnetic field which will be generated by the proposed transmission line poses a proven danger to the intervenors, their families, livestock or livelihoods. As regards safety, an ancillary question arises regarding the Commission's statutory authority to, in this docket, address safety issues.

Application of Sections 393.170 and 393.190

Regarding the first part of the first issue, Section 393.170(1) provides:

1. No gas corporation, electrical corporation or water corporation shall begin construction of a gas plant, electric plant or water system without first having obtained the permission and approval of the commission.

Initially, Applicants applied pursuant to this statute, the source of law which traditionally comes into play when regulated electric utilities seek a certificate of convenience and necessity to authorize their construction of facilities outside their certificated service areas. The Commission finds that a portion of the CFSI lies outside the certificated areas of both KCPL and SJLP. As noted earlier, Applicants amended their

application to state that AECI, not Applicants, will "own" the Missouri segment of the line; as a result, Applicants now are of the opinion that neither KCPL nor SJLP require a certificate of convenience and necessity under Section 393.170.

The Commission finds that on the facts presented in this docket, Section 393.170 requires Applicants to obtain a certificate of convenience and necessity. Section 393.170(1) does not require a utility to "own" the plant in question; it only requires that an electrical corporation "begin construction" of same. The Commission finds little difference between a regulated utility's "construction" of plant and Applicants' 36-year obligation to pay for the construction, operation and maintenance of plant.

Notwithstanding that Section 4.6 of the Coordinating Agreement designates AECI as the builder and owner of the CFSI, Section 4.2 of the Agreement states that KCPL and SJLP are individually responsible for 1/7 of the total cost of construction, maintenance, operation, and ad valorem taxes. Applicants and their present and future customers will therefore be obligated to pay for the CFSI for 36 years.

The Commission finds that the proposed CFSI will enable Applicants to increase load, to enter into markets previously unavailable to them, and to expand into new areas. The Commission also finds that the CFSI, which represents a large capital project and investment, must be made part of the process whereby regulated utilities obtain Commission permission and approval before expanding their systems beyond their presently certificated areas.

By amending their petition to exclude Section 393.170, Applicants now ask the Commission to approve only their participation in the Facilities Use Agreement, pursuant to Section 393.190(1). In pertinent part, 393.190(1) requires approval when one electrical corporation leases or otherwise

contracts away any part of its system to another electrical corporation. Having considered Staff's recommendation that the Facilities Use Agreement be approved, the Commission hereby finds that it is in the public interest to approve said agreement pursuant to Section 393.190.

The Commission also finds that the purpose of the CFSI, and the Facilities Use Agreement, the Coordinating Agreement, and the Construction and Financing Agreements, is to promote the reliability and future growth of Applicants' systems, to make new sources of potentially low cost power available to Applicants on the grid, to permit the possible sale of electricity from Applicants' systems to others on the grid, and to add transport capacities for interexchange sales and purchases. The line is also designed to provide some redundancy in order to back up existing interconnected systems.

For the reasons stated above and pursuant to Sections 393.170 and 393.190, the Commission hereby finds that said construction project is necessary or convenient for the public service and hereby approves Applicants' participation in the Coordinating Agreement, the Construction and Financing Agreements, and the Facilities Use Agreement above described.

Are Agreements to Make Lease Payments an "Evidence of Indebtedness?"

The next issue is whether Sections 393.180 and 393.200 apply in this case. Applicants claim they do not, and pray for a Commission order "declining to assert jurisdiction" regarding the application of said statutes. The Commission Staff did not present testimony on this point; neither did they brief this issue. The statutes in question provide as follows:

393.180. Right to issue stocks, bonds, notes subject to regulation. The power of gas corporations, electrical corporations, water corporations, or sewer corporations to issue stocks, bonds, notes and other evidences of indebtedness and to create liens upon their property situated in this state is a special privilege, the right

of supervision, regulation, restriction and control of which is and shall continue to be vested in the state, and such power shall be exercised as provided by law and under such rules and regulations as the commission may prescribe. (Emphasis supplied).

Without more, the Commission does not understand how it is to "decline jurisdiction" regarding the application of this statute to the facts in this case.

Applicants apparently desire the Commission to find that their participation in a 36 year lease involving millions of dollars does not constitute an "evidence of indebtedness." Applicant's brief so indicates. The Commission will make no such finding in this docket. Given the scanty evidence regarding the cost of the CFSI, the Commission cannot make such a finding. To do so may have a negative effect on the interests of those who will pay for the CFSI, including the captive ratepayers of KCPL and SJLP.

Applicants also seek a similar declaration regarding the application of Section 393.200, which in pertinent part requires Commission approval of stocks, bonds, notes or "other evidences of indebtedness." Again, Applicants state that the 36 year lease is not an "evidence of indebtedness" and urge the Commission to so find. Again, and for the same reasons stated above, the Commission declines to make such a finding.

**Should the Commission evaluate the
lease payments for ratemaking purposes?**

Applicants' next request is that the Commission's order establish that for ratemaking, the lease is an operating, not a capital, lease, and that Applicants should be authorized to "charge the monthly payments . . . to the appropriate expense or clearing accounts."

Staff states that "it is premature at this point to evaluate the lease for ratemaking purposes." Staff suggests that the ratemaking treatment of the lease be deferred until Applicants seek higher rates, at which time

"more reliable financial data" will be available. The Commission concurs with Staff. This record does not permit the Commission to evaluate this series of complex contractual arrangements from a ratemaking standpoint. Other than the passing and indirect reference to the installed cost of these facilities discovered in KCPL's responses to Staff's data request, the Commission has not been advised how much the CFSI will cost to build or maintain. Nor has the Commission been advised of the relative value or cost of the leases contained in the Facilities Use Agreement, or of any dollars and cents potential which the CFSI may provide regarding Applicants' sale of power to others on the grid. These and other related matters are subject to audit by the Commission Staff, a process which normally accompanies rate filings, not application cases.

AECI's witness advises that this Commission's approval is not required to construct this line; he also advises that right-of-way acquisition for the line is nearly complete and that the line will be operational in June, 1992. Applicants state, belatedly, that the Commission has no jurisdiction over this Application under Section 393.170; Applicants also aver that the Commission has no safety jurisdiction in this case. Nonetheless, Applicants have sought a specie of accounting authority orders which, on this record, the Commission will not grant.

Given the legal and technical expertise available to Applicants, and their requests for advisory rulings on rate matters and the applicability of the phrase "evidence of indebtedness," the Commission is somewhat disappointed by the pleadings and record in this case. The record completely fails to lend dollars and cents support to most of what the Applicants ask the Commission to approve or waive. The only issue properly before the Commission, to judge by

Applicants' briefs and testimony, is whether the Facilities Use Agreement between KCPL and SJLP should be approved under Section 393.190.

The Safety Issue

Intervenors oppose both the siting and design of the proposed transmission line, expressing their concern that the electronic and magnetic field generated by the line (EMF) will be harmful to their families, livestock, and livelihoods.

Many of the intervenors and public witnesses are engaged in farming and dairying, occupations which require them to work outside. The homes and outbuildings of some witnesses were as close as 280 feet to the edge of the 150 foot right-of-way established for the CFSI. Some witnesses will have to cross under the line daily, and their cattle, many of them of good breeding stock, will be constantly exposed to the aurora, or "field," created by the passage of current through the suspended high voltage lines. The public witnesses said they had been advised that 500 feet was the "recommended" minimum safe distance for a residence, measured from the edge of the right-of-way. The record does not disclose who so advised them. Applicants state that they did not, and AECI's witness stated that AECI made no such declaration. The Commission cannot determine the author or authors of this statement. Applicants and AECI claim that there is no body of accepted scientific evidence which demonstrates that an EMF is itself dangerous, much less any pronouncements on a "minimum" safe distance for the siting of lines which produce such fields. The Commission finds that no such minimum "safe distance" has been prescribed in the National Electric Safety Code, a code which provides construction, siting, safety, and other standards regarding the installation and maintenance of such lines. AECI states, and the Commission believes, that AECI intends to construct the line according to the standards

contained in the National Electric Safety Code. At present, these standards do not include any design or siting parameters which have been driven specifically by EMF considerations.

This Commission has full statutory authority to oversee, from a safety standpoint, the construction and operation of any high voltage line in the State of Missouri. This Commission also has the authority, on presentation of probative evidence, to make safety-related findings regarding EMF phenomena and, if supported by the evidence, to prescribe safety measures and standards relating thereto, either on a case-by-case basis, as would apply here, or in a rulemaking proceeding. Applicants' assertions that the REA has somehow "preempted" the Commission, and that the REA's findings or determinations regarding EMF estop this Commission from exercising its safety jurisdiction are incorrect. In matters touching public safety, the siting, construction, and operation of high voltage powerlines in the State of Missouri is squarely within the purview of this Commission, regardless of whether such lines are "owned" by an electric coop, a consortium of electric producers, a city, or an investor-owned utility.

The Commission Staff advises that current scientific research does not reveal an EMF induced public safety problem. Staff also states that they have no "personal knowledge" of EMF problems. AECI and Applicants assure the Commission to the same effect, viz, that there are no established or reasonably ascertainable negative biological effects which result from the exposure of living things to either the electronic or magnetic fields which surround a "hot" high voltage line. At hearing, the Commission heard anecdotal evidence suggesting that EM "fields" exist in profusion; they exist in shopping malls, on the street, and in and around any operating electrical appliance. AECI witness Fulks stated that milligauss readings recently taken

at the edge of the 150 foot right-of-way of the Co-op's Flint Creek 345 Kv line measured 6 milligauss. This measurement was made when the line was carrying 150 megawatts; at the same load, the measurement directly beneath the line was 15 milligauss. Anecdotally, the Commission was advised that milligauss measurements far in excess of these can be found surrounding kitchen appliances, lights, other electronic fixtures, in various public places, etc.

Intervenors remind the Commission that the ubiquitous character of EMF's should not excuse additional, or incremental, exposure from AECI's high voltage power lines. AECI's witness Fulks, who designed the CFSI, stated that AECI did not measure any milligauss levels connected with the proposed line. Indeed, the record indicates that AECI does not own the electronic device required to make such a measurement. The milligauss measurements referred to earlier, taken at the perimeter of AECI's Flint Creek 345 Kv line, were obtained by AECI through an outside contractor.

Witness Fulks sponsored Exhibit 7, which contains an estimate of various milligauss readings for the CFSI. At 300 megawatts, (the system's average anticipated load), the calculated, or estimated, milligauss production at a point 200 feet from the CFSI's center line was 4 milligauss. The same exhibit also contains a separate set of data which show both actual and estimated milligauss readings which KCPL obtained from one of its existing 345 Kv lines, the LaCygne to Stillwell line. Under a loading of 417 megawatts (700 amps), the actual milligauss readings taken on KCPL's existing line at 80 feet from the center line was 28 milligauss; at 250 feet, the milligauss reading was 3.3. The estimated milligauss production for the same line, under the same load, was 3.3 milligauss at 250 feet. The Commission finds in these data an indication that calculated or projected milligauss readings seem to be

reasonably reliable indicators of what actual milligauss readings will prove to be. What is lacking in this case is any evidentiary indication that a milligauss reading of, say, 6 is any more or less harmful than a milligauss reading of 4, 2, 10, 15, or 20.

On the basis of the evidence now before it, the Commission cannot conclude that electromagnetic fields pose any palpable danger to human life, health, or to the breeding potentials of dairy herds. Neither can the Commission rightfully conclude that EMF emanations are harmless. Although the Commission appreciates the concerns voiced by intervenors, it is also mindful of its responsibility to render decisions supported by the evidence. As indicated above, no scientific studies, expert testimony, or other body of reliable evidence has been presented to this Commission which establishes a causative link between EM fields and negative health or biologic effects. Failing the presentation of such evidence, the Commission cannot order Applicants or AECI to adopt preventative or palliative measures to combat a phenomena which, on the basis of the information now before the Commission, may be relatively benign. The Commission notes that scientific studies are presently underway regarding EMFs, at least one of which is currently being undertaken by the Electric Power Research Institute.

CONCLUSIONS OF LAW

The Commission arrives at the following conclusions: The Commission has jurisdiction over the subject matter of this proceeding by virtue of Sections 393.170 and 393.190. Pursuant to the grant of authority conferred by these statutes, the Commission has found, *supra*, that the CFSI, the Coordinating Agreement, the Construction and Financing Agreements, and the Facilities Use Agreement promote the public interest and that said construction is necessary or convenient for the public service; as a result,

the Commission has authorized Applicants to enter into said Agreements pursuant to the statutes above cited. The Commission also concludes that Applicants' proposed long term participation in the CFSI, whereby each Applicant is to pay 1/7 of all construction, operations, maintenance and property tax expense is, by its very nature, a construction project requiring this Commission's permission and authorization pursuant to Section 393.170.

The Commission also concludes that it has safety jurisdiction over any and all high-power voltage lines constructed in the State of Missouri pursuant to Sections 394.160 and 386.310.

Regarding the safety issue raised by Intervenor, the Commission concludes that the evidentiary record in this case does not support any findings on the EMF phenomena other than those made above. Although the Commission has jurisdiction to act, it would not be appropriate to do so in this case.

The Commission further concludes it would be inappropriate to either find or conclude, as prayed by Applicants, that the phrase "evidence of indebtedness," in Sections 393.180 and 393.200 does not include the series of contractual arrangements through which Applicants (and their ratepayers) have, or will soon become, obligated to make monthly payments to AECI for 36 years. The Commission also concludes that Applicants' request for a Commission order specifying specific ratemaking treatment for the CFSI disbursements is premature. The Commission will issue no such "blank check" in this docket, especially given the pleadings and record upon which this matter has gone forward.

IT IS THEREFORE ORDERED:

1. That Kansas City Power & Light and St. Joseph Light & Power are hereby authorized, pursuant to Sections 393.170 and 393.190, to enter into and

to perform under the terms of the Coordinating Agreement, the Construction and Financing Agreement and Facilities Use Agreement, identified above.

2. That Kansas City Power & Light and St. Joseph Light & Power are hereby granted certificates of convenience and necessity pursuant to Section 393.170 authorizing their participation in the construction of the CFSI as above described; Applicants are directed hereby to submit tariffs which reflect the issuance of the certificates of convenience and necessity herein granted and which contain concise route descriptions of the Cooper-Fairport St. Joseph Interconnection.

3. That nothing contained in this Report and Order shall be considered as a finding by the Commission of the reasonableness of any expenditures herein involved, nor as an acquiescence in the value placed upon any properties, leases, contracts, or the value or costs of any rights or obligations contained in said leases and contracts. The Commission specifically reserves for future proceedings the right to consider the ratemaking and accounting treatment to be afforded to the Coordinating Agreement, the Construction and Financing Agreements, and the Facilities Use Agreement.

4. That this order shall become effective on September 10, 1991.

BY THE COMMISSION

Brent Stewart

Brent Stewart
Executive Secretary

(S E A L)

Steinmeier, Chm., Mueller,
Rauch, McClure and Perkins, CC.,
Concur.

Dated at Jefferson City, Missouri,
this 28th day of August, 1991.