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ADJUDICATIONS STAFF

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Request for the Transfer and Amendment	)	Docket No. 50-482
of the Wolf Creek Generating Station	)	
Facility Operating License NPF-42 To	)	
Reflect Transfer of Ownership	)	

PETITION TO INTERVENE AND
REQUEST FOR HEARING OF THE
KANSAS ELECTRIC POWER COOPERATIVE, INC.

February 18, 1999

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NUCLEAR REGULATORY COMMISSION

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KANSAS ELECTRIC POWER COOPERATIVE, INC.

Pursuant to section 184 of the Atomic Energy Act ("the Act"), 42 U.S.C. § 2234, sections 50.80 and 50.90 of the regulations of the Nuclear Regulatory Commission ("NRC' or "Commission"), 10 C.F.R. §§ 50.80, 50.90 (1998), and section 2.1306 of the Commission's Rules of Practice, 18 C.F.R. § 2.1306, and pursuant to the "Notice of Consideration of Approval of Transfer of Facility Operating License and Issuance of Conforming Amendment, and Opportunity for a Hearing," 64 Fed. Reg. 4726 (Jan. 29, 1999), as corrected, 64 Fed. Reg. 6119 (Feb. 8, 1999), the Kansas Electric Power Cooperative, Inc. ("KEPCo") files this petition to intervene and request for hearing regarding the anticompetitive consequences of the application dated October 27, 1998, and supplemented on November 10, 1998, to transfer to a new company, Westar Energy, Inc. ("Westar Energy"), the possession-only interest of Kansas Gas and Electric Company ("KGE") and Kansas City Power and Light Company ("KCPL") in Operating License No. NPF-42 ("the Operating License") for the Wolf Creek Generating Station, Unit 1 ("WCGS" or "Wolf Creek") and for an amendment to the Operating License to reflect this transfer of ownership ("the Application"). In support of its petition and request for hearing, KEPCo shows as follows.

I. Identity of Petitioner and Requestor

This petition to intervene and request for hearing is submitted on behalf of

Kansas Electric Power Cooperative, Inc.
5990 S.W. 28th Street
P.O. Box 4877
Topeka, Kansas 66604
(913) 273-7010 (voice)
(913) 271-4888 (fax)

Service should be made upon counsel for KEPCo as follows:

Harold Haun
Vice-President of Administration and General Counsel
Kansas Electric Power Cooperative, Inc.
5990 S.W. 28th Street
P.O. Box 4877
Topeka, Kansas 66604
(913) 273-7010 (voice)
(913) 271-4888 (fax)
hhaun@kepco.org

William T. Miller
Miller, Balis & O'Neil, P.C.
Suite 700
1140 Nineteenth Street, N.W.
Washington, D.C. 20036
(202) 296-2960 (voice)
(202) 296-0166 (fax)
wmiller@mbolaw.com

II. Background

A. Description of the Proposed Combination

KGE and KCPL each own an undivided 47% interest in Wolf Creek. KEPCo owns a 6% undivided interest. Wolf Creek is located in the KGE service area. KEPCo, KGE, and KCPL hold possession-only interests in the Operating License for Wolf Creek. KEPCo, KGE, and

KCPL likewise own the stock of the Wolf Creek Nuclear Operating Corporation ("WCNOC"). The Operating License authorizes WCNOC, as agent for the owners, to possess, use, and operate Wolf Creek.

KGE is a wholly owned subsidiary of Western Resources, Inc. ("WRI"), formerly named The Kansas Power & Light Company ("KPL"). The current KGE is the result of the 1991 merger of a predecessor company, also named KGE, with a wholly owned subsidiary of KPL.1/ WRI provides electric utility service under its trade name KPL and through its subsidiary KGE.

The proposed transfer of KGE's and KCPL's possessory interests in the WCGS license to Westar Energy arises from the proposed merger of WRI and KCPL. Under the proposed merger, the electric utility operating assets of WRI (KPL), KGE, and KCPL will be combined and transferred to Westar Energy. Thus, Westar Energy will succeed to the ownership interests of KGE and KCPL in Wolf Creek and WCNOC, and to the rights and duties of KGE and KCPL under the Operating License and under the WCGS ownership and operating agreements to which KEPCo is a party.

B. Description of KEPCo

KEPCo is a generation and transmission cooperative with twenty-one rural electric cooperative member systems, which together distribute electric power to more than 300,000 rural Kansans. KEPCo is responsible for supplying the wholesale power and energy requirements of its members.

KEPCo is a transmission-dependent utility of WRI and KGE, and thus depends entirely on them for service to its members' delivery points on the transmission systems of the two utilities.

1/ *See* Application, p. 1 & n.1; Amendment No. 53 to License No. NPF-42 (Nov. 19, 1991).

Sixteen of KEPCo's member systems have bulk power delivery points on the transmission systems of WRI and/or KGE. Eleven of these member systems have delivery points located within the service area of WRI,2/ and eight have delivery points in the service area of KGE.3/ These KEPCo member systems receive power from KEPCo resources through WRI and KGE's transmission facilities.

KEPCo purchases partial-requirements wholesale power from WRI and transmission and ancillary services from WRI and KGE. KEPCo's own power-supply resources require transmission through WRI, KGE, or both. These resources are preference power purchased from the Southwestern Power Administration ("SWPA") and KEPCo's 6% undivided interest in Wolf Creek.

In addition, two of KEPCo's member systems are connected to and receive wholesale requirements power from KCPL.4/ These two member systems have eight delivery points in the

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2/ These eleven cooperatives are Ark Valley Electric Cooperative Association, Inc.; Brown-Atchison Electric Cooperative Association, Inc.; Bluestem Electric Cooperative Association, Inc.; Butler Rural Electric Cooperative Association, Inc.; DS&O Rural Electric Cooperative Association, Inc.; Flint Hills Rural Electric Cooperative Association, Inc.; Leavenworth-Jefferson Electric Cooperative, Inc.; Lyon-Coffey Electric Cooperative, Inc.; Ninnescah Rural Electric Cooperative Association, Inc.; Smoky Hill Electric Cooperative Association, Inc.; and Twin Valley Electric Cooperative, Inc.

3/ These eight cooperatives are Butler Rural Electric Cooperative Association, Inc.; Caney Valley Electric Cooperative Association, Inc.; Heartland Rural Electric Cooperative, Inc.; Lyon-Coffey Electric Cooperative, Inc.; Radiant Electric Cooperative, Inc.; Sedgwick County Electric Cooperative Association, Inc.; Sumner-Cowley Electric Cooperative, Inc.; and Twin Valley Electric Cooperative, Inc.

4/ These two cooperatives are Heartland Rural Electric Cooperative, Inc., and Lyon-Coffey Electric Cooperative, Inc.

KCPL control area. KEPCo depends entirely on KCPL for service to its members' loads in the KCPL service area, and thus is also a transmission-dependent utility of KCPL.

C. KEPCo's Interests in This Proceeding.

KEPCo has interests in this proceeding as (1) a co-owner of Wolf Creek; (2) a transmission-dependent utility on the systems of WRI, KGE, KCPL; (3) a wholesale power-supply customer of WRI and KCPL; and (4) a competitor of WRI, KGE, and KCPL in providing wholesale bulk power. Moreover, KEPCo's member systems are actual or potential competitors of WRI, KGE, and KCPL in providing retail electric service.

The proposed transfer of KGE's and KCPL's possessory interests in the WCGS license to Westar Energy would have a number of serious adverse and anticompetitive effects on KEPCo. As described more fully in Part III, below, approval of the Application for the license transfer (without proper conditions) would have the following effects:

(i) Westar Energy would operate the merged generating resources in a single fully integrated control area in the combined service areas of WRI, KGE, and KCPL, and would be able to use its 94% share of Wolf Creek to serve its load throughout that combined service area on an economic dispatch basis, but the antitrust conditions to the Operating License would maintain a distinction between KEPCo members in the KGE service area and members located elsewhere in the Westar Energy service area, thereby restricting KEPCo to operate at a competitive disadvantage relative to Westar Energy, due to, *inter alia*, restrictions on KEPCo's efficient use of its resources, including its 6% share of Wolf Creek.

(ii) KEPCo, which has had an effective vote when KGE and KCPL disagree about decisions involving Wolf Creek and WCNOC, would be subject to the absolute control of Westar Energy in all future operating decisions.

(iii) KEPCo, if it attempted to sell its share of WCGS, would lose one of the only two likely competitors to purchase its share and, under the right-of-first-refusal provision in the WCGS Ownership Agreement, would be severely restricted in its ability to offer to sell its share of WCGS to any entity but Westar Energy.

As we demonstrate below, these issues are within the scope of this proceeding, relevant to the antitrust findings that the Commission must make to act on the Application, and are appropriate for decision in this proceeding. The relief sought by KEPCo is within this Commission's authority and could prevent the antitrust injury that KEPCo otherwise would sustain. The Commission cannot assume that any other federal or state agency will grant this relief in conjunction with a review of the proposed merger.

III. The License-Transfer Application Should Be Denied or Approved Only Subject to Additional Conditions To Remedy the Anticompetitive Effects of the Transfer of Ownership.

A. The License's Antitrust Conditions, if Not Amended, Will Anticompetitively Restrict KEPCo's Ability To Dispatch Its Resources on an Economic Basis.

Appendix C to the Operating License contains separate antitrust conditions for KGE and KCPL. These conditions are different as between the two companies. In particular, the KGE conditions contain certain restrictive conditions regarding KEPCo (specifically, its predecessor

Kansas Electric Cooperatives, Inc., or "KEC"). The KCPL conditions do not contain these restrictive conditions.

In the November 10, 1998 supplement to the instant Application, the applicants do not propose to combine the KGE and KCPL license conditions, but simply to amend the definition of the "Licensee" in each case to be Westar Energy. Such minor amendment would leave in place the significant differences in the two sets of conditions. The resulting disparity would subject KEPCo to anticompetitive injury, because, as the Application states, "Westar will follow the more restrictive set of conditions for any given circumstances."5/ Although the Application explains that KEPCo can seek to apply the more general license conditions applicable to any "entity" in the Westar Energy service area, 6/ the more restrictive KGE conditions remain in place.

The anticompetitive effect on KEPCo that would be caused by the restrictive KGE Wolf Creek conditions under the proposed merger is explained in more detail in the appended Direct Testimony of Gordon T. C. Taylor, Ph.D. ("Taylor Testimony").7/ Dr. Taylor is an independent consulting economist who specializes in antitrust and economic regulation of the electric power industry. Dr. Taylor served for five years on the staff of the Federal Energy Regulatory Commission, where he was Director of the Division of Economics and Finance. Subsequently, as a consultant to the U.S. Department of Justice, Antitrust Division, Dr. Taylor assisted in

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5/ Application, p. 10, n.8.

6/ *Id.*

7/ See Attachment 1 hereto, pages 58-61. The Taylor Testimony was submitted with KEPCo's Protest filed at the Federal Energy Regulatory Commission ("FERC') on February 2, 1999, in FERC Docket No. EC97-56-000.

preparing antitrust licensing conditions for three nuclear generating plants (Comanche Peak Nuclear Project, South Texas Nuclear Project, and St. Lucie No. 2 Nuclear Generating Plant).

Currently, WRI economically dispatches its resources and KEPCo's resources (including WCGS) but abuses its authority over after-the-fact accounting to deny KEPCo the full benefit of the economic dispatch of KEPCo's resources. For example, if KEPCo's load in the KGE area is less than KEPCo's WCGS entitlement, WRI deprives KEPCo of the economic benefit of that low-cost energy, which could be dispatched to serve KEPCo load in the WRI area (outside the KGE service area). Instead, WRI requires KEPCo to purchase energy to serve its members in the WRI area from WRI at approximately double the price of the cost of its WCGS energy.

As noted at the outset, the antitrust conditions for KGE differ from those for KCPL. For example, condition 2(b) of the KGE conditions provides, *inter alia*, that "no less than 42 percent of the total demand requirements of the KEC members in Licensee's Service Area shall be satisfied by KEC by use of its available power from Wolf Creek Nuclear Unit Number 1." This license provision, which is in effect carried forward in the 1993 "Electric Power, Transmission and Service Contract" between KGE and KEPCo, serves as the basis for WRI's refusal to provide KEPCo with the economic benefits of the economic dispatch of its share of WCGS.

The applicants' proposed amendment to the KGE conditions does not remove this unwarranted limitation, which is anticompetitive and inconsistent with the operating realities to be enjoyed by the merged company. Condition 1(a) would be amended so that "Licensee" means Westar Energy. But condition 1(i) would not be amended. This condition defines "KEC

members in Licensee's Service Area" to be eight specific distribution cooperatives in the KGE service area.8/

Regarding the competitive aspects of the use of after-the-fact accounting to deprive KEPCo of the economic benefits of economic dispatch, Dr. Taylor testifies in his Direct Testimony, page 58, as follows:

> Q. Does authority over the after-the-fact accounting for the combined dispatch create market power?
>
> A. Yes. This authority creates market power to raise rivals' costs. For example, the KPL-KGE merger created market power to raise KEPCo's costs, because it created authority for Western Resources over after-the-fact accounting in the Western Resources' control area, wherein Western Resources dispatches KEPCo's resources.

In response to whether the proposed WRI/KCPL merger would change this market power, Dr. Taylor testified as follows (*id.*):

> A. Yes. The proposed merger would enhance this market power, because Western Resources' present authority over after-the-fact accounting would be extended to encompass the KCPL area in addition to the KPL [WRI] and KGE areas. The Joint Applicants intend to initiate combined dispatch in the Westar area. KEPCo's share of Wolf Creek would be included in this central economic dispatch. The proposed merger would in effect create a larger Western Resources, and Western Resources now exercises market power to arbitrarily deny KEPCo benefits and assign KEPCo costs in after-the-fact accounting, arbitrarily raising KEPCo's costs. Thus, it is likely that Westar would exercise the enhanced market power that it would gain through the proposed merger to arbitrarily raise KEPCo's costs.

8/ Condition 1(i) states: "'KEC members in Licensee's Service Area' refers to the following KEC member rural electric cooperatives: the Butler Rural Electric Cooperative Association, Inc.; the Caney Valley Electric Cooperative Association, Inc.; Coffey County Rural Electric Cooperative Association, Inc.; the United Electric Cooperative, Inc.; the Radiant Electric Cooperative, Inc.; the Sedgwick County Electric Cooperative Association, Inc.; the Sekan Electric Cooperative Association, Inc.; and Sumner-Cowley Electric Cooperative, Inc." Eight KEPCo member cooperatives have delivery points in the KGE service area today. *See supra* n.3. The names are different because of mergers among some of KEPCo's members.

It would seem irrefutable that the license condition in question was not intended to provide a tool for discrimination that could be applied to have an anticompetitive effect on KEPCo, and yet the proposed merger of the WRI, KGE, and KCPL electric utility operations would have precisely that result. In other words, license conditions intended to protect KEPCo as a transmission-dependent utility from anticompetitive acts are being turned on their head and used to anticompetitively raise KEPCo's costs of doing business, thereby diminishing its competitiveness.

In order to mitigate this abuse of market power by the merged company, Westar Energy, at a minimum the KGE license conditions should be amended to state expressly that a license condition specifically applicable to KEPCo will not restrict KEPCo's rights or Westar Energy's duties to KEPCo under other, more general, license conditions. Moreover, all license conditions should apply to KEPCo's members in the entire Westar Energy service area, not just to members in one discrete sub-area within the Westar Energy service area. These changes are essential so that the misuse of market power witnessed in the wake of the KPL/KGE merger does not continue on an even larger scale in the wake of the proposed merger with KCPL.

Accordingly, in addition to the minor amendments proposed in the Application, the antitrust conditions for KCPL and KGE should be amended to state that the more restrictive KGE conditions otherwise applicable to KEPCo (Conditions 2(b), 3-5, 6(b), and 7-9) do not restrict KEPCo's rights or Westar Energy's duties under other license conditions. Moreover, the definition of "KEC members in Licensee's Service Area" in KGE condition 1(i) should be

amended to include all KEPCo members with facilities in the Westar Energy service area, in accord with the language in the analogous KCPL condition 1(b).9/

B. Westar Energy's Ability To Exercise Unilateral Market Power by Its Control of Wolf Creek's Operations and Costs Should Be Remedied.

Appended hereto is the testimony of Harold L. Haun, KEPCo's Vice President of Administration and General Counsel ("Haun Testimony").10/ Mr. Haun describes the history of KEPCo's involvement in Wolf Creek, which was driven in large part by the refusal of KGE, among others, to wheel SWPA power for KEPCo (Haun Testimony, pages 2-5). Mr. Haun, who has served as one of KEPCo's representatives on the WCNOC Owners' Committee, also explains that in operational decisions KEPCo has been treated well to date because KEPCo, with its 6% ownership share, holds the deciding vote whenever the two majority owners (KGE and KCPL) disagree. (Haun Testimony, pages 5-6.) When asked his concern about the impact of the proposed merger on this arrangement, Mr. Haun testified as follows:

> To date, with no owner possessing a majority vote, there has been give and take at the WCNOC meetings, and since no one owner can dictate results, the outcome has been a healthy discussion of issues and outcomes that were in the interest of all. If the merger is approved, this dynamic will be lost as WRI will control 94% of the stock and thereby be in a position to dictate results without any real regard for KEPCo's views. [Haun Testimony, page 7.]

9/ KCPL Condition 1(b) states: "'Licensee's Service Area' means those portions of the States of Missouri and Kansas which are certificated to Licensee by the respective state regulatory commissions. An entity shall be deemed to be in the 'Licensee's Service Area' if it has electric power generation, transmission, or distribution facilities located in whole or in part in or adjacent to the above-described area or in counties served in part at retail by Licensee."

10/ *See* Attachment 2 hereto. The Haun Testimony was submitted with KEPCo's Protest filed at the FERC on February 2, 1999, in FERC Docket No. EC97-56-000.

When asked his conclusions resulting from the proposed merger, Mr. Haun testified as follows:

> My conclusion is that if the WRI/KCPL merger is approved, with WRI then owning 94% of Wolf Creek, the result will not be in the interest of KEPCo or of the publicly generally. We will lose the healthy situation of no one party being able to dictate outcomes, with the result being the loss of action by discussion and consensus. KEPCo would in my view be better served by not being a co-owner of Wolf Creek in such a scenario. [*Id.*]

Dr. Taylor noted that the proposed merger would "create market power to control Wolf Creek operating decisions through control of ... the WCNOC." (Taylor Testimony, page 62.) Regarding the potential effect of the proposed merger on the present balance in decisions by the Wolf Creek owners, Dr. Taylor testified, in pertinent part, as follows:

> In the proposed merger ... Western Resources would acquire KCPL's 47% entitlement in Wolf Creek. As a consequence, the proposed merger would give the merged company a 94% share of Wolf Creek, making it the dominant owner and effectively eliminating balancing between the two large owners in decisions regarding Wolf Creek operation and costs. Without any balance in Wolf Creek decision-making, the merged company alone would effectively control KEPCo's Wolf Creek costs, potentially causing injury to KEPCo and KEPCo members. [Taylor Testimony, page 63.]

One means of preventing such an outcome is for the Commission to refuse to approve the license transfer application to Westar Energy. Assuming that the Commission approves the transfer application, however, the only reliable way to prevent the potential anticompetitive injury to KEPCo described above (as well as the other harm discussed Parts III.A and III.C) is for KEPCo to be allowed to sell, on an unencumbered basis, its interest in WGCS to the applicants or a third party. Efforts by KEPCo to sell its interest to a third party, however, are frustrated by a further form of the applicants' market power, which the merger again will exacerbate. This encumbrance is addressed next.

C. Control of KEPCo's Sale of WCGS Is Another Form of Market Power That Must Be Addressed.

Under section 5.4 of the WCGS Ownership Agreement, an owner wishing to sell its share of WCGS must give the other owners at least one year to exercise a right of first refusal ("ROFR") following receipt of a *bona fide* offer.11/ KEPCo has asked the other owners to waive this ROFR prerequisite, because it makes a sale of KEPCo's share extremely unlikely; to date, they have refused. (Haun Testimony, page 8.)

When asked if the proposed merger would cause a potential adverse effect by creating control by Westar Energy over KEPCo's ability to sell its share of WCGS, Dr. Taylor states: "Yes. It would eliminate one of the two potential buyers." (Taylor Testimony, page 63.) Dr. Taylor explains that because of the ROFR contained in the Ownership Agreement, "as a practical matter Western Resources and KCPL are the only potential buyers." (Taylor Testimony, page 64.) Thus, Dr. Taylor explained the merger's likely anticompetitive effect:

> Without the merger, both Western Resources and KCPL may want to purchase KEPCo's share. The proposed merger, however, would eliminate this competitive incentive as well as eliminate one of the only two likely buyers of KEPCo's share, thereby lessening competition to purchase KEPCo's share in Wolf Creek, and potentially injuring KEPCo and its members. [Taylor Testimony, page 64.]

KEPCo therefore requests that the Commission require, as a condition to its approval of the license-transfer application, that the applicants delete the ROFR provision from the Ownership Agreement as a condition to approval of the license-transfer application.

Moreover, KEPCo requests that the Commission require, as a further condition on approval of the license-transfer application, that Applicants cannot sell, lease, or otherwise

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11/ The WCGS Ownership Agreement is appended hereto as Attachment 3.

transfer all or part of their interests in the WCGS or WCNOC to any third party, including an affiliate, unless Applicants provide KEPCo reasonable notice of the proposed transaction and an opportunity to participate in the transaction on the same or equivalent terms and conditions.12/ Like the elimination of the ROFR, this measure will permit KEPCo to market its share of WCGS. It will enable KEPCo to participate on equal terms with the applicants in any future transaction involving WCGS or WCNOC. The Commission can readily enforce this condition, because any subsequent transfer and amendment of the Operating License will require Commission approval.

These conditions are within the broad remedial authority of this Commission (and very likely only this Commission, and not other agencies that may review the merger).13/ Just as this Commission had authority to order the sale of an ownership interest in Wolf Creek to KEPCo in order to redress the anticompetitive conduct of KGE in refusing to wheel for and coordinate with KEPCo, so may this Commission order the applicants to amend this contract to facilitate KEPCo's sale or transfer of its minority share of WCGS to remedy the potential anticompetitive conduct of the merged company. These conditions are within the Commission's authority under section 105(c) to ensure that the applicants, by merging, do not create or maintain a situation inconsistent with the antitrust laws.

Accordingly, in light of the combination of adverse and anticompetitive effects of the merger on KEPCo, it is appropriate to eliminate the applicants' ROFR and require the applicants to include KEPCo in any subsequent transfer of the applicants' interests in WCGS or WCNOC.

12/ *Id.* at 120-21.

13/ The NRC has broad latitude in formulating remedies where a situation inconsistent with the antitrust laws is shown. *E.g., Alabama Power Co.*, 13 NRC 1027, 1098-1102 (1981); *Toledo Edison Co. & Cleveland Electric Illuminating Co.*, 10 NRC 265, 282-294 (1979).

IV. A Finding of "Significant Changes" Resulting from the Merger Is Mandated Under the Circumstances of This Case.

According to its "Standard Review Plan on Antitrust Reviews," NUREG-1574, the staff conducts a threshold antitrust review "to determine whether the transfer would have any significant competitive consequences." (§ 1.5.) The Staff relies heavily on the *Summer* decision (*South Carolina Electric & Gas Co.* (Virgil C. Summer Nuclear Station, Unit No. 1), CLI-84-13, 13 NRC 862 (1981)) in making its assessment. NUREG-1574, *supra*, p. 3-1. As demonstrated above and discussed below, the merger would have significant competitive consequences for KEPCo under the three *Summer* criteria.

The first criterion is whether one or more changes have occurred since the date of the previous NRC antitrust review. Two of the three anticompetitive effects noted above, *viz.*, the complete control of WCNOC by a single entity and the elimination of a competitor for the purchase of KEPCo's share of WCGS, are the direct and sole result of the subject merger. The other competitive impact, *i.e.*, the applicants' failure to amend the KGE antitrust conditions so as to deny KEPCo the benefits of economic dispatch over the new Westar Energy service area, exacerbates the anticompetitive effect of the existing restriction. The anticompetitive effect of the restrictions in the WRI and KGE service areas would after the merger be extended to encompass the KCPL service area as well. 14/ In addition, post-merger KEPCo will be competing against an

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14/ Moreover, unlike the merger of KPL and KGE, which resulted in the formation of WRI but left a successor KGE subsidiary and did not directly transfer KGE's interest in WCGS or the WCGS Operating License to WRI, the instant proposed merger would end KGE's corporate existence and require a direct transfer of KGE's and KCPL's possessory interests in WCGS the WCGS Operating License to Westar Energy.

even stronger entity, Westar Energy,15/ which will make KEPCo's inability to obtain the full benefit of the economic dispatch of its resources in the entire Westar Energy area to its members across the entire Westar Energy area that much more competitively significant. Thus, whether the NRC dates the last antitrust review to have been when the WCGS Operating License was issued or when KGE and KPL merged, changes have occurred since the date of the previous NRC antitrust review.

The second criterion is whether the changes are reasonably attributable to the licensee(s). This is easily addressed. But for the merger, the anticompetitive problems noted above either would not exist (in the case of the issues discussed in Part III.B and C, above) or else would be less severe (in the case of the issue discussed in Part III.A, above). Accordingly, there can be no serious question but that the changes are attributable to the licensees. The problems discussed in Part III, above, are a direct result of the merger.

The third criterion is whether the changes have antitrust implications that likely would warrant Commission remedy. The Commission has stated regarding this issue that its "inquiry here is essentially whether there is sufficient likelihood that the Commission's remedial powers will be exercised so that some purpose would be served by entering on the process of antitrust review." *Summer*, 13 NRC at 875. The antitrust implications of the changes have been testified to in depth by Dr. Taylor in his Direct Testimony appended hereto and summarized in Part III above. The merger-created ability to drive up a rival's costs of wholesale power and to dominate a competitor in its ownership and sale of a minority interest in a jointly-owned generation facility

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15/ The applicants' filing seeking FERC approval of the merger claims significant economic benefits for the merged entities but proposes to share none these benefits with KEPCo as a wholesale customer.

cry out for Commission remedy. These matters, which may not be dealt with adequately or at all by any of the other agencies charged with reviewing the merger (as discussed in Part V, below), are squarely within this Commission's primary jurisdiction; therefore, it is incumbent upon the Commission to aggressively address now the anticompetitive harm that the subject merger will cause.

V. The NRC Is the Proper Forum To Address the Concerns Raised by KEPCo.

The applicants may contend that the Commission should stay out of this dispute because there are so many other agencies charged with overseeing merger applications. *See* Application, p. 3. KEPCo agrees that there are other agencies with that obligation, and KEPCo is actively pursuing its interests before those agencies. As noted, the Taylor Testimony and Haun Testimony appended hereto were recently submitted to the FERC with KEPCo's protest of the merger application pending before that agency.

The federal and state commissions reviewing the merger may have broad authority to deny a merger application or to approve it with conditions. But the specific complaints KEPCo raises here go directly to the ownership, operation, and licensing of WCGS. For this reason, this Commission is not only the logical agency, but arguably the only agency, that will examine these issues with an eye toward shaping a meaningful remedy. KEPCo is unaware of any instance in which a state commission or the FERC has conditioned a merger upon the alteration of an outstanding NRC license condition. Thus, the relief that KEPCo is seeking is unlikely to be provided by any agency other than this one.

VI. Conclusion

Wherefore, for the reasons set forth above, KEPCo petitions to intervene in this proceeding and requests that, if the remedies requested in the body of this pleading are not adopted, a hearing be held on the antitrust consequences of the proposed merger of WRI, KGE, and KCPL and the instant application for license transfer and amendment.

Respectfully submitted,

KANSAS ELECTRIC POWER COOPERATIVE, INC.

By Randolph Lee Elliott
William T. Miller
Randolph Lee Elliott

Miller, Balis & O'Neil, P.C.
1140 19th Street, N.W.
Suite 700
Washington, D.C. 20036-6600
202-296-2960

February 18, 1999

Attachment 1

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Western Resources, Inc. and	)	**Docket No. EC97-56-000**
Kansas City Power & Light Company	)	

Direct Testimony
of
Gordon T.C. Taylor, Ph.D

Prepared on Behalf of
Kansas Electric Power Cooperative, Inc.

February 2, 1999

TABLE OF CONTENTS

DIRECT TESTIMONY
of
GORDON T.C. TAYLOR, Ph.D

Part I: INTRODUCTION OF WITNESS

Q. Please state your name, business address, and employment.

A. Gordon T.C. Taylor. My business address is Taylor Economic Research, Inc., 2615 Northeast Stanton Street, Portland, Oregon 97212. I am an independent consulting economist and president of Taylor Economic Research.

Q. On whose behalf have you prepared this testimony?

A. Kansas Electric Power Cooperative, Inc. ("KEPCo").

Q. Have you previously prepared testimony filed by KEPCo with its prior interventions in this proceeding?

A. Yes. I previously prepared two pieces of testimony filed in this proceeding. This direct testimony replaces both pieces of testimony.

Q. Please summarize your educational background.

A. I earned the Bachelor of Arts degree in economics from the University of Washington at Seattle, and I earned the Master of Arts degree in economics and the Ph.D. degree in economics from the University of California at Berkeley.

Q. Please summarize your professional experience as an economist.

A. Initially I taught economics at the University of California at Berkeley and then at the University of Maryland at Baltimore for seven years (1967-1974). I then took a one-year leave of absence to serve on the staff of the Federal Power Commission ("FPC"), but I stayed for five years (1974-1979). During that period, the FPC became the Federal Energy

Regulatory Commission ("FERC"). At the FPC, I was an Industry Economist and then Chief of the Division of Economic Studies. At the FERC, I was Director of the Division of Economics and Finance. Subsequently, I became an independent consulting economist and then a partner in Whitfield Russell Associates, a public utility consulting firm (1979-1982). During 1983, I served as Director of the Division of Wholesale Power and Transmission Rates at the Bonneville Power Administration. Since 1984, I have been an independent consulting economist, specializing in economic regulation and antitrust economics.

Q. Have you testified previously as an expert economic witness?

A. Yes. I have testified (*i.e.*, testimony, prepared testimony, deposition testimony, affidavits, and expert reports) as an expert economic witness in more than seventy proceedings before the U.S. Congress, Federal district courts, the FPC, the FERC, the U.S. Nuclear Regulatory Commission, state courts, state public utility commissions, and arbitrators.

Q. Have you testified previously on electric utility competitive issues?

A. Yes. I testified before Congress on potential anticompetitive effects of proposed legislation to facilitate residential electric energy conservation. I testified before the Nuclear Regulatory Commission on behalf of the U.S. Department of Justice, Antitrust Division, regarding conditions necessary to mitigate market power related to the construction of nuclear generating plants. I testified before Federal district courts on exclusion from electric generating markets, exclusion from essential transmission facilities, price squeeze between wholesale and retail electric power rates, and refusals to wheel to retail industrial customers. I testified before the FPC and FERC concerning anticompetitive conduct: exclusion from wholesale electric power markets, exclusion from essential transmission

facilities, creation of barriers to entry, refusals to deal, division of markets, undue discrimination and wholesale/retail price squeeze, vertical leverage, exclusive and reciprocal dealing, and raising rivals' costs. In addition, I have testified regarding electric utility merger applications and electric utility and power pool applications for authority to charge market-based rates.

Q. Please list your testimony regarding electric utility mergers.

A. I testified for the FERC staff regarding the attempted takeover by Florida Power & Light Company of the municipal electric system of the City of Vero Beach. I testified for intervenors regarding the proposed merger of PacifiCorp (Pacific Power & Light Company) with Utah Power & Light Company, the proposed merger of Southern California Edison Company with San Diego Gas & Electric Company, and the proposed merger of Pacific Enterprises (Southern California Gas Company) with Enova Corporation (San Diego Gas & Electric Company).

Part II: PURPOSE AND SUMMARY OF TESTIMONY

II.A. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to evaluate whether the proposed merger of Western Resources, Inc. ("Western Resources") and the Kansas City Power & Light Company ("KCPL") would be in the public interest. Western Resources controls two electric utilities. The Kansas Power & Light Company ("KPL") is a division of Western Resources, and the Kansas Gas & Electric Company ("KGE") is a wholly-owned subsidiary of Western Resources. Western Resources and KCPL ("Joint Applicants") have applied to the FERC and to the Kansas Corporation Commission ("Kansas Commission") to merge KPL, KGE,

and KCPL into a new company to be named "Westar Energy" ("Westar"). Although KPL, KGE, and KCPL would each continue to operate under its own trade name, Westar would combine their generating capacity into a single system for central economic dispatch. In addition, Westar would combine their transmission systems into a single transmission system and offer a single, combined-system open-access transmission rate. I evaluate whether the proposed merger would be in the public interest based on whether it would create market power. In addition, I evaluate whether the Joint Applicants' market power study demonstrates, as they claim, that the proposed merger would *not* create market power.

Q. What is KEPCo's interest in the proposed merger?

A. KEPCo owns a share of the Wolf Creek nuclear generating station ("Wolf Creek"), purchases power from the Southwestern Power Administration ("SWPA"), and purchases wholesale requirements power from Western Resources and KCPL. Currently, Western Resources dispatches KEPCo's generation resources as an integral part of Western Resources control-area central economic dispatch, as if KEPCo's generation were Western Resources generation and as if KEPCo's load were Western Resources' load. Combining generation in joint central economic dispatch minimizes costs. The benefits and costs of central economic dispatch are divided by Western Resources after dispatch in "after-the-fact" accounting. Western Resources abuses its authority over after-the-fact accounting to arbitrarily deny KEPCo benefits and assign KEPCo costs.

Post-merger, Westar would dispatch KEPCo's resources as if they were Westar's resources to supply the combined Westar-KEPCo control-area load. Westar would divide the benefits of central economic dispatch in after-the-fact accounting. Westar would be able to arbitrarily deny KEPCo benefits and assign KEPCo costs, thereby raising KEPCo's

costs. KEPCo is very concerned that the proposed merger would enhance market power for Westar to raise KEPCo's costs through abuse of its authority over control-area after-the-fact accounting. As I demonstrate below (in Section V.B.4.), the proposed merger would in fact enhance Western Resources' market power to arbitrarily deny KEPCo benefits and assign KEPCo costs. Moreover, I also demonstrate below (in Section V.B.8.) that based on Western Resource's current abuse of its market power to raise KEPCo's costs, it is likely that Westar would exercise its enhanced market power to raise KEPCo's costs.

Contrary to the assertions of Joint Applicants' economic witness Dr. Robert M. Spann,1/ currently Western Resources and KCPL compete to sell electricity at retail with the rural electric cooperative members of KEPCo located within the transmission areas of Western Resources and KCPL. Because Westar would be able to arbitrarily deny KEPCo benefits and assign KEPCo costs, KEPCo members would be injured in retail competition by the proposed merger regardless of whether the price of retail electricity continues to be regulated or retail wheeling (retail direct access) is adopted. Moreover, regardless of how easy it may be to enter into the relevant market, entry could not mitigate Westar's market power to raise KEPCo's costs.

II.B. SUMMARY OF TESTIMONY

Q. Please summarize your testimony.

A. **The balance of my testimony is organized into six parts.** Part III, *Horizontal Market Power*, reproduces the results of the delivered price test performed by Dr. Spann in his affidavit. In his affidavit, Dr. Spann responded to the Commission Staff's August 24, 1998 deficiency letter to the Joint Applicants ("Spann Affidavit"). Dr. Spann analyzed

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[1] Direct Testimony of Robert M. Spann filed at the Kansas Commission September 8, 1997 ("Spann KCC-1 testimony"). This testimony was filed at the FERC on September 18, 1997, in Exhibit G to the Joint Applicants' merger application.

horizontal market power that would be created by the proposed merger and determined, as measured by economic capacity, that post-merger Western Resources and KCPL TDU non-firm energy and short-term capacity markets would be highly concentrated. This part of my testimony also corrects certain of Dr. Spann's calculations of market concentration for the Western Resources and KCPL TDU (transmission area) markets for errors in the figures for economic capacity and transmission constraints. I conclude based on Spann Affidavit calculations of concentration (HHIs) and corrected calculations of concentration that the proposed merger would create substantial horizontal market power in non-firm energy and short-term capacity in the Western Resources and KCPL transmission-area markets.

Part IV, *Vertical Market Power*, explains why market power created in a wholesale market, when combined with vertical integration downstream into a retail market, could create a competitively-objectionable barrier to entry. Similarly, this part explains why market power in a retail market, when combined with vertical integration upstream into a wholesale market, could create a competitively-objectionable barrier to entry. This part of my testimony also explains the three-condition procedure in the *Merger Guidelines* for analyzing competitive problems from vertical mergers.

Vertical integration will become critical regarding barriers to entry under restructuring that adopts retail direct access (retail wheeling). With restructuring, the relevant product markets will be wholesale and retail requirements power markets, because the product retail consumers want to purchase is retail requirements power and the product must be produced at wholesale. Market power in the wholesale requirements power market, when combined with vertical integration, would create a barrier to entry into the retail requirements power market. In addition to being a horizontal merger at each of the three levels of production (generation, transmission, and distribution), the proposed merger of Western

Resources and KCPL also would be a vertical merger that would combine an enlarged generating company with an enlarged distribution company.

Part V, *Market Power Analysis of Proposed Merger*, applies the five-step *Merger Guidelines* procedure to evaluate whether the proposed merger would create market power in the wholesale requirements power market. The first step defines wholesale requirements power as a relevant product market and the Westar transmission area as the relevant geographic market ("Westar-area market"). Westar's market power in wholesale requirements power, when combined with Westar's vertical integration into retail electric markets, would erect a competitively-objectionable barrier to entry. This section also analyzes the other *Merger Guidelines* steps: potential adverse competitive effects from the proposed merger; barriers to the entry of new competition; merger-created efficiencies; and failing firm.

Part VI, *Evaluation of Joint Applicants' Market Power Study*, evaluates the Joint Applicants market power study contained in the testimony and exhibits of Dr. Spann. I conclude that the Joint Applicants have failed to demonstrate that the proposed merger would not create market power. In fact, the Joint Applicants market power study filed with the Kansas Commission demonstrates that the proposed merger would create market power.

Part VII, *Merger Conditions*, presents KEPCo's proposed merger conditions for mitigating merger-created horizontal market power, vertical market power, and potential adverse competitive effects.

Part VIII, *Overall Conclusion and Recommendation*, states my overall conclusion and recommendation. My overall conclusion is that the proposed merger is not in the public interest and should be rejected.

Q. What are the potential adverse competitive effects that you identified?

A. I identified eight potential adverse competitive effects from the proposed merger. First, the proposed merger would create market power in the Westar-area non-firm energy and short-term capacity markets because these markets would become highly concentrated. In addition, the proposed merger would create market power in the Westar-area wholesale requirements power market, creating unilateral market power. Westar would gain unilateral market power because it would have a dominant market share in a product market in which entry would not be easy.

Second, the proposed merger would result in the loss of potential competition. If direct retail access is adopted in Kansas, Western Resources would be particularly well situated to compete at wholesale and retail in the KCPL area, and KCPL would be particularly well situated to compete at wholesale and retail in the Western Resources area. Both now produce requirements power, and each owns substantial generating capacity in the other's control area. The proposed merger would eliminate Western Resources as a potential competitor in the KCPL area and would eliminate KCPL as a potential competitor in the Western Resources' area, injuring competition.

Third, the proposed merger would create a highly-concentrated Westar-area market, creating an environment that would facilitate tacit or express collusion. In this market, there would be a high potential for smaller competitors and new entrants to follow Westar's wholesale and retail price leadership rather than competing with Westar.

Fourth, the proposed merger would create market power for Westar to raise rivals' costs. Currently, Western Resources has market power obtained in the KPL-KGE merger that it abuses to arbitrarily raise KEPCo's costs. This market power would be enhanced by

the proposed merger. Regardless of whether direct retail access is adopted in Kansas, the proposed merger would create market power for Westar to raise rivals' costs.

Fifth, Westar would gain operational control of Wolf Creek through its control of the Wolf Creek Nuclear Operating Corporation ("WCNOC"). Currently, KEPCo's vote in the WCNOC balances the votes of Western Resources and KCPL, neither of which has a majority. With the merger, Westar would have a majority of the votes and could control operation of Wolf Creek without considering KEPCo's interests.

Sixth, Westar would gain control of KEPCo's ability to sell its share of Wolf Creek. Because of KGE's and KCPL's right-of-first-refusal, and one-year period to decide to exercise that right, Westar would control whether KEPCo could market its share of Wolf Creek, should KEPCo decide to sell.

Seventh, Westar would gain control of KEPCo's ability to displace energy under the Western Resources' partial requirements wholesale power tariff, and would gain control of KEPCo's ability to timely terminate its contract with Western Resources for partial requirements wholesale power. With this control, Westar would have market power to exclude KEPCo from the wholesale markets.

Eighth, Westar likely would exercise the market power that it would gain through the proposed merger. Currently, Western Resources exercises market power gained through the KPL-KGE merger to arbitrarily raise rivals' costs and exclude competition from the wholesale power markets. The proposed merger would create a larger Western Resources with market power in a larger area. No doubt Westar would exercise the market power that would be enhanced and created by the proposed merger.

Q. Please summarize your analysis of barriers to entry.

A. Under the *Merger Guidelines*, entry must be easy in order to mitigate market power. If entry is not easy, then the exercise of market power can be sustained. For entry to be easy, entry must meet three tests. Entry must be likely, sufficient, and timely. For entry to be likely, potential entrants must expect entry to be profitable. Potential entrants would not expect entry into the wholesale or retail requirements power markets to be profitable. Westar would have absolute cost advantages from generation constructed years earlier (except probably Wolf Creek) and lower financing costs resulting from accumulated depreciation. Westar would have economies of scale in generation in combination with substantial established sales at retail. Without substantial retail sales, it would be difficult for entrants to match Westar's economies of scale. The construction of new generation would involve risks of sunk costs invested over a multi-year period of plant construction before any expectation of revenues. Westar may use strategic conduct, such as lowering price at the time of a rival's entry, to injure entrants and thereby gain a reputation for strategic predation that could intimidate further attempts at entry. Entrants face the probable necessity of simultaneously entering two levels in the vertical structure of the industry: the production of wholesale requirements power and the sale of retail requirements power. Entry would not be likely because of the high barrier to entry from the need to enter at both the wholesale and retail levels simultaneously. For entry to be sufficient, entry must occur in an amount adequate to restore the market price and output to the competitive level. Because entry would not be likely, entry probably would not be sufficient. For entry to be timely, entry must have a significant effect within two years. Energy cost-efficient generating units that could be competitive take three or more years to construct, so entry that could have a significant effect would not be timely.

Q. What is your overall conclusion and recommendation?

A. My overall conclusion is that the proposed merger of Western Resources with KCPL would not be in the public interest because it would create substantial market power. Therefore, I recommend that the proposed merger be rejected. If not rejected, I recommend that at a minimum the merger be conditioned with all ten of KEPCo's proposed merger conditions.

Part III. HORIZONTAL MARKET POWER

Q. What is the purpose and organization of this section of your testimony?

A. My purpose is to evaluate the delivered price test in the Spann Affidavit. This part of my testimony is organized into two sections: (A) market concentration; and (B) calculation-method errors.

III.A. MARKET CONCENTRATION

Q. Please explain the results of the Spann Affidavit delivered price test.

A. As required by the FERC Staff's August 24, 1998 deficiency letter, the Spann Affidavit calculates market concentration in the Joint Applicants' destination markets based on economic capacity and available economic capacity. Regarding the Western Resources TDU market (transmission-area market), the Spann Affidavit finds that, based on economic capacity, the proposed merger would exceed the 100 HHI change in concentration and the 1,800 HHI post-merger concentration thresholds at which under *Merger Guidelines* criteria "it will be presumed" that a proposed merger would create market power.2/ Shown in Table 1 below are the Spann Affidavit market concentration results for the nine load-level markets in the Western Resources TDU market.3/

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[2] *Merger Guidelines*, § 1.51(c).

[3] Spann Affidavit, Exhibit ___ (RMS-11), page 1.

Table 1 Western Resources TDU Market - Economic Capacity		
Load Level	**Change in Concentration (HHI)**	**Post-Merger Concentration (HHI)**
Highest 100 hours	262	2,457
Next 250 hours	322	2,543
Next 400 hours	351	2,765
Next 600 hours	324	2,938
Next 800 hours	294	2,846
Next 1000 hours	372	2,844
Next 1600 hours	288	2,800
Next 1500 hours	253	1,536
Lowest 2510 hours	207	1,354

Q. Does the Spann Affidavit correctly calculate economic capacity in the Western Resources TDU market?

A. No. Three errors are apparent for the peak-period market (Highest 100 Hours). The affidavit of KEPCo witness Stephen P. Daniel, which is appended to KEPCo's protest, addresses certain of these errors and there may be additional errors.

Q. What three errors are apparent for the Western Resources' peak-period market?

A. First, the Spann Affidavit shows for the peak period that KEPCo's economic capacity equals 292 MW. KEPCo has a total of only 70 MW of capacity, so it could not have more than 70 MW of economic capacity in any time period.4/ The Spann Affidavit's

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4 Spann Affidavit, Exhibit ___ (RMS-11), page 1.

economic capacity figure for KEPCo is incorrect. It is possible that Dr. Spann assigned Western Resources capacity to KEPCo related to supplying KEPCo partial requirements power, but this would be inappropriate because KEPCo has given notice of termination. To show future competitive significance, the economic capacity used to supply KEPCo should be assigned to Western Resources.

Second, the Spann Affidavit shows for the peak period that KCPL's economic capacity in the Western Resources TDU market equals 206 MW.5/ KCPL owns a 547 MW share of Wolf Creek capacity. Wolf Creek is located in the Western Resources control area. During the peak period, Wolf Creek's energy costs are less than the Western Resources' system lambda. Thus, KCPL's Wolf Creek capacity would be economic capacity in the Western Resources control area during the peak period. The Spann Affidavit's economic capacity figure for KCPL in the Western Resources TDU market is incorrect.

Third, the Spann Affidavit shows for the peak period that WestPlains Energy (*i.e.*, UtiliCorp Kansas) economic capacity equals 47 MW.6/ WestPlains owns 350 MW in the Jeffrey plant. The Jeffrey plant is located in the Western Resources control area. During the peak period, Jeffrey's energy costs are less than the Western Resources' system lambda. Thus, WestPlains' Jeffrey capacity would be economic capacity in the Western Resources control area during the peak period. The Spann Affidavit's economic capacity figure for WestPlains in the Western Resources TDU market is incorrect.

Q. If you make these three corrections, what is the post-merger market concentration in the Western Resources TDU market?

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[5] Spann Affidavit, Exhibit ___ (RMS-11), page 1.

[6] Spann Affidavit, Exhibit ___ (RMS-11), page 1.

A. Making these three corrections, post-merger concentration during the peak period in the Western Resources TDU market would be an HHI of 2,718. This HHI is higher than the HHI calculated in the Spann Affidavit.

Q. What are the Spann Affidavit market concentration results for the KCPL TDU market?

A. Shown in Table 2 below are the Spann Affidavit market concentration results for the nine load-level markets in the KCPL TDU market.7/

Table 2

KCPL TDU Market - Economic Capacity

Load Level	Change in Concentration (HHI)	Post-Merger Concentration (HHI)
Highest 100 hours	331	2,366
Next 250 hours	323	2,120
Next 400 hours	330	1,703
Next 600 hours	362	1,526
Next 800 hours	433	1,706
Next 1000 hours	424	1,682
Next 1600 hours	447	1,699
Next 1500 hours	198	1,097
Lowest 2510 hours	86	1,165

According to the Spann Affidavit, the KCPL TDU market is highly concentrated in two load-level markets and moderately concentrated in the others. The Spann Affidavit, however, makes errors in calculating economic capacity in this market similar to the errors made in the Western Resources TDU market. Mr. Daniel also addresses certain of these errors.

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[7] Spann Affidavit, Exhibit ___ (RMS-11), page 2.

Q. Why have you reproduced the Spann Affidavit concentration figures for economic capacity rather than for available economic capacity?

A. The *Merger Guidelines* state that "[m]arket shares will be calculated using the best indicator of firms' *future* competitive significance."8/ In the immediate future, the competitiveness of wholesale power markets will become critical to competition in restructured retail electric markets with direct retail access (retail wheeling).

With restructuring that adopts direct retail access, the future competitive significance of a merged company in supplying wholesale power into the retail markets in the transmission areas of adjoining utilities is the amount of economic capacity that the merged company would have available to compete after serving the load of its customers in its own transmission area. With restructuring, "available economic capacity" should be redefined to mean economic capacity minus the merged company's retail load in its transmission area. Thus, available economic capacity is the best measure of future competitive significance in transmission areas outside of a merged company's transmission area. Within its transmission area, the future competitive significance of a merged company in supplying wholesale power to the retail markets in its transmission area would depend on its economic capacity, because under restructuring adopting direct access it would no longer have any native load.

In the *Merger Policy Statement*, Appendix A, the Commission explained regarding available economic capacity that "[t]he presumption underlying this measure is that the lowest running cost units are used to serve native load and other firm contractual obligations and would not be available for other sales. As competition develops this

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[8] Merger Guidelines, § 1.41 (emphasis added).

presumption may not be valid."9/ The footnote to this statement reads "[f]or example, in a market with full retail access and a bid-based power exchange, all generation units would be in the market."10/ In summary, in choosing for merger analysis between economic capacity and available economic capacity for measuring future competitive significance under retail direct access, economic capacity is the best measure within a merged company's transmission area, whereas (redefined) available economic capacity is the best measure in the transmission areas of a merged company's adjoining utilities. My focus in this testimony is on Westar's transmission area wherein my client, KEPCo, competes with the Joint Applicants. I do not address any other destination markets.

Q. Do you agree with the Spann Affidavit that high concentration in off-peak periods is less of a concern because of higher supply elasticity?

A. No. Supply elasticity is the response of supply to a price increase. The amount of supply elasticity in each load period is already taken into account in the calculation of economic capacity. There is no need to take supply elasticity into account twice. Each load period is considered to be a separate market. In a destination market, the amount of economic capacity in each load period is calculated at 105% of the competitive market price for the load period. Thus, supply elasticity up to 5% above the competitive market price is incorporated in the calculation of economic capacity. The degree of market concentration in any destination-market load period calculated using economic capacity indicates the ability to profitably restrict output and raise price by 5%. As measured by economic capacity, supply elasticity has already been considered, so the ability to profitably raise price by 5%

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9 *Merger Policy Statement* at 30,132.

10 *Merger Policy Statement* at 30,132, note 81.

during low-load periods is just as much a market power problem as the ability to profitably raise price by 5% during high-load periods.

Q. Does the Spann Affidavit use the appropriate transmission constraints?

A. No. For transmission constraints, the Spann Affidavit uses Southwest Power Pool ("SPP") flowgates. Flowgate transmission constraints for the SPP region are not as accurate in identifying transmission constraints for a particular destination market as load-flow analyses specific to the destination-market utility's control area (*i.e*, transmission area). Previously, the Joint Applicants conducted load-flow analyses for both the Western Resources and KCPL transmission areas. Dr. Spann applied the Western Resources and KCPL load-flow constraints in his Supplemental Testimony ("Spann KCC-2 testimony") filed at the Kansas Commission and attached as a part of the Joint Applicants' application to the FERC.

Although the Spann KCC-2 testimony uses the results of these load-flow studies, the Spann Affidavit does not. The affidavit of KEPCo witness H. Charles Liebold, which is appended to KEPCo's protest, explains that for increased accuracy in calculating simultaneous import transfer capability ("import capability"), the Spann Affidavit should have used the load-flow analyses specific to Western Resources and KCPL in addition to SPP region flowgates. In my Section V.A.1. below, I explain the load-flow studies in the Spann KCC-2 testimony,

As shown in Table 3 below, I have recalculated post-merger market concentration (measured using economic capacity) in the Western Resources destination market after incorporating both load-flow transmission constraints and the corrections to economic

capacity that I discussed above. The Spann KCC-2 testimony provides economic-dispatch load-flow import capability for the Western Resources control area.11/

In recalculating economic-capacity market shares for the Western Resources area, I first reduced the Spann Affidavit's figure for economic capacity from generating units outside the transmission area to equal the area's import capability. Then I set the denominator used for calculating market shares equal to economic capacity from generating units located in the Western Resources control area plus import capability into the Western Resources control area (because Spann Affidavit economic capacity from outside generating units exceeds import capability). For convenience in calculating pre-merger and post-merger market concentration, I do not include an HHI for any imported economic capacity other than from KCPL. Thus, imported economic capacity other than from KCPL does not add to calculated market concentration, a conservative assumption in that it results in understating market concentration. In my recalculation, I apply the Spann Affidavit's method of calculating change in concentration and post-merger concentration.

Q. What is the recalculated change in concentration and post-merger concentration?

A. In Table 3 below, change in concentration and post-merger concentration measured using load flow transmission constraints and corrected economic capacity are calculated for the Western Resources TDU market. These figures are calculated for only the "Highest 100 Hours" load level because the load-flow studies that Dr. Spann presented were only for the peak period. Import capability may be different in other time periods.

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[11] Spann KCC-2 testimony, Exhibit ___ (RMS-13), page 2.

Table 3 Western Resources TDU Market - Economic Capacity		
Load Level	Change in Concentration (HHI)	Post-Merger Concentration (HHI)
Highest 100 Hours	2,117	6,909

There are similar problems with Spann Affidavit economic capacity figures for the KCPL area.

In summary, both the Spann Affidavit calculations and the recalculations indicate that the proposed merger would create highly concentrated Western Resources and KCPL TDU markets. The calculated change in concentration and post-merger concentration greatly exceed the thresholds at which the *Merger Guidelines* presume that market power would be created.

Q. Do you agree with the Spann Affidavit that arbitrage eliminates the possibility of price discrimination between destination markets?

A. No. The *Merger Guidelines* explain regarding price discrimination that narrower geographic markets can be defined for "particular locations" in which a hypothetical monopolist could profitably raise price.12/ Highly-concentrated markets such as the Western Resources area are geographic markets in which a hypothetical monopolist could profitably raise price. Thus, customers in relevant antitrust markets can be subjected to higher prices than the sellers with market power in the market could charge in less concentrated neighboring destination markets. Put a different way, the Spann Affidavit argument that arbitrage would defeat price discrimination rests on the implicit assumption

[12] *Merger Guidelines*, § 2.33.

that no destination market is a relevant antitrust market, that no market smaller than entire region is a relevant antitrust market. The fact that post-merger certain destination markets would be highly concentrated demonstrates that they are separate relevant antitrust markets susceptible to price discrimination relative to prices charged in adjoining destination markets.

III.B. CALCULATION-METHOD ERRORS

Q. Has the Spann Affidavit calculated post-merger market concentration in the correct market area?

A. No. In calculating post-merger market share and concentration, the Spann Affidavit fails to combine Western Resources and KCPL into Westar. The Spann Affidavit calculates post-merger market concentration only for the Western Resources and KCPL TDU markets separately, not for the combined Westar-area market. In contrast, the Spann FERC testimony combined Western Resources and KCPL into a single merged-company destination market for calculating post-merger market concentration based on economic capacity. In addition, the Spann KCC-2 testimony combined Western Resources and KCPL into a single merged company and evaluated market power in the merged company's transmission area. In the Spann Affidavit, Dr. Spann does not explain why he abandoned the correct approach that he used in both his Spann FERC and KCC-2 testimonies.

Q. Why should the Joint Applicants' TDU markets be combined post-merger?

A. The Joint Applicants' TDU markets should be combined into a single Westar-area market for four reasons. First, Western Resources and KCPL plan to merge, forming a single electric utility within the Westar area. Second, the transmission systems of Western Resources and KCPL are directly interconnected, so that when merged they would form a single integrated transmission system. Third, Western Resources and KCPL plan to

combine their generation (*i.e.*, the generation of KPL, KGE, and KCPL) for joint central economic dispatch, thereby becoming a single generating entity in the Westar area. Fourth, Western Resources and KCPL plan to adopt a single, combined-system open-access transmission tariff for their combined-system transmission area.

Q. Is the Spann Affidavit consistent regarding whether merged companies should be combined into a single company?

A. No. The Spann Affidavit is inconsistent. A few years ago, KPL acquired KGE forming Western Resources. The Spann Affidavit treats post-merger KPL and KGE as if they were a single company, namely as Western Resources. Inconsistently, the Spann Affidavit does not treat post-merger Western Resources and KCPL as if they were a single company, namely Westar. The situations are the same.

First, KPL and KGE planned to form a single integrated generation and transmission entity, and Western Resources and KCPL plan to form a single integrated generation and transmission entity. Second, in the merger of KPL with KGE forming Western Resources, the transmission systems of KPL and KGE were directly interconnected, so that when post-merger they were combined they formed a single integrated system. The transmission systems of Western Resources and KCPL are directly interconnected, so that post-merger they would form a single integrated system. Third, in the merger of KPL with KGE forming Western Resources, the generation of KPL and KGE was combined for joint central economic dispatch. In the proposed merger, the generation of Western Resources and KCPL would be combined for joint central economic dispatch. Fourth, in the merger of KPL and KGE forming Western Resources, the merged company adopted a single, combined-system open-access transmission tariff. The Joint Applicants propose that the combined

transmission systems of Western Resources and KCPL would have a single, combined-system open-access transmission tariff.

Q. Does the Spann Affidavit correctly calculate change in market concentration?

A. No. The Spann Affidavit does not calculate change in market concentration as would be expected, by first calculating post-merger concentration and then subtracting pre-merger concentration. Instead, the Spann Affidavit calculates change in concentration in each destination market based solely on the pre-merger market shares of Western Resources and KCPL by applying the *Merger Guidelines* shortcut method. Because the Spann Affidavit calculates post-merger concentration in each destination market by adding the change in market concentration to the pre-merger concentration, and because the shortcut method produces the incorrect change in market concentration, the Spann Affidavit miscalculates post-merger concentration.

In summary, the Spann Affidavit cannot be considered responsive to the Commission Staff's deficiency letter because it does not measure market concentration in the correct market and when it does measure market concentration it does so inaccurately.

Part IV: VERTICAL MARKET POWER

Q. What is the purpose and organization of this part of your testimony.

A. My purpose is to identify the product market most likely to be subject to vertical market power in an electric utility merger, and to explain how the three vertical market power conditions in the *Merger Guidelines* would be applied in an electric utility merger. This part of my testimony is organized into two sections: (A) requirements power markets; and (B) vertical market power conditions.

Q. Would the proposed merger of Western Resources and KCPL be a horizontal merger or a vertical merger?

A. Actually, it would be both. First, the proposed merger would expand the geographic generation dominance of Western Resources into the KCPL transmission area. Second, the proposed merger would expand the retail distribution dominance of Western Resources into the KCPL area. Thus, the proposed merger would be a horizontal merger at the generation level, and also would be a horizontal merger at the retail level. Third, Westar's geographically-expanded generation dominance would be merged vertically downstream with Westar's geographically-expanded retail electric market. Thus, the proposed merger would be a vertical merger between Westar's horizontally-merged generation and distribution levels.

The focus in the analysis of vertical market power is on vertical integration. For purposes of exposition, hereafter I will refer to the generation, transmission, and distribution levels of a vertically-integrated electric utility as its "divisions."

Q. Why are vertical mergers a market power concern?

A. The *"1984 Merger Guidelines"* explain that "vertical mergers could create objectionable barriers to entry."13/ In the proposed merger of vertically-integrated electric utilities, the horizontal merger of generation could create market power in the production of wholesale requirements power. This market power could create an objectionable barrier to entry into the sale of retail requirements power.

IV.A. REQUIREMENTS POWER MARKETS

[13] U.S. Dept. of Justice and Federal Trade Commission, *Merger Guidelines*, Trade Reg. Rep. ¶13,304, §4.21 (1984) ("*1984 Merger Guidelines*).

Q. What is the product market most likely to be subject to vertical market power in an electric utility merger?

A. This product market is the requirements power market. Requirements power is the product that retail electric consumers purchase. The combination of four characteristics distinguish requirements power from other electricity products: (1) reliable or firm electric power except for emergencies; (2) available on demand in any reasonable amount; (3) predictable as to price; and (4) available continuously year-in-and-year-out without any termination date.

Retail requirements power is the same product as wholesale requirements power, but for most retail consumers it is delivered at lower voltages and in smaller amounts. Wholesale requirements power is produced at the generation level, transmitted to wholesale delivery points, and then sold to wholesale requirements customers or transferred to the distribution division of the vertically-integrated electric utility producer of the wholesale requirements power. Wholesale and retail requirements power are the most important electric power product markets in the electric power industry because incumbent and entrants will compete to produce this product at wholesale and to sell this product at retail under electric utility restructuring adopting retail direct access (retail wheeling). If the merged company is vertically integrated, then market power created by the merger in the production of wholesale requirements power could create a barrier to entry into the sale of retail requirements power.

The traditional product markets that the Commission examines are short-term energy products -- non-firm energy and firm energy. Typically, these are products that generating electric utilities sell to each other. Wholesale requirements power is a product vertically-

integrated electric utilities sell primarily to themselves, *i.e.*, to their distribution divisions, and also to their transmission dependent utilities.

Q. Why should the FERC be concerned with entry at retail?

A. There is an interdependent relationship between wholesale and retail requirements power. An entry barrier into generation makes it more difficult to enter into retail distribution because of the problem of acquiring a reasonably-priced supply of wholesale requirements power in a market dominated at wholesale by the seller with whom the entrant would have to compete at retail. Conversely, an entry barrier into retail distribution makes it more difficult to enter generation because otherwise the entrant may not have a retail market share to sell the wholesale requirements power that it produces.

More generally, a proposed merger that would create a barrier to entry, whether downstream from generation into the sale of retail requirements power or upstream from the retail market into the wholesale requirements market, would not be in the public interest. It is particularly critical that the Commission not allow mergers that erect barriers to entry either at the generation or retail levels.

When retail electric markets are deregulated, market power from vertical integration between generation and distribution must be mitigated by non-discrimination and comparability (Order 888/889-type) safeguards between generation and *distribution*, so that entrants into retail electric markets can obtain wholesale requirements power on reasonable terms with which to compete at retail. Dominant vertically-integrated electric utilities must be required to sell wholesale requirements power to entrants at retail on the same terms and conditions at which they transfer such power to their distribution divisions.

Q. What are the Order 888/889-type safeguards you are referring to and how would they apply in granting authority to charge market-based rates?

A. In Order 888, the Commission required non-discrimination and comparability in providing transmission. In Order 889, to ensure non-discrimination in transmission access, the Commission required vertically-integrated electric utility transmission providers to separate their wholesale generation and transmission divisions. To ensure comparability, the Commission required that the generation division of the transmission provider pay the same open-access transmission tariff as any other transmission user.

The Commission is not required to grant authority to charge market-based rates ("market-rate authority"). Prior to Order 888, the Commission required electric utilities requesting market-rate authority to provide an open-access transmission tariff. In granting market-rate authority, the Commission has not required non-discrimination or comparability at the retail level between generation and *distribution*. To ensure such non-discrimination, the Commission should require the electric utility requesting market-rate authority to separate its generation and distribution divisions. To ensure comparability, the Commission should require that the distribution division pay the same wholesale requirements power tariff as offered to any other purchaser of wholesale requirements power. The 1984 *Merger Guidelines* specifically address this vertical integration market power concern, stating that the enforcement agencies "will consider the likelihood of predatory price or supply squeezes by the integrated firms against their unintegrated rivals."14/

The Commission, in granting market-rate authority, has not ensured either non-discrimination or comparability. Therefore, in evaluating the proposed merger, the Commission should give particular attention to whether the proposed merger would create a

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[14] *1984 Merger Guidelines*, §4.211, n. 31.

barrier to entry into the sale of retail requirements power that would be faced only by potential competitors and not by the vertically-integrated merged company itself.

IV.B. VERTICAL MARKET POWER CONDITIONS

Q. Is there a procedure in either the *Merger Guidelines* or Appendix A for analyzing competitive problems from vertical mergers ?

A. There is a procedure in the "*1984 Merger Guidelines*". The 1992 *Merger Guidelines* state that for "competitive problems from vertical mergers," the enforcement agencies continue to rely on Section 4 in the *1984 Merger Guidelines.*15/

Appendix A is concerned primarily with whether horizontal market power would be created at the generation level in the sale by utilities of electric energy to each other. In Appendix A, the market screen analysis was not specifically extended to address competitive problems from vertical mergers

Q. What conditions are necessary for a vertical merger to create competitively-objectionable barriers to entry?

A. There are three conditions. Each of these three is a necessary condition. No one of these conditions is sufficient by itself, so all three are required in order to create a competitively-objectionable barrier to entry. I will explain these conditions as they apply to the proposed merger of Western Resources and KCPL.

First, the degree of vertical integration between the two markets must be so extensive that entrants into one market also would have to enter the other market. As I explain in Section V.C.3. below, entry into generation for the production of wholesale requirements power probably would require simultaneous entry at retail in order to ensure a market.

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[15] *Merger Guidelines*, Statement.

Conversely, entry into distribution for the sale of retail requirements power in restructured direct access competition probably would require simultaneous entry into the production of wholesale requirements power.

The *1984 Merger Guidelines* define "primary" and "secondary" markets, and explain that the degree of vertical integration between the two markets must be so extensive that entrants into the primary market also would have to enter the secondary market. Vertical integration can be viewed top down, from generation downstream to distribution. Vertical integration also can viewed bottom up, from distribution upstream to generation. Thus, what is "primary" and what is "secondary" depends on the situation.

In the proposed merger of Western Resources with KCPL forming Westar, the generation level is both primary and secondary, and the distribution level is both primary and secondary. The extensive vertical integration of Westar's generation division downstream into retail distribution would make entry into the Westar-area wholesale requirements power market the primary market. An entrant into this market probably would have to simultaneously enter downstream into the retail requirements market, the secondary market, in order to have buyers for its production.

Conversely, the extensive vertical integration of Westar's distribution division upstream into the wholesale requirements power market would make entry into the Westar-area retail requirements market the primary market. An entrant into this distribution market would have to simultaneously enter upstream into the wholesale requirements market, the secondary market, in order to obtain a competitively-priced supply of wholesale requirements power.

Q. What is the second condition for a barrier to entry problem to be created by a vertical merger?

A. Second, the requirement of entry into the wholesale requirements market must make entry into the retail requirements power market more difficult and less likely to occur, or the requirement of entry into the retail requirements market must make entry into the wholesale requirements power market more difficult and less likely to occur. The *1984 Merger Guidelines* explain that "the need for secondary market entry significantly increases the costs (which may take the form of risks) of primary market entry."16/

Q. What is the third condition for a barrier to entry problem to be created by a vertical merger?

A. Third, the structure and other characteristics of the primary market must be otherwise so conducive to non-competitive performance that the increased difficulty of entry is likely to affect its performance. The *1984 Merger Guidelines* explain that the threshold for non-competitive performance for vertical mergers is an HHI of 1,800, and state that above this threshold the enforcement agencies are "increasingly likely to challenge a merger that meets the other [two conditions]."17/

Part V: MARKET POWER ANALYSIS OF PROPOSED MERGER

Q. What is the purpose and organization of this part of your testimony?

A. My purpose is to analyze whether the proposed merger would create market power in wholesale requirements power. Market power created in wholesale requirements power when combined with vertical integration downstream into the sale of retail requirements power would create a competitively-objectionable barrier to entry under retail

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[16] *1984 Merger Guidelines*, §4.212.

[17] *1984 Merger Guidelines*, §4.213.

electric utility restructuring that adopts retail direct access.18/ This part of my testimony is organized into five sections. In each section, I apply one of the five steps in the *Merger Guidelines* procedure for analyzing market power.

V.A. MARKET STRUCTURE

Q. What is the first step in the *Merger Guidelines* procedure?

A. The first step is to evaluate whether the proposed merger would create market power by analyzing how the merger would change horizontal market structure in the wholesale requirements power market. The *Merger Guidelines* explain that the first step is to assess "whether the merger would significantly increase concentration and result in a concentrated market, properly defined and measured."19/ Thus, the first step requires definition of the relevant market, calculation of market shares, calculation of market concentration, and comparison of these calculations to the *Merger Guidelines*' market share and market concentration evaluation criteria or thresholds.

V.A.1. DEFINITION OF THE RELEVANT MARKET

Q. What is the concept in the *Merger Guidelines* of a properly defined market?

A. A properly defined or relevant market is a "market that could be subject to the exercise of market power."20/ A relevant market is defined as a market wherein if hypothetically there were only a single seller ("hypothetical monopolist"), this single seller could profitably restrict output and raise price. Thus, a relevant market is defined as a market in which a hypothetical monopolist would have market power. The reason for this

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[18] Retail direct access (retail wheeling) typically continues rate regulation for the delivery (distribution) of electricity but requires the incumbent distributor to deliver the retail requirements power of any qualified seller.

[19] *Merger Guidelines*, § 0.2.

[20] *Merger Guidelines*, § 1.0.

definition is to allow making reliable inferences of market power based on calculations of market share and market concentration. If a hypothetical monopolist could not exercise market power in the market, no percentage market share or market concentration would be sufficiently large to create market power. The objective in defining a relevant market is not to determine over how large an area transactions are occurring, but to identify the smallest market area wherein a hypothetical monopolist would have market power.

Q. What is the procedure for defining a relevant market?

A. The procedure is to define a product market and a geographic market. The procedure for defining a product market begins with a narrowly-defined product market. The product market is then subjected (analytically) to a price test to evaluate demand substitution – the response of consumers to an increase in the product's price above the competitive level. The analytic question is whether consumers would switch in an amount sufficient to make the price increase unprofitable. Thus, the price test is to evaluate the response of consumers to what the *Merger Guidelines* refer to as "a small but significant and nontransitory increase in price,"21/ or what is referred to in the economics literature as "a small but meaningful percentage . . . *above the competitive level.*"22/ If consumers would not switch in a sufficient amount, then the narrowly-defined product market is a relevant product market. If consumers would switch in a sufficient amount, then the products to which they would switch are added to the narrowly-defined product. Thus, a product market is defined wherein it would be profitable for a hypothetical monopolist to

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[21] *Merger Guidelines*, § 1.11.

[22] F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance* (Houghton Mifflin Company, Boston, MA: 1990), page 75 (emphasis in original).

increase price above the competitive level without consumers switching to substitute products sufficient to make the price increase unprofitable.

Q. What is the relevant product market in the proposed merger of Western Resources with KCPL?

A. The relevant product market is "requirements power." Requirements power is the product that retail consumers have traditionally purchased. Requirements power has four characteristics that, when combined, distinguish this product from other forms of electric power and energy. First, requirements power is reliable or "firm" power that is available without interruption, except in emergencies. Second, requirements power is available to consumers instantly on demand in any reasonable quantity. Third, requirements power is predictable as to price. Fourth, requirements power is available continuously year-in-and-year-out.

Requirements power is the product that retail consumers would continue to want to purchase under direct retail access. Reliable electric power has become an integral part of our national economy and daily lives, so there are no good substitutes for requirements power in many uses. Thus, in response to a small but significant and nontransitory price increase above the competitive level by a hypothetical monopolist, consumers would not switch to other products in an amount sufficient to make a price increase above the competitive level unprofitable. Both Western Resources and KCPL sell requirements power to retail consumers, and Westar would sell requirements power to retail customers.

In addition, Western Resources and KCPL sell requirements power to wholesale customers, and Westar would sell requirements power to wholesale customers. For many such customers, there are no good substitutes for requirements power. Moreover, purchasing the components necessary to assemble requirements power would involve

additional transaction costs, and the sum of transaction costs and the cost of components could exceed the competitive market price of wholesale requirements power. Thus, in response to a small but significant and nontransitory price increase above the competitive level by a hypothetical monopolist, wholesale requirements power purchasers probably would not switch to purchasing components in an amount sufficient to make a price increase above the competitive level unprofitable. Thus, both retail and wholesale requirements power are relevant product markets.

Q. What is the procedure in the *Merger Guidelines* for defining a relevant geographic market?

A. The *Merger Guidelines* require that the definition of a relevant geographic market begin with an area that is "narrowly-defined," wherein the merger applicants' plants are located. As in product market definition, a price test is then applied to the initial, narrowly-defined geographic market to determine whether the market should be expanded by adding rival sellers to whom customers in the initial market area could reasonably turn. Suppose that if in response to a small but significant and nontransitory increase in price above the competitive level by the hypothetical monopolist, firms with plants located outside the market would *not* begin selling into the narrowly-defined market in sufficient amount to make the price increase unprofitable. In this case, the narrowly-defined market is the relevant geographic market because in this area it would be profitable for the hypothetical monopolist to restrict output and raise price. If instead certain firms would begin selling into the narrowly-defined market in response to the price increase, the supply area for consumers in the narrowly-defined market is expanded to include these firms. Then the smallest possible geographic market has been identified in which a hypothetical monopolist would have market power. The hypothetical monopolist test leads only to expanding and

not to contracting a geographic market. For this reason, it is crucial to select as the starting point a market that is sufficiently narrow, so that no smaller pockets of market power are inadvertently overlooked.

Q. What is the geographic market area relevant for the evaluation of market power created by the proposed merger?

A. The initial, narrowly-defined geographic market is determined by the location of the merging companies' plants. The *Merger Guidelines* explain that:

> In defining the geographic market or markets affected by a merger, the [antitrust enforcement agencies] will *begin* with the location of each merging firm (or each plant of a multiplant firm) and ask what would happen if a hypothetical monopolist of the relevant product *at that point* imposed at least a "small but significant and non transitory" increase in price . . . [23/]

To define the relevant geographic market, I started with the Westar transmission area as the narrowly-defined geographic market for the following reasons: (1) the Western Resources and KCPL transmission areas are directly interconnected at eight points, so that with the proposed merger the two systems can be readily integrated; (2) the owned generating resources of Western Resources and KCPL are located within the Westar area, and the *Merger Guidelines* geographic market analysis starts with the location of the merging firms' plants; (3) Westar would have a single area-wide transmission rate, so there would not be a transportation or transmission cost disadvantage to generation units located anywhere within the Westar area to sell anywhere else in the Westar area; and (4) Westar would combine the generating resources of KPL, KGE, KCPL, and KEPCo for central economic dispatch to supply the combined KPL-KGE-KCPL-KEPCo load in the Westar

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[23] *Merger Guidelines*, Section 1.21 (emphasis added).

transmission area, so the Westar area would in effect become a single integrated supply area.24/

Wholesale and retail consumers located within the Westar area could reasonably turn for acquiring requirements power to generating units located within the Westar area and possibly to imported generation. A hypothetical monopolist owning all generating capacity in the Westar transmission area could profitably restrict output and raise price if transmission import capability were sufficiently constrained. To determine the degree of the transmission constraints, the Westar control-area load should be compared to the Westar control-area's simultaneous import capability.

Q. What is the import capability into the Westar area that you use for calculating market shares and market concentration?

A. I use the economic-dispatch simultaneous import capability figure calculated for the Westar transmission area by the Joint Applicants' witness, Mr. Richard A. Dixon, in testimony to the Kansas Commission that is included with the merger application to this Commission.25/

Q. Why did you use the economic-dispatch import capability figure calculated by Mr. Dixon instead of using Available Transmission Capability ("ATC") figures or total transfer capability ("TTC") figures posted on the Joint Applicants' OASIS bulletin boards?

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24 By selection of the Westar area as the narrowly-defined market, I do not rule out that there may be smaller relevant geographic markets within the Westar area. In fact, in the Spann KCC-2 testimony, Dr. Spann testifies that the Western Resources' transmission area is a load pocket], so it is possible that this area also may be a relevant antitrust market in certain contexts.

25 Amended FERC Application, Exhibit G, Direct Testimony of Richard A. Dixon, Docket No. 97-WRE-676-MER (Kansas Corporation Commission filed June 18, 1998) ("Dixon KCC Dir.").

A. A problem with ATC and TTC figures is that they are non-simultaneous. ATC and TTC are calculated for each interconnection, one interconnection at a time, while holding constant transactions on the other interconnections. When a new transmission reservation is made into the transmission area over a particular interconnection or transmission contract path, not only does the ATC for the contract path interconnection decrease, but the ATC for many other interconnections may decrease as well. The reason is that power transfers follow physical laws rather than contract paths, and for this reason may flow over any combination of interconnections rather than just over the contract path interconnection. Mr. Dixon explains that Westar's load exceeds the sum of the thermal limits on Westar's transmission system, stating that "the laws of physics will not permit the [Westar] load to be served solely from off-system generation."26/ Mr. Dixon explains that if the production of electric power from generating units located within the Westar area were reduced, power would immediately begin to flow into the Westar transmission area from generating units located in other transmission areas, but that:

> there is a limit on the amount of power that can be imported. It is not possible to direct that a certain amount of the power enter the control area at point A and another amount enter at point B. Thus, as more and more power is imported, a limit will eventually be reached.[27/]

Imported generation, although assigned a specific transmission contract path, nonetheless would likely enter the control area over a number of interconnections. In summary, the maximum amount of generation that can be imported into a control area or transmission area at a particular time is likely to be less than the sum of the control-area's ATC or TTC figures.

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[26] Dixon KCC Dir., page 12, line 23, to page 13, line 1.

[27] Dixon KCC Dir., page 13, lines 1-8.

Q. Do the simultaneous import capability figures calculated by Mr. Dixon take into account single-component outages or first contingencies?

A. Yes. Mr. Dixon takes into account transmission outages and contingencies.

Q. Does this mean that Mr. Dixon has understated simultaneous import capability?

A. No. Mr. Dixon has not understated the simultaneous import capability relevant for calculating market shares for requirements power. Requirements power needs firm transmission in order to be firm power.28/ For this reason, the import capability relevant for measuring market power in the requirements power market should be calculated after subtracting import transmission reserves sufficient to cover outages and contingencies. If transmission is out of service, sellers with generation in the control area would effectively have a larger market share.

Q. What methods did Mr. Dixon use to estimate import capability into the Westar area?

A. Mr. Dixon estimated Westar-area import capability using three different computer simulations, each modeling a different assumption or approach. First, he used what he calls the "SPP method" and calculated that the Westar area could import 1,606 MW.29/ Second, he used what could be called the "maximize method" and calculated that the Westar area could simultaneously import 1,606 MW (the same as the SPP method).30/

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[28] Alternatively, an electric utility selling retail requirements power in the Westar area would have to purchase backup capacity from a generator either with capacity located in the Westar area or that could be imported into the Westar area if the primary transmission path went out of service from a forced outage or for planned maintenance.

[29] Dixon KCC Dir., page 15, lines 1-16.

[30] Dixon KCC Dir., page 16, lines 12-24.

Third, he used what could be called the "economic dispatch method" and calculated that the Westar area could simultaneously import 704 MW.31/

Q. Are the results of all three load flow methods equally applicable?

A. No. Only the economic dispatch method is applicable.

Q. Please explain the three methods and their applicability to evaluating the proposed merger.

A. Each of the three methods simulates a reduction in Westar's generating output. Reducing Westar's generating output results in additional imports into the control area. The objective of the three methods is to determine the amount of generation that could be imported simultaneously at any one time into the Westar control area.

The SPP method dispatches generation proportionately regardless of energy cost. To redispatch or change generation, each generator is ramped by an equal percentage.32/ Thus, the SPP method is inconsistent with the actual method used by all electric utilities for the dispatch of generation. Electric utilities dispatch their generating units based on economic merit order, not mechanically by increasing or decreasing load by the same percentage on each generating unit. In evaluating the results of his three-method study, Mr. Dixon states "[m]y first conclusion is that the SPP method, although somewhat illustrative, may not provide the best estimate of net import capability."33/ Mr. Dixon is correct.

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[31] Dixon KCC Dir., page 15, line 22, to page 16, line 11.

[32] Spann KCC-2, page 62, lines 17-19.

[33] Dixon KCC Dir., page 18, lines 4-6.

The maximize method assumes voluntary redispatch of generating units out of economic merit order to increase the control area's simultaneous import capability.34/ Limited redispatch by a transmission provider may be necessary to meet a requested transmission reservation, but global redispatch ignoring merit order is not routinely employed by electric utilities to increase their import capability. Thus, the maximize method implicitly and unrealistically assumes that utilities would be irrational, and would voluntarily incur unnecessary additional generating costs for the sole purpose of maximizing competitors' imports. It is unrealistic to assume that Westar would incur additional generating costs voluntarily if the results would be to lose market share to competitors and to increase the amount by which it would have to restrict output in order to raise price.

The economic dispatch method assumes redispatch of generating units based on merit order. The economic dispatch method accurately reflects the fact that electric utilities, including Western Resources and KCPL, dispatch generation based on merit order so as to minimize costs. In conclusion, only the economic dispatch method makes economic sense. For this reason, I use Mr. Dixon's Westar-area economic-dispatch net import capability figure of 704 MW as the estimate of the amount of imported generation that could respond to a price increase by Westar.

Q. What is "net" import capability and why have you used it?

A. The adjective "net" means that Mr. Dixon calculates import capability assuming that simultaneously there would be a certain amount of exports from the control area. I use Mr. Dixon's net import figure of 704 MW because it is the only calculation that he reports.

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[34] Spann KCC-2, page 63, lines 13-15.

the Westar area to constrain a hypothetical monopolist in the Westar transmission area from profitably restricting output and raising price. For this reason, the Westar transmission area is the relevant geographic market for evaluating merger-created market power in the production of wholesale requirements power. As I noted above, I call the Westar transmission area requirements power market the "Westar-area market."

V.A.2. CALCULATION OF MARKET SHARES

Q. How have you measured market shares in the Westar-area market?

A. I have measured market shares based on the generating capacity that reasonably could supply consumers in the Westar-area market. This generating capacity equals the generating capacity located in the Westar area plus the amount of generating capacity that could be imported into the Westar area (*i.e.*, Westar control-area economic-dispatch simultaneous import capability). The *Merger Guidelines* require measuring market shares using the "best indicator of firms' future competitive significance."38/ Moreover, the *Merger Guidelines* explain that physical capacity will be used to measure market shares "if it is these measures that most effectively distinguish firms."39/ The production of wholesale requirements power requires generating capacity. To produce requirements power involves combining capacity, energy, FERC ancillary services (*e.g.*, operating reserves, reactive power and automatic generation control), and coordination services (e.g., backup capacity). Producing the necessary ancillary services requires generating capacity, as does producing backup capacity. Thus, generating capacity most effectively distinguishes the future competitive significance of firms in the production of wholesale requirements power.

Q. How does Dr. Spann measure market shares?

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[38] *Merger Guidelines*, § 1.41.

[39] *Merger Guidelines*, § 1.41 (footnote omitted).

A. As required by the FERC, Dr. Spann applies several measures. Dr. Spann states, however, that total installed generating capacity, "total capacity" or "generating capacity," best measures market shares, explaining that:

> Total capacity measures the competitive significance of each of the suppliers in the relevant market. Depicting concentration in the ownership of total capacity is the most straightforward way of presenting market-share data for purposes of a competitive analysis.[40/]

Q. How have you calculated market shares in the Westar-area market?

A. To calculate market shares, I first calculate the total generating capacity that could supply the market. Total generating capacity in the Westar-area markets equals generating capacity in the Westar transmission area plus Westar control area economic-dispatch simultaneous import capability. Sellers of requirements power to retail consumers in the Westar area could use generating capacity located in the Westar area or generating capacity located outside the Westar area that could be imported into the Westar transmission area.

Generating capacity located outside the Westar transmission area could constrain Westar's exercise of market power in the Westar-area market only to the extent that it could be imported. The geographic market that includes the generating capacity that could constrain the ability of Westar to increase price *to retail customers in the Westar transmission area* would consist of total generating capacity located in the Westar area plus total generating capacity that could be imported into the Westar area.

In calculating the market share for each entity that owns generation located in the Westar area, for the numerator I use that entity's owned-generating capacity in megawatts

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[40] Spann KCC-2, page 26, lines 9-11.

Q. Assuming that retail wheeling is adopted, does Westar's 81% market share accurately reflect Westar's dominance of the Westar-area market?

A. No. The calculated 81% market share in fact understates Westar's market dominance for four reasons. First, the Joint Applicants' 704 MW estimate of import capability overstates *firm* import capability. The Joint Applicants' load flow studies calculated incremental import capability assuming as the base case that the control area would be *exporting* 341 MW. In a load flow study, a base case assumption that there are exports increases import capability. In practice, however, exports may not be continuous. For this reason, they should not be used in calculating *firm* import capability. Reducing the base case amount of assumed exports by a certain amount may not reduce calculated import capability by the same amount. Because the relationship is not one-for-one, eliminating the assumed 341 MW of base case exports would not necessarily reduce calculated import capability by that amount. It is clear, however, that Westar-area firm import capability would be less than than 704 MW.

Second, certain electric utilities owning generation in the Westar transmission area have their present retail load located outside the Westar transmission area. Examples are the next three largest generators to Westar in the Westar transmission area — Utilicorp, St. Joseph Power & Light Company, and Empire District Electric Company. These electric utilities may require their Westar-area generation to serve retained native load and acquired retail load located outside the Westar area. Thus, Westar's market share understates Westar's market power.

Third, entities owning generation in the Westar area other than Westar may decide under retail wheeling not to compete to serve Westar's retail customers. Thus, Utilicorp, St. Joseph Power & Light Company, and Empire District Electric Company, for example, may

decide if retail wheeling is adopted in Kansas to compete to serve at retail only in their present service areas.

Fourth, entities owning generation located outside the Westar area may not cumulatively attract Westar retail customers sufficiently to utilize fully the total amount of Westar-area firm import capability.

V.A.3 CALCULATION OF MARKET CONCENTRATION

Q. Have you calculated the market concentration that would be created by the proposed merger.

A. Yes. I have calculated the market concentration that would be created by the proposed merger using both the four-firm concentration ratio and the Hirschman-Herfindahl Index ("HHI") market concentration.43/

In the *Merger Guidelines*, market concentration previously was measured using the four-firm concentration ratio. The four-firm concentration ratio is the sum of the market shares of the four largest firms in the market. In the Westar-area market, the four-firm concentration ratio would equal 86%, indicating a highly-concentrated market.

The four-firm concentration ratio has two drawbacks as an index of market concentration. First, it does not take into account differences in the size of each of the four largest firms. Second, it does not take into account the number and size of the other firms in the market. The HHI takes both into account. To take into account both every firm in the market and the relative market size of each firm, the *Merger Guidelines* now measures market concentration using HHIs.

Q. What are the critical thresholds in the *Merger Guidelines*?

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[43] The HHI is calculated by summing the squares of the market shares.

A. There are two critical thresholds: HHIs of 1,000 and 1,800. The 1,000 HHI threshold separates "unconcentrated markets" from "moderately-concentrated markets." The 1,800 HHI threshold separates "moderately-concentrated markets" from "highly-concentrated markets." Although HHIs are rather abstract, they correspond to the more intuitive four-firm concentration ratio previously used to determine critical market-concentration thresholds. The *Merger Guidelines* explain the relationship of the 1,000 HHI and 1,800 HHI critical thresholds to the four-firm concentration ratio:

> An empirical study by the Department [of Justice] of the size dispersion of firms within markets indicates that the critical HHI thresholds of 1000 and 1800 correspond roughly to four-firm concentration ratios of 50 percent and 70 percent, respectively.[44/]

In the *Merger Guidelines*, whether a proposed merger would likely create market power is evaluated by considering both the market concentration that would be created by the proposed merger and the change in market concentration that would be caused by the proposed merger.

Q. In calculating market concentration, how do you calculate market shares for imported generation?

A. In calculating market shares, I include generation imports only in the denominator. As a consequence, generation imports serve only to dilute Westar's calculated market share and the calculated market concentration for the Westar-area market.

I do not assign any market share to the generation that could be imported for two reasons. First, the Joint Applicants calculate the simultaneous import capability of the Westar area, but do not provide any detail as to the import capability over specific

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[44] *Merger Guidelines* at 20,560.

interconnections. This makes it difficult to assign interconnection capacity accurately to any particular firm. Second, even if data for import capability over each specific interconnection were available, this capability could not be readily assigned to the interconnected electric utility because some other seller could reserve transmission on that interconnection. Thus, the conservative recourse is to assign no market share to imported generation. This understates the market share of entities with generation in the Westar area that import capacity (such as KCPL during summer peak months). Moreover, market concentration is understated because entities that import generation are assigned no market share, even though total generating capacity in the market is calculated by including imported generation.

In summary, my HHI calculations understate market concentration, because imported generation is not included in market concentration. This treatment of import generation is equivalent to assuming: (1) perfect competition among generators located outside the Westar area; (2) each outside generator has transmission access into the Westar area; and (3) Westar-area generators do not import any generation.

Q. Would the proposed merger create a concentrated market?

A. Yes. As calculated in my Exhibit ___ (GT-3), the proposed merger would create a HHI of 6,656 in the Westar-area market. This HHI is much greater than the 1,800 HHI "highly concentrated" threshold. The Westar-area market would be very highly concentrated.

Q. Does the calculated market concentration in the Westar accurately measure market concentration?

A. It understates market concentration. The Westar-area market would be more concentrated than measured by either the four-firm concentration ratio or the HHI for the

same four reasons I explained above that result in Westar's market share understating Westar's market dominance.

Q. Have you calculated the change in concentration caused by the proposed merger?

A. Yes. To make this calculation, I used the combined transmission areas of Western Resources and KCPL as the pre-merger geographic market. Measuring the *change* in concentration unambiguously using HHIs requires that the amount of generation supplying the consumers in the destination market not change from pre-merger to post-merger. Thus, the measure of the *change* in concentration resulting from the proposed merger could be ambiguous if concentration in the post-merger geographic market were compared to concentration pre-merger in either the Western Resources TDU market or the KCPL TDU market alone. There is no ambiguity to the post-merger HHI that I calculated for the Westar-area. The only possible ambiguity is the change in concentration caused by the proposed merger if post-merger concentration is not compared to concentration in the combined Western Resources and KCPL pre-merger TDU markets.

As I explain below in Section V.D., Western Resources and KCPL should previously have agreed to combine their generating resources for central economic dispatch, regardless of whether they planned to merge, so as to save their consumers about $14 million per year. Thus, using the combined Western Resources-KCPL transmission area for the pre-merger market for purposes of measuring the change in concentration is reasonable.

Q. Using the combined Western Resources-KCPL transmission area as the pre-merger market, what change in market concentration would the proposed merger cause?

A. Concentration pre-merger would be an HHI of 3,513 as calculated in Exhibit ___ (GT-2). With the post-merger HHI of 6,656, the change in concentration would be 3,143. The *Merger Guidelines* state that:

> Where the post-merger HHI exceeds 1800, it will be *presumed* that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power.[45/]

Thus, the proposed merger of Western Resources with KCPL greatly exceeds the post-merger concentration and change in concentration thresholds at which a proposed merger is presumed to create or enhance market power.

Q. What is your conclusion regarding the market structure that would be created by the proposed merger?

A. The proposed merger would increase market concentration substantially and create a highly-concentrated market in which Westar would have a dominant market share. The proposed merger would create a market wherein Westar's market share, the increase in concentration, and the post-merger concentration would substantially exceed the thresholds which under the *Merger Guidelines'* evaluation criteria create a presumption of market power.

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[45] *Merger Guidelines*, § 1.51 (emphasis added).

V.B. POTENTIAL ADVERSE COMPETITIVE EFFECTS

Q. What is the second step in the *Merger Guidelines* procedure?

A. The second step is to assess whether the proposed merger, in light of market concentration and other factors that characterize the market, raises concern about potential adverse competitive effects from the proposed merger.46/ I analyze eight potential adverse effects from the proposed merger: (1) unilateral market power; (2) loss of potential competition; (3) tacit or express collusion; (4) raising rivals' costs through authority over after-the-fact accounting for control area dispatch; (5) control of Wolf Creek operation; (6) control of KEPCo's sale of Wolf Creek; (7) exclusion of competition; and (8) likely exercise of merger-created market power.

V.B.1. UNILATERAL MARKET POWER

Q. Would the proposed merger cause a potential adverse effect by enhancing or creating unilateral market power?

A. Yes. The proposed merger would create for Westar a dominant market share in the Westar-area market. This dominance would allow Westar to profitably restrict output and raise price for requirements power and other types of generation products such as energy. For example, the proposed merger would enhance market power for Westar to arbitrarily increase KEPCo's costs of replacement energy. Periodically, Wolf Creek is taken out of service for maintenance and refueling. In addition, Wolf Creek may go out of service unexpectedly because of forced outages. When Wolf Creek is out of service, KEPCo has to provide replacement energy.

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[46] *Merger Guidelines*, § 0.2 Overview.

During Wolf Creek outages, either KGE provides KEPCo with replacement energy at a contract rate or KEPCo purchases replacement energy from other suppliers. When replacement energy is required, KEPCo requests bids. Previously Western Resources has bid to supply KEPCo with replacement energy, but often others, including KCPL, bid significantly less. By acquiring KCPL in the proposed merger, Western Resources would eliminate a competitor in the sale of replacement energy to KEPCo. Indeed, Western Resources would acquire a competitor that has underbid Western Resources in supplying KEPCo with replacement energy. KCPL typically has cheaper replacement power than Western Resources. The proposed merger would deny KEPCo lower priced replacement energy from KCPL. In sum, the proposed merger would likely lessen competition, such that the price bid to supply replacement power to KEPCo would increase, causing an increase in KEPCo's costs and injuring KEPCo and its members. Moreover, if Wolf Creek were to suffer an extended outage, the injury to competition and KEPCo and its members from the proposed merger would be greatly magnified because for an extended period KEPCo would have to pay replacement costs inflated by lessened competition.

V.B.2. LOSS OF POTENTIAL COMPETITION

Q. Would the proposed merger cause an adverse effect from loss of potential competition?

A. Yes. The proposed merger would eliminate significant potential competition if the State of Kansas were to adopt retail wheeling. First, in the absence of a merger Western Resources would be a strong, well-established electric utility excellently situated to compete for retail load in the KCPL area. Western Resources is positioned to supply requirements power into the KCPL area. Western Resources could readily provide the generating capacity, electric energy, ancillary services, and backup power necessary to

assemble requirements power. Moreover, Western Resources already owns 680 MW of capacity located in the KCPL control area. When permitted, Western Resources intends to expand into neighboring areas, and Western Resources recognizes that it is well situated to compete in neighboring areas. In a section headed "Competition and Enhanced Business Opportunities" in its *1997 Annual Report*, Western Resources addressed the evolving deregulation of the electricity industry and the work of the Kansas Legislature's Retail Wheeling Task Force:

> We believe that our strong core utility business provides a platform to offer the efficient energy products and service that customers will desire. . . . We recognize that our current customer base must expand beyond our existing service area.[47]

As I explain below in Section V.C., under retail wheeling most entrants into the Westar-area retail electricity market would face significant barriers to entry such that entry would not be sufficient to constrain price increases by Westar. In contrast, Western Resources would not face most of these barriers to entry if it decided to compete at retail in the KCPL area. Western Resources is positioned to supply retail requirements power into the KCPL area, because it could readily provide the generating capacity, electric energy, ancillary services, and backup power necessary to assemble requirements power. The proposed merger would eliminate Western Resources as a potential competitor in the KCPL area.

Second, KCPL is a strong, established electric utility, excellently situated to compete for retail load in the KPL and KGE areas. Moreover, KCPL would not face most barriers to entry if it decided to compete at retail in the Western Resources area. Significantly, KCPL already owns 547 MW of generating capacity located in the Western Resources control

[47] *Western Resources, Inc. 1997 Annual Report*, page 25.

area. The proposed merger would eliminate KCPL as a potential competitor in the KPL and KGE areas.

The loss of potential competition caused by the proposed merger would be a loss for retail consumers in the Western Resources and KCPL areas under retail wheeling, because these consumers would not benefit from competition between the electric utilities that probably are the best-positioned sellers to compete in the other's present retail service area. Thus, the proposed merger would eliminate particularly strong and well-positioned potential competition that could provide Kansas with perhaps the best possibility of having retail direct access (retail wheeling) produce positive results in the KPL, KGE, and KCPL service areas.

V.B.3. TACIT OR EXPRESS COLLUSION

Q. Would the merger cause a potential adverse effect by creating the potential for tacit or express collusion?

A. Yes. The merger-created market would be highly concentrated. Highly-concentrated markets facilitate tacit and express collusion. There may be entry by the construction of generation in the Westar area, and there may be entry into the sale of retail requirements power in the Westar area. There is no assurance, however, that such entrants would find it profitable to compete based on price with the dominant incumbent (*i.e.*, Westar). Instead, entrants may find it more profitable to price just under the umbrella of the inflated prices set by Westar. Moreover, Westar may facilitate such tacit collusion by restricting output and yielding market share, because that may be a more profitable strategy than engaging in price competition.

V.B.4. RAISE RIVALS' COSTS

Q. Would the proposed merger cause a potential adverse effect by creating market power for Westar to raise rivals' costs?

A. Yes. Westar could raise rivals' costs because Westar would gain authority over after-the-fact accounting for central economic dispatch in the Westar control area.

Q. Please explain "after-the-fact accounting."

A. The term refers to the after-the-fact accounting required when central economic dispatch in a control area includes generating resources of more than one electric utility. Central economic dispatch creates cost-saving benefits. Once the generating capacity of the combined systems is operated to meet the control-area load, then after-the-fact accounting is required to divide the benefits.

Q. At the present time, does Western Resources dispatch KEPCo's generating resources?

A. Yes. After the KPL-KGE merger that created Western Resources, Western Resources created a single control area for the combined KPL-KGE area. Under contract with KEPCo, Western Resources includes in central economic dispatch KEPCo's share of the Wolf Creek nuclear generating station and KEPCo's purchase of power from the Southwestern Power Administration. Thus, Western Resources dispatches the generation of KPL, KGE, and KEPCo as if they were a single system to supply the combined Western Resources-KEPCo load in the Western Resources control area.

Q. Does authority over the after-the-fact accounting for the combined dispatch create market power?

A. Yes. This authority creates market power to raise rivals' costs. For example, the KPL-KGE merger created market power to raise KEPCo's costs, because it created

authority for Western Resources over after-the-fact accounting in the Western Resources' control area, wherein Western Resources dispatches KEPCo's resources.

Q. Does Western Resources exercise its market power resulting from its authority over after-the-fact accounting to raise rivals' costs?

A. Yes. In after-the-fact accounting for the combined dispatch, Western Resources abuses the market power that it gained through the KPL-KGE merger to arbitrarily deny KEPCo benefits and assign KEPCo costs, thereby arbitrarily raising KEPCo's costs.

Q. Would the proposed merger change this market power?

A. Yes. The proposed merger would enhance this market power, because Western Resources' present authority over after-the-fact accounting would be extended to encompass the KCPL area in addition to the KPL and KGE areas. The Joint Applicants intend to initiate combined dispatch in the Westar area. KEPCo's share of Wolf Creek would be included in this central economic dispatch. The proposed merger would in effect create a larger Western Resources, and Western Resources now exercises market power to arbitrarily deny KEPCo benefits and assign KEPCo costs in after-the-fact accounting, arbitrarily raising KEPCo's costs. Thus, it is likely that Westar would exercise the enhanced market power that it would gain through the proposed merger to arbitrarily raise KEPCo's costs.

Q. Please explain how Western Resources raises KEPCo's costs through abuse of its authority over Western Resources control area after-the-fact accounting.

A. To supply its load in the Western Resources area, KEPCo uses generation from three sources: (1) 80 MW of its SWPA power; (2) 56 MW of its Wolf Creek entitlement; and (3) partial requirements wholesale electric power purchased from Western Resources ("Western Resources requirements capacity and energy"). KEPCo purchases scheduling

and dispatch service from Western Resources for its SWPA power and Wolf Creek entitlement. As I have stated, Western Resources schedules and dispatches KEPCo's SWPA power and Wolf Creek capacity as a part of the Western Resources' control-area central economic dispatch.

In the economic merit order or "stack" used for after-the-fact accounting, SWPA power is KEPCo's lowest energy-cost resource. Next up the stack in energy cost is KEPCo's share of Wolf Creek capacity. At the top of the stack in energy cost is partial requirements wholesale energy purchased from Western Resources.

In actual dispatch of control area resources to meet the Western Resources and KEPCo combined control-area load, Western Resources uses KEPCo's 80 MW of SWPA power without restriction anywhere in the control area to supply the combined KPL-KGE-KEPCo load. In after-the-fact accounting for KEPCo's 80 MW of SWPA power, however, Western Resources arbitrarily assigns 40 MW to the KGE area and 40 MW to the KPL area. About 23% of the hours in the year, KEPCo's load in the KGE area is less than 40 MW. If not restricted by Western Resources, KEPCo could in after-the-fact accounting move arbitrarily-created "surplus" SWPA power from the KGE area to the KPL area to displace a higher cost energy resource.

About 9% of the hours in the year, KEPCo's load in the KPL area is less than 40 MW. If not restricted by Western Resources, KEPCo could move arbitrarily-created "surplus" SWPA power from the KPL area to the KGE area to displace a higher cost energy resource. Western Resources' arbitrary restrictions in after-the-fact accounting on KEPCo's economic use of its low-cost SWPA power arbitrarily inflates KEPCo's costs.

In after-the-fact accounting for KEPCo's share of Wolf Creek, Western Resources requires KEPCo to "nominate" 41 MW of its Wolf Creek capacity for use only in the KGE

area and to "nominate" 15 MW of its Wolf Creek capacity for use only in the KPL area. Western Resources' requirement that KEPCo nominate specific amounts of Wolf Creek capacity to the KGE area and to the KPL area is inconsistent with Western Resources' actual dispatch of KEPCo's Wolf Creek capacity. In practice, Western Resources dispatches KEPCo's Wolf Creek capacity without restriction anywhere in the control area to meet the combined KPL-KGE-KEPCo control-area load.

KEPCo's Wolf Creek energy is higher-cost energy than its SWPA energy, and for that reason is higher in the merit order stack used in after-the-fact accounting. In certain hours, the sum of KEPCo's SWPA power received for the KGE area and KEPCo's Wolf Creek capacity nominated to the KGE area exceed KEPCo's load in the KGE area. In this situation, KEPCo is deemed by Western Resources to have "excess" Wolf Creek energy in the KGE area. Western Resources arbitrarily creates "excess" KEPCo Wolf Creek energy by requiring nomination.

Without the arbitrary restrictions imposed by Western Resources requirement to nominate, in after-the-fact accounting KEPCo would use its Wolf Creek capacity in the control area wherever it would be the most economic. Western Resources, however, will not let KEPCo move arbitrarily-created "excess" Wolf Creek energy to the KPL area, so as to displace higher-cost Western Resources' requirements energy that KEPCo is purchasing to supply load in the KPL area.

When "excess" KEPCo Wolf Creek energy is created in the KGE area, Western Resources buys the excess energy. During off-peak hours, Western Resources pays KEPCo 8 mills/kwh for "excess" energy, and during on-peak hours, Western Resources pays KEPCo 9 mills/kwh for "excess" energy.

In the hours that Western Resources purchases KEPCo's "excess" Wolf Creek energy at 8 to 9 mills/kwh, however, Western Resources *simultaneously* charges KEPCo between 16 to 19 mills/kwh for the purchase of Western Resources' requirements energy to supply KEPCo load in the KPL area.48/ Thus, while forcing KEPCo to sell it "excess" energy at a low price, Western Resources simultaneously forces KEPCo to purchase Western Resources' requirements energy at *double* that low price. Western Resources arbitrarily denies KEPCo the full benefit of its low cost SWPA and Wolf Creek energy, and arbitrarily assigns KEPCo costs of Western Resources' own higher-cost energy. By this abuse of its authority over after-the-fact accounting, Western Resources raises KEPCo's costs. In fact, through its abuse of market power, Western Resources not only raises KEPCo's costs but also lowers its own costs by forcing KEPCo to sell it low-cost energy.

By requiring nomination of KEPCo's Wolf Creek capacity, Western Resources in effect *forces* KEPCo to sell it low-cost energy and simultaneously Western Resources in effect *forces* KEPCo to buy Western Resources' higher-cost energy. Forcing a sale at a low price and simultaneously forcing a purchase at a high price raises rivals' costs, causing injury to competition. Western Resources has *both* buyer *and* seller market power that it exercises to injure competition, causing injury to KEPCo and to KEPCo members in competition at retail. Finally, Western Resources precludes KEPCo from obtaining the full benefit from its significant investment in Wolf Creek.

Q. How would the proposed merger create market power to restrict KEPCo's economic use of Wolf Creek?

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[48] The rate charged under Western Resources' partial requirements wholesale tariff varies monthly and is calculated as a base energy rate of 21.7 mills/kwh, plus a fuel adjustment which varies monthly. During 1997, the fuel adjustment has been negative.

A. After the proposed merger, Western Resources would create a single control area combining the Western Resources and KCPL control areas. Western Resources would use Wolf Creek power newly acquired in the merger from KCPL along with both its own and KEPCo's entitlement in Wolf Creek to supply the Westar control-area load. Moreover, Westar likely would continue using control over after-the-fact accounting to restrict KEPCo's economic use of its Wolf Creek entitlement. Thus, it is likely that Westar, as has been the case with Western Resources since the KPL-KGE merger, would not allow KEPCo to use its Wolf Creek and SWPA power economically. Just as Western Resources now restricts KEPCo, Westar likely would exercise market power from authority over the larger merger-created control area to raise rivals' costs, injuring competition further. In sum, the proposed merger would create additional buyer and seller market power that likely would be exercised, lessening and injuring competition, causing injury to KEPCo and its members.

V.B.5. CONTROL OF WOLF CREEK'S OPERATION

Q. Would the proposed merger cause a potential adverse effect by creating market power for Westar to control the operation of Wolf Creek?

A. Yes. The proposed merger would create market power to control Wolf Creek operating decisions through control of the Wolf Creek Nuclear Operating Corporation ("WCNOC").

Q. What is the potential effect of the proposed merger on the present balance in decisions by the owners of Wolf Creek?

A. Western Resources through its KGE subsidiary owns a 47% share of Wolf Creek; KCPL owns a 47% share of Wolf Creek; and KEPCo owns a 6% share of Wolf Creek. Because there is currently no majority owner, at least two of the three owners must

agree on decisions regarding Wolf Creek. Western Resources and KCPL provide balance and a check on each other, and when they disagree, KEPCo has the deciding vote.49/ In the proposed merger, however, Western Resources would acquire KCPL's 47% entitlement in Wolf Creek. As a consequence, the proposed merger would give the merged company a 94% share of Wolf Creek, making it the dominant owner and effectively eliminating balancing between the two large owners in decisions regarding Wolf Creek operation and costs. Without any balance in Wolf Creek decision-making, the merged company alone would effectively control KEPCo's Wolf Creek costs, potentially causing injury to KEPCo and KEPCo members.

V.B.6. CONTROL OF KEPCO'S SALE OF WOLF CREEK

Q. Would the proposed merger cause a potential adverse effect by creating control by Westar over KEPCo's ability to sell its share of Wolf Creek?

A. Yes. It would eliminate one of the two potential buyers. As a practical matter, Western Resources and KCPL are the only potential buyers of KEPCo's share in Wolf Creek if KEPCo were to decide to sell.

Q. Why couldn't KEPCo sell its Wolf Creek share to a third-party purchaser?

A. The co-owners of Wolf Creek have a right-of-first-refusal option under Section 5.4 of the Wolf Creek Generating Station Ownership Agreement. In order to sell its share in Wolf Creek, KEPCo first has to obtain a bona fide offer and then submit that offer to

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[49] WCNOC's revised Certificate of Incorporation in Article Fifth states that: "All actions taken by the Board of Directors shall require a majority of the votes of the Directors present at any meeting of the Board of Directors at which there is a quorum, provided that such majority must include the votes of Directors who have been elected by the holders of two (2) or more different classes of Common Stock voting as separate classes." There are only three classes of Common Stock, one for each of the three owners.

Western Resources and KCPL for review. Western Resources and KCPL each has an entire year in which to decide whether to exercise its right-of-first-refusal. At any time during the year, either entity can buy at the price in the bona fide offer. Because another party may have to wait up to a year to find out if it is the successful bidder and either Western Resources or KCPL can take away the sale at the offered price, as a practical matter Western Resources and KCPL are the only potential buyers.

Without the merger, both Western Resources and KCPL may want to purchase KEPCo's share. The proposed merger, however, would eliminate this competitive incentive as well as eliminate one of the only two likely buyers of KEPCo's share, thereby lessening competition to purchase KEPCo's share in Wolf Creek, and potentially injuring KEPCo and its members.

V.B.7. EXCLUSION OF COMPETITION

Q. Would the proposed merger cause a potential adverse effect by creating market power to exclude competition?

A. Yes. The proposed merger would create market power to exclude KEPCo from: (a) displacing energy in Western Resources' partial requirements wholesale tariff; (b) timely termination of its contract with Western Resources for partial requirements wholesale power; and (c) sharing ratably in the benefits of the proposed merger. The market power to exclude KEPCo from wholesale power markets is embedded in Western Resources' tariffs and contracts with KEPCo.

Q. How would the proposed merger create market power in Western Resources' present contracts and tariffs with KEPCo to exclude KEPCo from the wholesale power markets?

A. An electric utility's present contracts and tariffs may embody terms and conditions from its previous exercise of market power that serve to raise rivals' costs. Thus, a significant aspect of market power analysis in a proposed merger is review of each merger applicant's contracts and tariffs, especially with its TDUs. Such review can determine whether contracts and tariffs embody the previous exercise of market power, and whether the proposed merger would exacerbate the injury to competition caused by this previous exercise of market power. In situations where an applicant's contract excludes competition, raises rivals' costs, or otherwise injures competition by enforcing an existing contract's or tariff's restrictive, discriminatory, or non-comparable terms and conditions, the applicant's market conduct conclusively demonstrates that the utility has market power even if the applicant has filed an open-access transmission tariff. A proposed merger may enhance or facilitate the exercise of market power embodied in existing tariffs and contracts by expanding the geographic market area in which the market power can be exercised or by expanding the geographic market of the applicants but excluding rivals from access to the expanded market. Moreover, examining a utility's current market conduct presents an opportunity to predict what that utility's market conduct is likely to be if allowed to merge. As explained above, review of the tariffs and contracts restricting KEPCo's economic use of Wolf Creek currently being enforced by Western Resources makes it clear that these tariffs and contracts embody the earlier exercise of market power by Western Resources to burden KEPCo with excess costs. Moreover, the present exercise by Western Resources of market power embodied in its contracts and tariffs with KEPCo indicates that, once merged with KCPL, the merged company would again exercise market power to raise KEPCo's costs by restricting KEPCo's economic use of Wolf Creek.

Q. How does Western Resources exclude KEPCo from the purchase of wholesale tariff displacement energy?

A. When KEPCo attempts to replace energy purchases under Western Resources' wholesale tariff, Western Resources will not allow KEPCo to purchase economy energy for this purpose (except for supplemental energy from the SWPA). Electric utilities routinely purchase economy energy to reduce their cost of producing electric power. For example, during periods when it is economic to do so, Western Resources replaces energy that it could produce from its own generating units with purchases of economy energy. Moreover, the purchase of economy energy under a FERC wholesale requirements tariff is not unusual. Western Resources blocks KEPCo from purchasing economy energy to displace energy being purchased from Western Resources even though Western Resources itself purchases economy energy without restriction to displace generation from the same generating units that Western Resources uses to supply KEPCo. Western Resources displaces its own generation to save on energy cost but blocks KEPCo from displacing generation from the same units.

In effect, Western Resources uses Wolf Creek nomination of capacity to force KEPCo to sell it low-cost energy and to force KEPCo to purchase its higher-cost energy. Moreover, Western Resources requires KEPCo to purchase a minimum amount of energy annually, or pay the difference between Western Resources' average energy rate and fuel adjustment based on the amount not purchased. Because Western Resources currently exercises market power to exclude KEPCo from full participation in the wholesale electric power markets, it is likely that Westar would exercise its enhanced market power to exclude KEPCo from full participation in the wholesale power markets.

Q. What is the proposed merger's potential adverse effect resulting from the notice requirements in KEPCo's wholesale electric power agreement with Western Resources?

A. KEPCo combines Wolf Creek and SWPA power with wholesale electric power purchases from Western Resources to supply its members. Notice requirements in the contract titled "Electric Power, Transmission and Service Contract Between Western Resources and KEPCo," as amended (dated May 1993), require that KEPCo provide Western Resources with six years' notice before KEPCo can purchase capacity or even energy to displace purchases from Western Resources. KEPCo must give six years' notice to supply even its own load growth. KEPCo gave Western Resources notice of termination on May 30, 1997. A six-year notice period is a substantial barrier to entry in the wholesale electric power markets. By imposing these onerous notice requirements, Western Resources has embodied the exercise of its market power in its wholesale contracts with KEPCo. Western Resources has erected and now controls a barrier to entry. Western Resources' notice requirements preclude KEPCo from reducing its costs in the wholesale electric power markets while Western Resources is free to transact in these markets to lower its costs. Moreover, Western Resources also would lower its costs through the proposed merger, but has not proposed to share those cost reductions with wholesale customers.

It is likely that the merged company would continue controlling this barrier to the entry of its competitor as a buyer in the wholesale electric power markets while simultaneously lowering its own costs by transacting in these markets. Thus, Westar would control a barrier to entry into the long-run wholesale electric power markets.

V.B.8. LIKELY EXERCISE OF MARKET POWER

Q. Would Westar exercise the enhanced market power obtained through the proposed merger?

A. It is highly likely that it would. First, Western Resources continues to exercise market power gained through the KPL-KGE merger to arbitrarily deny KEPCo benefits and assign KEPCo costs in control-area, after-the-fact accounting. Thus, it is likely Westar would exercise the enhanced market power it would gain over after-the-fact control area accounting. Second, the merged company would gain a 94% share of the votes in the Wolf Creek Nuclear Operating Corporation. It is likely the merged company would use its dominance of the WCNOC to operate Wolf Creek as suits its purposes without considering KEPCo's interests. Third, Westar would have the right-of-first-refusal regarding KEPCo's sale of its share of Wolf Creek. It is likely that Westar would use this control over the purchase of Wolf Creek to frustrate or block KEPCo from selling its share. Fourth, Western Resources now excludes KEPCo from the wholesale power markets by refusing to allow KEPCo to displace Western Resources' requirements tariff energy. It is likely that Westar would continue to exclude KEPCo while reducing its own costs through merger. Fifth, Western Resources now excludes KEPCo from the wholesale power markets by refusing to allow KEPCo to terminate on a timely basis its contract with Western Resources to purchase partial requirements wholesale power. It is likely that Westar would not allow an open season to terminate old wholesale requirements contracts. In summary, without merger conditions that prevent the exercise of market power, it is likely that Westar would exercise the several types of market power that would be enhanced or created by the proposed merger.

V.C. BARRIERS TO ENTRY

Q. What is the third step in the *Merger Guidelines* procedure?

A. The third step is to assess whether there are barriers to the entry of new competition into the relevant Westar-area market, that is, to assess whether entry into the production of wholesale requirements power and the sale of retail requirements power would be easy or difficult. Under the *Merger Guidelines*, entry is considered to be easy if it "would be timely, likely and sufficient either to deter or to counteract the competitive effects of concern."50/ If entry would be easy under all three of the *Merger Guidelines* tests, then it would not be profitable for Westar to restrict output and raise price.

Q. What is the definition of a "barrier to entry"?

A. A barrier to entry is some factor that allows incumbent firms to persistently raise price above the competitive level without attracting new firms into the market. Examples of barriers to entry are an incumbent firm's absolute cost advantages, an incumbent firm's economies of scale, an entrant's risk from investment in sunk-cost assets, and the potential for strategic behavior by incumbent firms. There are high barriers to entry into a market unless the entry of new competition reasonably quickly restores price and output to the competitive level.

Q. How does analysis of barriers to entry fit into the analysis of whether the proposed merger would create market power?

A. For purposes of analyzing the response to price being raised above the competitive level, the *Merger Guidelines* separates potential entrants into two groups: uncommitted entrants and committed entrants. An uncommitted entrant is defined as a firm

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[50] *Merger Guidelines*, § 0.2.

not currently producing or selling the relevant product that would be able within less than one year to produce and sell the product without incurring significant sunk costs.51/ A "sunk cost" is an irreversible cost, such as an investment that has little salvage value and no valuable alternative use. In some industries, plant can be quickly converted to the production of a related product without significant sunk costs. Under the *Merger Guidelines* procedure, uncommitted entrants are evaluated as to whether they would be sellers in the relevant market rather than as potential entrants. Thus, in effect part of the *Merger Guidelines'* analysis of barriers to entry is incorporated into the identification of rivals considered to be already in the market that could constrain an attempt to restrict output and raise price. Because plants that produce products other than electric power cannot be converted to the production of electric power, there are no uncommitted entrants in electric power markets.

A committed entrant is defined as a firm that requires more than one year and significant sunk cost of entry to produce the relevant product. Entry into the production of electric power requires the construction of generation. The construction of generation takes more than one year and results in significant sunk costs. In the *Merger Guidelines*, evaluation of the competitive effects of committed entrants is considered under barriers to entry.

Q. How does your analysis of barriers to entry relate to your analysis of market shares and market concentration?

A. In my analysis of the first step in the *Merger Guidelines* procedure, I calculated for the relevant Westar-area market that Westar would have a dominant market share and

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[51] *Merger Guidelines*, § 1.32.

that the market would be highly concentrated. Based on these calculations, I concluded that the proposed merger creating Westar would create market power — unless entry into the relevant market were easy. The *Merger Guidelines* explain that:

> A merger is not likely to create or enhance market power or to facilitate its exercise, if entry into the market is so easy that market participants, after the merger, either collectively or unilaterally could not profitably maintain a price increase above competitive levels.[52]

Thus, analysis of market shares and market concentration determines whether the proposed merger would create market power, whereas analysis of barriers to entry determines whether the exercise of that market power would be sustainable, or would instead over time be undercut and mitigated by the entry of new competition.

Q. If analysis of barriers to entry determines that entry would be easy, does this mean that the proposed merger of Western Resources with KCPL would not create market power?

A. No. The analysis of barriers to entry is focused only on market power to restrict output and raise price. In the previous section of my testimony regarding potential adverse competitive effects (Section V.B.), I demonstrated that the proposed merger would enhance market power for Westar to raise rivals' costs. Through the proposed merger, Westar would gain authority over after-the-fact accounting for the combined KPL-KGE-KCPL control area and likely would abuse this authority. The entry of new competition would not dilute this market power or otherwise constrain the exercise of Westar's market power to raise rivals' costs. Therefore, whether or not entry would be easy, the proposed merger would create substantial and sustainable market power.

Q. How is your analysis of barriers to entry organized?

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[52] *Merger Guidelines*, § 3.0.

A. It is organized into two sections: (1) explanation of the three *Merger Guidelines'* tests necessary for entry to be easy; and (2) application of the three tests to evaluate whether entry into the production of wholesale requirements power market in the Westar-area market would be easy or difficult.

V.C.1. TESTS FOR BARRIERS TO ENTRY

Q. What are the conditions that would make entry easy?

A. The *Merger Guidelines* consider entry to be "easy" if entry conditions are such that entry "would be timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects of concern."53/ All three tests – timely, likely, and sufficient – are necessary for entry to be considered easy. Meeting only one or two of these tests is not sufficient for entry to be easy.

Q. Please explain the test that entry must be "timely."

A. Entry is "timely" if it can be accomplished *and* have a significant impact on price within two years. The *Merger Guidelines* state that:

> In order to deter or counteract the competitive effects of concern, entrants quickly must achieve a significant impact on price in the relevant market. The [enforcement agencies] generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact.[54/]

Thus, for entry to be timely requires that it take less than two years from initial planning for new plant and required transmission to be put into commercial operation. Otherwise, such plant would not have adequate time to make a significant market impact within the two-year period used for this test. Moreover, electricity is not a durable good. Thus, consumers with

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[53] *Merger Guidelines*, § 3.0.

[54] *Merger Guidelines*, § 3.2.

knowledge of a potential entrant's significant commitment to entry nonetheless would not defer purchases. Because consumers would not defer purchases, announced entry that takes longer than two years would not be able to mitigate market power during the two-year test period.

Q. Please explain the test that entry must be "likely."

A. Entry is "likely" if potential entrants believe that entry would be profitable.55/ The output of entrants adds to existing market output. Entrants' additional output may "cause prices to fall to their pre-merger levels or lower."56/ Potential entrants estimate the price they will be able to charge based on their estimate of the market price *after* they enter -- after their output and the output of other entrants is added to the existing market output. In evaluating whether to enter, potential entrants evaluate incumbents' costs. They also evaluate their own costs of entry and production.

Q. Please explain the test that entry must be "sufficient."

A. Entry is "sufficient" if entry would occur in an amount that would make it unprofitable to restrict output and raise price above the competitive level. Thus, entry is sufficient if it would eliminate market power.

V.C.2. GENERATION MARKET

Q. Has the FERC evaluated barriers to entry into generation markets?

A. Yes. The FERC has evaluated barriers to entry into generation markets, but it has not evaluated barriers to entry into the production of wholesale requirements power or into the sale of retail requirements power.

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[55] *Merger Guidelines*, § 3.0.

[56] *Merger Guidelines*, § 3.0.

Q. What was the FERC's evaluation?

A. In approving an application for authority to charge market-based rates, the FERC concluded that there are no barriers to entry into the long-term generation market. The FERC stated that no wholesale seller of generation has "market power in generation capacity from new (unbuilt) facilities,"57/ and barriers to the entry of new suppliers "in the market for new capacity (*i.e.*, the long-term market) have been lowered."58/ Thus, the FERC concluded: "we no longer believe it necessary to examine generation dominance when considering market-based rate proposals for sales from new (as opposed to existing) generation units."59/

Q. Does this conclusion apply to the proposed Western Resources - KCPL merger?

A. No. In reaching this conclusion, I do not believe that the FERC initially defined the product market correctly. Moreover, the FERC reached its conclusion in the context of an application for authority to charge market-based rates, not an application to merge, and as a consequence did not apply the *Merger Guidelines'* tests of timeliness, likeliness, and sufficiency.

Q. What is the problem with the FERC's market definition?

A. Relevant product markets are defined based on whether products are reasonably interchangeable -- whether they are good substitutes. Products that consumers consider to be reasonably interchangeable or good substitutes are in the same product market. The product market that the FERC defined in evaluating barriers to entry is a market for

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[57] *Kansas City Power & Light Company*, 67 FERC ¶ 61,183, at p. 61,557 (1994).

[58] *Id.*

[59] *Id.*

generation from newly-constructed capacity, wherein generation from the new capacity is not expected to become commercially available until several years in the future. Several years in the future, however, generation from existing generating units would be available. Generation from existing generating units and newly-constructed generating units would be reasonably interchangeable and good substitutes. Thus, generation from new generating units is not a separate product market. The construction of new generating capacity simply adds to the existing capacity in the generation market.

The term "long-term bulk power" would best be reserved for defining generation products available for sale *now* with a contract duration longer than one year. This term would be consistent with the FERC's definition of "short-term bulk power" as generation available for sale *now* for periods of less than one year (*e.g.*, non-firm energy and short-term capacity or firm energy). Then the terms "short-term bulk power" and "long-term bulk power" would cover the possible duration of contracts for the sale of generation. Typically, an electric utility must have sufficient capacity to supply its coincident peak load. The one-year time period division between short-term and long-term bulk power is useful. It separates the generation products needed to supply firm end-use load (*i.e.*, long-term bulk power) from generation temporarily available during periods that end-use load is less than generating capacity (*i.e.*, short-term bulk power).

Q. Is the FERC's statement regarding barriers to entry into long-term bulk power relevant to the evaluation of market power in a merger application?

A. No. It appears that the FERC reached its conclusion that there are no barriers to entry into long-term bulk power without considering whether such entry would be timely, likely, or sufficient. The FERC appears to have avoided the test of timeliness by defining the product market to be newly-constructed generation completed some years in the future.

This overlooks the fact that some year in the future the construction of new generation may not have been sufficient in amount to mitigate the market power of the dominant generator. At that time, market power could be exercised for another four to six years while new energy cost-efficient generation is constructed.

The FERC appears to have avoided the test of likeliness by implicitly assuming that new generation would be constructed. This overlooks the fact that there may be barriers to entry in the generation market under certain circumstances specific to the facts of the case. The market may be characterized by excess capacity, or entry may create excess capacity, that could result in cutthroat pricing making entry unprofitable. The dominant electric utility may have absolute cost advantages and may have economies-of-scale advantages. Either may make it appear to potential entrants that it would be unprofitable to enter. Moreover, potential entrants may face substantial risk from investments that would become sunk costs. Finally, potential entrants may fear strategic behavior, wherein the incumbent dominant firm would price temporarily at a low level just at the time of entry to make it unprofitable until the entrant was driven from the market.

The FERC also appears to have avoided the test of sufficiency. Whether entry into generation would be sufficient to mitigate market power must be measured based on what market shares would be *after* entry has occurred. Suppose there is 10,000 MW of capacity in a market (calculated as control-area generating capacity plus simultaneous import capability). Suppose that this amount of capacity is just sufficient to supply the control-area load and provide for generating reserves. Suppose that all of the generating capacity in the control area is owned by a single firm, and that import capability equals 10% of the total of control-area generating capacity and import capability. The dominant electric utility would

have a 90% market share. Suppose that potential entrants decide to construct 2,000 MW of new generating capacity in the control area.

Assume that after 2,000 MW of new generating capacity is announced, additional potential entrants evaluate whether to enter. Assume that there is not expected to be substantial growth in demand, so that the 2,000 MW of new generating capacity already announced would result in excess capacity in the market. Additional potential entrants may believe that with excess capacity in the market, every generator could become unprofitable. Moreover, it may appear to additional potential entrants that the incumbent dominant electric utility has absolute cost advantages. Absolute cost advantages could result from constructing generating capacity several years earlier at lower cost and accumulating depreciation on generating plant lowering annual financing costs. Moreover, it may appear to additional potential entrants that with the threat of entry the low-cost dominant incumbent may strategically lower price, making entry unprofitable.

Even after 2,000 MW of entry, the incumbent's market share would still be a dominant 75% (*i.e.*, 9,000 MW divided by 12,000 MW). Although entrants may take market share from the incumbent, nonetheless it may still be profitable for the incumbent to restrict output and raise price. The incumbent may profitably yield market share.

One aspect of the FERC's statement regarding lack of barriers to entry into long-term bulk power is that it may leave the false impression that the problem of barriers to entry is a one-time problem. It is not. For example, suppose a dominant electric utility raises price, and in response entrants construct new generating capacity that comes into commercial operation in five years. If the amount of entry is not sufficient five years hence to mitigate the dominant utility's market power, then it would take another five years for additional entry

to occur. In another five years, the amount of entry may again not be sufficient, so the problem of market power may be ongoing.

The FERC probably means by its statement regarding entry only that a wholesale seller of generation with a dominant market share would not be able to block potential entrants from constructing new generating units. This statement is an inadequate analysis of barriers to entry for purposes of merger analysis, which requires that entry be evaluated to determine whether it would be timely, likely, and sufficient. It is inadequate for merger analysis to evaluate only whether entry could be blocked by a dominant generator.

Q. Which of the three tests do you consider to be the most important?

A. The most important test is likeliness, *i.e.*, whether potential entrants believe that entry would be profitable. If potential entrants do not believe that entry would be profitable, then the sufficiency test would not be satisfied and the exercise of market power would continue unmitigated by entry. Consumers would be confronted with excessive prices and would be continuously overcharged. The second most important test is sufficiency, whether enough entry would occur to return market price and output to the competitive level. If not, injury to consumers from the exercise of market power would continue. The third most important test is the test of timeliness. The amount of time that it takes for entry to have a significant market impact delineates the amount of time that consumers can be exploited by a dominant firm exercising market power (assuming that entry is likely and would become sufficient). In the next section of my testimony, I apply the three tests for barriers to entry in the order of their relative importance.

V.C.3. WHOLESALE REQUIREMENTS POWER

Q. If Kansas adopts retail direct access (retail wheeling), would entry into the production of wholesale requirements power in the Westar-area market be easy or difficult?

A. Entry would be difficult. There would be high barriers to entry. Entry probably would be neither likely, sufficient, nor timely.

Q. Why would entry not be likely?

A. Entry into the production of wholesale requirements power in the Westar-area market probably would not be likely because entry would not appear profitable to potential entrants. Entry would not appear profitable because of Westar's absolute cost advantages, Westar's economies of scale, the risks of investing in sunk costs, and Westar's potential strategic behavior.

Westar would have an absolute cost advantage. Western Resources' generation was constructed years ago at a lower cost of construction than could be achieved by an entrant, with the possible exception of Wolf Creek. In addition, Westar's generation would have lower financial costs than the original investment cost of its generation because of accumulated depreciation.

Westar would have economies of scale in generation. Westar gained economies of scale in generation in part by acquiring shares in new large-scale generating plants. More importantly, Westar would have an established retail market. Entrants may not have the opportunity to share in new large-scale generating plants. If not, entrants could not match Westar's economies of scale. Entrants would have to size their generation to match their expected market share and would have no present market share on which to economically justify the construction of generating capacity incorporating economies of scale.

Entrants face the risks of investing in generating plant that would become sunk costs. Entry using relatively high-energy-cost generation units (single-cycle combustion turbines) in order to save capital costs and counting on purchasing non-firm energy would be risky because non-firm energy costs could climb in periods of short supply. Moreover, in order to be competitive in the production of wholesale requirements power, entrants would have to invest in energy cost-efficient generating capacity that is higher-cost capacity than peaking units (simple-cycle combustion turbines). This would increase sunk costs. Energy cost-efficient generating plant takes three to six years to complete. This extended period before sunk cost investments produce a marketable product increases the risk of sunk costs.

Westar would be a low-cost generator, so potential entrants would be concerned that Westar would engage in strategic behavior to deter entry, perhaps by threatening to charge low prices if others enter. One or two instances of charging low prices to carry out the threat may be sufficient for Westar to develop a reputation for selected predation. Such a reputation may be enough to deter any further attempts at entry.

Requirements power is firm power. A single generating unit cannot generate the firm power necessary to produce requirements power because at times any generating unit must be out of service for planned maintenance and may be out of service from a forced outage. Thus, entry into the production of wholesale requirements power requires the construction of at least one generating unit, and may require the construction of more than one generating unit. Moreover, more than one generating unit would be required if backup capacity cannot be contracted for economically. Whereas the purchase of ancillary services can cover the loss of generating capacity for a few hours, covering the loss of generating capacity for longer periods requires backup capacity. Backup capacity is not an ancillary service that the FERC requires transmission providers to offer transmission

customers. The purchase of backup capacity would be in a market characterized by market power. Entry into the production of wholesale requirements power requires the production or purchase of ancillary services (*e.g.*, generating reserves and automatic generation control). The purchase of ancillary services probably would have to be from Westar as the transmission provider in the control area. Entry would require the acquisition of firm transmission service, also from Westar.

Q. Would entry into generation in the Westar area be sufficient to mitigate Westar's market power?

A. Probably not because entry may not appear to be profitable. Retail wheeling is unlikely to be adopted in Kansas immediately. The extent of the initial amount of entry into the Westar-area market with the adoption of retail wheeling depends greatly on the experience until adopted of entrants attempting to enter in other markets than the production of wholesale requirements power and the sale of retail requirements power. If such entrants are successful, then it is more likely there would be sufficient entry in the Westar area. If many of such entrants lose money, then it is less likely there would be sufficient entry into the Westar-area market.

Currently, the amount of announced construction of new generating capacity to be sited in New England would *double* New England's installed generating capacity. Suppose all of that announced capacity is actually constructed. The result would be a huge amount of excess capacity. Only half of the installed generating capacity could be used during peak periods and less than half could be used during non-peak periods. The construction of excess capacity would likely result in cutthroat competition. Price may become so low that many generators would be unable to cover their fixed costs (*i.e.*, capacity costs) and would lose money and be driven out of the market. In a situation of excess capacity, the

generators most likely to be driven out of business are those without retail load. Thus, successful entry into generation probably requires not only the construction of new generating capacity, but also entry into the sale of electricity at retail in amounts comparable to the amount of capacity constructed. Moreover, successful entry probably requires constructing a generating unit of minimum efficient scale (*i.e.*, a unit of a size sufficient to achieve available economies of scale). Constructing a minimum efficient scale generating unit is risky unless matched with reasonable assurance of being able to obtain sufficient market share at retail to economically justify the sunk cost.

Learning from the experience of others who attempt entry into generation in other markets, potential entrants would consider carefully whether to enter the Westar-area generation market. The Westar-area market would already have sufficient generating capacity to meet the control-area load. Moreover, the Westar-area market would be dominated at wholesale and retail by Westar, an incumbent low-cost electric utility. Thus, entry into the Westar-area market would be viewed by potential entrants as having high barriers to entry. For this reason, entry probably would not be sufficient.

Q. Would entry into the production of wholesale requirements power in the Westar-area market be timely?

A. No. Entry would not be timely. To be timely, entry requires the construction of new generating units that have a significant competitive impact within two years. The type of generating unit that takes the shortest construction time is a simple-cycle combustion turbine. For a simple-cycle combustion generating unit, it generally takes a minimum of two years from initial planning to commercial operation, leaving no time for such units to have a significant competitive impact. Construction requires time to design the installation, identify and obtain a suitable site, obtain the necessary permits, finance the unit, acquire and

receive delivery of the turbine/generator unit and other necessary equipment, construct the structure required at the installation site, install the generating unit and transmission and transformation facilities, and then test and place the unit in service. It is not probable that this type of generating unit can routinely be installed in less than two years. Moreover, simple-cycle combustion turbine generating units have relatively high energy costs. For this reason, simple-cycle combustion turbine generating units would not satisfy the "significant competitive impact" condition of the timeliness test even after constructed (except perhaps for special situations, such as for peak shaving). Thus, simple-cycle combustion turbine units would not satisfy the timeliness test.

Q. How much time would it take to install energy cost-efficient generation?

A. The development of energy cost-efficient generating capacity (*e.g.*, combined-cycle or base-load steam units) takes a minimum of three to six two years. Because entry in the electric power industry with new generating capacity that is energy cost efficient takes substantially more than two years, entry into generation would not be sufficiently timely to mitigate market power.

Q. Could the timeliness test be satisfied in the Westar-area generation market if the State of Kansas announced three to six years in advance that it would be adopting retail wheeling?

A. Not necessarily. Assume that the State of Kansas announces the adoption of retail wheeling several years in advance of implementation. Assume that new energy cost-efficient generating capacity is constructed in the Westar area. The amount of new capacity installed may not be sufficient to mitigate Westar's market dominance. In that case, market power could be exercised for at least another three to six years while entry occurs, with no assurance that market power would be mitigated after that period is over.

Q. Is the timeliness problem a one-time problem?

A. No. The problem of lack of timeliness is not a one-time problem. Competitive entry may not be sufficient to mitigate the market power of the incumbent generators. Three to six years from when the dominant electric utility raises price it may still have market power because of an insufficient amount of entry. Then it would take an additional three to six years from that time for competitive entry to occur. Once that additional entry occurs, it also may not be sufficient. Price may remain excessive, and output may remain too low. The time required for entry restricts the ability of entry to mitigate market power.

V.D. MERGER-CREATED EFFICIENCIES

Q. What is the fourth step in the *Merger Guidelines* procedure?

A. The fourth step is to assess whether the proposed merger would create any efficiency gains that the parties could not reasonablely achieve through other means.60/

Q. What would the be the value of efficiencies created by the proposed merger?

A. The Joint Applicants claim that their proposed merger would create efficiencies expected to total $362 million, net of costs to achieve, during a proposed five-year "regulatory plan" period from 2000 to 2004.61/ The Joint Applicants calculate that $72 million of their annual merger savings would result from combined economic dispatch of the Western Resources and KCPL generating resources.62/ There is no reason that these benefits could not be achieved without merging. Currently, Western Resources' generation is dispatched on a combined basis between KPL and KGE units, and the resulting dispatch

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[60] *Merger Guidelines*, § 0.2 Overview.

[61] Direct Testimony of John E. Hayes, Jr., page 3, lines 10-11.

[62] Direct Testimony of Leslie D. Morgan, page 8, lines 16-20.

savings are shared between KPL and KGE.63/ In addition, Western Resources and KEPCo combine their generating resources for central economic dispatch. The New England Power Pool ("NEPOOL"), for example, for nearly 30 years has been combining for central economic dispatch the generating resources of a large number of electric utilities located in a multi-state area. Combined central economic dispatch is not a technical problem, only a matter of reaching an agreement. Thus, it is reasonable that Western Resources and KCPL could combine their generating resources for central economic dispatch without merging.

The *Merger Guidelines* "reject claims of efficiencies if equivalent or comparable savings can reasonably be achieved by the parties through other means."64/ Because the Joint Applicants' claimed cost savings from combined economic dispatch could reasonably be achieved without merging, these cost savings or efficiencies should not be counted as merger benefits. For this reason, it is appropriate to subtract the $72 million of combined dispatch cost savings from the claimed $362 million of total cost savings. After this subtraction, total cost savings could equal $290 million, or $58 million per year over the proposed five-year regulatory period.

Q. Are the Joint Applicants' claimed efficiencies sufficient to make the proposed merger in the public interest?

A. No. Under the *Merger Guidelines*, a merger that would create efficiencies nonetheless would not be approved if it would create substantial market power.65/ The proposed merger creating Westar would create substantial market power, some of which could not be mitigated by entry, but relatively little in efficiencies.

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[63] Direct Testimony of Leslie D. Morgan, page 8, lines 3-5.

[64] *Merger Guidelines*, § 4.

[65] *Merger Guidelines*, § 4.

V.E. FAILING FIRM

Q. What is the fifth step in the *Merger Guidelines* procedure?

A. The fifth step is to assess whether either party to the transaction is in imminent danger of failing, causing its assets to exit the market.66/ The Joint Applicants have not claimed that either is a failing firm, and both appear to be financially healthy. Moreover, even if one were a failing firm, it is unlikely that absent the merger the failing firm's assets would exit the market. Generating plants, transmission lines, and distribution facilities are difficult to relocate. Even if one of the Joint Applicants failed, it is highly unlikely that its assets would exit the market. No doubt the failed firm's assets would be purchased by another firm, because some firm would have to continue supplying electricity to the failed firm's consumers.

[66] *Merger Guidelines*, § 0.2 and § 5.

Part VI: EVALUATION OF JOINT APPLICANTS' MARKET POWER STUDY

Q. What is the purpose and organization of this part of your testimony?

A. My purpose is to evaluate the Joint Applicants' market power study to determine whether it demonstrates that the proposed merger would not create market power. The Joint Applicants' market power study was prepared by Dr. Spann and is contained in Dr. Spann's three pieces of testimony and accompanying exhibits that I have previously referenced and described, namely the Spann FERC testimony, the Spann KCC-1 testimony, and the Spann KCC-2 testimony. The Joint Applicants included the Spann KCC-1 and KCC-2 testimonies as a part of their merger application at the FERC. I do not address the Spann KCC-1 testimony here as it relates only to retail electric competition. Finally, there is the Spann Affidavit, prepared in response to a deficiency letter to the Joint Applicants from the FERC Staff. The Spann Affidavit states that:

> This study is being provided solely in response to the [FERC Staff's] request for additional information. I do not believe that the methodoiogy employed to do this study is the appropriate way to evaluate the merger, and *it does not replace* the economic analysis presented in my pre-filed direct testimony of September 1997.[67/]

My evaluation of the Spann Affidavit is contained in Part III of my testimony above. This part of my testimony is organized into three sections: (A) overview of evaluation; (B) evaluation of Spann FERC testimony; and (C) evaluation of Spann KCC-2 testimony.

VI.A. OVERVIEW OF EVALUATION

Q. Please summarize your evaluation of the Spann FERC testimony.

A. Consistent with Dr. Spann's position that his affidavit does not replace his FERC testimony, I evaluate the Spann FERC testimony as if the Spann Affidavit had not been

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[67] Spann Affidavit, page 6, para. 12 (emphasis added).

filed. In his FERC testimony, Dr. Spann defined a multi-state regional wholesale power market as the relevant market. Dr. Spann concluded that no smaller market is relevant for evaluating whether the proposed merger would create market power. Dr. Spann's procedure for defining the geographic market is to identify the scope of the Joint Applicants' transactions. This procedure of starting with a broad geographic market is incorrect because it is possible to make transactions over a very wide area but still have market power only in a smaller area. The *Merger Guidelines* procedure requires that market definition start with a narrowly-defined area that contains the merger applicants' plants, which in this proposed merger is the Westar transmission area. Thus, Dr. Spann's procedure for defining his regional market is inconsistent with the *Merger Guidelines*. As a consequence, in his FERC testimony Dr. Spann failed to identify that the Westar area is a relevant geographic market for evaluating the proposed merger.

Also in his FERC testimony, at the request of the Joint Applicants Dr. Spann measured market shares in the Westar area even though Dr. Spann does not believe that the Westar area is a relevant market. In measuring market shares in his FERC testimony, however, Dr. Spann did not take into account the stringent Westar-area transmission constraints that he subsequently identified in his KCC-2 testimony. Thus, Dr. Spann included in the Westar-area market significantly more imported generation than could possibly be imported. As a consequence, Dr. Spann's calculations in his FERC testimony of market shares and market concentration in the Westar-area market are incorrect.

In addition, Dr. Spann measures market shares and market concentration in both the regional market and the Westar-area market using energy-only concepts: the FERC's concept of "economic capacity" and his own unique concept of "marginal economic capacity." Both concepts are designed to measure market power in the non-firm energy

and short-term capacity product markets, which basically are energy markets. These product markets are not useful for evaluating whether the proposed merger would create market power in the production of wholesale requirements power. Market concentration in wholesale requirements power is best measured based on total installed generating capacity.

Q. Please summarize your evaluation of the Spann KCC-2 testimony.

A. The Spann KCC-2 testimony relies on the Spann FERC testimony. As already noted, Dr. Spann's position is that the Spann Affidavit does not replace his FERC testimony.68/ Consistent with Dr. Spann's position, I evaluate the Spann KCC-2 testimony as if the Spann Affidavit had not been filed. The Spann KCC-2 testimony first states that load-flow studies show that the Westar area would in fact be a load pocket (*i.e.*, a transmission area with load greater than import capability). Then the Spann KCC-2 testimony warns that under retail wheeling the Westar area may present localized market power concerns during summer peak periods due to the potential for profitable strategic exploitation of transmission constraints. In effect, the Spann KCC-2 testimony identifies the Westar area as a relevant antitrust market, because it is an area in which a hypothetical monopolist could exercise market power. Moreover, the Spann KCC-2 testimony and exhibits demonstrate conclusively that under retail wheeling Westar would in fact have market power in the Westar-area load pocket to profitably restrict output and raise price.

The Spann KCC-2 testimony undermines the Spann FERC testimony claim that only a multi-state regional wholesale power market is relevant for evaluating whether the proposed merger would create market power.

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[68] Spann Affidavit, page 6, para. 12.

Q. Please state your overall conclusion.

A. The Joint Applicants' market power study fails to demonstrate that the proposed merger would not create market power. In fact, the Joint Applicants' market power study demonstrates that the Westar area would be a load-pocket and relevant antitrust market. Moreover, the Joint Applicants' market power study shows that in this relevant market it would be profitable for Westar to restrict output and raise price. My overall conclusion is that the Joint Applicants' market power study fails to demonstrate that Westar would not have market power. The Joint Applicants' market power study in fact demonstrates that the proposed merger would create substantial market power. Moreover, although not a part of the Joint Applicants' market power study, the Spann Affidavit further demonstrates that the proposed merger would create substantial market power. The Spann Affidavit, however, understates the extent of that market power because of Dr. Spann's reliance on flowgate-based transmission constraints, which are less restrictive than load flow constraints calculated specifically for the control area.

VI.B. EVALUATION OF SPANN FERC TESTIMONY

Q. What is the purpose, approach, and organization of this part of your testimony?

A. My purpose is to determine whether the Spann FERC testimony demonstrates that the proposed merger would not create market power. My approach to evaluating the Spann FERC testimony is to assume that the FERC Staff did not file a deficiency letter and that Dr. Spann did not file an affidavit. The reason for these assumptions is that Dr. Spann stated the market power study in his Affidavit does not replace the market power study in his FERC testimony. This part of my testimony is organized into four sections: (A) relevant

markets; (B) available economic capacity; (C) marginal economic capacity; and (D) requirements power.

VII.C.1. RELEVANT MARKETS

Q. What relevant product markets did the Spann FERC testimony define?

A. The Spann FERC testimony defines non-firm energy, short-term capacity, and long-term bulk power as relevant product markets. Neither the Spann FERC testimony, Spann Affidavit, nor Spann KCC-2 testimony defines wholesale requirements power as a relevant product market.

Q. What geographic markets did the Spann FERC testimony define?

A. For non-firm energy and short-term capacity, the Spann FERC testimony defined a multi-state regional market. This regional market is the focus of Dr. Spann's analysis. Because Westar would not have a large share of this regional market, Dr. Spann concludes that the proposed merger would not create market power.

Q. For market power analysis, did Dr. Spann correctly define the geographic market for non-firm energy and short-term capacity?

A. No. The procedure used by Dr. Spann to define his regional market is inconsistent with the *Merger Guidelines* procedure. Dr. Spann started his definition by reviewing transactions data, and then defined the Joint Applicants' trading area as the relevant geographic market. Dr. Spann states that:

> I determined that this [multi-state regional area] was the relevant geographic market by examining transactions data and actual power flows.[69/]

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[69] Spann KCC-2, page 24, lines 16-18.

Because the Joint Applicants trade over a multi-state area, Dr. Spann defined this multi-state area as the relevant geographic market. Dr. Spann did not consider whether an electric utility that trades in a multi-state area might nonetheless have market power in a smaller geographic area, such as its transmission area (control area).

In contrast to Dr. Spann's procedure, the *Merger Guidelines* procedure requires that the definition of a geographic market "begin with the location of each merging firm (or each plant of a multiplant firm)" for the initial, narrowly-defined market.70/ Dr. Spann did not begin his market definition with the location of the Joint Applicants' generation plants — the Westar transmission area. Simply because trading takes place over a large area does not rule out the possibility that the proposed merger could create market power in a smaller geographic area. I demonstrated above in Section V.A. that the proposed merger would create substantial market power in the Westar area. Thus, Dr. Spann's regional market is not the "smallest market" in which market power could be exercised as required by the *Merger Guidelines*.71/

Although the Joint Applicants trade in a multi-state area, they do not trade requirements power in a multi-state area. They trade in a multi-state area only in short-term generation products, primarily non-firm energy. Thus, even if the method Dr. Spann applied to define the regional market were correct for non-firm energy and short-term capacity, this geographic market would not be the relevant market for requirements power. Dr. Spann did not define a relevant geographic market for requirements power.

Q. Did Dr. Spann examine any geographic markets other than his regional market?

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[70] *Merger Guidelines*, Section 1.21 (emphasis added).

[71] Merger Guidelines, § 1.21.

A. Yes. At the request of the Joint Applicants, Dr. Spann also examined sixteen destination markets — defined as the transmission area of each electric utility to which either Western Resources or KCPL is directly interconnected.

Q. Does Dr. Spann have reservations about defining destination markets?

A. Yes. According to Dr. Spann, destination markets are no longer applicable in the electric power industry because of open transmission access and the growth of power marketers with their ability to arbitrage.72/

Q. Is Dr. Spann correct?

A. No. Destination markets are still applicable because of transmission constraints. Dr. Spann states that narrow geographic markets, such as individual destination markets or groups of customers, can be defined as markets only if such customers can be targeted for price increases.73/ If a market is a relevant market, then customers can be targeted. The reason is that a relevant market is defined as an area in which a hypothetical monopolist could profitably raise price. The monopolist may not be able to raise price outside the relevant market. In this situation, the monopolist could discriminate against customers in the relevant market.

As explained in the next section below regarding the Spann KCC-2 testimony, Dr. Spann concludes that the Western Resources and KCPL transmission areas are each a load pocket and that the Westar area would be a load pocket. As I explain, Dr. Spann's exhibits demonstrate additionally that the Westar area is a relevant market in which it would be profitable for a hypothetical monopolist to profitably restrict output and raise price. Thus, the issue is factual. In the circumstance of the proposed merger, price discrimination by

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[72] Spann FERC testimony, pages 96.

[73] Spann FERC testimony, pages 96.

Westar would be possible between customers in the Westar area and other areas because the Westar-area market is a relevant market.

There is nothing inherently incorrect in concluding that the relevant market is regional in scope. But to reach that conclusion, one must first start with a narrowly-defined market and demonstrate that it should be expanded. Dr. Spann started with a regional market, but should then have analyzed whether price discrimination would be possible in smaller markets such as the Westar area rather than assuming there are no smaller markets

In summary, Dr. Spann assumes incorrectly that price discrimination is no longer likely. Load pockets such as the Westar area can be relevant markets that create market power to price discriminate against customers in those markets. Arbitrage could not defeat price discrimination if the destination market is a relevant market and sellers in the market exercise their market power to raise price.

VII.C.2. AVAILABLE ECONOMIC CAPACITY

Q. Does the Spann FERC testimony measure market shares using available economic capacity?

A. No. Dr. Spann states: "I do not believe that HHIs based on available economic capacity are an appropriate way to analyze mergers."74/ The reason given by Dr. Spann is that available economic capacity "ignores the fact that capacity at or above market price held by net buyers places a significant constraint on the ability of the merged firm to increase price."75/

Q. Is Dr. Spann correct that available economic capacity ignores this fact?

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74 Spann FERC testimony, page 84, lines 19-20.

75 Spann FERC testimony, page 85, lines 3-5.

A. No. If a buyer in a destination market has economic capacity, that buyer's economic capacity is included in the market. In essence, the buyer becomes another seller in the market, because the buyer's economic capacity is included in the denominator in calculating market shares. Including buyers' economic capacity reduces seller's market shares, indicating that sellers have less market power. Economic capacity is calculated at 105% of the market price, so buyer utilities' economic capacity up to 5% above the market price that could mitigate market power is included in calculating market shares. Appendix A directs that:

> In calculating HHIs and market shares, the relevant generation capacity of the [wholesale] customers in each market should be included in the denominator of the ratio statistics. For example, if the economic capacity measure is being used, then the customer's economic capacity should be included.[76/]

Therefore, market shares based on available economic capacity take into account the fact that capacity held by net buyers that can produce delivered energy up to 105% of the competitive market price places a significant constraint on the ability of the merged firm to increase price. This potential ability of buyers to constrain price increases is taken into account in exactly the same fashion as the ability of any seller in the market to constrain price increases – by including buyers' economic capacity in calculating market shares. It appears that Dr. Spann is simply searching for a basis for introducing his concept of "marginal economic capacity."

VII.C.3. MARGINAL ECONOMIC CAPACITY

Q. What is Dr. Spann's concept of "marginal economic capacity"?

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[76] *Merger Policy Statement*, Appendix A, FERC Stats. & Regs. ¶ 31,044, 30,133-34.

A. Dr. Spann defines "marginal economic capacity" as "the *additional* capacity that would become competitive at increased prices."77/ Dr. Spann explains further that: "marginal economic capacity is calculated as the *additional* amount of generating capacity that can be delivered to the market at a given *increase* in the market price."78/ Thus, Dr. Spann tests for marginal economic capacity by increasing the competitive market price and calculating the amount of capacity that would *become* economic capacity at prices *between* the competitive market price and the increased price. Capacity that is economic capacity up to the competitive market price is *not* included in the definition of marginal economic capacity.

Q. Does marginal economic capacity measure market power?

A. No. The reason is that marginal economic capacity does not measure market shares. For this reason, marginal economic capacity does not measure market power. Marginal economic capacity does not measure market shares because it does not include capacity that is economic capacity at prices up to the competitive market price. The classic method by which a dominant seller increases price is by withholding capacity from the market. Assume there is a power exchange in which all sellers bid their generation at marginal energy cost and the power exchange clears at the marginal energy cost of the highest-cost generating unit dispatched. In this situation, the dominant seller with capacity that is infra marginal — *i.e.*, economic at a price equal to or less than the clearing price — can withhold some of that capacity and cause an increase in the market price. Withholding generation moves higher-cost generation up in merit order and causes an increase in the power-exchange clearing price. The dominant seller loses net revenue on the generation

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[77] Spann FERC testimony, page 85, line 5 (emphasis added).

[78] Spann FERC testimony, page 85, line 19 (emphasis added).

withheld (*i.e.*, market price minus generating cost, times withheld generation), but makes greater net revenue on all other generation dispatched at the higher clearing bid or price.

Assume at the power exchange clearing price that a dominant seller owns all of the capacity in the market that can supply energy costs at the competitive market price and bids the marginal energy cost on each of its generating units. Also assume that at a price 5% higher, several other sellers have economic capacity. Assume that the dominant seller withholds a small amount of capacity causing a 5% increase in the power exchange clearing price. Dr. Spann would measure market shares only for the sellers that were able to enter the market when the dominant utility withheld capacity. Dr. Spann would not include the dominant seller in calculating market shares even though at the 5% higher price the dominant utility would still have a dominant market share. Moreover, it was the dominant utility that by withholding capacity exercised market power causing the price to increase above the competitive market price. In sum, Dr. Spann's proposed "marginal economic capacity" does not measure market power.

Q. How does Dr. Spann measure marginal economic capacity?

A. Dr. Spann selects a price range within which to measure marginal economic capacity. Appendix A suggests using 5% for the delivered price test, but allows for the justification of other price increase percentages.79/ Dr. Spann calculates the amount of generating capacity that would *become* economic capacity above the competitive price by increasing the original market price from 14 mills/kwh to 25 mills/kwh.80/ Thus, he does not include any generating capacity as economic capacity up to the market price of 14 mills/kwh, only generating capacity that would *become* economic capacity if price were

[79] Appendix A, FERC Stats. & Regs. ¶ 31,044 at 30,131, n. 76.

[80] Spann FERC testimony, Exhibit ___ (RMS-25).

increased from 14 mills/kwh to 25 mills/kwh. An increase in price from 14 mills/kwh to 25 mills/kwh is a 78.6% increase in price. An increase in price of 78.6% is obviously huge, particularly in relationship to the 5% price test percentage in the *Merger Guidelines* and Appendix A for defining markets in which market power could be exercised. Regardless of the price increase, measuring market shares by using only the *additional* capacity that would become economic capacity with the price increase is misleading. In sum, Dr. Spann's "marginal economic capacity" concept is not, as he claims, "economically appropriate" because it does not measure market power.81/

Q. Does the concept of marginal economic capacity appear in Appendix A?

A. No. Moreover, contrary to Dr. Spann's assertion, the concept of marginal economic capacity as Dr. Spann defines it has *not* "been used in prior merger and market power cases at the FERC."82/ It appears that the definition given this concept by Dr. Spann is uniquely his own.

VII.C.4 REQUIREMENTS POWER

Q. Does the Spann FERC testimony implicitly analyze market power in wholesale requirements power by measuring market concentration using total capacity?

A. No. Dr. Spann did not define requirements power as a relevant product market even though this is the product market that will have the greatest future competitive significance in the electric power industry. Dr. Spann claims that he measured market concentration in the Westar control area using total capacity. For two reasons, however, Dr.

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[81] Spann FERC testimony, page 84, line 21.

[82] Spann FERC testimony, page 84, line 8.

Spann's measurement of market concentration in the Westar-area market based on total capacity is inaccurate. First, Dr. Spann did not include all of KCPL's generating capacity but left out some with high energy costs. For generating capacity, Dr. Spann used economic capacity at an energy-only (without demand cost) price of up to 35 mills/kwh. Dr. Spann concludes that the HHI for this measure of generating capacity "will reflect concentration for *most* of the capacity that is economic under current conditions."83/ Dr. Spann leaves out generating capacity with energy costs higher than 35 mills/kwh. Because Dr. Spann left out some Westar-area generating capacity, he did not accurately measure market concentration in requirements power in the Westar-area market.

Second, Dr. Spann did not reduce the generation that could be imported into the Westar transmission area from the multi-state area surrounding Westar to match the Westar-area's import capability. Because of Westar-area transmission constraints, only a fraction of the generation in the multi-state area surrounding the Westar area could constrain an attempt by Westar to restrict output and raise price for requirements power in the Westar-area market. As a consequence, in the Westar-area market Dr. Spann underestimated both Westar's market share and market concentration.

It was not until Dr. Spann was preparing his supplemental direct testimony to the Kansas Commission that Dr. Spann asked the Joint Applicants to calculate for him Westar-area import capability. Thus, in his FERC testimony, Dr. Spann calculated market concentration based on the erroneous assumption that up to 92,419 MW of capacity could be imported into the Westar control area.84/ In his subsequent KCC-2 testimony, however,

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[83] Spann FERC testimony, page 101, line 9 (emphasis added).

[84] Calculated for Dr. Spann's regional market excluding Southern. Spann FERC testimony, Exhibit ___ (RMS-22), Schedule 1, page 4. Other market definitions in this exhibit show even higher amounts of economic capacity could be imported into the Western Resources and KCPL destination

Dr. Spann showed that the maximum amount that could be imported simultaneously into the Westar control area assuming economic dispatch was only 704 MW.

In his KCC-2 testimony, Dr. Spann explains that it is an extension of his FERC testimony:

> In my FERC testimony, I focused on the effects of the proposed merger on competition in the relevant wholesale markets. In this testimony, I extend my analysis to include retail competition [*i.e.*, retail wheeling], as well.[85/]

Although Dr. Spann states that his KCC-2 testimony is an extension of his FERC testimony, Dr. Spann's erroneous calculation of market shares in the Westar area based on generating capacity does not provide a tenable foundation on which to build his KCC-2 testimony. The Spann Affidavit, filed at the FERC after the KCC-2 testimony, does not correct this problem.

Q. What is the effect of not defining wholesale requirements power as a relevant product market?

A. Because Dr. Spann did not identify wholesale requirements power as a relevant product market, his FERC testimony overlooks vertical market power. Moreover, for this reason the Spann FERC testimony does not provide a foundation for the Spann KCC-2 testimony. The Spann KCC-2 testimony is intended to evaluate retail competition. In retail competition, the relevant product is retail requirements power. Because the Spann FERC testimony fails to evaluate wholesale requirements power, it provides no foundation for the Spann KCC-2 analysis.

VII.D. EVALUATION OF SPANN KCC-2 TESTIMONY

Q. What is the purpose and approach of this part of your testimony?

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markets.

[85] Spann KCC-2 testimony, page 2, lines 8-11.

A. My purpose is to determine whether the Spann KCC-2 testimony demonstrates that the proposed merger would not create market power. The Spann KCC-2 testimony explicitly relies on the Spann FERC testimony. My approach to evaluating the Spann KCC-2 testimony is to assume that the FERC Staff did not file a deficiency letter and to assume that Dr. Spann did not file an affidavit. The reason for these assumptions is that Dr. Spann stated that the market power study in his Affidavit does not replace the market power study in his FERC testimony.86/

Q. Please provide an overview of the Spann KCC-2 testimony.

A. The Spann KCC-2 testimony is stunning for three reasons. First, the Spann KCC-2 testimony contradicts the Spann FERC testimony's definition of the multi-state, regional geographic market. Second, Dr. Spann overestimates firm import capability into the Westar area because of a misunderstanding regarding transmission. Third, Dr. Spann not only states that the Westar area would be a load pocket, but also his analysis and exhibits demonstrate conclusively that it would be profitable for Westar to restrict output and raise price in the Westar-area load pocket. In particular, Dr. Spann shows for the Westar area that transmission constraints of 704 MW would limit imports to less than 10% of the control area load of 7,955 MW.87/ When combined with Westar's dominant market share, the Spann KCC-2 testimony demonstrates that it would be profitable for Westar to raise price. The combination of Westar-area simultaneous imports and non-Westar generation located in the Westar area would be insufficient to make it unprofitable for Westar to profitably restrict output and raise price.

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[86] Spann Affidavit, page 6, para. 12.

[87] Spann KCC-2 testimony, Exhibit ___ (RMS-13), page 2.

Dr. Spann's load-pocket analysis in effect further validates the results of my application of the *Merger Guidelines* procedure, wherein I calculated that in requirements power Westar would have a dominant market share and that the market would be highly concentrated. A reasonable inference from my analysis is that the proposed merger would create market power for Westar to raise the price of requirements power profitably, unless entry were easy. I have shown above that entry into the production of wholesale requirements power would be difficult. Dr. Spann's load-pocket analysis is an alternative method of analysis to the *Merger Guidelines* procedure. Dr. Spann's load-pocket analysis demonstrates that the proposed merger would create market power for Westar to profitably restrict output and raise price.

Q. How is this part of your testimony organized?

A. My evaluation of the Spann KCC-2 testimony is organized into three sections: (A) geographic market definition; (B) transmission constraints; and (C) load-pocket analysis.

VII.D.1. GEOGRAPHIC MARKET DEFINITION

Q. Is Dr. Spann's definition of the relevant geographic market in his KCC-2 testimony the same as in his FERC testimony?

A. No. Dr. Spann's geographic market definitions are completely different and contradictory. In his KCC-2 testimony, Dr. Spann combines Western Resources and KCPL into a single transmission and control-area market and then examines the combined-system control-area market using the concept of a "load pocket." He defines a load pocket as "an area in which import capability is less than demand in that area."88/ Dr. Spann states that

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[88] Spann KCC-2, page 10, line 19.

in a load pocket "the utility might be able to exploit the constraint on import capability and increase price in its control area."89/ Dr. Spann warns that:

> This exploitation could occur if the firm that owned most of the generation in the control area significantly reduced generation, thereby increasing imports into the region to the point at which imports into the area equaled the transmission limit into the area. Once imports equaled the import limit, the firm could increase prices without having to worry about losing sales to additional imports.[90/]

Q. What does Dr. Spann conclude regarding whether the Westar control area would be a load pocket?

A. Dr. Spann states that post-merger the Westar area would be a load pocket and warns that the Westar area:

> may present localized market power concerns during summer peak periods due to the potential for profitable strategic exploitation of transmission limits.[91/]

Thus, Dr. Spann demonstrates that the Westar-area load pocket is a relevant market in which it would be profitable for a hypothetical monopolist to restrict output and increase price. As a consequence, Dr. Spann has in effect demonstrated that his regional market defined in the Spann FERC testimony is incorrect because Westar with its dominant market share would have market power in the smaller Westar-area market. Moreover, with a dominant market share in the Westar-area market, Westar could price discriminate by charging more in the Westar area than for its exports. The implementation of the SPP tariff did not change the fact that the Westar area would be a load pocket. Therefore, regardless that there is now a SPP tariff, the Westar area would be both a load pocket and a relevant

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[89] Spann KCC-2, page 11, lines 3-4.

[90] Spann KCC-2, page 11, lines 4-9.

[91] Spann KCC-2, page 68, lines 17-19.

antitrust market wherein Westar would have substantial market power to profitably raise price and price discriminate relative to outside areas.

VII.D.2. TRANSMISSION CONSTRAINTS

Q. Does Dr. Spann's KCC-2 testimony correctly account for transmission constraints?

A. No. In his testimony on behalf of KEPCo, Mr. Charles Liebold explains Dr. Spann's misunderstandings. Mr. Liebold explains regarding transmission constraints that Dr. Spann misunderstands both import capacity and net power flows. Therefore, Dr. Spann overestimates the Westar-area simultaneous import capability.

Q. How has Dr. Spann calculated import capability?

A. Dr. Spann had the Joint Applicants calculate import capability for him, using his concept of "simultaneous import capability."[92]

Q. Is the concept of "simultaneous import capability" as defined by Dr. Spann appropriate for estimating import capability for purposes of estimating market power?

A. No. Dr. Spann's definition of simultaneous import capability is relevant, if at all, only to emergency situations wherein generation energy cost is not the primary concern. Moreover, Dr. Spann's concept does not include any reductions in import capability for Transmission Reserve Margin or Capacity Benefit Margin. As a consequence, Dr. Spann has inflated the calculated Westar-area import capability.

Q. What is Dr. Spann's misunderstanding regarding net power flows?

A. Dr. Spann contends that even if import capability appears to be constrained with imports, thereby making it appear to be profitable to restrict output and raise price, export

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[92] Spann KCC-2, page 60, lines 3-6 and lines 17-20.

power flows could relieve the constraint. According to Dr. Spann, export power flows would counter import power flows, increasing the import capability. To repeat, Dr. Spann explains that exports by generators in the control area would allow greater importation of generation. Dr. Spann uses examples in an attempt to demonstrate that net power flows would reduce transmission constraints.

Q. Is Dr. Spann's first example helpful in analyzing net flows?

A. No. Dr. Spann's first example is contradictory.93/ In this example, Dr. Spann asks that we assume Utility A has more lower-cost generation than Utility B. Prior to implementation of retail wheeling, Utility A is selling 150 MW to Utility B. This implies that Utility A has only 150 MW of generation lower in cost than Utility B's generation. If Utility A had more, then Utility B would be buying it. Dr. Spann asks next we assume that with the implementation of retail wheeling Utility A secures 400 MW of business in the service area of Utility B. This assumption is contradictory, unless Utility A takes customers from Utility B by selling to some of them below cost (predatory pricing). First, under Dr. Spann's assumption, Utility A has only 150 MW of generation lower in cost than Utility B, but nonetheless starts selling 400 MW to former customers of Utility B. Because Utility A can sell only 150 MW at a price above cost, the other 250 MW sale (400 MW minus 150 MW of lower cost generation) must be more costly than Utility B's generation (or Utility B would have been purchasing it before the introduction of retail direct access). Thus, Dr. Spann implicitly assumes that Utility A must be selling 250 MW below cost. In conclusion, Dr. Spann's implicit assumption is that Utility A engages in predatory pricing. An example that assumes predatory pricing is a faulty basis on which to evaluate competition.

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[93] Spann KCC-2 testimony, page 42, line 21.

Q. What is Dr. Spann trying to demonstrate?

A. Dr. Spann is trying to show with the implementation of retail wheeling that if Utility A starts selling more in Utility B's service area, and Utility B starts selling more in Utility A's service area, the increase in physical flows would offset each other. As a consequence, he claims there would not be overloading of the transmission line connecting the two utilities. Dr. Spann explains this point using a second example.

Q. Is Dr. Spann's second example correct?

A. No. Dr. Spann's second example is incorrect. In his second example, the transmission line between Utility A and Utility B has a transfer capacity of 100 MW.94/ Compared to his first example, Dr. Spann changes the assumptions on the amounts of physical flows. Now generators in Utility A's area (not just Utility A) are selling 300 MW to customers in Utility B's area, and generators in Utility B's area are selling 350 MW to customers in Utility A's area. Dr. Spann concludes that the power flows offset or net out, and that the result is a 50 MW net flow between the two utilities. Thus, according to Dr. Spann, sales between control areas can be greatly in excess of the actual interconnection transfer capacity.

Q. Is Dr. Spann correct?

A. No. There are at least two problems with his conclusion. First, the timing of transmission schedules differ throughout the day, week, and year. Dr. Spann must be assuming that the transmission schedules of Utility A and Utility B are exactly offsetting each other continuously hour-by-hour. That is unlikely. Suppose that load in Utility A's area is summer peaking and that load in Utility B's area is winter peaking. These different load

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[94] Spann KCC-2, page 45, line 6 — page 46, line 6. For his second example, Dr. Spann must have changed assumptions because he does not explain how before retail competition Utility A was selling 150 MW to Utility B (the assumption in his first example) over the 100 MW transmission line.

profiles make it likely that transmission schedules of the two utilities will differ significantly. In neither summer nor winter would the opposing power flows be sufficient to offset each other. Thus, the 100 MW of interconnecting transmission would be overloaded in both seasons.

Second, the more serious problem is reliability. Customers normally want firm power. To obtain firm power, a prudent action would be to reserve firm transmission. Transmission reservations that rely on net flows cannot provide firm transmission. Suppose, as Dr. Spann assumes, that Utility A has a 300 MW transmission reservation to Utility B's area and that Utility B has a 350 MW transmission reservation to Utility B's area. Thus, Dr. Spann would claim that in terms of transmission reservations, the 100 MW line would have net reservations of 50 MW. He is incorrect. Reservations are similar to the ATC on which they are based, namely they are directional and exist individually. Only schedules can net, but even with net schedules, there is no assurance that actual power flows would net.

For example, assume for a particular hour that Utility A's customer load located in Utility B's area requires only 150 MW, so that Utility A schedules only 150 MW to Utility B. Also assume that Utility B's customer load located in Utility A's area requires the full 350 MW. Because the net flow between the two would otherwise be 200 MW (exceeding the transmission line's capacity), part of Utility B's schedule probably would be denied (or the line could become overloaded and trip). The bottom line is that although on paper countervailing transmission reservations may net, in practice transmission schedules or power flows or operating problems such as forced outages could destroy the netting that appears balanced on paper.

Moreover, as explained in detail by Mr. Liebold, Dr. Spann's simple examples are not applicable to a situation in which a utility has more than one interconnection with another

utility. The actual situation is that Westar would be interconnected with several utilities and would have multiple interconnections with a number of them.

In conclusion, Dr. Spann's net power flow assumption is incorrect, because it does not reflect actual conditions. Thus, he overestimates the Westar-area import capability.

VII.D.3. LOAD-POCKET ANALYSIS

Q. What is the purpose of this section of your testimony?

A. This section explains how the Spann KCC-2 testimony demonstrates conclusively that the proposed merger would create market power for Westar to profitably restrict output and raise price. This demonstration is not in plain view in the Spann KCC-2 testimony, but is contained partly in the testimony and partly in the attached exhibits.

Q. Are the analysis and data contained in the Spann KCC-2 testimony sufficient to conclude that the proposed merger would create market power?

A. Yes. Dr. Spann sets out criteria for the profitable strategic exploitation of import transfer limits, and then provides in testimony and exhibits all of the necessary elements that demonstrate Westar would meet the criteria. Thus, when the elements are assembled, they lead to the inescapable conclusion that the proposed merger would create market power sufficient for Westar to engage in profitable strategic exploitation of the control area's import transfer limits. Not surprisingly, Dr. Spann does not anywhere assemble these elements.

Q. What are Dr. Spann's criteria?

A. According to Dr. Spann, there are two criteria prerequisite to strategic exploitation of import transfer limits that would allow an electric utility to preclude competitive access and therefore to exercise market power in the control area to profitably restrict output and raise price.

Q. Please state the two criteria and whether Westar would meet these criteria.

A. First, Dr. Spann states that import capability must be less than total demand in the control area.95/ Otherwise, output could not be restricted sufficiently to raise price. With the proposed merger, import capability would be less than total demand in the control area. Dr. Spann shows that the Westar control area summer peak demand would be 7,955 MW and that the simultaneous import capability into the control area would be 704 MW.96/ Thus, the import capability into the Westar control area during the summer peak would be substantially less than the total demand, so Dr. Spann's first criterion is met.

Second, Dr. Spann states that a single firm must own substantially all of the generating capacity in the control area.97/ Regarding the appropriate measure of generating capacity, Dr. Spann states that "total capacity is the most straightforward way of presenting market-share data for purposes of competitive analysis."98/ With the proposed merger, Westar would own 83% of the generating capacity in the Westar control area. Thus, Westar would meet the "substantially all" criterion and would be the dominant utility in the control area.

Q. Once the two criteria are satisfied, what are the steps in determining whether the dominant utility could profitably restrict output and raise price?

A. Dr. Spann explains that the dominant utility must be able to restrict generation without losing enough sales to render the price increase unprofitable.99/ As the dominant

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[95] Spann KCC-2, page 51, lines 14-15.

[96] Exhibit ___ (RMS-13), page 2 of 3.

[97] Spann KCC-2, page 51, lines 14-17.

[98] Spann KCC-2, page 26, lines 8-11.

[99] Spann KCC-2, page 51, lines 3-7.

utility restricts output, it would continue to lose sales to imports until imports reached the control area's import capability limit. At this point, the dominant utility in effect would have placed a cap on imports,100/ because no additional generation could enter the control area.101/ Once this cap is reached, there would be no further constraint on the dominant utility's ability to raise price by restricting output (except that with an increase in price consumers may reduce purchases).102/ Therefore, the final steps in the analysis are to determine the percentage by which the dominant utility would have to restrict output in order to reach the cap and to determine whether that amount of restriction would be profitable.

Q. Has Dr. Spann calculated import capability into the Westar control area?

A. As I explained above, Dr. Spann had it calculated for him by the Joint Applicants. Dr. Spann asked the Joint Applicants to perform load flow analyses in order to measure import capability into the Westar control area.103/ Dr. Spann requested that these studies use "the simultaneous import capability at the time of the summer peak."104/ In addition, Dr. Spann requested that the Joint Applicants complete three studies, each using a different load flow method: the SPP method, the maximize method, and the economic dispatch method.105/

Q. Are the results of all three load flow methods equally applicable?

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[100] Dr. Spann calculates the cap using his definition of simultaneous import capability. KEPCo witness Mr. Charles Liebold explains in his affidavit that Dr. Spann misunderstands the calculation of import capability and, as a consequence, overestimates the restrictions on import capability necessary to block competitive imports.

[101] Spann KCC-2, page 51, lines 9-12.

[102] Spann KCC-2, page 51, lines 12-14.

[103] Spann KCC-2, page 60, lines 17-20.

[104] Spann KCC-2, page 60, lines 18-19.

[105] Spann KCC-2, page 62, line 13 — page 63, line 21.

A. No. I explained above that both the SPP method and the maximize method have no applicability to the actual situation. The SPP method dispatches Westar's generation proportionately regardless of energy cost (*i.e.*, to change generation, each generator is ramped an equal percentage).106/ Thus, the SPP method is inconsistent with the actual method used by all electric utilities for the dispatch of generation. The maximize method assumes that Westar would voluntarily redispatch out of merit order more expensive generation, if doing so would increase transmission import capability.107/ Limited redispatch may be necessary to meet a requested transmission reservation, but global redispatch is not routinely employed for determining available transmission capacity. The importer would have to pay for redispatch costs necessary to accommodate imports. Thus, the maximize method assumes that Westar is irrational and would voluntarily incur unnecessary additional generating costs for the sole purpose of increasing its competitors' ability to import generation, thereby reducing its own ability to raise price. In conclusion, only the economic dispatch load flow method makes economic sense.

Q. Has Dr. Spann estimated the maximum percentage output restriction that would remain profitable?

A. Yes. Dr. Spann estimates a range for this percentage based on his evaluation of three factors: whether or not the dominant utility is a net importer; whether or not the dominant utility is a high-cost generator; and whether or not the ratio of net import capability to control area demand is sufficiently low.

Q. Why is it relevant whether or not the dominant utility is a net importer?

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[106] Spann KCC-2, page 62, lines 17-19.

[107] Spann KCC-2, page 63, lines 13-15.

A. If the dominant utility is a net importer, it would be using control area import capability prior to restricting output to raise price. If the dominant utility then restricted output, it would need to restrict less to reach the cap than if it were a net exporter.108/ Dr. Spann states that at the time of the monthly peaks the Westar control area would be a net importer about half the year.109/

Q. Why is it relevant whether or not the dominant utility is a high-cost generator?

A. Dr. Spann explains that a high-cost generator makes a smaller margin (*i.e.*, price minus cost) selling generation compared to a low-cost generator, and therefore he concludes that a high-cost generator would lose less profit when restricting the generation that it offers for delivery within the control area.110/ Thus, a high-cost generator can restrict output to raise price by a greater percentage before it becomes unprofitable. If an electric utility has sufficient capacity to meet its load, but nonetheless is not operating all of that generation and instead is a net importer, then during the period that it is importing it is, in economic effect, a high-cost generator. It would not import unless its own generation was higher cost than what it could purchase from outside generators. Dr. Spann shows that during half the months of the year, Westar would have its generation operating at less than its monthly peak and would be importing to make up the difference.111/ Thus, during the

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[108] Spann KCC-2, page 56, lines 5-16; note that at lines 12-13, Dr. Spann appears to have inadvertently reversed the words "importer" and "exporter." Compare to the previous sentence, the following sentence, and the sentence at page 61, lines 6-7.

[109] Exhibit ___ (RMS-11), page 6 of 6.

[110] Spann KCC-2, page 52, lines 6-14.

[111] Exhibit ___ (RMS-11, page 6 of 6.

periods when Westar would likely restrict output, Westar would be both a net importer and a relatively high cost generator.

Q. Why is the ratio of net import capability to control area demand relevant to profitability?

A. The lower the ratio of net import capability to control area demand, the higher the proportion of sales that the dominant utility retains if it increases price.112/ Dr. Spann explains that the "greater the percentage reduction in output required to implement a price increase, the less likely it is that a price increase will prove profitable."113/ Thus, price increases are most likely to be profitable during summer peak periods when demand is high (and imports are already using the import capability).

Q. Has Dr. Spann calculated the percentage by which a dominant utility could restrict output and have the restriction remain profitable?

A. Yes. Dr. Spann estimates a range of percentages wherein the dominant utility could restrict output and still have the price increase remain profitable, stating that:

> Although the exact calculation of the profitability of such an output reduction is likely to depend on numerous factors, if it is necessary to reduce output by 70 percent in order to increase prices, such an output reduction is not likely to be profitable. If the required output reduction is 25-35 percent of output, such an output reduction might be profitable.[114/]

Q. Has Dr. Spann calculated what output reduction would be required for Westar to reach the cap?

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[112] Spann KCC-2, page 51, lines 17-19.

[113] Spann KCC-2, page 61, lines 15-17.

[114] Spann KCC-2, page 69, line 20 — page 70, line 3.

A. Yes. Dr. Spann calculates the percentage output reduction or restriction necessary for Westar to reach the control area import capability limit or cap. He uses the economic dispatch load flow analysis and determines that during the summer peak Westar would need to withhold only 13.7% of its generation to reach the cap.115/ Because Dr. Spann concludes that an output reduction of as high as 25% to 35% might still be profitable, there is no doubt that an output reduction percentage of only 13.7% would be profitable.

In the same exhibit, Dr. Spann shows the percentage output restriction pre-merger for Western Resources and KCPL. The percentage output restriction necessary to reach the cap is 24.5% for Western Resources and 88.9% for KCPL. Combining the loads of Western Resources and KCPL lowers the percentage restriction in generation necessary to constrict import capacity and reach the cap. Because the proposed merger reduces the percentage restriction necessary to meet the cap, the proposed merger creates market power.

Q. Are the figures that Dr. Spann uses for Westar control area import capability correct?

A. No. As explained by KEPCo witness Charles Liebold in his testimony, and summarized above in Section IV.C.2., Dr. Spann overestimates import capability into the Westar control area because Dr. Spann misunderstands both firm transmission and simultaneous import capability.

Q. If these misunderstandings were corrected, how would that change the 13.7% output reduction percentage required for Westar to reach the cap?

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[115] Exhibit ___ (RMS-13), page 2 of 3.

A. The 13.7% figure would be lower. If Dr. Spann's misunderstanding regarding firm transmission were corrected, the actual amount by which Westar would need to restrict generation in order to raise price would be lower.116/ If Dr. Spann's misunderstanding regarding simultaneous import capability also were corrected, the amount by which Westar would need to restrict generation in order to raise price would be even lower.

Q. What have you concluded regarding Dr. Spann's load-pocket analysis?

A. The Spann KCC-2 testimony and exhibits demonstrate conclusively that the proposed merger would create market power for Westar. As Dr. Spann suggests, Westar's market power would be sufficient for the "profitable strategic exploitation of transmission limits."117/

Q. Does the Spann KCC-2 testimony compare a load pocket to an antitrust market?

A. Yes. Dr. Spann states that "a load pocket is not necessarily an antitrust market under the *Merger Guidelines* approach to market definition."118/ His reasoning is "there might be sufficient import capability to render a small price increase unprofitable."119/ As Dr. Spann shows, however, import capability into the Westar control area would be sufficiently limited to allow increasing price profitable. Therefore, the Westar-area load pocket is a relevant antitrust market.

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[116] See Exhibit ___ (RMS-13, page 2 of 3: simultaneous import capability of 704 MW divided by Westar generation of 7,446 MW).

[117] Spann KCC-2, page 68, line 16.

[118] Spann KCC-2 at 57, lines 3-4.

[119] Spann KCC-2 at 57, lines 2-3.

Part VII: MERGER CONDITIONS

Q. What is the purpose and organization of this part of your testimony?

A. My purpose is to recommend merger conditions. The proposed merger would create both market power and potential adverse competitive effects. First, the market power study in the Spann Affidavit demonstrated based on market concentration measured by economic capacity that the proposed merger would create substantial horizontal market power in the Westar-area non-firm energy and short-term capacity markets. Second, my market power study demonstrated based on Westar's dominant market share measured by total capacity that the proposed merger would create substantial vertical market power in the Westar-area wholesale requirements power market. Third, my analysis of the proposed merger identified several potential adverse competitive effects: unilateral market power, loss of potential competition, tacit or express collusion, ability to raise rivals's costs, control of Wolf Creek operation, control of KEPCo's sale of Wolf Creek, ability to exclude competition, and likely exercise of market power. Fourth, the proposed merger could create net merger benefits that should be shared equitably among shareholders, wholesale customers, and retail customers.

This part of my testimony is organized into four sections: (A) mitigation of horizontal market power; (B) mitigation of vertical market power; (C) mitigation of potential adverse competitive effects; and (D) sharing merger benefits.

VII.A. MITIGATION OF HORIZONTAL MARKET POWER

Q. What merger conditions are necessary to mitigate horizontal market power created by the proposed merger in the Westar-area non-firm energy and short-term capacity markets?

A. To mitigate horizontal market power created by the proposed merger it would be necessary to reduce the market concentration that would be created by the proposed merger. Market concentration can be reduced by divestiture of generation or construction of transmission interconnection facilities.

First, market concentration in the Westar-area market measured by economic capacity and wholesale requirements power should be reduced to a workably-competitive level by the Joint Applicants undertaking a combination of divestiture of generating capacity and construction of transmission-interconnection facilities. Divestiture would reduce market concentration. Increasing Westar-area simultaneous import transfer capability would reduce market concentration. The Joint Applicants should be required to divest generating capacity and construct interconnection capability in a combination sufficient to reduce market concentration in the Westar-area market to a workably-competitive level. Completion of divestiture and interconnection construction sufficient to create a workably-competitive market should be made a prerequisite to consummating the proposed merger. For this purpose, I recommend that the Commission require the following merger condition:

> **KEPCo Merger Condition 1**: Prior to consummating the proposed merger, Joint Applicants shall divest generating capacity and/or construct interconnection capacity sufficient to mitigate the merged company's market power and create a safe-harbor[120] market in the Westar area, and shall not acquire any financial interest in any generating capacity that could supply the Westar-area market.

Second, market concentration could be mitigated once transmission constraints are relieved by expanding the geographic scope of the supply area using a postage-stamp network tariff for both short-term transactions and long-term firm transactions. The supply

[120] Under the Merger Guidelines, safe-harbor market concentration is an HHI less than 1,000. Merger Guidelines, § 1.51(a).

area for the Westar-area market could be expanded by the formation of a regional transmission organization ("RTO") that combines the merged company's transmission system with neighboring transmission systems to create an area-wide transmission system with a single, area-wide, firm postage-stamp network transmission tariff. With reduced Westar-area transmission constraints, Westar-area market concentration could be reduced by expanding the scope of the geographic market. The RTO would require combining a sufficient number of transmission systems to ensure that the Westar-area market becomes workably competitive. Formation and implementation of the RTO should be made a prerequisite to consummating the proposed merger. To mitigate horizontal market power, I recommend that the Commission also require the following merger condition:

> **KEPCo Merger Condition 2**: Prior to consummating the proposed merger, Joint Applicants shall form and join a multi-utility and multi-state Regional Transmission Organization ("RTO") or Independent System Operator ("ISO") that has a single, postage-stamp network transmission tariff within the RTO or ISO and includes at a minimum all electric utilities directly connected to either or both of the Joint Applicants.

VII.B. MITIGATION OF VERTICAL MARKET POWER

Q. What merger conditions are required to mitigate vertical market power created by the proposed merger in the Westar-area wholesale requirements power market?

A. The proposed merger would create substantial vertical market power in the Westar-area wholesale requirements power market. Two types of mitigation are necessary. One type is a requirement that Westar continue to sell wholesale requirements power at a cost-based rate. Granting Westar authority to charge market-based rates within its transmission area is inappropriate because, in its transmission area, Westar would have

substantial market power in the production of wholesale requirements power. In order to offset the Applicants' market power in the markets for wholesale requirements power and its components, I recommend that the Commission require the following condition:

> **KEPCo Merger Condition 3:** Applicants must offer to sell to TDUs interconnected with their transmission system wholesale requirements power at no more than cost-based rates under a tariff filed with the FERC.

The other type of merger condition is a requirement that Westar sell the components necessary to assemble wholesale requirements power. Wholesale requirements-power components can be organized into four categories: (1) capacity; (2) energy; (3) FERC ancillary services; and (4) coordination services. In order to offset the Applicant's market power in the Westar-area requirements-power components market, I recommend that the Commission require the following condition:

> **KEPCo Merger Condition 4:** Applicants must offer to sell to TDUs interconnected with their transmission system at no more than cost-based rates under a tariff filed with FERC the following wholesale requirements power components : capacity, energy, FERC ancillary services, other coordination services, and any other service that Westar requires for a competitor to serve retail load in the Westar transmission area.

VII.C. MITIGATION OF POTENTIAL ADVERSE COMPETITIVE EFFECTS

Q. Would any potential adverse competitive effects be mitigated by merger conditions 1 through 4?

A. Yes. KEPCo merger conditions 1 through 4 would mitigate potential adverse competitive effects from unilateral market power and tacit or express collusion.

Q. Which potential adverse competitive effects require additional mitigation conditions?

A. Three potential adverse effects from the proposed merger require additional mitigation conditions: (1) market power to raise rivals' costs; (2) control of KEPCo's sale of Wolf Creek; and (3) exclusion of competition. The potential adverse competitive effect from loss of potential competition cannot be mitigated.

VII.C.1. MARKET POWER TO RAISE RIVALS' COSTS

Q. What merger condition is required to mitigate market power from Westar's control of after-the-fact accounting?

A. A merger condition is necessary to require Westar in after-the-fact accounting for control-area generation dispatch to allow KEPCo to use each of its present and future resources wherever in the Westar transmission area it would be the most economic for KEPCo. Therefore, I recommend that the Commission require the following merger condition:

> **KEPCo Merger Condition 5**: The merged company shall reform existing wholesale requirements customer contracts upon the customer's request so as to treat the customer's loads and resources in the merged entity's combined transmission area (*i.e.*, the combined KPL, KG&E, and KCPL transmission area) as a single service area when delivering power to such wholesale customers, so that customers may effect central economic dispatch of their resources to supply their combined load within the combined transmission area. Such reformation shall be filed with the FERC no later than sixty (60) days after the later of (i) consummation of the merger or (ii) the customer's written request.

VI.C.2. CONTROL OF KEPCO'S SALE OF WOLF CREEK

In order to offset Westar's control of KEPCo's ability to sell Wolf Creek, I recommend the following two conditions:

> **KEPCo Merger Condition 6:** Applicants shall waive their right of first refusal to purchase KEPCo's interest in the Wolf Creek Generating Station or Wolf Creek Nuclear Operating Corporation.

> **KEPCo Merger Condition 7:** Applicants may not sell, lease, or otherwise transfer all or part of their interests in the Wolf Creek Generating Station or Wolf Creek Nuclear Operating Corporation to any third party, including an affiliate, unless Applicants provide KEPCo reasonable notice of the proposed transaction and an opportunity to participate in the transaction on the same or equivalent terms and conditions.

VII.C.3. EXCLUSION OF COMPETITION

Q. What merger conditions are required to mitigate Westar's market power to exclude competition?

A. Two merger conditions are required. One merger condition is required to mitigate market power to exclude competition based on Westar's control of wholesale tariff energy displacement. Electric utilities with generating capacity such as Western Resources routinely displace their own generation with lower cost energy purchased from other suppliers. In purchasing partial requirements wholesale power from Western Resources, KEPCo purchases capacity. Western Resources refuses to allow KEPCo to displace the energy accompanying this purchase of capacity. In order to compete with Western Resources on an equal footing, KEPCo must be allowed to displace generation from this capacity the same as Western Resources displaces energy from its capacity. Therefore, to mitigate market power to exclude competition based on control of wholesale-tariff energy displacement, I recommend that the Commission require the following merger condition:

KEPCo Merger Condition 8: The merged company shall: (i) allow KEPCo to purchase energy to displace the company's partial requirements wholesale energy; (ii) transmit such displacement energy on a firm basis; and (iii) charge for scheduling and dispatch at the appropriate Order 888 ancillary charge and not charge additionally for the firm transmission that KEPCo purchases unbundled from partial requirements power because the transmission tariff demand charge includes firm transmission service based on KEPCo's total demand for partial requirements power regardless of energy supplier.

Q. What is the other merger condition required to mitigate Westar's market power to exclude competition?

A. Another merger condition is required to mitigate Westar's market power to exclude competition using excessive notice requirements. The proposed merger would create savings providing the merged company with a competitive advantage. At the same time, KEPCo and other TDUs would be held captive to Western Resources' and KCPL's wholesale requirements tariffs instead of being able to acquire lower cost wholesale power in the wholesale power markets. Therefore, to mitigate Westar's market power created by the proposed merger from excessive notice requirements, I recommend that the Commission require the following condition:

KEPCo Merger Condition 9: The merged company shall provide to the Joint Applicants' wholesale requirements customers a one-year "open season" beginning on the date of the merger allowing wholesale requirements customers (i) to negotiate their best power supply arrangement with any power supplier and (ii) to give ninety (90) days' notice of termination of existing contracts, notwithstanding existing contract restrictions to the contrary, without incurring any stranded-cost liability.

VI.D. MERGER BENEFITS AND STANDARDS OF SERVICE

Q. What are "merger benefits"?

A. Merger benefits refers to the merger benefits claimed by the Joint Applicants but which the Joint Applicants apparently do not plan to share ratably with wholesale customers. Merger benefits are discussed in more detail in KEPCo's Protest to which this testimony is appended.

Q. What merger condition is required to ensure that merger savings are shared ratably by the merged company?

A. I recommend that the Commission require the following merger condition to ensure that merger savings are shared ratably:

> **KEPCo Merger Condition 10**: The merged company shall share merger benefits between its wholesale requirements and retail customers equally (i.e., pro-rata on kwh sales), including any retail rate reductions deemed integral to the merger, in a plan filed with the appropriate regulatory commissions within thirty (30) days after approval of the proposed merger by the Kansas Commission.

VIII. OVERALL CONCLUSION AND RECOMMENDATION

Q. What is your overall conclusion from evaluating the Joint Applicants' market power study?

A. The Joint Applicants' market power study fails to demonstrate the proposed merger would not create market power. In fact, the Joint Applicants' market power study demonstrates that the Westar area would be a load-pocket and relevant antitrust market. Moreover, the Joint Applicants' market power study shows that in this relevant market it would be profitable for Westar to restrict output and raise price. My overall conclusion is the Joint Applicants market power study fails to demonstrate that Westar would not have

market power. Instead, this market power study demonstrates that the proposed merger would in fact create market power.

Q. What is your overall conclusion regarding whether the proposed merger would be in the public interest?

A. My overall conclusion is that the proposed merger would not be in the public interest for two separate reasons. First, the proposed merger would create substantial market power for Westar to profitably restrict output and increase price.

Second, the proposed merger would create substantial non-price market power that could not be mitigated by entry, enabling Westar: (1) to restrict KEPCo's economic use of Wolf Creek power, SWPA power, or any other resource by arbitrarily denying KEPCo benefits and assigning KEPCo costs in after-the-fact accounting for the Westar control-area central economic dispatch; (2) to control operation of Wolf Creek through domination of the WCNOC; (3) to control the purchase of KEPCo's share of Wolf Creek through Westar's right-of-first-refusal; (4) to exclude KEPCo from the wholesale power markets by not allowing KEPCo to displace Western Resources' partial requirements energy; (5) to exclude KEPCo from the wholesale power markets by not allowing KEPCo to terminate on a timely basis its partial requirements power contract with Western Resources; and (6) to not share merger benefits ratably with wholesale customers. This substantial market power created by the proposed merger would lessen and injure competition. For this reason, the proposed merger would not be in the public interest.

Q. What is your recommendation?

A. My recommendation is that the proposed merger of Western Resources and KCPL should be rejected. If the proposed merger is not rejected, I recommend that the Commission require KEPCo's ten merger conditions.

Q. Thank you. I have no further questions at this time.

WESTAR-AREA REQUIREMENTS POWER MARKET

Pre-Merger Market Shares & Concentration

	Generator	Generating Capacity (MW)	Market Share (%)	Concentration Index (HHI)
1	**Western Resources**	**5,388**	50	**2,517**
2	**Kansas City P&L**	**3,364**	31	**981**
3	Import Transfer Capability	704	7	
4	Augusta, KS	24	0	0
5	Baldwin, KS	5	0	0
6	Burlington, KS	9	0	0
7	Burlingame, KC	4	0	0
8	Carrollton, MO	21	0	0
9	Chanute, KS	52	0	0
10	Clay Center, KS	25	0	0
11	Coffeyville, KS	56	1	0
12	Ellinwood, KS	8	0	0
13	Empire District	80	1	1
14	Erie, MO	4	0	0
15	Fredonia, KS	7	0	0
16	Gardner, KS	31	0	0
17	Garnett, KS	9	0	0
18	Girard, KS	3	0	0
19	Herrington, KS	7	0	0
20	Higginsville, MO	42	0	0
21	Holton, KS	14	0	0
22	Iola, KS	31	0	0
23	KEPCo	70	1	0
24	Larned, KS	21	0	0
25	Marshall, MO	53	0	0
26	Midwest Energy	33	0	0
27	Minneapolis, KS	9	0	0
28	Mulvane, KS	7	0	0
29	Neodesha, KS	8	0	0
30	Osage City, KS	8	0	0
31	Osawatomie, KS	6	0	0
32	Ottawa, KS	28	0	0
33	Oxford, KS	1	0	0
34	Sabetha, KS	15	0	0
35	Sterling, KS	5	0	0
36	Stafford, KS	15	0	0
37	St.Joe L&P	121	1	1
38	Utilicorp (WPE-KS)	350	3	11
39	Wamego, KS	12	0	0
40	Wellington, KS	42	0	0
41	Winfield, KS	52	0	0
42	**TOTAL**	**10,739**	**100**	**3,513**

WESTAR-AREA REQUIREMENTS POWER MARKET

Post-Merger Market Shares & Concentration

	Generator	Generating Capacity (MW)	Market Share (%)	Concentration Index (HHI)
1	**Westar**	**8,752**	**81**	**6,641**
2				
3	Import Transfer Capability	704	7	
4	Augusta, KS	24	0	0
5	Baldwin, KS	5	0	0
6	Burlington, KS	9	0	0
7	Burlingame, KC	4	0	0
8	Carrollton, MO	21	0	0
9	Chanute, KS	52	0	0
10	Clay Center, KS	25	0	0
11	Coffeyville, KS	56	1	0
12	Ellinwood, KS	8	0	0
13	Empire District	80	1	1
14	Erie, MO	4	0	0
15	Fredonia, KS	7	0	0
16	Gardner, KS	31	0	0
17	Garnett, KS	9	0	0
18	Girard, KS	3	0	0
19	Herrington, KS	7	0	0
20	Higginsville, MO	42	0	0
21	Holton, KS	14	0	0
22	Iola, KS	31	0	0
23	KEPCo	70	1	0
24	Larned, KS	21	0	0
25	Marshall, MO	53	0	0
26	Midwest Energy	33	0	0
27	Minneapolis, KS	9	0	0
28	Mulvane, KS	7	0	0
29	Neodesha, KS	8	0	0
30	Osage City, KS	8	0	0
31	Osawatomie, KS	6	0	0
32	Ottawa, KS	28	0	0
33	Oxford, KS	1	0	0
34	Sabetha, KS	15	0	0
35	Sterling, KS	5	0	0
36	Stafford, KS	15	0	0
37	St.Joe L&P	121	1	1
38	Utilicorp (WPE-KS)	350	3	11
39	Wamego, KS	12	0	0
40	Wellington, KS	42	0	0
41	Winfield, KS	52	0	0
42	**TOTAL**	**10,739**	**100**	**6,656**

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Western Resources, Inc. and	**)**	**Docket No. EC97-56-000**
Kansas City Power & Light Company	**)**	

Direct Testimony
of
Gordon T.C. Taylor, Ph.D

STATE OF OREGON	)	
	)	VERIFICATION
COUNTY OF MULTNOMAH	)	

Gordon T.C. Taylor personally appeared before me and being first duly sworn deposed and said under oath that the statements contained in the foregoing testimony are true and correct to the best of his information, knowledge, and belief.

Gordon T C Taylor

Gordon T.C. Taylor

Sworn to and subscribed before me
this 28th day of January 1999.

Catherine A Henderson 1-28-99

Notary Public for Oregon

My commission expires 03-15-2002.

OFFICIAL SEAL
CATHERINE A HENDERSON
NOTARY PUBLIC-OREGON
COMMISSION NO. 310551
MY COMMISSION EXPIRES MAR. 15, 2002

Attachment 2

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Western Resources, Inc. and	)	
	)	Docket No. EC97-56-000
Kansas City Power & Light Company	)	

TESTIMONY OF HAROLD L. HAUN
ON BEHALF OF
KANSAS ELECTRIC POWER COOPERATIVE, INC.

Q. **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Harold L. Haun. My business address is 5990 S.W. 29th Street, Topeka, Kansas 66614.

Q. **BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

A. I am Vice President of Administration and General Counsel for Kansas Electric Power Cooperative, Inc. (KEPCo)

Q. **PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

A. I earned a BS degree in Agricultural Economics from Kansas State University in 1964 and a Juris Doctor degree from the University of Kansas in 1967. From 1967 to May 1986, I practiced law in my own office in Council Grove, Kansas. In 1986, I joined KEPCo as Staff Counsel. I was later promoted to General Counsel, and in 1996 I was named Vice President of Administration.

Q. **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to describe the history of KEPCo's involvement in the

Wolf Creek Nuclear Generating Plant (Wolf Creek), including the acquisition of power from the Southwestern Power Administration (SWPA), and to describe KEPCo's current role in the Wolf Creek Nuclear Operating Corporation (WCNOC).

Q. WHAT IS THE HISTORY BEHIND KEPCO'S INVOLVEMENT IN SWPA HYDROPOWER AND WOLF CREEK?

A. In the early 1970s, Kansas Electric Cooperatives, Inc. (KEC), which is the statewide service association of rural electric cooperatives, formed a Power and Energy Committee. In the mid-1970s, the KEC Power and Energy Committee acquired an allocation of low-cost hydropower from SWPA for its successor, KEPCo, contingent upon three conditions: (1) a contracting entity would be organized; (2) a firm baseload power supply to match the hydropeaking power would be acquired; and (3) wheeling arrangements would be made to move the hydropower from near Carthage, Mo., to Kansas REC load centers.

The organization and incorporation of KEPCo in 1975, a generation and transmission (G&T) cooperative, satisfied the first condition. KEPCo was able to provide baseload capacity as a result of the assignment to KEPCo by its member-systems of their contracts in their respective control areas with the overlying utility, thereby fulfilling the second condition. None of these contracts allowed for wheeling, but simply continued the preexisting relationship with the transmission-monopoly utility. The third requirement, *i.e.*, wheeling arrangements to bring the power into Kansas, turned out to be a very difficult roadblock to overcome. The IOUs in the state that owned and controlled all transmission lines in the eastern two-thirds of Kansas, namely, Kansas Gas & Electric

(KGE), Kansas Power & Light (KPL), and Kansas City Power & Light ("KCPL") would not allow KEPCo access to their transmission systems.

Q. **HOW DID KEPCO OVERCOME THIS FINAL HURDLE TO RECEIVING SWPA HYDROPOWER?**

A. A solution to the transmission dilemma came when KGE and KCPL planned to build a nuclear generating plant in Kansas. The location was to be Burlington, Kansas, and the power plant was named Wolf Creek.

Q. **HOW DID WOLF CREEK PROVIDE A SOLUTION TO KEPCO'S TRANSMISSION DIFFICULTIES?**

A. Nuclear technology had been developed by the federal government with public money. Thus, the Atomic Energy Act of 1954 required that any entity building a nuclear facility must offer viable participation in the project to any responsible utility, including non-profit consumer-owned electric utilities. When an offer was extended to KEC, it initially accepted an 8 percent ownership. Then when municipal electric systems determined they could not participate, KEC agreed to accept their 9 percent ownership. With a total ownership interest of 17 percent, which included 60 MW of power for Sunflower (the G&T serving eight western Kansas rural electric cooperatives), KEPCo agreed to sell 30 MW of its 90 MW of SWPA hydropower to Sunflower.

Q. **DID KEPCO'S AGREEMENT TO PURCHASE AN INTEREST IN WOLF CREEK RESOLVE ITS TRANSMISSION PROBLEMS?**

A. No. The co-owners of Wolf Creek, KCPL and KGE, at first refused to agree to transmit any Wolf Creek power, just as they were refusing to transmit the SWPA power. KEC

intervened in the Atomic Safety and Licensing Board case before the Atomic Safety and Licensing Appeal Board, Docket No. 50-482A, in order to assert its rights under the Atomic Energy Act. As the result of that intervention, active participation by the Justice Department, and the intensive negotiations that followed, KEPCo officers signed the Wolf Creek ownership contract with KGE and KCPL officers on April 19, 1979, providing for the needed transmission as well as plant ownership. By the time that Kansas Corporation Commission approval of KEPCo's purchase was obtained in 1980 and KEPCo's financing was finalized in 1981, KEPCo's share was reduced to 6 percent or approximately 70 MW (at today's Wolf Creek rating). Once the ownership contract was agreed to in 1979, KEPCo officers and the SWPA Administrator executed KEPCo's 90-MW SWPA hydropower purchase contract.

In short, KEPCo purchased a share in Wolf Creek primarily to resolve its transmission problems in the state, which could not have been resolved by purchasing a non-nuclear generation resource, assuming any utility would have agreed to such a sale.

Q. **HAS KEPCO HAD OTHER TRANSMISSION PROBLEMS IN TRYING TO OBTAIN WHEELING FROM IOUs IN KANSAS?**

A. Yes. KPL, WRI's predecessor, in the early 1980s refused to wheel SWPA power for KEPCo into the KPL control area, as a result of which KEPCo initiated an antitrust lawsuit against KPL on December 20, 1983. That lawsuit was settled in 1987 as a result of which KEPCo is able to transmit SWPA and Wolf Creek power into and through the KPL control area.

Q. **PLEASE SUMMARIZE THE SITUATION DESCRIBED ABOVE FROM**

KEPCO'S PERSPECTIVE.

A. It was clear to KEPCo at the outset that the IOUs in the state were determined to see KEPCo fail, and the surest means to that end were to deny it transmission access. But for KEPCo's willingness to expend substantial resources to exhaust its remedies under federal and state antitrust provisions, which involved a percentage ownership purchase of Wolf Creek, KEPCo would have failed, and its member systems would likely still be full requirements wholesale customers of the IOUs in the state. KEPCo is concerned today that the subject merger, by enhancing the market power of the merged entity, will have anticompetitive effects just as devastating, though perhaps more subtle, than the past efforts of the same utilities to drive KEPCo off of the power supply landscape.

Q. PLEASE DESCRIBE YOUR CURRENT ROLE IN REGARD TO WOLF CREEK.

A. In 1986, I was named as the KEPCo representative to the Wolf Creek Legal and Insurance Committee. In 1990, I was named as a KEPCo representative to the Board of Directors of the Wolf Creek Nuclear Operating Corporation (WCNOC), and in 1991 I began serving on the WCNOC Executive Committee. About this time I was named to serve as KEPCo's representative on the Common Facilities Committee and the Employee Benefits and Retirement Committee. In 1994, there was a reorganization of the WCNOC Board, and the CEOs of the three owner companies were named to the WCNOC Board of Directors along with the CEO of WCNOC. An Owners' Committee was formed, and some members of the old Board of Directors were named to represent their company on that committee. I was named as a KEPCo representative, and I am currently serving on the Owners' Committee. This Committee generally oversees the operations, as well as

financial, engineering, personnel, and legal matters, at Wolf Creek. I have also served on numerous ad hoc committees formed to represent the owners' interests at Wolf Creek over this time frame.

Q. HOW HAVE THE OTHER OWNERS OF WOLF CREEK TREATED KEPCO IN RECENT TIMES?

A. Both owners, that is KGE (now a WRI subsidiary) and KCPL, have treated me very well since I have served on the Board and the various committees. The reason, of course, is easily understandable: since KGE and KCPL each own 47% of Wolf Creek, if the two of them disagree on an issue, KEPCo holds the deciding vote. The effect has been that KEPCo's vote carried as much weight as theirs.

Q. AS A PRACTICAL MATTER, HOW DOES THE VOTING WORK ON THE WOLF CREEK NUCLEAR OPERATING CORPORATION?

A. As noted, KGE holds 47 percent of the votes, KCPL holds 47 percent, and KEPCo holds 6 percent. But, no one owner possesses a majority interest, and therefore it takes agreement of two owners to make a decision or take an action. It has been a very positive fact that it takes two owners, with two perspectives, to vote a course of action. Of course Wolf Creek is very important to both of them, as it is to KEPCo. So, generally, they want to make decisions and take actions that further its value and use. We agree most of the time on these decisions.

However, there have been times when the two IOU-owners have not agreed on issues. Generally when that has happened, rather than lose, each would resolve to negotiate with the other to reach an agreement. In such cases, KEPCo was usually

excluded from the discussions. But, when they agreed, KEPCo was powerless to stop them. However, the fact that they negotiated a solution, rather than fight a battle one would lose, was usually beneficial and generally led to a decision that served the best interests of all the owners.

I served on the Board when KCPL attempted its hostile takeover of KGE. There were several chilly meetings that were not in the best interests of all of the owners of Wolf Creek. The reason was they would not talk to each other and did not negotiate a win-win solution as issues arose. There was a lack of perspective in those meetings.

Q. **WHAT ARE YOUR CONCERNS FOR THE FUTURE IF THE PROPOSED MERGER IS CONSUMMATED?**

A. To date, with no owner possessing a majority vote, there has been give and take at the WCNOC meetings, and since no one owner can dictate results, the outcome has been a healthy discussion of issues and outcomes that were in the interest of all. If the merger is approved, this dynamic will be lost as WRI will control 94% of the stock and thereby be in a position to dictate results without any real regard for KEPCo's views.

Q. **WHAT DO YOU CONCLUDE FROM THE ABOVE FACTS?**

A. My conclusion is that if the WRI/KCPL merger is approved, with WRI then owning 94% of Wolf Creek, the result will not be in the interest of KEPCo or of the public generally. We will lose the healthy situation of no one party being able to dictate outcomes, with the result being the loss of action by discussion and consensus. KEPCo would in my view be better served by not being a co-owner of Wolf Creek in such a scenario.

Q. **HAS KEPCO ATTEMPTED TO SELL ITS SHARE OF WOLF CREEK SINCE**

LEARNING OF THE MERGER PLANS?

A. Yes. KEPCo has offered to sell its share to the joint applicants, but to date they have refused to make an offer. What this illustrates is that whereas premerger, there would be at least two entities that might compete to purchase Wolf Creek, postmerger there would only be one entity, and hence no competition to purchase Wolf Creek from KEPCo. Further complicating the sale of KEPCo's share of Wolf Creek to a third party is the fact that the Wolf Creek Ownership Agreement gives the other owners one full year to meet any offer by a third party. The practical effect of this right-of-first-refusal provision is to substantially, if not completely, eliminate the incentive of third parties to bid on Wolf Creek, which puts KEPCo in a serious bind in its efforts to market Wolf Creek.

Q. HAS KEPCO ASKED THE JOINT APPLICANTS TO WAIVE THEIR RIGHT OF FIRST REFUSAL?

A. Yes. In light of the joint applicants' lack of interest to date in making an offer for KEPCo's share of Wolf Creek, KEPCo asked them to waive their right of first refusal in the sale of KEPCo's ownership share. We have also asked them in writing for such an agreement. To date, they have refused. As noted, the practical effect of this is to greatly inhibit KEPCo's ability to market its share of Wolf Creek. The impact of this on KEPCo is illustrated by the fact that the combined cost of Wolf Creek and of the purchased power from the applicants represents over 70% of the annual expenses of KEPCo. Our competitiveness in the new, imminent era of customer choice depends upon our ability to substantially reduce those costs.

Q. DOES THAT CONCLUDE YOUR TESTIMONY AT THIS TIME?

A. Yes.

AFFIDAVIT

State of Kansas)
) ss
County of Shawnee)

Harold L. Haun, being first duly sworn, on oath deposes and says that the foregoing testimony was prepared by him or under his supervision and that the information contained in such testimony is true and correct to the best of his knowledge, information and belief.

Harold L. Haun

Harold L. Haun

Subscribed and sworn to before me this ___ day of November 1997.

Lois E. Gerhardt

Notary Public

My commission expires Sept. 13, 2000

NOTARY PUBLIC - State of Kansas
LOIS E. GERHARDT
My Appt. Exp. 9-13-00

Attachment 3

WOLF CREEK GENERATING STATION
OWNERSHIP AGREEMENT

THIS OWNERSHIP AGREEMENT is made December 28, 1981, by and among KANSAS GAS AND ELECTRIC COMPANY ("KG&E"), a Kansas corporation having its principal office at Wichita, Kansas; KANSAS CITY POWER & LIGHT COMPANY ("KCPL"), a Missouri corporation having its principal office at Kansas City, Missouri; and KANSAS ELECTRIC POWER COOPERATIVE, INC. ("KEPCo"), a Kansas corporation having its principal office at Topeka, Kansas.

RECITALS

0.1 KG&E and KCPL are engaged in the generation, transmission, distribution and sale of electricity and KEPCo intends to become the power supplier for its member electric cooperatives in Kansas. KG&E, KCPL and KEPCo intend to own, construct and operate an electric generating station in Coffey County, Kansas, known as the Wolf Creek Generating Station ("Wolf Creek Station"), consisting initially of (i) a site for operation of electric generating units (the "Site"); (ii) a nuclear-fueled electric generating unit of approximately 1150 MWe nominal capacity ("Unit #1"); and (iii) facilities which may be used in common for operation of Unit #1 and additional generating units that may be constructed at the Site in the future (the "Common Facilities"), all to be owned by them as tenants in common, each with undivided ownership interests therein as hereinafter provided.

0.2 KG&E and KCPL, with three other electric utilities (Northern States Power Company, Union Electric Company and Rochester Gas and Electric Corporation), are participants in a program for the design, construction and licensing of standardized nuclear power plants, known as "SNUPPS" or "Standardized Nuclear Unit Power Plant System."

0.3 KG&E has caused the acquisition by Peoples National Bank and Trust Company, Burlington, Kansas (the "Trustee"), as Trustee for KG&E and KCPL, of a parcel of land in Coffey County, Kansas, for the Site.

0.4 KG&E and KCPL have, upon application to the United States Nuclear Regulatory Commission (then the Atomic Energy Commission) received a Construction Permit dated May 17, 1977, authorizing the construction of Unit #1 at the Site, which unit will be substantially of a SNUPPS' design.

0.5 KG&E has made Applications dated February 20, 1968 (No. 14626), December 19, 1972 (No. 19882) and March 1, 1973 (No. 20275) to the Division of Water Resources of the Kansas Department of Agriculture for certificated authority for appropriations of waters from Wolf Creek and the Neosho River for operation of Wolf Creek Station. Also, KG&E and KCPL have obtained a Contract dated March 13, 1976, from the Kansas State Water Resources Board for water from the John Redmond Lake (Reservoir) on the Neosho River for operation of the Wolf Creek Station.

0.6 KG&E and KCPL, together and as participants in SNUPPS, have entered into numerous contracts relating to the design, licensing, construc-

tion and equipping of Unit #1, together and as a common effort with other SNUPPS participants, including, without limitation, (i) a Contract dated February 9, 1973, with Bechtel as architect/engineer and project manager related to the design of the nuclear power block facilities for Unit #1; (ii) a Purchase Order dated February 15, 1974, with Sargent and Lundy as architect/engineer and for design and engineering as related to the balance of plant facilities and Site for Unit #1; and (iii) a Contract dated February 8, 1977, with Daniel International, Inc., through its subsidiary Daniel Construction Company, as constructor and as agent for the Owners in the construction management of Unit #1.

0.7. Contemporaneously herewith, KG&E and KCPL have by General Assignment transferred and assigned to KEPCo individual undivided interests in all permits, contracts and other rights referred to in Sections 0.4, 0.5 and 0.6 hereof, and KEPCo has by a General Acceptance adopted and agreed to be bound by the provisions of all permits, contracts and other grants related to Unit #1 to the extent of its undivided interests therein as provided in Section 1.5 hereof.

0.8 This Ownership Agreement is executed for the purposes of (i) creating and confirming the nature and extent of the respective ownership interests of KG&E, KCPL and KEPCo in the Wolf Creek Station; and (ii) imposing certain covenants and obligations running with the rights, titles and interests of KG&E, KCPL and KEPCo in and to Wolf Creek Station, which covenants and obligations are intended to inure to the benefit of and be binding upon KG&E, KCPL and KEPCo, and any and all persons whomsoever having or claiming any right, title or interest therein by, from, through or under KG&E, KCPL or KEPCo.

NOW, THEREFORE, KG&E, KCPL and KEPCo, each for itself, its successors and assigns, and for the benefit of the other, its successors and assigns, hereby covenant and agree as follows:

ARTICLE I

Creation and Adjustment of Ownership Interests

1.1 Definition of Wolf Creek Station. As used herein, the term "Wolf Creek Station" means and consists of:

(a) the lands and land rights described in Exhibit A hereto, together with all additional lands and land rights as may hereafter be acquired therefor as provided in this Section (the "Site");

(b) all site improvements and facilities at the Site (exclusive of Unit #1 as provided in Subsection (c) hereof, and exclusive of any Additional Unit as provided in Subsection (d) hereof), which are designed for joint utilization in the operation of Unit #1 and any Additional Unit or Units as may be appropriate for common use, including, without limitation, dams, cooling lakes, dam permits, water rights, water intake and discharge facilities, roads, railroad facilities, materials and supplies, control facilities, shop facilities, switchyard and substation equipment (excluding transmission line

terminations), elevators, cranes, laboratory equipment, office facilities, fuel handling facilities, together with any governmental applications, permits, appropriations, approvals and authorizations obtained in connection therewith (the "Common Facilities");

(c) Unit #1 (including all facilities and property, together with all nuclear fuel and all contracts and inventories for nuclear fuel associated with Unit #1 (the "Nuclear Fuel")) to be constructed and installed as contemplated in Sections 0.2, 0.4, 0.5 and 0.6 hereof; provided such facilities and property are for the exclusive use and operation of Unit #1;

(d) any Additional Unit constructed at the Site, including all facilities and property, together with all fuel and all fuel contracts and fuel inventories for such Additional Unit constructed at the Site, provided such facilities and property are for the exclusive use and operation of such Additional Unit;

provided that the same shall have been acquired, constructed or installed for joint or common use as a portion of Wolf Creek Station and jointly owned or leased, as permitted by Section 5.6 hereof, by the Owners for such use.

1.2 Trustee's Deed. KG&E, KCPL and KEPCo shall, from time to time, cause the Trustee to execute Trustee's Deeds conveying Wolf Creek Station, including the Site with all improvements thereon, to themselves and their successors and assigns, as tenants in common, subject to the provisions of this Ownership Agreement.

1.3 Recordations. Executed counterparts of (i) this Ownership Agreement, and (ii) the Trustee's Deed referred to in Section 1.2, shall be filed of record and recorded in the offices of the Recorder of Deeds for Coffey County, Kansas, in the order of precedence herein stated.

1.4 Initial Jointly Owned Facilities. Upon recordation of such instruments as provided for in Section 1.3, KG&E, KCPL and KEPCo shall complete initial contruction of Wolf Creek Station, including Unit #1, and all other facilities as contemplated by the Contracts referred to in Section 0.6, for their common use at Wolf Creek Station under the provisions of Section 1.1 hereof. All costs thereafter incurred in connection therewith shall be borne and paid by KG&E, KCPL and KEPCo, with funds to be provided individually by them, in proportion to their Ownership Shares as stated in Section 1.5 hereof.

1.5 Ownership Shares. At the time of the first closing, KG&E, KCPL and KEPCo shall take and receive title to and thereafter own, except to the extent that any owner's undivided interest in Nuclear Fuel has been financed as permitted by Section 5.6 hereof, Wolf Creek Station as tenants in common, each with undivided ownership interests therein as follows:

Class of Property	Ownership Interests		
	KG&E	KCPL	KEPCo
Site (at acquisition cost)	30%	30%	6%
Common Facilities (including site improvements)	30%	30%	6%
Wolf Creek Unit #1	30%	30%	6%

Because the Trustee will continue to hold legal title with respect to the remaining interests of KG&E and KCPL in the Wolf Creek Station pending subsequent closings, the foregoing table will be amended automatically to reflect the revised ownership interests specified by subsequent Trustee's Deeds. To the extent that any Owner shall finance its undivided interest in Nuclear Fuel as permitted by Section 5.6, such Owner shall for all purposes of this Agreement be considered to be the Owner of such undivided interest in Nuclear Fuel notwithstanding that an ownership interest in such undivided interest in such Nuclear Fuel has been granted to another party for such purpose. Each of such undivided ownership interests shall be subject to adjustment from time to time as provided for in Section 1.6, 1.8, 4.4 and 8.1. Such undivided percentage interests in all or portions of Wolf Creek Station are herein called "Ownership Shares." The rights, titles and interests of KG&E, KCPL and KEPCo in and to Wolf Creek Station and any and all portions hereof, as the same may exist from time to time, shall be as provided for under this Ownership Agreement, and the covenants and obligations herein shall inure to the benefit of, and shall be binding upon, their successors and assigns.

1.6 Owners. KG&E, KCPL and KEPCo each shall have the right to and may cause an adjustment of its respective Ownership Share in Wolf Creek Station (or any portion thereof as provided herein) by transfer, under Section 5.3 or 5.4, of portions of such Ownership Share pursuant to this Ownership Agreement, subject, however, to the receipt and filing of (i) a Supplemental Agreement hereto reflecting such adjustment and (ii) appropriate releases of any encumbrances thereon and compliance with the provisions of any security agreement related thereto, as contemplated in Section 5.2 hereof. Any party owning an Ownership Share in all or any portion of Wolf Creek Station is herein called an "Owner" thereof, and all such parties are herein called the "Owners."

1.7 Common Facilities. Wolf Creek Station has been designed to accommodate additional generating units on the Site ("Additional Units") with joint utilization of those facilities as may be appropriate for common use, including, without limitation, all facilities defined as Common Facilities.

1.8 Additional Units. Any Owner or Owners having in the aggregate more than fifty percent (50%) of the total Ownership Shares in Unit #1 shall have the continuing right to determine, from time to time and at any time, whether an Additional Unit will be constructed on the Site and, if so, the type of electric generating unit to be constructed, the scheduled date for completion thereof and those electric systems which will be invited to participate in ownership thereof; provided, however, that in the event such Owner or Owners having said majority of Ownership Shares in Unit #1 determine to construct such Additional Unit, then and in such event each Owner having an Ownership Share in Unit #1 shall have the right, at its own election, to participate in the ownership of such Additional Unit with an undivided percentage interest therein up to, but not in excess of, its then Ownership Share in Unit #1, except by mutual agreement of all Owners of the total Ownership Shares in Unit #1. The agreed Owners of an Additional Unit shall have the right, upon terms and conditions mutually agreeable to each of them, to cause or permit (i) the construction and operation of such Additional Unit and all facilities related thereto on the Site, and (ii) the relocation or modification of any of the facilities and property then included in Wolf Creek Station and any solely owned facilities then located on the Site as provided in

Article II, for construction and operation of any such Additional Unit and its related facilities; provided (a) that such construction and operation will not unreasonably interfere with or materially impair the use of the facilities and property then included in Wolf Creek Station or otherwise located on the Site, (b) that any agreed adjustment of the Ownership Shares in the Common Facilities and the Site will be reflected as capital transactions, subject to compliance with the applicable provisions of any related security agreement contemplated in Section 5.2 hereof, and (c) that all other costs thereof, including any such relocation or modification costs, are borne by the Owners of such Additional Unit. The proportional adjustments to be made in such undivided Ownership Shares in the Common Facilities and the Site shall be made prior to commencement of construction of any Additional Unit and shall be reflected by purchases and sales (at the depreciated original cost thereof to the selling Owner, including all gross allowances for funds used during construction properly recorded on the books of such seller) of such portions thereof as will adjust the Ownership Shares of the Common Facilities and the Site of all Owners of Wolf Creek Station, including the Owners of such Additional Unit, in proportion to their ownership interests in the total gross capacity, as related to the initial net accredited capacity, of all Units including the nominal gross capacity of the Additional Unit to be constructed. It is intended that the Common Facilities for Unit #1 will not include any of the facilities that are exclusively for any Additional Unit at Wolf Creek Station. For the purpose of calculating any revision of the weighted percentage Ownership Shares of the Owners in the Common Facilities, the allocation of Common Facilities among Units shall be made on the basis of the relation of any Common Facility to a particular Unit or Units as agreed among the Owners. Common Facilities that have no relation to a particular Unit will not be allocated to the Owners of such Unit based upon their Ownership Shares therein. For the purposes of allocating Common Facilities, all Ownership Shares and ownership interest calculations based on capacity shall be made using "nominal gross capacity".

ARTICLE II

Easements for Interconnection Facilities

2.1 Interconnection Facilities. Each Owner shall have the right to install, own, operate, and maintain, at its own costs and expense, at, on, along, over, under and across the Site such facilities as are reasonably required (i) to enable it to deliver to its own system the electric power and energy which it is entitled to receive from any Unit at Wolf Creek Station, (ii) to establish interconnections between its system and the systems of others, and (iii) to connect separated portions of its own system facilities, provided that such solely owned facilities shall be so installed, operated and maintained as not unreasonably to interfere with or materially impair the use of any then existing facilities located on the Site or the ultimate full utilization thereof. Interconnection Facilities are not to be considered part of the Wolf Creek Station.

2.2 Relocations and Modifications. In the event an Owner proposes to install and operate any such solely owned facilities hereunder which would require the relocation or modification of any then existing facilities located on the Site but would otherwise meet the requirements of this Agreement,

such Owner shall have the right to cause such relocation or modification, provided it bears the cost thereof.

2.3 Personal Property. All solely owned facilities, including transmission lines and terminations, installed pursuant to the provisions of this Article shall be and remain the sole property of the Owner installing them; shall not be a portion of Wolf Creek Station under Section 1.1 hereof; shall, where practicable, be identified by distinctive marking as the property of such Owner, and shall be deemed and considered to be personal property in which such Owner has reserved the right to remove the same at any time.

2.4 Exclusive Right, Title and Interest. No provision hereof shall give to any other Owner or anyone claiming by, from, through or under such other Owner any right, title or interest in any such solely owned facilities permitted by Section 2.1 hereof.

ARTICLE III

Management and Operation of Wolf Creek Station

3.1 Common Facilities Committee. Except as provided in Subsection 3.7(c) hereof, all policies relating to the management and operation of the Common Facilities and the Site shall be determined by a Common Facilities Committee consisting of two representatives of each Owner thereof. The chief executive officer of each such Owner shall designate, from time to time, its two representative members to serve on the Common Facilities Committee, at least one of whom shall be a corporate officer of such Owner. Such designation shall be by written notice to the other Owners thereof. Such management and operation of the Common Facilities and the Site shall be consistent with the provisions of this Ownership Agreement.

3.2 Management Committee. Except as provided in Subsection 3.7(c) hereof, all policies relating to the management and operation of any Unit (including fuel for such Unit) shall be determined by a Management Committee therefor consisting of two representatives of each Owner thereof. An Owner's representative members on the Common Facilities Committee shall serve as its representative members on such Management Committee. Such management and operation of each Unit shall be consistent with the provisions of this Ownership Agreement.

3.3 Committee Action. Each Owner shall have a vote on each such Committee equal to its Ownership Shares in the property to be managed by such Committee. Actions by any Committee shall require a majority vote of the undivided Ownership Shares except as stated in Section 3.5(a). No Committee shall have authority to modify any provision of this Ownership Agreement.

3.4 Property Additions and Retirements.

(a) The Common Facilities Committee and each Management Committee shall cause to be made such significant property additions to and removals or retirements from the facilities and property

constituting the Site, the Common Facilities and each Unit, respectively, as may, from time to time, be deemed by such Committee to be necessary or desirable.

(b) Each Owner of the Site, the Common Facilities or any Unit shall pay for the cost of any such property addition thereto in the same percentage as its Ownership Share therein, and the rights, titles and interests of any Owner in and to any such property addition shall be proportionate to its Ownership Share therein.

(c) Upon such removal or retirement of any facilities or property included in any portion of Wolf Creek Station and subject to compliance with the applicable provisions of any related security agreement contemplated in Section 5.2 hereof, the Owners thereof may, at their option and notwithstanding the provisions of Section 5.1 hereof, (i) divide or partition such removed or retired facilities or property, or (ii) sell or otherwise dispose of such removed or retired facilities or property and distribute the proceeds thereof to or for the account of each Owner thereof in accordance with its Ownership Share therein.

3.5 Destruction, Damage or Condemnation.

(a) If more than half of Wolf Creek Station or any Unit should be destroyed, damaged or condemned, the Owners thereof by unanimous agreement may elect to repair, restore or reconstruct the damaged, destroyed or condemned facilities in such manner as such Owners may then mutually agree. In the event of such election, it shall be the obligation of such Owners to pay for the costs thereof in accordance with their respective Ownership Shares therein, and, upon completion thereof, such Owners' rights, titles and interests therein shall be as provided under this Ownership Agreement.

(b) In the event such Owners fail to agree as provided in Subsection (a) above, a majority interest of the Ownership Shares in any such Unit may elect in writing to repair, restore or reconstruct the damaged, destroyed, or condemned facilities and the Owners of such majority interest shall thereupon have the right to purchase the minority Ownership Shares in such Unit, together with the related proportionate Ownership Shares of the minority interest in the Common Facilities and Site at a cost not to exceed the salvage or remaining value thereof.

(c) In the event that such Owners do not proceed as provided in Subsection (a) or (b) above, such failure shall be deemed to be an election not to repair, restore or reconstruct the damaged, destroyed or condemned facilities, in which event the proceeds from any insurance policy or condemnation award shall be distributed to or for the account of such Owners in accordance with their respective Ownership Shares therein, and the remaining facilities shall be disposed of by such Owners in a manner as may then be

mutually agreed by them and the proceeds therefrom shall be distributed to or for the account of such Owners in accordance with their Ownership Shares therein, all subject to the liens of any encumbrance and the provisions of any related security agreement contemplated in Section 5.2 hereof.

(d) In the event that less than half of any Unit shall be damaged, destroyed or condemned, then it shall be the obligation of the Owners thereof to repair, restore or reconstruct the damaged, destroyed, or condemned facilities and to pay for the same as provided in Subsection (a).

3.6 Requirements of Mortgage Indentures. Each Owner may take such action in regard to its Ownership Share in any portion of Wolf Creek Station (including any fuel) as may be necessary to comply with any provision (i) of any existing deed of trust, mortgage indenture or other security agreement of such Owner, or (ii) which, with respect to any future deed of trust, mortgage indenture or other security agreement of such Owner, is or would be required to qualify a trust indenture under the Trust Indenture Act of 1939, as amended (15 U.S.C. 77aaa et seq.) and the General Rules and Regulations thereunder (17 C.F.R. 260), including, without limitation, provisions relating to standards of maintenance, absence of liens, payment of taxes and governmental charges, compliance with governmental regulations, insurance coverage, and the like; provided that any such action by one Owner shall not effect a default by another Owner under the provisions of any then existing security agreement of the other Owner. The Common Facilities Committee or the appropriate Management Committee shall take such action relating to the operation and maintenance of the Common Facilities or any Unit as any Owner of an Ownership Share therein shall advise, in writing, is necessary for such Owner to comply with the provisions of any such existing or future deed of trust, mortgage indenture or security agreement to which it is a party and the costs therefor shall, unless otherwise provided in the applicable Operating Agreement, be borne by the Owners of such portion of Wolf Creek Station in proportion to their Ownership Shares therein.

3.7 Operating Agent:

(a) Each Owner of the Site, Common Facilities and each Unit hereby authorizes KG&E to act as its agent to perform, as an Operating Agent, through KG&E's own employees, agents, servants and contractors, all functions as may be required for the actual operation and maintenance of the Site, Common Facilities and each Unit, including fuel therefor, subject, however, to the policies established by the Common Facilities Committee and the Management Committee for each Unit, respectively; provided, however, that KG&E shall not be liable to any other Owner for any loss, cost, damage or expense incurred by such Owner as a result of any action or failure to act by KG&E, as Operating Agent, in respect to its operation and maintenance of the Site, Common Facilities or Unit, unless KG&E's action or failure to act was not in good faith and was prejudicial to such Owner for the benefit of KG&E.

(b) The Operating Agent shall have full power and authority to act in all matters related to the operation and maintenance of the Site, Common Facilities and each Unit (including fuel therefor) and shall be required to secure appropriate Committee approval with respect only to those policy matters which are clearly beyond the normal course of operation or maintenance.

(c) Notwithstanding any other provision of this Agreement, the Operating Agent shall perform any and all actions duly required by the Nuclear Regulatory Commission or any other regulatory body having jurisdiction over the operation and maintenance of Wolf Creek Station.

(d) Upon written notice to KG&E, the other Owner with the greatest percentage ownership interest in the Site may, at its option, forthwith become, and assume the duties of, Operating Agent hereunder in the stead of KG&E if at such time (i) KG&E has been finally adjudged a bankrupt, or KG&E's Ownership Share in Wolf Creek Station has been seized and is held by any governmental authority having jurisdiction provided that KG&E shall be reinstated upon final termination of the proceedings and it recovers its Ownership Share in Wolf Creek Station, and (ii) such other Owner is not bankrupt and its Ownership Share in Wolf Creek Station has not been seized by any governmental authority.

(e) Contracts covering design, engineering, procurement, construction and installation services and major components of Units and all other contracts relating to procurement, operation and maintenance, including contracts for the acquisition of materials, inventories, supplies, spare parts, equipment, fuel or services therefor, may be executed solely by the Operating Agent or at its request shall be executed by each Owner. Whether or not a contract is entered into in the name of all Owners, each Owner shall be severally and not jointly responsible for its percentage of the amounts which are payable thereunder and all performance with respect to such contracts in proportion to its Ownership share therein. The Operating Agent is expressly authorized to execute all contracts as agent on behalf of each of the Owners. Each contract entered into in the name of all Owners shall provide for several, but not joint, liability in proportion to each Owner's respective percentage Ownership Share therein, and at the Operating Agent's determination, may provide for separate invoicing to each Owner in accordance with its respective percentage Ownership Share thereof.

3.8 Operating Agreements. The Owners of the Common Facilities and the Owners of each Unit shall, by and through agreements among themselves, enter into Operating Agreements for the purpose of establishing with respect thereto more detailed provisions and procedures to implement the provisions of this Ownership Agreement. If an Owner of any portion of Wolf Creek Station shall transfer, under the provisions of Section 5.3 or 5.4, all or any portion of its Ownership Share therein, such Owner shall assign, and shall cause its transferee to assume, the related portion of its rights and obligations under the Operating Agreement applicable thereto. No assignment of any rights or

obligations under an Operating Agreement shall be made except in connection with a transfer of an Ownership Share hereunder. In any instance of conflict between this Ownership Agreement and any other contract or agreement, including any Operating Agreement, the provisions hereof shall take precedence and shall govern.

ARTICLE IV

Capacity and Energy Entitlement and Financial Obligations

4.1 Capacity Entitlement. Subject to the provisions of Section 4.4, each Owner shall be entitled at all times to the then effective maximum operable capability of a Unit (as then permitted by law) in proportion to its Ownership Share in such Unit at such time, and it hereby waives any and all right to any capacity in excess of such pro rata capability.

4.2 Energy Entitlement. Subject to the provisions of Section 4.4, each Owner of a Unit, at all times, (a) shall be entitled to schedule and have the right to receive energy from such Unit at a rate not in excess of that portion of the then maximum operable capability of such Unit (but not in excess of that then permitted by law), and (b) if requested by any other Owner, shall schedule energy from such Unit at a rate not less than that portion of the minimum operable capability of such Unit (but not less than that permitted by law), which is proportional to its Ownership Share in such Unit at such time, each as measured on the basis of net output on the generator side of the step-up substation bus for such Unit.

4.3 Financial Obligations. Each Owner shall at all times pay

(a) a share corresponding to its then Ownership Share in the Site of all expenditures for the lands and land rights described in Exhibit A hereto, together with all additional lands and land rights as may hereafter be acquired therefor;

(b) a share corresponding to its then Ownership Share in Common Facilities of all expenditures for construction, operation and maintenance of Common Facilities and for renewals, replacements, additions and retirements in respect thereof;

(c) a share corresponding to its then Ownership Share in each Unit of all expenditures (other than those in respect to Common Facilities) for construction, operation and maintenance (excluding variable costs, including those associated with fuel use, as provided in the applicable Operating Agreement) of such Unit and for renewals, replacements, additions and retirements in respect thereof;

(d) a share of all expenditures in respect to fuel used (and other variable generating costs as provided in the applicable Operating Agreement) for each Unit corresponding to the ratio of the energy taken by it from such Unit to the total energy taken by the Owners of such Unit, as provided in the applicable Operating Agreement; and

(e) a share of all costs and expenses, including any current funding required to discharge the burden of wastes and waste fuel management, including storage, transportation, risk and liability upon and as part of decommissioning expense for each Unit in accordance with the applicable Operating Agreement in effect.

For the purposes of this Section, expenditures shall not be deemed to include (i) interest charges on borrowed funds, income taxes, and property, business and occupation taxes of each Owner, which shall be borne entirely by such Owner, and (ii) depreciation, amortization and allowances for funds used during construction.

4.4 Default.

(a) If prior to the date of commercial operation of Unit #1 or any Additional Unit an Owner thereof shall (a) be in default of any obligation hereunder for a period of 10 days or more after notice thereof by any other Owner, or (b) fail or be unable, for any reason whatsoever, to make any payment within 30 days of the date due for or on account of the construction of Wolf Creek Station, or (c) shall admit in writing its inability to pay its debts generally as they become due or shall file a petition in voluntary bankruptcy or shall make a general assignment for the benefit of its creditors, or shall consent to the appointment of a receiver for the whole or any part of its utility assets; or shall be adjudicated a bankrupt or insolvent; or an order, judgment or decree shall be entered by any court of competent jurisdiction appointing, without such Owner's consent, a receiver for the whole or any substantial part of its assets and such adjudication order, judgment or decree shall not be vacated or set aside or stayed within 90 days after the entry thereof, or (d) has been declared in default under any mortage, deed of trust, or other instrument under which a lien or other security interest has been granted or acquired in such Owner's ownership interests in Wolf Creek Station, then such Owner shall be deemed to be in default hereunder and the nondefaulting Owner or Owners thereof may, by written notice to the defaulting Owner, but without relieving any defaulting Owner of its liability for the default, (i) agree to complete or cause the completion of construction of the Unit without additional payments by the defaulting Owner and (ii) limit the defaulting Owner's ownership interests in the Unit, Site and Common Facilities at Wolf Creek Station to those percentages thereof as are equal to the ratio of the payments theretofore made by the defaulting Owner to the total construction expenditures of the Owners therefor, exclusive of any allowance for funds used during construction, in which event the defaulting Owner's ownership interests in the Unit, Site and Common Facilities at Wolf Creek Station shall reduce automatically and concurrently as and to the extent that additional construction expenditures (exclusive of any allowance for funds used during construction) are paid by or for the account of the nondefaulting Owner or Owners for completion thereof; provided, however, that upon completion thereof the defaulting Owner shall remain subject to the provisions of Sections 4.1, 4.2, 4.3 and 4.4 hereof with respect to its reduced Ownership Share therein; and provided further, that to the extent

that any Owner's interest in Nuclear Fuel is the subject of a financing arrangement permitted under Section 5.6 hereof, no reduction in such Owner's interest in Nuclear Fuel subject to such financing arrangement shall be made. Subject to the foregoing, in any such event, the respective ownership interests of the Owners in the Unit, Site and Common Facilities at Wolf Creek Station shall adjust automatically and proportionately to reflect the defaulting Owner's decreasing ownership interests therein and the non-defaulting Owners' increasing ownership interests as and to the extent that additional construction expenditures are made or caused to be made by each nondefaulting Owner for completion thereof.

(b) If subsequent to the date of commercial operation of Unit #1 or any Additional Unit an event of default by any Owner occurs in the payment of all or any part of its share of any expenditures as provided in Section 4.3, such Owner shall not be entitled to schedule or receive any energy from any such Unit during the continuance thereof if such default is not cured within five (5) days after delivery of written notice of such default by any other Owner; and during the remaining period of any such default the nondefaulting Owners of each Unit in which such Owner has an Ownership Share therein shall be entitled (without relieving the defaulting Owner of its liability for the default) to schedule and receive all the energy capable of being produced by such Unit (including the capacity entitlement of the defaulting Owner) in proportion to their respective Ownership Shares therein. Further, if any Owner defaults in its obligation to pay its proportionate share of capital additions, betterments or improvements, then the Ownership Shares of such defaulting Owner in any appropriate Unit and/or Common Facilities shall be subject to automatic reduction as specified and provided in Section 4.4(a).

(c) Nothing in Sections 4.4(a) or 4.4(b) is intended to relieve, or shall relieve, a defaulting Owner of its liability for the default, and the exercise by the nondefaulting Owner or Owners of any rights provided for in this Section 4.4 (including rights which reduce the Ownership Shares of the defaulting Owner or permit the nondefaulting Owner or Owners to use the capacity entitlement of the defaulting Owner) shall be considered in mitigation of damages due the nondefaulting Owner or Owners for which the defaulting Owner shall be and remain liable until paid, together with interest thereon at a rate equal to 125 percent of each nondefaulting Owner's gross rate of accrual of (i) an allowance for funds used during construction (AFDC), (ii) interest during construction (IDC), or (iii) other similar cost components regularly used by such nondefaulting Owner, each as applicable during such periods.

4.5 Interchange. Except as otherwise provided in Section 4.4, the capacity entitlement of Owner shall not be available for use by another Owner unless the entitled Owner desires to sell and the other Owner desires to buy any excess capacity entitlement of the selling Owner. Any such sale shall be in accordance with applicable service schedules for interchange transactions between such Owners as may be in effect from time to time and on file with the appropriate regulatory authorities.

ARTICLE V

Partition - Encumbrance - Transfer

5.1 Partition. The Owners and their successors and assigns hereby waive their respective rights with respect to the partition of Wolf Creek Station and any portion thereof for a period of time ending with the abandonment of the use thereof for the generation, transmission or distribution of electricity. No Owner of any Ownership Share in Wolf Creek Station or any portion thereof shall take or resort to any action or permit any action to be taken in its name (including, without limitation, any court proceeding at law or in equity) for the purpose of or which might result in a partition of Wolf Creek Station or any portion thereof (including without limitation, the Site, Common Facilities, any Unit, Nuclear Fuel and all additions and improvements thereto and replacements thereof). Each such Owner, for itself and its successors and assigns, hereby releases all partition rights in respect thereof, whether now existing or hereafter accruing, whether under common law or statute, and whether in kind or otherwise, and each such Owner thereof shall from time to time, upon written request by any other Owner of an Ownership Share therein, execute and deliver such further instruments as may be necessary or appropriate to confirm the foregoing waiver and release of partition rights.

5.2 Encumbrance. Each Owner and its successors and assigns, of Wolf Creek Station or any portion thereof shall have the right to and may encumber its Ownership Share therein (subject to the provisions of this Ownership Agreement) by any deed of trust, mortgage indenture or other security agreement, whether now existing or hereafter created as security for its present or future bonds or other obligations or securities, without the prior consent of any other Owner, and any trustee or secured party thereunder, when acting pursuant to the provisions thereof, shall have the benefit of, and may require and enforce performance of, the covenants and obligations herein and may exercise all rights and powers of such Owner under this Ownership Agreement and the applicable Operating Agreement as the same may then be in effect.

5.3 Transfer. No Owner of Wolf Creek Station or any portion thereof shall have the right, without the prior written consent of all other Owners of such portion of Wolf Creek Station, to sell, transfer, or assign any right, title or interest in, or create any lien or encumbrance on, all or any part of the facilities and property represented by its Ownership Share therein, except that no consent shall be required for an Owner (i) to encumber such Ownership Share as provided in Sections 5.2, 5.5 and 5.6, or (ii) to transfer such Ownership Share to another corporation (whether or not affiliated with such Owner) together with all or substantially all of its other utility property, whether by sale or pursuant to or as a result of a merger, consolidation, liquidation or corporate reorganization, provided that such corporation by written agreement or by operation of law assumes the obligations hereunder of the Owner transferring such Ownership Share, or (iii) to transfer an undivided Ownership Share to the Kansas Municipal Energy Agency, or (iv) to the United States of America (the "USA") by KEPCo pursuant to the provisions of KEPCo's loan agreements with the USA, provided that any subsequent transfer by the USA, except to retransfer to KEPCo, shall be subject to the provisions of Section 5.4 hereof, or (v) to

transfer such Ownership Share or any portion thereof pursuant to the provisions of Section 5.4 hereof.

5.4 Right of First Refusal.

(a) Except with respect to transfers permitted under Section 5.3 and transfers permitted under Sections 5.5 and 5.6 by an Owner to initiate and continue the financing arrangements contemplated thereby, should any Owner desire to sell, transfer, assign, convey or otherwise dispose of its Ownership Share or any part thereof in Wolf Creek Station or any portion thereof (the "Transfer Share") to any other entity or agency whatsoever including any other Owner of an Ownership Share therein (the "Proposed Transferee"), the other Owners of Ownership Shares therein (the "Remaining Owners") shall have rights of first refusal, as provided in this Section, to purchase such Transfer Share, and such Owner shall not dispose of such Transfer Share except as provided in this Section.

(b) At least one year prior to its intended date to so dispose of its Transfer Share, and after receipt by it of a bona fide written offer, which it desires to accept, from the Proposed Transferee (who shall be a buyer ready, willing and able to purchase the Transfer Share upon expiration of the notice periods specified in this Section), the Owner desiring to dispose of its Transfer Share shall serve a written Notice of Intent to Transfer upon the Remaining Owners. Such Notice shall contain the approximate proposed date of disposition of such Transfer Share, the terms and conditions of said bona fide written offer received by such Owner from the Proposed Transferee, and the terms and conditions under which such Owner would sell such Transfer Share to the Remaining Owners (including, without limitation, the right to purchase for cash), which shall be at least as favorable to the Remaining Owners as the terms and conditions offered by the Proposed Transferee.

(c) Each Remaining Owner desiring to purchase all or any portion of such Transfer Share shall signify such desire by serving written Notice of Intent to Purchase upon the Owner desiring to dispose of such Transfer Share and the other Remaining Owners within One Hundred Twenty (120) days after receipt of Notice of Intent to Transfer under Subsection (b).

(d) If the Remaining Owners signify their intention under Subsection (c) to purchase in the aggregate more than the entire Transfer Share, then each such Remaining Owner shall have the right to purchase (i) a portion of the Transfer Share not in excess of the ratio of its Ownership Share to aggregate Ownership Shares of the Remaining Owners who have served a Notice of Intent to Purchase under Subsection (c), plus (ii) a similar proportionate share of the Transfer Share which other Remaining Owners elect not to purchase.

(e) If in their Notices of Intent to Purchase served under Subsection (c) the Remaining Owners should signify an intention to

purchase less than the entire Transfer Share, the Remaining Owners shall have an additional sixty (60) days after receipt of the last Notice of Intent to Purchase under Subsection (c) to resignify their intention to purchase the entire Transfer Share in accordance with Subsection (d).

(f) If and when intention to purchase the entire Transfer Share has been signified by written Notices of Intent to Purchase from the Remaining Owners, disposal of such Transfer Share shall be effected by the Owner thereof to the Remaining Owners in accordance with their respective Notices of Intent to Purchase, subject to all required governmental regulatory approvals thereof, and release of any liens imposed thereon by or through the Owner thereof.

(g) If the Remaining Owners have failed to signify (by proper Notices of Intent to Purchase as provided hereunder) their intention to purchase the entire Transfer Share, the Owner thereof shall be free to dispose of such Transfer Share to the Proposed Transferee upon the terms and conditions stated in its bona fide written offer.

(h) Any disposition of a Transfer Share hereunder, whether to any Remaining Owner or Owners or to any Proposed Transferee, shall be made subject to all of the benefits and burdens of the covenants and obligations applicable thereto as provided in this Ownership Agreement. Any such Proposed Transferee shall upon receipt of transfer assume and agree, in writing, delivered to the other Owners thereof, to perform the provisions of this Ownership Agreement and the applicable Operating Agreements.

5.5 Environmental Control Financing. Insofar as may be appropriate or required for the issuance of tax-exempt environmental or pollution control financings pursuant to regulations by the Internal Revenue Service and the laws of the State of Kansas as the same may be amended from time to time, each of the Owners may individually sell, convey or grant estates in its undivided interests in such environmental or pollution control facilities and non-exclusive licenses, easements and rights-of-way over, across, through and under Wolf Creek Station for the purposes of locating and maintaining such facilities on Wolf Creek Station and providing such rights of access to such facilities as may be necessary for inspection during the term of any such financing; provided, however, that no such conveyance, license, easement or right-of-way shall (i) grant or purport to grant any right to operate or remove any of the machinery, equipment, buildings, structures or facilities constituting a part of Wolf Creek Station, or (ii) unreasonably interfere with or materially impair the use of any then existing facilities located on the site. Each Owner will do all acts necessary to assure and perpetuate the ability of other Owners of Wolf Creek Station to cause to be issued tax exempt bonds for purpose of financing the pollution control installations at Wolf Creek Station.

5.6 Nuclear Fuel Financing. Insofar as may be appropriate or required in connection with nuclear fuel financing, each of the Owners may individually sell, convey or grant estates in its undivided interest in such Nuclear Fuel

for use at Wolf Creek Station, and grant nonexclusive licenses, easements and right-of-ways over, across, through and under Wolf Creek Station and enter into such agreements (lease, sale, or other possessory transfers) as may be required for such nuclear fuel financing; provided, however, that no such estate, nonexclusive license, easement, right-of-way or agreement shall grant or purport to grant any right to possess, operate or remove or unreasonably interfere with or impair the use of any of the Nuclear Fuel, machinery, equipment, buildings, structures or facilities constituting a part of the Wolf Creek Station. Each Owner will cooperate fully with the other Owners of Wolf Creek Station to facilitate Nuclear Fuel Financing arrangements.

ARTICLE VI

Covenants and Obligations

6.1 Equitable Servitudes. The respective covenants and obligations of the Owners of Wolf Creek Station and any portion thereof under this Ownership Agreement are intended to be in the nature of equitable servitudes (not liens) which shall run with the respective rights, titles and interests of their Ownership Shares therein, and be for the benefit of and be binding upon any and all persons whomsoever having or claiming any right, title or interest in or to Wolf Creek Station or any portion thereof by, from, through or under KG&E, KCPL or KEPCo or their successors or assigns.

6.2 Independent Covenants and Obligations. The covenants and obligations contained in this Ownership Agreement are to be deemed to be independent covenants, not dependent covenants, and the obligation of any Owner to keep and perform all of the covenants and obligations assumed by or imposed upon it hereunder is not conditioned upon the performance by any other Owner of all or any of the covenants and obligations to be kept and performed by it.

6.3 Several Obligations. The obligations and liabilities of the Owners are intended to be several and not joint or collective, and nothing herein contained shall be construed to create an association, joint venture, trust or partnership. Each Owner shall be individually responsible for the performance of its own obligations herein provided. No Owner shall have a right or power to bind any other Owner without its express written consent, except as expressly provided in this Ownership Agreement or the applicable Operating Agreement.

6.4 Liability. All risk, loss and damage arising out of the ownership, construction, operation, maintenance or decommissioning of any portion of Wolf Creek Station (including fuel) will be borne by the Owners thereof in proportion to the percentage ownership interest therein, portions of which may be insured at costs to be shared proportionately by them. If insured, the Owners thereof shall be named insureds as their respective interests may appear, with subrogation rights waived. If any Owner, by reason of joint liability, shall be called upon to make any payment or incur any obligation in excess of its proportionate Ownership Share therein, the other Owners thereof shall indemnify and reimburse such Owner proportionately to the extent of any such excess.

6.5 IRS Election. By the date fuel loading of Unit 1 has commenced, the Owners shall have elected to be excluded from the application of Subchapter "K" of Chapter 1 of Subtitle "A" of the Internal Revenue Code of 1954, or such portion or portions thereof as may be permitted or authorized by the Secretary of the Treasury or his delegate insofar as such subchapter or any portion or portions thereof may be applicable to the Owners under this Agreement, or any similar provisions of the Internal Revenue Code in effect from time to time as may be appropriate to exempt the Owners from the filing of a partnership return with respect to Wolf Creek Station.

ARTICLE VII

Arbitration

7.1 Controversies. Any controversy between or among Owners of Wolf Creek Station or any portion thereof arising out of or relating to this Ownership Agreement, or any breach hereof or default hereunder, shall be submitted to arbitration upon the request of any such Owner in the manner provided herein.

7.2 Notice to Arbitrate. The Owner submitting a request for arbitration shall serve a Notice to Arbitrate upon the other Owner or Owners directly involved setting forth in detail the matter or matters to be arbitrated, including a statement of the facts or circumstances giving rise to such controversy and such Owner's contention with respect to the correct determination thereof.

7.3 Selection of Arbitrator. If the Owners directly involved in such controversy are unable to agree upon and appoint, within 15 days of the date of service of the Notice to Arbitrate, one person to act as sole arbitrator, such Owners, or any one of them, shall within 10 days thereafter request the Chief Judge of the United States Court of Appeals for the Tenth Circuit (or such successor thereto as might have Federal appellate jurisdiction of matters arising in Coffey County, Kansas) to appoint such arbitrator. If the Chief Judge does not appoint an arbitrator within 15 days of the date such request is made of him, such Owners, or any one of them, shall, within the next 10 days thereafter, request the American Arbitration Association (or comparable organization) to appoint the arbitrator pursuant to its then existing rules.

7.4 Scope of Arbitration. Any arbitrator serving hereunder shall give full force and effect to all provisions of this Ownership Agreement and any Operating Agreement applicable to Site, the Common Facilities or a Unit as may be involved, shall hear evidence submitted by the respective Owners, and may call for additional information, which additional information shall be furnished by the Owner having such information.

7.5 Findings and Award. The findings and award of the arbitrator shall be binding and conclusive with respect to the matter or matters submitted to arbitration, except as the same may be set aside, modified or corrected by any court in accordance with Kansas law.

7.6 Costs. The fees and expenses of the arbitrator shall be borne equally by the Owners directly involved in such arbitration, unless the decision of the arbitrator shall specify some other apportionment of such fees

and expenses. All other expenses and costs of the arbitration shall be borne by the Owner incurring the same.

ARTICLE VIII

General Provisions

8.1 Implementing and Confirmatory Instruments. Each Owner shall execute, or cause to be executed, such instruments as may from time to time reasonably be requested by any other Owner to implement the provisions of the Ownership Agreement, including, without limitation, instruments of conveyance, transfer, and mortgage release to confirm the effective Ownership Shares in the facilities and property which then constitute Wolf Creek Station or any portion thereof. It is expressly understood that changes in ownership interests pursuant to Section 4.4 will be confirmed as provided herein without undue delay and the obligation of a defaulting Owner to execute confirmatory instruments may be enforced by specific performance in an appropriate legal or equitable forum.

8.2 Waivers. No waiver by an Owner of its rights with respect to a default under this Ownership Agreement shall be effective unless all non-defaulting Owners waive their respective rights. Any such waiver shall not be deemed to be a waiver with respect to any subsequent default or matter. No delay short of the statutory period of limitations in asserting or imposing any right hereunder shall be deemed a waiver of such right.

8.3 Notices. Any notice, demand, request or consent provided for in this Ownership Agreement or made in connection herewith shall be deemed properly served if given in writing and delivered in person, or sent by Registered or Certified Mail, postage prepaid, addressed to, the President of the Owner at its then principal office.

8.4 Severability. In the event any provision hereof or the application thereof to any person or circumstance shall be held invalid in any final decision by a court having jurisdiction in the premises, the remainder of this Ownership Agreement and its application to persons or circumstances other than those as to which it was held invalid shall not be affected thereby.

8.5 Governing Law. The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the State of Kansas, including without limitation the provisions of K.S.A. 16-116 and any amendments thereto.

ARTICLE IX

Term - Termination

9.1 Effective Date and Term. This Ownership Agreement shall become effective upon execution hereof by KG&E, KCPL and KEPCo and shall continue in full force and effect thereafter until terminated as provided in Sections 9.2 and 9.3.

9.2 Termination. Except as provided in Section 9.3, this Ownership Agreement shall terminate and be of no further force and effect from and after the date

(i) the Owners of Wolf Creek Station shall file of record in the office of the Recorder of Deeds for Coffey County, Kansas, (or such other office as may then serve such function) a duly executed Termination Agreement terminating this Ownership Agreement and discharging the rights, titles and interests of such Owners in and to Wolf Creek Station from the benefits and burdens of the covenants and obligations herein; provided that Wolf Creek Station shall have been released from the liens of all encumbrances contemplated by Section 5.2 hereof and such releases shall have been duly filed of record prior to recording of such Termination Agreement; or

(ii) an Owner shall acquire by transfer hereunder or by operation of law all Ownership Shares in Wolf Creek Station and, as a result of the merger of such undivided percentage interests therein, becomes the sole beneficial Owner of all rights, titles and interests therein; or

(iii) there has been an abandonment of the use of Wolf Creek Station for the generation and transmission of electricity as evidenced by an Affidavit of Abandonment duly executed by an Owner of any portion thereof, filed of record as provided in Part (i) above, and thereafter published in a newspaper of general circulation in Coffey County, Kansas, with written notice thereof delivered to the other Owners within ten (10) days after the recording of such Affidavit, unless another Owner of any portion thereof denies such abandonment by an Affidavit of Non-abandonment similarly filed of record within sixty (60) days after publication of such Affidavit of Abandonment;

whichever date is earlier.

9.3 Disposition Upon Abandonment. In the event this Ownership Agreement is terminated by Affidavit of Abandonment as provided in Section 9.2(iii), the Owner executing the Affidavit of Abandonment shall have the right to dispose of all the facilities and property then included in Wolf Creek Station (provided such facilities and property to be disposed of are not then subject to the lien of any encumbrance, or such disposition is otherwise made in accordance with the terms of any related security agreement, contemplated in Section 5.2 hereof), shall pay, or make provision for the payment of, all decommissioning costs and expenses as may then be required by law and thereafter shall dispose thereof as promptly as practicable and distribute the net proceeds thereof, if any, to the Owners, or to lienholders for the account of the Owners, in accordance with their respective Ownership Shares therein; provided, however, that if any determinable portion of such proceeds is received from facilities or property the cost of which was borne by the Owners disproportionately to their Ownership Shares therein, the distribution of such proceeds shall be adjusted accordingly; and provided further, that termination of this Ownership Agreement shall not discharge any Owner of

any obligation it then owes to any other Owner as a result of any transaction occurring prior to such termination.

IN WITNESS WHEREOF, the parties hereto have caused this Ownership Agreement to be executed by their duly authorized officers the day and year first above written.

KANSAS GAS AND ELECTRIC COMPANY

By _______________
President

ATTEST:

____
Secretary

KANSAS CITY POWER & LIGHT COMPANY

By _______________
Chairman of the Board and President

ATTEST:

____
Secretary

KANSAS ELECTRIC POWER COOPERATIVE, INC.

By _______________
President

ATTEST:

____
Secretary

STATE OF KANSAS)
) ss
COUNTY OF COFFEY)

On this 28 day of Dec, 1981, before me, a Notary Public in and for said County in the State aforesaid, personally appeared WILSON K. CADMAN, to me personally known, who, being by me duly sworn, did say that he is the President of KANSAS GAS AND ELECTRIC COMPANY, a Kansas corporation, one of the corporations described in and which executed the foregoing instrument, that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said WILSON K. CADMAN acknowledged said instrument and the execution thereof to be the free and voluntary act and deed of said corporation by it voluntarily executed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid the day and year first above written.

Bonnie Davies
Notary Public

BONNIE DAVIES NOTARY PUBLIC STATE OF KANSAS

My commission expires:

9-4-84

STATE OF KANSAS)
) ss
COUNTY OF COFFEY)

On this 28 day of Dec, 1981, before me, a Notary Public in and for said County in the State aforesaid, personally appeared ARTHUR J. DOYLE, to me personally known, who, being by me duly sworn, did say that he is the Chairman of the Board and President of KANSAS CITY POWER & LIGHT COMPANY, a Missouri corporation, one of the corporations described in and which executed the foregoing instrument, that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said ARTHUR J. DOYLE acknowledged said instrument and the execution thereof to be the free and voluntary act and deed of said corporation by it voluntarily executed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid the day and year first above written.

Bonnie Davies
Notary Public

BONNIE DAVIES NOTARY PUBLIC STA[...]

My commission expires:

9-4-84

STATE OF KANSAS)
) ss
COUNTY OF SEDGWICK)

On this 23rd day of December, 1981, before me, a Notary Public in and for said County in the State aforesaid, personally appeared CHARLES ELLIS to me personally known, who, being by me duly sworn, did say that he is the President of KANSAS ELECTRIC POWER COOPERATIVE, INC., a Kansas corporation, one of the corporations described in and which executed the foregoing instrument, that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said CHARLES ELLIS acknowledged said instrument and the execution thereof to be the free and voluntary act and deed of said corporation by it voluntarily executed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid the day and year first above written.

Karen L. Martin
Notary Public

My commission expires:
11-15-84

KAREN L. MARTIN
NOTARY PUBLIC
STATE OF KANSAS

EXHIBIT A

TRACT A

Description of Wolf Creek Generating Station Perimeter Boundary Located in Coffey County, Kansas

Beginning at the W 1/4 Cor Sec 24-T20S-R15E, thence East to the NE Cor W 1/2 W 1/2 SE 1/4 of said Sec 24, thence South to the SE Cor W 1/2 NW 1/4 NE 1/4 Sec 25-T20S-R15E, thence West to the West line of NE 1/4 of said Sec 25, thence South to the S 1/4 Cor said Sec 25, thence West to a point 797.8 feet East of the NW Cor NW 1/4 Sec 36-T20S-R15E, thence South 520 feet, thence Southeasterly to a point 1020 feet West of the SE Cor N 1/2 NW 1/4 of said Sec 36, thence South 200 Feet, thence West 621.85 feet, thence South 1198.97 feet, thence Southeasterly 350.7 feet to a point 180 feet South of the NE Cor W 1/2 SW 1/4 of said Section 36, thence South to the NE Cor SW 1/4 SW 1/4 of said Sec 36, thence East to the East line of W 1/2 of said Sec 36, thence South to the S 1/4 Cor of said Sec 36, thence East to the SW Cor E 1/2 SE 1/4 SE 1/4 of said Sec 36, thence North to the NW Cor E 1/2 SE 1/4 SE 1/4 of said Sec 36, thence East to the NE Cor W 1/2 SW 1/4 SW 1/4 Sec 31-T20S-R16E, thence South to the SE Cor of said W 1/2 SW 1/4 SW 1/4, thence East to the NE Cor Sec 6-T21S-R16E, thence South to the NW Cor S 1/2 N 1/2 Sec 5-T21S-R16E thence East to the NE Cor SW 1/4 NW 1/4 Sec 4-T21S-R16E, thence South to the SE Cor SW 1/4 SW 1/4 of said Sec 4, thence West to the NE Cor Sec 8-T21S-R16E, thence South to the SE Cor of said Sec 8, thence West 1704.96 feet, thence South to the North line S 1/2 NE 1/4 Sec 17-T21S-R16E, thence East to the NE Cor S 1/2 NW 1/4 Sec 16-T21S-R16E, thence South to the S 1/4 Cor Sec 21-T21S-R16E, thence West to a point 450 feet West of SE Cor Sec 20-T21S-R16E, thence South to a point 450 feet West of the E 1/4 Cor Sec 29-T21S-R16E, thence West to the center of said Sec 29, thence South to the SE Cor N 1/2 SW 1/4 of said Sec 29, thence West to the SW Cor of said N 1/2 SW 1/4, thence North to the SE Cor of the North 70 acres of the SE 1/4 Sec 30-T21S-R16E, thence West to the SW Cor of the North 70 acres of said SE 1/4, thence North to the center of said Sec 30, thence West to the W 1/4 Cor of said Sec 30, thence North to the NW Cor of said Sec 30, thence West to the SW Cor E 1/2 E 1/2 SE 1/4 of Sec 24-T21S-R15E, thence North to the NW Cor of said E 1/2 E 1/2 SE 1/4, thence East to the SE Cor NE 1/4 of said Sec 24, thence North to the SE Cor NE 1/4 SE 1/4 Sec 13-T21S-R15E, thence West to the SW Cor of said NE 1/4 SE 1/4, thence North to the NW Cor of said NE 1/4 SE 1/4, thence West to the center of said Sec 13, thence North to the N 1/4 Cor said Sec 13, thence West to the SW Cor SE 1/4 SW 1/4 of Sec 12-T21S-R15E, thence North to the NW Cor of said SE 1/4 SW 1/4, thence West to the SW Cor NW 1/4 SW 1/4 of said Sec 12, thence North to the NW Cor of said Sec 12, thence West to the SW Cor E 1/2 SE 1/4 Sec 2-T21S-R15E, thence North 1700 feet, thence West 670 feet, thence North to the North line S 1/2 NE 1/4 of said Sec 2, thence West to the NW Cor S 1/2 NE 1/4 of said Sec 2, thence North to a point 1050 feet South of the North line of said Sec 2, thence West 600 feet, thence North to a point 720 feet West of NE Cor SE 1/4 Sec 34-T20S-R15E, thence East to

the center of Sec 35-T20S-R15E, thence North to the center of Sec 26-T20S-R15E, thence East to the SE Cor W 1/2 SE 1/4 NE 1/4 of said Sec 26, thence North to the NE Cor of said W 1/2 SE 1/4 NE 1/4, thence East to the East line of said Sec 26, thence North to the W 1/4 Cor Sec 24-T20S-R15E being the point of beginning, except Stringtown Cemetery and except a tract in the NE 1/4 NE 1/4 Sec 1-T21S-R15E described as beginning at a point 1060.0 feet South of NE Cor said NE 1/4, thence West 446.9 feet, thence South 730.0 feet, thence East 446.0 feet, thence North 726.2 feet to point of beginning.

With respect to the following properties, which are contained within the above perimeter description, said properties are held by way of an easement acquired by way of condemnation and are subject to certain rights of reversion:

The South 1/2 of the Southeast 1/4 and the Southeast 1/4 of the Southwest 1/4 of Section 35, Township 20 South, Range 15 East.

A tract in Section 1, Township 21 South, Range 15 East described as commencing at a point situated in the center of Wolf Creek about 41 rods West of the Southeast corner of said Section 1 thence West on said section line to another point in the center of said Wolf Creek, thence down the center of said creek to the place of beginning.

The East 1/2 of the Northwest 1/4, the East 1/2 of the Southwest 1/4, the Northwest 1/4 of the Southwest 1/4, the West 1/2 of the Northeast 1/4 and the Northeast 1/4 of the Northeast 1/4 of Section 12, Township 21 South, Range 15 East, except that part of the North 1/2 of the Northeast 1/4 of Section 12 lying North of Wolf Creek.

The North 1/2 of the Southwest 1/4 of the Northeast 1/4 and the Southwest 1/4 of the Southwest 1/4 of the Northeast 1/4 of Section 30, Township 21 South, Range 16 East.

The West 1/2 of the Northwest 1/4 of Section 29 and the Southeast 1/4 of the Northeast 1/4 and the Southeast 1/4 of the Southwest 1/4 of the Northeast 1/4 of Section 30, all in Township 21 South, Range 16 East.

The North 1/2 of the Southeast 1/4 and the South 1/2 of the Southwest 1/4 of Section 19, Township 21 South, Range 16 East, except tract 16 rods X 20 rods for school located in Southeast corner thereof.

SE 1/4 of Section 17, Township 21 South, Range 16 East.

NE 1/4 and the N 1/2 of the SE 1/4 of Section 20, Township 21 South, Range 16 East.

TRACT B

Legal description of railroad rights-of-way

THE FOLLOWING DESCRIBED PROPERTY LOCATED IN COFFEY COUNTY, KANSAS:

The East 1/2 of the Northwest 1/4 of Section 9, Township 21 South, Range 16 East.

Said easement to be a strip one hundred twenty (120) feet in width being sixty (60) feet right and left of the following described center line: Beginning at a point on the West line of said East 1/2 of the Northwest 1/4 which point is 200 feet North of the Southwest corner of said East 1/2 of the Northwest 1/4 thence Southeasterly to a point on the South line of said East 1/2 of the Northwest 1/4 which point is 112 feet East of the Southwest corner of said East 1/2 of the Northwest 1/4.

The Southwest 1/4 of Section 9, Township 21 South, Range 16 East.

Said easement to be a strip one hundred fifty (150) feet in width being 75 feet right and left of the following described center line: Beginning at a point on the North line of said Southwest 1/4 which point is 1203 feet West of the Northeast corner of said Southwest 1/4 thence Southeasterly to a point on the East line of said Southwest 1/4 which point is 492 feet North of the Southeast corner of said Southwest 1/4.

Beginning at the Southwest corner of the South 1/2 of the Southeast 1/4 of Section 9, Township 21 South, Range 16 East, thence North along the West line of said South 1/2 of the Southeast 1/4 a distance of 630 feet, thence Southeasterly to a point on the South line of said South 1/2 of the Southeast 1/4 which point is 360 feet East of point of beginning, thence West to point of beginning, containing 2.6 acres, more or less.

The West 1/2 of the Northeast 1/4 of Section 16, Township 21 South, Range 16 East.

Said easement to be a strip one hundred eighty (180) feet in width being ninety (90) feet right and left of the following described center line: Beginning at a point on the North line of said West 1/2 of the Northeast 1/4 which point is 275 feet East of the Northwest corner of said West 1/2 of the Northeast 1/4 thence Southeasterly to a point on the East line of said West 1/2 of the Northeast 1/4 which point is 1859 feet South of the Northeast corner of said West 1/2 of the Northeast 1/4.

The Southeast 1/4 of the Northeast 1/4 of Section 16, Township 21 South, Range 16 East, Coffey County, Kansas.

The easement to consist of a strip described as follows:

A strip one hundred (100) feet in width across the Southeast 1/4 of the Northeast 1/4 of Section 16, Township 21 South, Range 16 East, being fifty (50) feet right and left of a line between a point on the West line of said Southeast 1/4 of the Northeast 1/4 which point is 532 feet South of the Northwest corner of said Southeast 1/4 of the Northeast 1/4 and a point on the South line of said Southeast 1/4 of the Northeast 1/4 which point is 447 feet East of the Southwest corner of said Southeast 1/4 of the Northeast 1/4, containing 1.75 acres, more or less.

The Northeast 1/4 of the Southeast 1/4 of Section 16, Township 21 South, Range 16 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the North line of said Northeast 1/4 of the Southeast 1/4 which point is 447 feet East of the Northwest corner of said Northeast 1/4 of the Southeast 1/4 thence Southeasterly to a point on the South line of said Northeast 1/4 of the Southeast 1/4 which point is 125 feet West of the Southeast corner of said Northeast 1/4 of the Southeast 1/4.

The Southeast 1/4 of the Southeast 1/4 of Section 16, Township 21 South, Range 16 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the North line of said Southeast 1/4 of the Southeast 1/4 which point is 125 feet West of the Northeast corner of said Southeast 1/4 of the Southeast 1/4 thence Southeasterly to a point on the East line of said Southeast 1/4 of the Southeast 1/4 which point is 222 feet South of the Northeast corner of said Southeast 1/4 of the Southeast 1/4.

The South 1/2 of the Southwest 1/4 of Section 15, Township 21 South, Range 16 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the West line of said South 1/2 of the Southwest 1/4 which point is 222 feet South of the Northwest corner of said South 1/2 of the Southwest 1/4 thence Southeasterly to a point on the South line of said South 1/2 of the Southwest 1/4 which point is 623 feet East of the Southwest corner of said South 1/2 of the Southwest 1/4.

A strip one hundred (100) feet in width across the Northwest 1/4 of Section 22, Township 21 South, Range 16 East being fifty (50) feet right and left of a line between a point on the North line of said Northwest which point is 623 feet East of the Northwest corner of said Northwest 1/4 and a point on the South line of said Northwest 1/4 which point is 535 feet West of the Southeast corner of said Northwest 1/4. Also a temporary easement fifteen (15) feet in width adjacent to each side of the above described easement. Said temporary easement to expire upon completion of construction.

A strip one hundred forty (140) feet in width across the Northeast 1/4 of the Southwest 1/4 and the South 1/2 of the Northwest 1/4 of the Southeast 1/4 of Section 22, Township 21 South, Range 16 East being seventy (70) feet right and left of a line between a point on the North line of said Northeast 1/4 of the Southwest which point is 535 feet West of the Northeast corner of said Northeast 1/4 of the Southwest 1/4 and a point on the South line of said South 1/2 of the Northwest 1/4 of the Southeast 1/4 which point is 212 feet East of the Southwest corner of said South 1/2 of the Northwest 1/4 of the Southeast 1/4.

The Southeast 1/4 of the Southwest 1/4 and the Southwest 1/4 of the Southeast 1/4 of Section 22, Township 21, Range 16 East of the 6th Principal Meridian.

The Northeast 1/4 of Section 27, Township 21 South, Range 16 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the North line of said Northeast 1/4 which point is 958 feet East of the Northwest corner of said Northeast 1/4 thence Southeasterly to a point on the South line of said Northeast 1/4 which point is 200 feet West of the Southeast corner of said Northeast 1/4.

The Northeast 1/4 of the Southeast 1/4 of Section 27, Township 21 South, Range 16 East.

Said easement to be described as follows: Beginning at the Northeast corner of the Northeast 1/4 of the Southeast 1/4 thence South 460 feet, thence Northwesterly to a point on the North line of said Northeast 1/4 of the Southeast 1/4 which point is 265 feet West of the point of beginning, thence East 265 feet to point of beginning. Easement to contain 1.39 acres more or less.

Also a temporary construction easement for road on a strip 90 feet in width lying adjacent to the Westerly side of the above described easement and extending both Northwesterly and Southeasterly to the property lines.

The North 1/2 of the Southwest 1/4 of Section 26, Township 21 South, Range 16 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the West line of said North 1/2 of the Southwest 1/4 which point is 356 feet South of the Northwest corner of said North 1/2 of the Southwest 1/4 thence Southeasterly to a point on the South line of said North 1/2 of the Southwest 1/4 which point is 545 feet East of the Southwest corner of said North 1/2 of the Southwest 1/4.

The South 1/2 of the Southwest 1/4 of Section 26, Township 21 South, Range 16 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the North line of said South 1/2 of the Southwest 1/4 which point is 545 feet East of the Northwest corner of said South 1/2 of the Southwest 1/4 thence Southeasterly to a point on the South line of said South 1/2 of the Southwest 1/4 which point is 1300 feet East of the Southwest corner of said South 1/2 of the Southwest 1/4.

A strip one hundred (100) feet in width across the North 1/2 of the Northwest 1/4 of Section 35, Township 21 South, Range 16 East being fifty (50) feet right and left of a line between a point on the North line of said North 1/2 of the Northwest 1/4 which point is 1300 feet East of the Northwest corner of said North 1/2 of the Northwest 1/4 and a point on the South line of said North 1/2 of the Northwest 1/4 which point is 564 feet West of the Southeast corner of said North 1/2 of the Northwest 1/4. Also a temporary easement fifteen (15) feet in width adjacent to each side of the above described easement. Said temporary easement to expire upon completion of construction.

The South 1/2 of the Northwest 1/4 of Section 35, Township 21 South, Range 16 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the North line of said South 1/2 of the Northwest 1/4 which point is 564 feet West of the Northeast corner of said South 1/2 of the Northwest 1/4 thence with a bearing of South 31 degrees 52'21" East a distance of 543.71 feet to a point of curvature thence Southeasterly 462.45 feet along a curve to the left with a radius of 1910.08 feet and a central angle of 13 degrees 52'18.5" to a point on the East line of said South 1/2 of the Northwest 1/4 which point is 475 feet North of the Southeast corner of said South 1/2 of the Northwest 1/4.

The West 1/2 of the Northeast 1/4 of Section 35, Township 21 South, Range 16 East. Said easement to be described as follows: A strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the West line of said West 1/2 of the Northeast 1/4 which point is 475 feet North of the Southwest corner of said West 1/2 of the Northeast 1/4 thence Southeasterly along a curve to the left with a radius of 1910.08 feet and a degree of curvature of 3 degrees to a point on the South line of said East 1/2 of the Northeast 1/4 which point is located 790 feet East of the Southwest corner thereof. Said easement to contain approximately 2.07 acres more or less.

The Southeast 1/4 of Section 35, Township 21 South, Range 16 East.

Said easement to be: The North one hundred and thirty-five (135) feet of the East twenty-one hundred (2100) feet of the above described property.

The Southwest 1/4 of Section 36, Township 21 South, Range 16 East.

Said easement to be: The North one hundred and sixty-five (165) feet of the above described property.

The West 1/2 of the Northeast 1/4 and the Northwest 1/4 of the Southeast 1/4 of Section 36, Township 21 South, Range 16 East.

Said easement to be a strip one hundred-sixty (160) feet in width being eighty (80) feet right and left of the following described center line: Beginning at a point on the East line of said Northwest 1/4 of the Southeast 1/4, which point is seventy-three (73) feet South of the Northeast corner thereof, thence in a Westerly direction to a point which is six hundred seventy (670) feet West and seventy-four (74) feet South of the Northeast corner thereof. Also a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point which is six hundred seventy (670) feet West and seventy four (74) feet South of the Northeast corner of said Northwest 1/4 of the Southeast 1/4, thence in a Westerly direction to a point on the West line of said Northwest 1/4 of the Southeast 1/4, which point is seventy-five (75) feet South of the Northwest corner thereof. Also a temporary easement being thirty (30) feet in width lying North and adjacent to all that portion of the permanent easement which is one hundred feet in width and a temporary easement being thirty (30) feet in width lying South and adjacent to all that portion of the permanent easement which is one hundred feet in width. Said temporary easement to expire upon completion of construction.

The Northeast 1/4 of the Southeast 1/4 and the East 1/2 of the Northeast 1/4 of Section 36, Township 21 South, Range 16 East.

Said easement to be the following described tract: Beginning at the Northwest corner of said Northeast 1/4 of the Southeast 1/4 thence South along the West line of said Northeast 1/4 of the Southeast 1/4 a distance of 148.09 feet thence East to a point on the East line of said Northeast 1/4 of the Southeast 1/4 which point is 120.975 feet South of the Northeast corner of said Northeast 1/4 of the Southeast 1/4 thence North along the East line of said Northeast 1/4 of the Southeast 1/4 a distance of 100 feet thence West to the Northwest corner of said Northeast 1/4 of the Southeast 1/4 being the point of beginning also a temporary construction easement lying 15 feet North and 15 feet South and adjacent to the above tract describing the permanent easement.

The North fifty-two (52) acres of the Southwest 1/4 of Section 31, Township 21 South, Range 17 East.

Said easement to be: The North one hundred and twenty-one (121) feet of the above described property.

The South 120 feet of the East 360 feet of the Southeast 1/4 of the Northwest 1/4 of Section 31, Township 21 South, Range 17 East, Coffey County, Kansas.

The North 1/2 of the Southeast 1/4 of Section 31, Township 21 South, Range 17 East.

Said easement to be: The North one hundred and thirty-one (131) feet of the above described property.

The West 1/2 of the Southwest 1/4 of Section 32, Township 21 South, Range 17 East.

Said easement to be: The North one hundred and seventy-five (175) feet of the above described property.

The East 1/2 of the Southwest 1/4 of Section 32, Township 21 South, Range 17 East.

Said easement to be a strip one hundred twenty (120) feet in width being sixty (60) feet right and left of the following described center line: Beginning at a point on the West line of said East 1/2 of the Southwest 1/4 which point is 105 feet South of the Northwest corner of said East 1/2 of the

Southwest 1/4 thence easterly to a point on the East line of said East 1/2 of the Southwest 1/4 which point is 165 feet South of the Northeast corner of said East 1/2 of the Southwest 1/4.

A strip one hundred forty (140) feet in width across the Southeast 1/4 of Section 32, Township 21 South, Range 17 East, being seventy (70) feet right and left of a line described as follows: Beginning at a point on the West line of said Southeast 1/4 which point is 165 feet South of the Northwest corner of said Southeast 1/4, thence with a bearing of South 89 degrees 13'50" East a distance of 2496.61 feet to a point of curvature, thence Southeasterly 162.17 feet along a curve to the right with a radius of 1910.08 feet and a central angle of 4 degrees 51'52" to a point on the East line of said Southeast 1/4 which point is 292 feet South of the Northeast corner of said Southeast 1/4.

The Southwest 1/4 of Section 33, Township 21 South, Range 17 East.

Said easement to be a strip one hundred (100) feet in width being fifty (50) feet right and left of the following described center line: Beginning at a point on the East line of said Southwest 1/4 which point is 1272 feet South of the Northeast corner of said Southwest 1/4 thence with a bearing of North 70 degrees 06'12" West a distance of 2332.07 feet to a point of curvature thence Northwesterly 475.47 feet along a curve to the left with a radius of 1910.08 feet and a central angle of 14 degrees 15'45.5" to a point on the West line of said Southwest 1/4 which point is 292 feet South of the Northwest corner of said Southwest 1/4 of Section 33.

The Southeast 1/4 of Section 33, Township 21 South, Range 17 East.

Said easement to be a strip one hundred twenty (120) feet in width being sixty (60) feet right and left of the following described center line: Beginning at a point on the West line of said Southeast 1/4 which point is 1272 feet South of the Northwest corner of said Southeast 1/4 thence Southeasterly to a point on the East line of said Southeast 1/4 which point is 333 feet North of the Southeast corner of said Southeast 1/4 of Section 33.

The Southwest 1/4 and the West 1/2 of the Southeast 1/4 of Section 34, Township 21 South, Range 17 East.

Said easement to be a strip one hundred and sixty (160) feet in width being eighty (80) feet right and left of the following described center line: Beginning at a point on the West line of said Southwest 1/4 which point is 333 feet North of the Southwest corner of said Southwest 1/4 thence with a bearing of South 70 degrees 06'12" East a distance of 111.35 feet to a point of curvature, thence 1118.67 feet Southeasterly along a curve to the left with a radius of 1910.08 feet and a central angle of 33 degrees 33'22.7" to a point of tangency, thence with a bearing of North 76 degrees 20'25.3" East a distance

of 553.21 feet along the tangent line to a second point of curvature, thence 203.68 feet Northeasterly along a curve to the left with a radius of 1910.08 feet and a central angle of 6 degrees 6'34.8" to a point of tangency, thence with a bearing of North 70 degrees 13'50.5" East a distance of 309.61 feet along the tangent line to the center of a spur to be built 15 feet North of the existing Missouri Pacific Railroad which corresponds to state plane coordinates North 561,211.01± and East 2,854,222.78± also a temporary construction easement lying fifty (50) feet North of and adjacent to the North right-of-way line of the Missouri Pacific Railroad between the last above described point and the East line of said West 1/2 of the Southeast 1/4 of Section 34.

Beginning at a point located 2224.1 feet East and 486.9 feet North of the Southwest corner of Section 34, Township 21 South, Range 17 East thence North 72 degrees 2'48" East along and parallel to the North Right-of-Way line of the Missouri Pacific Railroad to a point a distance of 1357.54 feet, thence North 17 degrees 57'12" West to a point a distance of 24 feet, thence South 72 degrees 2'48" West to a point a distance of 1357.54 feet, thence South 17 degrees 57'12" East a distance of 24 feet to the point of beginning, said tract to contain .748 acres, more or less.

TRACT C

Legal description of other lands or land rights to be held as jointly owned "Property" for operation of Wolf Creek Station.

Properties Owned in Fee:

Township 20 South, Range 15 East

The East 1/2 of the Southeast 1/4 of Section 22.

The East 1/2 of Section 23.

The South 1/2 of the North 1/2 and the East 1/2 of the Southeast 1/4 and the East 1/2 of the West 1/2 of the Southeast 1/4, all in Section 24.

The East 1/2 of the Northeast 1/4 and the East 1/2 of the West 1/2 of the Northeast 1/4 and the West 1/2 of the Southwest 1/4 of the Northeast 1/4, all in Section 25.

The West 1/2 of the East 1/2 of the Northeast 1/4 and the East 1/2 of the Northeast 1/4 of the Northeast 1/4, all in Section 26.

The East 1/2 of the Southeast 1/4 of Section 34 except the East 720 feet thereof.

The Northwest 1/4 of the Northeast 1/4 ~~and the Northeast 1/4 of the Southwest 1/4~~ and the Southwest 1/4 of the Southeast 1/4 and the Northeast 1/4 of the Southeast 1/4 and the West 1/2 of the Southeast 1/4 of the Southeast 1/4, all in Section 36.

Township 20 South, Range 16 East

The West 1/2 of Section 31 except the West 1/2 of the Southwest 1/4 of the Southwest 1/4.

Township 21 South, Range 15 East

The Northwest 1/4 and the Northeast 1/4 of the Southwest 1/4 and the Northwest 1/4 of the Southeast 1/4 of Section 13.

The Northeast 1/4 of Section 14 except the Northwest 1/4 of the Northwest 1/4 of the Northeast 1/4, and except the West 100 feet of the Northeast 1/4 of the Northwest 1/4 of the Northeast 1/4; also that part of the South 1/2 of the North 1/2 of the Northwest 1/4 of said Section 14 lying East of U.S. 75 Highway; also a tract beginning at the intersection of the East right-of-way line of U.S. 75 Highway and the North line of the South 1/2 of the Northwest 1/4 of said Section 14 thence East to the East line of said Quarter Section thence South Eighty (80) rods, thence West One Hundred Sixty (160) rods, thence

North Thirty-seven (37) rods and Twelve and one-half (12-1/2) feet, thence East to the East right-of-way line of U.S. 75 Highway, thence Northerly along said right-of-way line to point of beginning; also a tract commencing at the Northwest corner of the Southwest Quarter of Section 14, thence East One Hundred Sixty (160) rods, thence South Fifty-Seven (57) rods, thence West to Neosho River, thence up said River to a point Ten (10) rods, South of Beginning, thence North to beginning, EXCEPT land deeded for Highway purposes, all in Section 14, Township 21 South, Range 15 East of the 6th Principal Meridian, AND EXCEPT, the following described tract, to-wit: Beginning at the Southwest corner of the Northwest Quarter of Section 14, Township 21 South, Range 15 East, thence North 37 rods and 12-1/2 feet, thence East to the West right-of-way line of U.S. Highway 75, thence Southerly along the Westerly right-of-way line of said Highway to the Neosho River, thence up said River to a point 10 rods South of beginning, thence North to beginning, containing 10 acres, more or less, the last said tract being conveyed by deed dated August 8, 1975 to John A. Decker and Delores Decker, husband and wife.

Township 21 South, Range 16 East

The North 1/2 of the Northwest 1/4 of Section 5.

The West 1/2 of the Northwest 1/4 of Section 9.

~~That part of the East 460 feet of the Northeast 1/4 of Section 29 lying West of~~ FAS 10 Highway except land deeded to Logan Cemetery District Association described as: Commencing at the Southeast corner of Northeast quarter of the said Section 29, which is on the center line of the road (new location FAS-10), Coordinates of which referred to the Kansas State-Plane Coordinate System, South Zone are N 567,613.52, E 2, 814,601.93, thence N1°-47'-02"W 352.45 feet along the center line of the road, thence S88°-12'-58"W, 125.00 feet which is at right angle to the center line of the road, to the actual point of beginning, thence West, 314.46 feet, thence North, 495.00 feet, thence East, 210.00 feet to the point which is 125.00 feet Westerly from the center line of the road, thence S22°-56'03"E, 117.19 feet to the PC (point of curvature) of the curve with the following data, Δ = 21°-09'-00", R = 693.51, T = 129.48, L = 256.00 curve right, thence 256.00 feet along the curve to the PT (point of tangency), thence ~~S 1°-47'-61"E, 138.40 feet, to the point of beginning, containing 3.23 acres~~.

The East 1/2 of the Northwest 1/4 of Section 34, less a tract beginning at the Northwest corner of said E 1/2 NW 1/4, thence South to Long Creek, thence up Long Creek at low-water mark in a Northeasterly direction to the Section line, thence due West to the place of beginning.

~~Township 21 South, Range 17 East~~

~~That part of the North 52 Acres of the Southwest 1/4 of Section 31 lying East of the center of Crooked Creek, subject to railroad right of way, and containing 8 Acres, more or less~~.

Easements:

Flowage easement held by Kansas Gas and Electric Company on the Northwest diagonal 1/2 of the Northwest 1/4 of the Southeast 1/4 of Section 29, Township 21 South, Range 16 East.

Flowage easement held by Kansas Gas and Electric Company on the East 1/2 of the Northwest 1/4 of Section 9, Township 21, Range 16 East.

A tract of land in the Northwest 1/4 of Section 10, Township 21 South, Range 15 East, Coffey County, Kansas, said tract more particularly described as commencing at a point on the East line of said Northwest 1/4, said point being 614.17 feet South of the Northeast corner thereof; thence West 1,799.57 feet to a point, said point being the point of beginning; thence South 65 degrees 46'03" West, 70.00 feet; thence North 24 degrees 13'56" West, 473.25 feet; thence North 65 degrees 37'57" East, 70.00 feet; thence South 24 degrees 13'58" East, 473.41 feet, more or less, to the point of beginning. Containing 0.76 acre, more or less.

A strip, piece, or parcel of land 1,947.80 feet in length, and 25.00 feet in width, lying in the Northwest 1/4 of Section 10, Township 21 South, Range 15 East, Coffey County, Kansas, the centerline described as beginning at a point on the east line of said Northwest 1/4, said point being 103.27 feet, South of the Northeast corner thereof; thence South 88 degrees 36'38" West, 219.82 feet; thence South 44 degrees 58'48" West, 947.64 feet; thence South 83 degrees 58'52" West, 780.34 feet, to the point of termination. Containing 1.88 acres, more or less.

Beginning at a point on the West line of the North 1/2 of the Northeast 1/4 of Section 10, Township 21 South, Range 15 East which point is 25 feet South of the Northwest corner of said Northeast 1/4, thence East along the South right-of-way line of the public road to the East line of said Northeast 1/4, thence South 113 feet, thence West to a point on the West line of said Northeast 1/4 which point is 135 feet South of point of beginning, thence North to point of beginning.

The South sixty (60) feet of the North one hundred ten (110) feet of the Northwest 1/4 of Section 11, Township 21 South, Range 15 East, being the North sixty (60) feet of Lot 1 and Lots 23 through 31 inclusive as shown on the recorded plat of said property.

The South 135 feet of the North 160 feet of the West 1950 feet of the North 1/2 of the Northeast 1/4 of Section 11, Township 21 South, Range 15 East together with the rights of ingress and egress to and from the same.

A flowage easement on the North 52 acres of the Southwest 1/4 of Section 31, Township 21 South, Range 17 East, lying West of Crooked Creek, Coffey County, Kansas.

STATE OF Kansas)
) ss
COUNTY OF Sedgwick)

On this 23rd day of December, 1986, before me, a Notary Public in and for said County in the State aforesaid, personally appeared WILSON K. CADMAN, to me personally known, who, being by me duly sworn, did say that he is the Chairman of the Board and President of KANSAS GAS AND ELECTRIC COMPANY, a Kansas corporation, one of the corporations described in and which executed the foregoing instrument, that the seal affixed to the foregoing instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said WILSON K. CADMAN acknowledged said instrument and the execution thereof to be the free and voluntary act and deed of said corporation by it voluntarily executed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid the day and year first above written.

Mildred A Cillessen
Notary Public

My commission expires:

January 16, 1990

MILDRED A. CILLESSEN
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 1-16-90

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

On this 19th day of December, 1986, before me, a Notary Public in and for said County and State aforesaid, personally appeared ARTHUR J. DOYLE, to me personally known, who, being by me duly sworn, did say that he is the Chairman of the Board and President of KANSAS CITY POWER & LIGHT COMPANY, a Missouri corporation, one of the corporations described in and which executed the foregoing instrument, that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said ARTHUR J. DOYLE acknowledged said instrument and the execution thereof to be the free and voluntary act and deed of said corporation by it voluntarily executed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid the day and year first above written.

Betty Bowder
Notary Public

My commission expires:

September 28, 1988

BETTY [illegible]
NOTARY PUBLIC STATE OF MISSOURI
CLAY CO.
MY COMMISSION EXP. SEPT 28, 1988
ISSUED THRU MISSOURI NOTARY ASSOC.

AMENDMENT TO
WOLF CREEK GENERATING STATION
OWNERSHIP AGREEMENT

THIS AMENDMENT TO WOLF CREEK GENERATING STATION OWNERSHIP AGREEMENT is made as of January 1, 1987, by and among KANSAS GAS AND ELECTRIC COMPANY ("KG&E"), a Kansas corporation having its principal office at Wichita, Kansas; KANSAS CITY POWER & LIGHT COMPANY ("KCPL"), a Missouri corporation having its principal office at Kansas City, Missouri; and KANSAS ELECTRIC POWER COOPERATIVE, INC. ("KEPCo"), a Kansas corporation having its principal office at Topeka, Kansas.

WHEREAS, KG&E, KCPL and KEPCo are parties to the WOLF CREEK GENERATING STATION OWNERSHIP AGREEMENT, dated December 28, 1981, recorded with the Coffey County, Kansas Register of Deeds in Book W at page 465; and

WHEREAS, KG&E, KCPL and KEPCo have formed Wolf Creek Nuclear Operating Corporation, a Delaware corporation wholly owned by them, for the purpose of operating, maintaining, repairing, decontaminating and decommissioning Wolf Creek Generating Station; and

WHEREAS, KG&E, KCPL and KEPCo desire to amend the WOLF CREEK GENERATING STATION OWNERSHIP AGREEMENT in order to designate Wolf Creek Nuclear Operating Corporation as Operating Agent of Wolf Creek Generating Station in substitution for KG&E;

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

(1) Effective as of January 1, 1987, Section 3.7 of the WOLF CREEK GENERATING STATION OWNERSHIP AGREEMENT, dated December 28, 1981, is hereby amended by substituting "Wolf Creek Nuclear Operating Corporation" for "KG&E" at all references to KG&E as Operating Agent.

(2) In all other respects, said WOLF CREEK GENERATING STATION OWNERSHIP AGREEMENT shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their duly authorized officers the day and year first above written.

ATTEST:

Richard D. Terrill
Secretary

KANSAS GAS AND ELECTRIC COMPANY

By Wilson K. Cadman
WILSON K. CADMAN

ATTEST:

Secretary

KANSAS CITY POWER & LIGHT COMPANY

By Arthur J. Doyle
ARTHUR J. DOYLE

ATTEST:

R. W. Speece
Secretary

KANSAS ELECTRIC POWER COOPERATIVE, INC.

By Alvin L. Zwick
ALVIN L. ZWICK

STATE OF Kansas)
) ss
COUNTY OF Dickinson)

On this 26th day of December, 1986, before me, a Notary Public in and for said County in the State aforesaid, personally appeared ALVIN L. ZWICK to me personally known, who, being by me duly sworn, did say that he is the President of KANSAS ELECTRIC POWER COOPERATIVE, INC., a Kansas corporation, one of the corporations described in and which executed the foregoing instrument, that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said ALVIN L. ZWICK acknowledged said instrument and the execution thereof to be the free and voluntary act and deed of said corporation by it voluntarily executed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the County and State aforesaid the day and year first above written.

Belva Jean Lightner
Notary Public

My commission expires:

BELVA JEAN LIGHTNER
State of Kansas
My Appt. Exp. 7-13-88

State of Kansas, Coffey County, ss
This Instrument was filed for record on the 30 day of December A. D., 1986 at 1:05 o'clock P. M. and duly recorded in Book EE of Misc. at page 351-353

Ruth L. Stukey.
REGISTER OF DEEDS

By s/ Linda M. Traylor Deputy

Fee $7.00 (SEAL)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon the following persons in accordance with the notice at 64 Fed. Reg. 4726 and 10 C.F.R. § 2.1313:

Jay Silberg, Esq.
Shaw, Pittman, Potts & Trowbridge
2300 N Street N.W
Washington, DC 20037

General Counsel
United States Nuclear Regulatory Commission
Washington, DC 20555

Secretary of the Commission
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
Attention: Rulemakings and Adjudications Staff.

Dated at Washington, D.C. this 18th day of February, 1999.

Randolph Lee Elliott

Randolph Lee Elliott
Miller, Balis & O'Neil, P.C.
1140 Nineteenth Street, N.W.
Suite 700
Washington, D.C. 20036
(202) 296-2960